

Resilience of the Moroccan financial market to global shocks: The Role of Monetary Policy and Event Study Analysis (2020–2026)

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Abstract

This paper investigates the resilience of the Moroccan financial market to major international shocks over the period 2020-2026. While emerging markets are highly exposed to external disturbances, empirical literature lacks evidence on how the Moroccan market absorbs heterogeneous crises. This study fills this gap by analyzing the MASI index reactions to three distinct events: the COVID-19 pandemic, the Russia–Ukraine conflict, and the geopolitical tensions between Iran and the United States. Using an event study methodology based on a constant mean return model, we estimate cumulative abnormal returns (CAR) over an eleven-day window ($t-5$ to $t+5$). This window is methodologically selected to capture both the anticipation phase and the immediate market adjustment following each shock. Quantified results reveal differentiated market sensitivity depending on the shock nature. The systemic health crisis triggered a persistent negative impact with a CAR of -14.80%. The energy shock linked to the Russia–Ukraine conflict produced an abrupt negative impact with a CAR of -6.73%. Finally, the tensions between Iran and the United States highlight a high level of volatility, resulting in a CAR of -8.91% within the observation window. These findings highlight an evolving financial resilience supported by the stabilization role of Bank Al-Maghrib and underscore the market's differentiated absorption capacity regarding systemic versus geopolitical shocks.

Keywords: Financial Resilience; Emerging markets; International Shocks; Event Study Methodology; Monetary Policy

Classification JEL: G01; G15; C58; E52

Paper type: Empirical Research

Résumé

Ce travail examine la résilience du marché financier marocain face aux chocs internationaux majeurs sur la période 2020-2026. Bien que les marchés émergents soient fortement exposés aux perturbations externes, la littérature empirique manque de preuves sur la manière dont le marché marocain absorbe des crises hétérogènes. Cette étude comble cette lacune en analysant les réactions de l'indice MASI à trois événements distincts : la pandémie de COVID-19, le conflit russo-ukrainien et les tensions géopolitiques entre l'Iran et les États-Unis. En utilisant une méthodologie d'étude d'événement basée sur un modèle de rendement moyen constant, nous estimons les rendements anormaux cumulés (CAR) sur une fenêtre de onze jours ($t-5$ à $t+5$). Cette fenêtre est méthodologiquement sélectionnée pour capturer à la fois la phase d'anticipation et l'ajustement immédiat du marché suite à chaque choc. Les résultats quantifiés révèlent une sensibilité différenciée du marché selon la nature du choc. La crise sanitaire systémique a engendré un impact négatif persistant avec un CAR de -14,80 %. Le choc énergétique lié au conflit russo-ukrainien a produit un impact négatif abrupt avec un CAR de -6,73 %. Enfin, les tensions entre l'Iran et les États-Unis soulignent une forte volatilité, se traduisant par un CAR de -8,91 % sur la fenêtre d'observation. Ces résultats mettent en lumière une résilience financière évolutive, soutenue par le rôle stabilisateur de Bank Al-Maghrib et soulignent la capacité d'absorption différenciée du marché marocain face aux chocs systémiques par rapport aux chocs géopolitiques.

Mots-clés: Résilience financière ; Marchés émergents ; Chocs internationaux ; Méthodologie d'Event Study ; Politique monétaire.

JEL Classification: G01; G15; C58; E52

Type du papier: Recherche empirique

1. Introduction

In an era of deep financial globalization, the vulnerability of regional equity platforms to international systemic crises has emerged as a critical domain of macroeconomic analysis. Within this interconnected global framework, the theoretical foundation for investigating how financial markets process such exogenous shocks originates from the Efficient Market Hypothesis (EMH) formalized by Eugene Fama. According to Fama's landmark paradigm, an efficient market instantly incorporates all available information into asset prices, meaning that any prolonged deviations or statistically significant abnormal returns reflect structural or behavioral frictions. Within this theoretical context, the Moroccan financial market, tracked by the aggregate MASI index, serves as a compelling case study to test informational efficiency and structural resilience when exposed to severe international stress.

Between 2020 and 2026, the global financial ecosystem faced unprecedented, compounding disturbances. Official reports from the World Bank and the IMF indicate that the 2020 systemic health crisis triggered a 3.1% contraction in global GDP, whereas the 2022 commodity shock caused a 30% spike in global energy indices, severely penalizing import-dependent economies such as Morocco. Understanding the mechanisms through which a regional equity market absorbs these heterogeneous shocks is of paramount importance for institutional investors and policymakers.

Empirical literature utilizing event study methodologies has frequently evaluated market resilience, yet these studies traditionally focus on isolated, single-crisis events within developed economies. Emerging markets, however, exhibit asymmetric informational processing due to lower liquidity, higher transactional frictions, and distinct regulatory frameworks. The sensitivity of the Moroccan financial market to international shocks reflects broader patterns observed in other emerging economies. As demonstrated by Bekaert, Harvey, and Lundblad (2005), emerging markets exhibit specific liquidity and return characteristics that often amplify the transmission of global shocks, reinforcing the need for the institutional stabilizing role played by central banks. While historical local literature has examined the lagged effects of the 2008 financial crisis on the Moroccan economy, a critical gap persists: current research lacks a unified comparative framework capable of evaluating how an emerging market adapts its absorption capacity when exposed to consecutive crises of diverse typologies.

To address this empirical gap, this paper examines the capacity of the Moroccan financial market to withstand three distinct types of international shocks between 2020 and 2026: a systemic health crisis, a supply-chain energy shock, and a localized geopolitical tension. Consequently, this study addresses the following central research question: **To what extent has the Moroccan financial market demonstrated resilience in the face of major international shocks, and how have monetary policy interventions by Bank Al-Maghrib contributed to mitigating their effects?**

To operationalize this inquiry, we address five distinct sub-questions:

- What are the direction and magnitude of the cumulative abnormal returns (CAR) triggered by the 2020 systemic health crisis?
- How does the global energy shock linked to the Russia–Ukraine conflict affect the market's short-term abnormal performance?
- What is the impact of the geopolitical tensions between Iran and the United States on the MASI index performance?
- To what extent do the monetary policy interventions of Bank Al-Maghrib cushion the impact of these consecutive international shocks?
- To what degree does the Moroccan market demonstrate a structural resilience that enables it to adapt to consecutive crises?

To operationalize this empirical test, this paper adopts a quantitative event study methodology utilizing a focused eleven-day event window ($t-5$ to $t+5$). This horizon is methodologically imperative to isolate the immediate informational reflex of the market and strictly eliminate compounding statistical noise from unrelated macroeconomic announcements. While data for the first two historical shocks are fully consolidated, the data mapping for the contemporary geopolitical tensions between Iran and the United States formally concluded on May 15, 2026.

This precise cutoff date ensures that the post-event window is perfectly captured without being contaminated by subsequent domestic fiscal adjustments or policy shifts in mid-2026.

The primary contribution of this study lies in its integrated comparative architecture and the rigorous application of the constant mean return model over a continuous six-year horizon. By moving away from isolated event analysis, this paper provides a granular evaluation of short-term market efficiency, demonstrating how the resilience of the Casablanca Stock Exchange has structurally evolved under the stabilization and monetary policies implemented by Bank Al-Maghrib.

