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The Role of Financial Crisis in Economic Growth; Empirical Evidence from Selected South Asian countries

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Abstract

Financial crisis is a major global economic problem that disrupts the financial stability and overall economic performance of a country. The current study investigated the impact of the financial crisis on economic growth in selected South Asian countries. Panel data was collected from World Development Indicators (WDI) and Asia Development Integration Centre (ARIC) from 1995 to 2022 for India, Pakistan, and Sri Lanka. Random effect and fixed effect models were used to investigate the relationship between variables. The Hausman test was used to select the appropriate model between the Random effect and fixed effect models. The results indicated that the financial crisis has a negative and significant effect on economic growth. All control variables, including foreign direct investment, export, population growth, gross fixed capital formation, rule of law, and labor force's basic education, have a positive impact on economic growth. Improving early warning systems, strengthening financial regulation, and macroprudential tools are crucial for stability. Encouraging investment by tax incentives, entrepreneurship, export-oriented regulations such as trade liberalization, expansion of markets, and infrastructural development support growth. Institutional quality, especially the rule of law, boosts the confidence level of investors and resource efficiency. Strict rules of law and the judicial system can enhance growth. Effective crisis management can accelerate recovery.

Keywords: GDP, FSI, financial crisis, Random Effects, Fixed Effects, Hausman Test,

Introduction

Finance is a wide phrase that includes the creation, management, allocation, investment, and study of the financial system and institutions. A financial crisis is when a country's economy experiences an unexpected decline or recession, price volatility, current account deficits, and foreign sector concerns (Schmeling & Wagner, 2025; Faisalet al., 2024). Financial crises differ according to nature and severity. Mismanagement of finance leads to financial instability;it's not only a problem for a country's economic growth but also spreads across borders via financial channels (Liaqat et al., 2024; Lager et al., 2025). Efficient financial systems boost investment innovation, and entrepreneurship by optimizing capital allocation. Strong financial markets and institutions boost resilience while efficient fiscal and monetary policies, reduce risks and encourage long-term economic development and financial stability (Ashfaq et al., 2014; Liu & Zhang, 2025;Dinh et al., 2025; Khan et al.2023; Liu et al 2025).

The main objective of this study is to evaluate the impact of the financial crisis on economic growth in selected South Asian countries, including India, Pakistan and Sri Lanka, by using panel data. The domestic saving rate leading in insufficient financial resources, in turn raised multidimensional poverty. Financial institutions face a shortage of liquidity, and all investors sell

their assets or withdraw money due to a decline in asset's value, lose confidence in the banking system during an economic downturn (Fabozzi, 2025; Jones, 2021). The connection between financial crises and economic development is very important. Crises create a critical point that leads to severe short-term downturns due to credit shortages, loss of wealth, and rising unemployment. They also cause long-term damage that significantly limits development potential. This damage shows up as a permanent loss of human capital, high public and private debt that prevents future investment, and a slowdown in innovation and productivity (Ghulam et al., 2025). As a result, economic progress can be delayed for years. Therefore, studying this relationship is crucial for developing policies that focus not just on stabilization but also on creating strong financial systems and institutional protections necessary for sustainable long-term growth. However, it remained under study that the specific mechanisms through which financial crises affect economic growth. This study contributes to the existing literature review by analyzing the impact of the financial crisis on selected South Asian countries and employs econometric techniques to estimate the relationship between economic growth and several independent variables. This study provides new insight into the role of financial stability in improving economic growth. The findings will have important policy implications for researchers and policymakers looking to understand this complexity. The next section provides a literature review on said relationship. The third part presents the details of data and methodology, and fourth part elaborates the results and discussion. The fifth part concludes the study.

