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IMF Interventions and Financial Market Reactions: Evidence from Currency, Equity, and Interest Rate Markets in Emerging and Developed Economies

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Abstract

This paper examines how International Monetary Fund (IMF) lending affects financial markets across emerging and developed economies from 2002 to 2023 using an event study approach. Our findings indicate that IMF loans are typically granted during periods of global financial distress. While aggregate effects on debt, currency, and equity markets appear limited, a more detailed analysis reveals significant shifts in currency and stock markets around loan announcements. Notably, markets often react up to seven days before an official IMF announcement, with the strongest effects seen in the interest rate markets of emerging economies. These findings highlight the importance of tailoring IMF programs to account for market heterogeneity and structural differences between developed and emerging economies.

Keywords: IMF programs; event study; financial markets; capital markets

JEL: F33; F34; E43; G15; C23

1. Introduction

Throughout modern economic history, nations have undergone recurrent cycles of growth and crisis. However, the 21st century has seen an escalation in both the frequency and the severity of internal and external shocks, prompting nations to seek assistance from international financial institutions and organizations. Among these, the International Monetary Fund (IMF) has played a key role by extending over 300 assistance programs in various countries over the past two decades, often returning multiple times to assist the same nations. These interventions aim to reduce uncertainty, stabilize economies, mitigate crises, and promote international financial cooperation. IMF interventions can profoundly affect both domestic and international financial markets, not only through disbursements but also by shaping market expectations.

The impact of IMF programs on economies and financial markets, both in the short and long term, has attracted significant academic attention (Eichengreen & Mody, 2000; Saravia & Mody, 2003; Hayo & Kutan, 2005; Gehring & Lang, 2020; Kogan et al., 2024). A strand of literature has linked IMF participation to episodes of capital flight, particularly in emerging economies, where the stringent conditionalities and uncertainty surrounding program outcomes may erode investor confidence. This outflow of capital tends to exert downward pressure on the currency, mainly driven by dollar outflows (Bird & Rowlands, 2002; Dreher & Walter, 2010).



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The severity of the conditions imposed by the IMF, combined with the uncertain long-term effects, contributes to a capital exodus, primarily exerting pressure on the currency market through substantial dollar outflows. While IMF disbursements may partially offset the capital flight, persistent effects may lead to inflationary pressures and may spill over into the sovereign debt and interest rate markets (Kern et al., 2023).

Previous research has focused on the effects of IMF programs on sovereign debt and interest rate markets. However, one of the few studies that seeks to unify the effects of IMF-related news across different types of markets was developed by Brealey and Kaplanis (2004). In their event study, the authors aimed to capture the effects and analyze whether IMF intervention stabilizes or improves the valuation of various asset classes. Their findings suggest that while the IMF assistance announcements do not significantly impact markets, negative news—such as failed negotiations—often triggers negative adjustments. Additionally, Brealey and Kaplanis (2004) observe that equity prices tend to decline in the weeks preceding IMF announcements, and the equity market falls, suggesting that market expectations diminish the impact of the official news itself.

Against the backdrop of heightened global uncertainty and financial instability, it is increasingly vital to deepen our understanding of how International Monetary Fund (IMF) programs and interventions influence financial markets' dynamics. This paper addresses a relatively underexplored, yet policy-relevant question of how IMF programs affect financial markets¹, and to what extent do these effects differ between emerging and developed economies? Methodologically, we employ an event study framework, which is well-suited for capturing the timing and magnitude of market responses to specific policy-relevant events. A great deal of attention is given to the question of market anticipation—whether financial markets respond in advance of official announcements—and to how such anticipatory behavior varies across asset classes and economic contexts.

The contribution of this research is twofold. First, most previous studies have adopted a segmented approach, focusing on individual markets or country case studies. Our analysis provides a comprehensive, cross-market assessment of IMF interventions by comparing emerging and developed markets, thereby recognizing the institutional and structural differences that influence market sensitivity and adjustment mechanisms. Second, our paper examines the interest rate term structure—a critical factor that remains unexplored in the context of IMF interventions—thereby enhancing our understanding of how market expectations evolve, particularly in less developed financial markets.

The remainder of the paper is organized as follows: Section 2 reviews the extant literature and outlines the hypotheses. Section 3 presents the empirical part by expounding upon the data, methodology and research design. Section 4 reports the empirical findings, while Section 5 discusses the implications for policymakers and investors. Finally, Section 6 offers some concluding remarks and suggestions for future research.

2. Literature Review

2.1. Shocks and Effects on Financial Markets

Since its establishment in 1944, the IMF has served as a financial safety net for member countries facing balance-of-payments crises, as seen in episodes such as the Eurozone crisis, Argentina, and Greece. While IMF support is intended to restore stability, debates persist regarding the effectiveness and allocation of its resources. The conditionality attached to IMF loans has been criticized for potential adverse medium- and long-term impacts, and concerns remain about the influence of IMF lending on financial markets.

