Research in International Business and Finance 67 (2024) 102160

Contents lists available at ScienceDirect

Research in International Business and Finance

journal homepage: www.elsevier.com/locate/ribaf

When giants fall: Tracing the ripple effects of Silicon Valley Bank (SVB) collapse on global financial markets

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ARTICLE INFO

JEL classifications:
G2
G11
G14
G15

Keywords:
Bank run
SVB collapse
Event study
Financial markets
Contagion

ABSTRACT

Using an event study approach, we examine how the forex, metal, energy, and cryptocurrency markets responded to the SVB collapse. We observe that the forex and metal markets respond positively on event and post-event days. In contrast, the cryptocurrency market reacts negatively but generates positive abnormal returns, indicating that investors may seek refuge in these purported safe-havens. However, the energy market responded adversely to the event, and the trend continued in the aftermath. The study advocates the need for monitoring and minimizing financial contagion risk due to the increased interconnectedness of the financial markets. Our findings highlight the perilous consequences of the SVB collapse, as it triggered contagious effects that may spread throughout the global financial markets. Therefore, investors and financial institutions must diversify their portfolios across various asset classes, which can help mitigate the risks of such events.

1. Introduction

The collapse of SVB in March 2023 and two other US-based banks, namely, Silvergate Bank and Signature Bank, has triggered a wave of panic across the banking industry, reigniting fears of contagion and its far-reaching ramifications in the global financial system. The collapse of SVB is the second-largest bank failure since the 2008 global financial crisis and the third-largest bank failure in US history.[1] Based on total assets, SVB ranked as the 16th American bank. The combined capitalization of these three prominent banks amounts to an astounding $330 billion.[2] In addition, all these banks possess a formidable international presence and widespread operations in all major global economies, including Canada, China, Germany, India, the UK, etc. Thus, the collapse of such large banks with a strong international presence can send shockwaves through the global financial system, raising grim fears about the fragility of

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[1] https://www.nytimes.com/interactive/2023/03/10/business/bank-failures-silicon-valley-collapse.html
[2] https://www.jdsupra.com/legalnews/silicon-valley-bank-signature-bank-and-3445676

https://doi.org/10.1016/j.ribaf.2023.102160
Received 28 May 2023; Received in revised form 8 October 2023; Accepted 29 October 2023
Available online 2 November 2023

the banking system and the possibility of a more widespread catastrophe. Therefore, using the event study approach, this study examines how different asset classes respond to the SVB collapse.

The bank run on SVB, along with Silvergate Bank and Signature Bank, has emitted a ripple effect on other banks. The share prices of several major banks, like First Republic Bank, PacWest Bancorp, and Charles Schwab, dropped by 65%, 52%, and 7%, respectively.[3] The Stoxx Europe 600 Banks index has shrunk by 5.6%, and trading of First Republic Bank, PacWest Bancorp, and Charles Schwab has been halted for some time on March 13. The disruption of financial services and loss of confidence have far-reaching impacts on other markets beyond the banking industry (Borges, Ulica and Gubareva, 2020; Yadav, Rao, Abedin, Tabassum & Lucey, 2023; Umar, Sayed, Gubareva and Vo, 2023). Thus, increased uncertainty and decreased investors' confidence have raised questions about the global financial system's stability, which could have adverse impacts that are transversal to other markets such as metals, energy, forex, and cryptocurrency.

First, the metals market shows an upward trend, with the prices of gold and silver climbing up by 7% and 8%, respectively. The shift in demand towards precious metals is an expected reaction to such a significant event, as investors often turn to assets with a haven property during times of economic crisis (Bedoui et al., 2020; Lucey and Li, 2015). The increase in precious metals prices also indicates the perception that the collapse of SVB could have produced wider economic consequences. As such, the uptrend in the precious metals market following the SVB collapse has important implications for investors and policymakers, reflecting market participants' broader sentiment and expectations.

Second, the international energy market responds negatively to the SVB failure. The oil prices experienced a decline of more than 4% in response to the uncertainty created by the bank's collapse.[4] This decline can be attributed to the investors' move to limit their exposure to riskier assets and their search for safer investments (Kopyl and Lee, 2016). In addition, the decline in oil prices could significantly impact the economies of oil-producing countries, as such a decline can reduce their revenue and result in an economic slowdown (Wen et al., 2012).

Third, following the news of the SVB closure on Monday, March 13, 2023, USD fell by approximately 2.5% against the Euro and other major currencies. This is because SVB was a significant lender to many high-tech companies; hence, its failure was seen as a sign of trouble for the broader US tech sector, which could affect the demand for US dollars (Yousaf, Riaz and Goodell, 2023). The collapse of SVB has contributed to a volatile and uncertain forex market, with a range of currencies impacted in different ways. The next day euro slightly receded, 0.36% lower, to $1.069, while the dollar climbed up 0.79% to 134.25 yen, reversing some of its slide on Monday. The dollar index, which measures the currency against six peers, increased 0.3% to 104, partially reversing Monday's 0.94% fall. Britain's pound is down 0.28% to $1.215, while the Australian dollar is down 0.11% at $0.666.[5] Wrapping up, the immediate effect of SVB's collapse was a drop in the value of the US dollar against other major currencies; however, the US government's swift response and emergency measures helped to restore confidence in the banking system and stabilize the currency. Besides conventional markets, the SVB collapse causes fluctuations in digital markets.

Fourth, the collapse of SVB significantly affects the cryptocurrency market. SVB was to be home to some of the largest cryptocurrency exchanges, including Coinbase and Binance, which kept around $3.3 billion in reserves at the bank.[6] Therefore, the failure of SVB initially caused panic in the crypto markets, leading to a sharp decline in the value of cryptocurrencies such as Bitcoin, Ethereum, and others. A sudden inaccessibility to their reserves would also cause liquidity problems for these exchanges, disrupting their trading activities. The potential impact of this collapse on the broader financial system is still uncertain and needs empirical attention to determine its impact on financial markets.

The collapse of SVB highlights the vulnerability of the banking system to financial contagion. It emphasizes the potential for such events to spread across financial institutions, leading to a systemic crisis in the financial sector (Yadav et al., 2023). The interconnectedness of financial markets makes it difficult to isolate the impact of such events. Thus, the potential for contagion effects on other financial markets cannot be underestimated (Corbet and Goodell, 2022; Gubareva, Bossman, and Teplova, 2023). Therefore, it is critical to mitigate potential contagion effects and maintain public confidence in the financial system (Corbet, Hou, Hu, and Oxley, 2022). This study examines the impact of SVB collapse on various financial markets, including forex, metals, energy, and cryptocurrency markets. The study aims to provide insights into the potential for contagion effects and their implications for the broader economy.

