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RESEARCH ARTICLE

Global Financial Integration and Economic Resilience: The Role of Cross-Border Capital Flows in Emerging Markets

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ABSTRACT

This study examines how global financial integration is associated with economic resilience through cross-border capital-flow quality and whether domestic buffering capacity conditions the direct integration–resilience association. It distinguishes the potential benefits of international finance from vulnerabilities associated with unstable funding, currency exposures, and weak financial intermediation. A cross-sectional quantitative survey yielded 480 valid responses distributed across 24 coded analytical contexts. Twenty seven-point indicators measured four perceptual constructs. Data were analyzed in SmartPLS 4 using partial least squares structural equation modeling (PLS-SEM) with 5,000 bootstrap subsamples. Measurement assessment covered indicator loadings, Cronbach's alpha, composite reliability, average variance extracted (AVE), and heterotrait–monotrait ratios (HTMT); structural assessment covered path coefficients, explained variance, effect sizes, the specific indirect effect, and the GFI × DBC interaction. Supplementary context-sensitive and predictive diagnostics were retained as robustness checks. Global financial integration was positively associated with capital-flow quality (β = 0.3316), which was positively associated with economic resilience (β = 0.3325). The specific indirect association was 0.1103, with a 95% bootstrap confidence interval of [0.0676, 0.1611]. The interaction with domestic buffering capacity was positive (β = 0.0773, p = .0396), whereas the direct integration coefficient at mean buffering capacity was positive but borderline under the context-robust test (β = 0.1096, p = .0546). Explained variance was 15.16% for capital-flow quality and 24.04% for economic resilience. GFI's AVE was 0.4970, indicating marginal convergent validity for that construct. The study contributes by empirically distinguishing international financial connectedness from the quality of cross-border financing and the domestic capacity to absorb financial stress. The findings indicate that the integration–resilience relationship is better interpreted through financing quality and conditional domestic capacity than through openness alone. Because the design is cross-sectional and perception-based, the reported relationships are interpreted as associations rather than causal policy effects.

KEYWORDS

Global financial integration; cross-border capital flows; economic resilience; emerging markets; domestic buffering capacity; mediation; moderation; PLS-SEM

ARTICLE INFORMATION

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1. Introduction

International financial integration creates a central development dilemma: access to external finance can support investment and risk sharing, yet the same financial connections can transmit shocks. An economy may receive substantial foreign funding while remaining vulnerable to sudden repricing, refinancing difficulties, or currency depreciation. Conversely, a temporary decline in inflows need not imply financial dysfunction when borrowers retain liquidity, investors absorb losses, and productive activity continues. Understanding resilience therefore requires more than measuring whether an economy is financially open. It requires identifying which financial relationships are established, how resources are used, and who bears losses when conditions deteriorate (Koepke, 2019; Lane & Milesi-Ferretti, 2018).

The distinction between growth and resilience is especially important. A period of rapid expansion financed by short-term borrowing may coexist with increasing exposure to adverse shocks. A resilient economy, as defined in this manuscript, can maintain essential economic functions, limit persistent losses, and restore activity without imposing disproportionate adjustment costs on vulnerable groups. This definition is analytical rather than a claim that a single universally accepted resilience index exists.

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Research on downside growth risk and debt accumulation illustrates why favorable average outcomes alone provide an incomplete description of economic performance (Adrian et al., 2019; Kose et al., 2021).

Emerging markets provide a relevant setting because international funding interacts with heterogeneous financial systems, exchange-rate arrangements, and institutional capacities. They should not, however, be treated as a homogeneous category. Historical assessments of emerging and developing economies emphasize differences in policy frameworks, financial development, and exposure to external disturbances. In this study, emerging markets constitute the empirical domain, while the survey captures respondent-level professional assessments of specified financial and institutional conditions. The results are therefore interpreted as relationships among perceptions rather than as national causal effects (Kose & Ohnsorge, 2020).

Three developments motivate a more differentiated framework. First, the global financial cycle links domestic financial conditions to international monetary and risk-taking conditions (Miranda-Agrippino & Rey, 2020). Second, external liabilities involve banks, corporations, sovereigns, and non-bank investors with different constraints and incentives (Avdjiev et al., 2018). Third, nominally similar capital flows can differ in their productive content and resilience implications. Together, these considerations suggest that the relationship between integration and resilience depends on financial composition and domestic capacity, rather than on an unconditional assumption that greater openness is always beneficial or always destabilizing (Chari, 2023).

The International Monetary Fund (IMF) frames the policy problem through an integrated assessment of frictions, shocks, and available instruments (IMF, 2020). Its institutional view on capital-flow management also recognizes both the benefits of international finance and circumstances in which vulnerabilities justify targeted measures (IMF, 2022). The Bank for International Settlements (BIS) places financial resilience within a broader macrofinancial assessment. These sources motivate the conditional structure used here; they do not establish the specific perceptual scales or numerical coefficients developed in this manuscript (BIS, 2024).

Investment policy research supplies a complementary perspective. The Organisation for Economic Co-operation and Development (OECD) distinguishes investment quantities from qualities associated with sustainable development (OECD, 2019). The United Nations Conference on Trade and Development (UNCTAD) considers investment facilitation and digitalization within changing investment environments. This manuscript draws on those perspectives to define capital-flow quality as perceived persistence, productive orientation, source diversity, and manageable financial risk. The definition deliberately avoids equating quality with foreign direct investment alone, or treating every portfolio inflow as economically undesirable (UNCTAD, 2024, 2025).

The central research question is: through what financing channel, and under what domestic conditions, is global financial integration associated with economic resilience in emerging markets? Three subsidiary questions clarify the design. Does integration relate to the perceived quality of cross-border funding? Does that quality account for an indirect association with resilience? Does domestic buffering capacity change the direct integration–resilience relationship? The study model addresses these questions through a mediator and a moderator while retaining buffering capacity's own association with both financing quality and resilience.

The empirical contribution is to test this conditional framework using a completed cross-sectional quantitative survey and an explicit measurement model. The analysis distinguishes construct measurement from structural relationships, retains unfavorable or borderline diagnostics, and reports direct, indirect, and interaction estimates within one coherent empirical framework. Because all variables were measured within a cross-sectional perception-based design, statistical significance and model fit are not treated as evidence of causal identification (Flake & Fried, 2020; Rohrer, 2018).

1.1 Variable and theory 1: global financial integration and international risk sharing

Global financial integration refers broadly to connections between domestic financial actors and international financial markets. Those connections can be represented by external asset and liability positions, cross-border transactions, ownership links, market access, or legal restrictions. These measures answer different questions. Positions describe accumulated exposures; transactions describe changes generated by financial activity during a period; legal restrictions describe permitted transactions rather than realized participation (Lane & Milesi-Ferretti, 2018). The external wealth of nations research provides an established basis for examining international positions, but its aggregates should not be relabelled as annual capital flows (Milesi-Ferretti, 2026).