Conway (1994), analyzing 217 programs in developing countries from 1976 to 1986, found that while IMF loans may initially suppress economic growth, they improve current account balances and yield substantial long-term benefits, including development and sta-

bility. Key drivers for seeking IMF aid include poor economic performance, high external debt, and current account deficits. Dreher and Walter (2010) used a panel of 68 countries from 1975 to 2002 to identify two main channels through which IMF interventions affect financial markets. The primary channel is the direct fund transfers, which boost international reserves and signal stability, reducing speculative risks and the likelihood of a currency crisis. The other channel involves IMF-imposed conditions and technical guidance, which aim to enhance macroeconomic stability and rebuild investor confidence. When these conditions are met, markets tend to respond positively, attracting investment and improving financing conditions. However, IMF intervention may also increase moral hazard, encouraging riskier policies under the assumption of continued support—a dynamic that depends on market perceptions of a country's commitment to reforms. Mäkinen et al. (2020) highlight the role of implicit guarantees in shifting perceived risk from the underlying asset to the guarantor, with asset prices reflecting the guarantor's economic and fiscal conditions. The degree of uncertainty surrounding the guarantor affects risk premia, which tend to decline in strong, low-risk economies. This raises questions about the credibility of IMF support, as the effectiveness of its programs depends on member states' willingness and capacity to comply with conditionality.

Essers and Ide (2019) identify a “confidence effect” associated with IMF flexible credit lines (FCL), finding that FCL approval is linked to lower sovereign bond spreads, improved market access, and greater resilience to external shocks. These stabilizing effects stem from the strong policy frameworks and institutional credibility required for qualification, which signal long-term macroeconomic stability to investors.

Further evidence by Balima and Sy (2021) suggests that IMF lending can reduce default risk and improve sovereign credit ratings by providing liquidity to meet immediate external financing needs, thereby supporting short-term investor confidence and capital inflows. However, Jorra (2012) presents a more nuanced view, showing that IMF programs may, over the medium term, increase default risk by weakening fiscal solvency in already vulnerable economies. This potential for moral hazard, combined with increased volatility in domestic financial markets, implies that the stabilizing effects of IMF assistance may be state-dependent and could entail destabilizing consequences in the long run. Building on the preceding discussion, the first hypothesis is formulated as follows:

H1a. *IMF-guaranteed loans influence short-term behavior in the foreign exchange market.*

H1b. *IMF-guaranteed loans influence short-term behavior in equity markets.*

H1c. *IMF-guaranteed loans influence short-term behavior in interest rate (CDS) markets.*

2.2. Reaction of Financial Markets

A growing body of literature examines the significant impact of IMF program participation on financial market dynamics. Aiyar and Patnam (2024) find a strong association between IMF program involvement and capital flight, with outflows disproportionately directed toward jurisdictions with low regulation and strong banking secrecy. This pattern reflects domestic investors' concerns about economic instability and the uncertain outcomes of IMF-mandated policy adjustments.

Lane and Phillips (2000) demonstrate that financial markets often react to expectations of IMF interventions even before formal announcements, with asset prices adjusting to perceived risk. Similarly, Tan et al. (2021) demonstrate that while investors may partially anticipate government-led policy interventions, IMF program announcements continue to elicit significant market responses, reflecting persistent risk perceptions despite the credibility provided by IMF support.

Gehring and Lang (2020) provide evidence that IMF lending can improve a country's credibility and credit ratings in the medium term, even when initial program implementation coincides with economic contraction. Credit ratings typically deteriorate prior to loan approval but begin to recover within six months, signaling increased fiscal stability to investors. Moreover, IMF-mandated economic adjustments are associated with reductions in sovereign bond yield spreads, indicating enhanced investor confidence in long-term macroeconomic stability. Recent studies, such as Engler et al. (2023), further highlight the role of external factors and the importance of credit and exchange rate channels in shaping market reactions to IMF programs. Based on this evidence, the second hypothesis is formulated as follows:

H2. *Announcements of IMF programs induce anticipatory reactions in foreign exchange markets, equity markets, and interest rate (CDS) markets.*

2.3. Market Reactions and Stages of Economic Development

The impact of IMF interventions varies significantly between developed and emerging economies, reflecting differences in financial market structures and institutional capacities. Emerging markets generally exhibit greater sensitivity to price shocks and experience prolonged market volatility due to their limited capacity to absorb external disturbances (Boubaker et al., 2023). These economies are also more vulnerable to capital outflows and global risk fluctuations. In contrast, developed economies benefit from deeper and more liquid financial markets, which help mitigate the effects of external shocks.

