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THE RISE AND FALL OF SILICON VALLEY BANK

PART I: THE SUCCESS STORY

Case Study and Teaching Note

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Abstract

SVB Financial Group was a diversified financial institution specialized in the technology and life sciences industries. Founded 1983 in Silicon Valley, SVB significantly influenced the startup landscape for the past four decades by operating in a niche overlooked by traditional banks. In the 1980s, it introduced venture debt for early-stage companies, enabling access to capital while minimizing equity dilution. Over the years, the company created a one-stop-shop comprised of Silicon Valley Bank, SVB Private, SVB Capital, and SVB Securities, serving startups, corporations, VC and PE firms, and private individuals. By 2022, SVB was the 16th largest U.S. financial institution.

Keywords: *Silicon Valley Bank (SVB), Entrepreneurship, Venture Capital, Venture Debt, Banking, Startups, Entrepreneurial Finance*

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Part I: The Success Story

In the 1980's, when the technology revolution began to take shape in Silicon Valley, entrepreneurs faced challenges securing funding to transform their ideas into reality. Beyond venture capital (VC), which was still in its early stages, alternatives were limited. Traditional banks lacked understanding of early-stage lending, viewing them as inherently high-risk endeavors[1]. Recognizing this gap, two former bank managers started to think about a way to support founders through specialized banking products, such as venture debt. In 1983, Bill Biggerstaff and Robert Medearis established a financial institution that would significantly influence the startup landscape in the following years and laid the foundation for Silicon Valley Bank (SVB). In the years to come, SVB proved to be the primary banking partner for technology and life sciences companies. The bank grew steadily throughout the years, surviving both the dot-com bubble burst and the financial crisis of 2007-08.

In April 2011, Gregory W. Becker was appointed CEO of SVB after 18 years in various leadership roles at the bank. "Today, SVB is poised to enter a new era of global expansion as the financial partner of choice to innovative, dynamic companies of all sizes around the world. We see tremendous opportunity ahead, and the time is right to make this inevitable transition", said Chairman of the Board Alex Hart in a media release[2]. Sitting in his new office, Becker felt the weight of history and the pulse of potential. With a deep breath, he turned his attention to the strategic roadmap of SVB, thinking about one central question: How does SVB, deeply ingrained in the DNA of Silicon Valley, continue to lead, inspire, and foster the dreams of entrepreneurs in an era defined by rapid change and unprecedented disruption?

Startup Financing Dilemma

Entrepreneurs face a critical challenge: How to secure the funding needed to build and scale their company? Most founders' primary passion lies in their mission, developing the product or service and assembling a team rather than dealing with the characteristics and mechanism of financing. Nevertheless, raising capital is much like oxygen. Without it, building a successful business is nearly impossible[3]. Startups usually go through different stages, as displayed in the "J-curve" **(Exhibit 1)**. It begins with initial enthusiasm and investment, followed by challenges and potential disappointment as cash is burned and hurdles emerge, particularly through the valley of death. If the venture overcomes these early challenges, it might identify a product-market fit, leading to growth and scaling. As revenues outpace expenses, the company moves up the curve, eventually reaching profitability and maturity. The peak of the J-curve corresponds to potential exit events, like its initial public offerings (IPOs) or acquisitions, where existing investors realize their returns. To navigate these stages, founders need to determine a suitable financing strategy. Generally, one must differentiate between equity and debt funding[4].

In equity financing, primarily led by VC investors or business angels (BAs), investors provide the necessary funds in exchange for a share of ownership based on their valuation. In return, investors offer an injection of capital without an immediate obligation of repayment, often with active advice and support from investors, including access to valuable networks[5]. However, entrepreneurs considering this approach should understand that an investor syndicate often expects a stake of 20% or more in each round of funding. This results in equity dilution for the founders, employees, and earlier investors, representing high implicit costs. Early-stage investors seek unlimited growth potential through their equity stakes, actively pursuing high-growth companies that can disrupt existing sectors or pioneer new markets[6].

Debt financing, on the other hand, involves scheduled repayments along with interest on the borrowed capital. Unlike equity financing, borrowers maintain full ownership of the company. Consequently, debt funding places a cap on the upside for lenders, with returns tied to the principal and accrued interest. To minimize the risk of default, debt investors prefer companies with proven business models that generate positive cash flow or own collateralizable assets. As a result, early-stage companies often encounter challenges securing unsecured bank loans due to the perceived higher risk associated with their potential success[7].

Venture Debt: Bridging the Funding Gap for Startups

A specific type of loan for high-growth and often cashflow-negative companies which is not directly tied to existing tangible collateral is "venture debt". Its history dates back to the 1970s, an era marked by the increasing demand of early-stage companies in Silicon Valley for essential resources such as computers, hardware, and other assets to facilitate their business expansion[8]. In the 1980s and early 1990s, SVB played a key role in introducing loan products for startups, ultimately shaping what we know as venture debt today[9].

This form of borrowing is accessible to high-growth businesses that have previously secured VC equity funding or in conjunction with such a financing round. Hence, venture debt complements or follows equity, it does not replace it[10]. Loans can be used for financing R&D, purchasing equipment, or scaling the company's operations. Compared to equity financing, venture debt allows early-stage companies to secure funds at a lower cost of capital without immediately diluting their ownership stake in the business and deferring a valuation. However, just like other debt instruments, venture debt requires repayment. Since many funded startups are still not generating positive cash flow, they need to secure additional equity in subsequent rounds to pay back the liabilities[11]. Venture debt is commonly provided to startups as growth capital term loans or lines of credit, extending their financial runway to reach critical milestones[12]. Due to the intrinsic risks tied to this form of financing, lenders collaborate with VC firms to identify suitable ventures and carry out thorough due diligence[13]. Loans targeted at VC-backed companies are based on different terms than conventional small business administration (SBA) loans and depend on the company's stage, the amount of equity raised, and the purpose of the debt, as detailed in **Exhibit 2**[14]. Additionally, venture loans must be aligned with performance objectives from prior equity rounds and future funding strategies. Typically, loan sizes amount to 25% to 35% of the most recent equity round[15].

The pricing structure of venture debt includes three components: the interest rate applied to the loan amount, an origination fee, and equity warrants issued to the creditor[16]. These warrants compensate early-stage lenders for the risk taken and give them the right to buy common shares of the funded company at a fixed price within a defined period. Expiration dates can vary widely from 1-15 years. The average warrant coverage equals about 0.5-2% of the company's equity, and the conversion rate is based on the price of the last financing round or at a discount of future rounds. This dilution is considerably lower compared to equity (VC) financing[17]. Fundamentally, warrant pricing can lessen the loan repayment burden, making debt payments more feasible for young companies, while also offering potential gains for the lender. Most term sheets also include a feature called "deferred pricing", which entails a back-end loan fee that's settled only when the loan comes to maturity or is refinanced. This permits covering a portion of the loan's total cost with the capital raised in the next round rather than using current liquidity[18].

Venture debt term sheets primarily focus on two essential variables: the duration in which funds can be drawn (draw period) and the timeframe before the borrower starts repaying the principal amount. Usually, these loans come with a 3 to 5-year repayment period, beginning with an interest-only (I/O) phase lasting 6 to 12 months. Throughout this initial phase, companies cover the accumulated interest without paying back the principal amount. Upon conclusion of the I/O phase, the company begins with the repayment of the principal. The length of the I/O phase and the loan's drawdown conditions are crucial aspects of the negotiation. Lenders pay keen attention to a firm's burn rate and cash reserves to calculate the number of months of capital available, also called runway[19]. While venture debt offers more flexibility than traditional loans, it may still include covenants to protect lenders against defaults. These can consist of duties such as submitting financial statements and maintaining insurance coverage. Additionally, there may be restrictions on major changes in the ownership structure or issuance of additional debt. Financial covenants might require keeping minimum liquidity or working capital ratios[20]. As previously noted, the collateral required for venture debt differs from that of traditional lending. Conventional lenders usually require hard collateral to secure a loan, such as real estate, equipment, or other tangible assets. In contrast, venture debt is typically secured by the company's intellectual property (IP), such as patents, software, and trademarks[21].

