# **Regional Integration and Economic Growth in ASEAN 5: A Panel Data Regression Approach**

Carlos L. Manapat Graduate School, Faculty of Arts and Letters, University of Santo Tomas, Philippines



Ronaldo R. Cabauatan

Graduate School, College of Commerce and Business Administration, University of Santo Tomas, Philippines

# **ABSTRACT**

This study investigated the impact of regional integration, foreign direct investment (FDI), religion, and political regime on the economic growth of the ASEAN-5 member countries (Indonesia, Malaysia, the Philippines, Singapore, and Thailand) using a panel data regression approach. The panel data of this paper were all retrieved from the World Bank Database. The study employs the General Method of Moments (GMM) to analyze data spanning from 1970 to 2022, focusing on the effects of trade openness, FDI net inflows, and the presence of different religious traditions on GDP growth. The findings reveal that trade openness has a positive and significant relationship with GDP growth, suggesting that increased trade integration is beneficial for the region's economic development. FDI shows a small but statistically significant positive impact on GDP, indicating the need for targeted investment policies to maximize its benefits. The political regime, whether presidential or parliamentary, does not have a significant impact on economic growth. Among religious factors, only the presence of Islam shows a statistically significant positive relationship with economic growth. The study highlights the complexity of factors influencing economic growth in the ASEAN-5 and underscores the importance of trade openness and regional integration for the region's economic prosperity.

Keywords: Economic growth; ASEAN; Reginal integration.

Received 11 January 2024 | Revised 2 May 2024 | Accepted 3 June 2024.

# 1. INTRODUCTION

In the second half of the 21st century, rapid economic integration driven by trade liberalization, including the reduction of tariff and non-tariff barriers and increased investment, has emerged as a potent driver of global and regional economic growth (Ma, 2022). On the other hand, the Association of Southeast Asian Nations (ASEAN) established a vison for more regional integration in 2015 and that is the ASEAN Community. It has three pillars: the ASEAN Economic Community (AEC), the ASEAN Political-Security Community (APSC), and the ASEAN Socio-Cultural Community (ASCC), which aim to further integrate the ASEAN member countries in terms of economic, political, and socio-cultural means respectively. In this context, the study conducted by Park et al. (2020) acquires significance, as it scrutinized the implications of BREXIT and derived policy insights pertinent to the ongoing process of ASEAN integration. The study suggests that BREXIT is not only an issue confined to the EU; it can also be viewed as a sign of a slowdown in integration. It suggests that Brexit should be viewed not as an isolated incident but as part of a broader trend of skepticism and challenges to integration efforts. This concern

about ASEAN efforts on regional integration implies that policymakers should take a bottom-up approach when addressing this issue. They should underscore the importance of a firm political commitment and consensus among member countries for a robust integration pathway. Integration efforts may fall apart when there is not enough understanding and common goals, especially when unexpected problems arise. They also need to gain people's approval for the integration process and to continuously consult them. Regional economic integration refers to the collaborative effort of countries to establish free trade areas or customs unions (Venables, 2001). To make it sustainable, it needs to depend on genuine popular support. All these are aligned with the goals of APSC and ASCC. Before reaching the AEC goals, APSC and ASCC should be primarily addressed (ASEAN, 2015). In other words, there should be political and socio-cultural stability among ASEAN nations before aiming for economic integration. Here are instances of Regional Economic Integration: NAFTA, which encompasses the United States, Canada, and Mexico. The EU is a trade pact involving 15 European nations. APEC is a forum for economic cooperation in the Asia-Pacific region, encompassing NAFTA members, Japan, and China (Cole et al., 1999). Nonetheless, the pursuit of these integration goals has been overshadowed by the ramifications of the post-pandemic landscape, where emergent challenges arising from the intricate interplay of global dynamics have taken center stage. The tensions between the US and China and the increasing conflict between Russia and Ukraine (Kea et al., 2023) can challenge the smooth implementation of the ASEAN Comprehensive Recovery Framework (ACRF). Though the ACRF is determined to strengthen healthcare, offer social support, and promote eco-friendly recovery, it also aims to help ASEAN countries boost their economies after the pandemic.