Lipsy and Lee (2019) argue that IMF interventions can generate asymmetric moral hazard, with developed countries often receiving larger loans with fewer conditional restrictions, potentially fostering riskier domestic policies. Emerging markets, by contrast, tend to accumulate higher levels of international reserves to self-insure against potential biases or delays in IMF support. As a result, developed economies may face more frequent financial crises linked to risky policy choices, while emerging economies typically adopt more conservative approaches to macroeconomic management. Empirical evidence further indicates divergent outcomes across development stages. Li et al. (2015) found that IMF programs improve short-term financial stability in developed countries, whereas their long-term effects in emerging markets are limited—a divergence that also shapes investor perceptions and market reactions. Recent research by Engler et al. (2023) examines the spillover effects of U.S. economic news and monetary policy on emerging markets, finding that these economies are more susceptible to external shocks, which can exacerbate the impacts of IMF interventions. This highlights the need to consider the broader global economic context when assessing the effectiveness of IMF programs. Accordingly, the third hypothesis is formulated as follows:

H3. *The impact of IMF interventions on foreign exchange markets, equity markets, and interest rate (CDS) markets varies significantly between developed and emerging economies.*

3. Data and Methodology

3.1. Data

This study utilizes a comprehensive dataset of IMF-supported programs, covering the period from 2002 to 2023. Information on 333 programs across 105 countries was obtained from the IMF's official repository. Countries are classified as either emerging ($n = 85$) or developed ($n = 20$) economies, following IMF country classifications. The dataset also includes the amount of credit approved under each program, denominated in Special Drawing Rights (SDRs) and converted to USD using the IMF's exchange rate on the

date of approval. These data form the basis for constructing event windows used in the empirical analysis.

3.2. Currency Markets

Exchange rate series for recipient countries were sourced from Capital IQ (S&P) and Workspace (LSEG). The sample excludes countries with regional or fixed exchange rates, such as Eurozone members, as their currencies do not reflect country-specific fundamentals or market-driven responses. Similarly, countries with fixed exchange rates were excluded, as their currencies are not market dependent; thus, they may not respond to IMF program announcements. Of the 333 programs, 229 relate to countries with floating exchange rates (193 emerging, 36 developed), which form the basis for the currency market event study.

3.3. Stock Markets

To access domestic investor sentiment and equity market reactions, national stock market index data were collected from Capital IQ (S&P) and Workspace (LSEG). Only 38 countries had sufficiently developed capital markets to provide usable index data, covering 119 IMF-related events (88 emerging, 31 developed).

3.4. Sovereign Risk and Credit Default Swaps Spreads

Sovereign risk and borrowing costs are measured using CDS spreads² at three maturities: 1-year, 5-year, and 10-year, representing short-, medium- and long-term risk. These are standard benchmarks in international finance, quoted relative to US Treasuries. Data availability is limited, especially for emerging markets, resulting in 97 program events across 43 countries (30 emerging, 67 developed) with CDS data. The data are analyzed over the three maturity horizons to evaluate the term structure effects.

All financial market data span 2002–2023 and are collected at daily or weekly frequency, depending on availability. Variables are transformed (e.g., log returns, percentage changes) and standardized as necessary to ensure comparability. Details on variable definitions, sources, and event window construction are provided in Table A1 in Appendix A.

3.5. Methodology

The primary objective is to examine whether financial markets exhibit abnormal behavior before, during, or after IMF loan announcements. To this end, we employ an event study methodology, which is well-suited for analyzing market reactions to discrete, well-defined events (Binder, 1998; Kliger & Gurevich, 2014). While more complex methodologies have been proposed to assess the impact of events on markets, their added value has been questioned (Brown & Warner, 1980). Recent studies underscore the relevance and reliability of the conventional event study approach (Dordi & Weber, 2019; Kumar et al., 2020).

3.6. Event Study Window

Following standard practice, the event window is divided into three distinct periods. For our analysis, the windows are defined as follows:

Pre-Event Period: A 30-day window prior to the announcement captures the negotiation phase between the IMF and national governments. A supplementary analysis uses a 5-day pre-event window, recognizing the confidential nature of negotiations and embargoed announcements.

Event Period: This window captures the immediate reaction to the announcement. As IMF loan announcements often occur outside trading hours, the event period is defined as the announcement day (Day 0) and the subsequent trading day (Day +1) to capture the immediate market response.

Post-Event Period: A 30-day window following the announcement assesses the persistence and efficiency of market reactions. It allows evaluating whether new information is fully reflected in asset prices in the medium term.

3.7. Estimation Strategy

Event studies estimate the direction and magnitude of market reactions. Given the ambiguous nature of IMF loan announcements—which may be interpreted as supportive or as signals of distress—this study focuses on the magnitude and timing of abnormal returns, rather than their direction. Grounded in the EMH, the methodological approach examines how financial markets respond to new information and whether markets react in a way that eliminates arbitrage opportunities stemming from information asymmetry. The framework enables a systematic investigation of whether and how IMF loan announcements influence market behavior across different economic contexts.

For currency and stock markets, returns are computed as the continuously compounded (logarithmic) difference in asset prices between consecutive days. For CDS, returns are calculated as the first difference in spreads.

In currency markets, normal returns are proxied by the average return over the pre-event period. In equity markets, a market model regresses each country's stock index returns on the S&P 500, capturing the relationship between local and global markets. In CDS markets, a market model uses returns on a regional CDS index (emerging or developed) as the explanatory variable. Subsequently, we compute the CAAR, which is the sum of average abnormal returns over the event window, capturing the total market reaction. Statistical significance is assessed using the variance of CAAR and a t-test. This framework enables a systematic investigation of whether and how IMF loan announcements influence market behavior across different economic contexts.

4. Results

This section presents the empirical findings from the event study analysis, examining the effects of IMF loan announcements on currency, equity, and interest rate markets. The results are organized to highlight the magnitude, timing, and heterogeneity of market responses across developed and emerging economies.

