BANKING DISTRESS - A COMPARATIVE APPROACH OF TWO BUSINESS CASES IN THE BANKING SECTOR IN USA IN 2023

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Abstract
The aims of the paper are to explore the recent liquidity stress situations encountered by the regional banks in the United States of America (with a particular focus on Silvergate Bank and Silicon Valley Bank, both headquartered in California) and to provide a descriptive viewpoint on the regulatory framework, prudentiality and financial management issues, including accounting aspects and corporate governance. The research methodology pertains to the cause-effect analysis and the dynamics of changes over time and to the synthesis of documented authentic public resources of information, giving substance to the main findings. The paper explores the causes and the consequences of the failing banks from the perspective of implications to the current regulatory environment and prudential requirements, with a view to the financial markets functioning. It analyses the business models and the root-causes that led to the recent distress in the first quarter of the year 2023 in the US banking system. The conclusions draw evidence on how clustered liquidity stress and fast-unfolding bank runs became risk factors, in a context where regulatory environment allowed for a more relaxed supervisory stance on banks and the rising interest rates in an inflationary economy affected the market value of financial instruments as means of liquidity in banks' portfolios. Still, despite

some particular situations pertaining to some US banks, the US banking sector remains resilient, with significant risk-absorbing capacities.

Keywords
Bank Regulation; Bank Supervision; Corporate Governance; Banking Sector Resilience; Financial Management; Liquidity Crisis.

"Discipline must come from trust and confidence."
"How little we know of what there is to know."
Ernest Hemingway (1899-1961)
"For Whom the Bell Tolls", (New York, 1940)

1. INTRODUCTION

The aims of the paper are to explore the recent liquidity stress situations encountered by the regional banks in the United States of America (with a particular focus on Silvergate Bank and Silicon Valley Bank, both headquartered in California) and to provide a descriptive viewpoint on the regulatory framework, prudentiality and financial management issues, including accounting aspects and corporate governance. The research sources for this endeavour are all public and available as indicated in the bibliographical section of this paper. The approach of this qualitative overview is that it attempts to follow the narrative of events and to discuss how past events may lead to future improvements in the regulatory and prudential supervisory field from a preventive stance. The general view and the working hypothesis is that after the Global Financial Crisis, the international Basel framework and its guidance to minimum requirements for banking capitalization and prudential supervision has been strengthened. Regulatory and Prudential Supervisory Authorities

transposed and implemented higher and better structured capital requirements for banks, that would prevent risks of disorderly bank failures.

The context of the research outlines the premise of the research, that despite of on-site and off-site supervision and compliant capitalization, some banks in USA encountered difficulties in continuing the business, despite the fact that they reported adequacy to meeting the prudential requirements, at least up to a recent point in time. Furthermore, the researched statement is that the banks failed due to a new set of factors – (i) a stress on immediate liquidity from depositors withdrawing money in a very narrow window of time and (ii) a fast dissemination of the information about the stress on those banks' liquidity situation. That dynamics unfolded swiftly and, in a matter of weeks, the US authorities acted decisively to address the stemming risks to banks and to smoothen the market volatility.

Towards the second half of February 2023 and in March 2023, it became apparent that in the US banking sector there is a liquidity crisis unfolding, that required a decisive and swift intervention of the US regulatory and supervisory authorities to address contagion spreading to other banks. Silvergate Bank (California, USA), Silicon Valley Bank (California, USA), Signature Bank (New York, USA) and later in April 2023, First Republic Bank (California, USA) encountered difficulties that very soon led to their demise and exposed a series of misconducts in business practice, that eventually required bank resolution procedures (Admati, Hellwig and Portes 2023).

The paper explores the causes and the consequences of the failing banks from the perspective of their implications to the current regulatory environment and prudential capitalization, with a view to the financial markets functioning. It analyses the business models and the root-causes that lead to the recent collapses of some US banks in the first quarter of the year 2023. The conclusions draw evidence on how clustered liquidity stress and fast-unfolding bank runs became risk factors, in a context where regulatory environment allowed for a more relaxed supervisory stance on banks and the rising interest rates in an inflationary economy affected the market value of financial instruments, that are used as means of liquidity in banks' portfolios.

