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Inspiration and Lessons Learned from the Silicon Valley Bank Collapse

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Abstract: The article examines the reasons for the collapse of the Silicon Valley Bank by analyzing a number of articles from the same period. In discussing the causes of failure the article focuses on the allocation of its own resources and the types of bank customers. Through a combination of internal and external discussions, some recommendations on asset allocation and customer selection can be given to future banks in similar situations. This article argues that it is essential for the bank's top management to use foresight and keen analysis when making decisions. In terms of customer base, a diversified customer base can hedge many risks. This is one of the innovative aspects of this paper, preventing problems caused by external factors by changing internal factors. In addition to this, banking institutions need to have a study of investments, and an analysis of national policies is also essential, especially in these particular circumstances.

Keywords: decision-making, banking crises, Silicon Valley Bank

1. Introduction

Silicon Valley Bank, one of the largest banks in the United States, had $209 billion in assets [1]. However, in the midst of severe inflation in the United States at the time, Silicon Valley announced its collapse in 2023. This certainly came as a huge shock to financial researchers around the world, as bank failures of this magnitude are extremely rare even in the nation's history, with the last bank failure of this magnitude being the Washington Mutual Bank collapse. Since the new crown epidemic in 2020, economies around the world have been devastated. Compared to 2019, global GDP is expected to fall by more than 5% [2]. In this extremely dangerous state, there is a high risk of an economic crisis at one time. So, for this collapse of Silicon Valley Bank, the study of its process and impact is extremely relevant to the history of economics. Especially for a large country like the United States, it can be very useful for predicting economic crises and even avoiding some unnecessary risks.

2. Literature Review

In early 2023, Silicon Valley Bank suddenly issued a notice declaring bankruptcy. Le and Vo (2023) believe that the main reason that Silicon Valley Bank failed was a mismanagement of the bank's own assets and liabilities [3]. Silicon Valley banks invested more than half of their own banking assets in real estate and securities. These investments in themselves were not problematic, but in 2023, the technology industry saw an industry winter, with countless technologies facing massive layoffs, such

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as Apple, Microsoft, and others. And it just so happens that most of Silicon Valley Bank's clients are these tech companies. The downturn in the industry led these companies to start going to cash in large quantities to ensure their daily flow. Faced with such many withdrawal customers, the money placed in real estate and bonds could not be withdrawn at short notice.

Silicon Valley Bank experienced a run on its deposits. From 2022 to 2023, the United States has made 9 interest rate increases in response to inflation [4]. The underlying rationale for this action by the Federal Reserve was to improve the overheated economic environment, but the successive interest rate hikes have stopped the public from going to the banks for loans. This action has made it impossible for banks to make money from the interest on loans, which they still need to pay to depositors. In the long run, the bank will remain in the red and it is only a matter of time before it collapses. This was a direct result of the collapse of Silicon Valley Bank.

These studies, while addressing many issues, still have some limitations. It would be difficult for a bank of Silicon Valley's stature to be disrupted by a single external factor, and some companies of a similar size are still operating normally. Although Silicon Valley Bank has collapsed, there are still many banks with similar business models to his that are facing a crisis. The above study does not give a complete overview of the internal reasons for the collapse of Silicon Valley Bank, such as whether its internal decisions were defective and whether there was a difference in information.

This article will explore two questions in detail. First, is there something intrinsically wrong with Silicon Valley Bank itself? In the wake of what happened, the Federal Reserve claimed that the collapse of Silicon Valley Bank was due to mismanagement and loss of support [5]. This question is a good way to analyze the nature of what happened, and only by understanding the essential causes can we avoid similar things happening in the future. Secondly, was the collapse of Silicon Valley Bank due to a sustained increase in interest rates? The US Secretary of the Treasury had publicly stated after the incident that the tragedy of Silicon Valley Bank was due to the continued increase in interest rates by the Federal Reserve [6]. What means do other companies in a similar situation have to protect themselves? With the collapse of Silicon Valley Bank, many banks began to fear that they would be next. In such a climate of fear, it is not conducive for banks to make judgments about their own future, which is why this study is so necessary.