4.1. Aggregate Effects on Financial Markets

Table 1 summarizes the effects of the IMF loan announcements on the various markets.

Currency Markets: The results suggest that IMF loan announcements are associated with heightened exchange rate volatility in the days immediately following the event. Returns increase significantly on the first day after the announcement ($p < 0.01$) and remain elevated at the 90% confidence level the following day, before gradually declining over the subsequent two weeks. By day 14 post-announcement, exchange rate returns fall below pre-event levels and remain subdued for up to 30 days, suggesting an initial market overreaction followed by a correction.

Equity Markets: Stock market indices in recipient countries exhibit predominantly negative returns during the 30-day post-event period, with only isolated positive days that do not offset the overall decline. The negative reaction becomes statistically significant toward the end of the post-event window ($p < 0.10$), suggesting investor caution regarding the potential macroeconomic implications of IMF loans.

In addition to statistical significance, the results are economically relevant, particularly in equity markets where cumulative post-announcement declines in emerging economies reach approximately 1–2 percent over the 30-day window. Although these effects materialize gradually, they represent non-trivial valuation adjustments for domestic investors and

institutional portfolios. Interpreting the results in economic rather than purely statistical terms underscores that IMF announcements may shape risk-return conditions even in markets where short-horizon volatility responses are moderate.

Table 1. Event study analysis from event date and after—entire sample.

Time (Days)	Currency Market	Stock Market	Interest Rate Market		
			1 Year	5 Years	10 Years
0	0.08%	−0.14%	−17	−25	−26
1	0.26% ***	−0.21%	−19 ***	−26 ***	−27 ***
2	0.21% *	−0.27%	−20 ***	−28 ***	−28 ***
3	0.19%	−0.14%	−19 **	−27 ***	−27 ***
4	0.2%	−0.13%	−16 *	−23 ***	−24 ***
5	0.21%	0.12%	−17 *	−24 **	−25 ***
6	0.24%	0.1%	−18 *	−27 **	−30 ***
7	0.16%	0.02%	−22 *	−31 ***	−34 ***
8	0.02%	−0.08%	−19	−28 **	−31 ***
9	0.21%	−0.2%	−17	−27 **	−30 **
10	0.22%	−0.39%	−13	−27 **	−30 **
11	0.18%	−0.46%	−14	−27 **	−30 **
12	0.1%	−0.13%	−23	−35 **	−39 ***
13	0%	−0.2%	−24	−36 **	−40 ***
14	−0.04%	−0.42%	−24	−36 **	−40 **
15	−0.13%	−0.5%	−20	−37 **	−41 **
16	−0.17%	−0.47%	−17	−33 **	−37 **
17	−0.12%	−0.56%	−17	−33 **	−38 **
18	−0.12%	−0.73%	−18	−34 **	−38 **
19	−0.21%	−0.81%	−16	−33 *	−37 **
20	−0.13%	−0.81%	−15	−31 *	−35 **
21	−0.13%	−0.86%	−15	−30 *	−35 *
22	−0.2%	−0.89%	−17	−33 *	−37 **
23	−0.22%	−1.03%	−17	−34 *	−38 **
24	−0.28%	−1.05%	−16	−34 *	−38 *
25	−0.29%	−1.07%	−14	−31 *	−35 *
26	−0.33%	−1.21%	−14	−29	−32 *
27	−0.31%	−1.19%	−14	−30	−33 *
28	−0.19%	−1.45% *	−12	−29	−33 *
29	−0.2%	−1.41% *	−10	−26	−30
30	−0.3%	−1.63% *	−10	−25	−28

* 90% statistical significance; ** 95% statistical significance; *** 99% statistical significance.

Interest Rate Markets: Short-term (1-year) CDS spreads show small negative effects within one day of the announcement, dissipating almost entirely by day 30. Statistical significance is limited to the first week post-event. These results suggest that the IMF loan does not consistently impact short-term interest rate curves.

Medium-term (5-year) and long-term (10-year) CDS spreads decline markedly from the day of the announcement, with reductions significant at the 99% confidence level and persisting for approximately 25 days. This pattern reflects market expectations of accommodative monetary or fiscal policies associated with IMF-supported reforms. The results indicate a significant effect of IMF loans on the term structure of interest rates (yield curve flattening), with limited impact on short-term rates, but pronounced reductions in medium- and long-term spreads, impacting borrowing costs and financial conditions in recipient countries.

4.2. Heterogeneity by Economic Development

To evaluate potential differences in market responses, the analysis was repeated separately for developed and emerging economies (see Table 2).

Table 2. Event study analysis divided by Developed & Emerging countries.