Alongside these recovery efforts, this study takes a close look at the various factors that may affect the economic growth of the ASEAN-5 countries. By examining how ASEAN's strategies for regional cooperation, trade openness, and important economic indicators such as trade openness, foreign investments, and political and religious factors come together, this aims to understand how these different factors work together to shape the region's economy during and after the pandemic. Furthermore, it is worth noting that according to the OECD's 2023 projections, Emerging Asian nations are expected to experience a significant uptick in their average GDP growth rate, with an anticipated increase to 5.3% in 2023 and 5.4% in 2024. These figures underscore the importance of understanding the factors that contribute to economic resilience and growth in this dynamic region. In the case of ASEAN countries, the average real GDP growth is predicted to reach 4.6% in 2023 and 4.8% in 2024. These figures indicate a slight weakening compared to the growth rate in 2022, but they also demonstrate a degree of resilience in the region's economy.

This study investigated the impact of regional integration, foreign direct investment (FDI), religion, and political regime on the economic growth of the ASEAN-5 member countries. The ASEAN-5, comprising Indonesia, Malaysia, the Philippines, Singapore, and Thailand, has experienced significant economic transformation and integration in recent decades. As these nations strive for further development, understanding the multifaceted drivers of growth becomes increasingly vital.

# 2. THEORETICAL MODEL

# 2.1. Constructs

New Political Economy: Political Regime and Economic Growth This approach is characterized by its use of neoclassical analysis tools to integrate political factors into economic models (Ghardallou & Sridi, 2019). Religion Dependent Social Capital Theory: Religion and Economic Growth Religion-dependent social capital (RDSC) positively impacts economic growth, with faster convergence observed in the USA compared to China. Policy enhancements can reduce convergence periods in less religious societies (Shah et al., 2020).

Spillover Effect Theory: FDI and Economic Growth

Spillovers from trade and FDI play important roles in achieving economic growth, capital accumulation, and economic well-being, providing a path for sustainable development (Zamani & Tayebi, 2021).

Winners and Losers Over Two Centuries of Globalization

Williamson (2002) suggests that trade openness has been a significant driver of economic growth in the modern era, although its impact has been shaped by the broader economic, political, and demographic context.

# 2.2. Research Hypotheses

Ho: There is no significant relationship between Economic Growth with Trade Openness, Foreign Direct Investment, Political Regime, and Religion.

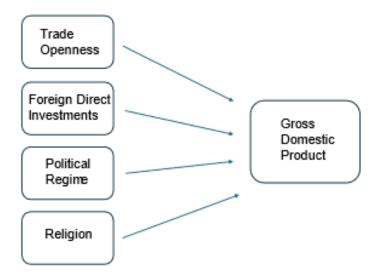


Figure 1. Regional Integration and Economic Growth in ASEAN 5: A Panel Data Regression Approach

# 3. METHODS

The study analyzed the data using the General Method of Moments (GMM). The analysis is based on panel data for the ASEAN-5 countries (Indonesia, Malaysia, the Philippines, Singapore, and Thailand) and time-series data for each member country. Panel data refers to a dataset that contains observations on multiple entities (countries, in this case) over multiple time periods. All of these were retrieved from the World Bank Database.

The study uses real GDP as the measure of economic growth. Real GDP is adjusted for inflation and provides a more accurate representation of the true value of goods and services produced in an economy. This adjustment allows for a more meaningful comparison of economic output over time and across different countries. FDI is measured by FDI net

inflows, which represent the net amount of investment received from foreign investors. FDI net inflows include equity capital, reinvestment of earnings, and other long-term and shortterm capital flows. This measure captures the extent to which a country is attracting foreign investment, which can contribute to economic growth. The study measures regional integration through trade openness, calculated as the sum of exports and imports as a percentage of GDP. Trade openness reflects the degree to which a country is engaged in international trade and is often used as a proxy for the level of integration with the global economy. The political regime is operationalized using a dummy variable, where 1 represents a presidential system, and 0 represents a parliamentary system. This binary measure allows for the examination of the impact of different political systems on economic growth. Religion is measured using dummy variables for the presence of Christianity (XP), Islam (IS), and Buddhism (BD). These variables allow for the assessment of the influence of different religious traditions on economic growth in the ASEAN-5 countries. Data for real GDP, trade openness (TO), and FDI net inflows were retrieved from the World Bank database, which provides reliable and standardized economic indicators for countries around the world. The use of this reputable source ensures the accuracy and comparability of the data used in the analysis.

The time series component of the data spans from 1970 to 2022. This extensive time frame allows for the examination of long-term trends and patterns in economic growth, foreign direct investment (FDI), trade openness, and other variables of interest. By covering more than five decades, the study can capture the effects of various historical events, policy changes, and economic cycles on the ASEAN-5 countries.