A risk-sharing argument predicts potential benefits when external investors help finance productive activity and absorb shocks that would otherwise fall entirely on domestic households and firms. Access to a broader financing pool can also reduce reliance on a narrow group of domestic lenders. These mechanisms are conditional. Contract design, maturity, currency denomination, and the behavior of investors determine whether financial connections redistribute risk or amplify it. The framework therefore interprets integration as an opportunity set, not as proof that diversification or productive allocation has actually occurred (Pasricha & Nier, 2022).

The competing financial-cycle argument emphasizes the sensitivity of financial conditions to global monetary and risk factors. A country can experience changing financing conditions even when domestic fundamentals move little. Evidence on U.S. monetary policy and on extreme capital-flow movements motivates explicit attention to external forces. Under this perspective, greater

integration may increase exposure to synchronized deleveraging or changes in investor demand. The theoretical prediction for an unconditional integration coefficient is consequently ambiguous, which is why the positive hypothesis below is restricted to a clearly specified conditional setting (Forbes & Warnock, 2021; Miranda-Agrippino & Rey, 2020).

At the survey level, global financial integration refers to an informed respondent's assessment of international financial connectedness in a specified economy and institutional context. A seven-point agreement score is not equivalent to a balance-of-payments measure. This distinction constrains the scope of inference: relationships among perception scores describe respondent-level assessments and are not interpreted as national growth or resilience elasticities.

1.2 Variable and theory 2: cross-border capital-flow quality and financial intermediation

Cross-border capital-flow quality is defined as the extent to which external finance is perceived to provide persistent, appropriately structured, diversified, and productively deployed funding. The concept combines an intermediation perspective with attention to development outcomes. External resources must be allocated through institutions, contractual relationships, and firms before they can support investment or cushion adjustment. Evidence on multinational production demonstrates the importance of selection and market reallocation (Alfaro & Chen, 2018), while investment-quality frameworks emphasize outcomes beyond the nominal value of capital entering a country (OECD, 2019).

Gross financial categories require careful interpretation. Financial positions routed through special-purpose entities can inflate apparent direct-investment connections without equivalent local production (Damgaard et al., 2019). Likewise, the creditor sector matters because banks, funds, and other investors respond to different constraints. These distinctions imply that capital-flow quality cannot be inferred mechanically from total inflows or a single accounting label. A genuine empirical study should examine the identities of lenders and borrowers, financing purposes, and the distribution of maturity and currency exposures (Cerutti et al., 2019).

The measurement model treats cross-border capital-flow quality as a reflective perceptual construct: a favorable assessment of external funding quality is expected to generate correlated item responses. This assumption remains theoretically contestable because persistence, source diversity, productive use, and manageable financial risk can also be interpreted as distinct components of a multidimensional index (Henseler, 2021). Construct specification is therefore treated as a substantive modeling decision rather than as a device for obtaining preferred statistics (Hair et al., 2021).

The quality concept also includes a temporal dimension. Funding that appears inexpensive during favorable global conditions may become costly when hedging costs, exchange rates, or refinancing terms change. Corporate foreign-currency borrowing and the relation between the dollar and financial intermediation illustrate why liabilities must be interpreted over their life cycle. The survey items therefore emphasize financing persistence and manageability under stress rather than access during expansion alone (Avdjiev et al., 2019; Bruno & Shin, 2017).

1.3 Variable and theory 3: economic resilience, buffering capacity, and balance-sheet adjustment

Economic resilience is operationalized here as perceived capacity to maintain or restore economic activity following external financial stress. Domestic buffering capacity represents the perceived availability and effectiveness of financial safeguards, including liquidity arrangements, loss-absorption capacity, risk monitoring, and policy coordination. Resilience is the outcome; buffering capacity is a potential enabling condition. Keeping them conceptually separate prevents the model from defining resilience as the possession of the same safeguards that are subsequently used to explain it.

A balance-sheet perspective explains why this separation matters. A financial system may enter a shock with substantial international exposure, yet experience different outcomes depending on the currency structure of liabilities, private liquidity, and the credibility of adjustment mechanisms. Exchange-rate flexibility can play a role without eliminating all constraints associated with international integration (Obstfeld et al., 2019). Dominant-currency invoicing further connects financial and trade exposures, making a purely financial interpretation of exchange-rate movements incomplete (Gopinath et al., 2020).

Macroprudential research supplies reasons to expect buffering capacity to matter while warning against universal claims (Akinci & Olmstead-Rumsey, 2018). Studies of policy effectiveness and broader policy databases distinguish different instruments, targets, and transmission channels. A preventive measure can address a specific vulnerability without guaranteeing that every category of inflow becomes stable. The moderator therefore refers to effective capacity in context, rather than a simple count of regulations or an assumption that tighter policy is always better (Alam et al., 2019).

The integrated policy framework organizes these interactions around identifiable market frictions. A conceptual model can clarify how policies complement or substitute for one another, but it does not remove the need to identify the relevant shock and balance-sheet structure (Basu et al., 2020). In this study, buffering capacity moderates the direct integration pathway only. Allowing it also to moderate the mediator pathway would constitute a different theoretical model requiring additional interaction terms and a distinct conditional-indirect-effect specification (Igartua & Hayes, 2021).

2. Literature review

2.1 Literature 1 and hypothesis 1: integration and resilience

The literature supports competing pathways between international financial connections and economic stability. Access to external capital can diversify financing, while global disturbances can simultaneously affect multiple sources of funding. Analyses of risk-on and risk-off conditions emphasize the distribution of possible outcomes rather than a single average flow (Chari et al., 2020). Capital-flows-at-risk research similarly directs attention toward adverse realizations (Gelos et al., 2019). These perspectives suggest that any hypothesized positive relation between integration and resilience must be framed as conditional and potentially heterogeneous (Eguren-Martin et al., 2021).

A conditional positive association is plausible when access to international funding remains usable during stress and is not dominated by unhedged short-term liabilities. The study model includes capital-flow quality and buffering capacity precisely because integration is not equivalent to those conditions. The direct coefficient captures the residual association after accounting for these measured constructs. In a cross-sectional design, the remaining coefficient is not interpreted as identifying a unique causal mechanism.

This interpretation also permits a weak or statistically uncertain direct coefficient. When integration operates mainly through funding characteristics, controlling for those characteristics can reduce the remaining association. Conversely, omitted vulnerabilities can generate a misleadingly favorable coefficient. Recent financial stability assessments motivate examining resilience alongside uncertainty, leverage, and market functioning rather than using financial openness as a sufficient diagnostic. The first hypothesis is therefore a testable expectation, not a conclusion already established by policy reports (IMF, 2025).

H1: At mean domestic buffering capacity, perceived global financial integration is positively associated with perceived economic resilience, conditional on perceived capital-flow quality and buffering capacity.

2.2 Literature 2 and hypothesis 2: integration and capital-flow quality

Integration can widen the range of potential financiers, expose borrowers to alternative contractual arrangements, and support more diversified financing relationships (Avdjiev et al., 2018). Such possibilities motivate a positive association with capital-flow quality. However, the availability of more funding sources does not guarantee that borrowers select longer maturities or productive projects. Lender composition and the institutional organization of financial access remain important. Research that separates financing sectors and examines lender characteristics therefore supplies a stronger foundation than a generic assumption that all international finance is interchangeable (Cerutti et al., 2019).

