

## **HENRY FUND DISCLAIMER ON SVB FINANCIAL GROUP REPORT**

The attached research report for SVB Financial Group (SIVB) was written as an academic exercise by the Henry Fund analyst as part of the Applied Security Analysis course at the Tippie College of Business.

The report reflects the opinions and assessments of the student analyst at the time of its publication, March 8, 2023, prior to the bank run which ultimately caused SVB's collapse. The report was submitted one week prior to the bank's collapse and was repurposed later to include details of the collapse. NO changes were made to the financial model, recommended price targets, or investment rationale.

We wish to clarify that the rating given in this report should not be considered relevant or applicable at present, as circumstances related to the company have changed significantly since the report was written.

## SVB Financial Group (SIVB)

### Regional Banks- Financial Services

March 8, 2023

#### Investment Thesis

SVB has experienced a surge in deposits in the past two years due to strong VC funding, but loan growth has not kept pace. As interest rates rose, the deposit mix shifted significantly towards interest-bearing deposits. The surplus deposits were invested in low-yield (but safe) bonds, which lost value as interest rates increased. This posed a concentration risk for SVB, as most of their clients are VC-backed start-ups. Based on our analysis, we recommend a Sell rating for SIVB with a downside of 19.5% from the current price of \$283.

#### Drivers of Thesis

- SIVB's balance sheet is under significant stress due to the rapid increase in interest rates, as a large portion of their investments were tied up in low-yield, long-duration bonds that have declined in value.
- The resilience of inflation suggests that higher interest rates are likely to persist in the near term, which may exacerbate the stress on SIVB's balance sheet, given their client base's sensitivity to economic slowdowns.
- SIVB's rate and duration asset-liability mismatch poses a risk to operations and net interest margins, particularly given the current state of the VC world, which is expected to result in sluggish new deposits and loans.
- Non-interest income streams such as investment banking are also expected to slow down, as M&A activity has declined in recent months.

#### Risks to Thesis

- We expect the Fed to maintain high interest rates in the short term. A sharp decline could boost deposit and loan growth, but also significantly impact our estimated net interest margin.
- A revival in the Venture Capital industry, which the bank primarily serves, could offset the unfavorable interest rate environment. Increased deals and IPOs for start-ups would also raise investment banking revenues.

#### Earnings Estimates

Year	2020	2021	2022	2023E	2024E	2025E
EPS	\$23.0	\$31.7	\$25.6	\$23.8	\$15.2	\$26.8
HF est. Growth	5.25%	37.7%	-19.4%	-6.8%	-36.3%	76.7%

#### 12 Month Performance



#### Stock Rating

**SELL**

#### Target Price

**\$228-242**

Henry Fund DCF	\$228
Henry Fund DDM	\$234
Relative Multiple	\$242

#### Price Data

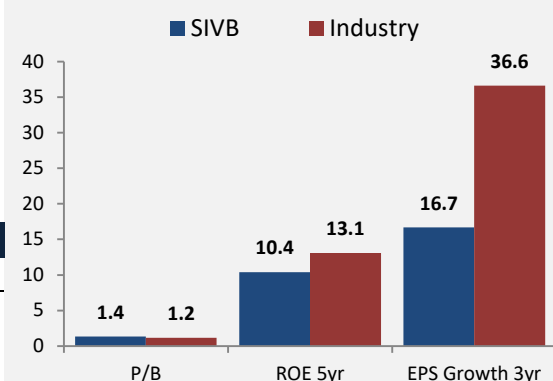
Current Price	\$283
52wk Range	\$106 – 597
Consensus 1yr Target	\$285

#### Key Statistics

Market Cap (B)	\$15.86
Shares Outstanding (M)	\$60.23
Institutional Ownership	97.60%
Beta	1.21
Dividend Yield	0.0%
Deposit Growth (5yr)	31.4%
Price/Earnings (TTM)	9.09
Price/Earnings (FY22)	11.87
Price/Sales (TTM)	3.50
Price/Book (TTM)	1.35

#### Profitability

Net Interest Margin	2.12%
Return on Equity (FY22)	9.09%
Return on Assets (FY22)	0.71%



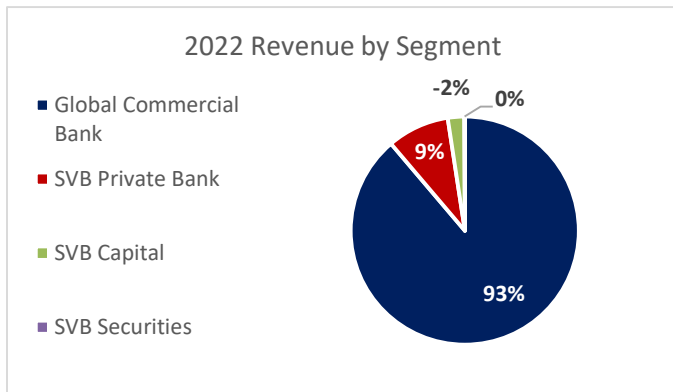
#### Company Description

SVB Financial Group is a 40-year-old banking company headquartered in Santa Clara, California. The bank is a leading financial institution that caters to the tech industry and has become the preferred bank of almost half of all venture-backed tech startups. It is the 16<sup>th</sup> largest bank in the United States and provides Commercial Banking, Private Banking, Investment Banking and Venture Capital services to its clients. SIVB plays a critical role in the banking industry with its unique business model supporting start-up companies.

## COMPANY DESCRIPTION

SVB Financial Group (SIVB) is a diversified financial services company and a bank holding company, offering commercial and private banking, asset management, private wealth management and other services to clients, primarily through its subsidiary Silicon Valley Bank. The company also offers investment banking services and non-banking services such as fund management and M&A advisory services. SIVB is headquartered in Santa Clara, CA and primarily serves the VC backed startups in the Technology and Life Science/Healthcare industries.

Their business is divided into four main divisions, Global Commercial Bank, SVB Private Bank, SVB Capital and SVB Securities. The chart below shows the revenue breakup among these four segments.



Source: SVB 10-K

### Global Commercial Bank

This segment provides banking products and services to commercial clients in various industries, including technology, life science, healthcare, venture capital, and private equity. The commercial banking services offered by SVB Financial Group include commercial lending, deposit services, cash management services, and global trade finance services. SVB Financial Group is known for its expertise in the technology and life science sectors, and its commercial banking services are tailored to meet the unique needs of these industries. For example, the company offers specialized financing solutions to help technology and life science companies manage their cash flow and fund their growth.

in USD million	2020	2021	2022
Net Interest Income	1,990	2,914	4,118
Provision for Credit Losses	(166)	(55)	(277)
Non-interest Income	604	706	1,107
Non-interest expenses	(1,011)	(1,266)	(1,557)
Total average loans	30,116	43,145	54,647
Total average assets	73,929	140,362	175,221
Total average deposits	71,911	138,057	172,106

Source: SVB 10-K

### SVB Private Bank

This segment offers a range of personal banking products and services to high-net-worth individuals and families. SVB Private Bank provides private banking, wealth advisory, investment management, and trust services to its clients. The private banking services offered by SVB Financial Group are designed to help clients manage their finances, protect their assets, and achieve their financial goals.

in USD million	2020	2021	2022
Net Interest Income	112	226	407
Provision for Credit Losses	(21)	(14)	(10)
Non-interest Income	5	58	96
Non-interest expenses	(55)	(223)	(361)
Total average loans	5,298	9,986	14,934
Total average assets	5,335	11,171	16,637
Total average deposits	2,388	8,924	12,884

Source: SVB 10-K

### SVB Capital

This segment is the venture capital arm of SVB Financial Group. SVB Capital provides investment services to venture capital and private equity firms, as well as limited partners, institutional investors, and family offices. SVB Capital manages several funds that invest in early-stage and growth-stage technology and life science companies. SVB Capital's investment strategy is focused on identifying and investing in innovative companies with disruptive technologies and business models. The funds managed by SVB Capital are typically structured as limited partnerships, and they invest in a range of industries, including software, hardware, internet, digital media, medical devices, and biotechnology.

in USD million	2020	2021	2022
Non-interest Income	226	487	(110)
Non-interest Expenses	(51)	(71)	(70)
Total average assets	437	700	942

Source: SVB 10-K

## SVB Securities

SVB Securities is the broker-dealer subsidiary of SVB Financial Group. The company provides a range of securities services to institutional clients, including corporations, venture capital firms, private equity firms, investment managers, and family offices. SVB Securities operates as a registered broker-dealer in the United States and is a member of the Financial Industry Regulatory Authority (FINRA) and the Securities Investor Protection Corporation (SIPC).

in USD million	2020	2021	2022
Net Interest Income	1	1	3
Non-interest Income	497	608	505
Non-interest Expenses	(379)	(561)	(603)
Total average assets	557	830	936

Source: SVB 10-K

### Key services provided by SVB Securities include:

**Execution Services:** SVB Securities provides institutional clients with access to a wide range of securities markets, including equity, fixed income, and foreign exchange markets. The company offers advanced trading technology and execution tools to help clients achieve optimal execution outcomes.

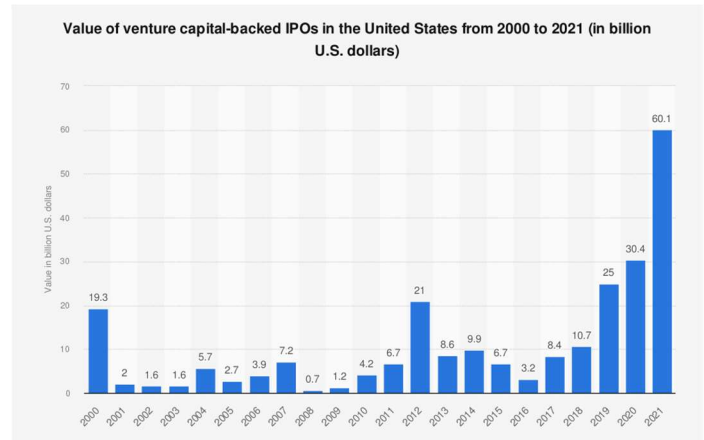
**Clearing and Settlement:** SVB Securities provides clearing and settlement services for a range of securities, including equities, bonds, options, and futures. The company's systems and processes are designed to provide efficient and reliable settlement services to clients.

**Prime Brokerage:** SVB Securities offers prime brokerage services to hedge funds, asset managers, and other institutional clients. These services include financing, securities lending, custody, and clearing and settlement services.

**Capital Introduction:** SVB Securities helps institutional clients raise capital by introducing them to potential investors. The company has a large network of institutional investors and can help clients access capital from a range of sources.

## THE VC LANDSCAPE

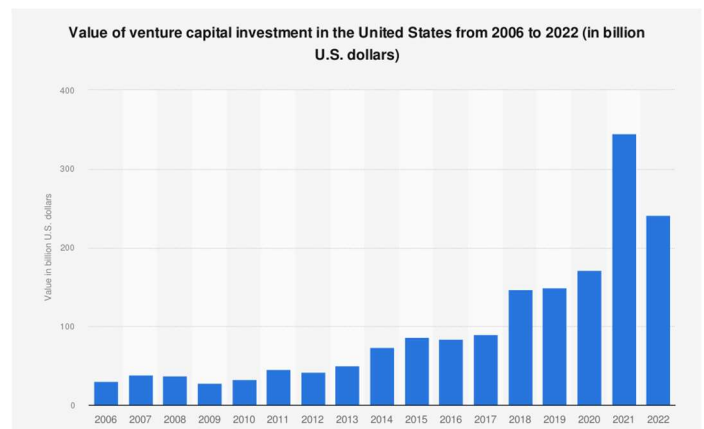
Since the business of SVB bank was so closely tied to the Venture Capital (VC) world, we analyzed the VC industry before we got to analyzing the bank itself. The Venture Capital industry has developed rapidly over the last couple of decades. The industry exploded in 2021, with number of deals and value of deals exceeding \$320 billion. In 2021, the value of VC backed IPOs exceeded \$60 billion.<sup>13</sup>



Source: Statista

Venture Capital investments reached unprecedented levels in 2021, with \$128.3 billion raised by 730 funds, surpassing the amount raised in 2020 by 1.5 times. However, the number of first-time funds raised was at its lowest point in seven years, resulting in a higher allocation of capital to a small number of established venture firms. Although the average size of funds is increasing, the time between fundraises has been decreasing over the years, dropping from 3.3 years in 2013 to 2.5 years in 2021.

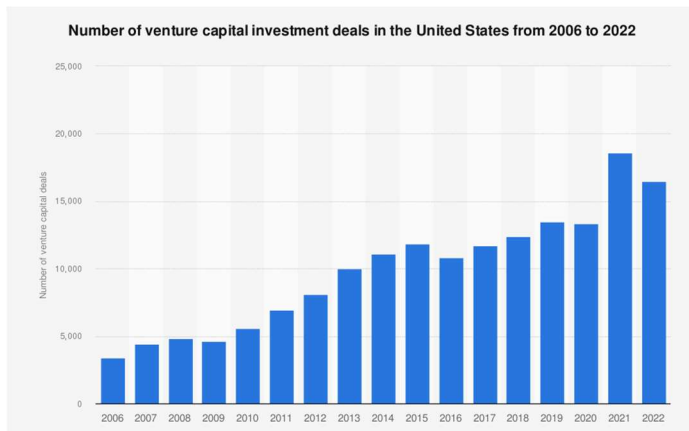
In 2021, VCs invested a record-breaking amount of capital totaling nearly \$330 billion, with 27% more deals closed compared to the previous year. This trend was observed across all stages, with early and late-stage investments experiencing the most significant increases. Additionally, mega rounds (over \$100 million) tripled from 335 to 819. The surge in deals was attributed to virtual dealmaking, faster due diligence processes, and condensed time between financing rounds.



Source: Statista

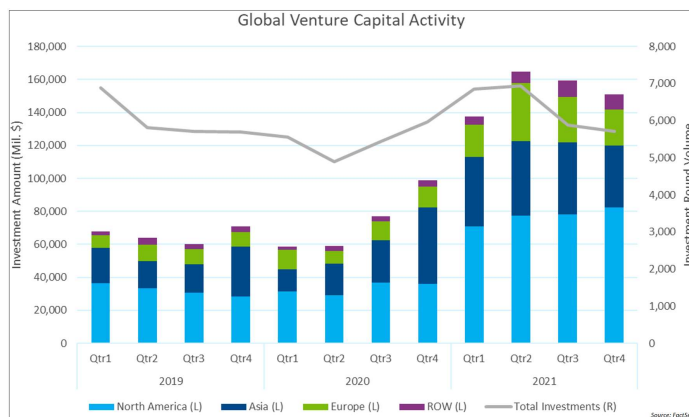
The unparalleled investment activity in later stage rounds in 2021 was driven by several factors, including companies

staying private for longer, increased competition, and a robust IPO market for high-growth technology firms. Tiger Global's, which is one of the leading VC firms in the US, made 683 venture and private equity investments since the start of 2021. Their aggressive strategy of pre-empting rounds, fast-tracking due diligence, paying above-market prices, rapidly deploying capital, and taking a more passive approach without board seats was a hot topic. While some perceived their tactics as disruptive, others saw it as aggressive. However, late-stage and crossover investors, including Tiger, faced criticism for high losses incurred in the early months of 2022 during the public tech stock sell-off.



Source: Statista

The frenzy was not contained to the U.S. Globally, with investments upwards of \$600 billion, over 500 venture backed companies became unicorns in 2021, which was 2.85 times the number from 2020.