Literature Review

The financial crisis has gained extensive attention in literature, especially in emerging economies. Financial crisis, often characterized by banking failure (Citterio 2024), currency devaluation (Coulibaly et al. 2024), failure of financial institutions and sovereign debt resulted decline in economic output(Jones, et al. 2021). Financial acceleration theory (Bernanke 1999) and the sudden stop model (Calvo 1998) stated that disruption in financial institutions significantly hinders growth by tightening credit limits, lowering investment and reducing investors' confidence. (Kaminsky and Reinhart 1999)Identified that financial crises typically lead to recessions in developing and underdeveloped countries. Financial crises have a significant negative impact on economic output and slow recovery in developing and underdeveloped countries (Reinhart and Rogoff 2009; Ur Rahman et al.(2023)). Previous studies have shown that the financial crisis reduced economic activity (Notteboom at el., 2021), raised unemployment (Liu and Lin 2023) and declined investment (Flammer and Ioannou 2021). Raza et al. (2015) found that in South Asian countries, financial instability in a country affected harmfully, especially during weaker financial institutions and dependence on for sector.

In case of India, Pakistan and Sri Lanka, financial crises have triggered fiscal deficit, volatility in exchange rate, capital outflow, all have adverse effects on growth (Ahmah and Wahab, 2019). To capture the cross-country and intertemporal variation during crisis, a panel study playsa vital role. Mughalet al. (2016) used a panel study to check spillover effects in South Asia and found significant effects depend on institutional strength and trade openness.

Foreign direct investment is widely considered a driver of shaping economic growth by transfer of advanced technology, new capital and expert management (Borensztein, et al.., 1998). However, the financial crisisdeclinesin growth, which is a cause for FDI, and investors lost their confidence during the crisis, which ultimately resulted in capital outflow. Gross fixed capital formation is used as a proxy for investment in fixed assets, and has a positive correlation with growth (Barro 1991). In the context of South Asia, financial crisishas disrupted investment cycles leading to decline GFCF. Nasir and Ali (2018) found that long time recovery in GFCF post crisis in South Asian countries slow down their overall economic recovery. Endogenous growth models explain, population growth can increase economic activity when considered as human capital formation

and innovation (Ur Rahman et al. 2014; Lucas Jr, 1988; Romer 1990). In South Asia, population growth can hinder and increase economic growth depending on policy responses in different areas like health, education and labor market development. Exports are a key driver for economic growth, a stabilizing factor in the case of a financial crisis. Classical and neoclassical trade theories, including comparative advantages (Ricardo 1821) and the Heckscher-Ohlin model, focused on trade that enables countries to specialize and allocate resources efficiently, boosting growth. New trade theory and endogenous growth models further stated that exports increase productivity by economies of scale, innovation and technology (Grossman and Helpman 1993; Romer 1990; Fayaz et al.2020). A diversified export structure boosts growth and greater resilience to shocks (Hausmann, et al. 2007). In the context of South Asia, the diversified export of India helped buffer external shocks (Panagariya, 2010; Shehzadi, 2023), while exports showed greater vulnerability for Pakistan (Noureen 2024) and Sri Lanka (Herath et al., 2024).

Institutional quality often used proxy for the rule of law, is a crucial determinant of economic growth and resilience during a financial crisis. Kaufmann et al.(2005)found that strong legal institutions enhance the confidence of investors, reduce uncertainty, and speed up recovery from economic shocks. Empirical studies in South Asia found that a weak legal institutional framework increases uncertainty, declines investment and slows post-crisis recovery (Khan, 2012). The existing literature is evident that there are different studies on financial crises and economic growth with different data sets, countries and time periods. But the current study focuses on selected Asian countries for estimating the relationship between financial crisis and economic growth with other important variables.

Data and Methodology

This study focuses on South Asian nations, including India, Pakistan, and Sri Lanka, to analyze the economic dynamics within the region. Data was collected from the Asia Regional Integration Centre (ARIC) and the World Development Indicator (WDI) over the period from 1995 to 2022, allowing long-term valuation of economic trends, structural changes and policy impressions. This study estimated fixed effects and random effects methods to estimate the effects of the selected panel of countries. Moreover, this study applied the Hausman test to choose between appropriate methods. The current study estimated a model to capture the effects of the financial crisis on economic growth. The estimated model for the determinants of GDP growth and financial crisis includes the financial stress index (FSI), foreign direct investment (FDI), gross fixed capital formation (GFCF), population growth (POP), labor force with basic education (LFE), exports (EXP) and the rule of law (ROL) as regressors of the GDP as follows:

$$GDP_{it} = \alpha + \beta_1 FSI_{it} + \beta_2 FDI_{it} + \beta_3 GFCF_{it} + \beta_4 POP_{it} + \beta_5 LFE_{it} + \beta_6 EXP_{it} + \beta_7 ROL_{it} + \mu_{it}$$