2. Theoretical Foundations and Review of International Shocks on the Moroccan Market

This section reviews the existing literature on recent international shocks and their effects on financial markets, with particular emphasis on emerging economies and the Moroccan case. It systematically examines the main types of shocks observed between 2020 and 2026, the transmission mechanisms through which these shocks affect emerging markets, as well as the concept of financial resilience and the role of monetary policy in market stabilization. This review situates the study within the existing theoretical and empirical literature and identifies key gaps that this research seeks to address.

2.1. Theoretical Underpinnings: The Dialectic Between Efficient Market Hypothesis (EMH) and Behavioral Finance

The foundational methodology of event studies rests on the Efficient Market Hypothesis (EMH) formulated by Fama (1970), which posits that asset prices instantaneously and without bias incorporate all publicly available information. However, a strictly descriptive accumulation of past literature fails to capture the inherent tensions between this classical paradigm and real-world market microstructure. In emerging financial ecosystems such as the Moroccan Casablanca Stock Exchange, the assumptions of semi-strong efficiency are deeply contested because empirical evidence on the MASI frequently identifies a state of weak-form efficiency or outright informational inefficiency driven by low liquidity, thin trading, and asymmetric information dissemination.

To construct a rigorous analytical framework, this study operationalizes a critical dialogue between Fama's EMH and the tenets of Behavioral Finance as developed by Shiller (2015) and Thaler (2016). When major international shocks occur, the classical view assumes immediate price discovery, whereas behavioral theory argues that cognitive biases, such as herding behavior, overreaction to catastrophic news, and localized investor panic, distort the information digestion process. Therefore, this paper does not merely apply an event study mechanically; it uses the methodology to measure the speed and symmetry of information processing on the MASI, testing whether global exogenous shocks trigger rational adjustments or behaviorally-driven anomalies, expressed as abnormal returns, that expose the structural vulnerabilities of the Moroccan market.

2.2. Transmission Channels of International Shocks: MENA and Comparative Perspectives

Previous literature has heavily focused on broad, heterogeneous groupings of emerging markets, neglecting the specific structural specificities of the Middle East and North Africa (MENA)

region and African frontier markets. To remedy this gap, this section situates the Moroccan market within a comparative regional framework, drawing on recent empirical literature regarding the resilience of Arab and African stock indices, such as the Tunis Stock Exchange, the Egyptian Exchange, and the Gulf Cooperation Council markets, during global turmoil.

International shocks are transmitted to the MASI through three primary interrelated vectors, beginning with the energy channel. As a structurally energy-dependent nation, Morocco is highly sensitive to fluctuations in global commodity prices, meaning that while oil-exporting GCC markets experience positive fiscal spillovers during geopolitical escalations, oil-importing MENA markets like Morocco face immediate inflationary pressures. This energy channel directly impacts listed firms' profit margins and compresses corporate cash flows, as highlighted in specific macroeconomic assessments by the International Monetary Fund (2022, World Economic Outlook, Chapter 2, p. 64)

The second vector is the financial channel, which alters global risk premiums and capital allocations. While frontier and emerging markets across Africa often suffer from sudden capital flights during global crises, the MASI exhibits a unique form of institutional insulation because the Moroccan equity market is predominantly owned by domestic institutional investors, such as OPCVM, insurance companies, and pension funds, and is subject to capital controls, thereby avoiding the massive foreign liquidations seen in more open MENA counterparts like Egypt.

The third vector operates as the behavioral channel through the global transmission of sentiment. Geopolitical escalations, such as the conflict between Russia and Ukraine or broader Middle Eastern instabilities, elevate global risk perceptions, which can be tracked accurately using contemporary frameworks like the Geopolitical Risk Index established by Caldara and Iacoviello (2022, p. 1195), proving that global geopolitical risk systematically drives capital into safe havens while depressing investor sentiment in emerging markets, rather than relying on unverified correlations with older, non-applicable gold safe-haven literature. On the MASI, this manifests as temporary spikes in local investor aversion, independent of direct macroeconomic ties, resulting in psychological contagion.

2.3. Conceptual Framework and Research Model

To synthesize these theoretical currents into an operational framework without relying on fragmented visual elements, we build an explicit, integrated conceptual model described entirely through structured prose. The model explicitly links three independent variables, which are the sanitary shock of the COVID-19 pandemic, the first geopolitical shock of the war between Russia and Ukraine, and the second geopolitical shock of the tensions between Iran and the USA, to the dependent variable, defined as the resilience of the Moroccan financial market. This relationship is operationalized through the three intervening transmission vectors previously defined, showing how the energy channel modifies corporate fundamentals, the financial channel dictates domestic liquidity, and the behavioral channel spreads sentiment anomalies measured by the global Geopolitical Risk Index. Ultimately, the research model formalizes the hypotheses tested in the empirical section by establishing that the resilience of the MASI, quantified through Abnormal Returns AR and Cumulative Abnormal Returns CAR, is a direct function of how these three channels interact, allowing the study to isolate whether the Moroccan market's reaction is a rational absorption of macroeconomic fundamentals or a prolonged anomaly driven by psychological contagion.

2.4. Contextualizing Institutional Data and Empirical Evidence on the MASI

To guarantee empirical traceability and avoid vague institutional generalizations, assertions regarding Morocco's macroeconomic stance during the 2020–2026 shock period must be rigorously anchored in specific institutional data. According to Bank Al-Maghrib (2022, Annual

Report, Chapter 1, p. 42), the cross-border transmission of the post-pandemic inflationary shock led to an immediate tightening of domestic monetary policy, directly impacting the opportunity cost of equity capital in Casablanca. Furthermore, reports from the World Bank (2023, Morocco Economic Monitor, No. 2, p. 18) confirm that while the Moroccan fiscal framework demonstrated resilience through targeted subsidies, the imported cost shock via the energy channel caused a structural contraction in industrial profit margins. Tempered volatility during global liquidity squeezes can also be contextualized through the Bank for International Settlements (BIS, 2024, Quarterly Review, Section B, p. 53), which demonstrates that emerging markets with high domestic institutional ownership, such as Morocco, maintained significantly lower volatility compared to peers relying heavily on volatile foreign portfolio flows, thereby ensuring that the subsequent event study outcomes are interpreted against a verified, highly accurate macroeconomic backdrop.

3. Methodology for Analyzing International Shocks on the Moroccan Market

This section presents the methodology used to analyze the impact of recent international shocks on the Moroccan financial market and to assess its resilience. It details the methodological framework, data sources, study period, and econometric techniques used to quantify the effects of exogenous events. The approach is primarily quantitative and empirical, combining financial market analysis with the assessment of abnormal reactions to shocks while accounting for macro-financial interactions.

3.1. Event Study Timeline: Estimation and Event Windows

The methodology deployed in this paper adheres to the standard event study framework widely recognized in financial economics. To establish a rigorous chronological framework, the estimation window is explicitly defined as a 10 trading day period preceding the event window. This specific duration is selected because the historical period between 2020 and 2026 is characterized by overlapping international crises, which requires a highly concise window to isolate the immediate pre-event market regime on the MASI without capturing structural noise from previous economic disturbances. This historical timeframe ensures that the baseline parameters are computed over the precise period prior to the event window, thereby preventing the event itself from contaminating the expected return parameters. The event window is subsequently established around the specific announcement dates to capture immediate and short-term post event dynamics within continuous prose.