Source: FactSet

## Turning of the tide in 2022

All this growth meant start-ups were flush with capital, and there were more start-ups than ever before. With SVB

being the bank of choice for around 50% of the tech start-ups in the country, they received large sums of money in deposits. SVB's total deposits grew from \$61.7 billion in 2019 to \$189.2 billion in 2021. But loan growth wasn't nearly as rapid. Net loans only grew from \$32.8 billion to \$65.8 billion over the same period. This meant the bank was left with billions of dollars in surplus deposits, which it invested in high quality (low yield) government and agency backed securities. Since this was in 2020 and 2021, the interest rates that the bank would receive on these investments were quite low in comparison to rates prevalent today. The average yield on their investment portfolio was 1.79% with a duration of 3.6 years.<sup>1</sup>

With Fed Fund rates rising from 0.4% in early 2021 to around 5% in 2022, the bank could not benefit from the higher interest rates, while its bond portfolio lost value. Meanwhile, the clients were able to convert their deposits from non-interest bearing to interest bearing deposits in 2022. The deposit mix changed from the historical 70:30 to 47:53 in favor of interest-bearing deposits. This meant the bank had to pay interest on more deposits than usual and at higher interest rates.

In 2022, the VC industry experienced a rapid decline in the number of deals as well as valuations. Funding dried up in the private markets as interest rates rose and returns turned negative across asset classes. While VC benefited from cheap capital and sectoral tailwinds since the GFC and reached total AUM reaching \$2.6 trillion as of 2021, research by Pitchbook expects this to decline to \$2.1 trillion at the end of 2023. As per Crunchbase, in 2022, global VC funding totaled \$445 billion, down 35% YoY from the \$681 billion raised in 2021.

With interest rates so high, the cost of capital became very expensive, making VCs think twice before investing which triggered the funding drought. This is where the problems for SVB Bank started. As funding, and thus liquidity for start-ups dried up, they started using their bank deposits to conduct their operations. Returns on investment assets were low, new loans weren't originating as quickly and customers were withdrawing funds. SVB had to find a way to fulfil the withdrawals. They had to sell their AFS investment portfolio worth \$21 billion and realize a loss of around \$1.8 billion. This made the depositors nervous, causing a bank run, which in turn meant that the bank's new capital raise of \$2.25 billion fell through. All of this ultimately led to the failure of SVB Bank as \$42 billion of capital was requested for withdrawal on March 7, 2023.

The collapse of SVB will have significant repercussions for the VC industry in the U.S. The bank played a critical role on both sides of the venture funding industry as the preferred banker for start-ups and venture capitalists, both GPs and LPs alike. Since the bank was primarily banking with VC funded start-ups and not the population at large, they had an inherent customer concentration risk, despite their revenues being better diversified when compared to other banks. When times were good, funding was high and the economy was flourishing, this specialization greatly benefitted the bank as we saw with the rapid growth in deposits. However, in the wake of its collapse, we can say it ultimately turned out to be a double-edged sword.

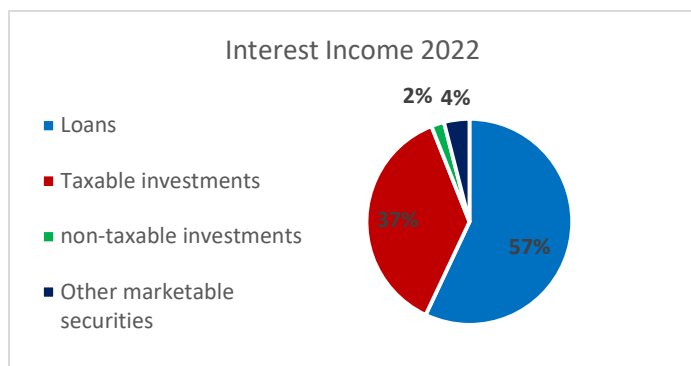
The hyperconnected nature of the start-up world also meant that the bank run could happen almost instantly, which is what we saw. This led to the FDIC taking control of the bank, trading of shares being halted, and the bank's assets being sold to repay the depositors.

## EFFECTS ON SVB'S BUSINESS

Now that we have the full story, let's dive deeper into SIVB's business and its financials, and understand our forecasts for the bank.

### Revenue

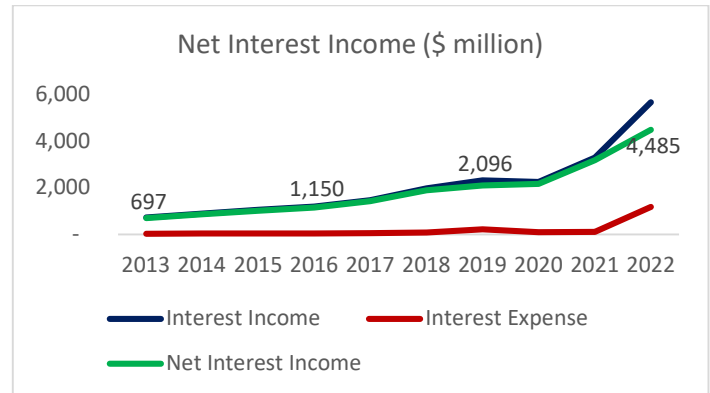
SIVB, through its primary subsidiary Silicon Valley Bank, played a critical role in the Venture Capital sector, offering banking services and capital to meet the needs of the start-up ecosystem. The bank earned its revenue from a mix of interest and non-interest sources. Interest Income for the bank is comprised of the following sources:



Source: Mergent

Net Interest Income is the difference between Interest Income and Interest Expenses for a bank. For SVB, given

the unique nature of its business, where most of the customers were VC backed start-ups, the rate of interest income growth was a lot higher than the rate of growth in interest expenses. This was due to the favorable deposit mix where around 70% of the deposits were non-interest bearing. Let's look at how these numbers evolved for SIVB over the last decade in the chart below.



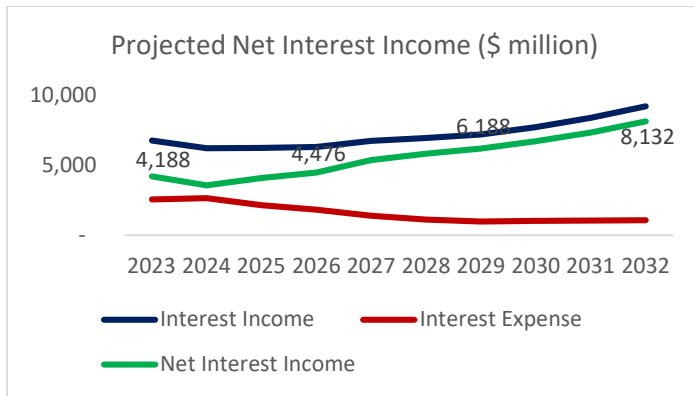
Source: SVB 10-K

As is evident, SIVB's interest income grew at a much faster rate compared to its interest expense. Over the 8-year period between 2013 and 2021, interest earned from loans grew from \$542 million to \$1,966 million (3.6x growth). Similarly, interest income from investments grew from \$188 million to \$1,323 million (7x growth), while the interest expense only went from \$32 million to \$110 million (3x growth).

However, as interest rates were rising in 2022, the interest income and expenses on SIVB's income statement were undergoing rapid changes. Between 2021 and 2022, interest income from loans grew from \$1,966 million to \$3,208 million (1.6x growth), interest expense for deposits grew from \$62 million to \$862 million (13.9x growth), interest expense on borrowings grew from \$48 million to \$326 million (6.8x growth). We are using multiples to show the growth here given the magnitude of the increase.

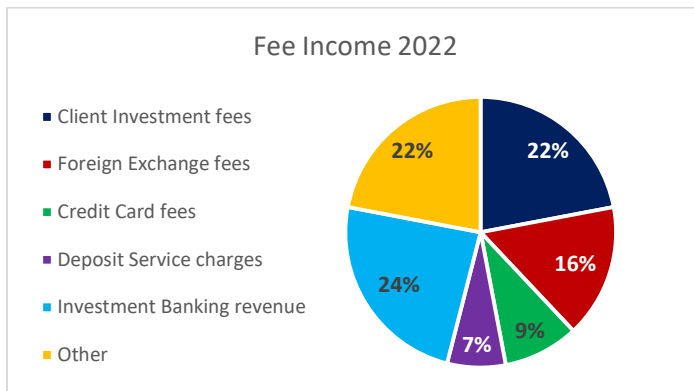
This was not alarming at first, as the proportion of loans to deposits was quite healthy. However, as new loan origination dried up and the deposit mix changed to 53% interest bearing deposits in 2022, a significant transformation had happened to the bank's Net Interest Income structure. We accounted for this in our projections and estimated the new deposit mix, which has more interest-bearing deposits, to stay for the next 3 years before gradually changing towards the non-interest-bearing deposits again as rates would eventually decline.

We factor this as deposits tend to be sticky in nature, customers will not rush to the banks to switch their deposits out as interest rates drop. We have also factored in the reallocation of capital to other assets such as bonds and money market instruments instead of keeping the money in the bank, as interest rates are now quite high. Therefore, we expect the NIMs to dip before gradually recovering when the deposit mix normalizes.



Source: Henry Fund estimates

Next, we looked at the non-interest income portion of the revenues, which comprises of various fees the bank charges to its customers for the services provided. In our forecasts, we kept these proportional to historical levels since most fees, apart from investment banking fees, do not fluctuate much given the nature of the business. Below is the breakup of the fee revenue:



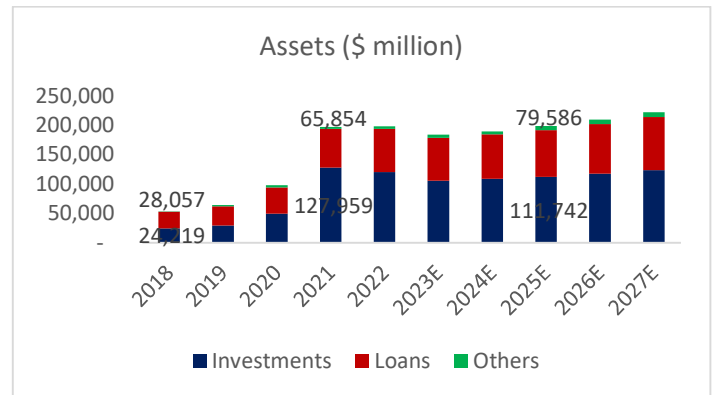
Source: Mergent

Similarly, we kept the non-interest expenses proportional to historical levels. The major expenses in this category are employee costs.

## Assets

We can categorize SIVB's assets into 3 main divisions, Investments, Loans and Others, with investments and

loans being the main drivers here. The bank's asset growth is dependent on its deposits which are on the liability side. As we have seen, the growth of funding in the VC industry led to strong deposit growth for SIVB. Let's look at how it accounted for on the assets side.



Source: SVB 10-K, Henry Fund estimates

2022 was the first time the bank saw its total assets decline year-on-year. This was driven by the decline in asset values in the investment portfolio. SIVB held low yield bonds like U.S Treasury securities and Agency backed mortgages in its portfolio. As interest rates went up, the value of these bonds declined, bringing down the value of the investment portfolio on a mark-to-market basis. In our projections, we have accounted for this effect as we expect interest rates to remain high in 2023 and for a good part of 2024. We expect the investments to flat-line as we are projecting deposit growth to slow down considering the current VC environment. We believe that if the bank was not forced to sell its assets to meet withdrawal requests, the bank would have likely survived, and the assets would have eventually paid out as planned.

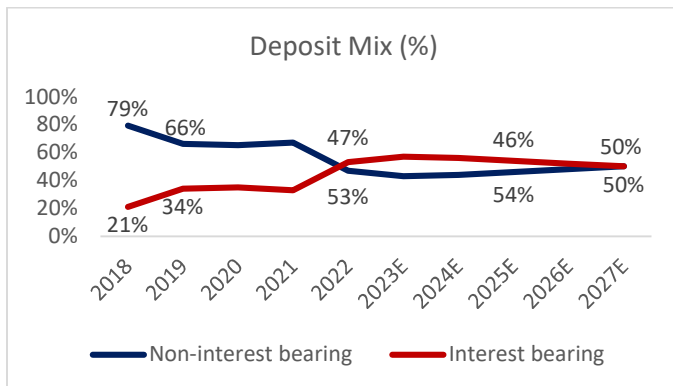
On the loans front, historically, over 2018 to 2022, net loans grew 2.6x from \$28 billion to \$73 billion. However, considering the slowdown in the VC industry we expect the need for new funding will be low, especially looking at the high interest rates. Therefore, we forecast loans to remain flat over the next couple of years before gradually increasing again. We have projected other assets, mainly PP&E and leases, in line with historical figures.

## Liabilities

Moving to the liabilities side of the balance sheet, the main account here is the deposits. Historically, deposits have accounted for over 95% of the firm's total liabilities. This changed in 2022, as this figure dropped to 88.5%. This was

due to the bank taking on a significant amount of debt in 2022. The bank took a loan of \$13 billion from Federal Home Loan Bank (FHLB) to meet liquidity needs.

When analyzing deposits, it is important to notice the change in the proportion of non-interest bearing to interest bearing deposits, as this plays a critical role in the interest expense portion on the income statement. Below is a chart showing the trends in the deposit mix over the last five years, and our projections for the next five years.



Source: SVB 10-K, Henry Fund estimates

As we can see, in 2022, the proportion of interest-bearing deposits went higher than non-interest-bearing deposits. This was the first time in recent history, because when interest rates were low (and basically 0%) it really did not matter if you were not earning interest on deposits because no one was paying interest and there were no alternatives. Once the Fed began raising rates, then money markets began offering more competitive yields and it was advantageous to move deposits into the interest-bearing category. It is expected to happen when interest rates rise at the pace at which they did. But this also means that these new interest-bearing deposits were getting paid a rate of interest that was more recent (higher) than the bank was earning from its interest income sources. In other words, they did not benefit from the rising rates on their assets side but were hit on the liabilities side. Here, the high proportion of uninsured deposits played a role in SVB's collapse. The issues affecting the bank's deposit mix were not unique to the bank. The proportion of uninsured deposits was.

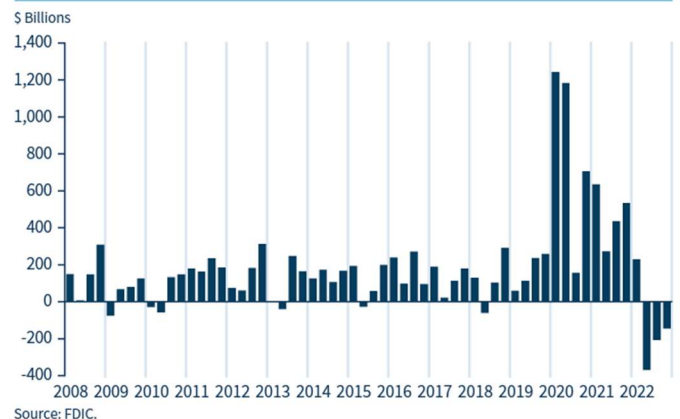
We tried to incorporate all these factors in our forecasts by adjusting deposit growth, loan growth and debt levels for the bank. We also anticipated a decline in deposits for 2023 as start-ups started experiencing cash crunch and started using their deposits to fund operations.