Construction of the Financial Stress Index

Financial instability is a complicated phenomenon which is challenging to evaluate. The financial system's instability has been evaluated using a variety of methodologies, though, in empirical research. Each of them has benefits and drawbacks that are specific to how well they can convey information about the amount of instability. Early warning systems, one of the widely used methods, can predict the likelihood that a financial crisis will develop, but this method does not provide a way to account for all the variables that pose significant systemic risks in the calculation process. Similarly, the use of stress testing to measure the financial system's resistance and identify possible shocks cannot compare the instability of the system over time. The FSI is a measure used to estimate the level of stress in financial markets. The FSI supports the idea that it is a stand-alone strategy that complements other financial assessment approaches, as highlighted by Park & Mercado Jr (2014). First, it may assess the degree of instability in various historical eras and financial systems. Second, it provides several benefits, including enhanced transparency, quicker

access to statistical data, a simplified calculation process, and the capacity to predict the level of financial instability. Data on FSI was taken from the Asia Development Integration Centre (ARIC). A variety of indicators, including the banking sector, stock return, stock volatility, Sovereign Debt Spread, and Exchange Market Pressure index, were used to construct the FSI.

$$FSI_{it} = \alpha + \beta_1 Banking\ sector_{it} + \beta_2 Stock\ return_{it} + \beta_3 Stock\ Volatility_{it} + \beta_4 debt\ spread_{it} + \beta_5 EMPI_{it} + \mu_{it}$$

Higher value of FSI often indicates more financial system stress or volatility, indicating possible dangers or issues. This index can help analysts, policymakers, and investors assess the general health and stability of financial markets, as well as provide insight into upcoming economic downturns or crises.

Results and Discussion

This section entails detailed results and discussion of data analysis. Table 1 presents the data description along with maximum and minimum values of the data.

Table 1: Descriptive Analysis

Variable	Observation	Mean	Std. Dev.	Min	Max
GDP	84	4.846	3.10	-7.823	9.050
FSI	84	-.147	1.954	-2.735	7.272
FDI	84	1.255	0.722	0.355	3.668
EXP	84	6.224	10.10	-29.558	31.396
EDU	84	3.964	0.110	3.703	4.285
ROL	84	-0.212	0.397	-1.00	0.348
POP	84	1.445	.7129	.1127	3.092
GFCF	84	5.142	8.267	-22.664	22.190

Table 2: POLS, Fixed Effects Model and Random Effects Model

Var.	POLS Model			Fixed Effects model			Random effects model		
GDP	Coefficient	Z	P>|z|	Coefficient	Z	P>|z|	Coefficient	Z	P>|z|
FSI	-0.398	-3.39	0.001	-0.647	-3.93	0.000	-0.463	-3.79	0.000
FDI	0.157	0.54	0.590	0.306	0.85	0.401	0.182	0.63	0.529
POP	0.655	1.89	0.063	1.270	3.34	0.002	0.849	2.54	0.011
EXP	0.042	1.96	0.053	0.042	1.75	0.087	0.040	1.91	0.056
ROL	0.720	1.17	0.244	1.682	2.78	0.008	1.067	1.87	0.061
GFC	0.239	8.63	0.000	0.195	6.55	0.000	0.224	8.40	0.000
LFE	2.722	1.41	0.162	0.255	0.06	0.954	0.224	1.09	0.275
CON	-8.493	-1.11	0.272	0.601	0.03	0.973	-7.79	-0.84	0.402