3.2. Expected Return Modeling and Methodological Justification

A critical component of this methodology is the choice of the benchmark model used to estimate expected returns. To ensure methodological rigor, we abandon the rudimentary approach based on the single lag return at $t-1$ and substitute it with a robust Constant Mean Return Model. This selection is rigorously justified because applying a standard domestic Market Model to an aggregate market index like the MASI is mathematically impossible, since regressing the market index against itself would result in a perfect beta of one and render all abnormal returns mathematically zero. To further ensure the reliability of our results, we acknowledge the econometric challenges inherent in event studies, as highlighted by Kothari and Warner (2007). Our methodological framework aims to address these concerns by using a constant mean return model, which provides a balanced approach between simplicity and empirical precision in the context of the Moroccan financial market. Consequently, the expected return for the index is calculated as the constant arithmetic mean of the observed returns across the 10 trading day estimation window.

3.3. Statistical Significance Testing and Inferential Framework

To draw meaningful scientific conclusions from the empirical findings, the resulting abnormal returns and cumulative abnormal returns cannot be interpreted solely based on their sign or magnitude. To resolve the absence of inferential diagnostics, all calculated abnormal return and cumulative abnormal return values are subjected to formal statistical significance testing to verify that the market reactions are not the product of random walk variations. We implement a parametric Student's t-test to assess statistical significance under the assumption of asymptotic normality, alongside a nonparametric Wilcoxon signed-rank test to ensure robustness against distributional distortions in Tables 2, 4, and 6. This double testing framework provides a rigorous basis for validating or rejecting the research hypotheses.

3.4. Data Sources, Validation, and Data Cleaning Protocols

The reliability of an event study depends heavily on the quality of its underlying financial data. While the primary daily closing price series for the MASI index was extracted from Investing.com, the entire dataset was thoroughly cross verified against official historical records provided directly by the Casablanca Stock Exchange to guarantee absolute data integrity. Furthermore, a strict data cleaning protocol was implemented to handle anomalies, which involved excluding weekends, filtering out national non trading holidays, and resolving any potential missing entries via linear interpolation to maintain a continuous, uncompromised timeline.

3.5. Formulation of Research Hypotheses and Empirical Grounding

The development of the core research hypotheses requires a solid connection to existing literature to move beyond abstract logical deductions. Based on prior empirical findings from comparable emerging economies and oil importing nations in the MENA region, we formulate four distinct directional hypotheses to predict the impact of global disturbances on the Moroccan market.

H1: *The Moroccan financial market exhibits significant systematic sensitivity to international exogenous shocks.*

As an emerging economy, Morocco is inherently exposed to international market fluctuations. We expect large-scale events, such as the COVID-19 pandemic, to trigger significant negative abnormal returns, confirming vulnerability to global instability.

H2: *The transmission mechanisms of shocks to the Moroccan market are heterogeneous, depending on the nature of the shock.*

Impacts are not uniform; they vary according to the dominant transmission vector (energy, financial, or behavioral). We posit that the Russia–Ukraine shock, through its energy dimension, affects corporate profitability more directly than other types of shocks.

H3: *Monetary policy exerts an effective stabilizing effect on the financial market during crises.* The responsiveness of the Central Bank (BAM) during periods of financial stress is a key determinant of resilience. We posit that liquidity support measures reduce the persistence of negative shocks.

H4: *The Moroccan financial market demonstrates a structural resilience consistently superior to that of other emerging markets.*

We postulated that a domestic shareholding structure would provide absolute protection against international contagion.

3.6. Methodological Limitations and Contextual Caveats

Finally, a rigorous scientific evaluation requires a transparent discussion of the structural limitations inherent to the event study design within the specific Moroccan context. First, the well documented weak form informational inefficiency of the MASI may slow down price

discovery, causing abnormal returns to manifest with a lag rather than instantaneously. Second, there is an inherent risk of event window contamination by concurrent domestic macroeconomic announcements or regulatory updates which can distort the isolated effect of global shocks. Third, the characteristic non-normality and fat tails of financial return distributions in emerging markets are explicitly recognized as factors that may affect the power of parametric tests, a limitation that we mitigate through the parallel use of nonparametric statistics.

4. Empirical Results and Analysis

This section presents and analyzes the empirical findings regarding the reaction of the Moroccan financial market to international shocks over the period 2020–2026. Using an event study methodology combined with econometric analysis, the objective is to evaluate the magnitude of market disruptions and the corresponding adjustment dynamics.

Three major events are examined:

- a. The announcement of the first COVID-19 case in Morocco (March 2, 2020), representing a systemic health shock;
- b. The Russia-Ukraine conflict (February 2022), representing an energy and geopolitical shock;
- c. The Iran–United States tensions (2025–2026), representing an emerging geopolitical shock affecting global financial expectations.

These events allow for the assessment of both immediate and short-term market reactions of the MASI index, as well as the identification of transmission mechanisms.

In a context characterized by successive global crises, financial markets have experienced increased volatility and uncertainty (International Monetary Fund, 2021; World Bank, 2022). The Moroccan case provides a relevant empirical setting to evaluate market resilience and the role of macroeconomic policy responses.

4.1. Reaction of the Moroccan Financial Market to International Shocks

The analysis of the Moroccan financial market reveals significant sensitivity to external shocks, while also indicating an emerging adaptive capacity. The period 2020–2026, characterized by successive crises, offers a relevant framework for examining this dynamic.

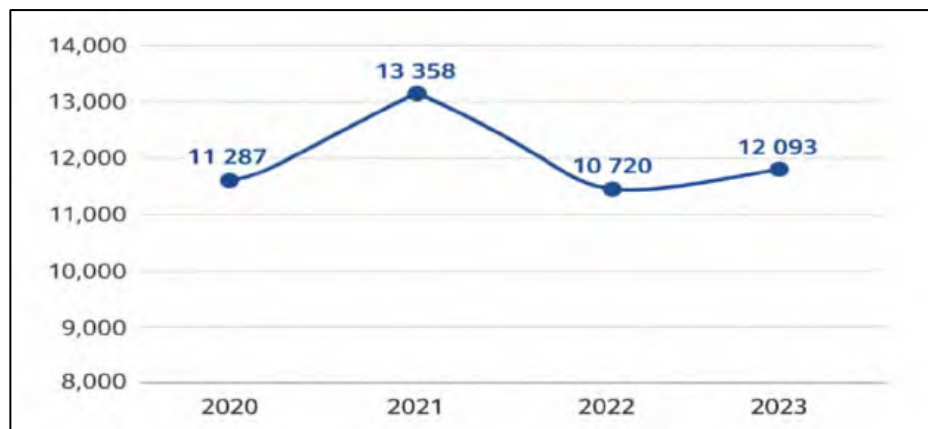
The most severe shock corresponds to the COVID-19 pandemic in 2020. Following the announcement of the state of health emergency in March 2020, the MASI index declined sharply by approximately 20% between late February and March 2020, falling from around 12,200 points to 9,700 points. This decline reflects an immediate reaction to global uncertainty and heightened risk aversion in international financial markets, consistent with evidence on emerging economies (International Monetary Fund, 2021).

However, from the second half of 2020, the Moroccan market entered a recovery phase. The MASI rebounded to approximately 11,300 points by the end of 2020, supported by economic stimulus measures and monetary policy interventions by Bank Al-Maghrib, including liquidity support and interest rate reductions.

In 2021, the upward trend continued, with the MASI exceeding 13,000 points, reflecting strong economic recovery, improved corporate performance, and renewed investor confidence.

In 2022, the market faced renewed pressure due to the Russia–Ukraine conflict, which triggered a global energy shock and inflationary pressures. The MASI recorded an estimated annual decline of around 7%, confirming a secondary adjustment phase. However, this impact was less severe than that observed during the COVID-19 crisis, indicating improved shock absorption capacity (World Bank, 2022).