Probing the metals, energy, forex, and cryptocurrency markets following the collapse of SVB remains imperative for several reasons. Firstly, this examination provides valuable insights into the potential for contagion effects to spread to other financial markets, which may lead to a systemic crisis in the financial sector. Understanding the interconnectedness of financial markets is crucial for isolating the impact of such events and mitigating their effects. Secondly, these markets play a crucial role in the global economy, and their movements can have significant implications for economic growth, employment, and trade. Understanding the impact of financial stresses on these markets is essential for making informed decisions that promote economic stability and growth. Finally, these markets are highly interconnected, and their movements reflect the sentiment and expectations of market participants during times of economic uncertainty. Therefore, studying these markets can provide policymakers and investors with valuable insights into the sentiment and expectations of market participants during highly uncertain market conjuncture, enabling them to make more informed decisions and take appropriate measures to mitigate risks. The implications of financial contagion resulting from the three

[3] https://edition.cnn.com/2023/03/13/investing/silicon-valley-bank-collapse-explained/index.html
[4] https://www.nasdaq.com/articles/oil-prices-fall-$1-as-svb-collapse-spooks-financial-markets
[5] https://www.cnbc.com/2023/03/12/stock-market-futures-open-to-close-news.html
[6] https://www.cnbc.com/2023/03/11/crypto-firm-circle-reveals-3point3-bln-exposure-to-silicon-valley-bank.html

recent bank collapses are significant, as they can spread across the banking industry and provoke a financial crisis with a global reach and systemic consequences (Yousaf et al., 2023). The interconnectedness of financial markets highlights the necessity to adequately address contagion effects, which may affect several financial markets; therefore, conducting research in this domain is highly desirable. Accordingly, the collapse of SVB and its impact on the energy market could have provoked substantial implications on the global economy, particularly for countries that heavily rely on oil exports.

Our study contributes to the literature on the impact of shocks on different asset classes. First, we examine how distinct markets, like metals, energy, forex currency, and cryptocurrency, respond to the SVB's collapse, which is new to the literature. More specifically, we add to the growing literature on financial contagion, which examines the spillover impact of uncertainty or shock in one firm to other firms in similar or disconnected sectors, particularly in the context of bank runs and failures (Borges et al., 2020; Umar et al., 2021b). Several studies have examined the reputation contagion during several events like the bankruptcy of Lehman Brothers (Chen and Yeh, 2021; Kim, Kim, and Lee, 2015) and the collapse of the cryptocurrency exchange FTX (Yousaf, Riaz, and Goodell, 2023). Second, our study extends the existing studies, which explore similar issues during the global financial crisis (Ajlouni et al., 2012; Cayon, Sarmiento-Sabogal, and Shukla, 2016; Gubareva, Umar, Teplova, and Vo, 2023) COVID-19 (Altman et al., 2022; Gubareva and Umar, 2023; Sakawa and Watanabel, 2023) and Russia-Ukraine military conflict (Umar, Riaz, and Yousaf, 2022; Yousaf et al., 2022).

The findings of this study suggest that the collapse of SVB has produced mixed impacts on different financial markets. The metal market has remained relatively unaffected, likely due to the safe-haven properties of precious metals. In their turn, energy assets and certain cryptocurrencies experienced negative abnormal returns, indicating their vulnerability to the instability of the banking sector. This study also finds varying impacts on different currencies, with the least effect of the Canadian dollar and Chinese yuan and the British pound and Japanese yen displaying significant positive responses, suggesting their safe-haven properties during the economic crisis. These results have implications for investors and policymakers. Diversification is important to mitigate risks in different markets, and precious metals may serve as safe-haven assets during financial instability periods. The vulnerability of certain cryptocurrencies to banking sector instability suggests the need for caution in these markets. Finally, policymakers and market regulators can use these findings to make more informed decisions to sustain financial stability.

The remaining part of the study is organized as follows. Section 2 provides the background of the event and a review of the most relevant literature. Section 3 delves into the data and methodology. Section 4 presents the results and discussion. Finally, Section 5 concludes the study.

2. Background & literature review

SVB's collapse has been caused by a combination of factors, including its poor risk management, hidden losses, over-reliance on the tech sector, exposure to the bond market, and changing economic conditions. The bank invested billions of dollars into the long-duration US government bonds during near-zero interest periods. The value of the SVB bond portfolio has substantially decreased as the Federal Reserve has undertaken several interest rate hikes to curb inflation. Additionally, the SVB's dependence on the tech industry proved risky as economic conditions changed and the sector's fortunes shifted (Yousaf et al., 2023). These factors have triggered a run on the bank and ultimately caused its collapse, with potential consequences for the banking sector and financial markets. One of the immediate effects of the collapse of SVB is the disruption of the financial services that the bank provides to its clients. Many of the world's leading technology firms relied on SVB for essential financial services such as lending, cash management, and investment banking. Companies are now finding it difficult to get a replacement that could provide comparable services, particularly in the short term. In addition, the collapse of SVB has broader implications for the global economy. As a major player in the banking industry, SVB has relationships with many banks and financial institutions worldwide. The collapse of SVB has produced far-reaching implications and triggered reputational contagion for global financial markets. Given its relevant place in the global economy, the potential for contagion effects from SVB collapse is significant. The loss of confidence in one bank can lead to a loss of confidence in the entire banking system, potentially triggering a wider financial crisis.

2.1. Reputational contagion

During a financial crisis, the value of assets in various markets can plummet, causing market instability and sparking capital flight and speculative runs. This can lead to a significant loss of investor confidence, negatively affecting economic growth. Accordingly, contagion falls into two types, broad contagion and restrictive contagion, that describe how a financial shock or crisis can affect various markets, sectors, or countries. Broad contagion refers to a scenario where a financial shock or crisis in one market or sector spreads widely and affects multiple other markets, sectors, or countries. It implies a high degree of interconnectedness and vulnerability in the financial system, where problems in one area quickly spill over into others. In contrast, restrictive contagion implies that the impact of a financial shock is contained and does not spread extensively to other markets or sectors. It remains more resilient and less interconnected financial system, where shocks are isolated and do not trigger widespread crises (Akhtaruzzaman and Shamsuddin, 2016).

Experts often use the term "reputational contagion" to describe this phenomenon, which refers to the transmission of shocks across markets that are difficult to explain based solely on macroeconomic fundamentals (Umar et al., 2021b; Umar et al., 2022). Reputational contagion can severely impact financial institutions due to their reliance on public trust and confidence. Financial institutions, especially banks, depend on their reputation to attract deposits and investments, and a negative perception of their operations can lead to significant financial consequences. Several studies have shown that negative news about one financial institution can spread quickly and impact the reputation of other institutions in the same sector (Corbet et al., 2022; He et al., 2016; Morrison and White, 2013; Umar et al., 2021a). This effect is known as reputational contagion and can damage the entire industry. Reputational contagion can also

affect a broader economy, eroding trust in the financial system, leading to reduced investment, halted economic growth, and increased financial instability. The impact of reputational contagion can be particularly severe for financial institutions, given their crucial role in the global economy. The loss of confidence in one bank can lead to a loss of confidence in the entire banking system, potentially triggering a wider financial crisis (Basaran-Brooks, 2022; Corbet and Goodell, 2022; Fabrizi, Huan, and Parbonetti, 2021).

The extant body of literature offers valuable insights into the ramifications of diverse global events on financial markets and the subsequent influence on investor behavior. Past studies examined events such as COVID-19, the Russia-Ukraine conflict, the collapse of financial institutions, and climate change events to understand their repercussions on stock market returns, financial contagion, and herding behavior (Antoniuk et al., 2021; Goodell and Huynh, 2020; Kumari et al., 2023; Pandey et al., 2023b; Yarovaya, Matkovskyy, and Jalan, 2021). Accordingly, Abbassi et al. (2022) examined firms' vulnerability to the Russia-Ukraine crisis. Their event study-based methodology revealed that risk exposure and trade dependence were key factors making firms vulnerable to war events.