The Results of the Hausman Test

The Hausman specification test indicates that random effects model is an appropriate estimation technique. The test obtained a Chi square p value of 0.80 which exceeds the 5% significance threshold. The null hypothesis states that the difference in coefficient among fixed effects and random effects is not systematic, cannot be rejected. This shows that the random effects estimator is efficient and consistent. Table 2 presents POLS, Fixed and random effects models indicate a significant negative association between FSI and GDP growth. The estimated FSI coefficients of POLS, Fixed and random effect models are -0.398, -0.647, and -0.463, respectively, suggesting that a unit increase in FSI causes to 0.398-, 0.647- and 0.463-unit decline in GDP. The finding

aligns with economic theory, as financial crisis disrupts financial system, leads to reduce investment (Dinh et al, 2025), credit availability, lower consumer confidence (Ullah et al, 2025) and limiting spending (Li, 2025) which have negatively impact on GDP growth. During a period of financial stress, businesses may struggle to secure loans for expansion (Ghulam et al, 2025), households may limit spending due to uncertainty and investors' withdrawal from markets leading to limited economic activities (Naidoo, 2025). The Z value and p value confirmed the meaningful relationship, indicating a highly significant impact of the fiscal crisis on GDP. The negative coefficient reflects the adverse economic consequences of heightened financial instability, where a higher FSI's value corresponds to greater financial stress and a lower value of FSI indicates stable financial conditions. These findings are in line with Park and Mercado. (2014), Cima, (2018) also found negative relations.

FDI is an investment across the border to create business operations, it plays a crucial role in economic growth by technology transfer providing capital and job creation, which leads to increased productivity. The results of FDI suggest that it has a positive impact on economic growth, which means an increase in FDI leads to a boost in economic growth. The different FDI coefficients for POLS, fixed and random effect models indicate that every unit increases in FDI by one unit, GDP increases by 0.157, 0.306 and 0.182units respectively. Further, its t-value and p-value indicate the fact that the estimated coefficient of the FDI is insignificant. It indicates that FDI may have a growth-enhancing effect, while other factors such as institutional quality, domestic economic policy and macroeconomic stability may play a more critical role in predicting economic growth. An insignificant result means we cannot confidently conclude that FDI has a reliable and direct effect on economic growth. During a financial crisis, FDI inflows decline due to uncertainty, tighter credit and limited investor confidence. It leads to limiting the economic activities in developing countries that depend on foreign investment (Zhang & Chen, 2025). The population's coefficients of POLS fixed, and random effect models are 0.655, 1.270 and 0.849, which means one-unit increase in population, GDP increases by 0.655, 1.270 and 0.849 units respectively. Further, its t-value and p-value indicate the fact that the estimated coefficient of the population is significant at 10% alpha. Our result is in line with Alam, *et al.* (2024) also found a positive relation with GDP growth, which indicates this link may be attached to a larger workforce, improved labor productivity and increased consumer demand that boost economic growth (Shehzadi, 2023; Shehzadi and Wetzel, 2024). But the magnitude of this effect differs depending on the estimation techniques, indicating that human capital quality, institutional factors and availability of resources may influence the strength of this relationship.

The export's coefficients of POLS fixed, and random effect models are 0.042, 0.042 and 0.40, respectively, which meansevery unit increase in exports, GDP increases by these respective figures. Positive coefficients indicate that exports are a driving factor for economic growth. These results are consistent with classical and endogenous growth theories, which focus on the positive impact of trade on economic development (Jones, 2021, Rauf et al. 2022). Exports provide economies of scale, boost productivity via competition, and enable technology to spread from international markets, resulting in boost to economic growth (Liu et al, 2023). Further, its t-value and p-value indicate the fact that the estimated coefficients of the exports are significant, indicating that the association is relatively strong. The p-value is slightly higher than the typical 0.05 threshold, so there is uncertainty, but the results still support the hypothesis that exports positively influence economic growth. The rule of law's coefficients of POLS, fixed and random effect models are 0.720, 1.682 and 1.067, respectively, which suggests that an improvement in the rule of law by one unit, GDP increases by this respective amount. These findings suggest that better legal institutions and governance boost economic production. The fixed effect model, which controls for time-invariant country factors, has the largest impact, indicating that changes in the rule of law in a country over time have a positive and strongly significant impact on economic