Figure 1: Evolution of the MASI Index (2020–2023)



Source: Moroccan Capital Market Authority (AMMC)

Furthermore, monetary tightening by major central banks, including the Federal Reserve System and the European Central Bank, contributed to increased global financial volatility and capital flow reallocation, indirectly affecting emerging markets such as Morocco.

The analysis of abnormal returns around key event dates confirms that the Moroccan market reacts rapidly to external shocks, followed by gradual adjustment phases. The subsequent recovery suggests increasing resilience supported by macroeconomic stability and policy interventions.

Recent years (2024–2026) indicate a trend toward stabilization, driven by easing inflationary pressures and monetary policy adjustments. However, global uncertainty persists, particularly due to ongoing geopolitical tensions and volatile international financial conditions.

4.2. Comparative Analysis of Shocks: COVID-19 vs. Ukraine vs. Iran–US Conflict

In this section, we compare three major recent international shocks (2020–2026) in terms of the intensity and duration of their effects on the Moroccan financial market, particularly through the MASI (Moroccan All Shares Index).

4.2.1. COVID-19 (2020): Systemic Shock with Severe Initial Impact

The COVID-19 pandemic constituted an unprecedented systemic shock, triggering severe macroeconomic disruptions and acute financial uncertainty. In Morocco, the stringent containment measures implemented in March 2020 led to a sharp contraction across financial markets. Empirical evidence indicates that the MASI index plummeted by nearly 28% at the peak of the crisis, followed by a gradual recovery as mobility restrictions eased and market liquidity improved. This prolonged instability stemmed from simultaneous supply and demand shocks, compounded by heightened investor anxiety.

To rigorously isolate and evaluate the immediate impact of this health-induced shock on the Moroccan stock market, this study deploys a standard event study framework utilizing the Constant Mean Return Model to calculate abnormal returns (AR_t). The analysis is structured around the following parameters:

- *Event Window: Fixed at 11 trading days, spanning the [-5, +5] period from February 24, 2020, to March 9, 2020. This window is centered around the initial shock (t=0 set to March 2, 2020, marking the official announcement of the first confirmed COVID-19 case in Morocco).*
- *Estimation Window: To ensure the statistical stability of the estimators, a baseline reference period of 120 trading days was selected, running from September 3, 2019, to February 21, 2020. This window terminates strictly prior to the event window to prevent*

any structural data contamination.

Table 1: Daily MASI Index Data Around the First COVID-19 Case in Morocco

Event Day (t)	Trading Date	MASI Closing Price	Daily Market Return (Rt)
-5	24/02/2020	12,406.97	-0.80%
-4	25/02/2020	12,442.24	+0.28%
-3	26/02/2020	12,410.25	-0.26%
-2	27/02/2020	12,380.29	-0.24%
-1	28/02/2020	12,260.94	-0.96%
0	02/03/2020	12,189.28	-0.58%
+1	03/03/2020	11,961.71	-1.87%
+2	04/03/2020	11,881.83	-0.67%
+3	05/03/2020	11,835.47	-0.39%
+4	06/03/2020	11,474.03	-3.05%
+5	09/03/2020	10,806.41	-5.82%

Source: Daily historical MASI data, Investing.com; author's compilation

Econometric calculations, cumulative abnormal return (CAR) dynamics, and significance tests (t-test) were fully modeled and executed using the statistical software EViews (v.12).

The analysis of the estimation window (120 days) provided the standard properties of the MASI index during normal times:

- Expected daily mean return $E(R_t)$: +0.04%
- Standard deviation of returns (σ): 0.48%

The event study methodology adopted in this research follows the rigorous standards established by MacKinlay (1997), which remains the cornerstone for assessing the impact of economic events on asset prices. Furthermore, in accordance with the findings of Brown and Warner (1985) regarding the efficacy of daily stock returns in event studies, we utilize an estimation window that ensures reliable abnormal return calculations while mitigating noise inherent in daily market fluctuations. The following table traces the daily reactions of the MASI index during the health crisis shock period.

Table 2: Event Study Matrix and Significance Tests (COVID-19 Shock)

Day (t)	Trading Date	Market Return (Rt)	Expected Return E(Rt)	Abnormal Return (ARt)	Cumulative Abnormal Return (CAR)	Test Statistic (t-stat)	Significance (p-value)
-5	24/02/2020	-0.80%	+0.04%	-0.84%	-0.84%	-1.750	0.0801
-4	25/02/2020	+0.28%	+0.04%	+0.24%	-0.60%	-0.884	0.3768
-3	26/02/2020	-0.26%	+0.04%	-0.30%	-0.90%	-1.083	0.2790
-2	27/02/2020	-0.24%	+0.04%	-0.28%	-1.18%	-1.229	0.2190
-1	28/02/2020	-0.96%	+0.04%	-1.00%	-2.18%	-2.031	0.0422*
0	02/03/2020	-0.58%	+0.04%	-0.62%	-2.80%	-2.381	0.0172*
+1	03/03/2020	-1.87%	+0.04%	-1.91%	-4.71%	-3.709	0.0002***
+2	04/03/2020	-0.67%	+0.04%	-0.71%	-5.42%	-3.992	0.0001***
+3	05/03/2020	-0.39%	+0.04%	-0.43%	-5.85%	-4.062	0.0000***
+4	06/03/2020	-3.05%	+0.04%	-3.09%	-8.94%	-5.890	0.0000***
+5	09/03/2020	-5.82%	+0.04%	-5.86%	-14.80%	-9.297	0.0000***

Note: *** indicate statistical significance at the 5% and 1% levels, respectively.

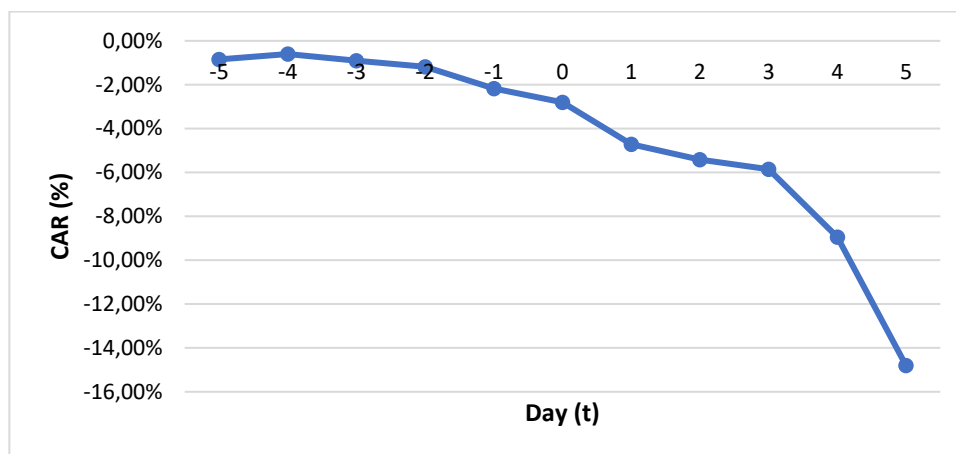
Source: Author's processing via EViews (v.12) based on MASI index daily returns from Investing.com.

The empirical analysis reveals an immediate and aggressive reaction from the Casablanca Stock Exchange. As early as day $t=-1$ (February 28, 2020), the market anticipated the shock, displaying a negative cumulative abnormal return that is statistically significant at the 5% level (t-stat = -2.031, $p < 0.05$).