## INDUSTRY TRENDS

The economy remains under pressure in 2023 with rise in inflation, supply chain issues and no resolution to the Russian invasion of Ukraine yet. The looming risk of a recession has wreaked havoc across industries and the ripples have been felt by the banking industry worldwide. In the US, the meteoric rise in inflation has led to the Federal Reserve raising interest rates to tighten the economy. However, a resilient job market and shortage of goods due to persistent supply chain issues have made it difficult to tame inflation. In early March, this caused multiple regional banks to become insolvent. Going forward, we expect banks to continue to feel the pressure in the short term as the traditional banking model gets disrupted. As is evident in the chart below, as interest rates were increasing, the deposits were shrinking. The negative change in deposits shows that customers were taking out capital to fund operations and meet day-to-day needs or to allocate capital towards securities paying a higher interest.

### Quarterly Change in Deposits

All FDIC-Insured Institutions



Source: FDIC

Banks will need to add value beyond traditional products and services. To do this, banks are exploring innovation in the following areas:

### Retail Banking

Retail customers are becoming technologically savvy and are expecting banks to keep up. Almost every bank has an app and offers services where the customers don't need to walk into a branch anymore. Banks are taking data driven approaches and offering digital banking, open banking and creating a superior customer experience. This is evident in

the fact that the global retail banking industry spent over \$250 billion on technology in 2022. These expenses and developments are led by the big global banks who spend billions of dollars each year. Regional banks typically spend \$2-\$3 billion on technology annually. SIVB has an advantage here since its target customers are not retail customers but start-ups. The bank has built a reputation over the last 4 decades of being a partner to venture capital funded start-ups.

## Fintech

The fintech industry has disrupted traditional financial services through faster and more cost-effective processes and technology, such as artificial intelligence and blockchain. Despite a decline in funding in 2022 due to rising fears of recession, growth is expected to rebound in the future as new players enter the relatively unevolved banking industry. P2P money transfer apps, such as Venmo, Cash App, and Zelle, have seen explosive growth and could disrupt major finance companies. With declining valuations in the fintech industry, the next 12 months could be an attractive time for banks to acquire fintech players. The number of users for digital banking products in the U.S. is projected to grow to 216.8 million by 2025. Digital payments and neo-banking are expected to grow, reaching 320 million and 78 million users, respectively.

## Sustainability and Social Responsibility

There is growing demand from customers, investors, and regulators for banks to adopt more sustainable and socially responsible business practices. This trend is likely to drive the development of new financial products and services that support sustainable and responsible investing, and to increase the pressure on banks to demonstrate their commitment to sustainability and social responsibility. Banks can use this opportunity to develop robust online/ mobile products and eliminate the need for physical branches but increase the need for digital branches and enhanced customer support which would help with sustainability initiatives and profitability. SVB has an ESG score of 36.6, which gives it a High-Risk rating.

## Increasing Focus on Non-Interest Income

Non-interest income has become an important source of revenue for banks, particularly in low interest environments. Traditionally, non-interest income for banks is comprised of fees such as overdraft, credit cards,

ATM charges etc. In addition, banks are offering wealth management and investment banking services as well.

## PEER COMPARISON

### First Republic Bank

First Republic Bank provides private banking, business banking, real estate lending, and wealth management services, including trust and custody services. The company operates in two segments: Commercial Banking and Wealth Management. First Republic Bank was founded by James H. Herbert II in February 1985 and its headquarters are in San Francisco, California.<sup>3</sup>

in USD million	2020	2021	2022
Net Interest Income	3,262	4,114	4,834
Provision for Credit Losses	157	59	107
Non-interest Income	653	920	1,037
Non-interest expenses	2,424	3,147	3,623
Total average loans	111,931	134,262	166,084
Total average assets	142,984	181,714	213,358
Total average deposits	114,929	156,321	176,437

Source: FactSet

### East West Bancorp

East West Bancorp, Inc. is a bank holding company that provides financial services. It operates through three main segments: Consumer and Business Banking, Commercial Banking, and Other. East West Bancorp, Inc. was established on August 26, 1998, in Pasadena, California.<sup>3</sup>

in USD million	2020	2021	2022
Net Interest Income	1,377	1,531	2,045
Provision for Credit Losses	198	(29)	75
Non-interest Income	170	217	256
Non-interest expenses	654	721	815
Total average loans	37,771	41,152	47,607
Total average assets	52,261	60,947	64,112
Total average deposits	44,863	53,351	55,968

Source: FactSet

### PacWest Bancorp

PacWest Bancorp is a bank holding company that provides financial and banking services. It specializes in offering commercial banking services such as real estate financing, construction lending, commercial loans, deposit services, and treasury management to small and medium-sized businesses through Pacific Western Bank. The company was established on October 22, 1999, and its headquarters are in Beverly Hills, California.<sup>3</sup>

in USD million	2020	2021	2022
Net Interest Income	1,014	1,103	1,291
Provision for Credit Losses	339	(162)	25
Non-interest Income	125	126	82
Non-interest expenses	506	583	744
Total average loans	18,735	22,741	28,408
Total average assets	29,498	40,443	41,229
Total average deposits	24,941	34,998	33,936

Source: FactSet

### Silvergate Capital

Silvergate Capital Corp. is a holding company that provides banking and loan services, with a focus on financial infrastructure solutions and services for participants in the emerging digital currency industry. The company was established in 1988 and is headquartered in La Jolla, California.<sup>3</sup>

in USD million	2,020	2,021	2,022
Net Interest Income	72	129	256
Provision for Credit Losses	1	-	(4)
Non-interest Income	18	45	(852)
Non-interest expenses	60	89	143
Total average loans	747	887	408
Total average assets	5,591	16,009	11,356
Total average deposits	5,248	14,291	6,297

Source: FactSet

### Cathay General

Cathay General Bancorp (CGB) is a bank holding company that operates through its subsidiary, Cathay Bank, offering a variety of commercial banking and wealth management solutions to individuals, professionals, and small to medium-sized businesses. CGB has branches in California, New York, Massachusetts, Texas, Nevada, Washington, Illinois, Maryland, and New Jersey, as well as Hong Kong, and representative offices in China and Taiwan. The company is based in Los Angeles, California, US.<sup>3</sup>

in USD million	2020	2021	2022
Net Interest Income	552	598	734
Provision for Credit Losses	57	(16)	15
Non-interest Income	62	55	30
Non-interest expenses	302	285	272
Total average loans	15,475	16,202	18,101
Total average assets	19,070	20,908	21,967
Total average deposits	16,109	18,059	18,505

Source: FactSet

### Pacific Premier Bancorp

Pacific Premier Bancorp, Inc. is a bank holding company that operates through its subsidiary, Pacific Premier Bank,

providing banking services. It offers a range of deposit services, including business and consumer accounts such as checking, money market and savings accounts, cash management options, electronic banking services, and online bill payment facilities. The company was established in 1997 and its headquarters are in Irvine, California.<sup>3</sup>

in USD million	2020	2021	2022
Net Interest Income	574	662	697
Provision for Credit Losses	192	(71)	5
Non-interest Income	71	108	89
Non-interest expenses	332	369	397
Total average loans	12,968	14,098	14,481
Total average assets	19,816	21,143	21,729
Total average deposits	16,214	17,116	17,352

Source: FactSet

### CVB Financial

CVB Financial Corp. is a bank holding company that offers relationship-based banking products and services through its subsidiary, Citizens Business Bank. The company provides financial solutions to small to medium-sized businesses, real estate investors, non-profit organizations, professionals, and individuals. CVB Financial Corp. was founded by George A. Borba on April 27, 1981, and its headquarters are in Ontario, California.<sup>3</sup>

in USD million	2020	2021	2022
Net Interest Income	416	415	506
Provision for Credit Losses	24	(26)	11
Non-interest Income	43	47	47
Non-interest expenses	188	188	211
Total average loans	8,255	7,823	8,994
Total average assets	14,419	15,884	16,477
Total average deposits	11,737	12,976	12,836

Source: FactSet

## 2022 Return on Equity and Return on Assets

Company	ROE	ROA
SVB Financial Group	9.09%	0.71%
First Republic Bank	10.00%	0.84%
East West Bancorp	19.10%	1.80%
PacWest Bancorp	10.50%	1.02%
Silvergate Capital	10.90%	0.93%
Cathay General	14.70%	1.68%
Pacific Premier Bancorp	9.90%	1.31%
CVB Financial	11.70%	1.46%

Source: FactSet

Looking at the 2022 data given in the table above, we can see that East West Bancorp has the highest ROE of 19.10%, followed by Cathay General with 14.70%. SVB and Pacific Premier have the lowest ROE with 9.09% and 9.90% respectively.

## ESG Rating

Company	ESG Scores	Risk Rating
SVB Financial Group	36.6	High
First Republic Bank	25.4	Medium
East West Bancorp	27.3	Medium
PacWest Bancorp	27	Medium
Silergate Capital	24.2	Medium
Cathay General	31.5	High
Pacific Premier Bancorp	24.9	Medium
CVB Financial	29.7	Medium

Source: Sustainalytics

ESG has become an important factor for banks, with regulatory requirements, institutional investors, rating agencies and customers at large demanding that banks take steps towards sustainable operations. In this peer set SVB and CVB Financial have the highest ESG scores. Overall, the peer set has a solid ESG risk rating.<sup>16</sup>

## Regulatory Capital

Company	CET 1 Ratio	Tier 1 Ratio	Total Cap Ratio
SVB Financial Group	12.10%	15.40%	16.20%
First Republic Bank	9.20%	11.60%	12.60%
East West Bancorp	12.70%	12.70%	14.00%
PacWest Bancorp	8.70%	10.60%	13.60%
Silergate Capital	40.70%	46.50%	46.60%
Cathay General	12.20%	12.20%	13.70%
Pacific Premier Bancorp	13.00%	13.00%	15.50%
CVB Financial	13.60%	13.60%	14.40%

Source: FactSet

Common Equity Tier 1 and Tier 1 capital ratios tell us how prepared banks are to absorb any immediate loss. A low ratio indicates a higher risk of failure. The Basel III accord requires banks to maintain a minimum capital ratio of 8%, 6% of which should be CET 1. In our peer set, PacWest and First Republic have the lowest CET 1 and Tier 1 ratios.

## Loan-to-Asset Ratio

Company	Loan to asset		
	2020	2021	2022
SVB Financial Group	39%	31%	35%
First Republic Bank	78%	74%	78%
East West Bancorp	72%	68%	74%
PacWest Bancorp	64%	56%	69%
Silergate Capital	13%	6%	4%
Cathay General	81%	77%	82%
Pacific Premier Bancorp	65%	67%	67%
CVB Financial	57%	49%	55%

Source: FactSet

Loan to asset ratios help us understand how much of the bank's assets are tied up in loans. A higher ratio indicates lower liquidity. The banks in our peer set with the most risk according to this metric are Cathay General and First Republic. Silergate Capital and SVB had the lowest ratio, indicating well diversified assets, however, they had a high exposure to cryptocurrency and venture capital industries.

## Loan-to-Deposit Ratio

The loan to deposit ratio (LDR) helps us understand what percentage of the total deposits the bank can end out and earn interest on. An ideal LDR is 80% to 90%. It is not surprising to see that First Republic and Cathay General have the highest LDR given loans comprised of most of their assets.

Company	Loan to Deposit		
	2020	2021	2022
SVB Financial Group	44%	35%	43%
First Republic Bank	97%	86%	94%
East West Bancorp	84%	77%	85%
PacWest Bancorp	75%	65%	84%
Silergate Capital	14%	6%	6%
Cathay General	96%	90%	98%
Pacific Premier Bancorp	80%	82%	83%
CVB Financial	70%	60%	70%

Source: FactSet

## Uninsured Deposits

Company	Uninsured Deposits
SVB Financial Group	97%
First Republic Bank	68%
East West Bancorp	67%
PacWest Bancorp	52%
Silergate Capital	90%
Cathay General	4%
Pacific Premier Bancorp	68%
CVB Financial	NA

Source: Google, FDIC, Reuters, Investopedia, Statista

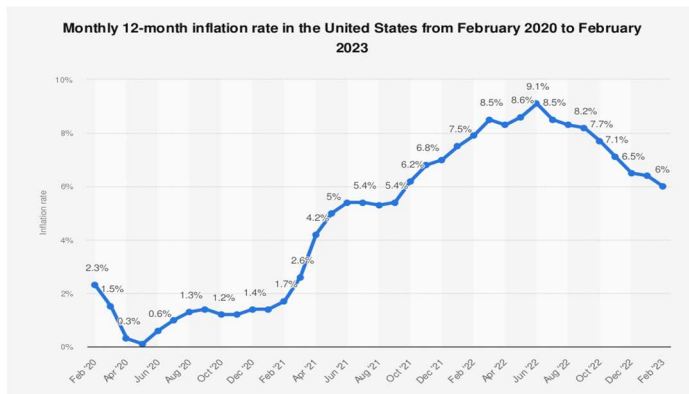
The bank run on SVB was triggered by nervous depositors, a majority of which did not have FDIC insurance. In other words, 97% of the accounts had deposits more than the \$250,000 FDIC insurance limit. The average percentage of uninsured deposits across US banks is 43%. This makes sense as SVB mainly catered to start-ups and VCs. However, it still did not protect the bank and one could argue that it is what led to the bank's quick demise. In the table above, we look at the uninsured deposits for the peer set. The two banks that failed, SVB and Silvergate, had the largest proportion of uninsured deposits.

In summary, while it is important to consider these metrics, we should look at other qualitative factors such as customer concentration, geographic concentration, and exposure to certain industries to better gauge the risks faced by banks. This is especially important in the current market where banks are struggling to deal with the rapidly rising rates and changing nature of their balance sheets. As of March 2023, SVB and Silvergate have collapsed, and other banks in the peer set have lost as much as 60% in value whilst trying to keep depositors from fleeing.

## ECONOMIC OUTLOOK

### Inflation

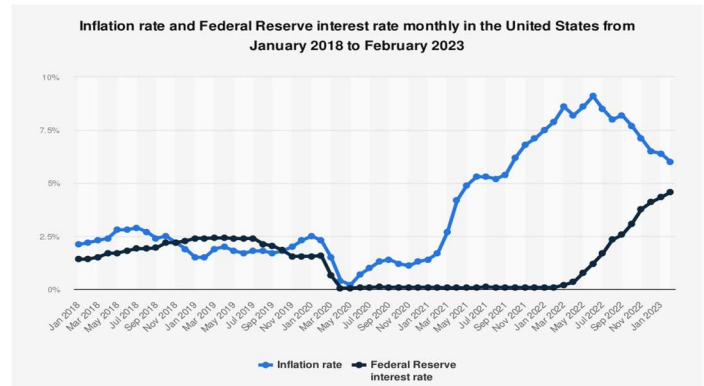
Inflation was the talk of the town throughout 2022, and for good reason. Inflation in the U.S. has gone from 0.33% in April 2020 when the pandemic hit, to 6.04% as of February 2023. It reached a high of 9.06% in June 2022. A strong labor market and issues in the supply chain led the CPI to remain high. The Russia-Ukraine conflict disrupted energy markets around the world, causing energy prices to rise. At the Henry Fund, we expect inflation to remain high in the near term at 5-6%, which is over a rolling 12 month period.