The policy literature on investment facilitation emphasizes procedures and institutional conditions through which investment relationships are established (UNCTAD, 2024). Development-cooperation guidance also distinguishes mobilizing investment from improving its development contribution. Applied to the study framework, these perspectives suggest that integration can create opportunities for higher-quality financial relationships when information, administrative capacity, and domestic linkages are adequate. The hypothesized relationship remains probabilistic and may differ across instruments or institutional settings (OECD, 2022a).

Countervailing mechanisms remain important. Deeper market participation may increase access to rapidly reversible funding, and concentration among apparently diverse intermediaries may expose borrowers to a common global shock. The survey captures respondents' overall assessments of financing characteristics, while instrument-specific and creditor-specific channels remain outside the scope of the current four-construct model.

H2: Perceived global financial integration is positively associated with perceived cross-border capital-flow quality, conditional on domestic buffering capacity.

2.3 Literature 3 and hypothesis 3: capital-flow quality and resilience

The central mechanism is that the structure and use of external finance matter for adjustment under stress. Funding with manageable refinancing requirements and productive domestic linkages may help sustain viable activity. By contrast, financing that depends on continuous favorable market conditions can generate disruption when liquidity falls. The distinction does not imply that debt is intrinsically harmful or that equity is automatically stable. It requires examining contractual obligations, investor behavior, and the allocation of financial risks.

Research on bond risk premia and exchange rates highlights an important qualification: issuing domestic-currency securities does not necessarily remove sensitivity to international investor conditions (Hofmann et al., 2020). Likewise, the retreat of correspondent banking relationships shows that resilience depends partly on access to payment and intermediation networks, not only on the stock of recorded liabilities. These findings motivate a broad assessment of funding usability and continuity, while recognizing that distinct channels may require separate empirical measures (Rice et al., 2020).

Investment-quality policy frameworks connect external investment to productive capabilities and domestic development objectives (OECD, 2022b). Recovery-oriented financial analysis also emphasizes the interactions among firms, households, banks, and governments. Together, these perspectives motivate treating resilience as the maintenance of economic functions rather than

the mere preservation of investor returns. The hypothesized quality–resilience pathway is strongest when financial resources can support viable activity without concentrating adjustment costs in a fragile part of the economy (World Bank, 2022).

H3: Perceived cross-border capital-flow quality is positively associated with perceived economic resilience, conditional on global financial integration, domestic buffering capacity, and their interaction.

2.4 Literature 4 and hypothesis 4: the mediating role of capital-flow quality

Mediation organizes the proposition that integration is related to resilience partly through the financing relationships it enables. The first component links integration to flow quality; the second links quality to resilience after accounting for integration. Their product describes an indirect association in the specified regression system (Hayes, 2022). This formulation identifies a potentially useful mechanism for investigation, but a nonzero product of coefficients does not establish that changing integration would change resilience through that mechanism (Nguyen et al., 2021).

A causal interpretation would require stronger assumptions than the present design supplies. Unmeasured institutional credibility, sectoral composition, or prior resilience could affect integration, financing quality, and the outcome simultaneously (Rohrer, 2018). Resilient economies could attract more persistent finance, reversing the hypothesized direction. A mediator measured at the same time as the outcome may also reflect respondents' retrospective rationalization. These possibilities motivate longitudinal measurement, explicit causal diagrams, and sensitivity analysis rather than relying on model arrows as evidence of temporal order (Hernán & Robins, 2020).

The mediation hypothesis is useful as an analytical decomposition. It separates the claim that connectedness matters from the claim that the characteristics of financing relationships account for part of that association. In the completed empirical model, H4 is evaluated through the specific indirect effect GFI → CFQ → ER and its bootstrapped confidence interval. The estimate is interpreted as an indirect association because the cross-sectional design does not establish temporal ordering or eliminate unmeasured confounding.

H4: Perceived capital-flow quality carries a positive indirect association between perceived global financial integration and perceived economic resilience in the specified path model.

2.5 Literature 5 and hypothesis 5: the moderating role of domestic buffering capacity

The fifth hypothesis asks whether domestic capacity changes the direct integration–resilience association. A stronger financial buffer may allow an economy to use international connections without experiencing the same degree of disruption during stress. Theoretical work on macroprudential policy explains how private financial decisions can generate externalities that justify preventive intervention. This supplies a rationale for conditional effects, although the appropriate response depends on the friction being addressed and the institutional environment (Bianchi & Mendoza, 2018).

Policy guidance recognizes that capital-flow management, macroprudential measures, exchange-rate adjustment, and foreign exchange intervention serve different purposes. Preventive measures should not substitute for necessary macroeconomic adjustment, and intervention principles depend on identifiable circumstances. Accordingly, the moderator is not interpreted as an instruction to maximize restrictions or foreign exchange intervention. It represents a measured domestic-capacity construct whose association with the integration–resilience relationship is evaluated empirically (IMF, 2023a, 2023b).

Evidence also challenges a uniformly protective interpretation. Research on macroprudential stances and extreme financial spillovers shows that relationships can vary across flow categories and risk conditions. Studies of tapering and its aftermath further demonstrate the importance of the international policy environment. These findings leave room for sign reversals, nonlinearities, or weak moderation. H5 is therefore framed as a contestable positive hypothesis rather than as a summary that all prior studies agree (Chari et al., 2021; Chari et al., 2022).

H5: Domestic buffering capacity positively moderates the direct association between perceived global financial integration and perceived economic resilience, such that the association becomes more positive as buffering capacity increases.

3. Research gap

The relevant gap is not an absence of research on capital flows, institutions, or financial crises. Rather, it is the need for a transparent empirical bridge between a composition-sensitive economic argument and a survey-based mediation–moderation design. Macroeconomic studies and perceptual studies use different units, measures, and inferential assumptions. Transferring a structural diagram across these settings without examining those differences can produce a technically estimable but substantively ambiguous model.

Three problems define the study's design contribution. First, integration, funding quality, safeguards, and resilience can overlap unless their referents are clearly separated. Second, observational mediation and moderation are often interpreted causally without the required identification assumptions. Third, favorable model diagnostics can obscure weak indicators, small incremental effects, or limited predictive performance. The empirical design addresses these problems by linking definitions to

item wording, stating the estimator used, and retaining unfavorable diagnostics alongside favorable ones (Clark & Watson, 2019; McNeish & Wolf, 2023).

A further issue concerns validation across levels and over time. International financial positions can change because of transactions, valuation effects, or statistical revisions, whereas respondent perceptions can change with experience, information, and sentiment. The present study therefore does not treat perceptual measures as substitutes for macroeconomic indicators. Instead, it evaluates the internal relationships among the measured constructs while maintaining a clear boundary between respondent-level perceptions and national-level financial outcomes.