Founding and Early Years: Seizing the Opportunity

SVB was established in 1983 by two former Bank of America executives and tennis playmates, Bill Biggerstaff and Robert Medearis, with its first office in San Jose, California. Over a game of poker, they envisioned a bank tailored to address the financial needs of startups in Silicon Valley[22]. Medearis, a Harvard graduate and part-time professor at Stanford, initially conceived the concept of a startup-focused bank after being approached by his students asking about bank financing[23]. Biggerstaff and Medearis observed the challenges of Silicon Valley technology and life sciences startups struggling to secure essential capital to develop their product. This was predominantly due to the traditional banking sector's limited understanding of early-stage, pre-revenue companies and limited availability of VC[24]. The two founders appointed Roger Smith, previously leading a technology-focused lending division at Wells Fargo, as the first CEO and president[25]. The bank formally began its operations as a state bank and member of the Federal Reserve (Fed) on October 17, 1983, as a wholly owned subsidiary of Silicon Valley Bancshares, subsequently known as SVB Financial Group[26]. With their extensive connections in the area, the trio secured 100 initial investors, featuring well-known founders, sports icons, and former U.S. congressman of the valley Peter McCloskey to get SVB off the ground and amplify their credibility within the VC industry[27]. These entrepreneurs, deeply embedded in the technology sector, not only invested in the bank but also contributed by making deposits and recommending their peers to bank with SVB[28].

The bank began providing banking services specifically designed for early-stage and fast-growing companies in the Californian innovation hub. SVB distinguished itself by leveraging its vast network across VC, legal, and accounting firms, facilitating crucial access to resources for its clients. These strategic connections within the broader ecosystem offered clear added value and set SVB apart from traditional banking institutions. A vital part of SVB's strategy was to collect deposits from startups backed by VC firms with whom they had good relationships. To tap into additional sources of capital, the bank expanded its banking services to VC investors and introduced new offerings to maintain relationships with clients as their companies evolved. Using these funds, the bank started offering venture debt to technology and life sciences startups.

Unlike traditional banks that primarily focused on revenue and cash flow, SVB structured its loans by evaluating risks associated with a company's business model and its track-record in raising equity[29]. Essentially, SVB considered pre-revenue, pre-product companies with VC-backed equity less risky than traditional lenders. First, early investors often aim to commit further capital in subsequent funding rounds to maximize returns. Additionally, the bank operated under the assumption that VC firms primarily invest in firms with substantial IP. As a result, there were two potential methods of repayment: an equity funding round or, as a contingency plan, the sale of IP, such as technology patents or copyrights. Implementing this business model was straightforward. To gain insights into the non-financial aspects of the business and participate in promising early-stage opportunities, the founding partners leveraged their connections with leading VC investors known for conducting rigorous due diligence. Furthermore, granted loans included covenants to raise early red flags if the venture was failing to raise another round of equity capital[30]. Additionally, the bank assessed a startup's credibility by reviewing its accounts receivable with established companies. CEO Smith stated: "you're a new company, but you have a receivable from HP. That's a pretty good piece of paper…so we're not magicians, and that's what a lot of people worried about us because they thought we were taking too high a risk, where in fact we were not." SVB also contracted analysts to validate business concepts with experienced entrepreneurs or researchers inside the relevant niche. By cross-referencing and leveraging the deep expertise within their network and the region, SVB improved their decision-making process and mitigated risks[31].

The Years Ahead

The need for capital among startups proved to be substantial, leading to SVB's rapid expansion in California throughout the 1980s. SVB established new branches in Santa Clara and Palo Alto, with an office on the famous Sand Hill Road, positioning itself closer to the VC community. The bank further extended its footprint beyond the West Coast, establishing a presence on the East Coast to support the Massachusetts Tech Corridor, arguably the second-largest innovation hub. To expand its customer base and increase deposits, SVB pursued a merger with National InterCity Bancorp in 1986. Two years later, the bank carried out its IPO, raising $6mn in equity capital *(valuation not available)*[32]. Strong growth of VC activity in the following years led to a surplus of liquidity for SVB, as substantial cash deposits by technology startups from equity investments resulted in less demand for loans[33]. Seeking more income, founding CEO Smith wanted to capitalize on the thriving Californian real estate market by offering construction loans for residential and commercial projects. However, during the 1992 real estate market decline, SVB faced its first loss of $2.2mn due to loan defaults after reporting a profit of more than $12mn in 1991. This financial setback led to Smith losing his seat at the top of the bank. Newly appointed CEO John Dean initiated a strategic shift, divesting real estate assets and redirecting SVB to its initial niche focus[34]. Looking for further growth potential, SVB started to bank winemakers in 1994, leveraging its expertise in dealing with small, growing businesses in a niche market. The growing wine industry, particularly in regions like Napa Valley, presented a market with financial needs similar to tech startups, such as upfront capital. SVB recognized that, much like early-stage companies, there was an entire industry underserved by incumbent banks. Additionally, SVB's proximity to the wine regions and its wide network within the area provided a client base of private individuals and investors interested in wine. The industry's economic stability also offered an attractive opportunity to diversify the bank's portfolio[35]. Under Dean's leadership, SVB rebounded and generated profits exceeding $9mn in 1994. By 1995, SVB reduced its real estate loan portfolio to less than 10% of the total loan portfolio, marking a substantial decrease from the previous nearly 50% **(Exhibit 3)**[36].

Market Momentum: The Dot-Com Era

Over the subsequent years, SVB benefited significantly from VC investments in the technology market during the dot-com boom **(Exhibit 4)**. In 2000, U.S. VC firms invested $66.4bn in 4,503 deals, a significant increase from the $20bn invested in 1999[37]. As the trusted financial partner within the industry, SVB doubled its deposits from $2.4bn in 1997 to $4.8bn in 2000, and its net income increased six-fold to $159mn during the same period[38]. By the turn of the millennium, the bank provided banking services to 5,000 customers, including success stories such as Amazon and Cisco Systems. Overall, SVB banked 65% of VC-backed technology companies[39]. However, by strategically positioning itself within the innovation economy, the bank also exposed itself to a considerable cluster risk, making it vulnerable to the fluctuations of the tech market.

Following unprecedented growth, it became clear that many startups had shaky business plans, which caused investors to lose confidence.[40] By 2001, as capital markets contracted and VC investments faded, numerous dot-com ventures faced liquidity crunches, impacting SVB's deposit balances. The eventual burst of the dot-com bubble severely impacted SVB. With low VC activity and a multitude of tech companies defaulting on loans, the bank's earnings plummeted, dropping from $160mn in 2000 to a mere $12mn in 2003[41]. This caused SVB's stock price to nosedive from its all-time high of $59.18 in 2000 to $14.90 in 2002[42]. The bank's deep ties to the tech industry became both its strength and vulnerability during this volatile period. Nevertheless, Wilcox, who became CEO in 2000, chose to maintain the direction and focus on serving early-stage companies[43]. By the end of 2003, the economy and tech sector began showing signs of recovery. Entering the mid-2000s, a new wave of tech companies emerged, primarily centering on social media and mobile technology. This shift led to increased demand for startup banking services, enabling SVB to recover its earnings to $65mn in 2004[44]. Executives reflected later that some of the strongest relationships were built during the dot-com bubble as they stood by their clients in challenging times[45].

Going Global

Instead of diversifying the business model to become a more traditional commercial bank, Wilcox aimed to grow by announcing SVB's expansion to China, India, and the UK in 2004. This move was the beginning of SVB's global strategy. He remarked: "Our international expansion will allow us to scale with the needs of our enterprising clients and private equity (PE) partners, and to act as a gateway to financial services in critical foreign markets." Its Europe subsidiary focused on providing debt financing for U.K.-based high-growth businesses and VC firms while also assisting them in building ties within the U.S.[46]. In India and China, SVB offered consulting and business services to act as a doorway for U.S.-based companies conducting business in these markets and vice versa[47]. Targeting other attractive markets for technology startups, SVB's leadership decided in January 2008 to extend its operations with its fourth subsidiary in Israel[48].

SVB's Resilience amongst tumbling Banks

During the global financial crisis of 2007-08, SVB proved to be relatively resilient compared to traditional banks that were heavily exposed to the mortgage and real estate market. Most clients had little dependency on financial services or the housing sector[49]. Despite the global economic turmoil, SVB still managed to achieve strong loan (+31.5%) and deposit (+23.6%) growth during the crisis. However, the sharp decline in credit conditions within the broader financial market caused widespread illiquidity and high levels of volatility, impacting the quality of its loan portfolio. Furthermore, SVB experienced lower gains from valuations in equity warrants of its venture debt portfolio due to reduced VC, M&A, and IPO activity. The Fed's decision to cut interest rates also negatively impacted the bank's net interest margin. In December, SVB obtained $235mn from the federal government under the Troubled Asset Relief Program (TARP) in exchange for preferred stocks. This increased the bank's Tier 1 capital ratio[i] to 12.79% by the end of 2008 from 9.94% in September, which was already exceeding that of a sound capitalized institution[50]. Participating in the TARP allowed SVB to grant loans to more than 400 new companies and increase its market share among early-stage ventures. Just a year

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[i] According to Basel III, the tier 1 capital ratio has to be at least 6% of its risk-weighted assets. **Source:** Investopedia.

later, SVB repaid the full amount to the U.S. treasury by conducting a $300mn equity sale, highlighting the bank's robustness at the time[51].