Source: Statista

### Interest Rates

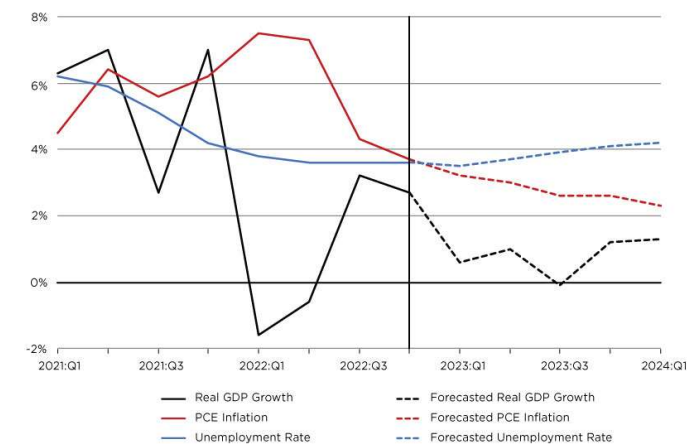
Interest rates are key macroeconomic indicators affecting banks. For this reason, the banking world is highly concerned with the policies of the Federal Reserve and its influence on interest rates. Currently, the Fed Funds Rate is at 4.75%. The Henry Fund analysts expect the Fed Funds Rate to reach 5.5% in the near term (6-months).



Source: Statista

### GDP Growth

GDP Growth is an important economic factor for banks. In 2022, the GDP growth dropped in the first couple of quarters but rebounded in the second half of the year. Thus, the economy entered 2023 with a healthy amount of forward momentum in spending and income. However, this is not expected to continue for the rest of the year, according to the Federal Reserve Bank of Philadelphia's Survey of Professional Forecasters.<sup>18</sup>



Source: Federal Reserve Bank of St. Louis

The Henry Fund analysts believe the GDP growth will reduce to 0.33% in the short term. This belief is based on the broader consensus in the market, which believes the

US economy could be in a recession sometime in the next 12 months.

## VALUATION

**Our model and assumptions were based on SIVB's financials and our understanding of the story before the bank collapsed. We have not retrospectively modified our assumptions or forecasts, therefore the target price stated is \$228-\$241.**

### Asset Decomposition

#### Total Investment Securities

Historically, total Investment Securities for SIVB have grown at a CAGR of 12% over 2013-2018 with held to maturity securities growing the most from zero in 2013 to \$15.47 billion in 2018. Over 2019-2021, the increase in deposits due to the VC boom helped grow the total investment securities further by 110% CAGR. This was again driven by 166% CAGR growth in held to maturity investments. Over 2021-2022, things got interesting, VC funding dried up, interest rates increased rapidly, and the investments portfolio lost value. In 2022, the total investments portfolio contracted 6% on a year-on-year basis. Going forward, we expect the growth to be muted in 2023 and for a good part of 2024 due to economic factors. Therefore, our projections for 2022-2024 further contract the total investment securities by 5% CAGR. Beyond 2024, we expect things to improve but recognize that SIVB cannot maintain the high growth rates it experienced previously and have projected a CAGR growth of 6% for total investment securities over 2024-2032.

#### Loans

Net Loans for SIVB have historically grown at a CAGR of 21% over 2013-2018. However, over 2019-2021, when the total assets grew at a CAGR of 73% and investment securities grew at a CAGR of 110%, net loans only grew at CAGR of 42%. This makes sense, as their primary client base is from the VC industry, which at the time was flush with cash. Going forward, we expect loans to grow at CAGR of 1% over 2022-2024 before growing at 11% CAGR over 2024-2032. We have projected this under the assumption that the VC community would be apprehensive of taking on debt in the current high interest environment.

### Liabilities Decomposition

#### Deposits

Over 2013-2018, deposits grew at a CAGR of 17%. With funding growing over the next 3 years, deposits grew at a CAGR of 73% over 2019-2021. In 2022, as things got difficult, deposits decreased 9% from the previous year. Our projections assume that deposit growth will remain muted in the near term as VC funding activity is struggling with the high cost of capital right now. The poor economic conditions have halted new capital inflows. We forecast a 2% CAGR growth in deposits over 2022-2024, followed by a steady state CAGR growth of 9% over 2024-2032. A key consideration that we made was the changing mix of deposits. With interest rates having risen so much in 2022, there was a huge shift in the deposit mix as customers transitioned towards interest bearing deposits. Over 2021 and 2022, the non-interest-bearing deposits shrunk 36%, while interest bearing deposits grew 46%. Since deposits tend to be sticky in nature, we accounted for this in our forecasts and assumed the new deposit mix to stay in effect in the near term and gradually transitioning towards the old mix. We do not expect it to go back to the 70:30 ratio of non-interest bearing to interest bearing deposits, however. Our estimates are made assuming a transition towards a 50-50 mix once interest rates decline.

#### Debt

SIVB did not carry much debt on its balance sheet prior to 2022. They didn't need to as the deposit growth was robust. However, in 2022, the bank had to take on a \$15 billion debt from the Federal Home Loan Bank to meet liquidity demands. This was done to prepare for deposit withdrawals that the bank was seeing from its start-up customers. In our model, we expect the bank to need some additional funding in the form of debt considering our assumptions for the VC industry. Therefore, our debt projections are growing at a CAGR of 15% for the short term, before reducing to a debt reduction at a CAGR of 3%.

For long term debt, we projected the principal reduction based on debt maturities provided by the bank in the 10-K. We did not assume any new long-term debt for this model.

### Net Interest Decomposition

#### Interest Income

Our interest income forecast involved projecting the average interest rate the bank would earn on its

investment assets and loans. While we recognize that the Fed wants to bring down interest rates to historical levels, we were conservative in our assumptions and gradually tapered down the interest rates to reach 3.7% in 2032. Our interest rate assumption for 2023 stood at 5.5% for loans, 2.3% for investment securities.

### **Interest Expense**

For interest expenses, we forecast the expenses considering 2 portions, the interest paid on deposits and the interest paid on borrowings. These were linked to deposit and borrowing growth forecasts from the balance sheet. Our interest expenses are forecasted to grow 116% year over year in 2023 after growing 980% in 2022 over 2021. This was due to the rising interest rates. We expect this to grow marginally in 2024 before gradually declining over the long term in line with our deposit and borrowings estimates.

### **Net Interest Margin**

We have projected net interest margin to grow at a CAGR of 6.4% over 2022-2032. This includes our yearly assumptions for fluctuations due to interest rates, changes in deposits, loans, investments, and debt.

### **Cost of Equity**

We arrive at our Cost of Equity by using the CAPM with inputs such as the 10- year U.S. Treasury rate, SIVB's stock Beta and the Henry Fund estimate of the Equity Risk Premium. The U.S. Treasury rate we used was 3.37%, Beta was 1.21 and our ERP estimate is 5.5%. This yielded the Cost of Equity as 10.03%.

### **Capital Structure**

Banks have a regulated capital structure and must maintain certain amounts of equity capital otherwise regulatory bodies can step in. SVB Financial Group is required under capital rules to maintain 4.5% CET1, 6% tier 1 capital, and 8% total capital. When constructing this model, we followed the total capital to the best of our ability. By monitoring shareholder's equity compared to total assets and making sure our forecasted numbers fell within a range consistent with the historical numbers.

### **Payout Policy**

Historically, SIVB did not pay a common stock dividend. This was probably due to them having ample opportunities

to invest in which would be better uses of the cash. However, as the business matures and growth opportunities shrink, we forecast a dividend payout for the bank starting in 2025 with a small payout ratio which remains between 6%-7%. This is much lower than the typical payout ratio for banks, however, since the company doesn't currently pay any dividends, we have taken a conservative approach here.

### **DCF Valuation**

We utilized the Dividend Discount and Enterprise Profit Model as the first of our two valuation models. Our discounted cash flow model derived an intrinsic value of \$227.78. The key assumptions that we made for this model are (a) the continuous value for Return on Equity (ROE) which is 9.38%, (b) the continuous value of the Free Cash Flow, which according to our model is projected as \$31.3 billion. We were conservative with our estimates for both figures considering the economic factors and changing composition of the business.

### **DDM Valuation**

Our Dividend Discount Model (DDM) is primarily based on our assumption that the bank starts paying a dividend as it matures, starting in 2025. We computed this model given our EPS estimate in the terminal year of 2032 and discounted the terminal value back to time zero given our cost of equity at 10.03%. We still assumed ROE growth of 9.38%. With a consistent continuous value growth of EPS as our other model. This model gave us an intrinsic value of \$233.91.

### **Relative Valuation**

We utilized the relative valuation method using the peer set discussed above. We believe this is a good representation of peers as the banks all compete in a similar geography offering banking services. Since this is a bank, we believe a relative P/E model isn't best suited for valuing the business. Therefore, we used the relative Price/Book Value (P/B). The average P/B Ratio for the peer set is 1.16 with the range being 0.27 to 1.81. Using this, we arrive at a price target of \$241.74 per share based on the FY2022 book value.

## KEYS TO MONITOR

**The primary drivers for our investment thesis are as follows:**

- SIVB's balance sheet is under significant stress due to the rapid increase in interest rates, as a large portion of their investments were tied up in low-yield, long-duration bonds that have declined in value.
- The resilience of inflation suggests that higher interest rates are likely to persist in the near term, which may exacerbate the stress on SIVB's balance sheet, given their client base's sensitivity to economic slowdowns.
- SIVB's rate and duration asset-liability mismatch poses a risk to operations and net interest margins, particularly given the current state of the VC world, which is expected to result in sluggish new deposits and loans.
- Non-interest income streams such as investment banking are also expected to slow down, as M&A activity has declined in recent months.

**We recognize the following as the risks to our thesis:**

- We expect the Fed to maintain high interest rates in the short term. A sharp decline could boost deposit and loan growth, but also significantly impact our estimated net interest margin.
- A revival in the Venture Capital industry, which the bank primarily serves, could offset the unfavorable interest rate environment. Increased deals and IPOs for start-ups would also raise investment banking revenues.

## CONCLUSION

SVB's collapse was sudden and took us along with the banking industry by surprise. While we identified the changes in the bank's business and factored those in our valuation models, which yielded our Sell recommendation, never did we imagine that the bank would fail so quickly. The bank run was essentially caused by the start-up community getting nervous about the bank's ability to meet withdrawal demands, and hence triggered the collapse.

Looking back, we could have identified the concentration risk as being more serious than we originally thought. Further, the fact that just 2.7% of the bank's deposits were

below the \$250,000 FDIC insurance limit, should have been looked like a major risk too. We expect the banking industry to be under pressure if inflation persists and interest rates continue to rise. It would be important to monitor the developments on the macroeconomic front and see how the Fed and the government change their stance on interest rates if more banks continue to fail.

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**SVB Financial Group**
**Revenue Decomposition**
*(In USD million, except per share data)*

<b>Fiscal Year Ending Dec. 31</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023E</b>	<b>2024E</b>	<b>2025E</b>	<b>2026E</b>	<b>2027E</b>	<b>2028E</b>	<b>2029E</b>	<b>2030E</b>	<b>2031E</b>	<b>2032E</b>
<b>Investment Securities</b>													
<b>Total AFS Securities</b>	30,913.0	27,221.0	26,069.0	26,851.1	27,925.1	29,321.4	31,080.7	33,256.3	35,584.2	38,075.1	40,740.4	43,592.2	46,643.7
<i>Growth Rate</i>	107.33%	-11.94%	-4.23%	3.00%	4.00%	5.00%	6.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%
<b>Total HTM Securities</b>	16,592.0	98,202.0	91,321.0	93,147.4	95,476.1	98,340.4	101,782.3	105,853.6	110,617.0	116,147.9	122,536.0	129,888.1	138,330.9
<i>Growth Rate</i>	19.85%	491.86%	-7.01%	2.00%	2.50%	3.00%	3.50%	4.00%	4.50%	5.00%	5.50%	6.00%	6.50%
Total non-marketable and other equity securities	1,802.0	2,543.0	2,664.0	2,743.9	2,853.7	2,996.4	3,176.1	3,398.5	3,636.4	3,890.9	4,163.3	4,454.7	4,766.5
<i>Growth Rate</i>	48.7%	41.1%	4.8%	3.00%	4.00%	5.00%	6.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%
<b>Total Investment Securities</b>	49,307.0	127,966.0	120,054.0	122,742.4	126,254.9	130,658.1	136,039.1	142,508.4	149,837.6	158,113.9	167,439.7	177,935.1	189,741.1
<i>Growth Rate</i>	64.54%	159.53%	-6.18%	2.24%	2.86%	3.49%	4.12%	4.76%	5.14%	5.52%	5.90%	6.27%	6.64%
Allowance for Credit Losses (ACL)	(447.8)	(422.0)	(636.0)	(736.5)	(631.3)	(653.3)	(612.2)	(641.3)	(674.3)	(711.5)	(753.5)	(800.7)	(853.8)
<i>% of total investment securities</i>	-0.91%	-0.33%	-0.50%	-0.60%	-0.50%	-0.50%	-0.45%	-0.45%	-0.45%	-0.45%	-0.45%	-0.45%	-0.45%
<b>Total</b>	48,859.2	127,544.0	119,418.0	122,006.0	125,623.6	130,004.8	135,426.9	141,867.1	149,163.3	157,402.4	166,686.2	177,134.4	188,887.3
<i>Growth Rate</i>	64.73%	161.04%	-6.37%	2.17%	2.97%	3.49%	4.17%	4.76%	5.14%	5.52%	5.90%	6.27%	6.64%
<b>Loans</b>													
<b>Total Investor Dependent</b>	30,515.0	43,502.0	47,982.0	50,381.1	54,159.7	58,221.7	64,043.8	67,246.0	70,608.3	74,844.8	79,335.5	84,095.6	89,141.4
<i>Growth Rate</i>	38.50%	42.56%	10.30%	5.00%	7.50%	7.50%	10.00%	5.00%	5.00%	6.00%	6.00%	6.00%	6.00%
Cash Flow Dependent - SLBO	-	1,798.0	1,966.0	2,015.2	2,065.5	2,137.8	2,212.6	2,301.2	2,393.2	2,488.9	2,600.9	2,718.0	2,840.3
<i>Growth Rate</i>	-100.00%	#DIV/0!	9.34%	2.50%	2.50%	3.50%	3.50%	4.00%	4.00%	4.00%	4.50%	4.50%	4.50%
Total other loans	12,677.0	20,976.0	24,302.0	25,760.1	27,370.1	29,149.2	31,116.8	33,294.9	35,708.8	38,387.0	41,362.0	44,670.9	48,356.3
<i>Growth Rate</i>	88.98%	65.47%	15.86%	6.00%	6.25%	6.50%	6.75%	7.00%	7.25%	7.50%	7.75%	8.00%	8.25%
<b>Total</b>	43,192.0	66,276.0	74,250.0	78,156.4	83,595.3	89,508.7	97,373.2	102,842.1	108,710.3	115,720.7	123,298.4	131,484.5	140,337.9
<i>Growth Rate</i>	30.24%	53.45%	12.03%	5.26%	6.96%	7.07%	8.79%	5.62%	5.71%	6.45%	6.55%	6.64%	6.73%
<b>Total Deposits</b>	101,982.0	189,203.0	173,109.0	181,764.5	195,396.8	210,051.5	225,805.4	242,740.8	260,946.4	280,517.4	301,556.2	324,172.9	348,485.8
<i>Growth Rate</i>	65.13%	85.53%	-8.51%	5.00%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
<b>Total Short-term borrowings</b>	21.0	121.0	13,565.0	12,208.5	8,546.0	6,836.8	6,153.1	5,845.4	5,553.2	5,275.5	5,011.7	4,761.1	4,523.1
<i>Growth Rate</i>	23.53%	476.19%	11110.74%	-10.00%	-30.00%	-20.00%	-10.00%	-5.00%	-5.00%	-5.00%	-5.00%	-5.00%	-5.00%
<b>Total Long-term debt</b>	2,570.0	2,600.0	5,370.0	5,370.0	5,370.0	5,370.0	5,021.0	4,375.0	4,375.0	3,530.0	3,530.0	3,034.0	2,539.0
<i>Growth Rate</i>	204.50%	1.17%	106.54%	0.00%	0.00%	0.00%	-6.50%	-12.87%	0.00%	-19.31%	0.00%	-14.05%	-16.32%
<b>Total Non-interest Income</b>	1,840.0	2,738.0	1,728.0	2,371.2	2,469.5	3,388.8	3,905.1	4,120.4	4,331.7	4,561.9	4,812.6	5,085.7	5,383.3
<i>Growth Rate</i>	50.70%	48.80%	-36.89%	37.22%	4.15%	37.23%	15.23%	5.51%	5.13%	5.31%	5.50%	5.67%	5.85%
<b>Total non-interest expense</b>	(2,035.0)	(3,070.0)	(3,621.0)	(3,765.9)	(4,028.3)	(4,362.6)	(4,730.8)	(5,106.7)	(5,509.0)	(5,941.4)	(6,408.2)	(6,890.7)	(7,417.9)
<i>Growth Rate</i>	27.09%	50.86%	17.95%	4.00%	6.97%	8.30%	8.44%	7.94%	7.88%	7.85%	7.86%	7.53%	7.65%