In the context of the COVID-19 crisis, Akhtaruzzaman et al. (2021) employed dynamic conditional correlations and portfolio analysis to demonstrate increased financial contagion during the pandemic. Their findings indicated that financial firms played a more significant role in transmitting contagion. In the same vein, Rai and Kumari (2021) explored the pandemic's impact on cryptocurrencies, revealing the varying returns and increased volatility in the crypto market. Lastly, Yarovaya et al. (2021) and Goodell and Huynh (2020) investigated herding behavior in cryptocurrency markets during the COVID-19 pandemic, showing that extreme market movements and the pandemic significantly affected investor behavior. Accordingly, Abbassi et al. (2022) examined firms' vulnerability to the Russia-Ukraine crisis and found that risk exposure and trade dependence were key factors making firms vulnerable to war events. Likewise, Chortane and Pandey (2022) delved into the currency asymmetries resulting from the Russia-Ukraine war. They investigated the impact of the conflict on the value of global currencies against the US dollar, highlighting the vulnerability of certain currencies due to sanctions and proximity to the war zone. Maurya, Bansal, and Mishra (2023) studied the global inflation impact of the Russia-Ukraine conflict, indicating varying degrees of inflation severity across countries and sectors. Antoniuk et al. (2021) focused on the impact of climate change events on stock market returns. Their research showed that climate policy-positive events positively affected clean energy sector returns, while policy-negative events affected sectors differently.

Most recently, Pandey et al. (2023) probed the repercussions of the Silicon Valley Bank collapse on global stock markets. Their findings showcased the negative impact on returns and increased abnormal volatility, highlighting the fragility of the financial system. Similarly, Akhtaruzzaman et al. (2023) investigated the financial contagion triggered by the collapse of Silicon Valley Bank. Their study highlighted the role of banks in transmitting financial contagion and showed the short-lived nature of the contagion effect. Likewise, Aharon et al. (2023), based on event study methodology, proclaimed that the collapse of SVB had a negative impact on equity markets. Their comprehensive regional analysis posits that capital markets in Europe, Latin America, the Middle East, and Africa were particularly impacted by the SVB collapse.

Several papers investigate the contagion of business entity-level stress events on other related entities and industries (Kim et al., 2015; Morrison and White, 2013). Accordingly, the study of Goodell et al. (2023) examines the reputational contagion effect of the Colonial Pipeline ransomware attack, while (Fabrizi et al., 2021; He et al., 2016) explore the dynamics of reputational contagion, particularly examining the impacts of substantial financial and reputational events and their spillover effects on other markets. These studies collectively contribute to understanding the intricate dynamics between global events, financial markets, and investor behavior. Researchers have shed light on how various factors influence market reactions and investor decision-making by utilizing

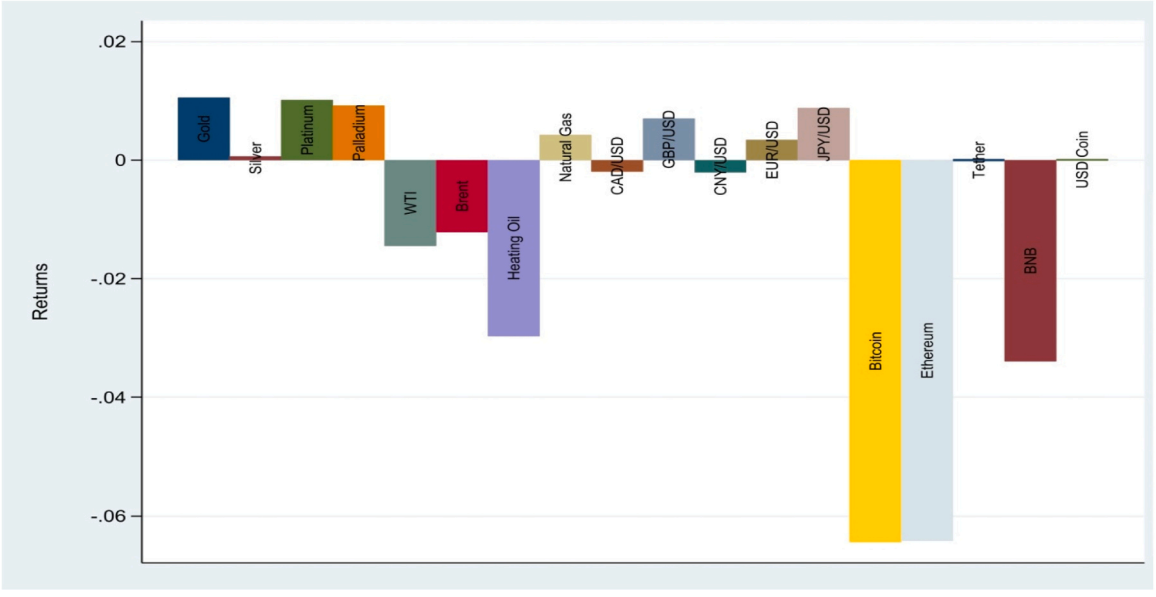

Fig. 1. Returns of different assets on the event date.

methodologies such as event studies, dynamic correlations, and portfolio analysis. Therefore, studying the reputational contagion triggered by the collapse of SVB is imperative for several reasons. Reputational contagion can have severe consequences for financial institutions, causing damage to their reputation and leading to a loss of confidence among investors and customers. In the case of SVB, the bank's collapse has affected not only its customers and investors but also other financial institutions and markets connected to SVB through various financial products and services. Therefore, insights regarding the contagion effect of SVB collapse on the banking sector and other financial markets remain significant. The concern of this study is to determine the contagion effect of the SVB collapse on financial markets and provide inclusive empirical evidence with robust managerial and regulatory implications.

3. Data and methodology

3.1. Data

We use the daily data of four different asset classes, namely, (i) precious metals (gold, silver, platinum, and palladium), (ii) energy (WTI oil price, Brent oil price, natural gas, and heating oil), (iii) forex (CAD/USD, GBP/USD, CNY/USD, EUR/USD and JPY/USD) and (iv) cryptocurrency (Bitcoin-BTC, Ethereum-ETH, Tether-USDT, BNB, and USD Coin-USDC) market. The data is sourced from investing.com. As for the event date, we have taken March 09, 2023, as the SVB stock plummets by 60% and faces the second-largest withdrawal of deposits amounting to $42 billion. Following (Aharon et al., 2023; Umar et al., 2021b; Yousaf et al., 2023), we have used the 90 days estimation window ranges from t-96 to t-7, corresponding to October 18, 2022, and February 28, 2023, respectively. The event window comprises 13 working days from March 01, 2023, to March 17, 2023 (t-6 to t + 6). Fig. 1 displays the returns of the selected market on the event date. From Fig. 1, we infer that the precious metals and forex markets exhibit positive returns on event day, whereas energy and cryptocurrencies markets have negative returns.

