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MACROECONOMIC CONDITIONS AND THE FINANCIAL LIBERALIZATION-STOCK RETURN NEXUS: EVIDENCE FROM EAST AFRICAN COMMUNITY MARKETS

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Abstract

This study examined whether macroeconomic conditions moderate the relationship between financial liberalization and stock market returns in East African Community (EAC) equity markets. Financial liberalization was measured using country foreign assets and foreign liabilities, while inflation, interest rate, and broad money supply represented the macroeconomic environment. The study adopted a positivist philosophy and an explanatory longitudinal panel design. Annual secondary data for Kenya, Uganda, Tanzania, and Rwanda covered 2002-2021; the estimable panel contained 70 country-year observations. Fixed-effects panel regressions were selected using Hausman specification tests, and moderation was evaluated through mean-

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centred interaction terms. Inflation did not moderate either liberalization pathway: the foreign-assets-by-inflation interaction was insignificant (beta = 0.022776, p = 0.543), as was the foreign-liabilities-by-inflation interaction (beta = 0.057137, p = 0.170). Interest rate significantly conditioned both pathways (beta = 0.428451, p = 0.007 for foreign assets; beta = 0.728978, p < 0.001 for foreign liabilities). Money supply also produced significant positive interactions (beta = 0.673985 and beta = 0.800171, both p < 0.001). The findings show that financial openness does not operate independently of domestic monetary conditions. EAC governments should coordinate capital-account and market-opening reforms with predictable interest-rate policy and adequate, non-inflationary liquidity. Because interaction coefficients depend on centring and measurement scales, policy interpretation should emphasize conditional effects rather than treating moderator coefficients as universal causal parameters.

Keywords: Financial Liberalization, Foreign Assets, Foreign Liabilities, Interest Rate, Money Supply, Stock Market Returns, East African Community

INTRODUCTION

Background

Financial liberalization removes or relaxes restrictions on capital flows, foreign participation, credit allocation, interest rates, and entry into financial markets. In the McKinnon-Shaw framework, liberalization can improve saving, investment, and capital allocation by replacing administratively repressed finance with market-based signals (Abiad et al., 2008; McKinnon, 1973; Shaw, 1973). For equity markets, openness can broaden the investor base, improve risk sharing, encourage institutional development, and increase the information incorporated into prices. These mechanisms provide a basis for expecting foreign assets and foreign liabilities to be positively associated with stock market performance.

The benefits are not automatic. Cross-border capital responds to domestic financing costs, liquidity conditions, inflation expectations, and policy credibility. An open equity market exposed to volatile interest rates may face higher discount rates, expensive working capital, portfolio rebalancing toward fixed-income assets, and sudden reversals in foreign investment. Conversely, an adequate money supply can support trading liquidity and real activity, although excessive monetary expansion may eventually undermine stability. Keynes's general theory places interest rates and money balances at the centre of investment and asset valuation, implying that the transmission of financial openness depends on the domestic macroeconomic setting (Keynes, 1936).

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These conditional relationships matter in the EAC. Kenya, Uganda, Tanzania, and Rwanda have pursued market reforms and regional integration while retaining different monetary structures, inflation experiences, interest-rate paths, and capital-market depths. Their exchanges remain small relative to mature markets, and foreign participation can materially influence turnover and valuation. A policy that opens markets without attending to the monetary environment may therefore produce weaker or less stable outcomes than a coordinated reform package.

Problem Statement

Prior evidence generally associates financial openness with improved allocation and market development, but the reported effects on returns and volatility remain mixed. Financial liberalization may reduce financing constraints and improve efficiency, yet it can also transmit external shocks and intensify volatility where institutions or macroeconomic conditions are weak (Adeyeye et al., 2017; Naghavi & Lau, 2016; Roy & Shijin, 2020). These conflicting findings indicate that a direct liberalization-return model is incomplete.

Macroeconomic studies often estimate the independent effects of inflation, interest rates, and money supply on stock returns. Such models do not establish whether these variables change the strength of the liberalization-return relationship. Evidence from China suggests that the gains from financial liberalization can depend on the broader environment (Wang & Luo, 2019), while threshold research shows that openness performs differently across levels of governance and institutional development (Naghavi et al., 2018). The EAC literature has offered limited multi-country interaction evidence using a consistent panel specification.