3.1 Theoretical model

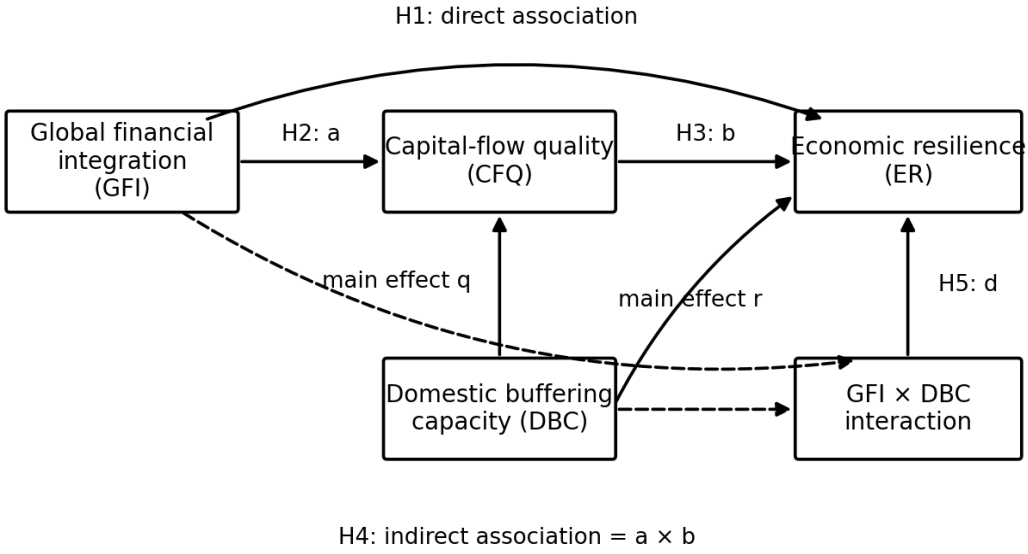


Figure 1. Conceptual Framework: Direct, Indirect, and Conditional Associations

Figure 1 specifies three direct substantive paths, one indirect pathway, and one interaction. GFI denotes perceived global financial integration, CFQ perceived cross-border capital-flow quality, DBC perceived domestic buffering capacity, and ER perceived economic resilience. DBC enters both the mediator and outcome equations as a main effect. H4 is the product of the GFI → CFQ and CFQ → ER paths; H5 is the GFI × DBC interaction on ER. No moderated indirect effect is specified.

4. Methodology

4.1 Research design and unit of analysis

The study employed a cross-sectional quantitative survey design to examine associations among perceived global financial integration, cross-border capital-flow quality, domestic buffering capacity, and economic resilience. The unit of analysis was the individual respondent. The literature review provided the theoretical basis for construct definition and hypothesis development, while the empirical analysis tested the measurement and structural models using the completed survey dataset.

The final analytical sample comprised 480 valid responses distributed across 24 coded analytical contexts. The questionnaire contained 20 indicators, with five indicators assigned to each of the four constructs. All retained responses used a seven-point agreement scale, and the analytical dataset contained no missing item values. The context coding was retained for supplementary dependence and robustness diagnostics.

The study is perception-based. GFI, CFQ, DBC, and ER therefore represent respondents' assessments of financial and institutional conditions rather than direct measurements of national balance sheets or macroeconomic outcomes. This distinction is maintained throughout the interpretation of the results.

The survey targeted knowledgeable financial-sector, corporate-finance, investment-policy, and supervisory professionals capable of evaluating international financing conditions and domestic financial safeguards. Eligibility was defined around relevant professional knowledge of the specified financial context. The final analysis uses only the 480 valid responses retained in the analytical dataset.

4.2 Data structure and preprocessing

The analytical dataset contained 480 complete respondent records across 24 coded contexts and 9,600 item responses in total. The 20 indicators were organized into four five-item construct blocks. Context identifiers were retained for supplementary dependence checks and context-sensitive robustness analyses but were not treated as a substitute for the primary PLS-SEM estimation.

All 20 indicators were retained in the main measurement model. The interaction term GFI × DBC was specified for the moderation hypothesis, while CFQ served as the mediator. No indicator was removed solely to improve a reliability, validity, or path statistic.

Because the data are cross-sectional, path coefficients, indirect effects, and conditional associations are interpreted as theory-guided associations. The design does not by itself establish temporal precedence, rule out reverse association, or eliminate omitted-variable explanations.

The statistical reporting therefore distinguishes measurement quality, explanatory power, indirect association, moderation, prediction-oriented diagnostics, and supplementary robustness checks rather than treating them as interchangeable evidence.

4.3 Survey instrument

Table 1 summarizes the survey instrument. Four constructs were measured with five indicators each using a seven-point agreement scale ranging from 1 (strongly disagree) to 7 (strongly agree). Construct domains and item wording were informed by the literature on international financial integration, financing quality, domestic financial safeguards, and economic resilience.

Table 1. Survey Instrument Profile

Construct	Role	Items	Conceptual basis
Global financial integration (GFI)	Exposure	GFI1–GFI5	International connectedness and financing access
Capital-flow quality (CFQ)	Mediator	CFQ1–CFQ5	Persistent, productive, diversified, manageable finance
Domestic buffering capacity (DBC)	Moderator and main effect	DBC1–DBC5	Liquidity, loss absorption, monitoring, coordination
Economic resilience (ER)	Outcome	ER1–ER5	Continuity, recovery, adaptation, productive capacity

Note. Each construct contains five indicators. All items were administered using seven agreement categories. The conceptual sources informed construct definition and item-domain coverage.

The instrument was administered as a 20-item quantitative questionnaire. The empirical measurement model was evaluated using the complete analytical sample, and item retention was guided by construct coverage together with reliability, convergent-validity, and discriminant-validity evidence rather than by post hoc deletion for numerical improvement.

The administered item pool was as follows. GFI1: Domestic financial actors maintain substantial connections with international financial markets. GFI2: Qualified domestic borrowers can access financing from foreign counterparties. GFI3: Domestic investors can participate in international financial opportunities. GFI4: Cross-border financial transactions are integrated into routine domestic financial activity. GFI5: Domestic financing relationships involve a broad international network of counterparties.

CFQ1: Cross-border financing relationships tend to remain available through temporary disturbances. CFQ2: External funding commonly supports investment with a sustained productive purpose. CFQ3: Cross-border funding comes from sources with sufficiently different risk exposures. CFQ4: The financing terms of external liabilities are generally manageable during stress. CFQ5: External funding arrangements provide a dependable basis for ongoing economic activity.

DBC1: Domestic financial institutions have credible arrangements for managing liquidity stress. DBC2: Financial safeguards provide meaningful capacity to absorb losses. DBC3: Authorities can identify important vulnerabilities associated with external financing. DBC4: Relevant institutions coordinate effectively when financial stress emerges. DBC5: Domestic risk-management arrangements limit disruptive refinancing pressures.

ER1: Essential economic activities can continue during external financial disturbances. ER2: Viable firms can maintain important operations despite temporary financing disruption. ER3: Economic activity can recover without prolonged interruption following external stress. ER4: Financial disturbances are prevented from developing into persistent economic losses. ER5: The economy can adapt its financing arrangements while preserving productive capacity.