3.2. Data & methodology

We employ an event study approach to test the reputational impact of the collapse of SVB, Silvergate Bank, and Signature Bank on the banking and technology stock as well as on the other assets mentioned above. The study's approach is aligned with our intended objectives and most recent studies, such as Aharon et al. (2023) and Yousaf et al. (2023), who also used the event study to determine the impact of SVB on different sectors. Following Dyckman et al. (1984), we estimate the normal returns using the OLS model, which is as follows:

$$E(R_{it}) = \alpha_i + \gamma_i R_{mt} \tag{1}$$

Here, $R_{it}$and R_{mt} represent the returns of assets and the market return (MSCI World Index) on day t, respectively. Several studies (Umar et al., 2021b; Yousaf et al., 2023) have used the MSCI World Index as the benchmark for stock market returns against returns of different asset classes. One plausible reason is that it encompasses the large and mid-capped firms of 23 developed countries, totalizing more than one and a half thousand constituents. The MSCI World Index covers, in each country, circa 85% of the free-float-adjusted market cap.[7] Moreover, it includes all the sectors ranging from energy to industrials and material to real estate. Thus, MSCI World Index represents an appropriate choice for benchmarking equity returns against those of diverse assets classes. After calculating the actual and estimated returns, we then compute the abnormal returns as follows:

$$AR_{it} = R_{it} - E(R_{it}) \tag{2}$$

Here, $AR_{it}$is the abnormal returns for asset i on day t. R_{it} and $E(R_{it})$ are the return of the asset and market, respectively. Next, we examine the average abnormal returns (AAR) and cumulative average abnormal returns (CAAR) to investigate the impact of this event on various markets.

$$AAR_i = \frac{1}{N}\sum_{t=1}^{N} AR_{it} \tag{3}$$

We then use the average abnormal returns to compute the cumulative average abnormal returns, which is the summation of average abnormal returns over the event window from t_1 to t_2.

$$CAAR_i(t_1, t_2) = \sum_{t=t_1}^{t_2} AAR_{it} \tag{4}$$

4. Results

Panel A of Table 1 reports the abnormal return of various metals, including gold, silver, platinum, and palladium. On the event day, the abnormal returns of the metal market remain positive but insignificant. This result implies that the collapse of SVB had a negligible

[7] For more details on the countries and composition can be found at: https://www.msci.com/documents/10199/178e6643–6ae6–47b9–82be-e1fc565ededb

effect on the metal market. As a possible reason, we point out the safe haven properties of these precious metals (Lei et al., 2023; Mensi et al., 2023). Accordingly, Panel B of Table 1 shows the abnormal return of the energy market. On the event day, the abnormal returns of all assets in the energy market are negative, except for natural gas, which exhibits a positive but insignificant abnormal return of 2.67% with a *p*-value of 0.628. The abnormal returns of WTI, Brent, and heating oil are − 0.61%, − 0.33%, and − 2.12%, respectively; however, they are insignificant. Likewise, Panel C of Table exhibits abnormal returns for the cryptocurrency market. The prices of Bitcoin and Ethereum exhibit the following negative insignificant abnormal returns: − 4.44% and − 3.38%, respectively, with *p*-values of 0.136 and 0.389. These results suggest that the cryptocurrency collapse adversely affects the SVB market, with major cryptocurrencies exhibiting negative abnormal returns. The fact that SVB held reserves for some crypto companies signifies that the bank's collapse has brought important implications for the digital asset markets. This is likely why Bitcoin and Ethereum both exhibited negative abnormal returns on the event day, reflecting the contagion effect on the cryptocurrency market due to the collapse of SVB (Łęt, Sobański, Świder, and Włosik, 2023). Finally, Panel D of Table 1 reports that the SVB collapse has varying impacts on different currencies. While the British pound and Japanese yen responded positively to the event, other currencies, such as the Canadian dollar and Chinese yuan, did not respond significantly. The positive response of the Japanese yen and British pound is consistent with the notion that investors tend to fly to safe-haven assets during times of financial instability (Cho and Han, 2021).

To study how the SVB collapse affects different assets, we compute abnormal returns for t-6 to t + 6 around the SVB collapse and reported in Table 2. For instance, gold shows a positive significant abnormal return of 2.49%, 2.92%, and 2.81% for $t + 1$, $t + 2$, and $t + 6$, respectively. The positive AR of gold may be attributed to its haven properties. Likewise, the silver returns also are positive and significant, 7.00% and 3.91%, respectively, at $t + 1$ and $t + 6$. In turn, palladium responds positively and significantly on the event's second day. The same pattern is exhibited by platinum with a positive and significant abnormal return of 4.86% at $t + 2$. The positive response of the metal market, especially gold, silver, palladium, and platinum, to the SVB collapse can be attributed to their safe haven properties (Kopyl and Lee, 2016; Lei et al., 2023). The collapse of a major financial institution like SVB can create a ripple effect in the financial markets, causing investors to lose confidence and seek safe-haven assets to protect their investments.

Table 2 also reports abnormal returns for the energy market before and after the collapse of SVB. The energy market exhibits a pattern of underperformance with negative and statistically significant abnormal returns at $t + 3$ and $t + 4$. However, the performance begins to stabilize at $t + 5$ and shows some improvement with a positive abnormal return at t + 5, which, however, is not statistically significant. The collapse of SVB makes uncertainty increase in the banking industry, which spillover to other sectors, including the energy market. Additionally, the SVB collapse may trigger a slowdown in economic activity, which may further negatively affect the performance of the energy market (Lei et al., 2023). The negative impact of the SVB collapse on the energy sector, although short-lived, highlights the interconnectedness of the financial system and the broader economy.

The forex market on event day, due to high pressure on the dollar, responded positively, implying the devaluation of the dollar. However, after the event, the dollar value stabilized against Canadian, UK, Chinese, and Japanese currencies. The possible justification may be due to the timely regulatory intervention by the Department of the Treasury, the Federal Deposit Insurance Corporation (FDIC), and the Federal Reserve aimed to avoid contagion in the banking sector and protect depositors (Aharon et al., 2023). [8]The forex market participants have seen this intervention as a positive development. This may explain the stabilization of the dollar value against major currencies after the initial devaluation.[9]

We have also computed abnormal returns of the cryptocurrency market reported in Table 2 from *t*-6 to $t + 6$. For the period preceding the event window, the abnormal returns for the cryptocurrency market remain insignificant and minimal; however, at $t + 2$, Bitcoin, Ethereum, and BNB exhibit positive and significant abnormal returns: 8.92%, 17.52%, and 11.82%, respectively. Accordingly, at $t + 5$, Bitcoin and Ethereum also respond positively with significant abnormal returns of 10.13% and 8.34%, respectively. Besides being the largest lender for unicorns, startups, and technology companies, SVB used to be the custodian for the reserves of certain cryptocurrency companies. Therefore, a significant impact on the cryptocurrency market would be no surprise due to a loss of confidence in the security and stability of the cryptocurrency market, potentially leading to bearish behavior. Nonetheless, our result shows that the cryptocurrency market responded positively with high abnormal returns after the SVB collapse. The positive and significant abnormal returns seen in Bitcoin, Ethereum, and BNB following the collapse of SVB could be attributed to a variety of factors, including the perception of cryptocurrencies as safe-haven assets, their decentralized nature, and increased interest in the cryptocurrency market (Łęt et al., 2023; Smales, 2019; Wang et al., 2019). However, we argue that the more plausible explanation for such positive abnormal returns is FDIC's bailout of the SVB depositors, including crypto players, which represents the bailout of major crypto exchanges and, hence, major cryptocurrencies. These results have ramifications for investors and the cryptocurrency market, demonstrating that cryptocurrencies may be a viable alternative asset class during times of market instability and financial system collapse, highlighting, however, their high dependence on the events within the conventional financial system, including institutional bailouts.

Table 3 exhibits the average abnormal returns (AARs) and cumulative average abnormal returns (CAARs) (Panel A), as well as the buy-and-hold average abnormal returns (BHAARs) (Panel B). Panel A shows the AARs for *t*-6 to *t*-1, which are not statistically significant according to the respective *p*-values. Likewise, after the collapse of SVB, the AARs remain insignificant for the entire sample. Accordingly, Panel B of Table 3 shows the results of the BHAAR model for the cryptocurrency market. The AAR and CAAR remained insignificant before and after the collapse of SVB.

Table 4 provides a holistic overview of the financial markets under scrutiny, presenting the average AARs and CAARs, accompanied

[8] For more details please read: https://www.fdic.gov/news/press-releases/2023/pr23017.html
[9] https://edition.cnn.com/2023/03/10/investing/svb-bank/index.html

Table 1
Abnormal returns on Event Day.