growth. The results of the random effect model suggest that slightly smaller but still positive effects, and marginally significant at the 10% level, indicating moderate evidence of a relationship, accounting for both within and between country variations. The POLS provides the lowest positive and insignificant result, fails to account for unobserved heterogeneity without controlling for country-specific factors. POLS suggest that the effect of the rule of law is not robust. Findings suggest that strengthening the rule of law is advantageous. The GFCF plays a crucial role in shaping economic growth as evidenced by its significant positive impact on growth.The GFCF's coefficients of POLS, fixed and random effect models are 0.239, 6.55 and 8.40, respectively, indicatingthat fora unit increase in GFCF, GDP increases by these respective figures. Further, its t-value is 8.63, 6.55, 8.40, and its p-value is 0.000, 0.000 and 0.000, respectively, which indicates the fact that the estimated coefficient of the GFCF is significant, indicating solid evidence against the null hypothesis of no effect. The fixed and random effect models indicate a stronger impact compared to POLS. These findings highlight the strength of the relationship between capital investment and economic production, aligning with classical economic growth models like the Solow-Swan model, which focus on capital accumulation that is a key driver of economic growth in the long run.

The Labor force with basic education's coefficients of POLS, fixed and random effect models are 2.722, 0.255 and 0.224, respectively indicates that if the labor force with basic education increases by the year of education or additional training, GDP increases by these respective figures, with the largest effect observed in the POLS model. T and p value indicate that this effect is statistically insignificant, indicating that there is insufficient evidence to confirm a robust relationship. The result is in line with and Amir, et al (2015) observed a positive and weak association between basic education and economic growth. This suggests that basic education is a crucial factor, but education alone may not be a sufficient factor to significantly drive growth without higher education, technological advancement and development skills. This weak relation may be because a basic education level does not sufficiently increase skills, productivity and innovation.

Conclusion

This study was used to evaluate the impact of the financial crisis on the economic growth of selected South Asian countries, including India, Pakistan and Sri Lanka. For this purpose, data was taken from WDI and ARIC, and fixed effects and random effect models were applied. The Hausman test (p value 0.08) indicated that the random effect is preferred. The results indicate that FSI is negatively and significantly influenced by economic growth. During a crisis, investors lose their confidence, and financial institutions may not work properly. FDI and labor force education have a positive and insignificant influence on growth. FDI and education are crucial factors for an economy. Only basic education is an insufficient factor; skilled labor and innovative labor need to boost economic performance. The rule of law is positive and insignificant in POLS but significant in fixed and random effect models. Strong legal institutions play a vital role in shaping the overall economy. While export, population growth, and GFCF have a positive and significant impact in all cases on economic growth. GFCF is a crucial key driver for long-term growth, disruption in GFCF often declines in growth. Exports increase in foreign exchange and population proved a potential labor force and market demand for a country.

Policy implication

This research highlighted key policy measures to increase economic resilience in interested countries during a crisis. Improving early warning systems, strengthening financial regulation, and macroprudential tools are crucial for stability. Encouraging investment by tax incentives, entrepreneurship, export-oriented regulations such as trade liberalization, expansion of markets and infrastructural development support growth. Education's direct impact on growth is limited; Youth and an expanding labor force can serve as stabilizing factors for market demand and

recovery in long-term growth. Policymakers should implement targeted human capital development policies. The government should take productive steps to invest in healthcare, basic and technical education, and vocational training centers for youth can enhance labor productivity during and after the crisis. Institutional quality, especially the rule of law, boosts the confidence level of investors and resource efficiency. Strict rules of law and judicial system can enhance growth. Effective crisis management can accelerate recovery.

References

Adhikari, R. (2023). The Impact of Institutional Quality on Economic Growth in South Asia. *International Research Journal of Management Science*, 8(1), 45–58.

Afolabi, Joshua Adeyemi, and Isiaka Akande Raifu. 2025. "Toward Economic Resilience in Sub-Saharan Africa: The Role of Institutional Quality and Human Capital Development." *Sustainable Development* 33(2):2566–78.

Ahmed, V., & Wahab, A. (2019). Macroeconomic policy, crises and growth in South Asia. *South Asia Economic Journal*, 20(1), 1–22.

Ahmed, V., & Wahab, A. (2019). Macroeconomic policy, crises and growth in South Asia. *South Asia Economic Journal*, 20(1), 1–22.

Alam, S., Das, S. K., Dipa, U. R., & Hossain, S. Z. (2024). Predicting financial distress through ownership pattern: dynamics of financial resilience of Bangladesh. *Future Business Journal*, *10*(1), 91.