2. RESEARCH METHODOLOGY

The research methodology, to approach the stance on the banking distress situations in the first quarter of the year 2023, pertains to the cause-effect analysis and the dynamics of changes over time and to the synthesis of documented authentic public resources, giving substance to the main findings. The paper is developed using the following methods / techniques of investigation and analysis: (i) qualitative research, to explore in a regressive manner / in a backward looking approach, how past facts and strategies might explain the outcome, (ii) descriptive research and observations to investigate the causes of the financial distress, (iii) analytical research interpreting the consequences of the cause factors upon the US distressed banks, from a viewpoint centered on areas for improvements, and (iv) applied research, on how the lessons from the failing banks might contribute to enhancements in the prudential framework, from a preventive viewpoint.

3. THE CONTEXT OF THE EMERGENT BANKING DISTRESS SITUATION IN USA IN THE FIRST QUARTER OF 2023

Perceived by the financial markets as a high-risk market segment, the crypto-assets industry found difficult access to banking services provided by traditional lenders, in the absence of a clear and strong regulatory framework for risks associated to this emergent domain of new financial technologies, decentralized finance and other digital financial media. This general view seems to be also shared by the European Central Bank (ECB 2023).
The regional banks in California, USA, which have been confronted with financial distress in the first quarter of 2023, devised business models to service the segment of these companies that relied on new technologies, as well as new financial products for this risky market segment, that implied challenges for these banks to manage the risks, as explained onwards.

Unfolding events for Silvergate Bank

Silvergate Bank was subject to regulations by (i) Federal Deposit Insurance Corporation, (ii) Federal Reserve, and (iii) California Department of Financial Protection and Innovation. Its business model relied on the crypto-assets market from 2014 onwards, but the bank originally serviced the real estate market (Wong 2014, 2021). The bank sought capital form the FinTech industry and investors, and it developed and provided financial services via a real-time payments system called the ”Silvergate Exchange Network” (SEN). SEN acted as a network for crypto-asset exchanges and institutions, to facilitate the exchange of crypto-assets to currencies (mainly USD and EUR). Silvergate didn't charge fees for the usage of SEN, however it benefited from the amounts of non-interest-bearing deposits kept in the trading accounts by the clients of the bank (Berkowitz 2022). As a source of funding, the bank gained the spread from the differential in interest rates, as the bank used to invest these funds in bonds, or to grant loans. Silvergate also issued some lines of credit to companies, secured with Bitcoin as collateral, under the form of a product called "SEN Leverage". Thus, Silvergate acted as an intermediary institution for crypto-assets ecosystem.

Following a business model of servicing legal entities with activities related to crypto-currencies, Silvergate Bank attended the financing needs of companies who were not eligible for traditional bank financing, according to Silvergate's CEO statement: "*Recognizing digital currency's potential during the sector's infancy, we built strong relationships with pioneers who were turned away by traditional banks*" (Lane 2022).

Silvergate Bank has issued a press statement on March 8, 2023, announcing the voluntary closing of its activities and the full reimbursement of deposits (Silvergate 2023a). In accordance to the "Securities Exchange Act of 1934" as amended to date, the forward-looking statements of Silvergate management were meant not to be interpreted as guarantees pertaining to any future performance as they are subject to risks, assumptions and uncertainties, in light of recent industry and regulatory developments. Therefore, the orderly cessation

of bank operations and a voluntary liquidation seemed the appropriate way to ensure that all deposits were to be repaid in full.

The Silvergate's earnings report published in January 2023 showed a loss of around USD 1 billion in the previous quarter (Silvergate 2023b) after its customers withdrew USD 8.1 billion, representing around 60% of all Silvergate's deposits, as the collapse of FTX proved to be a deterrent to other Silvergate customers (Benoit 2023). Later, on March 1, 2023 Silvergate's management filed a document where it revealed a more severe deterioration in Silvergate's accounting (Silvergate 2023c). In order to comply with the precautionary liquidity requirements for the cash-based operations selling crypto-assets, Silvergate held treasury bills, as well as higher risk and more profitable corporate bonds. The bank used these financial securities as pledge against liquidity, when it needed available funds to execute the operational settlements. However, the market value of these financial instruments decreases, when the Federal Reserve tightens the monetary policy and interest rates increase in the economy, therefore, Silvergate was confronted with a situation where the market value of the financial instruments portfolio depreciated, constraining the access to liquidity.