Becker becoming CEO

After spending 18 years at the company in multiple leadership roles and most recently leading its commercial banking operations, Greg Becker was named CEO of SVB Financial Group in 2011 **(Exhibit 5)**[52]. His top priority was to keep winning thousands of new startups, bank them through the entire lifecycle, and provide their executives with personal banking products. This commitment was essential to maintaining its reputation as the one-stop-shop bank for early-stage companies and differentiating it from Wall Street institutions. Insiders stated that "nothing happened inside the Valley that didn't involve SVB"[53]. Most VC firms started making it a standard requirement for their portfolio companies to open accounts with SVB. In turn, the bank prioritized startups that raised capital from leading venture investors such as Sequoia Capital, New Enterprise Associates, or Kleiner Perkins[54].

Becker was very bullish about the growth of the innovation sector, as he saw the increasing impact of technology across industries on a global scale. Thus, he wasted no time in continuing with the bank's internationalization. In 2011, SVB opened its first full-service commercial banking branch in London, and just a year later, it launched a joint venture bank in Shanghai. In the subsequent years, offices in Ireland, Germany, Canada, Denmark, and Sweden were established **(Exhibit 6)**. This international expansion helped SVB tap into innovation ecosystems around the globe[55]. Becker also identified the potential of financial technology startups (fintechs) to revolutionize traditional banking early on. Consequently, SVB began investing in and forming partnerships with fintech ventures **(Exhibit 7)**. One of its first collaborations was with New Zealand-based fintech Xero in 2014, creating data-driven personalized financial insights. In 2016, SVB teamed up with payment provider Stripe to introduce Atlas, a product designed to provide entrepreneurs with essential resources for launching global internet businesses[56]. This further emphasizes SVB's broader role within the innovation ecosystem.

In 2019, SVB acquired Leerink Partners, a leading investment bank focused on the life sciences industry. As startups grew and began considering M&A or IPO opportunities, SVB was well-situated to provide specialized investment banking services, complementing its commercial banking products[57]. Two years later, SVB expanded its investment banking reach into the technology sector by buying sell-side research firm MoffettNathanson[58]. The same year, SVB acquired Boston Private Bank & Trust Company, extending its wealth management expertise within the existing private bank. Becker argued that they risk losing wealthy clients to more traditional wealth managers by growing the private bank organically. Pursuing this growth strategy, alongside a favorable VC environment **(Exhibit 8)** and solid macroeconomic conditions, enabled SVB to grow strongly over the years **(Exhibit 9)**, becoming the 16th largest bank in the U.S. by 2022[59].

SVB's Business Model

SVB built its value proposition around establishing a holistic platform to support the entire innovation ecosystem involving entrepreneurs, venture investors, and corporates **(Exhibit 10)** by focusing on several key elements. First, the bank leveraged its industry knowledge and network across technology, life sciences, and venture investors to offer financial solutions that directly addressed the specific challenges of its clients[60]. Second, SVB created a one-stop shop for the venture marketplace capable of supporting clients throughout the entire lifecycle. This assembled platform included commercial and investment banking services to venture investing and private banking. Third, by establishing a presence in major innovation hubs worldwide, SVB connected startups to a broader ecosystem, especially benefiting those looking to expand internationally or form strategic partnerships[61]. Fourth, while many banks stress the value of relationships, SVB strongly emphasized building long-term partnerships. The bank might not have earned much from early-stage companies in the beginning, but these relationships became more lucrative over time. By having close ties with VC firms, SVB had a clear understanding of backed startups. If a venture faced challenges, SVB collaborated with investors to find a solution and highlighted the importance of long-term strategic relationships[62]. Through these efforts, SVB secured banking relationships with roughly 50% of U.S. venture-backed technology and life sciences companies and acted as the financial intermediary for 45% of IPOs within the same industry by 2022[63].

<u>**Corporate Structure and Offering**</u>

The holding company SVB Financial Group was organized into four business units, including commercial banking (SVB), private banking and wealth management (SVB Private), venture investing (SVB Capital), and investment banking (SVB Securities), as illustrated **in Exhibit 11**[64].

SVB's commercial banking division specialized in serving early-stage startups, venture-funded companies, corporates, and VC/PE investors **(Exhibit 12)**. The bank provided treasury management services, which included a wide range of payment, deposit, and cash management solutions. Recognizing the financial challenges entrepreneurs face, SVB offered specialized secured and unsecured credit solutions, such as growth capital loans, asset-based loans, working capital facilities, and credit card programs. Additionally, it assisted clients in managing international financial needs and currency-related risks by facilitating foreign exchange and trade finance services[65].

SVB Private, a sub-division of SVB, predominantly served VC/PE professionals, innovation economy executives, and high-net-worth individuals acquired from Boston Private with a tailored approach to private banking and wealth management **(Exhibit 13)**. The client coverage model was based on advisory, investing, and banking. The offering encompassed services such as cash management, financial planning, investment advisory, tax planning, and trust services. Products included home equity lines of credit, restricted and private stock loans, capital call lines of credit, secured and unsecured lending products, and mortgages. By the end of 2022, SVB Private had assets under management of nearly $20bn[66]. SVB's wine division, a segment of SVB Private, offered customized banking solutions for premium wineries, like vineyard acquisition, equipment, and development loans. Furthermore, the bank actively supported the industry through various initiatives, including winemaker associations, events, and sponsorships.

It also helped to market winery brands by providing access to technology and life sciences networks and offered market intelligence tools such as industry insights and benchmarking reports[67].

SVB Capital served as the VC and credit investment arm of SVB Financial Group. By 2022, it was overseeing a fund portfolio with a total value of $9.2bn on behalf of third-party limited partner investors and, to a lesser extent, SVB Financial Group itself **(Exhibit 14)**. These funds comprised a range of investment vehicles, including direct venture funds, funds of funds, and credit funds. SVB Capital's revenue primarily stemmed from investment returns, including carried interest and management fees[68]. By starting this business unit, SVB could leverage its knowledge of the venture market for other firms and individuals within the innovation ecosystem. This enabled professionals at VC firms and entrepreneurs to invest in other promising startups, many of which were clients on the commercial side. Moreover, SVB occasionally invested in PE funds with whom they had a strong business relationship and sought capital commitments[69].

SVB Securities*,* formerly SVB Leerink, specialized in investment banking services within the innovation economy **(Exhibit 15)**. It focused on various sub-sectors in healthcare and technology, such as biopharma, digital health, tech-enabled services and fintech. Its core services included capital raising, M&A advisory, structured finance, and sales and trading. SVB Securities also provided extensive equity research, offering coverage of 350 companies within these sectors. By September 30, 2022, the unit completed more than 1,111 transactions and raised close to $225bn[70].

Revenue Streams

SVB Financial Group reported **(Exhibit 16)**[71] total revenues of $7.4bn in 2022, consisting of net interest income (NII) and noninterest income (NI) **(Exhibit 9)**. Even though acting globally, SVB's revenue was predominantly sourced from U.S. clients, with foreign clients contributing less than 10% of total revenues.

NII, which reached \$5.7bn, was primarily derived from interest rate spreads between assets like loans and securities and liabilities like deposits and debt financing. SVB mainly received deposits from commercial clients in the technology, life sciences, and VC/PE sectors. Additional deposits were obtained from their private clients, including premium wine commercial clients. SVB's clients ranged from early-stage with revenue of <\$5mn to corporate banking clients with revenue >\$75mn. It's worth noting that by the end of 2022, the loan portfolio primarily consisted of corporates, PE/VC clients, and private clients, accounting for 91%. In contrast, early-stage and growth-stage companies accounted for just 9%.