Aman, Zunaira, Brigitte Granville, Sushanta K. Mallick, and Ilayda Nemlioglu. 2024. "Does Greater Financial Openness Promote External Competitiveness in Emerging Markets? The Role of Institutional Quality." *International Journal of Finance & Economics* 29(1):486–510.

Amir, H., Khan, M., & Bilal, K. (2015). Impact of the educated labor force on Economic growth of Pakistan: A human capital perspective. *European Online Journal of Natural and Social Sciences*, *4*(4), 814-831. Approach. *IRASD Journal of Economics*, *5*(1), 52-62.

Ashfaq, M. H., Ali, S., Anam Shehzadi, Q. A., & Shaukat, M. U. (2024) Health Cost and Socioeconomic Status of Drainage Channel Dwellers in Faisalabad, Pakistan. *Journal of Sustainable and Economic Development, 2(2),* 91-98.

Bandara, Y. M., & Karunaratne, H. D. (2021). Financial crisis and macroeconomic instability: Evidence from Sri Lanka. *Sri Lanka Journal of Economic Research*, 9(2), 35–54.

Barro, Robert J. 1991. "Economic Growth in a Cross Section of Countries." *The Quarterly Journal of Economics* 106(2):407–43.

Barro, Robert, and Xavier Sala-i-Martin. 2004. "Economic Growth Second Edition."

Becker, Gary S. 1964. *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education*. Vol. 3. University of Chicago Press Chicago.

Bernanke, Ben. 1999. "The Financial Accelerator in a Quantitative Business Cycle Framework." *Handbook of Macroeconomics* 1.

Bhujabal, Padmaja, Narayan Sethi, and Purna Chandra Padhan. 2024. "Effect of Institutional Quality on FDI Inflows in South Asian and Southeast Asian Countries." *Heliyon* 10(5).

Borensztein, Eduardo, Jose De Gregorio, and Jong-Wha Lee. 1998. "How Does Foreign Direct Investment Affect Economic Growth?" *Journal of International Economics* 45(1):115–35.

Bvirindi, Tinashe C., and Ode-IchakpaInalegwu. 2024. "The Impact of the Global Financial Crisis and the European Sovereign Debt Crisis on the Capital Structure of Firms in

Europe: Do SMEs, and Listed Firms Respond the Same?" *The European Journal of Finance* 30(8):889–913.
Calvo, Guillermo A. 1998. "CAPITAL FLOWS AND CAPITAL-MARKET CRISES: The Simple Economics of Sudden Stops." *Journal of Applied Economics* 1(1):35–54.
Chao, Kun, Shixue Wang, and Meijia Wang. 2025. "Human Capital Investment, Technological Innovation, and Resilience of Chinese High-End Manufacturing Enterprises." *Sustainability* 17(1):247.
Cima, J., & Almeida, Á. S. (2018). *Health Expenditure, GDP Growth and the Financial Crisis: A Panel Data Analysis for OECD European Countries* (No. 602). Universidade do Porto, Faculdade de Economia do Porto.
Citterio, Alberto. 2024. "Bank Failure Prediction Models: Review and Outlook." *Socio-Economic Planning Sciences* 92:101818.
Coulibaly, Issiaka, Blaise Gnimassoun, Hamza Mighri, and Jamel Saadaoui. 2024. "International Reserves, Currency Depreciation and Public Debt: New Evidence of Buffer Effects in Africa." *Emerging Markets Review* 60:101130.
Dinh, L. Q., Oanh, T. T. K., & Ha, N. T. H. (2025). Financial stability and sustainable development: perspectives from fiscal and monetary policy. *International Journal of Finance & Economics*, *30*(2), 1724-1741.
Fabozzi, F. J. (2025). *Capital markets: institutions, instruments, and risk management*. Mit Press.
Faisal, S. M., Salari, T. E., &Adibian, M. S. (2024). What is the effect of the 2008 economic crisis and the Covid-19 pandemic crisis on oil consumption in selected OECD countries? *Energy Policy*, *188*, 114055.
Fayaz, M., Rahman, S. U., & Rauf, A. (2020). The influence of environmental factors and access to financial capital on the link between entrepreneurial orientation and SMEs performance: a case from Pakistan. *Global Social Sciences Review*, *5*(1), 146-153.
Flammer, Caroline, and Ioannis Ioannou. 2021. "Strategic Management during the Financial Crisis: How Firms Adjust Their Strategic Investments in Response to Credit Market Disruptions." *Strategic Management Journal* 42(7):1275–98.
Ghulam, Y., Hakro, A. N., &Naumani, O. (2025). SMEs' access to bank financing during the financial crises in Europe. *Journal of Small Business Strategy*, *35*(1), 74-96.
Grossman, Gene M., and Elhanan Helpman. 1993. *Innovation and Growth in the Global Economy*. MIT press.
Hausmann, Ricardo, Jason Hwang, and Dani Rodrik. 2007. "What You Export Matters." *Journal of Economic Growth* 12:1–25.
Herath, Chamodya, Madhura Tajan Fernando, and Hansini Pramudika. 2024. "The Effect of Resilient Supply Chains on Sustainable Trade in Sri Lanka's Export Sector in a VUCA World."
Jones, Erik, R. Daniel Kelemen, and Sophie Meunier. 2021. "Failing Forward? Crises and Patterns of European Integration." *Journal of European Public Policy* 28(10):1519–36.
Jones, Erik, R. Daniel Kelemen, and Sophie Meunier. 2021. "Failing Forward? Crises and Patterns of European Integration." *Journal of European Public Policy* 28(10):1519–36.
Kaminsky, Graciela L., and Carmen M. Reinhart. 1999. "The Twin Crises: The Causes of Banking and Balance-of-Payments Problems." *American Economic Review* 89(3):473–500.
Kaufmann, Daniel, Aart Kraay, and Massimo Mastruzzi. 2005. *Governance Matters IV: Governance Indicators for 1996-2004*. Vol. 3630. Citeseer.
Khan, Mushtaq. 2012. "Governance and Growth: History, Ideology and Methods of Proof." *Good Growth and Governance in Africa: Rethinking Development Strategies* 51:79.