The cross-sectional component of the data consists of the five ASEAN member countries: Indonesia, Malaysia, the Philippines, Singapore, and Thailand. These countries are collectively referred to as the ASEAN-5. The inclusion of multiple countries in the analysis enhances the generalizability of the findings and allows for the exploration of similarities and differences in the determinants of economic growth across these nations. By combining time series and cross-sectional data, the study employs a panel data approach, which provides a richer dataset for analysis.

The econometric model used in the study is specified as follows:

$$GDP = B_0 + B_1TO + B_2FDI + B_3REG + B_4XP + B_5IS + B_6BD + u$$

#### Where:

- GDP stands for gross domestic product, representing economic growth.
- TO represents trade openness.
- FDI stands for foreign direct investment net inflows.
- REG represents the political regime, with 1 indicating a presidential system and 0 indicating a parliamentary system.
- XP, IS, and BD represent the presence of Christianity, Islam, and Buddhism, respectively.
- u is the error term.
- The estimated coefficients from the GMM analysis are interpreted to assess the impact of each independent variable (trade openness, FDI, political regime, and religion) on the dependent variable (GDP or economic growth).

# 4. ANALYSIS AND RESULTS

Table 4.1 shows that GDP and FDI variables exhibit significant skewness and kurtosis, indicating the presence of extreme values and deviations from normality. The Trade Openness variable also shows positive skewness and high kurtosis, suggesting a distribution with frequent small values and occasional large values. The dummy variables IS (Islam), XP (Christianity), PRES (presidential government), and BD (Buddhism) are religious and political variables, and they show less variation and are categorical indicators with more symmetric distributions.

Table 4.1. Descriptive Statistics

	GDP	FDI	ТО	IS	XP	PRES	BD
Mean	2.22E+11	8.66E+09	1.029525	0.8	0.4	0.4	0.4
Median	1.58E+11	2.06E+09	0.677998	1	0	0	0
Maximum	1.12E+12	1.41E+11	3.590531	1	1	1	1
Minimum	1.45E+10	-5E+09	0.21262	0	0	0	0
Std. Dev.	2.05E+11	1.93E+10	0.846841	0.407757	0.490825	0.490825	0.490825
Skewness	2.018438	4.261302	1.537105	-1.5	0.408248	0.408248	0.408248
Kurtosis	7.944235	23.86424	4.623647	3.25	1.166667	1.166667	1.166667
Jarque-Bera	449.8577	5608.627	133.4606	100.0651	44.47338	44.47338	44.47338
Probability	0	0	0	0	0	0	0
Sum	5.87E+13	2.3E+12	272.8242	212	106	106	106
Sum Sq. Dev.	1.11E+25	9.82E+22	190.1304	42.4	63.6	63.6	63.6
Observations	265	265	265	265	265	265	265

Figure 4.1 shows GDP data across the ASEAN-5 countries (Indonesia, Malaysia, the Philippines, Singapore, and Thailand) from 1970 to 2022. The sharp increases in GDP suggest periods of strong economic performance, possibly driven by industrialization, export growth, or foreign direct investment. The abrupt decreases could correspond to economic crises such as the 1997 Asian financial crisis, the 2008 global financial crisis, or the COVID-19 pandemic. Despite the cycles of growth and contraction, the long-term trend indicates a substantial increase in GDP, reflecting the overall economic development and rising prosperity in the ASEAN-5 countries.

Figure 4.2 shows spikes in FDI, particularly in Singapore, might be due to policy changes, economic reforms, or specific events attracting foreign investment. The sharp decline post-2015 in Singapore could be attributed to a reversal of such policies, global economic conditions, or regional economic crises. Overall, the increasing trend suggests the growing attractiveness of the ASEAN-5 countries for foreign investors over time, despite occasional volatility.

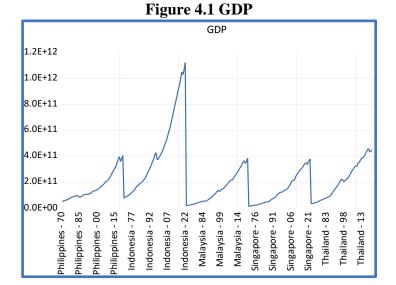
Figure 4.3 reveals the increase in trade openness, particularly in Singapore, might be due to policy changes, economic reforms, or specific events promoting trade liberalization. The sharp decline post-2015 in Singapore could be attributed to global economic conditions, changes in trade policies, or regional economic crises. The overall increasing trend suggests that the ASEAN-5 countries have become more integrated into the global economy over time, increasing their trade activities.