This article addresses that gap by testing whether inflation, interest rate, and money supply moderate the effects of foreign assets and foreign liabilities on stock market returns in four EAC member countries. It is distinct from analyses of the direct effect of liberalization and the mediating role of market liquidity: its contribution is to identify the domestic macroeconomic conditions under which liberalization effects vary.

LITERATURE REVIEW

Theoretical Foundation

Financial Liberalization Theory predicts that reducing financial repression raises the return to saving, expands investible resources, and directs capital toward more productive uses (McKinnon, 1973; Shaw, 1973). International openness further permits portfolio diversification and external financing. In this study, country foreign assets represent residents' external financial claims, whereas foreign liabilities represent non-residents' claims on the domestic

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economy. Both indicators capture integration with international finance, although their channels differ: foreign assets reflect outward diversification and accumulated external positions, while foreign liabilities more directly reflect external capital entering domestic markets.

The General Theory of Employment, Interest and Money explains why monetary conditions may alter these channels (Keynes, 1936). Interest rates affect the opportunity cost of holding equity, the present value of expected cash flows, and firms' borrowing costs. Money supply influences liquidity, credit conditions, and aggregate demand. Inflation affects real returns and expectations, but its role can vary depending on whether it reflects demand, supply shocks, or monetary accommodation. Combining the two perspectives yields a conditional proposition: liberalization can support returns, but the size of that effect depends on the macroeconomic environment in which capital is allocated.

Efficient Market Theory provides a complementary valuation channel. If prices incorporate available information, changes in inflation, policy rates, and monetary aggregates should be reflected in expected cash flows and discount rates (Fama, 1970). Financial openness increases the number and diversity of informed investors, but it can also make domestic prices more sensitive to policy news. Significant interaction effects would therefore show that macroeconomic information changes how international financial positions are translated into observed market returns.

Empirical Evidence and Hypotheses

Evidence on liberalization is not uniform. Naghavi and Lau (2016) linked financial liberalization to stock market efficiency in emerging markets, while Naghavi et al. (2018) found that institutional thresholds shape the effect. Zemel and Zhang (2019) documented abnormal returns around Chinese liberalization, showing that opening announcements can affect valuation even when liquidity responses are not immediate. In Africa, Adeyeye et al. (2017) found that liberalization increased Nigerian stock-market volatility. Collectively, the literature supports a positive opportunity channel but also warns that country conditions influence realized outcomes.

Inflation can reduce real dividends and raise uncertainty, although firms may partly pass price increases through to revenues. Nigerian studies report material inflation-return relationships, but their direction and strength depend on the sample and specification (Daferighe & Sunday, 2012; Ibrahim & Agbaje, 2013). Because inflation can deter foreign capital and increase required returns, it may condition the benefits of openness. The study therefore tested H01a: inflation does not significantly moderate the relationship between foreign assets and

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stock market returns; and H01b: inflation does not significantly moderate the relationship between foreign liabilities and stock market returns.

Interest rates enter equity valuation through discounting, financing costs, and asset substitution. Higher rates can depress present values and encourage investors to shift toward interest-bearing securities. Elly and Ndegwa (2017) demonstrated that macroeconomic variables are relevant to Nairobi Securities Exchange returns. The conditional question is whether changes in rates also alter the marginal return associated with international financial integration. Accordingly, H01c stated that interest rate does not significantly moderate the foreign-assets-return relationship, and H01d stated that interest rate does not significantly moderate the foreign-liabilities-return relationship.

Money supply can expand transaction balances, improve credit availability, and support asset demand. It may therefore help international capital translate into trading activity and corporate investment. However, monetary expansion can also create inflationary pressure, making the net effect empirical. H01e stated that money supply does not significantly moderate the relationship between foreign assets and stock market returns; H01f stated that money supply does not significantly moderate the relationship between foreign liabilities and stock market returns.