Silvergate also had exposure to FTX. The Bahamas-based FTX declared bankruptcy on March 2, 2023 (FTX 2023) due to "massive shortfall" in assets' valuation (United States Bankruptcy Court for the District of Delaware 2023), triggering a selloff of assets in exchange for USD, and Silvergate had to settle the transactions immediately. Thus, Silvergate had to sell bonds at a loss in order to match the payment obligations, at a time when the price of bonds declined compared to the moment of purchase at a higher market price, in a context where the US Federal Reserve has started to tighten the monetary policy. Silvergate's balance sheet materially deteriorated in the beginning of 2023, quite steeply in March 2023. Banks in USA began to diminish the balance sheet exposures to crypto-assets and to Silvergate Bank (Braun 2022).

Unfolding events for Silicon Valley Bank (SVB)

Established in 1983, SVB was a commercial California-based state-chartered bank, subject to the same authorities as Silvergate. Initially SVB was oriented towards supporting the small start-up companies, being a part of SVB Financial Group. At the end of 2022, SVB was the sixteenth largest bank in the US by assets and the largest in Silicon Valley, California. As of December 31, 2022, SVB had assets of approximately USD 209 billion and deposits of approximately USD 175.4 billion and it was almost comparable in size with the 2008 failure of Washington Mutual (Comlay and Stempel, 2008). SVB's deposit holders initiated withdrawals that eventually totaled USD 42 billion in a very short period of time.

On March 10, 2023, the *Department of Financial Protection and Innovation* (DFPI), appointed the Federal Deposit Insurance Corporation (FDIC), an institution which guarantees the bank deposits up to USD 250,000 in USA (FDIC 2020) as special administrator of SVB (DFPI 2023a). Based on the information disclosed in the possession takeover order, issued by DFPI (DFPI 2023b), SVB reported losses, due to the selling of US treasury bills and mortgage-backed securities to cover the inadequate position of the bank for liquidity, as SVB recorded a "negative cash balance" of about USD 958 million (Financial Times 2023).

Therefore, FDIC created the *Deposit Insurance National Bank of Santa Clara* (DINB), where all the FDIC covered deposits have been transferred from SVB to secure the deponents' capital of less than USD 250,000, to become available upon deponents' request starting from March 13, 2023. A special note is that the SVB's corporate customers had account balances well in excess of the maximum amount insured by the FDIC (FDIC 2023a).

FDIC also announced the creation of a bridge bank to take over the SVB assets under special administration, as an exceptional measure against systemic risk, to ensure an orderly and swift resolution process (FDIC 2023b).

On March 12, US Treasury Secretary, Federal Reserve Board Chairman and FDIC Chairman issued a joint statement on the SVB case, announcing decisive action to protect the economy of the USA, seeking to strengthen the public confidence in the banking system (US Treasury 2023).