Table 4.2 shows that GDP and Trade Openness are non-stationary in their levels, which means that their statistical properties (such as mean and variance) change over time. This is common for macroeconomic time series data. FDI is stationary in levels, indicating that its statistical properties do not change over time without differencing. After taking the first differences, GDP and Trade Openness become stationary. This indicates that the series

Philippines - 00 hilippines - 15 Indonesia - 92 Indonesia - 07 Indonesia - 22 Malaysia - 84 Malaysia - 99 Malaysia - 14

Indonesia - 77

does not have a unit root after differencing, and their statistical properties remain constant over time.



Singapore - 76

Singapore - 91 Singapore - 06 Singapore - 21 Thailand - 83 Thailand - 98 Thailand - 13

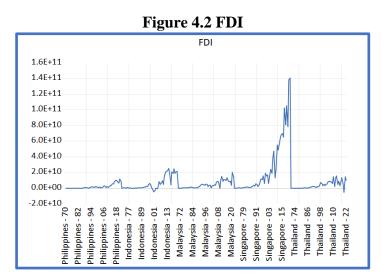




Table 4.2. Unit Root Test

Variables	Level Series	1 <sup>st</sup> Difference Series
GDP	0.983	0.000
FDI	0.001	0.000
Trade Openness	0.672	0.000
Buddhism	N/A	N/A
Christianity	N/A	N/A
Islam	N/A	N/A
Presidential/Parliamentary	N/A	N/A

**Table 4.3 GMM Results** 

Variable	Coefficient	P-value
Constant	0.03	0.004
TO	0.14	< 0.01
FDI	8.93E-13	0.004
REG	-0.006	0.374
BD	0.014	0.139
XP	-0.013	0.064
IS	0.02	0.014

**Dependent Variable: GDP** 

n = 260

 $R^2 = 14.90\%$ 

FDI shows a very small but statistically significant positive impact on the GDP of the ASEAN-5 countries, with a coefficient of 8.93e-13. This suggests that while FDI contributes to economic growth, the effect is minimal.

Trade openness has a positive and significant relationship with GDP growth in the ASEAN-5 countries. The coefficient of 0.14 indicates that a 1% increase in trade openness is associated with a 0.14% increase in economic output.

The coefficient for the political regime variable, where 1 represents a presidential system and 0 represents a parliamentary system, is -0.006 and not statistically significant. This implies that the type of political regime does not have a discernible impact on economic growth in the ASEAN-5 countries.

Islam (IS) shows a statistically significant positive relationship with economic growth, with a coefficient of 0.02. This suggests that the presence or influence of Islam is associated with a 2% increase in economic output.

Christianity (XP) and Buddhism (BD) do not demonstrate a significant impact on economic growth, with coefficients of -0.013 and 0.014, respectively.

The results indicate that trade openness and the presence of Islam positively influence economic growth in the ASEAN-5 countries, while the impact of FDI is very small but significant. The type of political regime and the presence of Christianity and Buddhism do not appear to have a significant effect on economic growth in this context.

The coefficient of determination (R<sup>2</sup>) of 14.9% indicates that approximately 14.9 percent of the variation in GDP is explained by the explanatory variables included in the model (such as trade openness, foreign direct investment, political regime, and religion).

# 5. DISCUSSIONS

The study finds a small but significant positive impact of FDI on the GDP of the ASEAN-5 countries. This aligns with the findings of Magazzino and Mele (2023) and Fadhil and Almsafir (2015) who observed positive impacts of FDI on economic growth in Malta and Malaysia, respectively. However, it contrasts with Gunby et al. (2017) and Carbonell and Werver (2018), who reported inconsequential or no substantive impacts of FDI on GDP in China and Spain, respectively. The results suggest that while FDI contributes to growth, its effect is limited, and targeted investment policies may be needed to maximize its benefits. The positive relationship between trade openness and GDP growth is highlighted as a key driver of economic development in the ASEAN-5. The study's findings support the notion that increased trade openness and regional integration are important for the quality of economic growth, as found by Kong et al. (2021) and Oloyede et al. (2021). This underscores the significance of policies that enhance trade openness and global integration.