METHODOLOGY

Design, Scope, and Data

The study followed a positivist philosophy and an explanatory longitudinal panel design. The unit of analysis was the country-year. Kenya, Uganda, Tanzania, and Rwanda were selected because they had active stock exchanges and sufficiently comparable data during the study period. Annual observations covered 2002-2021. After aligning the variables and accounting for missing observations, the regression panel comprised 70 observations across four countries. Secondary data were compiled from stock-exchange databases, financial reports, and international economic databases, including the World Development Indicators (World Bank, n.d.).

The 2002-2021 window was selected for four reasons. First, it begins after the principal financial liberalization reforms in the region had taken effect and after the Treaty re-establishing the East African Community entered into force in July 2000, so the sample reflects markets operating under a liberalized and increasingly integrated regime rather than the transition away from financial repression. By 2002, the Nairobi Securities Exchange, the Uganda Securities Exchange, and the Dar es Salaam Stock Exchange were all operational, the latter two having commenced trading in 1998, which reduces the distortion of thin start-up trading. Second, the

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period spans the main regional integration milestones that shaped cross-border capital flows, namely the EAC Customs Union (2005), Rwanda's accession to the Community (2007), and the Common Market Protocol (2010). Third, and most important for a moderation design, the window captures wide variation in the moderating variables: the 2008-2009 global financial crisis, the 2011 inflation and exchange-rate pressures that prompted sharp policy-rate increases in Kenya and Uganda, Kenya's statutory interest-rate cap (2016-2019), and the monetary easing that accompanied the COVID-19 pandemic in 2020-2021. Interaction effects can only be detected when moderators vary sufficiently over the sample, and these episodes provide that variation. Fourth, 2021 was the most recent year for which harmonized annual data on all study variables were available for the four countries at the time of data collection, and a 20-year time dimension provides adequate within-country variation for fixed-effects estimation. Organized equity trading in Rwanda began later in the period (an over-the-counter market opened in 2008 and the Rwanda Stock Exchange was formally launched in 2011); this later start, together with other gaps in the series, accounts for the estimable panel containing 70 rather than 80 country-year observations.

Stock market return was the dependent variable. Financial liberalization was represented by the natural logarithms of country foreign assets and foreign liabilities. Inflation rate, real interest rate, and broad money supply represented macroeconomic conditions. The moderator and liberalization variables were centred before interaction terms were computed. Centring does not change the significance of the interaction but makes the lower-order coefficients interpretable at the moderator's sample mean and reduces non-essential multicollinearity.

Table 1. Variable Operationalization

Variable	Role	Operational measure	Expected relation
Stock market return	Dependent	Annual market return	Not applicable
Foreign assets (FA)	Predictor	Natural log of country foreign assets	Positive
Foreign liabilities (FL)	Predictor	Natural log of country foreign liabilities	Positive
Inflation rate (IFR)	Moderator	Annual inflation rate	Conditional/negative
Interest rate (IR)	Moderator	Annual real interest rate	Conditional/negative
Money supply (MS)	Moderator	Broad money measure	Conditional/positive

*Note. * $p < 0.05$.*

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Model Specification and Decision Rule

Panel diagnostics were conducted before hypothesis testing. The Hausman specification test guided the choice between random-effects and fixed-effects estimators; fixed effects were selected for the moderation models to control for time-invariant country characteristics. Each moderator was assessed in two pathways, one using foreign assets and one using foreign liabilities. The core specification was: SMR_it = beta_0 + beta_1 FLIB_it + beta_2 MACRO_it + beta_3(FLIB_it x MACRO_it) + alpha_i + epsilon_it, where SMR is stock market return, FLIB is the relevant liberalization indicator, MACRO is inflation, interest rate, or money supply, alpha_i is the country effect, and epsilon_it is the idiosyncratic error.

Moderation was established when the interaction coefficient beta_3 was statistically significant at the 5% level (Baron & Kenny, 1986). The significance of a moderator's main effect alone was not sufficient. This distinction is important: a macroeconomic variable may affect returns directly without changing the liberalization slope, or it may change that slope even if its average direct effect is weak.

RESULTS AND DISCUSSION

Baseline Financial Liberalization Model

The baseline fixed-effects model showed that both dimensions of financial liberalization were positively associated with stock market returns. Foreign assets had a coefficient of 0.417036 ($p < 0.001$), while foreign liabilities had a coefficient of 0.203428 ($p = 0.003$). The model explained 65.13% of the variation in returns (R-squared = 0.6513), and the overall F-test was significant ($p < 0.001$). These results established the direct association required before considering whether macroeconomic variables altered its strength.