On the other hand, ***NI***, totaling \$1.7bn, was mainly generated from fee-based services, investment banking revenue, investment gains (losses) on securities, and equity warrants obtained from startups they financed. "Core fee income" included services such as client investments, wealth management, foreign exchanges, credit cards, deposit service charges, and lending-related fees. Revenue obtained from SVB Securities was disclosed as "core fee income plus investment banking revenue". Investment gains (losses) comprised non-marketable securities, which included SVB's own VC and PE funds, affordable housing projects, and public equity securities as a result of exercised warrants. In 2021, gains on warrants skyrocketed by 136% to \$560mn amid the booming IPO market. However, the trend reversed in 2022, with a sharp decline of almost 74%, resulting in \$148mn held in 3,234 companies. The bank's capability of integrating its wide range of financial solutions was considered a core strength of its business model.

Becker facing Headwinds

Amid favorable macroeconomic conditions and a thriving VC market, SVB witnessed explosive growth in recent years. However, the surge in interest rates and growing economic concerns led to a significant downturn in venture investments and liquidity events in 2022[72]. With a highly concentrated business model within the innovation economy, SVB found itself in a vulnerable position. How would Becker steer SVB through this challenging environment?

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Appendix Case Study

Exhibit 1 – The Startup J-Curve

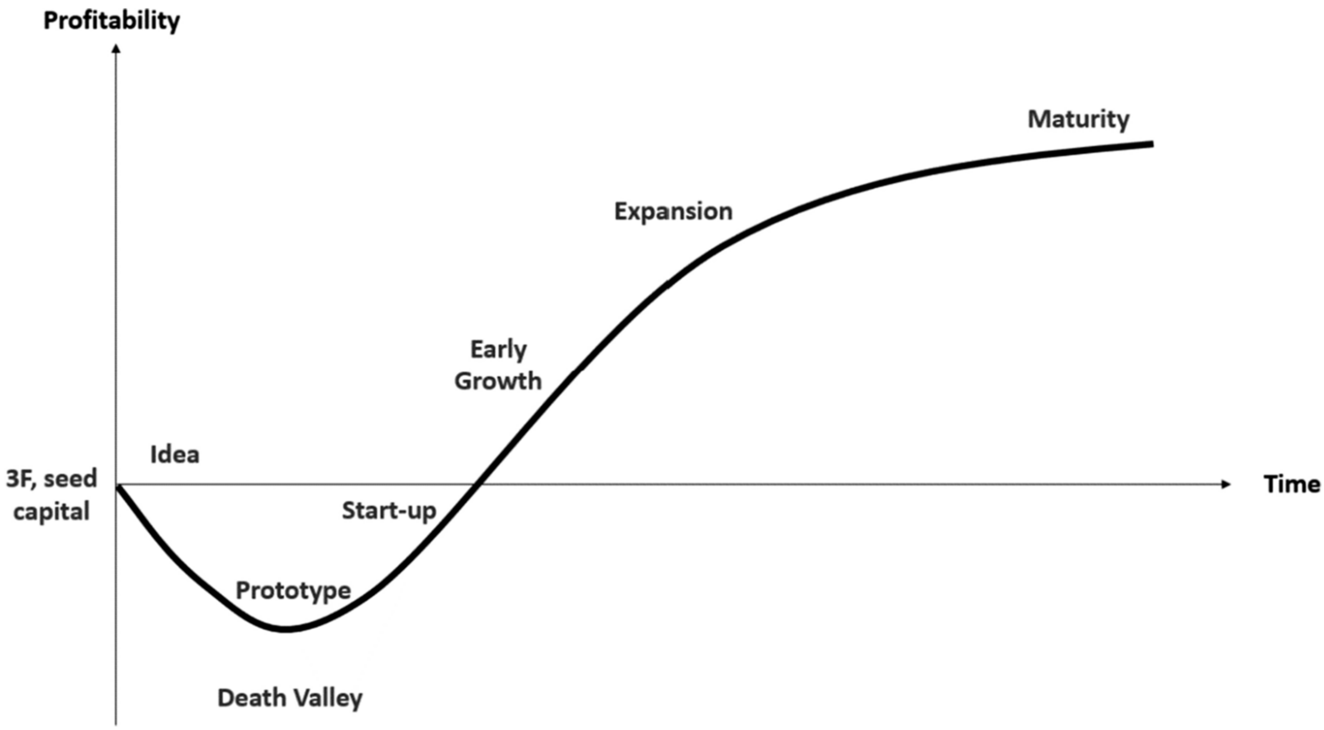

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Exhibit 2 – Example of a Venture Debt Term Sheet

Borrower:	XYZ Fictional Technology Startup
Lender:	ABC Fictional Venture Debt Corporation
Type and Amount of Loan:	A term facility in the amount of $5,000,000
Loan Availability:	$5,000,000 fully available to be drawn at Close through the Interest-only period.
Interest-Only Period:	Interest only period for twelve (12) months from the Closing Date. Upon Borrower achieving the Milestone Event, interest-only period to be extended to fifteen (15) months from Close. **Milestone Event** defined as Borrower achieving trailing 3-month (T3M) GAAP revenue of no less than $5,000,000.
Amortization:	Term loan balances will amortize ratably over thirty-six months. Upon achieving the Milestone Event defined above, facility shall amortize ratably over thirty-three months.
Maturity:	4 years from Closing Date.
Interest Rate:	WSJ Prime*+1.00%, floating. The interest rate shall be subject to a floor of 5.75%.
Interest Payment Dates:	Interest shall be payable monthly, upon any prepayment due to acceleration and at final maturity.
Commitment Fee:	A closing fee equal to 0.50% of the Term Loan Commitment Amount fully earned and payable at Closing.
Prepayment Fee:	The Prepayment Fee shall be 3.00% of the outstanding principal balance if paid before the first anniversary of Loan Closing, 2.00% if paid after the first anniversary but before the second anniversary of Loan Closing, and 1.00% thereafter. Prepayment Fee shall be waived if Facility is refinanced by Lender.
Final Payment:	6.00% of the Advanced Amount, due upon the earlier of Maturity or termination of the Facility. Approximate IRR or "all-in" cost of capital of ~8.90% to include a floating rate of 6.75% and a Final Payment of 6.00% due upon the earlier of Maturity or termination of the Facility.

Exhibit 2 (continued) – Example of a Venture Debt Term Sheet

Collateral:	To secure the loan, Lender will require a perfected lien and security interest in all assets of Borrower, including intellectual property, now owned or hereafter acquired, including, but not limited to cash, accounts receivable, inventory, machinery equipment, furniture, fixtures, tools, copyrights, licenses, patents, trademarks, tradenames, leases, leasehold improvements, general intangibles, and all other assets. Borrower agrees not to grant any security interest, lien, or encumbrance on its intellectual property, except as otherwise agreed upon in writing with Lender.
Financial Covenants:	No Financial Covenant until Borrower has drawn $2,500,000 or greater on the Term Loan Facility. Once Borrower exceeds $2,500,000 in debt outstanding on the Term Loan Facility, Borrower will be subject to the Financial Covenant below: Minimum Trailing 3-Month Revenue
Covenant:	Borrower to be subject to a trailing 3-month revenue covenant, tested monthly, equal to 60% of the latest Board of Directors (BOD) approved Operating Budget provided to Lender for FY'22 and FY'23. Specific levels to be documented in final documentation. For 2023 and thereafter, covenant levels to represent 60% of the latest BOD approved Plan provided to Lender and shall, in all cases, require minimum YoY growth rates of no less than 25%.
Guaranties:	The Borrower and all subsidiaries guarantee all of the indebtedness, obligations, and liabilities of the Borrower and its subsidiaries arising under or in connection with the Loan Documents and in connection with bank product obligations owed to the Lender and its affiliates.
Abandonment Clause:	If the Lender determines in its sole discretion that the Borrower's investors will no longer financially support the Borrower, the Lender may declare an Event of Default. The Lender does not have to advance additional funds in the event of a Material Adverse Change.
Reporting:	Delivery of company-prepared monthly and annual audited financial statements, monthly compliance certificates, annual projections, board materials, and other information requested by the Lender.