The lack of a significant impact of the political regime on economic growth challenges the findings of McManus and Ozkan (2018), who suggested that presidential systems may be associated with slower growth compared to parliamentary systems. The study's results indicate that the nature of the political regime may not be a critical determinant of economic growth in the ASEAN-5 context, differing from the observations of Khan et al. (2020) regarding the positive impact of the presidential system in Pakistan. The positive relationship between Islam and economic output is noted, contrasting with studies like Listiono (2020) and Qayyum et al. (2019), which suggest varying impacts of religion on economic growth across different regions and religious traditions. The lack of significant impacts of Christianity and Buddhism on economic growth is also discussed, aligning with the findings of Borup (2019) and Pan (2019), which highlight the complex relationship between religion and economic development.

The discussion emphasizes the multifaceted nature of economic growth in the ASEAN-5, with trade openness and the presence of Islam identified as positive contributors. The results also suggest that the impact of FDI is limited, and the type of political regime does not significantly influence economic growth. The study calls for a nuanced understanding of the interplay between economic, political, and social factors in shaping the region's development trajectory.

# 6. CONCLUSIONS AND IMPLICATIONS

The economic growth of the ASEAN-5 nations is characterized by its multifaceted nature, with critical contributions from foreign direct investment (FDI), trade openness, political regimes, and religious influences. The analysis reveals that FDI has a positive impact on GDP; however, its spillover effects are somewhat limited, necessitating the formulation of targeted investment policies to optimize the benefits derived from foreign investments. Trade openness emerges as a significant driver of growth, emphasizing the pivotal role of global integration in the economic development of the ASEAN-5 countries.

Notably, the coefficient associated with political regimes is not statistically significant, indicating that the nature of the political system—whether presidential or parliamentary—does not have a discernible impact on the economic output of these nations.

The influence of religion on economic growth presents a complex picture, hinting at the need for a nuanced understanding of the interplay between cultural and social dynamics and economic development. The study underscores the importance of considering the unique religious and cultural fabric of each ASEAN-5 country in formulating economic policies.

To foster sustainable economic growth, the ASEAN-5 countries are encouraged to pursue policies that enhance trade openness, such as reducing trade barriers, negotiating favorable trade agreements, and improving trade infrastructure. The promotion of regional integration through initiatives like the ASEAN Economic Community can further amplify intra-regional trade and economic cooperation, thereby bolstering the collective economic resilience of the member states.

Diversifying the economy and attracting high-quality FDI are crucial strategies for ensuring long-term economic growth. Policymakers should focus on attracting foreign investments in sectors that offer potential for technological transfer, skill development, and job creation, thereby enhancing the overall competitiveness of the ASEAN-5 economies.

Despite the non-significance of the political regime variable (REG) in the analysis, the importance of good governance and robust institutions cannot be overstated. Effective governance, characterized by transparency, reduced corruption, and efficient public administration, is foundational to economic development and investor confidence.

Lastly, the rich religious and cultural heritage of the ASEAN-5 countries presents an opportunity to promote religious tourism, which can serve as a catalyst for economic growth and cultural exchange. By capitalizing on their unique cultural assets, these nations can attract tourists and foster an environment conducive to economic prosperity and social cohesion.

# **APPENDICES**

Appendices A and B are available from the authors on request.

# **REFERENCES**

- [1] Abbes, S. M., Mostéfa, B., Seghir, G., & Zakarya, G. Y. (2015). Causal Interactions between FDI and Economic Growth: Evidence from Dynamic Panel Co-integration. Procedia Economics and Finance, 23(October 2014), 276–290. https://doi.org/10.1016/s2212-5671(15)00541-9
- [2] Alam, K. J., & Sumon, K. K. (2020). Causal Relationship Between Trade Openness and Economic Growth: a Panel Data Analysis of Asian Countries. International Journal of Economics and Financial Issues, 10(1), 118–126. https://doi.org/10.32479/ijefi.8657
- [3] Alvarado, R., Iñiguez, M., & Ponce, P. (2017). Foreign direct investment and economic growth in Latin America. Economic Analysis and Policy, 56, 176–187. https://doi.org/10.1016/j.eap.2017.09.006
- [4] Arvin, M. B., Pradhan, R. P., & Nair, M. (2021). Uncovering interlinks among ICT connectivity and penetration, trade openness, foreign direct investment, and economic growth: The case of the G-20 countries. Telematics and Informatics, 60(January), 101567. https://doi.org/10.1016/j.tele.2021.101567
- [5] Asafo-Agyei, G., & Kodongo, O. (2022). Foreign direct investment and economic growth in Sub-Saharan Africa: A nonlinear analysis. Economic Systems, 46(4), 101003. https://doi.org/10.1016/j.ecosys.2022.101003