**SVB Financial Group**
*Value Driver Estimation*
*(In USD million, except per share data)*

<b>Fiscal Years Ending Dec. 31</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023E</b>	<b>2024E</b>	<b>2025E</b>	<b>2026E</b>	<b>2027E</b>	<b>2028E</b>	<b>2029E</b>	<b>2030E</b>	<b>2031E</b>	<b>2032E</b>
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**Return on Equity**

Net Income	1,191.22	1,770.00	1,509.00	1,412.15	900.92	1,595.36	1,953.81	2,463.46	2,700.82	2,768.43	2,941.28	3,120.05	3,371.84
Total Shareholder's Equity(Beg.)	6,621.08	8,433.49	16,609.00	16,295.00	17,778.63	18,754.31	20,324.36	22,244.10	24,666.57	27,317.09	30,024.33	32,894.99	35,935.76
<b>ROE</b>	<b>17.99%</b>	<b>20.99%</b>	<b>9.09%</b>	<b>8.67%</b>	<b>5.07%</b>	<b>8.51%</b>	<b>9.61%</b>	<b>11.07%</b>	<b>10.95%</b>	<b>10.13%</b>	<b>9.80%</b>	<b>9.48%</b>	<b>9.38%</b>

**FCFE**

Net Income	<b>1,191.22</b>	<b>1,770.00</b>	<b>1,509.00</b>	<b>1,412.15</b>	<b>900.92</b>	<b>1,595.36</b>	<b>1,953.81</b>	<b>2,463.46</b>	<b>2,700.82</b>	<b>2,768.43</b>	<b>2,941.28</b>	<b>3,120.05</b>	<b>3,371.84</b>
Less: Changes in Total Assets	(44,506.10)	(95,796.99)	(485.00)	458.28	(14,182.36)	(17,806.03)	(17,623.31)	(20,009.45)	(22,310.48)	(23,284.86)	(26,197.14)	(27,840.94)	(30,508.41)
Add: Changes in Total Liabilities	42,693.70	87,621.48	799.00	(1,941.91)	13,206.68	16,235.98	15,703.57	17,586.97	19,659.96	20,577.63	23,326.49	24,800.16	27,223.12
<b>FCFE</b>	<b>(621.19)</b>	<b>(6,405.52)</b>	<b>1,823.00</b>	<b>(71.47)</b>	<b>(74.77)</b>	<b>25.31</b>	<b>34.08</b>	<b>40.98</b>	<b>50.30</b>	<b>61.19</b>	<b>70.62</b>	<b>79.27</b>	<b>86.55</b>

**Economic Profit (Equity)**

Beginning Shareholder's Equity	6,621.08	8,433.49	16,609.00	16,295.00	17,778.63	18,754.31	20,324.36	22,244.10	24,666.57	27,317.09	30,024.33	32,894.99	35,935.76
(ROE-Re)	7.97%	10.96%	-0.94%	-1.36%	-4.96%	-1.52%	-0.41%	1.05%	0.92%	0.11%	-0.23%	-0.54%	-0.64%
<b>Equity Economic Profit</b>	<b>527.39</b>	<b>924.46</b>	<b>(156.22)</b>	<b>(221.58)</b>	<b>(881.57)</b>	<b>(284.95)</b>	<b>(83.91)</b>	<b>233.27</b>	<b>227.75</b>	<b>29.62</b>	<b>(68.96)</b>	<b>(178.00)</b>	<b>(231.08)</b>

**SVB Financial Group**
**Income Statement**
*(In USD million, except per share data)*

<b>Fiscal Years Ending Dec. 31</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023E</b>	<b>2024E</b>	<b>2025E</b>	<b>2026E</b>	<b>2027E</b>	<b>2028E</b>	<b>2029E</b>	<b>2030E</b>	<b>2031E</b>	<b>2032E</b>
<b>Interest Income:</b>													
Loans	1,520.0	1,966.0	3,208.0	4,048.8	3,841.0	3,790.6	3,780.3	3,805.1	3,860.6	3,951.3	4,279.1	4,713.2	5,297.3
Investment Securities:													
Taxable	635.0	1,199.0	2,113.0	2,467.76	2,157.44	2,204.34	2,252.59	2,606.48	2,721.14	2,856.64	3,072.21	3,278.01	3,488.00
Non-taxable	61.1	106.0	140.0	107.27	99.65	109.98	122.54	155.37	175.42	184.31	194.22	196.60	199.12
Federal funds sold, securities purchased under agreements to resell	25.5	18.0	212.0	126.19	116.85	126.55	139.07	170.18	181.45	190.97	177.06	194.54	222.71
<b>Total Interest Income</b>	<b>2,241.6</b>	<b>3,289.0</b>	<b>5,673.0</b>	<b>6,750.0</b>	<b>6,215.0</b>	<b>6,231.5</b>	<b>6,294.5</b>	<b>6,737.1</b>	<b>6,938.7</b>	<b>7,183.3</b>	<b>7,722.6</b>	<b>8,382.4</b>	<b>9,207.1</b>
<b>Interest Expense:</b>													
Deposits	(60.2)	(62.0)	(862.0)	(952.1)	(822.3)	(624.5)	(580.8)	(525.1)	(455.8)	(494.6)	(536.6)	(582.2)	(631.7)
Borrowings	(25.1)	(48.0)	(326.0)	(1,609.5)	(1,827.1)	(1,521.7)	(1,238.0)	(852.1)	(660.8)	(500.3)	(471.4)	(463.7)	(443.8)
<b>Total Interest Expense</b>	<b>(85.3)</b>	<b>(110.0)</b>	<b>(1,188.0)</b>	<b>(2,561.6)</b>	<b>(2,649.3)</b>	<b>(2,146.3)</b>	<b>(1,818.8)</b>	<b>(1,377.3)</b>	<b>(1,116.6)</b>	<b>(994.9)</b>	<b>(1,008.0)</b>	<b>(1,045.9)</b>	<b>(1,075.5)</b>
<b>Net Interest Income</b>	<b>2,156.3</b>	<b>3,179.0</b>	<b>4,485.0</b>	<b>4,188.4</b>	<b>3,565.6</b>	<b>4,085.2</b>	<b>4,475.7</b>	<b>5,359.9</b>	<b>5,822.1</b>	<b>6,188.4</b>	<b>6,714.7</b>	<b>7,336.5</b>	<b>8,131.6</b>
<b>Net Interest Margin</b>	<b>2.31%</b>	<b>1.95%</b>	<b>2.12%</b>	<b>1.98%</b>	<b>1.63%</b>	<b>1.74%</b>	<b>1.78%</b>	<b>1.98%</b>	<b>1.99%</b>	<b>1.97%</b>	<b>1.98%</b>	<b>2.00%</b>	<b>2.05%</b>
<b>Growth Rate</b>	<b>2.8%</b>	<b>47.4%</b>	<b>41.1%</b>	<b>-6.6%</b>	<b>-14.9%</b>	<b>14.6%</b>	<b>9.6%</b>	<b>19.8%</b>	<b>8.6%</b>	<b>6.3%</b>	<b>8.5%</b>	<b>9.3%</b>	<b>10.8%</b>
Provision for credit losses	(219.5)	(123.0)	(420.0)	(699.3)	(621.9)	(568.6)	(517.3)	(465.1)	(454.2)	(444.5)	(438.9)	(496.1)	(572.7)
<b>Net Interest Income after provision for credit losses</b>	<b>1,936.8</b>	<b>3,056.0</b>	<b>4,065.0</b>	<b>3,489.1</b>	<b>2,943.7</b>	<b>3,516.6</b>	<b>3,958.4</b>	<b>4,894.8</b>	<b>5,367.9</b>	<b>5,743.8</b>	<b>6,275.8</b>	<b>6,840.3</b>	<b>7,558.9</b>
<b>Non-interest Income:</b>													
Gains on investment securities, net	420.8	761.0	(285.0)	300.14	263.77	813.62	1,117.42	1,172.81	1,231.21	1,292.77	1,377.40	1,467.66	1,563.93
Gains on equity warrant assets, net	237.4	560.0	148.0	360.16	369.28	433.93	446.97	469.12	615.60	646.38	688.70	733.83	781.96
Client investment fees	132.2	75.0	386.0	414.95	456.45	490.68	527.48	567.04	595.39	625.16	656.42	689.24	723.70
Wealth management and trust fees	-	44.0	83.0	97.53	112.15	126.17	138.79	152.67	164.12	176.43	189.66	203.89	219.18
Foreign exchange fees	178.7	262.0	285.0	290.70	296.51	302.44	308.49	314.66	320.96	327.38	333.92	340.60	347.41
Credit card fees	97.7	131.0	150.0	165.00	181.50	199.65	214.62	230.72	248.02	266.63	286.62	308.12	331.23
Deposit service charges	90.3	112.0	126.0	132.30	138.92	145.86	153.15	160.81	168.85	177.29	186.16	195.47	205.24
Lending related fees	57.5	76.0	94.0	98.70	103.64	108.82	114.26	119.97	125.97	132.27	138.88	145.82	153.12
Letters of credit and standby letters of credit fees	46.7	51.0	57.0	58.14	59.30	60.49	61.70	62.93	64.19	65.48	66.78	68.12	69.48
Investment banking revenue	414.0	459.0	420.0	336.00	319.20	367.08	412.97	454.26	488.33	524.96	564.33	606.65	652.15
Commissions	66.6	79.0	98.0	88.20	92.61	97.24	102.10	107.21	112.57	118.20	124.11	130.31	136.83
Other	98.1	128.0	166.0	149.40	156.87	164.71	172.95	181.60	190.68	200.21	210.22	220.73	231.77
<b>Total Non-interest Income</b>	<b>1,840.1</b>	<b>2,738.0</b>	<b>1,728.0</b>	<b>2,491.2</b>	<b>2,550.2</b>	<b>3,310.7</b>	<b>3,770.9</b>	<b>3,993.8</b>	<b>4,325.9</b>	<b>4,553.1</b>	<b>4,823.2</b>	<b>5,110.4</b>	<b>5,416.0</b>
<b>Non-interest Expense:</b>													
Compensation and benefits	(1,318.5)	(2,015.0)	(2,293.0)	(2,444.3)	(2,655.8)	(2,912.7)	(3,209.5)	(3,536.4)	(3,896.7)	(4,293.7)	(4,731.1)	(5,213.1)	(5,744.1)
Professional services	(247.1)	(392.0)	(480.0)	(504.0)	(529.2)	(555.7)	(583.4)	(612.6)	(643.2)	(675.4)	(709.2)	(744.6)	(781.9)
Premises and equipment	(127.1)	(178.0)	(269.0)	(299.7)	(307.7)	(330.4)	(364.0)	(415.3)	(466.3)	(511.6)	(560.7)	(603.8)	(660.0)
Net occupancy	(100.9)	(83.0)	(101.0)	(90.5)	(90.2)	(99.7)	(107.5)	(120.4)	(134.5)	(146.5)	(159.5)	(174.1)	(190.9)
Business development and travel	(23.7)	(24.0)	(85.0)	(55.9)	(38.2)	(49.6)	(64.4)	(65.5)	(67.7)	(75.3)	(82.2)	(86.8)	(93.1)
FDIC and state assessments	(27.6)	(48.0)	(75.0)	(64.2)	(58.8)	(64.9)	(73.2)	(83.7)	(87.6)	(93.1)	(102.0)	(111.7)	(121.5)
Merger-related charges	-	(129.0)	(50.0)	-	-	-	-	-	-	-	-	-	-
Other	(190.2)	(201.0)	(268.0)	(272.0)	(274.7)	(277.5)	(280.3)	(283.1)	(285.9)	(288.8)	(291.6)	(294.6)	(297.5)
<b>Total non-interest expense</b>	<b>(2,035.0)</b>	<b>(3,070.0)</b>	<b>(3,621.0)</b>	<b>(3,730.6)</b>	<b>(3,954.6)</b>	<b>(4,290.5)</b>	<b>(4,682.2)</b>	<b>(5,117.1)</b>	<b>(5,582.0)</b>	<b>(6,084.4)</b>	<b>(6,636.3)</b>	<b>(7,228.5)</b>	<b>(7,889.0)</b>
Income before income tax expense	1,741.9	2,724.0	2,172.0	2,249.7	1,539.3	2,536.8	3,047.1	3,771.5	4,111.8	4,212.6	4,462.7	4,722.2	5,085.9
Income tax expense	(447.6)	(651.0)	(563.0)	(641.2)	(438.7)	(723.0)	(868.4)	(1,074.9)	(1,271.9)	(1,200.6)	(1,271.9)	(1,345.8)	(1,449.5)
<b>Net income before non-controlling interests</b>	<b>1,294.3</b>	<b>2,073.0</b>	<b>1,609.0</b>	<b>1,608.6</b>	<b>1,100.6</b>	<b>1,813.8</b>	<b>2,178.7</b>	<b>2,696.6</b>	<b>2,939.9</b>	<b>3,012.0</b>	<b>3,190.8</b>	<b>3,376.4</b>	<b>3,636.4</b>
Net income attributable to noncontrolling interests	(85.9)	(240.0)	63.0	(33.4)	(36.7)	(55.5)	(61.8)	(70.2)	(76.1)	(80.6)	(86.5)	(93.4)	(101.6)
Preferred stock dividends	(17.2)	(63.0)	(163.0)	(163.0)	(163.0)	(163.0)	(163.0)	(163.0)	(163.0)	(163.0)	(163.0)	(163.0)	(163.0)
<b>Net income available to common shareholders</b>	<b>1,191.2</b>	<b>1,770.0</b>	<b>1,509.0</b>	<b>1,412.2</b>	<b>900.9</b>	<b>1,595.4</b>	<b>1,953.8</b>	<b>2,463.5</b>	<b>2,700.8</b>	<b>2,768.4</b>	<b>2,941.3</b>	<b>3,120.0</b>	<b>3,371.8</b>
Earnings per share- Basic	23.0	31.7	25.6	23.8	15.2	26.8	32.8	41.2	45.1	46.1	48.9	51.8	55.8
Total Shares Outstanding	51.9	58.7	59.1	59.2	59.4	59.5	59.6	59.7	59.9	60.0	60.1	60.3	60.4
Weighted Average Shares Outstanding	51.7	55.8	59.0	59.2	59.3	59.4	59.6	59.7	59.8	59.9	60.1	60.2	60.3
Annual Dividends per share	-	-	-	-	-	2.0	2.3	2.5	2.8	3.0	3.3	3.5	3.8