3. Analysis of the Collapse of Silicon Valley Bank

3.1. Case Description

Due to the significant increase in US deposits in 2021, Silicon Valley Bank purchased a large amount of US Treasuries, but then the Federal Reserve had to start raising interest rates to control inflation from near zero to 4.5% due to severe inflation in the US [7]. As can be expected, by this time the market value of these treasury bonds had fallen significantly. Since then, the market value of Silicon Valley banks has been declining. In addition, the high-interest rates made it increasingly expensive for companies to borrow money and they were reluctant to take out loans for investment and other activities, so they had no choice but to use their savings in the bank to cover their normal expenses. A bigger problem for Silicon Valley banks at this time is that most of their customers are technology companies, which are starting to emerge from the growth period of 2021 into a technology winter. These companies had to withdraw their deposits in even greater numbers to keep up with their expenses, an action that eventually caused a run on the bank. Eventually, on March 9, 2023, over $42 billion was taken out [8]. On the next day, Silicon Valley Bank officially announced its collapse.

3.2. Analysis of the Problem

As the collapse of such a large bank, it is of great significance to investigate the reasons behind it in order to predict and prevent similar events in the future. The question of whether Silicon Valley Bank

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had its own reasons for the tragedy is the first to be examined. This paper intends to look at this question from two perspectives. Firstly, did Silicon Valley Bank's allocation of its own assets contribute to the tragedy? Secondly, by analyzing the nature and type of clients that Silicon Valley Bank had, is it possible that this had an impact on the bank? The paper will then discuss whether rising interest rates also lead to the tragedy of Silicon Valley Bank. This question explores the impact of external factors on this accident, the combination of which allows for a comprehensive view of the whole event.

The first thing discussed in the internal causes of the collapse of Silicon Valley Bank is the distribution of Silicon Valley Bank's assets to itself. The direct cause of Silicon Valley Bank's collapse was a run on the bank, which forced it to declare bankruptcy because there was not enough cash available for clients to take out. With so little cash on hand, the money sitting in treasury bonds was not only impossible to withdraw in the short term but was also losing a lot of value [4]. At this point, due to the increase in interest rates, corporations no longer choose to take out loans and instead take out the money they have in the bank for their own use. Therefore, banks are extremely susceptible to a run at this point. And at this point if banks can maintain their own capital flow by borrowing money from other institutions and companies. The answer is clearly "No". First of all, if the money is borrowed in an environment where interest rates are very high and the money is not used for investment purposes, the bank will not be able to repay the high-interest rates in the future. Such an action would simply delay the arrival of the bank's collapse. So would it have been feasible to invest that loan first? The answer is also "No". In the highly inflationary environment of the time, the profit from the investment might not even be able to repay the interest generated by the loan. Moreover, at the time, the US government made it clear that it would not bail out Silicon Valley Bank. So, it is true that the misallocation of assets was a factor in this tragedy. When exploring the issue more deeply it becomes clear that this problem did not happen in a short period of time. At the beginning of 2021, after seeing the tech sector get some traction in the epidemic era because of its industry specificity, Silicon Valley Bank came in at this time to purchase a large amount of treasury bonds. [4] So this problem can be attributed to a problematic decision generated by the management within Silicon Valley Bank.

This article then comes to the question concerning the customer base of Silicon Valley Bank. The collapse of Silicon Valley Bank is related to the homogeneity of its customer base. Most of Silicon Valley Bank's customers were high-net-worth clients who were usually organized in companies [9]. This on its own may not show a direct link between the two. This is where it comes to creating two virtual banks to explain the problem. Suppose each bank has the same assets so that it is more straightforward and accurate to compare two similarly situated banks. If Bank A has high-net-worth customers who have deposited $100 each, and Bank B has non-high net-worth customers who have deposited $1 each. Since the assets of both banks are the same, it can be assumed that Bank A has one customer, so Bank B has 100 customers. Now, putting the prevailing environment into the model we have simulated, if each bank has one customer who needs to take out deposits to maintain their daily expenses. Then for bank A, this situation would take out all of its own money, so that a run would occur. Bank B, on the other hand, has only had 1% taken out and it can still use the rest of its money for a range of business activities such as investment. This model shows very intuitively that having high net worth customers may seem like having very few customers to reach the level of other identical banks, but in some special cases this advantage can become a disadvantage, a disadvantage that can hasten the bank's collapse in a crisis. Returning to the case of Silicon Valley Bank, most of its clients are large chains of companies, such as Audemars Piguet [9]. If a company has high cash holdings, the cumulative abnormal return (CAR) will be higher [10]. In addition to this, the paper also found that Silicon Valley Bank's unique geographical location resulted in the majority of its customers being technology companies or customers in technology-related occupations. Silicon Valley Bank was not directly affected by the outbreak but received the impact through its own customers. It is worth noting

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that the impact here is not all bad. At first the tech industry grew significantly through the epidemic and Silicon Valley Bank ate the dividends of this event, but then the tech industry went through a cold winter and Silicon Valley Bank received a huge impact, which indirectly led to the collapse of Silicon Valley Bank. However, another internal reason for the collapse of Silicon Valley Bank was that it had a single type of customer.