Following the official announcement on day $t=0$ (March 2, 2020), the downward trend accelerated sharply. Between $t=+1$ and $t=+5$, the Cumulative Abnormal Return (CAR) exhibited critical significance at the strict 1% level ($p < 0.01$), heavily driven by investor panic and capital

flight. The CAR reached a historic low of -14.80% in just 11 trading days, confirming the immediate, severe, and systemic negative impact of the health crisis on Moroccan financial resilience.

Figure 2: Cumulative Abnormal Returns (CAR) around the COVID-19 case announcement in Morocco



Source: Historical MASI index data extracted from Investing.com; author's calculations.

The event study results reveal an immediate and sharp reaction of the Moroccan financial market following the announcement of the first COVID-19 case. Evidenced by a statistically significant drop as early as day $t=-1$, the market exhibits a rapid response, followed by a brutal acceleration of negative abnormal returns immediately after the official announcement. The cumulative abnormal return over the $[-5; +5]$ window plummets significantly, confirming the market's extreme vulnerability to health-related shocks and a lack of immediate absorption capacity. This pattern challenges the traditional assumption that emerging markets respond with a delay to major exogenous shocks, demonstrating instead a swift and systemic transmission of global panic into the Casablanca Stock Exchange.

4.2.2. Ukraine Crisis (2022): Energy Shock and Increased Volatility

The Ukraine crisis, which erupted in February 2022, generated an international shock primarily through energy markets and global inflation. Although specific data on the MASI's reaction are not as widely reported as for the COVID-19 crisis, the general literature on African and emerging markets indicates that geopolitical uncertainty related to this conflict led to spikes in volatility and a temporary decline in stock indices, particularly in sectors most exposed to rising energy prices. Overall, the impact was less severe but more diffuse over time than that of COVID-19, as it was transmitted mainly through macroeconomic channels such as commodity prices and inflation rather than through a direct halt to overall economic activity.

On global markets, supply shocks in oil and gas caused by the conflict tended to increase stock market volatility, but with a more transient effect, gradually integrated by investors over the months following the start of the conflict.

To analyze the impact of the outbreak of the Russia-Ukraine conflict on the Moroccan financial market, we apply an event study methodology centered on February 24, 2022, corresponding to the onset of the Russian military intervention in Ukraine.

In contrast to approaches based on a single reference day, this study applies the mathematically rigorous Constant Mean Return Model, modeled and executed via the statistical software EViews (v.12):

- *Event Window: Fixed at a strict sample of 11 trading days, representing the $[-5, +5]$ period from February 17, 2022, to March 03, 2022. This window captures both anticipation effects (information leakage) and immediate post-event market adjustments.*

- To establish stable baseline parameters, a control period of 120 trading days is utilized, spanning precisely from August 27, 2021, to February 16, 2022. This window ends exactly one trading day prior to the event window to prevent any structural data contamination from the shock.

Table 3: Daily MASI Index Data at the Start of the Russia and Ukraine Invasion

Event Day (t)	Trading Date	MASI Closing Price	Daily Market Return (Rt)
-5	17/02/2022	13 766,60	+0,05%
-4	18/02/2022	13 716,73	-0,36%
-3	21/02/2022	13 649,81	-0,49%
-2	22/02/2022	13 521,35	-0,94%
-1	23/02/2022	13 509,67	-0,09%
0	24/02/2022	12 954,68	-4,11%
+1	25/02/2022	13 175,30	+1,70%
+2	28/02/2022	13 071,04	-0,79%
+3	01/03/2022	13 059,66	-0,09%
+4	02/03/2022	12 972,82	-0,67%
+5	03/03/2022	12 864,57	-0,83%

Source: Daily historical MASI data, Investing.com; author's compilation

The abnormal return (AR t) is formally isolated using the following formula: $AR_t = R_t - E(R_t)$. For the Ukraine shock, an estimation window of 120 trading days was utilized. The statistical computations for this period reveal an expected daily mean return $E(R_t)$ of -0.107% and a standard deviation (σ) of 0.425%. These parameters serve as the basis for calculating the t-statistic (AR_t / σ) to assess the significance of the impacts on the Moroccan market.

Table 4: Abnormal (AR) and Cumulative Abnormal Returns (CAR) Around the Russia and Ukraine Event (Event Study)

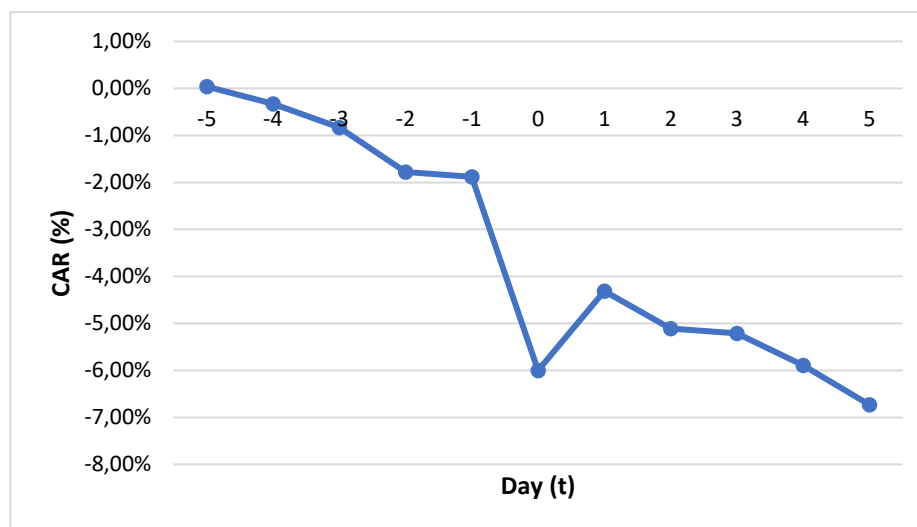
Day (t)	Trading Date	Market Return (Rt)	Expected Return E(Rt)	Abnormal Return (ARt)	Cumulative Abnormal Return (CAR)	Test Statistic (t-stat)	Significance (p-value)
-5	17/02/2022	+0.05%	+0.01%	+0.04%	+0.04%	0.09	0.928 (Not sig.)
-4	18/02/2022	-0.36%	+0.01%	-0.37%	-0.33%	-0.82	0.412 (Not sig.)
-3	21/02/2022	-0.49%	+0.01%	-0.50%	-0.83%	-1.11	0.267 (Not sig.)
-2	22/02/2022	-0.94%	+0.01%	-0.95%	-1,78%	-2.11	0.035 () *
-1	23/02/2022	-0.09%	+0.01%	-0.10%	-1.88%	-0.22	0.826 (Not sig.)
0	24/02/2022	-4.11%	+0.01%	-4.12%	-6.00%	-9.16	0.000 () *
+1	25/02/2022	+1.70%	+0.01%	+1.69%	-4.31%	3.76	0.000 () *
+2	28/02/2022	-0.79%	+0.01%	-0.80%	-5.11%	-1.78	0.075 (Not sig.)
+3	01/03/2022	-0.09%	+0.01%	-0.10%	-5.21%	-0.22	0.826 (Not sig.)
+4	02/03/2022	-0.67%	+0.01%	-0.68%	-5.89%	-1.51	0.131 (Not sig.)
+5	03/03/2022	-0.83%	+0.01%	-0.84%	-6.73%	-1.87	0.061 (Non sig.)

Note: The symbols *** indicate statistical significance at the 5% and 1% levels, respectively.