Panel A: Metal market		**Panel B: Energy market**	
Gold	1.55%*	WTI	-0.61%
	(0.066)		(0.756)
Silver	0.89%	Brent	-0.33%
	(0.603)		(0.877)
Platinum	2.16%	Heating Oil	-2.12%
	(0.263)		(0.437)
Palladium	2.75%	Natural Gas	2.67%
	(0.326)		(0.628)
Panel C: Cryptocurrencies		**Panel D: Fiat Currencies**	
Bitcoin	-4.44%	CAD/USD	0.31%
	(0.136)		(0.415)
Ethereum	-3.38%	GBP/USD	1.37%* *
	(0.389)		(0.032)
Tether	0.00%	CNY/USD	0.00%
	(0.979)		(0.999)
BNB	-1.04%	EUR/USD	0.83%*
	(0.786)		(0.080)
USD Coin	0.01%	JPY/USD	1.44%*
	(0.362)		(0.098)

Note: *p*-values are reported in parentheses. * ** , * *, * represent significance at 1%, 5%, and 10%, respectively.

by their respective *p*-values. Table 4 reports the AARs and CAARs for forex, metals, energy, and cryptocurrency markets. From *t-1* to *t*-6, both AARs and CAARs remain positive but insignificant. Panel A of Table 4 presents the average abnormal returns of the metal market. Before the event day, the AARs largely remained negative and insignificant. After the collapse of SVB, the AARs of the metal market are positive but continue to be not statistically significant, except for $t + 2$, with a positive and significant AAR of 6.01%. Accordingly, the cumulative average abnormal returns (CAARs) of the metal market before the event remain not significant but turn significant and positive at $t + 2$ (6.66%) and $t + 3$ (7.77%), respectively. Overall, these findings suggest that the collapse of SVB had a significant impact on the metal market in the short term.

Panel B of Table 4 shows the AARs and CAARs of the energy market. The AAR of the energy market at *t-1* is negative − 1.54% and significant. On the event day, AAR remains negative but insignificant. However, after the collapse of SVB, the AARs of the energy market are mixed. For example, at $t + 4$, AAR is − 3.90%, negative and significant. However, at $t + 5$, AAR is 1.3%, positive and significant. Accordingly, CAARs of the energy market before the event at *t*-6, *t*-5, and *t*-4 are positive and highly significant. However, the results are not statistically significant and negligible after the collapse of SVB. Several factors may have contributed to such an outcome. These factors of diverse nature, e.g., changes in investor sentiments and regulatory responses, have influenced the energy market performance before and after the collapse of SVB.

Panel C of Table 4 exhibits AARs and CAARs for the forex market. The AAR of the forex market before the event at *t*-2 is negative and significant: − 0.58%. On the event day, AAR is negative but not statistically significant. However, after the collapse of SVB, AAR at $t + 1$ and $t + 2$ are positive and highly significant. Likewise, CAARs after the day of the event at $t + 2$, $t + 3$, $t + 4$, $t + 5$, and $t + 6$, are positive and significant: 2.09%, 1.55%, 1.51%, 1.14%, and 1.95%, respectively. A possible reason why the forex market exhibits negative returns before the event is attributable to elevated uncertainty, which makes the dollar devalue against other currencies. However, the dollar's value became stable after the US government's regulatory intervention. Overall, the forex market has responded positively to the event. The results imply that regulatory interventions by governments or other regulatory bodies can significantly impact the forex market and influence the value of currencies .[10] Therefore, it is important to closely monitor regulatory developments and their potential impact on the forex market when making investment decisions.

Fig. 2 presents charts of the CAARs during the event window, which allow for visual inspection and eventual additional insights into the data, already discussed in the tabular form while interpreting Table 4. Additionally, we have used the alternate proxy of buy-and-hold average abnormal returns (BHAARs). The results are presented in Table 5 and confirm the robustness of the CAAR results. Based on event study methodology, we investigate the reaction of the forex, metal, energy, and cryptocurrency markets following the SVB collapse. Our findings indicate a positive response in the forex and metal markets on the event day and the days following the event. In contrast, the study's findings suggest that the cryptocurrency market exhibits an initial negative reaction but ultimately yields positive abnormal returns. This implies that investors may turn to cryptocurrencies as a perceived safe haven during market volatility. The study reveals that the energy market exhibits a negative response to the event, and this trend persists even after the event has occurred. Accordingly, our findings are aligned with the most recent studies, which also used event methods to determine the impact of SVB collapse on different asset classes.

Our findings suggest that the repercussions of the SVB collapse vary across different assets. Likewise, the most recent study by Pandey et al. (2023a) supports this notion that the collapse of the SVB was more significant in developed markets. The study suggests this is due to the higher level of integration and interdependence these markets have with the global economy. Additionally, their

[10] https://www.ft.com/content/25694f1c-4bee-4b44-bc7b-17b145d680ea

Table 2
Abnormal returns.