- [6] Azman-Saini, W. N. W., Law, S. H., & Ahmad, A. H. (2010). FDI and economic growth: New evidence on the role of financial markets. Economics Letters, 107(2), 211–213. https://doi.org/10.1016/j.econlet.2010.01.027
- [7] Belloumi, M. (2014). The relationship between trade, FDI and economic growth in Tunisia: An application of the autoregressive distributed lag model. Economic Systems, 38(2), 269–287. https://doi.org/10.1016/j.ecosys.2013.09.002
- [8] Bermejo Carbonell, J., & Werner, R. A. (2018). Does Foreign Direct Investment Generate Economic Growth? A New Empirical Approach Applied to Spain. Economic Geography, 94(4), 425–456. https://doi.org/10.1080/00130095.2017.1393312
- [9] Böhm, S., Grossmann, V., & Steger, T. M. (2015). Does expansion of higher education lead to trickle-down growth? Journal of Public Economics, 132, 79–94. https://doi.org/https://doi.org/10.1016/j.jpubeco.2015.09.011
- [10] Bong, A., & Premaratne, G. (2018). Regional Integration and Economic Growth in Southeast Asia. Global Business Review, 19(6), 1403–1415. https://doi.org/10.1177/0972150918794568
- [11] Çevik, E. I., Atukeren, E., & Korkmaz, T. (2019). Trade openness and economic growth in Turkey: A rolling frequency domain analysis. Economies, 7(2). https://doi.org/10.3390/economies7020041
- [12] Chaudhury, S., Nanda, N., & Tyagi, B. (2020). Impact of FDI on Economic Growth in South Asia: Does Nature of FDI Matters?\*This article is an outcome of a project supported by South Asia Network of Economic Research Institutes under 16th RRC. Review of Market Integration, 12(1–2), 51–69. https://doi.org/10.1177/0974929220969679
- [13] Ciobanu, A. M. (2020). The Impact of FDI on Economic Growth in Case of Romania. International Journal of Economics and Finance, 12(12), 81. https://doi.org/10.5539/ijef.v12n12p81
- [14] Creswell, J. W., & David Creswell, J. (2018). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. Journal of Chemical Information and Modeling, 53.
- [15] Ejones, F., Agbola, F. W., & Mahmood, A. (2021). Regional Integration and Economic Growth: New Empirical Evidence from the East African Community. The International Trade Journal, 35(4), 311–335. https://doi.org/10.1080/08853908.2021.1880990
- [16] Encinas-Ferrer, C., & Villegas-Zermeño, E. (2015). Foreign Direct Investment and Gross Domestic Product Growth. Procedia Economics and Finance, 24(July), 198–207. https://doi.org/10.1016/s2212-5671(15)00647-4
- [17] Fadhil, M. A., & Almsafir, M. K. (2015). The Role of FDI Inflows in Economic Growth in Malaysia (Time Series: 1975-2010). Procedia Economics and Finance, 23(October 2014), 1558–1566. https://doi.org/10.1016/s2212-5671(15)00498-0
- [18] Fetahi-Vehapi, M., Sadiku, L., & Petkovski, M. (2015). Empirical Analysis of the Effects of Trade Openness on Economic Growth: An Evidence for South East European Countries. Procedia Economics and Finance, 19(15), 17–26. https://doi.org/10.1016/s2212-5671(15)00004-0
- [19] Gunby, P., Jin, Y., & Robert Reed, W. (2017). Did FDI Really Cause Chinese Economic Growth? A Meta-Analysis. World Development, 90, 242–255. https://doi.org/10.1016/j.worlddev.2016.10.001
- [20] Hakimi, A., & Hamdi, H. (2016). Trade liberalization, FDI inflows, environmental quality and economic growth: A comparative analysis between Tunisia and Morocco.