Exhibit 2 (continued) – Example of a Venture Debt Term Sheet

Banking Relationship:	The Lender shall be the Borrower's principal depository and disbursement bank and shall conduct all of its primary banking business with the Lender, including, without limitation, commercial credit cards and letters of credit (other than currently issued letters of credit and any renewals thereof), primary deposits and excess liquidity.
Warrants:	Upon close, Borrower shall grant to Lender a warrant to purchase Borrower's Common Stock equivalent to 50bps Fully Diluted Ownership, of which 25 bps shall vest at close, and 25 bps shall vest upon the initial advance. Warrant shares shall price at the latest 409a valuation. The Warrant shall be issued on Lender's standard form and will: ● be exercisable for 10 years from the date of issuance ● survive merger or acquisition (except all-cash and/or public stock acquisitions) ● allow cashless exercise in whole or part
Expenses:	The Borrower shall pay all reasonable out-of-pocket expenses of the Lender associated with the negotiation and closing of the Facilities.
Subject to:	1) Final credit approval. 2) Satisfactory loan documentation. 3) Satisfactory conversations with Borrower's primary investors. 4) As a condition to funding the loan(s), there shall be no Material Adverse Change in the Borrower's business or prospects.
Proposal Expiration:	Please indicate your acceptance of this proposal by signing the space indicated below, delivering the Initial Deposit, and returning an executed copy to us by 5:00 p.m. on XX/XX/XXXX, after which time this Proposal expires. We appreciate the opportunity to present this Proposal and look forward to working with you.

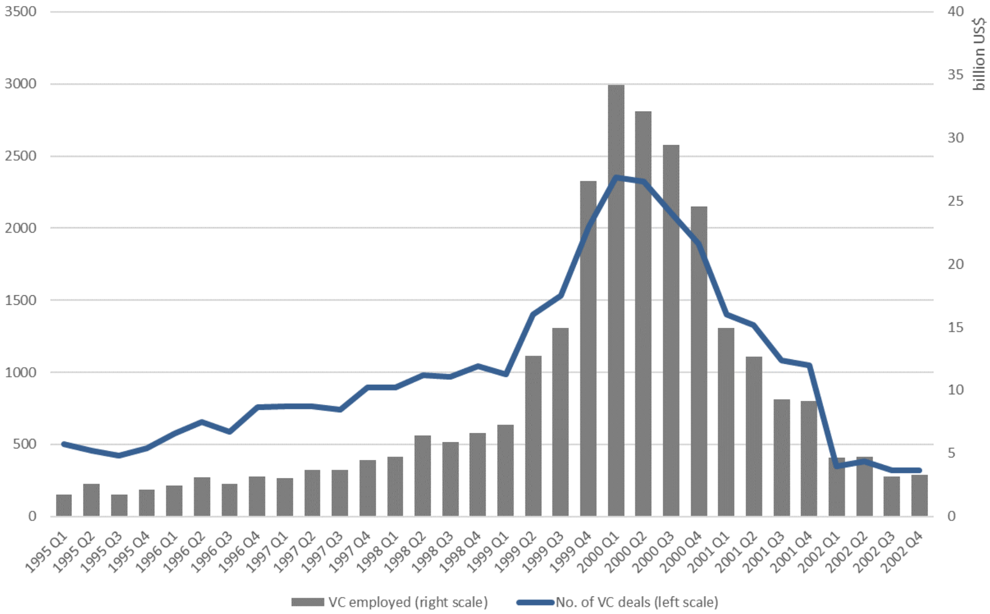
Source: adapted from Hardymon, G. Felda, and Ann Leamon. 2000. "Silicon Valley Bank". *Harvard Business School Case Collection.* Case 800-332 (March, revised May 2001); Kruze, Vanessa. 2019. "Venture Debt Term Sheet Analysis." June 19. https://kruzeconsulting.com/venture-debt/venture-debt-term-sheet/.

Exhibit 3 – Selected Financial Data of Silicon Valley Bancshares from 1991-1995

(Dollars and numbers in thousands, except per share amounts)	1995	1994	1993	1992	1991
INCOME STATEMENT SUMMARY:					
Net interest income	$ 73'952	$ 60'260	$ 50'410	$ 53'832	$ 45'447
Provision for loan losses	8'737	3'087	9'702	35'382	4'083
Noninterest income	12'565	4'922	9'316	4'277	2'295
Noninterest expense	47'925	45'599	47'357	26'418	22'430
Income (loss) before taxes	29'855	16'496	2'667	-3'691	21'229
Income tax expense (benefit)	11'702	7'430	1'066	-1'479	8'975
Net income (loss)	18'153	9'066	1'601	-2'212	12'254
PER COMMON SHARE:					
Net income (loss)	$ 1.98	$ 1.06	$ 0.20	$ (0.28)	$ 1.71
Book value	11.71	9.08	8.48	8.36	8.57
Cash dividends declared	-	-	-	0.03	0.06
Weighted average common shares outstanding	9'164	8'575	8'201	7'836	7'168
YEAR-END BALANCE SHEET SUMMARY:					
Loans, net of unearned income	$ 738'405	$ 703'809	$ 564'555	$ 630'976	$ 593'312
Assets	1'407'587	1'161'539	992'289	959'312	869'459
Deposits	1'290'060	1'075'373	914'959	888'069	798'877
Shareholders' equity	104'974	77'257	70'336	65'987	66'395
AVERAGES:					
Loans, net of unearned income	$ 681'255	$ 592'759	$ 574'372	$ 647'537	$ 527'967
Assets	1'165'004	956'336	917'569	942'256	799'936
Deposits	1'060'333	877'787	846'298	866'084	739'137
Shareholders' equity	91'710	73'461	68'198	70'860	53'418
CAPITAL RATIOS:					
Average shareholders' equity to average assets	7.90%	7.70%	7.40%	7.50%	6.70%
Total risk-based capital ratio	11.90%	10.10%	11.30%	10.20%	11.00%
Tier 1 risk-based capital ratio	10.60%	8.90%	10.10%	9.00%	9.80%
Tier 1 leverage ratio	8.00%	8.30%	6.90%	6.50%	6.40%
SELECT FINANCIAL RATIOS:					
Net interest margin	7.10%	7.20%	6.40%	6.40%	6.30%
Efficiency ratio	60.60%	68.30%	68.90%	42.40%	47.30%
Return on average assets	1.60%	0.90%	0.20%	-0.20%	1.50%
Return on average shareholders' equity	19.80%	12.30%	2.30%	-3.10%	22.90%

Source: own illustration based on Silicon Valley Bancshares. 1996. "Form 10-K 1995." *United States Securities and Exchange Commission.* https://d18rn0p25nwr6d.cloudfront.net/CIK-0000719739/61e4f624-d3c4-4af5-a440-0d32f550798e.pdf.

Exhibit 4 – Total U.S. Venture Capital employed before and during Dot-Com Bubble (1995-2002)



Source: PwC/CB Insights. 2002. "MoneyTree Report 2002". *CB Insights Research*. https://www.cbinsights.com/research/moneytree/.

Exhibit 5 – Executive Profile of Greg Becker

Age: 54

Director since: 2011

Committees:
- None

Independent: No

GREG BECKER

President and Chief Executive Officer of SVB Financial Group

Mr. Becker was appointed the President and Chief Executive Officer of the Company in April 2011. He first joined the Company in 1993 as part of the Northern California Technology Division and since then has served in a number of executive and senior management roles, including Division Manager of Venture Capital, Chief Banking Officer, Chief Operating Officer and President of the Bank. Mr. Becker has also served as a director of the Bay Area Council, as well as on the U.S. Department of Commerce's Digital Economy Board of Advisors and the Board of Trustees of the Leukemia & Lymphoma Society (Silicon Valley/Monterey Bay Area).