4. KEY ASPECTS OF THE BANKING REGULATORY FRAMEWORK IN USA AND ISSUES IN THE BANKING PRACTICE

Aspects related to prudential regulatory and supervisory framework

The Dodd-Frank Act, issued in 2010, imposed a series of prudential reforms on federal systemically important banks in the US, following the financial crisis of 2008-2009. Therefore, in present times, US banks should be adequately capitalized. The minimum threshold to fall under the Dodd-Frank Act was to hold assets worth of at least 50 billion USD, to be audited and protected against excessive risks in the banking books. US banks, under Dodd-Frank Act, face a series of requirements: (i) are subject to stress tests from the Federal Reserve, (ii) have to maintain an adequate capitalization to absorb possible loss, (iii) need to have sufficient liquidity and (iv) need to have plans prepared in the event of undergoing a bank resolution procedure (US Congress 2010).
However, the Economic Growth, Regulatory Relief, and Consumer Protection Act issued in 2017 upgraded the Dodd-Frank threshold to a minimum required eligibility level of USD 250 billion and allowed the Federal Reserve to apply stress tests only to banks which held assets in excess of USD 100 billion (US Congress 2017). In a budgetary impact analysis report, warnings were issued that raising the threshold would increase the odds for bankruptcy, for the financial institutions with assets between USD 100 – 250 billion (US Congressional Budget Office 2018).
In support of changing Dodd-Frank Act, in 2015, the CEO of SVB had advocated before the US Congress for lighter supervision and greater flexibility for the US banks (US Senate 2015) - claiming that the threshold in the Dodd-Frank Act would mean that the banks had to allocate financial resources to capitalization in excess, instead of financing the real economy, on grounds that local and regional US banks were not of systemic importance. In 2017, SVB held assets below USD 50 billion, however, in practice, in the following years, the business growth model of this bank led to a fast increase in asset growth, and at the end

of 2022, SVB held assets totaling USD 209 billion, according to the SVB annual report for 2022 (form 10-k) submitted to US Securities and Exchange Commision (US SEC).

US Federal Reserve communicated the implementation of Basel III Agreement in October 2020, a prudential framework that is meant to shield internationally active large banks from excessive risks and contagion effects, by outlining minimum capitalization standards, generally accepted in most jurisdictions that are members in the Bank for International Settlements. However, banks of non-systemic importance in US have a strong lobbying voice and Federal Reserve decided that the requirements for the Net Stable Funding Ratio (NSFR) shall be three-layered on 100 / 85 / 70 per cent and that there are some exceptions possible related to NSFR and Liquidity Coverage Ratio (LCR) requirements (Federal Reserve 2020a and 2020b).

Aspects related to the financial management

A good understanding of what happened in the accounting books of some of the distressed US local and regional banks is provided by the analysis of the financial management of SVB. As a listed entity and subject to requirements of the US SEC, SVB Financial Group (SVB-FG) and SVB Bank disclosed the Annual Report for 2022 on February 24, 2023, reflecting higher capital adequacy ratios than Basel requirements (10,5 per cent), i.e. 16.18 per cent for SVB-FG and 16.05 for SVB Bank (SVB 2023a). In addition, SVB stated that the FDIC insures the customer deposits through the Federal Deposit Insurance Fund, and the bank would increase its contribution from 1.35 percent to 2 percent by 2028.

Following the robust growth in deposits, in 2021 and 2022, SVB announced that, if this trend continues, it should have to resort to raising capital in 2023 to meet the capitalization adequacy ratios. Moreover, the business model of SVB targeted deposits from technology companies. At the same time, SVB recorded a limited lending activity to the general economy and existing financial resources from deposits biased its investments toward bonds, increasing concentration risk and the risk of asset devaluation in the event of a sell-off in financial markets, as interest rates have risen on an inflationary background.

On page 32 of the Annual Report, SVB noted that "*Our core strategy is focused on providing banking and financial products and services to companies, investors, entrepreneurs and influencers in the innovation economy, including in particular to early-stage and mid-stage companies that receive financial support from sophisticated investors, including venture capital or private equity firms, "angels," corporate investors, crowd-funding and other evolving sources of capital. We derive a meaningful share of our deposits from these companies and provide them with loans as well as other banking products and services. In some cases, our lending credit decision is based on our analysis of the likelihood that our client will receive additional rounds of equity capital from investors or other funding sources. Among the factors that have affected and could in the future affect the amount of capital available to our clients are: (i) the receptivity of the capital markets, (ii) the prevalence of public equity offerings or M&A activity.*" This business model increases the potential for significant losses due to risks concentration.

Aspects related to accounting practices regarding the evidence of financial instruments in the banking books

There are still some issues arisen from the divergent views on the accounting stance of recording the financial instruments in the balance sheets of the financial institutions (Rubinstein 2023).