Asset/date	t-6	t-5	t-4	t-3	t-2	t-1	t + 1	t + 2	t + 3	t + 4	t + 5	t + 6
Gold	0.40%	-0.49%	0.09%	-0.16%	-1.14%	0.09%	2.49%* **	2.92%* **	-0.74%	1.57%*	-1.06%	2.81%* **
	(0.629)	(0.557)	(0.917)	(0.849)	(0.175)	(0.915)	(0.004)	(0.001)	(0.378)	(0.063)	(0.206)	(0.001)
Silver	0.05%	-1.24%	0.59%	-0.69%	-3.63%* *	-0.23%	2.60%	7.00%* **	-0.12%	0.11%	-1.82%	3.91%* *
	(0.975)	(0.465)	(0.729)	(0.685)	(0.036)	(0.892)	(0.131)	(0.000)	(0.944)	(0.947)	(0.287)	(0.023)
Platinum	0.69%	-0.13%	0.52%	-0.22%	-3.06%	0.69%	2.57%	4.86%* *	-1.33%	-1.66%	-0.52%	0.86%
	(0.718)	(0.947)	(0.788)	(0.909)	(0.115)	(0.717)	(0.184)	(0.013)	(0.487)	(0.388)	(0.786)	(0.653)
Palladium	1.67%	0.64%	-0.63%	-1.41%	-1.92%	-0.01%	1.06%	9.14%* **	2.36%	-3.08%	-3.31%	-0.43%
	(0.545)	(0.816)	(0.820)	(0.609)	(0.491)	(0.997)	(0.704)	(0.001)	(0.396)	(0.270)	(0.236)	(0.877)
WTI	1.15%	0.45%	0.63%	0.42%	-2.63%	-0.69%	2.14%	-2.09%	-4.45%* *	-4.11%* *	0.79%	-1.55%
	(0.552)	(0.816)	(0.745)	(0.829)	(0.182)	(0.723)	(0.277)	(0.282)	(0.024)	(0.038)	(0.687)	(0.426)
Brent	0.96%	0.53%	1.25%	0.99%	-2.65%	-0.96%	2.24%	-1.98%	-5.04%* *	-4.49%* *	0.52%	-1.79%
	(0.647)	(0.801)	(0.552)	(0.637)	(0.212)	(0.647)	(0.290)	(0.347)	(0.018)	(0.036)	(0.803)	(0.394)
Heating Oil	2.73%	-0.08%	1.40%	-0.67%	-2.57%	-1.82%	3.94%	-1.10%	-2.30%	-3.74%	0.97%	1.06%
	(0.313)	(0.977)	(0.607)	(0.805)	(0.348)	(0.501)	(0.151)	(0.686)	(0.396)	(0.172)	(0.720)	(0.694)
Natural Gas	3.31%	-0.97%	8.17%	-14.87%* **	7.86%	-2.71%	-1.25%	8.88%	-1.13%	-3.25%	2.88%	-5.41%
	(0.544)	(0.858)	(0.139)	(0.008)	(0.156)	(0.619)	(0.820)	(0.107)	(0.837)	(0.555)	(0.599)	(0.324)
CAD/USD	0.41%	-0.11%	-0.46%	-0.19%	-0.48%	-0.27%	0.56%	0.98%* *	0.02%	-0.08%	-0.10%	0.21%
	(0.280)	(0.769)	(0.232)	(0.613)	(0.217)	(0.472)	(0.148)	(0.012)	(0.958)	(0.837)	(0.799)	(0.580)
GBP/USD	0.08%	-0.95%	0.09%	-0.28%	-0.90%	0.17%	1.61%* *	1.55%* *	-0.65%	-0.09%	-0.34%	0.93%
	(0.898)	(0.132)	(0.884)	(0.659)	(0.158)	(0.785)	(0.013)	(0.015)	(0.302)	(0.884)	(0.589)	(0.142)
CNY/USD	0.87%*	-0.78%*	-0.13%	-0.34%	-0.26%	0.13%	1.07%* *	0.97%* *	-0.52%	-0.27%	-0.18%	0.31%
	(0.052)	(0.084)	(0.770)	(0.450)	(0.567)	(0.763)	(0.020)	(0.032)	(0.246)	(0.545)	(0.680)	(0.486)
EUR/USD	0.80%*	-0.83%*	-0.25%	0.31%	-0.70%	-0.02%	1.14%* *	0.99%* *	-0.35%	-0.98%* *	-0.27%	0.83%*
	(0.086)	(0.077)	(0.593)	(0.499)	(0.136)	(0.961)	(0.017)	(0.035)	(0.451)	(0.038)	(0.563)	(0.079)
JPY/USD	-0.02%	-0.66%	-0.04%	-0.19%	-0.27%	-0.15%	1.49%*	1.54%*	-1.20%	1.17%	-0.92%	1.74%* *
	(0.978)	(0.444)	(0.967)	(0.826)	(0.756)	(0.859)	(0.088)	(0.074)	(0.162)	(0.176)	(0.288)	(0.045)
Bitcoin	2.10%	-1.31%	-7.05%* *	-0.05%	1.24%	-2.15%	1.36%	18.97%* **	0.87%	0.51%	0.69%	10.13%* **
	(0.476)	(0.655)	(0.019)	(0.986)	(0.677)	(0.465)	(0.648)	0.000	(0.767)	(0.864)	(0.816)	(0.001)
Ethereum	3.54%	-1.78%	-8.05%* *	-0.57%	2.96%	-1.53%	2.72%	17.52%* **	-0.60%	0.25%	-1.72%	8.34%* *
	(0.363)	(0.647)	(0.042)	(0.884)	(0.450)	(0.693)	(0.489)	0.000	(0.878)	(0.948)	(0.660)	(0.034)
Tether	0.00%	-0.01%	0.00%	-0.01%	0.00%	0.00%	0.31%* **	0.08%* **	-0.06%* *	0.07%* **	-0.18%* **	0.02%
	(0.972)	(0.809)	(0.945)	(0.706)	(0.897)	(0.993)	(0.000)	(0.001)	(0.010)	(0.004)	(0.000)	(0.394)
BNB	0.55%	-1.53%	-5.62%	-1.05%	3.01%	-0.60%	2.65%	11.82%* **	-1.27%	1.65%	4.95%	4.09%
	(0.885)	(0.687)	(0.144)	(0.782)	(0.434)	(0.875)	(0.490)	(0.003)	(0.738)	(0.667)	(0.197)	(0.284)
USD Coin	0.03%*	0.02%	-0.03%*	0.00%	0.01%	-0.02%	-0.05%* **	-0.05%* **	0.02%	0.10%* **	-0.02%	0.01%
	(0.068)	(0.305)	(0.053)	(0.758)	(0.404)	(0.152)	(0.001)	(0.001)	(0.111)	(0.000)	(0.143)	(0.576)

Note: *p*-values are reported in parentheses. * ** , * *, * represent significance at 1%,5%, and 10%, respectively.

Table 3
Average abnormal returns (AAR) and cumulative average abnormal returns (CAAR).

	Panel A: CAAR model				Panel B: BHAAR model			
	AAR	*p*-value	CAAR	*p*-value	AAR	*p*-value	CAAR	*p*-value
t-6	1.08%* *	(0.018)	1.08%* *	(0.018)	1.05%	(0.220)	1.05%	(0.220)
t-5	-0.51%	(0.221)	0.57%	(0.509)	-0.54%	(0.532)	0.52%	(0.671)
t-4	-0.47%	(0.469)	0.10%	(0.891)	-0.52%	(0.550)	0.00%	(0.999)
t-3	-1.00%	(0.318)	-0.90%	(0.465)	-1.02%	(0.236)	-1.02%	(0.561)
t-2	-0.25%	(0.258)	-1.15%*	(0.091)	-0.28%	(0.745)	-1.30%	(0.507)
t-1	-0.56%	(0.213)	-1.70%* *	(0.011)	-0.58%	(0.499)	-1.88%	(0.384)
t	0.13%	(0.335)	-1.57%	(0.224)	0.12%	(0.892)	-1.76%	(0.453)
t + 1	1.60%	(0.235)	0.03%	(0.531)	1.58%*	(0.071)	-0.18%	(0.942)
t + 2	4.75%*	(0.059)	4.78%	(0.123)	4.71%* **	(0.000)	4.52%*	(0.096)
t + 3	-0.90%	(0.194)	3.88%	(0.185)	-0.93%	(0.282)	3.60%	(0.209)
t + 4	-0.89%	(0.892)	2.99%	(0.233)	-0.91%	(0.295)	2.69%	(0.373)
t + 5	0.04%	(0.407)	3.03%	(0.224)	0.01%	(0.988)	2.70%	(0.392)
t + 6	1.51%	(0.102)	4.53%	(0.141)	1.48%*	(0.087)	4.18%	(0.207)

Note: * ** , * *, * represent significance at 1%,5%, and 10%, respectively
We use two different models for estimation. (1) Simple abnormal returns and (2) Buy and hold average abnormal returns.

study's findings indicate that the SVB collapse's impact varied across countries, with those possessing strong and stable banking systems experiencing different outcomes. The studies conducted by Aharon et al. (2023), Pandey et al. (2023), and Akhtaruzzaman et al. (2023) assert that the collapse of the SVB had a relatively limited impact on developing economies when compared to developed markets.

Moreover, Ali et al. (2023) empirically analyze a higher-level connectedness between cryptocurrencies following the SVB collapse. Accordingly, the effects of the SVB collapse varied depending on the sector and types of financial assets. Likewise, our findings also hold that forex, metal, energy, and cryptocurrency markets respond differently to SVB collapse.