Khan, G. Y., Ehsan, M., Javaid, S., Qadeem, S. E. Y., & Rahman, S. U. (2025). The Role of Fiscal Decentralization in Promoting Regional Economic Convergence. *Social Science Review Archives*, *3*(1), 2046-2056.

Läger, F., Bouzzine, Y. D., & Lueg, R. (2025). Carbon performance and corporate financial performance during crises: Evidence from the COVID-19 pandemic and the Global Financial Crisis. *Journal of Industrial Ecology*, *29*(1), 246-263.

Leoni, Silvia. 2025. "A Historical Review of the Role of Education: From Human Capital to Human Capabilities." *Review of Political Economy* 37(1):227–44.

Li, W. (2025). Public liquidity and financial crises. *American Economic Journal: Macroeconomics*, *17*(2), 245-284. Listed Firms Respond the Same?" *The European Journal of Finance* 30(8):889–913.

Li, X. L., & Zhang, R. J. (2025). Effects of credit misallocation on systemic risk of non-financial corporations: The role of monetary policy. *China Economic Review*, 102450.

Liaqat, M., Qaiser, I., & Shehzadi, A. (2024). Brain Drain, Key Factors Determining Student's Return Intention from Abroad: Evidence from Pakistan. *Forman Journal of Economic Studies*, *20*(02), 33-53.

Liu, Tie-Ying, and Ye Lin. 2023. "Does Global Warming Affect Unemployment? International Evidence." *Economic Analysis and Policy* 80:991–1005.

Longchar, Pangjungkala, Tanima Dutta, and ApangjungbaApangjungba. 2025. "Policy Perspective: A Comparative Look at Education Strategies and Economic Development in China and India." Pp. 73–96 in *International Academic Transformations and Cross-Border Collaborations*. IGI Global Scientific Publishing.

Lucas Jr, Robert E. 1988. "On the Mechanics of Economic Development." *Journal of Monetary Economics* 22(1):3–42.

Malthus, Thomas Robert. 1888. *An Essay on the Principle of Population: Or A View of Its Past and Present Effects on Human Happiness*. Reeves & Turner.

Mughal, K., Khan, I., & Usman, F. (2016). The impacts of the financial crisis on Pakistan economy: An empirical approach. *International Journal of Empirical Finance*, 258-269.