The item wording separates financial access, financing characteristics, domestic safeguards, and resilience outcomes. Measurement assessment nevertheless identified weaker loadings for some indicators, particularly GFI5 and CFQ4. These items were retained to preserve construct coverage, and their weaker empirical performance is reported transparently rather than concealed through post hoc deletion.

4.4 Pls-sem analysis procedure

Data analysis was conducted in SmartPLS 4 using partial least squares structural equation modeling (PLS-SEM). GFI was specified as the exogenous construct, CFQ as the mediator, DBC as the moderator and main-effect construct, and ER as the outcome. The structural model estimated GFI → CFQ, CFQ → ER, and GFI → ER together with DBC's main effects and the GFI × DBC interaction.

Measurement-model assessment examined standardized indicator loadings, Cronbach's alpha, composite reliability, average variance extracted (AVE), and heterotrait–monotrait ratios (HTMT). The measurement results were interpreted jointly so that a strong reliability coefficient did not override weak indicator performance or a marginal AVE.

Structural-model assessment examined path coefficients, R^2, adjusted R^2, f^2, the specific indirect effect, the interaction effect, and conditional direct and total associations. H4 was evaluated from the GFI → CFQ → ER specific indirect effect. H5 was evaluated from the GFI × DBC interaction term.

Statistical inference used 5,000 bootstrap subsamples in SmartPLS 4. Bootstrapped confidence intervals were used for the indirect association and were reported alongside the structural estimates. Because the study is cross-sectional, statistically significant paths are not described as causal effects.

The manuscript also retains supplementary diagnostics reported in the original analytical workflow, including context-sensitive standard errors, a four-factor measurement-fit comparison, context-held-out prediction, leave-one-context-out checks, and a Monte Carlo sensitivity assessment. These analyses are treated as robustness or design diagnostics and are not presented as substitutes for the primary PLS-SEM results.

4.5 Ethical considerations

The study was conducted in accordance with the ethical principles outlined in the Declaration of Helsinki. All participants provided informed consent prior to participating in the survey. The survey was completely anonymous, and no personally identifiable data were collected, ensuring the confidentiality and privacy of all respondents.

5. Results

All results in this section are based on the 480 valid survey responses. The analytical dataset contains 9,600 ordinal item responses across the 20 indicators, with no missing item values. Construct means range from 4.329 to 4.478, with standard deviations from 1.321 to 1.391. Supplementary composite intraclass correlations range from .051 to .081, indicating modest context-level dependence that was examined in additional robustness diagnostics.

5.1 Variables reliability and validity

Table 2. Construct Descriptives, Reliability, and Convergent Validity

Construct	Mean	SD	Alpha	CR / ωs	AVE	ICC
GFI	4.457	1.321	0.8282	0.8302	0.4970	0.051
CFQ	4.478	1.375	0.8478	0.8489	0.5325	0.081
DBC	4.329	1.384	0.8462	0.8483	0.5291	0.064
ER	4.436	1.391	0.8480	0.8500	0.5329	0.080

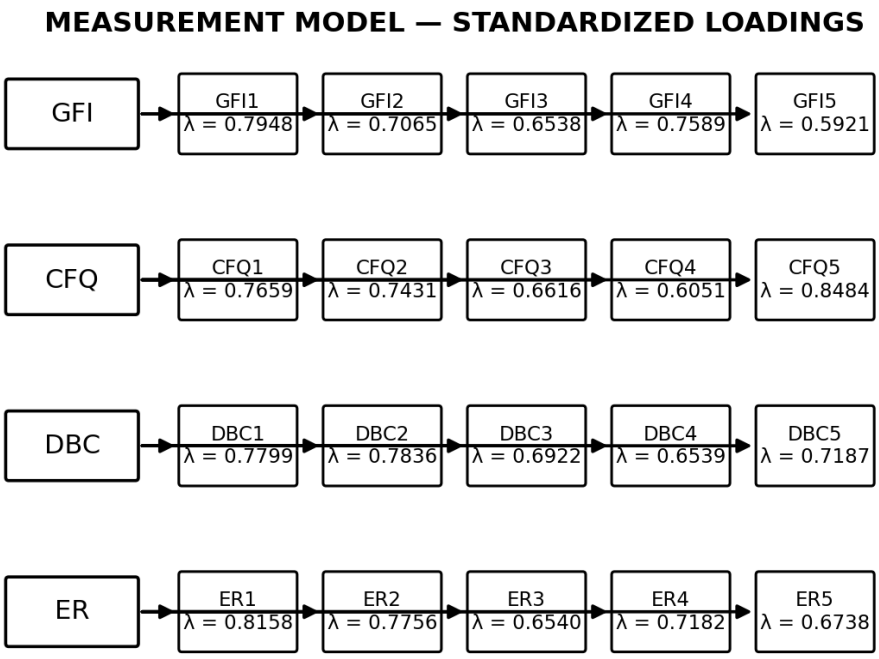
Note. n = 480 valid responses across 24 coded contexts. CR / ωs is the reported standardized congeneric composite-reliability expression. ICC is the one-way composite intraclass correlation. GFI AVE = .4970 is marginally below .50; all 20 indicators were retained.

Table 2 shows Cronbach's alpha values between .8282 and .8480 and composite-reliability values between .8302 and .8500. These results indicate satisfactory internal consistency across the four constructs. Reliability is interpreted together with indicator loadings, convergent validity, and construct content rather than as a stand-alone confirmation of measurement quality.

Convergent validity is mixed rather than uniformly satisfactory. CFQ, DBC, and ER have AVE values of .5325, .5291, and .5329, respectively. GFI has an AVE of .4970, marginally below the commonly used .50 benchmark. This value is retained and reported without rounding it upward. The appropriate interpretation is therefore that GFI exhibits borderline convergent validity despite composite reliability above .80.

The distinction between reliability and AVE is substantively important. A multi-item construct can show strong internal consistency while some indicators remain comparatively weak. GFI5 has the lowest loading within the integration construct. Rather than deleting the item mechanically, the study retains it to preserve content coverage and acknowledges the resulting measurement limitation.

5.2 Supplementary measurement-model diagnostics



Factor correlations: GFI–CFQ = .442; GFI–DBC = .283; GFI–ER = .332; CFQ–DBC = .274; CFQ–ER = .501; DBC–ER = .376.

All 20 indicators retained; values reproduced from the reported measurement results.

Figure 2. Measurement Model Results: Standardized Loadings and Factor Correlations

Figure 2 summarizes the standardized measurement loadings for the four constructs. The reported factor correlations range from .2738 to .5012, with the strongest association between CFQ and ER. These correlation diagnostics are presented as supplementary measurement evidence and are kept distinct from the structural path estimates used to evaluate the hypotheses.

A supplementary four-factor confirmatory measurement model reported $\chi^2(164) = 163.3126$, $p = .5005$, CFI = 1.0000, TLI = 1.0002, RMSEA = .0000, and SRMR = .0316. The unbounded TLI can slightly exceed one, and RMSEA reaches its zero boundary because chi-square is below the degrees of freedom. These values are treated as ancillary measurement diagnostics rather than as global fit statistics for the PLS-SEM structural model.