Our study remains different from past studies such as Akhtaruzzaman et al. (2023), as it offers a comprehensive analysis of financial contagion across G7 countries and among diverse sectors of economic activity, including capital markets, banks, financial firms and non-financial companies. It is worth noting that our findings provide empirical evidence of a minor-impact contagion and a short-lived effect following the SVB collapse. We address the recent bank failures in the US and their repercussion on a global scale, while, for instance, Akhtaruzzaman et al. (2020) analyze the safe-haven properties of oil and gold during the COVID-19 pandemic. In the similar vein, Akhtaruzzaman et al. (2021) examine the influence of bitcoin on portfolio diversification for US equity sector during COVID-19 and document that bitcoin serves as a hedge against bonds and industry portfolio. In contrast, our study takes a more specific approach, examining the responses of forex, metal, energy, and cryptocurrency markets to the SVB collapse using event study methodology. Thus, our study extends their findings to the recent US financial turbulence, observed at the beginning of 2023. Our results reveal diverse market reactions, with positive responses in forex and metal markets, a negative initial response in cryptocurrencies, and consistent adverse trends in the energy market. These differences highlight the distinct focuses and methodologies of the two studies, ultimately leading to varying findings and insights regarding the SVB collapse's impact on global financial markets.

5. Conclusion

The failure of SVB led to the defaults of other banks like Signature Bank and Silvergate Bank, triggering alarms across the banking industries of diverse countries. Mounting fears about the possibility of a more widespread financial contagion shake investors' community. Continuing the stand of the literature investigating financial contagion (Corbet and Goodell, 2022; Corbet et al., 2022) and addressing the significance of banking defaults to financial markets, we examine how forex, metals, energy, and cryptocurrency markets respond to SVB collapse. For this purpose, we use an event study approach and analyze the average abnormal returns and CAARs before and after the default of SVB in the context of forex, metals, energy, and cryptocurrency markets. We also report the buy-and-hold average abnormal returns to support the robustness of our main results.

Our empirical analysis demonstrates that the demise of SVB elicited heterogeneous reactions across financial markets, with certain markets displaying discernible favorable responses while others remained impervious. Our findings indicate that most metals and fiat currencies display positive abnormal returns and cumulative average abnormal returns on both the event day and post-event days. The safe-haven properties of precious metals and the devaluation of the USD may have contributed to this result. In contrast, our results indicate that all energy assets carry negative abnormal returns except for natural gas on the event day. Furthermore, the abnormal returns in the energy market during the post-event days are negative, and the average abnormal returns are also negative during the post-event days.

Our analysis also demonstrates that conventional cryptocurrencies (stablecoins) experience negative (positive) abnormal returns on the event day. However, in the post-event days, conventional cryptocurrencies exhibit significant positive returns, while the abnormal returns of the considered stablecoins are negative. Our results imply that the SVB collapse carries important implications for the digital asset markets, as evidenced by the negative abnormal returns on the event day of Bitcoin and Ethereum, reflecting a possible contagion effect.

Our findings highlight the importance of understanding the dynamics of safe-haven currencies and their role in times of market

Table 4
Market-wise abnormal and cumulative abnormal returns.

	t-6	t-5	t-4	t-3	t-2	t-1	t	t + 1	t + 2	t + 3	t + 4	t + 5	t + 6
Panel A: Metals market													
AAR	0.71%	-0.30%	0.14%	-0.62%	-2.43%* *	0.14%	1.84%*	2.18%	6.01%* **	0.05%	-0.75%	-1.67%*	1.80%
p-value	(0.197)	(0.581)	(0.678)	(0.155)	(0.037)	(0.738)	(0.081)	(0.212)	(0.000)	(0.826)	(0.997)	(0.076)	(0.432)
CAAR	0.71%	0.41%	0.55%	-0.07%	-2.50%	-2.37%	-0.53%	1.65%	7.66%* *	7.71%* **	6.96%	5.29%	7.09%
p-value	(0.197)	(0.914)	(0.703)	(0.867)	(0.173)	(0.253)	(0.839)	(0.565)	(0.015)	(0.005)	(0.116)	(0.170)	(0.226)
Panel B: Energy market													
AAR	2.04%* **	-0.02%	2.91%	-3.32%	0.11%	-1.54%* **	-0.08%	1.78%	1.04%	-3.22%	-3.90%* *	1.30%* **	-1.90%
p-value	(0.006)	(0.745)	(0.165)	(0.701)	(0.693)	(0.000)	(0.721)	(0.259)	(0.875)	(0.192)	(0.036)	(0.001)	(0.389)
CAAR	2.04%* **	2.03%* **	4.94%* **	1.61%	1.72%	0.18%	0.10%	1.88%*	2.92%	-0.30%	-4.19%	-2.90%	-4.79%
p-value	(0.006)	(0.002)	(0.000)	(0.444)	(0.186)	(0.634)	(0.682)	(0.081)	(0.781)	(0.608)	(0.357)	(0.445)	(0.347)
Panel C: Fiat currencies													
AAR	0.43%	-0.66%* *	-0.16%	-0.14%	-0.52%* *	-0.03%	0.79%*	1.17%* **	1.21%* **	-0.54%*	-0.05%	-0.36%* *	0.80%* *
p-value	(0.211)	(0.032)	(0.393)	(0.600)	(0.028)	(0.836)	(0.087)	(0.000)	(0.000)	(0.075)	(0.749)	(0.030)	(0.020)
CAAR	0.43%	-0.23%	-0.39%*	-0.53%	-1.05%* **	-1.08%* **	-0.28%	0.89%	2.09%* **	1.55%* **	1.51%* **	1.14%* **	1.95%* **
p-value	(0.211)	(0.739)	(0.094)	(0.106)	(0.004)	(0.006)	(0.413)	(0.183)	(0.000)	(0.000)	(0.001)	(0.001)	(0.002)
Panel D: Cryptocurrencies													
AAR	1.25%	-0.92%	-4.09%* *	-0.34%* *	1.45%* *	-0.86%	-1.75%	1.40%	10.00%	-0.21%	0.52%	0.77%	4.61%*
p-value	(0.200)	(0.829)	(0.020)	(0.037)	(0.010)	(0.202)	(0.622)	(0.637)	(0.333)	(0.834)	(0.337)	(0.545)	(0.070)
CAAR	1.25%	0.33%	-3.75%	-4.09%	-2.64%	-3.49%*	-5.25%	-3.84%	6.16%	5.96%	6.47%	7.24%*	11.85%* *
p-value	(0.200)	(0.533)	(0.296)	(0.164)	(0.501)	(0.095)	(0.275)	(0.889)	(0.557)	(0.499)	(0.237)	(0.086)	(0.019)