Inflation as a Moderator

When foreign assets and inflation entered together, foreign assets remained positive and significant (beta = 0.437300, $p < 0.001$), whereas inflation was insignificant (beta = -0.034930, $p = 0.549$). Adding the interaction did not change the conclusion: FA x IFR was insignificant (beta = 0.022776, $p = 0.543$).

For foreign liabilities, the predictor remained significant in both the additive and interaction models, but FL x IFR was also insignificant (beta = 0.057137, $p = 0.170$). H01a and H01b were therefore not rejected.

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Table 2. Inflation Moderation Results

Pathway/model	Predictor beta (p)	Inflation beta (p)	Interaction beta (p)	R-squared
FA + IFR	0.437300* (<.001)	-0.034930 (.549)	-	0.6011
FA + IFR + FAxIFR	0.401588* (<.001)	-0.360180 (.504)	0.022776 (.543)	0.6034
FL + IFR	0.052610* (.004)	-0.062710 (.472)	-	0.1256
FL + IFR + FLxIFR	0.131980* (.031)	-0.927080 (.146)	0.057137 (.170)	0.1515

*Note. * $p < 0.05$.*

The inflation result indicates that, within the observed country-years and model specification, differences in inflation did not materially change the slope relating either international financial position to returns. This does not mean that inflation is irrelevant to investors or welfare. It means that the moderation test did not identify a stable conditional effect at the 5% level. The finding differs from studies that report direct inflation-return effects, illustrating why direct and interaction hypotheses should not be conflated.

Interest Rate as a Moderator

Interest rate produced a different pattern. In the foreign-assets additive model, foreign assets were positive (beta = 0.843441, $p < 0.001$) and interest rate was negative (beta = -0.586726, $p = 0.048$). In the interaction model, the foreign-assets coefficient remained significant, the interest-rate coefficient was negative and significant, and FA x IR was significant (beta = 0.428451, $p = 0.007$). The model R-squared rose from 0.6224 to 0.6642.

The foreign-liabilities pathway likewise showed moderation. Foreign liabilities were positive and interest rate negative in the additive model. In the interaction model, FL x IR was significant (beta = 0.728978, $p < 0.001$), while the model explained 27.11% of the variation in returns. H01c and H01d were rejected. Interest rates therefore changed the marginal relationship between liberalization and market returns in both specifications.

Table 3. Interest Rate Moderation Results

Pathway/model	Predictor beta (p)	Interest beta (p)	Interaction beta (p)	R-squared
FA + IR	0.843441* (<.001)	-0.586726* (.048)	-	0.6224
FA + IR + FAxIR	0.801868* (.018)	-5.339770* (.015)	0.428451* (.007)	0.6642

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Pathway/model	Predictor beta (p)	Interest beta (p)	Interaction beta (p)	R-squared
FL + IR	0.705308* (.003)	-0.772142* (.033)	-	0.1591
FL + IR + FLxIR	1.919640* (<.001)	-9.171150* (<.001)	0.728978* (<.001)	0.2711

*Note. * p < 0.05.*

The negative lower-order interest-rate coefficients are consistent with discount-rate and financing-cost channels: when other variables are held at their centred reference values, higher rates are associated with lower returns. The positive interaction coefficients indicate that the liberalization slope changes as interest rates change. Because variables were centred and measured on different scales, the coefficients should be interpreted conditionally; a graph of marginal effects would be required to identify turning points and the range over which the net effect strengthens or weakens. The robust conclusion from the reported models is significant moderation, not a universal one-unit policy effect.

Money Supply as a Moderator

Money supply significantly moderated both relationships. In the foreign-assets additive model, foreign assets (beta = 0.675224, p < 0.001) and money supply (beta = 0.410121, p < 0.001) were positive. When FA x MS was added, the interaction was positive and significant (beta = 0.673985, p < 0.001), and the model explained 72.12% of the variation in returns. The foreign-liabilities interaction was also positive and significant (beta = 0.800171, p < 0.001), with R-squared = 0.7457. H01e and H01f were rejected.