Time (Days)	Currency Market		Stock Market		1 Year		Interest Rate Market 5 Years		10 Years	
	Developed	Emerging	Developed	Emerging	Developed	Emerging	Developed	Emerging	Developed	Emerging
0	0%	0%	0%	0%	0	0	0	0	0	0
1	−0.1%	0.24% **	0.06%	−0.12%	−3	0	−4	0	−3	0
2	−0.28%	0.22% *	0.12%	−0.22%	−6	−2	−8	−1	−6	−1
3	−0.12%	0.15%	−0.12%	0.03%	−6	−1	−12	2	−9	2
4	−0.28%	0.2%	−0.34%	0.12%	6	0	0	2	0	2
5	−0.24%	0.21%	0.1%	0.31%	5	−1	−2	1	0	1
6	−0.14%	0.23%	−0.12%	0.36%	0	−1	−4	−1	−3	−4
7	−0.38%	0.16%	−0.31%	0.32%	8	−9	3	−10	4	−13
8	−0.5%	0.03%	−0.91%	0.39%	18	−10	13	−11	13	−13
9	−0.09%	0.17%	−0.38%	0.05%	23	−9	14	−9	14	−12
10	−0.06%	0.18%	−0.67%	−0.11%	22	−3	8	−7	9	−10
11	0.12%	0.09%	−1.18%	−0.03%	22	−4	11	−7	12	−11
12	−0.29%	0.08%	−0.25%	0.09%	21	−16	9	−18	10	−22
13	−0.94%	0.08%	−0.4%	0.05%	19	−17	7	−18	6	−22
14	−1.03%	0.06%	−0.85%	−0.09%	19	−17	6	−19	8	−23
15	−0.89%	−0.08%	−1.07%	−0.12%	28	−16	9	−21	9	−24
16	−0.66%	−0.17%	−1.21%	−0.04%	32	−13	12	−17	12	−21
17	−0.43%	−0.15%	−1.32%	−0.12%	27	−11	11	−17	10	−21
18	−0.62%	−0.11%	−0.94%	−0.48%	28	−13	12	−19	12	−22
19	−0.86%	−0.18%	−1.55%	−0.37%	35	−13	20	−20	19	−23
20	−0.7%	−0.11%	−1.62%	−0.35%	40	−14	26	−20	25	−24
21	−0.84%	−0.09%	−1.73%	−0.38%	40	−13	28	−20	27	−24
22	−0.87%	−0.17%	−1.66%	−0.44%	34	−13	20	−21	20	−24
23	−0.67%	−0.22%	−1.65%	−0.62%	37	−16	24	−24	22	−27
24	−0.93%	−0.25%	−1.21%	−0.8%	32	−12	21	−22	20	−25
25	−0.83%	−0.28%	−0.99%	−0.91%	37	−11	26	−21	24	−23
26	−1.19%	−0.26%	−0.7%	−1.2%	40	−12	29	−19	27	−20
27	−1.21%	−0.24%	−0.43%	−1.27%	35	−10	24	−18	22	−20
28	−0.69%	−0.19%	−0.6%	−1.56% *	43	−12	28	−19	25	−20
29	−0.91%	−0.16%	−0.55%	−1.52% *	46	−10	31	−16	28	−18
30	−0.92%	−0.28%	−0.89%	−1.7% *	46	−9	35	−15	33	−17

* 90% statistical significance; ** 95% statistical significance.

Currency Markets: Developed economies exhibit a non-significant decline in exchange rate returns following IMF announcements. In contrast, emerging markets experience an initial positive reaction (significant at the 90% confidence level), with daily appreciation exceeding 0.2%. This effect dissipates within 30 days, suggesting that emerging markets initially overreact to news of IMF loans before adjusting to broader economic implications. Developed markets appear to incorporate new information more efficiently, whereas emerging markets initially overreact to news of IMF loans before adjusting to their broader economic implications.

Equity Markets: Developed economies exhibit minimal changes in return volatility, with slight non-significant negative trends that reverse within 30 days. In emerging markets, heightened volatility persists for the first two weeks, followed by a statistically significant cumulative decline of up to 2% over 30 days ($p < 0.10$). This indicates that the overall negative effects observed in the aggregate analysis are primarily driven by emerging markets.

Interest Rate Markets: Short-term CDS spreads in developed markets increase slightly but are not statistically significant; in emerging markets, CDS spreads show negligible movement. Medium-term and long-term CDS spreads present varying effects, neither of which is statistically significant when analyzed separately. Developed markets display non-significant positive trends, while emerging markets show non-significant negative trends. These findings underscore the importance of distinguishing between economies at different stages of development, as aggregating results may mask opposing effects.

In conclusion, IMF loan announcements generate more pronounced volatility and negative reactions in emerging economies. In contrast, developed markets generally

exhibit stability and more measured responses, supporting the hypothesis of heterogeneous market reactions.

4.3. Market Anticipation of IMF Intervention

The third hypothesis examines whether markets anticipate IMF interventions, with reactions occurring prior to official loan announcements. A seven-day pre-announcement window was used for this purpose (see Table 3).

Table 3. Event study analysis divided by Developed & Emerging countries seven days before the IMF announcement.