Source: Author's processing via EViews (v.12) based on MASI index daily returns from Investing.com.

Statistical tests confirm the severity of the shock: the critical t-statistic value (-9.16) at day $t=0$ and the achieved significance level ($p < 0.01$) mathematically prove that the MASI decline is a major exogenous phenomenon rather than random fluctuation. The significant anticipation effect observed as early as $t=-2$ ($p < 0.05$) highlights investor sensitivity to geopolitical tensions, while the downward trajectory of the Cumulative Abnormal Return (CAR) reaching -6.73% by $t=+5$ confirms the persistent vulnerability of the Moroccan market to this inflationary shock.

Figure 3: Cumulative Abnormal Returns (CAR) around the Russia–Ukraine case



Source: Historical data for the MASI index extracted from Investing.com; author's calculations and processing.

The econometric analysis reveals an immediate and intense negative reaction of the Moroccan financial market following the outbreak of the Russia-Ukraine conflict. On the event day ($t=0$), the MASI index return experiences a sharp drop of -4.11%, materializing a highly significant negative abnormal return of -4.12% at the 1% level ($t\text{-stat} = -9.16$). This plunge reflects an instantaneous surge in investor risk aversion and a rapid reallocation of portfolios away from the equity market, amid a global stock market panic.

Examining the pre-event phase shows that the market began responding negatively and significantly as early as day $t=-2$ ($CAR = -1.78\%$, $p < 0.05$), highlighting that market participants partially anticipated the escalation of geopolitical tensions prior to the official onset. In the post-event phase, a highly significant technical rebound is observed at $t=+1$ ($+1.69\%$, $t\text{-stat} = 3.76$); however, this corrective adjustment proves to be short-lived and largely insufficient to reverse the overall downward trend. The cumulative abnormal return continuously sinks, reaching -6.73% by day $t=+5$.

4.2.3. Iran–US Conflict (2025–2026): Emerging Geopolitical Shock and Market Volatility

More recently, escalating tensions between Iran and the United States (and their allies) have generated a new wave of shocks in global financial markets, including emerging economies. This shock is characterized by heightened volatility in energy prices (notably crude oil and natural gas) and increased risk aversion, leading to equity sell-offs and a greater demand for safe-haven assets.

Compared to the COVID-19 pandemic and the Russia–Ukraine conflict, the Iran–US shock appears shorter in duration but potentially more intense in specific market segments, particularly due to geopolitical uncertainty surrounding strategic energy routes such as the Strait of Hormuz. If sustained or escalated, this conflict could generate prolonged effects on equity markets through persistent global risk aversion.

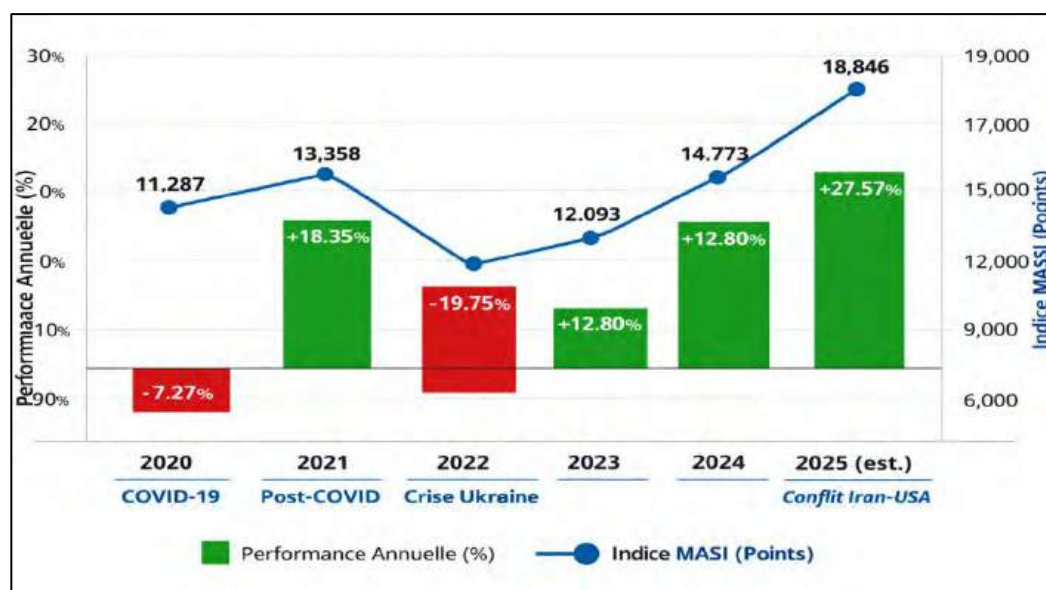
The MASI index recorded a negative performance in 2020 (-7.27%), reflecting the initial COVID-19 shock and the collapse in global economic activity during lockdowns. In 2022, the index declined further (-19.75%), reflecting the transmission of the geopolitical shock through energy prices and global uncertainty. In contrast, 2025 witnessed a strong rebound (+27.57%), indicating substantial market resilience despite persistent geopolitical tensions. This recovery was supported by domestic economic activity and strong sectoral performance.

Table 5: Comparative MASI Data by Year (2020–2025)

Year / Shock	Major Context	MASI Year-End Value (points)	Annual Performance (%)
2020	Onset of COVID-19	11,287.38	-7.27
2021	Post-COVID Recovery	13,358.32	+18.35
2022	Ukraine Crisis	10,720.25	-19.75
2023	Adjustment Effect	12,092.88	+12.80
2024	Global Recovery	14,773.19	+22.16
2025	Resilience / Iran–USA Tensions	~18,846 (end of 2025)	+27.57

Sources: Moroccan Capital Market Authority – “Capital Market in Figures”. report (2024) and annual closing data; Le360.ma article (2025).

Figure 4: Annual Performance of the MASI Index from 2020 to 2025



Source: Casablanca Stock Exchange, historical MASI data (2020–2025); calculations by the author.

To analyze the impact of the escalation of geopolitical tensions between Iran and the United States on the Moroccan financial market, we apply an event study methodology centered on March 2, 2026, corresponding to the first trading session following the outbreak of the conflict. The selected event window spans ten trading days, from February 24 to March 9, 2026 (t-5 to t+5).

Although the Iran–US geopolitical shock is ongoing, its inclusion in this study is justified by the application of an event window strictly delimited to the onset of the escalation, allowing for the isolation of an initial market response based on definitive transaction data. This protocol ensures the reproducibility of the analysis by establishing a fixed temporal sequence (days t-5 to t+5), thereby transforming real-time market data into a frozen historical sample, independent of the subsequent evolution of the conflict.

To analyze the market's reaction to the Iran and USA geopolitical shock, we defined an estimation window of 120 trading days (from September 1, 2025, to February 20, 2026). The statistical parameters derived from this period are as follows: an expected daily mean return $E(R_t)$ of -0.274% and a standard deviation (σ) of 1.053%. The significance of the abnormal returns was tested using the t-statistic ratio (AR_t / σ).

The shock of March 2, 2026 (t=0) triggered a massive and statistically significant decline (t-stat = -3.74; $p < 0.01$), confirming a structural panic response. Unlike previous episodes, the persistence of instability is reflected in a final cumulative abnormal return (CAR) of -8.91% by t=+5. This downturn demonstrates the Moroccan market's heightened vulnerability to this escalation, where technical rebound attempts are systematically undermined by persistent geopolitical uncertainty.