Table 4. Money Supply Moderation Results

Pathway/model	Predictor beta (p)	Money beta (p)	Interaction beta (p)	R-squared
FA + MS	0.675224* (<.001)	0.410121* (<.001)	-	0.7187
FA + MS + FAxMS	0.497746* (<.001)	0.586163* (<.001)	0.673985* (<.001)	0.7212
FL + MS	0.732443* (<.001)	0.396435* (<.001)	-	0.7446
FL + MS + FLxMS	0.630377* (<.001)	0.415318* (<.001)	0.800171* (<.001)	0.7457

*Note. * p < 0.05.*

The positive interactions suggest that greater monetary liquidity is associated with a stronger positive liberalization-return relationship within the observed range. Broad money can

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facilitate credit, settlement, trading, and corporate activity, enabling external financial positions to be translated into domestic market demand. Nevertheless, the result should not be read as support for unlimited monetary expansion. Sustainable benefits require liquidity growth consistent with output, inflation objectives, exchange-rate conditions, and financial stability.

Comparative Hypothesis Decisions

Table 5. Summary of Hypothesis Decisions

Hypothesis	Interaction	p-value	Decision	Inference
H01a	FA x inflation	.543	Not rejected	No moderation
H01b	FL x inflation	.170	Not rejected	No moderation
H01c	FA x interest	.007	Rejected	Significant moderation
H01d	FL x interest	<.001	Rejected	Significant moderation
H01e	FA x money supply	<.001	Rejected	Significant moderation
H01f	FL x money supply	<.001	Rejected	Significant moderation

*Note. * $p < 0.05$.*

The comparison yields a selective moderation pattern rather than a blanket macroeconomic effect. Inflation produced no significant interaction, while interest rate and money supply conditioned both liberalization indicators. This symmetry across foreign assets and liabilities strengthens the substantive inference that monetary conditions matter for the transmission of financial openness. It also extends the direct-effect literature by showing why equivalent liberalization reforms can coincide with different return outcomes across countries and periods.

CONCLUSION

This study concludes that macroeconomic conditions selectively moderate the relationship between financial liberalization and stock market returns in EAC markets. Financial liberalization remained positively related to returns, but its effect was not invariant. Inflation did not significantly moderate either the foreign-assets or foreign-liabilities pathway. Interest rate significantly moderated both pathways and carried negative lower-order coefficients, confirming that financing and discount-rate conditions are central to the environment in which openness

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operates. Money supply also significantly moderated both relationships, with positive interaction coefficients and high explanatory power.

The contribution is threefold. First, the study moves beyond a direct-effect model by treating macroeconomic policy as a boundary condition. Second, it distinguishes two dimensions of international financial integration and finds consistent moderator significance across them. Third, it supplies multi-country EAC evidence over two decades, a context in which relatively small equity markets may be especially sensitive to monetary conditions and external flows.

RECOMMENDATIONS

EAC governments should coordinate financial-opening reforms with macroeconomic policy. Capital-market authorities can ease participation barriers, improve disclosure, and support cross-border investment, but central banks and fiscal authorities should simultaneously maintain predictable interest-rate paths and credible liquidity management. Abrupt rate changes can alter discount rates, financing costs, and portfolio allocation, reducing the stability of liberalization gains.

Monetary authorities should provide sufficient system liquidity for settlement, credit, and productive investment without treating the positive money-supply interaction as a licence for unbounded expansion. Policy frameworks should anchor liquidity growth in inflation objectives, output conditions, exchange-rate pressures, and systemic-risk indicators. Capital-market regulators should monitor foreign-flow concentration, maturity structure, and reversal risk so that rising external liabilities do not create hidden fragility.

Regional institutions should improve harmonization of market rules, data standards, investor protection, and surveillance. Comparable disclosure of foreign assets, foreign liabilities, market returns, policy rates, inflation, and monetary aggregates would allow earlier detection of conditional risks. Exchanges can complement these reforms through efficient trading and settlement infrastructure, broader domestic institutional-investor participation, and instruments that help investors manage interest-rate and currency exposure.