**SVB Financial Group**
**Balance Sheet**
*(In USD million, except per share data)*

<b>Fiscal Years Ending Dec. 31</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023E</b>	<b>2024E</b>	<b>2025E</b>	<b>2026E</b>	<b>2027E</b>	<b>2028E</b>	<b>2029E</b>	<b>2030E</b>	<b>2031E</b>	<b>2032E</b>
<b>Assets</b>													
Cash and cash equivalents	17,674.8	14,586.0	13,803.0	27,582.1	36,020.1	44,687.6	51,419.8	58,777.3	66,430.0	69,605.9	71,627.0	69,678.5	62,390.7
Available for sale securities, at fair value	30,912.4	27,221.0	26,069.0	20,855.2	21,898.0	22,992.9	24,142.5	25,349.6	26,617.1	27,948.0	29,345.4	30,812.6	32,353.3
Held to maturity securities, at cost	16,592.2	98,195.0	91,321.0	82,188.9	84,243.6	86,349.7	90,667.2	95,200.6	99,960.6	106,957.8	114,444.9	122,456.0	131,027.9
Non-marketable and other equity securities	1,802.2	2,543.0	2,664.0	2,464.2	2,341.0	2,399.5	2,471.5	2,570.4	2,698.9	2,833.8	2,975.5	3,124.3	3,280.5
<b>Total investment securities</b>	<b>49,306.8</b>	<b>127,959.0</b>	<b>120,054.0</b>	<b>105,508.3</b>	<b>108,482.6</b>	<b>111,742.1</b>	<b>117,281.2</b>	<b>123,120.5</b>	<b>129,276.6</b>	<b>137,739.6</b>	<b>146,765.7</b>	<b>156,392.9</b>	<b>166,661.7</b>
Loans, amortized cost	45,181.5	66,276.0	74,250.0	74,428.3	76,897.0	80,479.6	85,261.4	91,454.3	99,429.8	110,410.3	124,766.2	143,951.9	170,252.8
Allowance for credit losses; loans	(447.8)	(422.0)	(636.0)	(1,266.1)	(1,084.8)	(893.9)	(703.7)	(615.6)	(646.4)	(688.7)	(733.8)	(782.0)	(833.3)
<b>Net loans</b>	<b>44,733.7</b>	<b>65,854.0</b>	<b>73,614.0</b>	<b>73,162.2</b>	<b>75,812.2</b>	<b>79,585.7</b>	<b>84,557.7</b>	<b>90,838.7</b>	<b>98,783.4</b>	<b>109,721.6</b>	<b>124,032.4</b>	<b>143,169.9</b>	<b>169,419.5</b>
Premises and equipment, net of accumulated depreciati	175.8	270.0	394.0	485.2	503.4	541.5	586.6	661.0	734.0	801.2	872.5	951.4	1,044.0
Goodwill	142.7	375.0	375.0	375.0	375.0	375.0	375.0	375.0	375.0	375.0	375.0	375.0	375.0
Other intangible assets, net	61.4	160.0	136.0	112.0	95.6	83.7	72.4	61.9	53.4	46.1	39.7	34.2	29.5
Lease right of use assets	209.9	313.0	335.0	536.5	542.3	567.6	598.5	702.6	772.3	837.9	912.1	1,000.5	1,094.9
Accrued interest receivable and other assets	3,205.8	1,791.0	3,082.0	3,573.4	3,685.9	5,739.8	6,055.2	6,418.8	6,841.8	7,423.8	8,123.9	8,986.9	10,082.4
<b>Total Assets</b>	<b>115,511.0</b>	<b>211,308.0</b>	<b>211,793.0</b>	<b>211,334.7</b>	<b>225,517.1</b>	<b>243,323.1</b>	<b>260,946.4</b>	<b>280,955.9</b>	<b>303,266.4</b>	<b>326,551.2</b>	<b>352,748.4</b>	<b>380,589.3</b>	<b>411,097.7</b>
<b>Liabilities and total equity</b>													
<b>Liabilities</b>													
Non-interest bearing demand deposits	66,519.2	125,851.0	80,753.0	69,892.8	78,510.1	89,055.5	100,826.3	113,954.7	128,586.5	144,882.3	163,019.5	176,876.1	191,910.6
Interest bearing deposits	35,462.6	63,352.0	92,356.0	94,560.8	99,922.0	104,543.4	109,228.5	113,954.7	118,695.2	123,418.3	128,086.7	138,974.1	150,786.9
<b>Total deposits</b>	<b>101,981.8</b>	<b>189,203.0</b>	<b>173,109.0</b>	<b>164,453.6</b>	<b>178,432.1</b>	<b>193,598.8</b>	<b>210,054.7</b>	<b>227,909.4</b>	<b>247,281.7</b>	<b>268,300.6</b>	<b>291,106.2</b>	<b>315,850.2</b>	<b>342,697.5</b>
Short-term borrowings	20.6	71.0	13,565.0	18,991.0	18,041.5	17,139.4	16,282.4	15,956.8	15,637.6	15,324.9	15,018.4	14,718.0	14,423.6
Lease liabilities	259.6	388.0	413.0	646.2	666.1	696.0	732.0	857.5	945.7	1,025.3	1,115.4	1,223.4	1,339.6
Other liabilities	3,972.0	2,467.0	3,041.0	4,095.4	4,253.1	6,194.5	6,612.2	7,190.7	7,709.3	8,346.1	9,083.5	9,827.9	10,877.0
Long-term debt	843.6	2,570.0	5,370.0	5,370.0	5,370.0	5,370.0	5,021.0	4,375.0	4,375.0	3,530.0	3,530.0	3,034.0	2,539.0
<b>Total Liabilities</b>	<b>107,077.5</b>	<b>194,699.0</b>	<b>195,498.0</b>	<b>193,556.1</b>	<b>206,762.8</b>	<b>222,998.8</b>	<b>238,702.3</b>	<b>256,289.3</b>	<b>275,949.3</b>	<b>296,526.9</b>	<b>319,853.4</b>	<b>344,653.5</b>	<b>371,876.7</b>
<b>SVBFG stockholder's equity</b>													
Preferred Stock	340.1	3,646.0	3,646.0	3,646.0	3,646.0	3,646.0	3,646.0	3,646.0	3,646.0	3,646.0	3,646.0	3,646.0	3,646.0
Common Stock	1,585.3	5,157.0	5,318.0	5,356.1	5,394.1	5,432.2	5,470.3	5,508.4	5,546.4	5,584.5	5,622.6	5,660.7	5,698.7
Retained Earnings	5,671.7	7,442.0	8,951.0	10,363.2	11,264.1	12,740.6	14,560.4	16,874.6	19,411.0	21,999.6	24,745.6	27,655.0	30,800.6
Accumulated other comprehensive income	622.5	(9.0)	(1,911.0)	(1,911.0)	(1,911.0)	(1,911.0)	(1,911.0)	(1,911.0)	(1,911.0)	(1,911.0)	(1,911.0)	(1,911.0)	(1,911.0)
<b>Total SVBFG stockholder's equity</b>	<b>8,219.7</b>	<b>16,236.0</b>	<b>16,004.0</b>	<b>17,454.2</b>	<b>18,393.2</b>	<b>19,907.8</b>	<b>21,765.7</b>	<b>24,118.0</b>	<b>26,692.4</b>	<b>29,319.1</b>	<b>32,103.2</b>	<b>35,050.6</b>	<b>38,234.3</b>
Noncontrolling interests	213.8	373.0	291.0	324.4	361.1	416.6	478.4	548.6	624.7	705.2	791.8	885.1	986.7
Total Equity	8,433.5	16,609.0	16,295.0	17,778.6	18,754.3	20,324.4	22,244.1	24,666.6	27,317.1	30,024.3	32,895.0	35,935.8	39,221.1
<b>Total Liabilities and total equity</b>	<b>115,511.0</b>	<b>211,308.0</b>	<b>211,793.0</b>	<b>211,334.7</b>	<b>225,517.1</b>	<b>243,323.1</b>	<b>260,946.4</b>	<b>280,955.9</b>	<b>303,266.4</b>	<b>326,551.2</b>	<b>352,748.4</b>	<b>380,589.3</b>	<b>411,097.7</b>

**SVB Financial Group**
*Historical Cash Flow Statement*
*(In USD million, except per share data)*

<b>Fiscal Years Ending Dec. 31</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
Net income before non-controlling interests	1,294.0	2,073.0	1,609.0
Provision for credit losses	220.0	123.0	420.0
Change in fair value of equity warrant assets, net of proceeds from exercises	(2.0)	(26.0)	(60.0)
Changes in fair values of derivatives, net	(82.0)	52.0	193.0
Losses on investment securities, net	(421.0)	(761.0)	285.0
Distributions of earnings from non-marketable and other equity securities	86.0	201.0	57.0
Depreciation and Amortization	101.0	151.0	222.0
Amortization of premiums and discounts on investment securities, net	75.0	451.0	388.0
Amortization of share based compensation	84.0	136.0	183.0
Amortization of deferred loan fees	(174.0)	(269.0)	(259.0)
Deferred income tax expense	7.0	(8.0)	591.0
Excess tax benefit from exercise of stock options and vesting of restricted shares	(6.0)	(40.0)	(18.0)
Losses from the write off of premises and equipment	30.0	39.0	2.0
Other losses	-	-	-
Accrued interest receivable and payable, net	(26.0)	(185.0)	(45.0)
Accounts receivable & payable, net	19.0	17.0	6.0
Income tax receivable and payable, net	98.0	(122.0)	(179.0)
Accrued compensation	191.0	332.0	(48.0)
Foreign exchange spot contracts, net	-	-	-
Proceeds from termination of interest rate swaps	228.0	-	-
Other assets and liabilities, net	(310.0)	(296.0)	(483.0)
<b>Net cash flows from operating activities</b>	<b>1,412.0</b>	<b>1,868.0</b>	<b>2,864.0</b>
Purchase of available for sale securities	(23,208.0)	(12,147.0)	(12,724.0)
Proceeds from sales of available for sale securities	2,654.0	1,591.0	9,495.0
Proceeds from maturities & paydowns of available for sale securities	4,184.0	4,768.0	1,452.0
Purchase of held to maturity securities	(6,778.0)	(85,519.0)	(4,961.0)
Proceeds from maturities & paydowns of held to maturity securities	4,036.0	13,428.0	11,469.0
Purchases of non-marketable & other equity securities	(201.0)	(365.0)	(381.0)
Proceeds from sales and distributions of capital of non-marketable & other equity securities	148.0	666.0	106.0
Net decreases in loans	(11,927.0)	(13,726.0)	(7,879.0)
Purchases of premises and equipment	(87.0)	(113.0)	(215.0)
Business acquisitions, net	(27.0)	1,081.0	-
<b>Net cash flows from investing activities</b>	<b>(31,206.0)</b>	<b>(90,336.0)</b>	<b>(3,638.0)</b>
Net increase (decrease) in deposits	40,224.0	78,238.0	(16,094.0)
Net increase (decrease) in short-term borrowings	6.0	21.0	13,494.0
Principal payments of long-term debt	-	-	-
Proceeds from issuance of long-term debt	495.0	1,636.0	2,795.0
Distributions to non-controlling interests, net of contributions from noncontrolling interest	(23.0)	(80.0)	(19.0)
Net proceeds from the issuance of preferred stock	-	3,306.0	-
Payment of preferred stock dividends	(17.0)	(63.0)	(163.0)
Common stock repurchase	(60.0)	-	-
Proceeds from issuance of common stock, employee stock purchase plan	31.0	2,374.0	(22.0)
<b>Net cash flows from financing activities</b>	<b>40,656.0</b>	<b>85,432.0</b>	<b>(9.0)</b>
Net increase (decrease) in cash and cash equivalents	10,861.9	(3,036.0)	(783.0)
Cash and cash equivalents at beginning of period	6,760.0	17,622.0	14,586.0
<b>Cash and equivalents at end of period</b>	<b>17,622.0</b>	<b>14,586.0</b>	<b>13,803.0</b>

**SVB Financial Group***Forecasted Cash Flow Statement**(In USD million, except per share data)*

<b>Fiscal Years Ending Dec. 31</b>	<b>2023E</b>	<b>2024E</b>	<b>2025E</b>	<b>2026E</b>	<b>2027E</b>	<b>2028E</b>	<b>2029E</b>	<b>2030E</b>	<b>2031E</b>	<b>2032E</b>
<b>Cash Flow from Operating Activities</b>										
Net Income	1,412.2	900.9	1,595.4	1,953.8	2,463.5	2,700.8	2,768.4	2,941.3	3,120.0	3,371.8
Depreciation & amortization	118.2	160.1	166.1	178.7	193.6	218.1	242.2	264.4	287.9	314.0
Change in WC(Accrued Interest)	(491.4)	(112.5)	(2,053.9)	(315.3)	(363.6)	(423.0)	(582.0)	(700.1)	(862.9)	(1,095.5)
Net Cash Flow from Operations	1,038.9	948.6	(292.5)	1,817.2	2,293.4	2,495.9	2,428.6	2,505.6	2,545.0	2,590.3
<b>Investing Activities</b>										
AFS Securities	5,213.8	(1,042.8)	(1,094.9)	(1,149.6)	(1,207.1)	(1,267.5)	(1,330.9)	(1,397.4)	(1,467.3)	(1,540.6)
HTM Securities	9,132.1	(2,054.7)	(2,106.1)	(4,317.5)	(4,533.4)	(4,760.0)	(6,997.2)	(7,487.0)	(8,011.1)	(8,571.9)
Non-Marketable and others	199.8	123.2	(58.5)	(72.0)	(98.9)	(128.5)	(134.9)	(141.7)	(148.8)	(156.2)
Net Loans	451.8	(2,649.9)	(3,773.5)	(4,972.0)	(6,281.0)	(7,944.7)	(10,938.2)	(14,310.8)	(19,137.6)	(26,249.5)
Capital Expenditure	(209.4)	(178.3)	(204.3)	(223.8)	(268.0)	(291.1)	(309.4)	(335.7)	(366.8)	(406.6)
Lease ROU Assets	(201.5)	(5.8)	(25.3)	(31.0)	(104.0)	(69.7)	(65.7)	(74.1)	(88.4)	(94.4)
Intangible Assets	24.0	16.4	11.9	11.3	10.5	8.5	7.2	6.4	5.5	4.7
Net Cash Flow from Investing	14,610.6	(5,791.9)	(7,250.7)	(10,754.6)	(12,481.8)	(14,453.0)	(19,769.1)	(23,740.4)	(29,214.4)	(37,014.6)
<b>Financing Activities</b>										
Non-Interest bearing deposits	(10,860.2)	8,617.4	10,545.3	11,770.8	13,128.4	14,631.8	16,295.9	18,137.1	13,856.7	15,034.5
Interest bearing deposits	2,204.8	5,361.2	4,621.4	4,685.1	4,726.2	4,740.5	4,723.1	4,668.4	10,887.4	11,812.8
Short term borrowings	5,426.0	(949.5)	(902.1)	(857.0)	(325.6)	(319.1)	(312.8)	(306.5)	(300.4)	(294.4)
lease liabilities	233.2	19.9	29.9	36.0	125.5	88.2	79.6	90.1	108.1	116.1
Other liabilities	1,054.4	157.7	1,941.4	417.7	578.5	518.6	636.8	737.4	744.4	1,049.1
Long term debt	-	-	-	(349.0)	(646.0)	-	(845.0)	-	(496.0)	(495.0)
Preferred Stock Issued	-	-	-	-	-	-	-	-	-	-
Common Stock issued	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1
Common Dividend paid	-	-	(118.9)	(134.0)	(149.2)	(164.5)	(179.8)	(195.2)	(210.7)	(226.2)
Non-controlling interest	33.4	36.7	55.5	61.8	70.2	76.1	80.6	86.5	93.4	101.6
Net Cash Flow From Financing	(1,870.4)	13,281.4	16,210.7	15,669.5	17,546.0	19,609.7	20,516.4	23,255.9	24,720.9	27,136.6
Net change in cash	13,779.1	8,438.1	8,667.5	6,732.1	7,357.6	7,652.6	3,176.0	2,021.1	(1,948.5)	(7,287.8)
Beginning Cash Flow	13,803.0	27,582.1	36,020.1	44,687.6	51,419.8	58,777.3	66,430.0	69,605.9	71,627.0	69,678.5
Closing Cash Flow	27,582.1	36,020.1	44,687.6	51,419.8	58,777.3	66,430.0	69,605.9	71,627.0	69,678.5	62,390.7