Time (Days)	Currency Market		Stock Market		1 Year		Interest Rate Market 5 Years		10 Years	
	Developed	Emerging	Developed	Emerging	Developed	Emerging	Developed	Emerging	Developed	Emerging
−7	0%	0%	0%	0%	0	0	0	0	0	0
−6	−0.12%	0.1%	−1.89% ***	−0.13%	29 ***	−26 ***	3	−35 ***	−6	−36 ***
−5	−0.07%	0.06%	−1.3% **	−0.42% *	25 **	−35 ***	−2	−44 ***	−9	−45 ***
−4	−0.15%	0.18%	−1.31% **	−0.07%	39 ***	−22 **	2	−33 ***	−6	−33 ***
−3	0.06%	0.26%	−1.39% *	−0.06%	39 ***	−19 *	2	−32 ***	−9	−32 ***
−2	−0.25%	0.28%	−0.98%	−0.05%	42 ***	−19 *	5	−31 **	−5	−31 **
−1	−0.38%	0.21%	−1.12%	0.25%	32 **	−16	−3	−29 **	−15	−30 **
0	−0.42%	0.17%	−1%	0.16%	21	−33 **	−7	−32 **	−16	−30 **
1	−0.52%	0.41% *	−0.93%	0.05%	18	−34 **	−11	−31 **	−19	−30 **
2	−0.7%	0.39%	−0.88%	−0.06%	15	−35 **	−15	−33 **	−22	−31 **
3	−0.54%	0.32%	−1.12%	0.19%	15	−34 *	−19	−30 *	−25	−27 *
4	−0.7%	0.37%	−1.33%	0.28%	26	−34 *	−7	−30 *	−16	−27 *
5	−0.67%	0.38%	−0.89%	0.47%	26	−34 *	−9	−30 *	−16	−29 *
6	−0.56%	0.4%	−1.11%	0.52%	20	−35 *	−11	−33 *	−19	−34 *
7	−0.8%	0.34%	−1.3%	0.48%	29	−43 **	−4	−42 **	−12	−42 **
8	−0.93%	0.2%	−1.9%	0.55%	39	−43 **	5	−42 **	−4	−43 **
9	−0.51%	0.34%	−1.38%	0.21%	43 *	−43 *	7	−41 **	−2	−41 **
10	−0.48%	0.35%	−1.66%	0.05%	42 *	−37 *	1	−39 *	−7	−40 *
11	−0.3%	0.27%	−2.18%	0.13%	42	−37 *	4	−39 *	−4	−41 *
12	−0.72%	0.25%	−1.25%	0.25%	41	−50 **	2	−50 **	−6	−52 **
13	−1.37%	0.25%	−1.39%	0.21%	40	−51 **	0	−50 **	−10	−52 **
14	−1.45% *	0.23%	−1.85%	0.07%	40	−51 **	−1	−51 **	−9	−53 **
15	−1.31%	0.09%	−2.07%	0.04%	48 *	−50 *	2	−52 **	−7	−54 **
16	−1.08%	0%	−2.21%	0.12%	52 *	−46 *	5	−49 **	−4	−51 **
17	−0.86%	0.02%	−2.31%	0.04%	48	−45 *	3	−48 **	−7	−50 **
18	−1.04%	0.06%	−1.93%	−0.32%	49	−46 *	5	−50 **	−4	−52 **
19	−1.28%	−0.01%	−2.55%	−0.21%	56 *	−47 *	13	−52 **	3	−53 **
20	−1.12%	0.06%	−2.61%	−0.19%	61 *	−47 *	19	−52 **	9	−53 **
21	−1.26%	0.08%	−2.73%	−0.22%	61 *	−47 *	21	−52 *	11	−53 **
22	−1.29%	0.01%	−2.66%	−0.28%	54	−47 *	13	−53 *	4	−54 **
23	−1.1%	−0.05%	−2.65%	−0.46%	58 *	−49 *	16	−55 **	6	−57 **
24	−1.36%	−0.08%	−2.21%	−0.64%	53	−46	14	−54 *	4	−55 *
25	−1.25%	−0.11%	−1.99%	−0.75%	57	−45	19	−52 *	8	−53 *
26	−1.61%	−0.09%	−1.7%	−1.04%	61 *	−45	22	−51 *	11	−50 *
27	−1.64%	−0.07%	−1.42%	−1.11%	56	−43	17	−49 *	6	−49 *
28	−1.12%	−0.02%	−1.59%	−1.4%	64 *	−45	21	−50 *	9	−50 *
29	−1.33%	0.01%	−1.54%	−1.36%	67 *	−43	24	−48 *	12	−47 *
30	−1.35%	−0.11%	−1.88%	−1.54%	67 *	−43	28	−47 *	17	−47

* 90% statistical significance; ** 95% statistical significance; *** 99% statistical significance.

Currency Markets: Developed markets exhibit a temporary cumulative appreciation of approximately 1.5% over 14 days post-event (from 7 days prior), which is significant at the 90% level. Emerging markets experience a temporary cumulative depreciation of 0.4% the day after the announcement, which fully reverses over time. These results indicate short-term inefficiencies in currency markets in both contexts.

Equity Markets: In developed economies, equity returns begin to decline 6 days before the announcement, reaching −2.5% and maintaining that level throughout the analysis. Emerging markets exhibit higher volatility, with an initial 1% decline five days prior, partially reversing before falling again to approximately −2% by the end of the period. This suggests that developed markets anticipate IMF loans more effectively, while emerging markets experience delayed and more erratic adjustments.