One methodology, called "Held-To-Maturity" or HTM, states that the financial assets should be recorded at nominal value in the eventuality that they are held until they are cashed in at the due date. By this method, these assets are also eligible as collateral and may be pledged against liquidity. In case there is an immediate need for liquidity, should these financial assets be sold before the maturity, at market value, then the accounting operations should reflect the nominal value and a positive or negative value resulted from the difference between the nominal value and the market price, on the date they are sold.

The other accounting methodology on these financial instruments is to reflect their real value based on the market value, that is deemed true and accurate and certified daily by the custodian. This marked-to-market value is called

"Available-For-Sale" or AFS and it involves daily calculations and certifications. It is more accurate and allows for Value-at Risk analysis at any moment.

Given these accounting views, in 2010, the *Financial Accounting Standards Board* (FASB) attempted to address the issue and guide the accounting practice in USA towards AFS, to cast light on market risks in the banking books and take an active stance on mitigating these risks (FASB 2010). However, the mixed model of keeping the financial instruments at par value based on management's intentions to hold the titles until maturity date and mark the gain or loss just for the quantity of titles sold at one point in time still persists today, in a mixed HTM-AFS practice that makes accounting and financial risks less transparent in the balance sheets (Peters 2023).

At the end of December 2022, according to the Annual Report for 2022 submitted to SEC, SVB Bank reflected financial instruments of USD 91.3 billion via HTM methodology, representing 43.1 per cent of the Balance Sheet value (total assets were USD 211.8 billion). The real market value at that moment was USD 76.2 billion, that is USD 15.1 billion less. SVB Bank had only around USD 40 billion in cash and cash-equivalent instruments (AFS methodology) to cover the payment obligations associated to the USD 173 billion in deposits – this value results from the future payment obligations table included in the same SVB Annual Report for 2022.

Furthermore, SVB has been placed under the FDIC special administration two weeks after the auditor had signed the financial reports for 2022 that have been discolsed by SVB to SEC (Weil and Eaglesham 2023). In the letter to the SVB shareholders, the auditor stated that "*In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the company as of December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2022, in conformity with US generally accepted accounting principles*." (Tadros 2023)

Regarding the financial auditing, under a FASB ASC 205-40 rule (FASB 2014), companies must assess on a quarterly basis, any substantial risks, to their ability, to continue the business and disclose the plans to mitigate the potential risks, as an earlier warning signal than the auditor's annual review (White and Iacone, 2023).

Aspects related to corporate governance

SVB announced a new appointment for the vacant position of Chief Risk Officer on January 4, 2023, however it only disclosed to US SEC on March 3, 2023, that the previous Chief Risk Officer had resigned in April 2022 (SVB 2023b and 2023c).
Moreover, the SVB CEO executed a personal sale of SVB stocks before a SEC regulation came into force to prevent selling of stocks by the management of a company in a time frame of less than 90 days since SEC would have approved the notified sales plan of the securities (US Securities and Exchange Commission 2022). Thus, it seems the SVB CEO took advantage from selling SVB stocks before the SEC rule entered in force and also benefited from the better market conditions at the time of the sale, than at the moment of the SVB failure (Buchard 2023).

5. FINDINGS RELATED TO THE CAUSES OF THE BANKING DISTRESS IN USA IN THE FIRST QUARTER OF 2023

Digitization played an important role in the bank runs in March 2023. SVB should be seen as a major case of a digital bank run, given the withdrawals of USD 42 billion in a matter of days, representing more than 25 percent of SVB deposits, with most requests for withdrawals of money being made online. In this rapid unfolding of the tensed situation via the digital ecosystem, the supervisory authorities responded with a delay. Should the bank-run have been physical, with claims on fiat cash currency at bank's counters, the time for reaction of the US authorities would probably have been more adequate, to address this risk. Scope Ratings GmBH analysts highlight that the smaller and under-diversified banks might be having a higher level of digital bank run risk, such as banks particularly focused on the digital business model. In addition, these banks are confronted with a number of structural factors, among which the interconnectedness of capital markets, as a channel that may facilitate banking disintermediation (Theodore 2023).