SVB Financial Group  
Common Size Income Statement

Fiscal Years Ending Dec. 31	2020	2021	2022	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
<b>Interest Income:</b>													
Loans	70.49%	61.84%	71.53%	96.67%	107.72%	92.79%	84.46%	70.99%	66.31%	63.85%	63.73%	64.24%	65.14%
Investment Securities:													
Taxable	29.45%	37.72%	47.11%	58.92%	60.51%	53.96%	50.33%	48.63%	46.74%	46.16%	45.75%	44.68%	42.89%
Non-taxable	2.83%	3.33%	3.12%	2.56%	2.79%	2.69%	2.74%	2.90%	3.01%	2.98%	2.89%	2.68%	2.45%
Federal funds sold, securities purchased under agreements to rese	1.18%	0.57%	4.73%	3.01%	3.28%	3.10%	3.11%	3.18%	3.12%	3.09%	2.64%	2.65%	2.74%
<b>Total Interest Income</b>	<b>103.96%</b>	<b>103.46%</b>	<b>126.49%</b>	<b>161.16%</b>	<b>174.30%</b>	<b>152.54%</b>	<b>140.64%</b>	<b>125.70%</b>	<b>119.18%</b>	<b>116.08%</b>	<b>115.01%</b>	<b>114.26%</b>	<b>113.23%</b>
<b>Interest Expense:</b>													
Deposits	-2.79%	-1.95%	-19.22%	-22.73%	-23.06%	-15.29%	-12.98%	-9.80%	-7.83%	-7.99%	-7.99%	-7.94%	-7.77%
Borrowings	-1.16%	-1.51%	-7.27%	-38.43%	-51.24%	-37.25%	-27.66%	-15.90%	-11.35%	-8.08%	-7.02%	-6.32%	-5.46%
<b>Total Interest Expense</b>	<b>-3.96%</b>	<b>-3.46%</b>	<b>-26.49%</b>	<b>-61.16%</b>	<b>-74.30%</b>	<b>-52.54%</b>	<b>-40.64%</b>	<b>-25.70%</b>	<b>-19.18%</b>	<b>-16.08%</b>	<b>-15.01%</b>	<b>-14.26%</b>	<b>-13.23%</b>
<b>Net Interest Income</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>
Provision for credit losses	-10.18%	-3.87%	-9.36%	-16.70%	-17.44%	-13.92%	-11.56%	-8.68%	-7.80%	-7.18%	-6.54%	-6.76%	-7.04%
<b>Net Interest Income after provision for credit losses</b>	<b>89.82%</b>	<b>96.13%</b>	<b>90.64%</b>	<b>83.30%</b>	<b>82.56%</b>	<b>86.08%</b>	<b>88.44%</b>	<b>91.32%</b>	<b>92.20%</b>	<b>92.82%</b>	<b>93.46%</b>	<b>93.24%</b>	<b>92.96%</b>
<b>Non-interest Income:</b>													
Gains on investment securities, net	19.51%	23.94%	-6.35%	7.17%	7.40%	19.92%	24.97%	21.88%	21.15%	20.89%	20.51%	20.01%	19.23%
Gains on equity warrant assets, net	11.01%	17.62%	3.30%	8.60%	10.36%	10.62%	9.99%	8.75%	10.57%	10.45%	10.26%	10.00%	9.62%
Client investment fees	6.13%	2.36%	8.61%	9.91%	12.80%	12.01%	11.79%	10.58%	10.23%	10.10%	9.78%	9.39%	8.90%
Wealth management and trust fees	0.00%	1.38%	1.85%	2.33%	3.15%	3.09%	3.10%	2.85%	2.82%	2.85%	2.82%	2.78%	2.70%
Foreign exchange fees	8.29%	8.24%	6.35%	6.94%	8.32%	7.40%	6.89%	5.87%	5.51%	5.29%	4.97%	4.64%	4.27%
Credit card fees	4.53%	4.12%	3.34%	3.94%	5.09%	4.89%	4.80%	4.30%	4.26%	4.31%	4.27%	4.20%	4.07%
Deposit service charges	4.19%	3.52%	2.81%	3.16%	3.90%	3.57%	3.42%	3.00%	2.90%	2.86%	2.77%	2.66%	2.52%
Lending related fees	2.67%	2.39%	2.10%	2.36%	2.91%	2.66%	2.55%	2.24%	2.16%	2.14%	2.07%	1.99%	1.88%
Letters of credit and standby letters of credit fees	2.16%	1.60%	1.27%	1.39%	1.66%	1.48%	1.38%	1.17%	1.10%	1.06%	0.99%	0.93%	0.85%
Investment banking revenue	19.20%	14.44%	9.36%	8.02%	8.95%	8.99%	9.23%	8.48%	8.39%	8.48%	8.40%	8.27%	8.02%
Commissions	3.09%	2.49%	2.19%	2.11%	2.60%	2.38%	2.28%	2.00%	1.93%	1.91%	1.85%	1.78%	1.68%
Other	4.55%	4.03%	3.70%	3.57%	4.40%	4.03%	3.86%	3.39%	3.28%	3.24%	3.13%	3.01%	2.85%
<b>Total Non-interest Income</b>	<b>85.34%</b>	<b>86.13%</b>	<b>38.53%</b>	<b>59.48%</b>	<b>71.52%</b>	<b>81.04%</b>	<b>84.25%</b>	<b>74.51%</b>	<b>74.30%</b>	<b>73.58%</b>	<b>71.83%</b>	<b>69.66%</b>	<b>66.60%</b>
<b>Non-interest Expense:</b>													
Compensation and benefits	-61.14%	-63.38%	-51.13%	-58.36%	-74.48%	-71.30%	-71.71%	-65.98%	-66.93%	-69.38%	-70.46%	-71.06%	-70.64%
Professional services	-11.46%	-12.33%	-10.70%	-12.03%	-14.84%	-13.60%	-13.04%	-11.43%	-11.05%	-10.91%	-10.56%	-10.15%	-9.62%
Premises and equipment	-5.90%	-5.60%	-6.00%	-7.15%	-8.63%	-8.09%	-8.13%	-7.75%	-8.01%	-8.27%	-8.35%	-8.23%	-8.12%
Net occupancy	-4.68%	-2.61%	-2.25%	-2.16%	-2.53%	-2.44%	-2.40%	-2.25%	-2.31%	-2.37%	-2.37%	-2.37%	-2.35%
Business development and travel	-1.10%	-0.75%	-1.90%	-1.33%	-1.07%	-1.21%	-1.44%	-1.22%	-1.16%	-1.22%	-1.22%	-1.18%	-1.14%
FDIC and state assessments	-1.28%	-1.51%	-1.67%	-1.53%	-1.65%	-1.59%	-1.64%	-1.56%	-1.50%	-1.50%	-1.52%	-1.52%	-1.49%
Merger-related charges	0.00%	-4.06%	-1.11%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other	-8.82%	-6.32%	-5.98%	-6.49%	-7.71%	-6.79%	-6.26%	-5.28%	-4.91%	-4.67%	-4.34%	-4.02%	-3.66%
<b>Total non-interest expense</b>	<b>-94.38%</b>	<b>-96.57%</b>	<b>-80.74%</b>	<b>-89.07%</b>	<b>-110.91%</b>	<b>-105.02%</b>	<b>-104.61%</b>	<b>-95.47%</b>	<b>-95.88%</b>	<b>-98.32%</b>	<b>-98.83%</b>	<b>-98.53%</b>	<b>-97.02%</b>
Income before income tax expense	80.78%	85.69%	48.43%	53.71%	43.17%	62.10%	68.08%	70.37%	70.62%	68.07%	66.46%	64.37%	62.55%
Income tax expense	-20.76%	-20.48%	-12.55%	-15.31%	-12.30%	-17.70%	-19.40%	-20.05%	-20.13%	-19.40%	-18.94%	-18.34%	-17.83%
<b>Net income before non-controlling interests</b>	<b>60.02%</b>	<b>65.21%</b>	<b>35.88%</b>	<b>38.40%</b>	<b>30.87%</b>	<b>44.40%</b>	<b>48.68%</b>	<b>50.31%</b>	<b>50.50%</b>	<b>48.67%</b>	<b>47.52%</b>	<b>46.03%</b>	<b>44.72%</b>
Net income attributable to noncontrolling interests	-3.98%	-7.55%	1.40%	-0.80%	-1.03%	-1.36%	-1.38%	-1.31%	-1.31%	-1.30%	-1.29%	-1.27%	-1.25%
Preferred stock dividends	-0.80%	-1.98%	-3.63%	-3.89%	-4.57%	-3.99%	-3.64%	-3.04%	-2.80%	-2.63%	-2.43%	-2.22%	-2.00%
<b>Net income available to common shareholders</b>	<b>55.24%</b>	<b>55.68%</b>	<b>33.65%</b>	<b>33.72%</b>	<b>25.27%</b>	<b>39.05%</b>	<b>43.65%</b>	<b>45.96%</b>	<b>46.39%</b>	<b>44.74%</b>	<b>43.80%</b>	<b>42.53%</b>	<b>41.47%</b>

**SVB Financial Group**  
*Common Size Balance Sheet*

Fiscal Years Ending Dec. 31	2020	2021	2022	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
<b>Assets</b>													
Cash and cash equivalents	15.30%	6.90%	6.52%	13.05%	15.97%	18.37%	19.71%	20.92%	21.90%	21.32%	20.31%	18.31%	15.18%
Available for sale securities, at fair value	26.76%	12.88%	12.31%	9.87%	9.71%	9.45%	9.25%	9.02%	8.78%	8.56%	8.32%	8.10%	7.87%
Held to maturity securities, at cost	14.36%	46.47%	43.12%	38.89%	37.36%	35.49%	34.75%	33.88%	32.96%	32.75%	32.44%	32.18%	31.87%
Non-marketable and other equity securities	1.56%	1.20%	1.26%	1.17%	1.04%	0.99%	0.95%	0.91%	0.89%	0.87%	0.84%	0.82%	0.80%
<b>Total investment securities</b>	<b>42.69%</b>	<b>60.56%</b>	<b>56.68%</b>	<b>49.92%</b>	<b>48.10%</b>	<b>45.92%</b>	<b>44.94%</b>	<b>43.82%</b>	<b>42.63%</b>	<b>42.18%</b>	<b>41.61%</b>	<b>41.09%</b>	<b>40.54%</b>
Loans, amortized cost	39.11%	31.36%	35.06%	35.22%	34.10%	33.08%	32.67%	32.55%	32.79%	33.81%	35.37%	37.82%	41.41%
Allowance for credit losses; loans	-0.39%	-0.20%	-0.30%	-0.60%	-0.48%	-0.37%	-0.27%	-0.22%	-0.21%	-0.21%	-0.21%	-0.21%	-0.20%
<b>Net loans</b>	<b>38.73%</b>	<b>31.16%</b>	<b>34.76%</b>	<b>34.62%</b>	<b>33.62%</b>	<b>32.71%</b>	<b>32.40%</b>	<b>32.33%</b>	<b>32.57%</b>	<b>33.60%</b>	<b>35.16%</b>	<b>37.62%</b>	<b>41.21%</b>
Premises and equipment, net of accumulated depreciation and amortization	0.15%	0.13%	0.19%	0.23%	0.22%	0.22%	0.22%	0.24%	0.24%	0.25%	0.25%	0.25%	0.25%
Goodwill	0.12%	0.18%	0.18%	0.18%	0.17%	0.15%	0.14%	0.13%	0.12%	0.11%	0.11%	0.10%	0.09%
Other intangible assets, net	0.05%	0.08%	0.06%	0.05%	0.04%	0.03%	0.03%	0.02%	0.02%	0.01%	0.01%	0.01%	0.01%
Lease right of use assets	0.18%	0.15%	0.16%	0.25%	0.24%	0.23%	0.23%	0.25%	0.25%	0.26%	0.26%	0.26%	0.27%
Accrued interest receivable and other assets	2.78%	0.85%	1.46%	1.69%	1.63%	2.36%	2.32%	2.28%	2.26%	2.27%	2.30%	2.36%	2.45%
<b>Total Assets</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>
<b>Liabilities and total equity</b>													
<b>Liabilities</b>													
Non-interest bearing demand deposits	57.59%	59.56%	38.13%	33.07%	34.81%	36.60%	38.64%	40.56%	42.40%	44.37%	46.21%	46.47%	46.68%
Interest bearing deposits	30.70%	29.98%	43.61%	44.74%	44.31%	42.96%	41.86%	40.56%	39.14%	37.79%	36.31%	36.52%	36.68%
<b>Total deposits</b>	<b>88.29%</b>	<b>89.54%</b>	<b>81.73%</b>	<b>77.82%</b>	<b>79.12%</b>	<b>79.56%</b>	<b>80.50%</b>	<b>81.12%</b>	<b>81.54%</b>	<b>82.16%</b>	<b>82.53%</b>	<b>82.99%</b>	<b>83.36%</b>
Short-term borrowings	0.02%	0.03%	6.40%	8.99%	8.00%	7.04%	6.24%	5.68%	4.69%	4.26%	3.87%	3.87%	3.51%
Lease liabilities	0.22%	0.18%	0.20%	0.31%	0.30%	0.29%	0.28%	0.31%	0.31%	0.31%	0.32%	0.32%	0.33%
Other liabilities	3.44%	1.17%	1.44%	1.94%	1.89%	2.55%	2.53%	2.56%	2.54%	2.56%	2.58%	2.58%	2.65%
Long-term debt	0.73%	1.22%	2.54%	2.54%	2.38%	2.21%	1.92%	1.56%	1.44%	1.08%	1.00%	0.80%	0.62%
<b>Total Liabilities</b>	<b>92.70%</b>	<b>92.14%</b>	<b>92.31%</b>	<b>91.59%</b>	<b>91.68%</b>	<b>91.65%</b>	<b>91.48%</b>	<b>91.22%</b>	<b>90.99%</b>	<b>90.81%</b>	<b>90.67%</b>	<b>90.56%</b>	<b>90.46%</b>
<b>SVBFG stockholder's equity</b>													
Preferred Stock	0.29%	1.73%	1.72%	1.73%	1.62%	1.50%	1.40%	1.30%	1.20%	1.12%	1.03%	0.96%	0.89%
Common Stock	1.37%	2.44%	2.51%	2.53%	2.39%	2.23%	2.10%	1.96%	1.83%	1.71%	1.59%	1.49%	1.39%
Retained Earnings	4.91%	3.52%	4.23%	4.90%	4.99%	5.24%	5.58%	6.01%	6.40%	6.74%	7.02%	7.27%	7.49%
Accumulated other comprehensive income	0.54%	0.00%	-0.90%	-0.90%	-0.85%	-0.79%	-0.73%	-0.68%	-0.63%	-0.59%	-0.54%	-0.50%	-0.46%
<b>Total SVBFG stockholder's equity</b>	<b>7.12%</b>	<b>7.68%</b>	<b>7.56%</b>	<b>8.26%</b>	<b>8.16%</b>	<b>8.18%</b>	<b>8.34%</b>	<b>8.58%</b>	<b>8.80%</b>	<b>8.98%</b>	<b>9.10%</b>	<b>9.21%</b>	<b>9.30%</b>
Noncontrolling interests	0.19%	0.18%	0.14%	0.15%	0.16%	0.17%	0.18%	0.20%	0.21%	0.22%	0.22%	0.23%	0.24%
Total Equity	7.30%	7.86%	7.69%	8.41%	8.32%	8.35%	8.52%	8.78%	9.01%	9.19%	9.33%	9.44%	9.54%
<b>Total Liabilities and total equity</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>