Interest Rate Markets: Short-term (1-year) CDS spreads increase significantly in developed markets and decline in emerging markets during the 7-day anticipation window, with these effects persisting through the 30-day post-event period.

Medium- and long-term CDS spreads in developed markets experience significant reductions starting seven days pre-announcement, with declines of 40–50 basis points sustained over the 30-day post-event period. Emerging markets show similar magnitude reductions for long-term spreads, indicating parallel shifts in the yield curve.

These findings confirm that financial markets can anticipate IMF interventions, with differential effects across developed and emerging economies. Developed markets generally display efficient information assimilation and immediate adjustments in short-term rates. In contrast, emerging markets exhibit broader effects across all maturities, reflecting differences in market depth, liquidity, and investor behavior.

While the analysis identifies significant market reactions prior to the official IMF announcement, the study does not attempt to attribute these anticipatory effects to a single mechanism. Pre-announcement adjustments may reflect a combination of information leakage during program negotiations, investor learning from prior IMF engagements, media reporting, or broader macro-financial signals that increase the perceived likelihood of IMF participation. As such, the anticipation effects documented here should be interpreted as evidence of an active pre-announcement information environment rather than conclusive proof of information leakage per se. Future research combining news-flow measures, negotiation timelines, and high-frequency market microstructure data could help disentangle these channels more precisely.

5. Discussion and Policy Implications

This paper demonstrates that IMF loan announcements elicit significant reactions across financial markets. However, the timing and magnitude of these effects vary by asset class and by the level of economic development.

Currency markets respond rapidly to IMF announcements, often exhibiting short-lived overreactions in the days following the event. This pattern reflects the high liquidity and flexibility of the foreign exchange markets, where positions can be adjusted quickly. The observed short-term volatility is consistent with the ‘guarantee effect’, whereby IMF conditionality and advisory services reduce uncertainty about the exchange rate trajectory but simultaneously trigger immediate market adjustments. These results align with [Dreher and Walter \(2010\)](#), who emphasize the IMF’s role in mitigating currency crises by providing liquidity and credibility.

In contrast, equity markets exhibit slower and more cumulative responses to IMF announcements. The negative returns observed in the post-announcement period, especially in emerging markets, suggest that investors remain cautious about the medium- and long-term implications of IMF-supported programs. This gradual adjustment is likely due to the lower liquidity and depth of capital markets in many recipient countries, as well as the time required for investors to assess the impact of IMF conditionality on future returns. These findings are consistent with [Devereux et al. \(2006\)](#), who argue that asset prices in less liquid markets adjust more gradually than in competitive and liquid markets such as foreign exchange.

The differentiated analysis highlights structural asymmetries between developed and emerging economies. IMF loan announcements have stronger effects in emerging markets, where weaker institutions, limited market depth, and the absence of robust macroprudential frameworks amplify volatility. This is in line with [Bergant et al. \(2024\)](#), who find that advanced economies are more resilient to shocks, and [Boubaker et al. \(2023\)](#), who show that emerging markets experience more severe and persistent negative effects from external disturbances. In this context, IMF interventions in emerging economies are particularly consequential, as they can shape both investor sentiment and long-term financing conditions.

A further contribution of this study is the evidence that markets often anticipate IMF interventions. Pronounced reactions are observed in capital and interest rate markets even before official announcements, indicating that investors adjust portfolios in advance of IMF decisions. Currency markets, however, display more erratic behavior, as positions can be rapidly adjusted both before and after announcements. Anticipatory effects in capital markets often manifest as negative returns, reflecting investor concerns about the fiscal and political implications of IMF conditionality. Nevertheless, prior studies also suggest that IMF involvement may be perceived positively in the longer term, as it reduces uncertainty and provides a stabilizing backstop (Gehring & Lang, 2020; Tan et al., 2021).

A closer examination of the cross-market differences observed in the empirical results highlights the role of several underlying economic channels through which IMF interventions affect asset prices. First, the reactions identified in the foreign exchange market are consistent with signaling and credibility effects associated with IMF engagement. The approval of a program may signal policy commitment and external support, thereby reducing uncertainty about macroeconomic management; however, in some cases, it simultaneously reinforces perceptions of underlying fragility, leading to short-term exchange rate adjustments as investors reassess risk.

Second, the behavior of interest rate (CDS) spreads reflects liquidity and policy-backstop expectations. IMF financing and associated policy conditionality may be interpreted as strengthening fiscal buffers and lowering the probability of default in the medium term, which is consistent with the more persistent reductions observed along the CDS term structure. These effects are particularly pronounced where programs are perceived as enhancing policy credibility and improving access to external funding.

Third, the equity-market responses suggest the presence of capital-flow and balance-sheet channels. In many emerging economies, IMF engagement coincides with heightened investor caution, tighter financing conditions, and reallocation of portfolios toward safer assets. These dynamics help explain the gradual but economically meaningful cumulative declines in equity returns following program announcements.

Finally, the heterogeneity across developed and emerging economies reflects structural market characteristics such as liquidity, depth, and institutional quality. Developed markets, with deeper investor bases and stronger institutional frameworks, tend to absorb information more efficiently and exhibit shorter-lived price adjustments, whereas emerging markets display more persistent reactions and higher volatility.