Deposit concentration sheds light on the importance of supervisory authorities conducting stress tests that include severe liquidity pressures on short term, upon the banks' balance sheet (Theodore 2023). Although the situations that affected banks (such as Silvergate and SVB) might be exceptions, the COVID-19 pandemic reoriented business activities to the online environment and the technology companies recorded increased revenues and profits in 2021 and 2022, which were kept in bank accounts. SVB saw an increase in deposits, followed by the rapid decrease, while the exposure was in the technology and innovation ecosystem in Silicon Valley, mainly consisting of uninsured risk capital (venture capital). By a similar pattern, Silvergate Bank had a high exposure to crypto-assets. S&P analysts also highlight the fragile situation of uninsured deposits (Hayes 2023). SVB had the second highest percentage of uninsured deposits among the US banks with more than USD 50 billion in assets, while another bank, Signature Bank (New York) had the fourth highest percentage in the ranking.

The liquidity risk management need triggered actions to raise capital in very short time, while such decisions might have been perceived by investors as a financial distress for the issuing institution and a potential higher risk. In the context of liquidity needs and the raising risk adversity of investors, SVB announced plans to increase capital a few days before it was closed by US authorities, at a market time and conditions when the book value of the bonds was affected by tightening financial market conditions, decreasing furthermore the market value of these financial instruments.

In addition to liquidity, financial institutions should preserve capital and allocate risk buffers to absorb shocks and financial losses. Even though SVB announced around USD 17 billion in Core Equity Tier 1 capital (CET1) – value reported at December 31, 2022 in the annual report at page 84, it struggled when it needed to offset withdrawals through sale of securities (SVB 2023d) in the context of uncertain reliance on future issuances of shares on the capital markets.

The lighter regulatory framework in the US and the banking sector lobbying for easing the prudential requirements allowed for improperly mitigated risks accumulation in the banking books. By increasing the threshold from USD 50

billion to USD 250 billion, many regional US banks were no longer subject to Basel prudential requirements, particularly concerning the compliance with the minimum liquidity coverage ratio (LCR) and the minimum net stable funding ratio (NSFR). According to the Basel Committee on Banking Supervision, "*LCR is an essential component of the Basel III reforms, which are global regulatory standards on bank capital adequacy and liquidity endorsed by the G20 Leaders*". The 100% minimum LCR requirement applies from 1 January 2019 (BIS 2013), while the NSFR requirement is in force since January 1, 2018 (BIS 2014). NSFR requires banks to maintain a stable funding profile in relation to their on- and off-balance sheet activities, thus reducing the likelihood that disruptions to a bank's regular sources of funding will erode its liquidity position in a way that could increase the risk of its failure and potentially lead to broader systemic stress.
Contagion risks and second round effects may be transmitted in the financial system via the interconnectedness of the banks' balance sheets. The financial advisory and consulting company Fathom presented a minimum spanning tree (MST) of 44 US banks that showed SVB was near the periphery of the US banking system, but indicated several other institutions where investors could see signs of contagion: First Republic Bank and Western Alliance Corporation - the two closest banks in the MST and most directly exposed to SVB contagion risk (Harris 2023).

6. CONCLUSIONS

The causes of the recent bank failures exposed some weaknesses of the business models, of regulatory framework and of managerial business practices in banking, that need reviewing from competent authorities. On March 22, 2023, the Federal Open Market Committee (Federal Reserve) noted in its published minutes of the reunion, that the Vice-Chair in charge for Supervision "*will be leading a review of the supervision and regulation of Silicon Valley Bank, and that the Federal Reserve System will apply what is learned from the review to strengthen its supervisory and regulatory practices as appropriate*" (Federal Reserve 2023a). According to FOMC officials, the effective federal funds rate was little changed

after the closures of Silicon Valley Bank and Signature Bank and the risk index VIX listed on Chicago Board of Exchange (the one-month option implied volatility on the S&P 500 index) increased to about 26.5 per cent following the closures of Silicon Valley Bank and Signature Bank, but it subsequently declined to 21 per cent. This index recorded a maximum value of around 80 per cent during the Global Financial Crisis and increased to around 65 per cent in March 2020 with the onset of the COVID-19 pandemic. Therefore, the level seen in mid-March 2023 by VIX index reflects that the shock to financial markets was contained and limited in impact.