Other Directorships and Positions
- Guiding Council Member, One Mind at Work (since 2021)
- Class A Director, Federal Reserve Bank of San Francisco (since 2019)
- Chair, TechNet Executive Council, Member (since 2019; member since 2016)
- Executive Council Member, Silicon Valley Leadership Group (since 2011; Chair (2015-2017))
- Advisory Council Member, Alliance for Southern California Innovation (2017-2018)

Education
- Bachelor's degree in Business from Indiana University

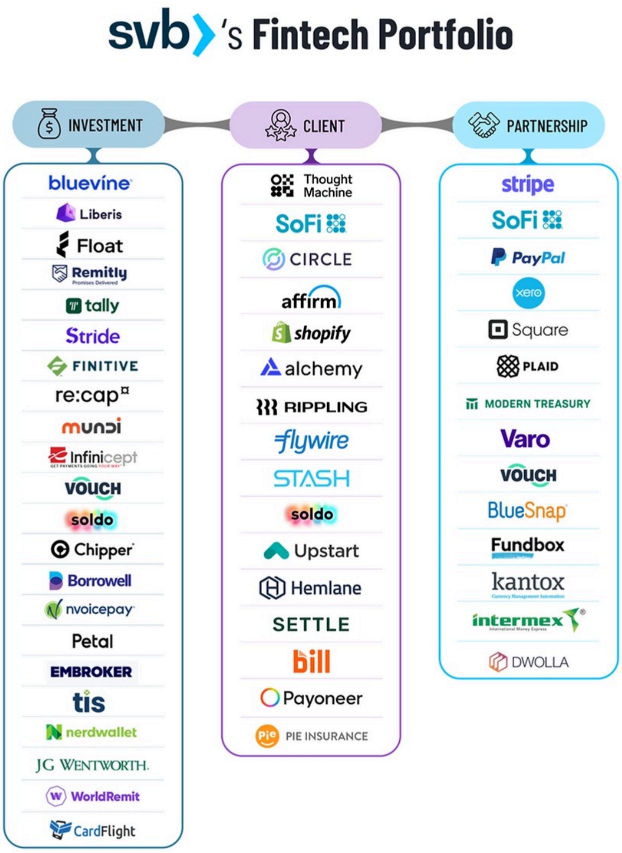
Director Qualification Highlights
- Strong leadership and execution demonstrated by current service as our CEO and prior executive and senior management roles
- Career-long experience in the banking industry and the Company's banking business

Source: SVB Financial Group. 2022. "Notice of 2022 Annual Meeting of Stockholders / Schedule 14A." *United States Securities and Exchange Commission.* https://www.sec.gov/Archives/edgar/data/719739/000119312522064940/d299123ddef14a.htm#rom299123_4.

Exhibit 6 – SVB Offices around the World

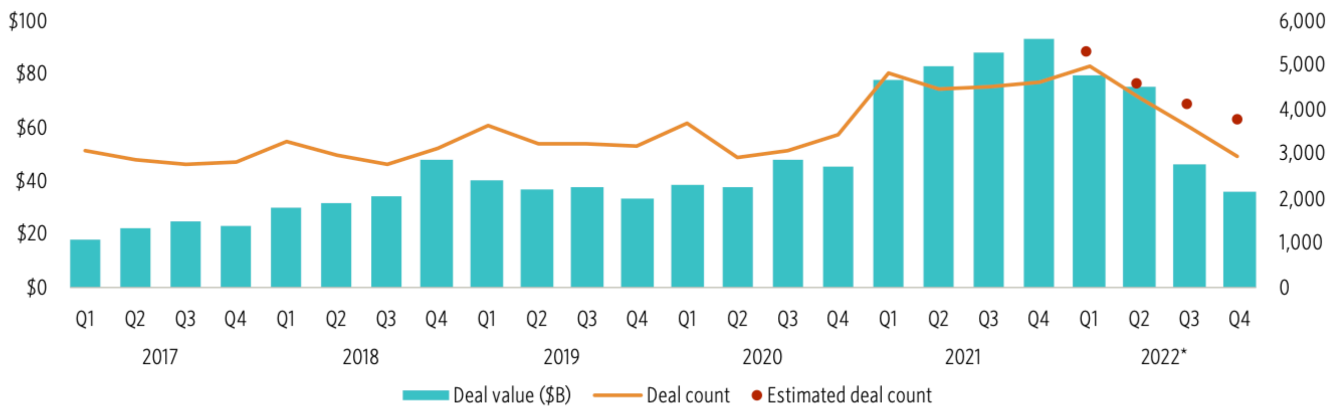
Source: Silicon Valley Bank. 2022. “Corporate Overview 2022.” October 31. https://www.svb.com/globalassets/library/uploadedfiles/svb_corporate_overview_q3_2022.pdf.

Exhibit 7 – SVB's Fintech Portfolio as of 2023



Source: Chakraborty, Kshitija Kaur and Risav. 2023. "Fintech Ecosystem Ripples: Analyzing the Echoes of SVB's Collapse." *WhiteSight*. July 19. https://whitesight.net/fintech-ecosystem-ripples-analysing-the-echoes-of-svbs-collapse/.

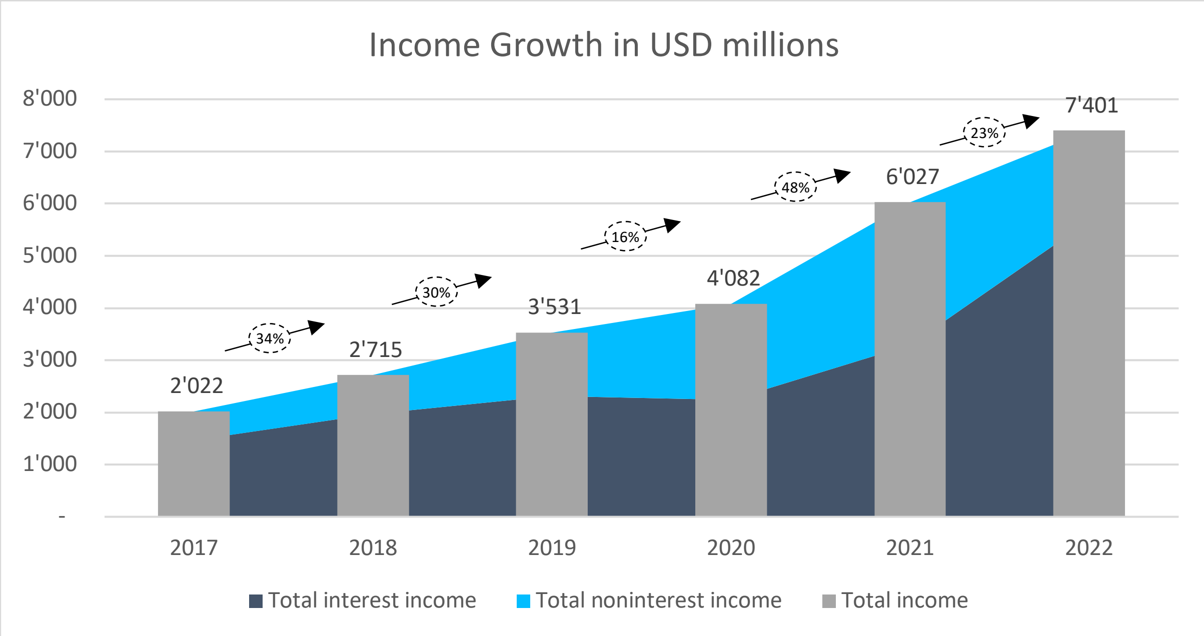
Exhibit 8 – VC Deal Activity in the U.S. between 2017 and 2022



Source: PitchBook-NVCA. 2022. "Venture Monitor Q4 2022." https://files.pitchbook.com/website/files/pdf/Q4_2022_PitchBook-NVCA_Venture_Monitor_First_Look.pdf.

Exhibit 9 – SVB Financial Group Income and Asset Growth (2017-2022)

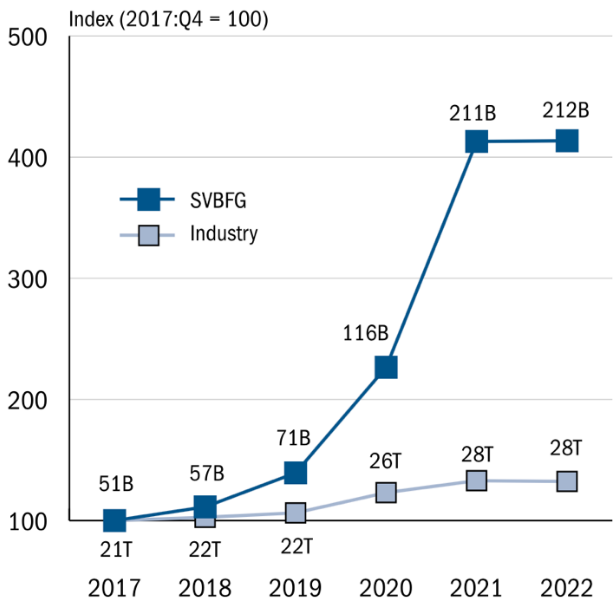
Total Interest Income and Noninterest Income:



Source: own illustration based on 10-K reports of SVB Financial Group. https://ir.svb.com/financials/sec-filings/default.aspx.