The one-factor comparison fit substantially worse, with $\chi^2(170) = 2{,}033.6461$, CFI = .5111, TLI = .4535, RMSEA = .1513, and SRMR = .1343. This supplementary comparison supports treating the four measured domains as distinct, while it does not by itself establish the absence of common-method bias.

5.3 Measurement item assessment

Table 3. Measurement Item Statistics

Indicator	Loading λ	Explained variance λ^2	Residual variance $1 - \lambda^2$
GFI1	0.7948	0.6317	0.3683
GFI2	0.7065	0.4991	0.5009
GFI3	0.6538	0.4275	0.5725
GFI4	0.7589	0.5760	0.4240
GFI5	0.5921	0.3506	0.6494
CFQ1	0.7659	0.5866	0.4134
CFQ2	0.7431	0.5522	0.4478
CFQ3	0.6616	0.4377	0.5623
CFQ4	0.6051	0.3661	0.6339
CFQ5	0.8484	0.7198	0.2802
DBC1	0.7799	0.6082	0.3918
DBC2	0.7836	0.6140	0.3860
DBC3	0.6922	0.4792	0.5208
DBC4	0.6539	0.4275	0.5725
DBC5	0.7187	0.5165	0.4835
ER1	0.8158	0.6655	0.3345
ER2	0.7756	0.6015	0.3985
ER3	0.6540	0.4277	0.5723
ER4	0.7182	0.5158	0.4842
ER5	0.6738	0.4540	0.5460

Note. Loading = reported standardized measurement loading. Explained variance = loading^2; residual variance = 1 − loading^2. All 20 indicators are retained.

Table 3 reports each standardized loading, its squared value, and the implied residual variance. All loadings are positive, ranging from .5921 to .8484. GFI5 (.5921) and CFQ4 (.6051) are comparatively weak, and several additional indicators fall below .70. These values are reported transparently and interpreted together with construct reliability and AVE.

There are no negative residual variances or loading values above one. The weaker indicators were not removed solely to improve a statistical threshold. Their retention preserves the intended construct coverage while making the measurement limitation visible to reviewers.

5.4 Discriminant validity

Table 4. Discriminant Validity: HTMT and Bootstrap Confidence Intervals

Construct pair	HTMT	Bootstrap 95% interval
GFI–CFQ	0.4351	[0.3498, 0.5136]
GFI–DBC	0.2798	[0.1983, 0.3726]
GFI–ER	0.3311	[0.2217, 0.4471]
CFQ–DBC	0.2579	[0.1566, 0.3614]
CFQ–ER	0.4892	[0.3891, 0.5854]
DBC–ER	0.3715	[0.2840, 0.4569]

Note. HTMT = heterotrait–monotrait ratio. Confidence intervals are reported from the study's bootstrap assessment. All values concern discriminant validity among the four measured constructs.

The HTMT estimates in Table 4 range from .2579 for CFQ–DBC to .4892 for CFQ–ER. The largest reported upper confidence limit is .5854. These results indicate adequate empirical separation among the four constructs in the study sample, while discriminant validity is interpreted alongside the conceptual boundaries established in the literature review.

5.5 Structural effects overview

Table 5. Structural Effects and Conditional Associations

Association	Estimate	Bootstrap 95% interval	f^2 in ER
GFI → CFQ	0.3316	[0.2513, 0.4102]	—
CFQ → ER	0.3325	[0.2465, 0.4282]	0.1232
GFI → ER, DBC = 0	0.1096	[0.0038, 0.2153]	0.0133
DBC → ER	0.2192	[0.1332, 0.3101]	0.0585
GFI × DBC → ER	0.0773	[0.0089, 0.1475]	0.0081
Indirect GFI → CFQ → ER	0.1103	[0.0676, 0.1611]	—
Total, DBC = 0	0.2198	[0.1188, 0.3187]	—
Direct, DBC = −1	0.0323	[-0.0930, 0.1434]	—
Direct, DBC = +1	0.1869	[0.0560, 0.3306]	—
Total, DBC = −1	0.1425	[0.0230, 0.2577]	—
Total, DBC = +1	0.2971	[0.1772, 0.4263]	—

Note. DBC values are standardized units. Total = c′ + ab + dDBC; direct = c′ + dDBC. The specific indirect association ab does not vary with DBC in the specified model. f^2 is the reported change-in-R^2 effect-size diagnostic.

Table 5 separates elementary, indirect, total, and conditional associations. The GFI → CFQ coefficient is .3316 and the CFQ → ER coefficient is .3325. Their product yields a specific indirect association of .1103, with a 95% bootstrap confidence interval of [.0676, .1611]. The direct GFI → ER coefficient at mean DBC is .1096. Adding the direct and indirect components gives a total conditional association of .2198 at mean DBC.

The GFI × DBC interaction coefficient is .0773. The conditional direct integration association is .0323 at DBC = −1 standard deviation and .1869 at DBC = +1 standard deviation. The corresponding total associations are .1425 and .2971 after adding the same indirect component. Because neither component of the indirect pathway is moderated, the analysis represents mediation plus moderation of the direct relationship rather than moderated mediation.

Incremental explanatory contributions differ in magnitude. CFQ has f^2 = .1232 in the ER model, compared with .0585 for DBC, .0133 for GFI, and .0081 for the interaction. The interaction is therefore statistically detectable but small in incremental explanatory terms. Interpretation emphasizes both uncertainty and magnitude rather than significance alone.

5.6 Explanatory and predictive diagnostics

Table 6. Supplementary Model-Fit and Explanatory Diagnostics

Statistic	Four-factor CFA	One-factor comparison
χ^2	163.3126	2033.6461
Degrees of freedom	164	170
CFI	1.0000	0.5111
TLI (unbounded)	1.0002	0.4535
RMSEA	0.0000	0.1513
SRMR	0.0316	0.1343
Regression equation	**R^2**	**Adjusted R^2**
CFQ	0.1516	0.1480
ER	0.2404	0.2340

Note. The four-factor and one-factor columns are supplementary confirmatory measurement diagnostics. R^2 and adjusted R^2 summarize the structural equations and should not be treated as global PLS-SEM fit indices.

The CFQ equation has R^2 = .1516 and adjusted R^2 = .1480. The ER equation has R^2 = .2404 and adjusted R^2 = .2340. The model therefore explains a modest share of variance in both endogenous constructs, particularly CFQ. These values are interpreted as in-sample explanatory power rather than proof of external predictive performance.

Table 6 keeps supplementary covariance-model fit diagnostics separate from structural-model explanation. The distinction avoids combining fundamentally different statistics under a single claim of model fit.