The findings also have important implications for both policymakers and investors. For the IMF, the results underscore the need to recognize the heterogeneous effects of interventions across markets and countries. A “one-size-fits-all” approach risks exacerbating volatility in emerging economies, where markets are less able to absorb shocks. More tailored program design, sensitive to local market structures and institutional capacities, as well as transparent communication strategies, could help mitigate excessive short-term reactions and enhance the credibility of long-term reforms. For investors, the results emphasize the necessity of closely monitoring IMF announcements and program conditionality, as these materially affect risk-return dynamics across asset classes. Understanding the timing and nature of market reactions can inform portfolio allocation and risk management strategies, particularly in emerging markets where volatility is more pronounced. Ultimately, stable exchange rates, predictable interest rate dynamics, and resilient capital markets are essential not only for the success of IMF programs but also for sustaining investment and growth in the economies concerned.

6. Concluding Remarks

One of the IMF's primary objectives is to provide technical and financial assistance to countries facing stress scenarios that constrain their access to international financing or require external support to implement long-term structural reforms. These interventions are intended not only to restore stability but also to generate sustained improvement in economic performance and population well-being. Financial markets, in turn, serve as a catalyst by swiftly incorporating into asset prices the potential future effects of policy decisions and reforms adopted under IMF-supported programs.

This paper examines the effects of IMF interventions on financial markets in emerging and developed economies using an event-study approach across currency, equity, and interest rate markets. The results show that IMF loan announcements trigger significant but heterogeneous market reactions. Currency markets tend to respond rapidly with short-lived volatility, whereas equity and interest rate markets adjust more gradually and persistently—particularly in emerging economies, where market depth and institutional capacity are comparatively weaker.

A central contribution of the study is the evidence of anticipatory behavior: financial markets often react before official announcement dates, especially in capital and interest rate markets. This highlights the role of expectations and information flows as an important transmission channel.

The findings also demonstrate that the development stage matters. Market responses differ systematically between emerging and developed economies, with stronger and more persistent effects in emerging markets—most notably in equity and currency segments. This confirms all three research hypotheses: IMF announcements are associated with abnormal price and spread adjustments across the three market segments (H1a–H1c); significant pre-announcement reactions indicate an expectations channel (H2); and timing and intensity of responses vary by development level (H3).

Overall, the study shows that IMF interventions produce market-specific and development-dependent effects, underscoring the need for program design and communication strategies that account for local market structures and investor behavior.

While this study offers new insights, it also has several limitations. First, the event-study framework is well suited to identifying short-term announcement effects, but it does not allow us to assess the medium- or long-term macroeconomic consequences of IMF programs. Second, although classifying countries as emerging or developed helps reveal systematic cross-group differences, it inevitably obscures important variation within each group, including differences in financial depth, institutional quality, and exchange-rate arrangements. Third, data availability—particularly for CDS markets and longer-maturity instruments—results in an unbalanced sample across countries and asset classes, which may limit the external validity of some results. These constraints are inherent to cross-country financial-market coverage but have been addressed transparently in the analysis. Future research could extend these findings by incorporating additional dimensions of heterogeneity and by linking short-term announcement effects to longer-term programme outcomes. It may also be valuable to examine countries that did not access IMF support, or to segment markets by depth and liquidity rather than solely by development status. Such extensions would further refine our understanding of how IMF interventions influence financial-market performance.

In sum, the effectiveness of IMF programs depends not only on the design of financial assistance but also on the responsiveness and structure of recipient markets. Recognizing and addressing these differences is essential for promoting stability, investment, and sustainable growth in the global economy.³

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Appendix A

Table A1. Definition of Variables.

Variables	Definition
FX	Local Currency Quotation: The exchange rate of the local currency for the country engaged in a loan agreement with the International Monetary Fund.
KM	Capital Market Index Quotation: The performance of the capital market index for the country participating in an IMF loan.
CDS_1Y	1-Year Credit Default Swap (CDS) Quotation: The quotation of 1-year CDS traded on international markets for the country involved in an IMF loan.
CDS_5Y	5-Year Credit Default Swap (CDS) Quotation: The quotation of 5-year CDS traded on international markets for the country participating in an IMF loan.
CDS_10Y	10-Year Credit Default Swap (CDS) Quotation: The quotation of 10-year CDS traded on international markets for the country under an IMF loan agreement.
EVENT_TIME	Announcement Date: The date on which the country's participation in the IMF credit program is publicly disclosed.
MKT	Economic Category: The classification of the country's economy, indicating whether it is developed or emerging.

Notes

- ¹ The term financial markets used here suggests the foreign currency market, interest rates, credit default swaps and the equity markets.
- ² In this paper, the terms ‘interest rate market’ and ‘CDS market’ are used interchangeably. Similarly, the terms ‘capital market’, ‘equity market’ and ‘stock market’.
- ³ Disclaimer: The views and opinions expressed in this paper are those of the authors and do not necessarily reflect the official policy or position of the organizations with which the authors are affiliated.

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in emerging and developed economies**

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