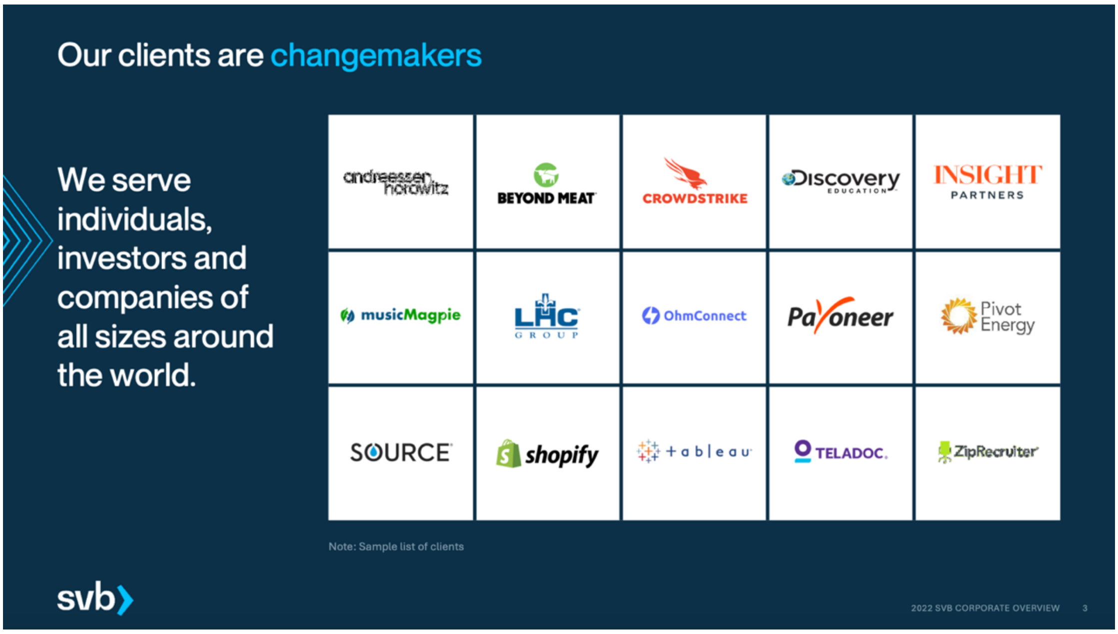
Exhibit 9 (continued) – SVB Financial Group Income and Asset Growth (2017-2022)

Total Assets Growth in USD compared to the Banking Industry:



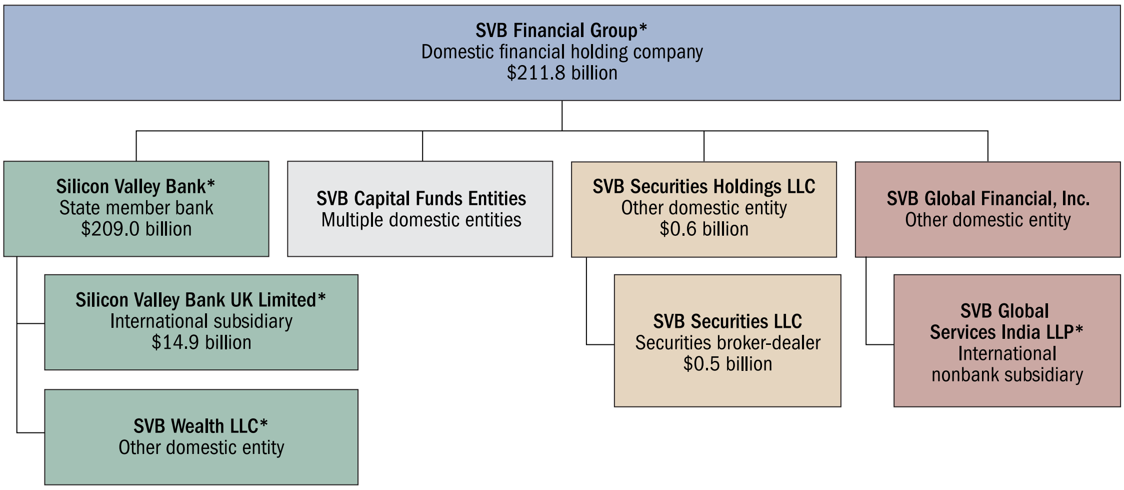
Source: Barr, Michael S. 2023. "Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank." *Board of Governors of the Federal Reserve System*. April 28. https://www.federalreserve.gov/publications/files/svb-review-20230428.pdf.

Exhibit 10 – Sample List of Clients as of October 2022



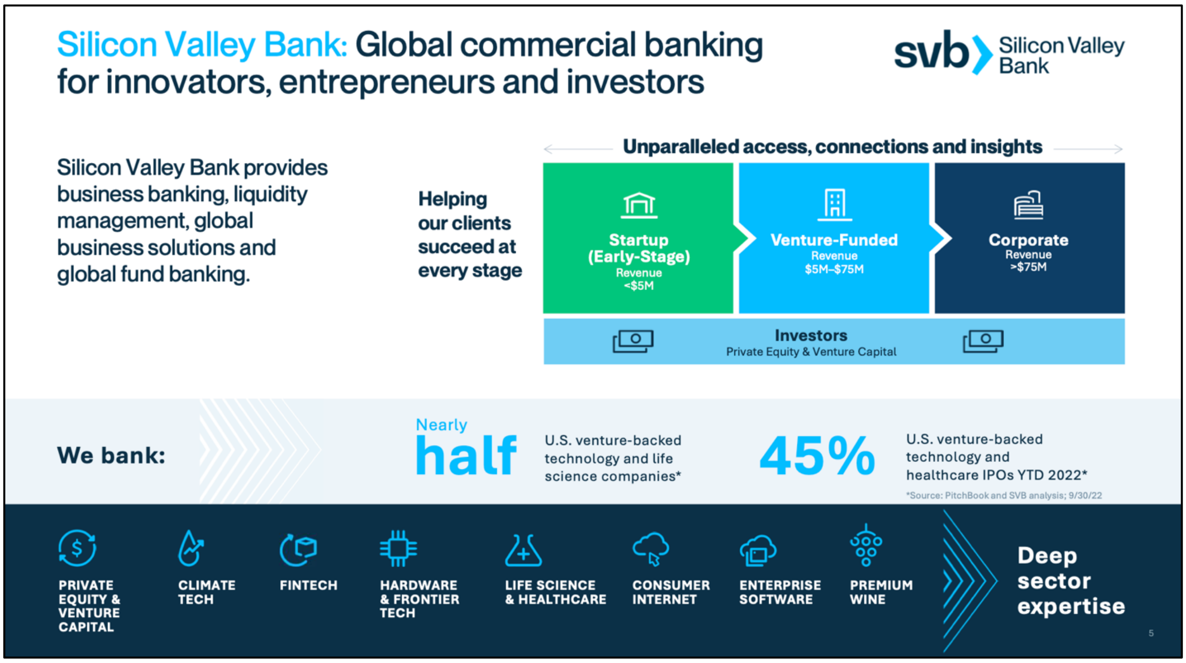
Source: Silicon Valley Bank. 2022. "Corporate Overview 2022." October 31. https://www.svb.com/globalassets/library/uploadedfiles/svb_corporate_overview_q3_2022.pdf.

Exhibit 11 – SVB Financial Group Legal Entity Structure as of December 31, 2022 (including Assets per Business Unit)



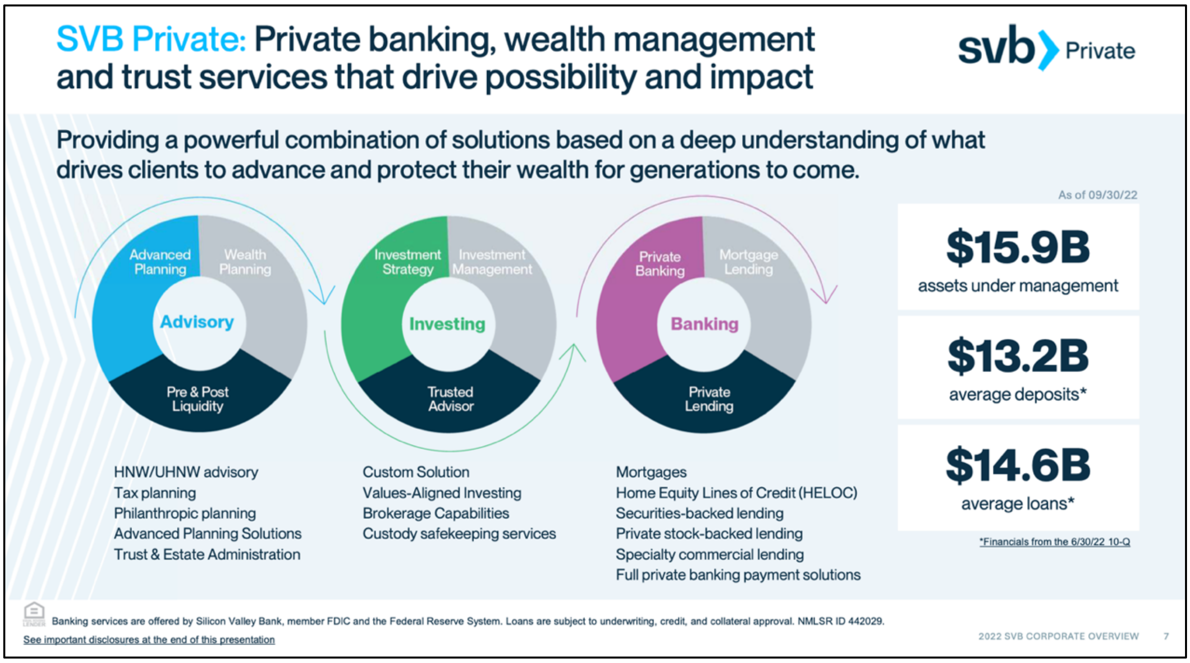
Source: Barr, Michael S. 2023. "Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank." *Board of Governors of the Federal Reserve System*. April 28. https://www.federalreserve.gov/publications/files/svb-review-20230428.pdf.