Having concluded the discussion of internal causes, this article will then move on to the impact of external factors. Due to the specific nature of the times, there are so many external factors that can have an impact, and the US Secretary of the Treasury has also identified interest rates as an important factor. In this section, therefore, a series of analyses and discussions will be conducted on interest rates alone. The impact of interest rates is not a single pathway, but a two-way one. Not only does it act directly on Silicon Valley Bank itself, but it also acts on Silicon Valley Bank's customer companies, through which the impact of interest rates is transmitted to the bank. The indirect effects have already been discussed in depth above in relation to the impact of the type of customer base on the bank, so I will not dwell on them here. The focus here will be on the direct impact of interest rates on Silicon Valley Bank. As illustrated in Paper A, the increase in interest rates had a negative impact on the income and balance sheet of Silicon Valley Bank [11]. At the time of the interest rate increase, it was due to the very high value of inflation in the US at the time, which also represented a rapid decline in treasury bonds due to the suppression of inflation in the US. The Silicon Valley Bank, which held a large amount of treasury bonds at the time, had already lost a lot of its own assets. On top of this, the state the US authorities wanted to achieve by raising interest rates was to allow domestic money to flow back into the banks rather than circulate in the market, allowing the market to overheat and thus prices to soar. However, despite several interest rate hikes and adjustments in the US, they have not been able to bring prices down. So the rise in interest rates, in fact, did not work very obviously, it was more like a trigger, a catalyst. The rise in interest rates has made an already unhealthy external environment even more difficult for Silicon Valley banks.

3.3. Suggestion

In the preceding article, the available literature and information have been used to analyse in detail the internal and external causes of the Silicon Valley banking tragedy. This paper will then offer some suggestions for banks in similar situations. Firstly, banks need to be extremely careful in the allocation of their assets, and senior management should be able to make certain decisions with a predictive eye and a sense of the wider environment. This is especially true when it comes to long-term investments, which need to be made carefully and in the right proportions. There is only one way to solve this problem: decentralize the bank. Decentralization does not mean not having a center, but replacing it with smaller nodes, which can make decisions more quickly. Secondly, in terms of the choice of customer base, the diversity of the customer base will not only help banks to broaden their business but also to have a certain degree of defensibility in the face of a crisis - after all, the probability of a cold winter in one industry is much higher than the probability of a cold winter in several industries at the same time. In addition, it is important for banks not to focus solely on high-net-worth clients, which would make the probability of a run much higher for them. A reasonable proportion of high-net-worth and non-high-net-worth clients will better protect the normal operation of the bank. Thirdly, it is more difficult to try to make certain recommendations on national policy. But what you can do as a company is to set up a sound policy analysis department so that you can make the best decisions for your company in the first instance regarding national policies.

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4. Conclusion

Through research, this article examines the factors that led to the failure of Silicon Valley Bank. The article discusses the internal and external causes and concludes that imperfect asset allocation, an overly homogeneous customer base, and rising interest rates have all had an impact on the failure of Silicon Valley banks. Through a series of discussions, the paper concludes that there is no single cause for the failure of Silicon Valley banks, but rather a combination of factors. At this particular time, many of these factors may even interact with each other, with one factor acting on the Silicon Valley bank before another. Of the three recommendations made in the paper, sound decision-making, developing a multi-sectoral clientele, and paying attention to government policy can usually be applied to most banks or companies with the same experience. The main contribution of this paper is to examine both internal and external factors and to find that these factors can work together in the case of Silicon Valley Bank, which will allow for more detailed and comprehensive analysis in the future when other banks encounter similar situations. In addition, the recommendations given in the article are essentially preventative measures, so this is something that could be implemented by most banks and could be implemented in advance to avoid disaster. Although the above analysis has been exhaustive, there are some shortcomings. Firstly, the article does not have access to the most accurate data for quantitative analysis. Secondly, too few factors were studied and no other aspects were taken into account. Future research should use more data to analyse more factors in detail.

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