LIMITATIONS AND FUTURE RESEARCH

The analysis has limitations. The estimable panel contained 70 observations from four countries, constraining statistical power and generalizability to newer EAC members without active or comparable exchanges. Aggregate annual data may conceal market-level, sector-level, and firm-level heterogeneity. Fixed effects control for time-invariant country characteristics but do not eliminate reverse causality, omitted time-varying variables, common regional shocks,

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or measurement error. The reported interaction coefficients are scale dependent, and the source estimates do not provide marginal-effect plots or confidence bands across the moderator distribution.

Future studies should use dynamic-panel, instrumental-variable, or panel-threshold methods; test cross-sectional dependence and common time effects; and estimate marginal effects at substantively meaningful moderator values. Quarterly or monthly data could reveal short-run transmission, while firm-level research could determine whether capitalization, leverage, export exposure, ownership, or sector changes sensitivity to foreign financial positions. Additional moderators such as exchange-rate volatility, institutional quality, fiscal balance, and global risk appetite would further explain when liberalization improves returns without undermining stability.

REFERENCES

Abiad, A., Oomes, N., & Ueda, K. (2008). The quality effect: Does financial liberalization improve the allocation of capital? *Journal of Development Economics, 87*(2), 270-282. https://doi.org/10.1016/j.jdeveco.2007.12.002

Adeyeye, P. O., Aluko, O. A., Fapetu, O., & Migiro, S. O. (2017). How financial liberalization impacts stock market volatility in Africa: Evidence from Nigeria. *Investment Management and Financial Innovations, 14*(3-1), 291-301. https://doi.org/10.21511/imfi.14(3-1).2017.13

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*(6), 1173-1182. https://doi.org/10.1037/0022-3514.51.6.1173

Daferighe, E. E., & Sunday, C. S. (2012). The impact of inflation on stock market performance in Nigeria. *American Journal of Social and Management Sciences, 3*(2), 76-82. https://doi.org/10.5251/ajsms.2012.3.2.76.82

Elly, D., & Ndegwa, E. N. (2017). The effect of macroeconomic variables on stock market returns at the Nairobi Securities Exchange. *African Development Finance Journal, 1*(1), 21-29. Retrieved October 3, 2026, from https://journals.uonbi.ac.ke/index.php/adfj

Fama, E. F. (1970). Efficient capital markets: A review of theory and empirical work. *Journal of Finance, 25*(2), 383-417. https://doi.org/10.1111/j.1540-6261.1970.tb00518.x

Ibrahim, T. M., & Agbaje, O. M. (2013). The relationship between stock return and inflation in Nigeria. *European Scientific Journal, 9*(4), 146-157. Retrieved October 3, 2026, from https://eujournal.org/index.php/esj/article/view/772

Keynes, J. M. (1936). *The general theory of employment, interest and money*. Macmillan.

McKinnon, R. I. (1973). *Money and capital in economic development*. Brookings Institution.

Naghavi, N., & Lau, W. Y. (2016). Financial liberalization and stock market efficiency: Causality analysis of emerging markets. *Global Economic Review, 45*(4), 359-379. https://doi.org/10.1080/1226508X.2016.1198921

Naghavi, N., Mubarik, M. S., & Kaur, D. (2018). Financial liberalization and stock market efficiency: Measuring the threshold effects of governance. *Annals of Financial Economics, 13*(4), 1850016. https://doi.org/10.1142/S2010495218500161

Roy, R., & Shijin, S. (2020). A tripartite inquiry into financial liberalisation-volatility-information asymmetry nexus: Global panel approach. *IIMB Management Review, 32*(1), 39-58. https://doi.org/10.1016/j.iimb.2019.07.016

Shaw, E. S. (1973). *Financial deepening in economic development*. Oxford University Press.

Wang, R., & Luo, H. (2019). Does financial liberalization affect bank risk-taking in China? *SAGE Open, 9*(4), Article 2158244019887948. https://doi.org/10.1177/2158244019887948

World Bank. (n.d.). *World Development Indicators* [Data set]. Retrieved October 3, 2026, from https://databank.worldbank.org/source/world-development-indicators

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Zemel, M., & Zhang, T. (2019). The effect of the liberalization of the Chinese stock market on returns. *Applied Economics Letters, 26*(12), 1013-1019. https://doi.org/10.1080/13504851.2018.1528054

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