- Renewable and Sustainable Energy Reviews, 58, 1445–1456. https://doi.org/10.1016/j.rser.2015.12.280
- [21] Hayat, A. (2018). FDI and economic growth: the role of natural resources? Journal of Economic Studies, 45(2), 283–295. https://doi.org/10.1108/JES-05-2015-0082
- [22] Heng, K. (2020). ASEAN's Challenges and the Way Forward. The Diplomat. https://thediplomat.com/2020/08/aseans-challenges-and-the-way-forward/
- [23] Hix, S. J. (2001). Regional Integration (N. J. Smelser & P. B. B. T.-I. E. of the S. & B. S. Baltes (Eds.); pp. 12922–12925). Pergamon. https://doi.org/https://doi.org/10.1016/B0-08-043076-7/01274-2
- [24] Huchet-Bourdon, M., Le Mouël, C., & Vijil, M. (2018). The relationship between trade openness and economic growth: Some new insights on the openness measurement issue. World Economy, 41(1), 59–76. https://doi.org/10.1111/twec.12586
- [25] Idris, J., Yusop, Z., & Habibullah, M. S. (2016). Trade openness and economic growth: A causality test in panel perspective. International Journal of Business and Society, 17(2), 281–290. https://doi.org/10.33736/ijbs.525.2016
- [26] Intisar, R. A., Yaseen, M. R., Kousar, R., Usman, M., & Amjad Makhdum, M. S. (2020). Impact of trade openness and human capital on economic growth: A comparative investigation of asian countries. Sustainability (Switzerland), 12(7). https://doi.org/10.3390/su12072930
- [27] Kea, S., Shahriar, S., Abdullahi, N. M., & Moa, C. (2023). ASEAN Economies in the COVID-19 Post-pandemic Crisis BT Political Economy of Development in the Global South Post-COVID-19 Pandemic (H. Adam & R. Rena (Eds.); pp. 73–93). Springer Nature Singapore. https://doi.org/10.1007/978-981-99-4074-5\_4
- [28] Keho, Y. (2017). The impact of trade openness on economic growth: The case of Cote d'Ivoire. Cogent Economics and Finance, 5(1). https://doi.org/10.1080/23322039.2017.1332820
- [29] Khobai, H., Kolisi, N., & Moyo, C. (2017). The relationship between trade openness and economic growth: The case of Ghana and Nigeria. The relationship between trade openness and economic growth: The case of Ghana and Nigeria. Nelson Mandela University, South Africa, 81317, 1–18.
- [30] Kong, Q., Peng, D., Ni, Y., Jiang, X., & Wang, Z. (2021). Trade openness and economic growth quality of China: Empirical analysis using ARDL model. Finance Research Letters, 38(March 2020), 101488. https://doi.org/10.1016/j.frl.2020.101488
- [31] Magazzino, C., & Mele, M. (2022). Can a change in FDI accelerate GDP growth? Time-series and ANNs evidence on Malta. Journal of Economic Asymmetries, 25(February), e00243. https://doi.org/10.1016/j.jeca.2022.e00243
- [32] Majumder, M. K., Raghavan, M., & Vespignani, J. (2020). Oil curse, economic growth and trade openness. Energy Economics, 91, 104896. https://doi.org/10.1016/j.eneco.2020.104896
- [33] Malefane, M. R., & Odhiambo, N. M. (2018). Impact of Trade Openness on Economic Growth: Empirical Evidence From South Africa. International Economics, 71(4), 387–416. www.iei1946.it
- [34] Muhammad, B., & Khan, S. (2019). Effect of bilateral FDI, energy consumption, CO2 emission and capital on economic growth of Asia countries. Energy Reports, 5, 1305–1315. https://doi.org/10.1016/j.egyr.2019.09.004
- [35] Muhammad, B., & Khan, S. (2019). Effect of bilateral FDI, energy consumption, CO2 emission and capital on economic growth of Asia countries. Energy Reports, 5, 1305–1315. https://doi.org/10.1016/j.egyr.2019.09.004