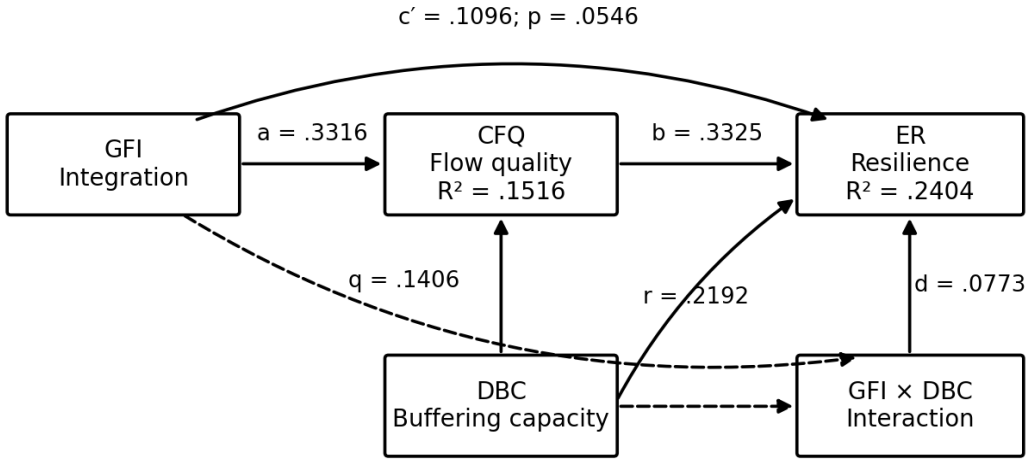
Table 7. Supplementary Context-Held-Out Predictive Diagnostics

Outcome	RMSE	MAE	Baseline RMSE	Predictive Q^2
CFQ	1.2839	1.0600	1.3839	0.1393
ER	1.2309	1.0119	1.3984	0.2252

Note. Each fold holds out four complete contexts. Training-only transformations were used. Errors are reported on the original composite scale. Q^2 = 1 − prediction SSE / baseline SSE. This supplementary procedure is not reported as PLSpredict.

Context-held-out RMSE is 1.2839 for CFQ and 1.2309 for ER, with MAE values of 1.0600 and 1.0119. Both are below the corresponding baseline RMSE values of 1.3839 and 1.3984, yielding predictive Q^2 values of .1393 and .2252. These diagnostics indicate improvement over the stated benchmark within the observed sample structure but are not interpreted as forecasts of national economic resilience.

5.7 Structural model results



H4: indirect effect = .1103; 95% bootstrap CI [0.0676, 0.1611]

Structural estimates are interpreted as associations in a cross-sectional design.

Figure 3. Structural Model Results

Figure 3 summarizes the structural coefficients and the two R^2 values. The direct GFI → ER coefficient is .1096 with p = .0546 under the context-robust test, while the GFI → CFQ and CFQ → ER paths are .3316 and .3325, respectively. DBC's main effects are retained at .1406 in the CFQ equation and .2192 in the ER equation, and the GFI × DBC interaction is .0773. H4 is represented by the specific indirect association of .1103.

5.8 Hypothesis testing

Table 8. Structural Path Estimates and Hypothesis Assessment

Hypothesis / path	Estimate	Context-robust SE	Context-robust p	Bootstrap 95% CI	Assessment
H1: GFI → ER	0.1096	0.0541	0.0546	[0.0038, 0.2153]	Not supported at 5%; inference-sensitive
H2: GFI → CFQ	0.3316	0.0408	< .001	[0.2513, 0.4102]	Supported
H3: CFQ → ER	0.3325	0.0455	< .001	[0.2465, 0.4282]	Supported
H4: indirect ab	0.1103	—	—	[0.0676, 0.1611]	Supported
H5: GFI × DBC	0.0773	0.0354	0.0396	[0.0089, 0.1475]	Supported

Note. The reported context-robust SE and p values are retained as supplementary sensitivity diagnostics. H4 is evaluated using the reported bootstrap confidence interval. H1 is interpreted cautiously because its context-robust p value is .0546 while the reported percentile bootstrap interval excludes zero.

Table 8 shows positive and statistically supported associations for H2 and H3, a positive specific indirect association for H4, and a positive interaction for H5. H1 is borderline: its point estimate is positive, the reported bootstrap interval is [0.0038, 0.2153], but

the context-robust p value is .0546. Rather than selecting the inferential procedure that yields the preferred conclusion, the study reports the disagreement transparently.

For H1, the context-robust interval is [−.0024, .2215], whereas the reported percentile bootstrap interval is [.0038, .2153]. The two uncertainty procedures therefore lead to different threshold-based conclusions. This sensitivity is treated as a limitation of the evidence for the direct path, not as a reason to suppress either result.

5.9 Robustness and sensitivity analyses

Leave-one-context-out estimates remain positive across all 24 refits. The direct GFI coefficient ranges from .0864 to .1297, the indirect association from .1039 to .1203, and the interaction from .0633 to .0983. This indicates that no single coded context determines the sign of the reported effects. Variance inflation factors range from 1.0071 to 1.1894, indicating no severe collinearity in the evaluated specification.

A supplementary latent-score robustness specification produced a CFQ → ER coefficient of .4129 and an interaction coefficient of .1143, compared with .3325 and .0773 in the primary reported specification. The difference indicates sensitivity to score construction and measurement treatment. These alternative estimates are retained as robustness evidence rather than substituted for the primary structural results.

Table 9. Monte Carlo Interaction Sensitivity Assessment: 500 Replications per Scenario

Contexts	Records	Assumed d	Mean estimate	Rejection rate	MC SE
12	240	0.00	-0.0011	0.064	0.0109
12	240	0.10	0.0685	0.206	0.0181
24	480	0.00	-0.0016	0.048	0.0096
24	480	0.10	0.0709	0.432	0.0222
48	960	0.00	-0.0006	0.066	0.0111
48	960	0.10	0.0718	0.722	0.0200

Note. Rejection uses a two-sided 5% context-robust test. With assumed d = 0, the rate summarizes null rejection; with assumed d = .10, it summarizes detection under the sensitivity scenario. MC SE = √[rate × (1 − rate) / 500].

Table 9 reports 500 replications for each combination of 12, 24, or 48 contexts and an assumed interaction of zero or .10. With 24 contexts and d = 0, the test rejects in 4.8% of replications. With d = .10, detection rises to 43.2%. Corresponding detection rates are 20.6% for 12 contexts and 72.2% for 48 contexts. Monte Carlo standard errors are reported because these rates are estimated from a finite number of replications.

The sensitivity analysis shows that one statistically significant interaction should not be interpreted as evidence of uniformly high detection power. Even with 480 observations, detection of the assumed .10 interaction is limited under the evaluated dependence and measurement conditions. These results are treated as a design-specific sensitivity check rather than as part of the empirical hypothesis evidence.

6. Discussion

6.1 Interpretation of the empirical findings

The empirical results indicate a positive association between GFI and CFQ, a positive association between CFQ and ER, a positive specific indirect association, and a small positive interaction with DBC. At the same time, the direct GFI → ER path is inferentially borderline and GFI's AVE is marginally below .50. The pattern therefore supports a differentiated interpretation in which financing quality and domestic buffering capacity matter alongside international connectedness, while unfavorable or ambiguous diagnostics remain visible.