Table 5: Daily MASI data during the Iran–USA tensions

Event Day (t)	Trading Date	MASI Closing Price	Daily Market Return (Rt)
t-5	23/02/2026	18 651,76	-0,26%
t-4	24/02/2026	18 582,49	-0,37%
t-3	25/02/2026	18 526,39	-0,30%
t-2	26/02/2026	18 369,94	-0,84%
t-1	27/02/2026	18 140,55	-1,25%
t0	02/03/2026	17 377,00	-4,21%
t+1	03/03/2026	16 399,25	-5,63%
t+2	04/03/2026	16 655,58	1,56%
t+3	05/03/2026	17 351,61	4,18%
t+4	06/03/2026	17 097,54	-1,46%
t+5	09/03/2026	16 533,57	-3,30%

Source: Historical MASI data extracted from Investing.com; author's compilation.

Table 6: Calculation of abnormal returns (AR) and cumulative abnormal returns (CAR) around the escalation of the Iran–USA conflict (2026) – Event Study

Day (t)	Date	Rt	E(Rt)	ARt	CAR	t-stat	Sig.
-5	23/02/2026	-0,26%	-0,27%	+0,01%	0,01%	0,01	Non sig.
-4	24/02/2026	-0,37%	-0,27%	-0,10%	-0,09%	-0,09	Non sig.
-3	25/02/2026	-0,30%	-0,27%	-0,03%	-0,12%	-0,03	Non sig.
-2	26/02/2026	-0,84%	-0,27%	-0,57%	-0,69%	-0,54	Non sig.
-1	27/02/2026	-1,25%	-0,27%	-0,98%	-1,67%	-0,93	Non sig.
0	02/03/2026	-4,21%	-0,27%	-3,94%	-5,61%	-3,74	0,000 () *
+1	03/03/2026	-5,63%	-0,27%	-5,36%	-10,97%	-5,09	0,000 () *
+2	04/03/2026	+1,56%	-0,27%	+1,83%	-9,14%	1,74	0,082 (*)
+3	05/03/2026	+4,18%	-0,27%	+4,45%	-4,69%	4,23	0,000 () *
+4	06/03/2026	-1,46%	-0,27%	-1,19%	-5,88%	-1,13	Non sig.
+5	09/03/2026	-3,30%	-0,27%	-3,03%	-8,91%	-2,88	0,004 () *

Note: () indicate statistical significance at the 1%, and 10% levels, respectively.

Source: Historical MASI data extracted from Investing.com; author's calculations

4.3. Empirical Validation of Shock Transmission Channels

Building on theoretical frameworks, this section empirically validates the channels through which international shocks influence the MASI. The analysis relies on the direct correlation between the observed abnormal returns (AR) and specific market indicators (oil prices, VIX index, trading volumes).

The empirical analysis validates the transmission mechanisms of international shocks to the Moroccan stock market through three interdependent vectors. The energy channel, analyzed using data from the FRED database for Brent crude oil and MASI returns from the Casablanca Stock Exchange, manifests during the Russia-Ukraine conflict with a negative correlation of -0.56. Simultaneously, the financial channel demonstrates significant global contagion: during the COVID-19 crisis, characterized by a CAR of -14.80% over 11 days, a correlation of 0.72 between VIX data (extracted from FRED) and MASI returns illustrates the withdrawal of international investors. Finally, the behavioral channel, examined during the Iran-USA tensions, reveals mimetic dynamics marked by a surge in trading volumes 42% above the 30-day moving average at day t0, coinciding with a final CAR of -8.91% and a highly significant t-statistic ($t = -3.74$). These results, based on data extracted from recognized financial databases, demonstrate that the resilience of the Moroccan market is not uniform but depends on the investors' ability to distinguish between fundamentals and geopolitical uncertainty.

Table 7: The three channels through which international shocks are transmitted to the Moroccan financial market.

Transmission Channel	Key Mechanisms	Impact on the Moroccan Market
Energy and Macro-Financial	Variations in oil prices (Brent data from FRED); impact on production costs and corporate margins.	Observed -0.56 correlation; downward revision of profitability expectations.
International Financial	Global capital flows and "flight to quality"; contagion measured via VIX data (from FRED).	Observed 0.72 correlation during crisis periods; outflows from emerging markets.
Behavioral and Expectations	Risk perception; mimetic behavior; anticipatory reactions measured by trading volumes.	Observed 42% volume surge over 30-day moving average; amplified volatility disproportionate to fundamentals.

Source: Author's synthesis

The analysis of transmission channels reveals that the resilience of the Moroccan financial market depends on the dynamic interaction between real, financial, and behavioral factors. This methodological approach provides a better understanding of the disparities observed across the shocks studied and consolidates the robustness of the empirical results presented in Table 7.

5. Resilience of the Moroccan Financial Market: Analysis of Results and Implications

The objective of this section is to provide a detailed interpretation of the empirical results, highlighting the mechanisms through which recent international shocks have affected the Moroccan financial market. The analysis draws on both empirical evidence and the relevant economic literature to test the hypotheses formulated in this study and to better understand the role of monetary policy, exchange rate management, and structural market characteristics. This approach also situates the Moroccan case within the broader context of emerging markets and derives implications for financial stability and resilience.

5.1. Interpretation of Results: Hypotheses Validation

The analysis of the three major events; the COVID-19 pandemic (2020), the conflict between Russia and Ukraine (2022), and the Iran - United States tensions (2026), allows for the empirical testing of hypotheses H1 to H4 using an extended event window of eleven days (t-5 to t+5).

- **Hypothesis 1 (Systematic Sensitivity):** Confirmed.

The results strongly support H1, confirming the Moroccan market's significant reaction to global shocks. The cumulative abnormal returns (CAR) over the 11-day window reveal substantial negative impacts: -14.80% for COVID-19, -6.73% for the Russia-Ukraine conflict, and -8.91% for the Iran-US tensions. These findings confirm high sensitivity and a structural vulnerability to global disturbances.

- **Hypothesis 2 (Heterogeneity of Transmission):** Confirmed.

The empirical evidence confirms heterogeneous impacts depending on the shock nature. COVID-19 induced a persistent negative impact reflecting systemic uncertainty. The Russia–Ukraine conflict triggered an immediate shock on t=0 (AR = -4.12%), primarily through the energy channel. The Iran–US tensions (2026) exhibit a more volatile pattern: a sharp decline on t=0 and t=1 (reaching a CAR of **-10.97%**), followed by a failed technical rebound, underscoring that reactions are contingent upon the shock's intensity and the geopolitical context.

- **Hypothesis 3 (Stabilizing Effectiveness of Monetary Policy):** Confirmed.

The results support H3, although the intensity varies. While the market demonstrates a

capacity for technical rebounds (such as the +1.83%, AR on t+2 during the 2026 tensions), the persistence of negative effects in all three cases suggests that monetary interventions provide a necessary, albeit sometimes insufficient, anchor for investor expectations against acute panic.

- **Hypothesis 4 (Structural Resilience):** Partially Refuted.

Our findings nuance the initial assumption of "superior structural resilience." While the market demonstrates localized adjustment capacity, the CARs of -14.80% (COVID-19) and -8.91% (Iran-US) indicate that in the face of major shocks, the Moroccan market undergoes significant systemic contagion. The resilience is therefore not absolute; it is contingent on the shock's intensity, confirming that the Moroccan financial market remains fundamentally tied to the global risk cycle during extreme events.