Responding swiftly, Federal Reserve deployed instruments to provide systemic liquidity to banks in need. According to the weekly H.4.1 data report on provisioning liquidity, the information gauges how the dynamics of immediate financial resources evolved during March 8, 2023 to May 17, 2023 (Federal Reserve 2023b and 2023c) period, consecutive to SVB, Signature and First Bank material distress. The data shows that during this time frame, the US Federal Reserve total balance sheet increased from USD 8,392 billion in March 8, 2023, to USD 8,784 billion (March 22, 2023) and then decreased slowly to USD 8,507 billion in May 17, 2023. The US Federal Reserve used all instruments, that include (i) the banks' reserve balances at the Fed and (ii) the overnight reverse repo facility, plus (iii) the Bank Term Funding Program (Federal Reserve 2023d) which increased from USD 0 (March 8, 2023) to USD 87 billion (May 17, 2023). Also, the data reflect that the balance of the US Treasury's General Account at the Fed decreased from USD 333 billion to USD 116 billion during the surveyed reporting period (Federal Reserve 2023e). Thus, although liquidity has been provided in the US banking system by authorities and it remains higher in mid-May 2023 than before March 8, 2023, the US Banking system seems to record an adequate liquidity position overall.

On April 28, 2023 a first review upon the causes of the Silicon Valley Bank failure, released by the Federal Reserve, concluded that it failed because of a textbook case of inadequate management by the bank, particularly due to inadequate interest rate risk and liquidity risk management. At the same time, it is emphasized that the Federal Reserve supervisors didn’t adopt a forceful enough action. In addition, the combination of social media, a highly networked

and concentrated depositor base, as well as technology-oriented business model and dependency on the technology ecosystem may have fundamentally changed the speed of bank runs (Barr 2023).

On May 9, 2023, the International Monetary Fund (IMF) published the analysis "Stress Among US Regional Banks: Recent Market Developments and Risks to Financial Stability" (IMF 2023). IMF experts believe that capitalized banks or non-bank financial institutions takeovers of distressed banks could represent a market solution, but potential investors may prefer to wait for these banks to undergo an orderly resolution process, in order to have a clear sharing of losses following specific insolvency rules.

On the same day as IMF, The Federal Reserve published the Financial Stability Report (Federal Reserve 2023f). Since November 2022, when the previous report had been published, the Fed highlights that the US financial system has been confronted with the bankruptcies of Silicon Valley Bank, Signature Bank, and First Republic Bank due to substantial withdrawals of deposits amid concerns about inadequate management of interest rate and liquidity risks. The report also focuses on the fact that, in March 2023, in order to prevent contagion effects in the banking sector, the Fed together with the Federal Deposit Insurance Corporation (FDIC) and the US Treasury took decisive measures to protect bank deposits and support lending to the population and companies. Following these actions, the resilience of the banking and financial sectors, as well as the financial markets normalized and deposit flows stabilized in the period following March 2023, although some banks that recorded withdrawals of deposits, continue to face difficulties. Still, the possibility remains that these developments might have effects on the credit conditions in the future. Overall still, despite some particular situations pertaining to some US banks, the US banking sector remains resilient, with significant risk-absorbing capacities.

NOTES

The opinions expressed in this paper reflect the personal viewpoint of the author and do not involve, do not reflect official positions or do not engage the

responsibility of any of the institutions with which the author is affiliated. The purpose of this article is to analyse data and information from available public sources as indicated in references, in a complete form and according to specified methodology. Therefore, it is not in the scope of the article to reproduce tables and charts, but to use the relevant data to answer to questions about causes, effects, time, locations, impacts, costs, responsibilities, actions, benefits. This article focuses on a very specific subject and, as broad topic, it may require future observations, analysis and in-depth surveys, remaining open for further research.

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