Note: * ** , * *, * represent significance at 1%,5%, and 10%, respectively

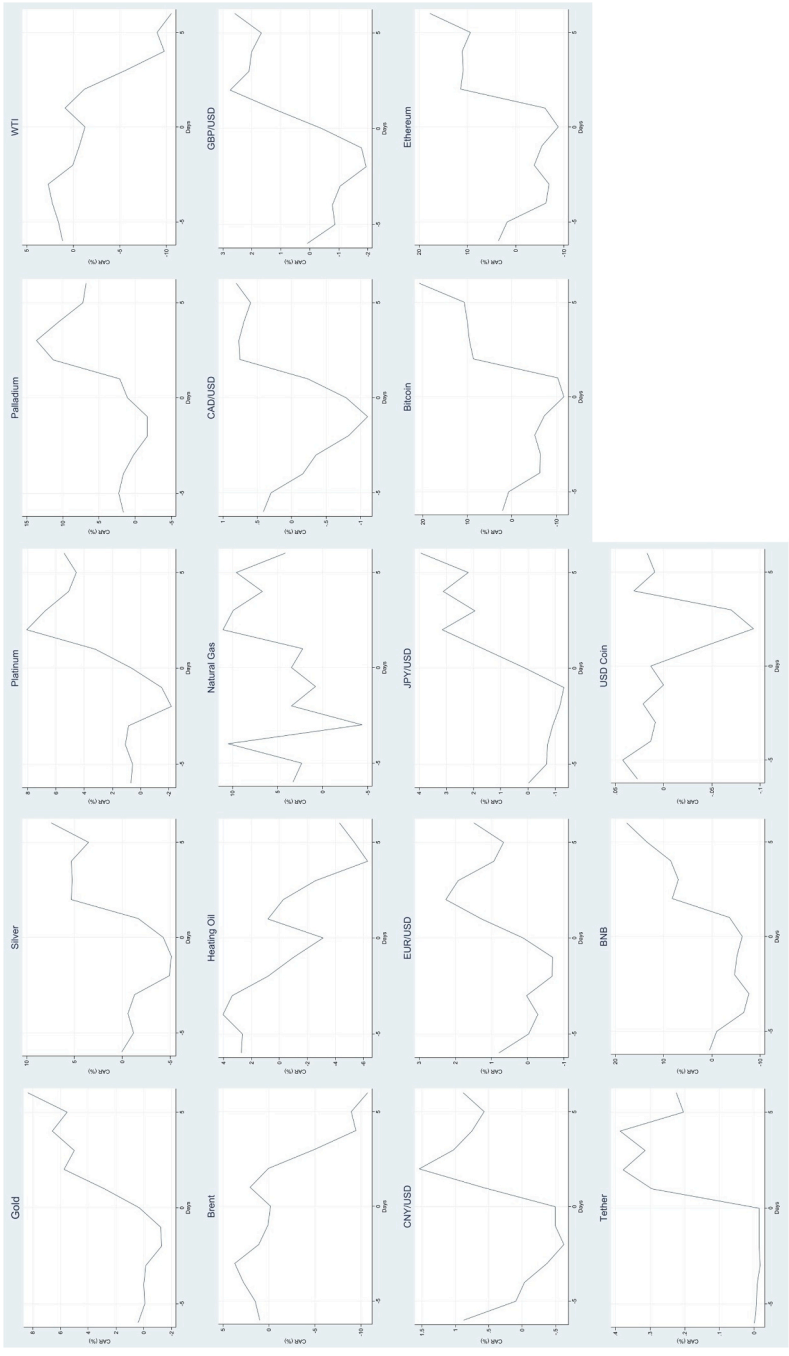

Fig. 2. Cumulative average abnormal returns during the event window.

Table 5
Market-wise abnormal and cumulative abnormal returns using the BHAAR framework.

	t-6	t-5	t-4	t-3	t-2	t-1	t	t + 1	t + 2	t + 3	t + 4	t + 5	t + 6
Panel A: Metals market													
AAR	0.70%	-0.31%	0.13%	-0.63%	-2.44%*	0.13%	1.83%	2.18%	5.99%* **	0.04%	-0.75%	-1.68%	1.80%
p-value	(0.629)	(0.830)	(0.927)	(0.664)	(0.096)	(0.930)	(0.210)	(0.137)	(0.000)	(0.976)	(0.607)	(0.248)	(0.214)
CAAR	0.70%	0.39%	0.52%	-0.11%	-2.55%	-2.42%	-0.59%	1.59%	7.58%*	7.63%	6.88%	5.20%	7.00%
p-value	(0.629)	(0.850)	(0.837)	(0.971)	(0.440)	(0.505)	(0.881)	(0.708)	(0.097)	(0.114)	(0.177)	(0.328)	(0.209)
Panel B: Energy market													
AAR	2.01%	-0.05%	2.88%	-3.33%	0.05%	-1.57%	-0.12%	1.76%	0.98%	-3.25%	-3.93%*	1.26%	-1.92%
p-value	(0.356)	(0.983)	(0.190)	(0.127)	(0.983)	(0.470)	(0.955)	(0.423)	(0.652)	(0.137)	(0.075)	(0.563)	(0.379)
CAAR	2.01%	-0.05%	2.88%	-3.33%	0.05%	-1.57%	-0.12%	1.76%	0.98%	-3.25%	-3.93%*	1.26%	-1.92%
p-value	(0.356)	(0.983)	(0.190)	(0.127)	(0.983)	(0.470)	(0.955)	(0.423)	(0.652)	(0.137)	(0.075)	(0.563)	(0.379)
Panel C: Fiat currencies													
AAR	0.43%	-0.66%*	-0.16%	-0.14%	-0.52%	-0.03%	0.79%* *	1.17%* **	1.21%* **	-0.54%	-0.05%	-0.36%	0.80%* *
p-value	(0.274)	(0.091)	(0.688)	(0.726)	(0.189)	(0.940)	(0.047)	(0.004)	(0.003)	(0.169)	(0.900)	(0.357)	(0.043)
CAAR	0.43%	-0.24%	-0.39%	-0.53%	-1.05%	-1.08%	-0.29%	0.88%	2.09%*	1.55%	1.50%	1.13%	1.94%
p-value	(0.274)	(0.671)	(0.566)	(0.505)	(0.240)	(0.273)	(0.785)	(0.446)	(0.092)	(0.236)	(0.278)	(0.431)	(0.200)
Panel D: Cryptocurrencies													
AAR	1.23%	-0.95%	-4.15%* *	-0.36%	1.43%	-0.88%	-1.74%	1.38%	9.94%* **	-0.23%	0.51%	0.75%	4.56%* *
p-value	(0.530)	(0.629)	(0.037)	(0.854)	(0.470)	(0.653)	(0.378)	(0.485)	(0.000)	(0.906)	(0.797)	(0.703)	(0.022)
CAAR	1.23%	0.28%	-3.87%	-4.23%	-2.80%	-3.68%	-5.42%	-4.04%	5.91%	5.67%	6.18%	6.93%	11.50%
p-value	(0.530)	(0.918)	(0.261)	(0.290)	(0.531)	(0.455)	(0.312)	(0.484)	(0.339)	(0.384)	(0.370)	(0.337)	(0.130)

Note: * ** , * *, * represent significance at 1%,5%, and 10%, respectively

stress. The outcomes of our study contain several implications for regulators and investors. The mixed impact on different markets implies the importance of diversification to mitigate risk. The negligible effect of the SVB collapse on precious metals highlights their potential as safe-haven assets during periods of crises and market stresses. The negative impact of the SVB collapse on certain cryptocurrencies indicates the vulnerability of the digital asset market to banking sector instability. The varying impact on different currencies emphasizes the need for a deeper understanding of the dynamics of safe-haven currencies during economic uncertainty. Policymakers can use our findings to make more informed regulatory and policy decisions to sustain financial stability by mitigating the risk of contagion in the banking sector and across financial markets. Future studies can explore other financial markets, such as Islamic equity and bond markets, to investigate the financial contagion triggered by the SVB collapse.

CRediT authorship contribution statement

Muhammad Naveed: Conceptualization, Methodology, Investigation, Formal analysis, Data curation, Validation, Visualization, Writing – original draft, Writing – review & editing. **Shoaib Ali:** Conceptualization, Methodology, Investigation, Formal analysis, Data curation, Validation, Visualization, Writing – original draft, Writing – review & editing. **Mariya Gubareva:** Conceptualization, Methodology, Investigation, Formal analysis, Data curation, Validation, Project administration, Visualization, Writing – original draft, Writing – review & editing. **Anis Omri:** Writing – review & editing, Visualization.

Data Availability

Data will be made available on request.

Acknowledgments

This work was supported by FCT, I.P., the Portuguese National Funding Agency for Science, Research, and Technology, under Project UIDB/04521/2020.

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