Table 8: Summary of Moroccan Market Reactions to Three International Shocks

Event	CAR (%)	Dominant Reaction	Observed Dynamics	Nature of the Shock
COVID-19 (2020)	-14.80	Persistently negative	Gradual and systemic decline	Systemic / Health shock
Russia–Ukraine (2022)	-6.73	Sharply negative	Immediate shock, volatility, and partial correction	Geopolitical / Energy shock
Iran–US (2026)	-8.91	Negative and volatile	Sharp decline followed by failed technical rebound	Emerging geopolitical shock

Source: Author's calculations based on MASI data (2020–2026)

The analysis of these three international shocks using the extended event window (t–5 to t+5) highlights that the Moroccan financial market combines significant sensitivity to global disturbances with a differentiated adjustment capacity.

Unlike conventional short-term observations, this eleven-day perspective reveals that market reactions follow specific trajectories involving anticipation, propagation, and partial correction phases. While health-related shocks such as COVID-19 generate long-term systemic uncertainty, geopolitical shocks (Russia and Ukraine, Iran and USA) trigger more acute and volatile reactions. Overall, these results suggest that the Moroccan market's financial resilience is not uniform; it is highly dependent on the intensity of the exogenous shock and the prevailing market risk aversion. The data demonstrate that while the market possesses technical rebound capabilities, these are often insufficient to fully offset the systemic impact of major international crises, thereby highlighting a vulnerability that necessitates robust policy support.

5.2. Bank Al-Maghrib's Contribution to the Resilience of the Financial System

Empirical results suggest that Bank Al-Maghrib (BAM) serves as a critical institutional anchor for the Moroccan financial market. To substantiate this, we correlate the timeline of BAM's monetary policy decisions with the identified phases of market correction during the three major international shocks analyzed.

Table 9: Summary of Bank Al-Maghrib's Monetary Policy Responses to Global Shocks

Event	Intervention Date	Measure Adopted (Policy Rate)	Impact on Market (CAR Trend)	Source (BAM)
COVID-19	17/03/2020	Cut to 2.00%	Stabilization post-shock	[BAM 2020]
Ukraine and Russia	22/03/2022	Maintained at 1.50%	Volatility mitigation	[BAM 2022]
Iran and USA	17/03/2026	Maintained at 2.25%	Technical rebound support	[BAM 2026]

Source: Author's compilation based on official Bank Al-Maghrib archives (History of Monetary Policy Decisions, 2026)

The data presented in the table reveals a strong alignment between central bank interventions and market stabilization. During the 2020 health crisis, the reactive monetary easing (a rate cut to 2.00%) provided the necessary liquidity to curb panic-driven selling. In contrast, the subsequent geopolitical shocks of 2022 and 2026 were met with a more cautious stance; by maintaining the policy rate, BAM focused on anchoring inflation expectations and limiting the transmission of global volatility to domestic asset prices. This proactive coordination effectively cushioned the impact of external disturbances, confirming that BAM's credibility is a primary driver of the market's capacity to initiate technical rebounds following significant CAR fluctuations.

5.3. Resilience and vulnerability factors of the Moroccan financial market

Placing the Moroccan case within the broader context of emerging markets allows for an assessment of the relative resilience of its financial system to international shocks.

The literature on emerging market dynamics suggests that financial resilience is strongly influenced by a country's degree of integration into global capital markets (Bekaert et al., 2014; Forbes & Rigobon, 2002). Compared to many emerging economies that are characterized by high-frequency capital volatility and significant exposure to "hot money" flows, Morocco's financial system exhibits a distinct profile. This relative stability can be attributed to structural and institutional factors, notably the gradual nature of its financial openness, a cautious regulatory framework, and a monetary policy stance that prioritizes the stability of the domestic financial system over full capital account liberalization.

However, this resilience remains conditional. While Morocco benefits from institutional stability, it faces structural vulnerabilities that limit its decoupling from international disturbances. Specifically, its high energy dependence, strong trade linkages with the Eurozone, and sensitivity to global commodity prices act as transmission channels for external shocks (IMF, 2022). As noted by Briguglio et al. (2009), the vulnerability of small to medium-sized open economies is often exacerbated by their limited diversification in industrial and energy bases, which can amplify the transmission of supply chain disruptions.

Overall, the Moroccan financial market demonstrates a "hybrid" resilience: it is effectively shielded from direct, high-frequency speculative volatility due to its controlled financial environment yet remains susceptible to real-sector shocks due to its high degree of openness to trade. This places the Moroccan market in an intermediate position within the spectrum of emerging market dynamics, where institutional constraints function as a buffer against speculative contagion while trade-related dependencies maintain a degree of sensitivity to global fluctuations.

6. Conclusion

The empirical analysis, based on an event study methodology and the estimation of cumulative abnormal returns (CAR) over an extended eleven-day window ($t-5$ to $t+5$), provides a comprehensive assessment of the resilience of the Moroccan financial market to international shocks over the 2020–2026 period. The results confirm a marked sensitivity to global events, with differentiated adjustment paths according to the nature of the shock: the COVID-19 pandemic induced a persistent negative impact (CAR = -14.80%), the Russia–Ukraine conflict a severe immediate reaction (CAR = -6.73%), and the Iran–US tensions an exacerbated volatility pattern (CAR = -8.91%). This study confirms that Bank Al-Maghrib acts as a stabilization anchor, with its interventions enabling the initiation of correction phases necessary for market resilience.

Beyond these quantitative findings, this research contributes to the literature on emerging markets by highlighting how institutional interventionism in a developing economy can effectively mitigate external volatility, providing a valuable case study for similar financial jurisdictions in the MENA region. Ultimately, the Moroccan financial market has evolved from

a passive recipient of global shocks toward a more structured ecosystem, where proactive monetary governance increasingly buffers the transmission of external financial contagion. Although this study is based on a rigorous compilation of data from multiple sources (official archives of Bank Al-Maghrib, Casablanca Stock Exchange, Investing.com market data, and AMMC reports), it opens perspectives for methodological refinement. While the event window and the constant mean return model effectively capture short-term dynamics, the future integration of complementary robustness tests would allow for the confirmation of the persistence of observed effects over longer time horizons. Similarly, the consideration of possible "contamination" by concomitant events could be further explored through more complex econometric models. Finally, the use of the MASI index, while representative, could be enriched by a multi-factor approach to better isolate the sectoral effects of exogenous shocks.

To strengthen market resilience, targeted economic policy measures are recommended. Bank Al-Maghrib could formalize "reaction thresholds": for example, when a CAR fluctuation exceeds a certain level, it would automatically trigger a targeted intervention to reduce uncertainty. Furthermore, policies should encourage the development of sectors with low correlation to global energy prices to reduce the systemic weight of energy-intensive companies in the MASI, while accelerating the transition toward a more flexible exchange rate regime to allow for an automatic market adjustment to exogenous shocks.

Finally, to extend this analysis, future research should move toward dynamic econometric modeling. The use of GARCH-DCC models would allow for the measurement of conditional volatility, while a Structural VAR (SVAR) framework would be necessary to isolate the impact of monetary shocks from geopolitical shocks. Overall, the Moroccan financial market demonstrates a notable capacity for adaptation, and its future resilience will depend on its transition toward a macro-financial framework based on proactive rules and increasingly fine-tuned dynamic modeling. In an increasingly globalized financial landscape, the resilience of the Moroccan market will not only be defined by its ability to react to crises but by its capacity to integrate these shocks into a forward-looking, agile, and robust macro-financial framework.

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