SVB Financial Group

Cost of Capital

Cost of Equity:

Risk-Free Rate	3.37%
Beta	1.21
Equity Risk Premium	5.50%
Cost of Equity (Re)	10.03%

Estimated Re

10.03%

**SVB Financial Group***Discounted Cash Flow (DCF) and Economic Profit (EP) Valuation Models***Key Inputs:**

CV Growth ofNI	5.00%
CV Year ROE	9.38%
Cost of Equity	10.03%

<b>Fiscal Years Ending Dec. 31</b>	<b>2023E</b>	<b>2024E</b>	<b>2025E</b>	<b>2026E</b>	<b>2027E</b>	<b>2028E</b>	<b>2029E</b>	<b>2030E</b>	<b>2031E</b>	<b>2032E</b>
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**DCF Model:**

Free Cash Flow (FCF)	(71.5)	(74.8)	25.3	34.1	41.0	50.3	61.2	70.6	79.3	86.6
Continuing Value (CV)										31,338.1
PV of FCF	(65.0)	(61.8)	19.0	23.3	25.4	28.4	31.3	32.9	33.5	13,262.2

Value of Operating Assets:	13,329.3
Non-Operating Adjustments	
Less: PV of ESOP	(76.1)

Value of Equity	13,253.1
Shares Outstanding	59.1
Intrinsic Value of Last FYE	\$ 224.23
<b>Implied Price as of Today</b>	<b>\$ 227.78</b>

**EP Model:**

Economic Profit (EP)	(221.6)	(881.6)	(284.9)	(83.9)	233.3	227.8	29.6	(69.0)	(178.0)	(231.1)
Continuing Value (CV)										(4,597.7)
PV of EP	(201.4)	(728.2)	(213.9)	(57.3)	144.7	128.4	15.2	(32.1)	(75.3)	(1,945.7)

Total PV of EP	(2,965.7)
Invested Capital (last FYE)	16,295.0
Value of Operating Assets:	13,329.3
Non-Operating Adjustments	
Less: PV of ESOP	(76.1)

Value of Equity	13,253.1
Shares Outstanding	59.1
Intrinsic Value of Last FYE	\$ 224.23
<b>Implied Price as of Today</b>	<b>\$ 227.78</b>

**SVB Financial Group***Dividend Discount Model (DDM) or Fundamental P/E Valuation Model*

<b>Fiscal Years Ending Dec. 31</b>	<b>2023E</b>	<b>2024E</b>	<b>2025E</b>	<b>2026E</b>	<b>2027E</b>	<b>2028E</b>	<b>2029E</b>	<b>2030E</b>	<b>2031E</b>	<b>2032E</b>
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EPS	\$	23.84	\$	15.18	\$	26.82	\$	32.77	\$	41.23	\$	45.11	\$	46.14	\$	48.91	\$	51.77	\$	55.83
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**Key Assumptions**

CV growth of EPS	5.00%
CV Year ROE	9.38%
Cost of Equity	10.03%

**Future Cash Flows**

P/E Multiple (CV Year)																				9.29
EPS (CV Year)																			\$	55.83
Future Stock Price																			\$	518.91
Dividends Per Share	\$	-	\$	-	\$	2.00	\$	2.25	\$	2.50	\$	2.75	\$	3.00	\$	3.25	\$	3.50	\$	3.75
Discounted Cash Flows	\$	-	\$	-	\$	1.50	\$	1.54	\$	1.55	\$	1.55	\$	1.54	\$	1.51	\$	1.48	\$	219.60

Intrinsic Value as of Last FYE	\$	230.27
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<b>Implied Price as of Today</b>	<b>\$</b>	<b>233.91</b>
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## SVB Financial Group

### Relative Valuation Models

Ticker	Company	Price	EPS 2023E	EPS 2024E	P/E 23	P/E 24	BV Equity	Tangible BV Equity	P/B	Tangible P/B
FRC	First Republic Bank	\$120.44	\$6.11	\$8.30	19.71	14.51	75.48	74.29	1.60	1.62
EWBC	East West Bancorp	\$76.83	\$9.14	\$9.33	8.41	8.23	42.46	39.16	1.81	1.96
PACW	PacWest Bancorp	\$28.31	\$3.39	\$3.64	8.35	7.78	32.86	21.15	0.86	1.34
SI	Silergate Capital	\$14.33	\$0.49	\$1.32	29.49	10.83	52.92	52.92	0.27	0.27
CATY	Cathay General	\$43.83	\$5.28	\$5.28	8.30	8.30	34.01	28.77	1.29	1.52
PPBI	Pacific Premier Bancorp	\$32.95	\$2.88	\$2.88	11.44	11.44	29.45	19.38	1.12	1.70
CVBF	CVB Financial	\$24.33	\$1.89	\$1.95	12.87	12.48	-2.74	-8.37	(8.88)	(2.91)
Average					14.08	10.51			1.16	1.40

SIVB	SVB Financial Group	\$282.92	\$23.84	\$15.18	11.87	18.6	208.85	200.21	1.35	1.41
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### Implied Relative Value:

P/E (EPS23)	\$ 335.71
P/E (EPS24)	\$ 159.51
P/B	\$ 241.74
P/Tangible BV	\$ 280.83

**SVB Financial Group**  
Key Management Ratios

<i>Fiscal Years Ending Dec. 31</i>	2020	2021	2022	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
<b>Liquidity Ratios:</b>													
Cash Ratio(Cash/Total Deposits)	10.98%	17.33%	7.71%	7.97%	16.77%	20.19%	23.08%	24.48%	25.79%	26.86%	25.94%	24.61%	22.06%
Average AI Receivables(Average AI/Net Loans)	7.48%	6.23%	4.53%	6.65%	7.14%	8.24%	10.37%	10.20%	9.96%	9.62%	9.26%	8.81%	8.28%
<b>Regulatory Capital:</b>													
Tier 1 Capital Ratio(Tier 1 Capital/ Risk Weighted Assets)	12.06%	7.68%	9.24%	11.60%	12.22%	13.32%	14.43%	15.77%	17.02%	17.78%	18.28%	18.46%	18.33%
Equity Check(TSE/Total Capital)	7.30%	7.86%	7.69%	8.41%	8.32%	8.35%	8.52%	8.78%	9.01%	9.19%	9.33%	9.44%	9.54%
<b>Asset-Management Ratios:</b>													
Total Asset Turnover(Total Revenue/Total Assets)	3.46%	2.80%	2.93%	3.16%	2.71%	3.04%	3.16%	3.33%	3.35%	3.29%	3.27%	3.27%	3.30%
Loan to Asset Ratio(Total Loans/Total Assets)	46.28%	38.73%	31.16%	34.76%	34.62%	33.62%	32.71%	32.40%	32.33%	32.57%	33.60%	35.16%	37.62%
Loan Growth	36.14%	47.21%	11.78%	-0.61%	3.62%	4.98%	6.25%	7.43%	8.75%	11.07%	13.04%	15.43%	18.33%
Deposit Growth	65.13%	85.53%	-8.51%	-5.00%	8.50%	8.50%	8.50%	8.50%	8.50%	8.50%	8.50%	8.50%	8.50%
<b>Financial Leverage Ratios:</b>													
Loans to Assets	0.39	0.31	0.35	0.35	0.34	0.33	0.32	0.32	0.33	0.34	0.35	0.38	0.41
Loans to Deposits	0.44	0.35	0.43	0.44	0.42	0.41	0.40	0.40	0.40	0.41	0.43	0.45	0.49
Equity Capital Ratio(TSE/TA)	0.07	0.08	0.08	0.08	0.08	0.08	0.09	0.09	0.09	0.09	0.09	0.09	0.10
Debt to Equity	0.10	0.16	1.16	1.37	1.25	1.11	0.96	0.82	0.73	0.63	0.56	0.49	0.43
<b>Profitability Ratios:</b>													
Return on Equity (NI/Beg TSE)	17.99%	20.99%	9.09%	8.67%	5.07%	8.51%	9.61%	11.07%	10.95%	10.13%	9.80%	9.48%	9.38%
Return on Assets(NI/Beg TA)	1.68%	1.53%	0.71%	0.67%	0.43%	0.71%	0.80%	0.94%	0.96%	0.91%	0.90%	0.88%	0.89%

**SVB Financial Group**
*Effects of ESOP Exercise and Share Repurchases on Common Stock Account and Number of Shares Outstanding*

Number of Options Outstanding (shares):	0.49
Average Time to Maturity (years):	3.80
Expected Annual Number of Options Exercised:	0.13

Current Average Strike Price:	\$ 295.48
Cost of Equity:	10.03%
Current Stock Price:	\$282.92

<b>Fiscal Years Ending Dec. 31</b>	<b>2023E</b>	<b>2024E</b>	<b>2025E</b>	<b>2026E</b>	<b>2027E</b>	<b>2028E</b>	<b>2029E</b>	<b>2030E</b>	<b>2031E</b>	<b>2032E</b>
Increase in Shares Outstanding:	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
Average Strike Price:	\$ 295.48	\$ 295.48	\$ 295.48	\$ 295.48	\$ 295.48	\$ 295.48	\$ 295.48	\$ 295.48	\$ 295.48	\$ 295.48
<b>Increase in Common Stock Account:</b>	<b>38</b>	<b>38</b>	<b>38</b>	<b>38</b>	<b>38</b>	<b>38</b>	<b>38</b>	<b>38</b>	<b>38</b>	<b>38</b>
Share Repurchases (\$)	0	0	0	0	0	0	0	0	0	0
Expected Price of Repurchased Shares:	\$ 282.92	\$ 311.29	\$ 342.50	\$ 376.83	\$ 414.61	\$ 456.18	\$ 501.92	\$ 552.24	\$ 607.61	\$ 668.53
<b>Number of Shares Repurchased:</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Shares Outstanding (beginning of the year)	59	59	59	59	60	60	60	60	60	60
Plus: Shares Issued Through ESOP	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
Less: Shares Repurchased in Treasury	-	-	-	-	-	-	-	-	-	-
<b>Shares Outstanding (end of the year)</b>	<b>59.23</b>	<b>59.36</b>	<b>59.49</b>	<b>59.62</b>	<b>59.75</b>	<b>59.88</b>	<b>60.01</b>	<b>60.13</b>	<b>60.26</b>	<b>60.39</b>

**SVB Financial Group***Valuation of Options Granted under ESOP*

Current Stock Price	\$282.92
Risk Free Rate	4.00%
Current Dividend Yield	0.00%
Annualized St. Dev. of Stock Returns	73.11%

Range of Outstanding Options	Number of Shares	Average Exercise Price	Average Remaining Life (yrs)	B-S Option Price	Value of Options Granted
Range 1	0.49	295.48	3.80	\$ 155.49	\$ 76
Total	0	\$ 295.48	3.80	\$ 155.49	<b>\$ 76</b>

### Sensitivity Tables

	DCF	CV ROE						
	228	8.8%	9.0%	9.2%	9.38%	10.4%	11.4%	12.4%
Beta	1.35	171.01	176.05	180.88	185.50	205.93	222.77	236.89
	1.30	183.57	188.99	194.17	199.13	221.05	239.12	254.28
	1.25	197.56	203.38	208.96	214.29	237.88	257.32	273.62
	1.21	209.93	216.11	222.03	227.70	252.76	273.41	290.73
	1.15	230.79	237.59	244.10	250.33	277.87	300.57	319.60
	1.10	250.70	258.09	265.15	271.92	301.83	326.48	347.15
	1.05	273.39	281.45	289.15	296.52	329.13	356.01	378.55

DCF		CV Growth of NI						
Marginal Tax Rate	228	3.5%	4.0%	4.5%	5.0%	5.5%	6.0%	6.5%
	30.0%	228.76	226.34	223.49	220.07	215.89	210.68	203.99
	29.5%	231.00	228.67	225.93	222.64	218.62	213.61	207.18
	29.0%	233.23	231.00	228.37	225.21	221.36	216.54	210.37
	28.5%	235.47	233.33	230.81	227.78	224.09	219.48	213.56
	27.5%	239.94	237.99	235.69	232.93	229.55	225.34	219.94
	26.5%	244.42	242.65	240.57	238.07	235.02	231.21	226.32
	25.5%	248.89	247.31	245.45	243.21	240.48	237.07	232.70

Equity Risk Premium	DCF	Risk Free Rate						
	228	3.3%	3.5%	3.8%	4.0%	4.3%	4.5%	4.8%
	5.8%	206.29	206.28	206.28	206.27	206.27	206.26	206.26
	5.7%	213.11	213.10	213.10	213.09	213.09	213.08	213.08
	5.6%	220.27	220.26	220.26	220.25	220.25	220.24	220.24
	5.5%	227.80	227.79	227.79	227.78	227.78	227.77	227.77
	5.4%	235.72	235.72	235.71	235.71	235.70	235.70	235.69
	5.3%	244.07	244.07	244.06	244.06	244.05	244.05	244.04
	5.2%	252.88	252.88	252.87	252.87	252.86	252.86	252.85

DCF		Increase in Loan Growth						
Deposit Growth	228	2.50%	3.00%	3.50%	4.00%	4.50%	5.00%	5.50%
	7.0%	160.69	181.80	206.20	234.28	266.48	303.27	345.17
	7.5%	158.60	179.71	204.11	232.19	264.39	301.18	343.08
	8.0%	156.43	177.55	201.95	230.03	262.23	299.02	340.91
	8.5%	154.19	175.30	199.70	227.78	259.98	296.77	338.67
	9.0%	151.86	172.98	197.37	225.46	257.65	294.44	336.34
	9.5%	149.45	170.56	194.96	223.04	255.24	292.03	333.93
	10.0%	146.95	168.06	192.46	220.54	252.74	289.53	331.43

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