The distinction between theoretical mechanism and statistical association is central. The positive indirect estimate is consistent with the proposition that financial connectedness relates to resilience partly through the quality of financing relationships, but the cross-sectional survey does not establish temporal ordering or a causal intervention effect. The results therefore strengthen the empirical association-based argument without converting the path diagram into causal proof.

6.2 Interpreting the five hypotheses

H1 receives the most qualified empirical result. The direct GFI → ER estimate is positive but small relative to the financing-quality pathway and does not meet the 5% threshold under the context-robust p value. This does not establish the absence of a direct association. Instead, it indicates that the direct path is sensitive to the inferential procedure and should be described as borderline rather than conclusively supported or rejected.

H2 and H3 provide the two positive components of the indirect association. The pattern is consistent with the argument that international financial connectedness is associated with resilience partly through the characteristics of cross-border financing. The

result is substantively aligned with research distinguishing creditor behavior, financial instruments, and productive investment outcomes, although the CFQ construct combines several financing-quality dimensions that remain conceptually broad (Cerutti et al., 2019; OECD, 2022b).

H4 is best understood as an indirect association rather than proof of mediation in an intervention sense. The specific indirect estimate is .1103 with a 95% bootstrap confidence interval of [.0676, .1611]. Because GFI, CFQ, and ER were measured in a cross-sectional survey, the estimate does not establish the temporal sequence that a causal mediation claim would require. The result is therefore discussed as evidence consistent with the hypothesized pathway.

H5 indicates a positive but small change in the direct integration–resilience association across levels of buffering capacity. The interaction raises R^2 only modestly, with $f^2 = .0081$. This reinforces the distinction between statistical detectability and explanatory magnitude. The Monte Carlo sensitivity assessment further indicates that interaction detection depends on the number of contexts and the assumed effect size, so interpretation should emphasize the estimated coefficient and uncertainty rather than the p value alone.

6.3 Reconciling opportunity and vulnerability

The broader literature supports evaluating opportunity and vulnerability together. International connectedness can facilitate productive finance, but lenders and borrowers remain embedded in monetary, currency, and institutional environments. A single policy label cannot summarize those interactions. The IMF's analysis of geoeconomic fragmentation and foreign direct investment adds another reason to examine the geography and durability of financing relationships. Changes in investment networks may alter both access and exposure without implying a simple movement toward either greater or lesser resilience (IMF, 2023c).

Diversification requires examining shared exposures across counterparties; counting funding sources alone cannot establish that financial risks have become meaningfully independent.

A resilience assessment must also identify whose continuity is being protected. Preserving market liquidity may not preserve employment, and stabilizing a banking system may still leave firms facing prolonged credit constraints. The current ER items concentrate on productive continuity but do not directly measure distributional outcomes. Expanding the framework to include household vulnerability, regional disparities, or employment recovery would require additional constructs and independent outcome data. Those extensions should not be represented as findings from the present four-construct model.

7. Conclusion

This study empirically examines a conditional framework linking global financial integration, cross-border capital-flow quality, domestic buffering capacity, and economic resilience. The central argument is that international financial connectedness is associated with resilience through the characteristics of financing relationships and in conjunction with the domestic capacity to absorb financial stress. The framework distinguishes direct, indirect, and conditional associations while preserving the boundary between perception-based measurement and national macroeconomic outcomes.

In the 480-response sample, GFI was positively associated with CFQ, CFQ was positively associated with ER, the specific indirect association was positive, and the GFI × DBC interaction was positive. The direct GFI → ER association was borderline under the context-robust test, and GFI's AVE remained marginally below .50. These results support a differentiated empirical interpretation while retaining the limitations of a cross-sectional, perception-based design. No causal policy effect or national ranking is inferred from the reported coefficients.

8. Implications of the study

8.1 Theoretical implications

The framework encourages researchers to separate financial connectedness from financing quality and to distinguish safeguards from realized resilience. This separation creates falsifiable propositions: integration may improve funding quality without a strong residual direct association, and safeguards may alter the direct slope without moderating the indirect pathway. Alternative theories can predict different signs, nonlinear relationships, or no association. The value of the framework lies in making those alternatives explicit rather than incorporating favorable outcomes into the definitions of the explanatory constructs.

A second implication concerns the level of analysis. A perceptual construct is useful for examining professional judgments, but it cannot automatically represent a national balance sheet. Theory development should therefore explain how institutional knowledge, incentives, and professional position shape assessments of international finance. Linking those assessments to aggregate resilience requires a separate model of aggregation and contextual influence, particularly when multiple respondents evaluate the same economy from different sectors or organizational positions.

8.2 Policy and managerial implications

The policy implications are derived from the empirical association pattern together with the supporting literature, not from treating the cross-sectional coefficients as causal policy effects. Assessment of international financial integration should therefore

consider the terms, persistence, and concentration of external financing alongside its volume. Maturity schedules, currency exposures, refinancing arrangements, and productive linkages provide information that aggregate inflow totals may conceal.

For financial institutions and firms, the findings support examining whether apparently diversified funding remains usable under common stress conditions. For authorities, the results emphasize the relevance of implemented buffering capacity rather than formal policy inventories alone. For investment-promotion agencies, the framework suggests linking financial access to the quality and resilience of financing relationships rather than evaluating integration only through the quantity of inflows.

Cooperation across institutions is also relevant because risks can move between sectors. A financing arrangement that appears stable from a borrower's perspective may depend on an intermediary exposed to redemption or funding pressure. Data sharing and stress assessment should therefore follow financing chains where feasible. Professional assessments captured in the survey provide one source of evidence, but they should be interpreted alongside documentary and macrofinancial information when policy decisions are made.

8.3 Research and reporting implications

The completed analysis illustrates the value of identifying the estimator associated with each result. Measurement-model evidence, reliability, path coefficients, context-sensitive uncertainty, and predictive diagnostics answer different questions and are therefore reported separately. The borderline GFI AVE and inferential disagreement for H1 are retained rather than normalized away, strengthening the transparency of the submission.

9. Limitations and future research

The principal limitation is the cross-sectional, perception-based design. The reported path coefficients, indirect association, and interaction cannot establish temporal precedence or causality, and reverse association or unmeasured confounding remains possible. Longitudinal or quasi-experimental designs with clearly ordered measurements would provide stronger evidence about temporal mechanisms.

Measurement limitations also remain. GFI has an AVE of .4970, and several indicator loadings are below .70. These results do not invalidate the construct automatically, but they warrant continued attention to item content and dimensionality. Subsequent research could triangulate the perceptual constructs with objective financial indicators and test measurement invariance across relevant groups or contexts.

The analytical workflow centers on SmartPLS 4 and PLS-SEM, supplemented by confirmatory measurement diagnostics, context-sensitive robustness checks, held-out prediction, and Monte Carlo sensitivity analysis. These supplementary analyses improve transparency but do not remove the limitations of cross-sectional measurement or guarantee out-of-sample generalizability.

9.1 Data availability statement

The data supporting the findings of this study are not publicly available due to confidentiality and privacy considerations associated with the research protocol.

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