- [36] Nguyen, M. L. T., & Bui, T. N. (2021). Trade openness and economic growth: A study on asean-6. Economies, 9(3). https://doi.org/10.3390/economies9030113
- [37] OECD. (2023). Economic Outlook for Southeast Asia, China and India 2023 Reviving Tourism Post-Pandemic.
- [38] Oloyede, B. M., Osabuohien, E. S., & Ejemeyovwi, J. O. (2021). Trade openness and economic growth in Africa's regional economic communities: empirical evidence from ECOWAS and SADC. Heliyon, 7(5), e06996. https://doi.org/10.1016/j.heliyon.2021.e06996
- [39] Orji, Alexander C., Okafor, Samuel O., Obi, Kenneth C., & Ukeje, C. D. (2022). THE EFFECTS OF REGIONAL INTEGRATION ON ECONOMIC GROWTH IN ECOWAS COUNTRIES. JOURNAL OF INTERNATIONAL ECONOMIC RELATIONS AND DEVELOPMENT ECONOMICS, 2(1), 1–20.
- [40] Park, C.-Y., & Claveria, R. (2018). DOES REGIONAL INTEGRATION MATTER FOR INCLUSIVE GROWTH? EVIDENCE FROM THE MULTIDIMENSIONAL REGIONAL INTEGRATION INDEX. https://www.adb.org/sites/default/files/publication/460681/ewp-559-regional-integration-inclusive-growth.pdf
- [41] Park, D., Castillejos-petalcorin, C., & Kim, J. (2020). ANALYSIS OF BREXIT AND ITS Asian Development Bank Institute. 1189.
- [42] Pegkas, P. (2015). The impact of FDI on economic growth in Eurozone countries. Journal of Economic Asymmetries, 12(2), 124–132. https://doi.org/10.1016/j.jeca.2015.05.001
- [43] Pradhan, R. P., Arvin, M. B., Hall, J. H., & Norman, N. R. (2017). ASEAN economic growth, trade openness and banking-sector depth: The nexus. EconomiA, 18(3), 359–379. https://doi.org/10.1016/j.econ.2017.05.002
- [44] Raghutla, C. (2020). The effect of trade openness on economic growth: Some empirical evidence from emerging market economies. Journal of Public Affairs, 20(3). https://doi.org/10.1002/pa.2081
- [45] Rahman, M. M., Saidi, K., & Mbarek, M. Ben. (2020). Economic growth in South Asia: the role of CO2 emissions, population density and trade openness. Heliyon, 6(5). https://doi.org/10.1016/j.heliyon.2020.e03903
- [46] Rahman, M. M., Saidi, K., & Mbarek, M. Ben. (2020). Economic growth in South Asia: the role of CO2 emissions, population density and trade openness. Heliyon, 6(5). https://doi.org/10.1016/j.heliyon.2020.e03903
- [47] Rao, D. T., Sethi, N., Dash, D. P., & Bhujabal, P. (2023). Foreign Aid, FDI and Economic Growth in South-East Asia and South Asia. Global Business Review, 24(1), 31–47. https://doi.org/10.1177/0972150919890957
- [48] Raza, M. A. A., Yan, C., Abbas, H. S. M., & Ilahi, S. (2023). Do Remittance Inflows, Investment Attributes, and Regional Integration Accelerate Sustainable Economic Growth in Asia? Journal of the Knowledge Economy. https://doi.org/10.1007/s13132-023-01126-x
- [49] Shahbaz, M. (2012). Does trade openness affect long run growth? Cointegration, causality and forecast error variance decomposition tests for Pakistan. Economic Modelling, 29(6), 2325–2339. https://doi.org/10.1016/j.econmod.2012.07.015
- [50] Silajdzic, S., & Mehic, E. (2018). Trade Openness and Economic Growth: Empirical Evidence from Transition Economies. Trade and Global Market. https://doi.org/10.5772/intechopen.75812
- [51] Turner, P. (2010). Power properties of the CUSUM and CUSUMSQ tests for parameter instability. Applied Economics Letters, 17(11), 1049–1053. https://doi.org/10.1080/00036840902817474

- [52] Were, M. (2015). Differential effects of trade on economic growth and investment: A cross-country empirical investigation ★. Journal of African Trade, 2(1–2), 71. https://doi.org/10.1016/j.joat.2015.08.002
- [53] Williamson, J. G. (2002). Winners and Losers Over Two Centuries of Globalization (No. 9161). https://doi.org/10.3386/w9161
- [54] Zahonogo, P. (2017). Trade and economic growth in developing countries: Evidence from sub-Saharan Africa. Journal of African Trade, 3(1–2), 41. https://doi.org/10.1016/j.joat.2017.02.001
- [55] Zaman, M., Pinglu, C., Hussain, S. I., Ullah, A., & Qian, N. (2021). Does regional integration matter for sustainable economic growth? Fostering the role of FDI, trade openness, IT exports, and capital formation in BRI countries. Heliyon, 7(12), e08559. https://doi.org/10.1016/j.heliyon.2021.e08559
- [56] Zekarias, S. M. (2016). The Impact of Foreign Direct Investment (FDI) on Economic Growth in Eastern Africa: Evidence from Panel Data Analysis. Applied Economics and Finance, 3(1), 145–160. https://doi.