Naidoo, T., Moores-Pitt, P., &Muzindutsi, P. F. (2025). The effect of investor sentiment on stock market liquidity under changing market conditions: evidence from South Africa. *Cogent Economics & Finance*, *13*(1), 2444395.

Nasir, M., & Ali, M. (2018). The impact of global financial crisis on South Asian economies: Evidence from GFCF and GDP. *Asian Journal of Economic Modelling*, 6(1), 19–28.

NIEKO, Vladyslava. 2024. "THE ROLE OF EDUCATION IN POST-WAR SOCIAL REHABILITATION." *Editorial Board* 118.

Notteboom, Theo, Thanos Pallis, and Jean-Paul Rodrigue. 2021. "Disruptions and Resilience in Global Container Shipping and Ports: The COVID-19 Pandemic versus the 2008–2009 Financial Crisis." *Maritime Economics & Logistics* 23(2):179.

Noureen, Shabana. 2024. "Essays on Exploring Trade Costs, Facilitation and Export Potential in Pakistan." PhD Thesis, School of Social Sciences & Humanities (S3H), NUST.

Panagariya, Arvind. 2010. *India: The Emerging Giant*. Oxford University Press.

Park, C. Y., & Mercado Jr, R. V. (2014). Determinants of financial stress in emerging market economies. *Journal of Banking & Finance*, *45*, 199-224.

Raza, S. A., Jawaid, S. T., & Qamar, B. (2015). Does financial development contribute to economic growth? Role of crises: An empirical investigation from South Asian economies. *South Asian Journal of Global Business Research*, 4(2), 330–344.

Rauf, F., Wanqiu, W., Jing, L., Qadri, S. U., Naveed, K., & Rahman, S. U. (2022). Dynamic analysis of the determinants of long-term microfinance interest rates: Macro and micro factors. *Frontiers in Psychology*, *13*, 1008002.

Raza, S. A., Jawaid, S. T., & Qamar, B. (2015). Does financial development contribute to economic growth? Role of crises: An empirical investigation from South Asian economies. *South Asian Journal of Global Business Research*, 4(2), 330–344.

Reinhart, Carmen M., and Kenneth S. Rogoff. 2009. *This Time Is Different: Eight Centuries of Financial Folly*. Princeton University Press.

Ricardo, David. 1821. *On the Principles of Political Economy*. J. Murray London.

Romer, Paul M. 1990. "Endogenous Technological Change." *Journal of Political Economy* 98(5, Part 2): S71–102.

Schultz, Theodore W. 1961. "Investment in Human Capital." *The American Economic Review* 51(1):1–17.

Shehzadi, A. (2023). Energy efficiency and productivity in emerging and developing Asian countries: A firm level analysis. *Journal of Asian Economics*, *88*(C).

Shehzadi, A., & Wetzel, H. (2024). Self-generation and outage losses: A firm-level analysis for emerging and developing Asian countries. *Energy Reports*, *11*, 2832-2840.

Solow, Robert M. 1956. "A Contribution to the Theory of Economic Growth." *The Quarterly Journal of Economics* 70(1):65–94.

Ur Rahman, S., Khalil, A., Cavaliere, L. P. L., & Ben Khelifa, S. (2023). Board of directors' attributes and capital structure: evidence from Pakistani-listed non-financial firms. *Journal of Economic and Administrative Sciences*.

Ullah, A., Özmen, İ., Bukhari, A. A. A., Pervaiz, A., Bukhari, W. A. A., & Shahzadi, H. (2025). The Impact of Economic Policy Uncertainty on China's Business and Consumer Confidence: A Quantile-Based Analysis. *Journal of the Knowledge Economy*, 1-28.

Ur Rahman, S., Kakakhel, S. J., & Iqbal, K. (2014). Capital structure decision of insurance industry of Pakistan. *Abasyn J. Soc. Sci*, *7*(2).

Xaisongkham, Sorphasith, and Xia Liu. 2024. "Institutional Quality, Employment, FDI and Environmental Degradation in Developing Countries: Evidence from the Balanced Panel GMM Estimator." *International Journal of Emerging Markets* 19(7):1920–39.