Exhibit 12 – Silicon Valley Bank (Commercial) Overview as of October 2022



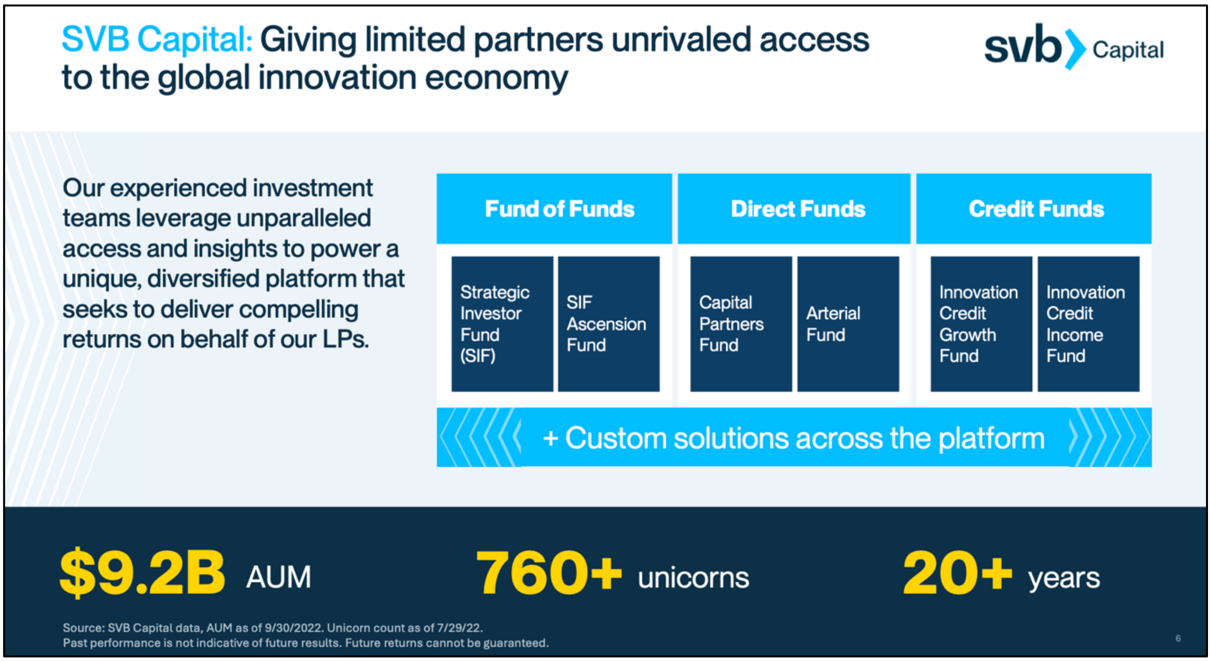
Source: Silicon Valley Bank. 2022. "Corporate Overview 2022." October 31. https://www.svb.com/globalassets/library/uploadedfiles/svb_corporate_overview_q3_2022.pdf.

Exhibit 13 – SVB Private Overview as of October 2022



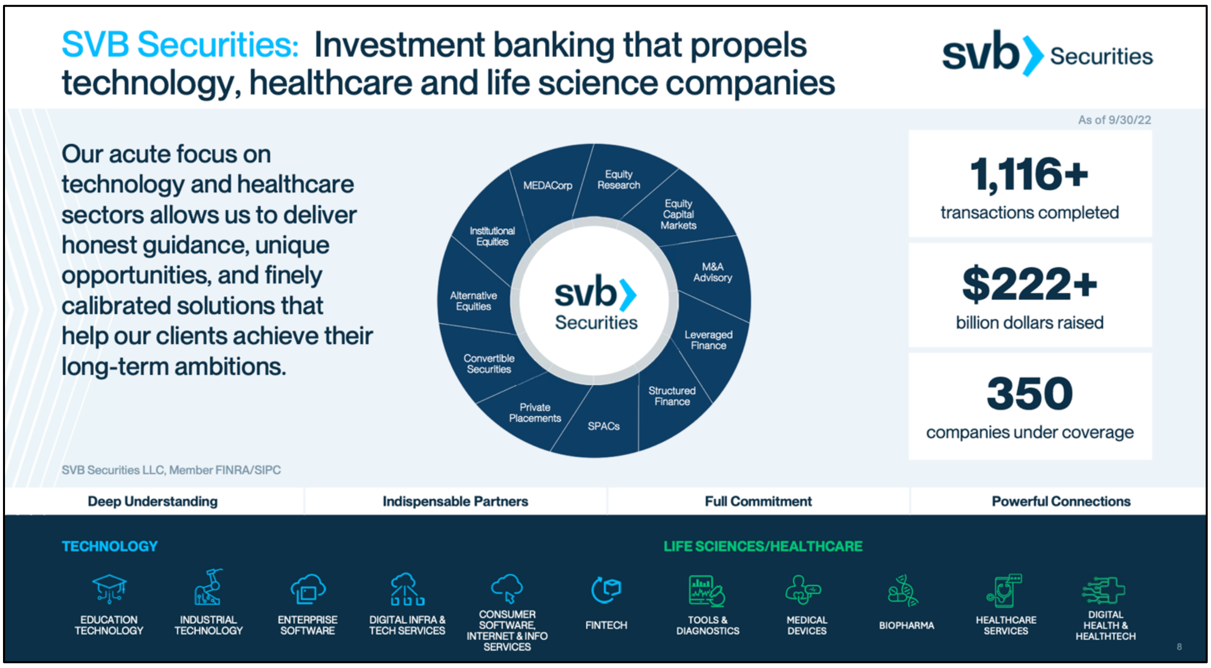
Source: Silicon Valley Bank. 2022. "Corporate Overview 2022." October 31. https://www.svb.com/globalassets/library/uploadedfiles/svb_corporate_overview_q3_2022.pdf.

Exhibit 14 – SVB Capital Overview as of October 2022



Source: Silicon Valley Bank. 2022. "Corporate Overview 2022." October 31. https://www.svb.com/globalassets/library/uploadedfiles/svb_corporate_overview_q3_2022.pdf.

Exhibit 15 – SVB Securities Overview as of October 2022



Source: Silicon Valley Bank. 2022. "Corporate Overview 2022." October 31. https://www.svb.com/globalassets/library/uploadedfiles/svb_corporate_overview_q3_2022.pdf.

Exhibit 16 – Consolidated Financial Statements of SVB Financial Group (2017-2022)

Balance Sheet:

(Dollars in millions, except par value and share data)	2022	2021	2020	2019	2018	2017
Assets						
Cash and cash equivalents	13'803	14'586	17'675	6'782	3'572	2'923
Available-for-sale securities, at fair value	26'069	27'221	30'912	14'015	7'790	11'121
Held-to-maturity securities, at amortized cost and net of allowance for credit losses	91'321	98'195	16'592	13'843	15'487	12'663
Non-marketable and other equity securities	2'664	2'543	1'802	1'214	941	651
Total investment securities	120'054	127'959	49'307	29'072	24'219	24'435
Loans, amortized cost	74'250	66'276	45'181	33'165	28'338	23'106
Allowance for credit losses: loans	-636	-422	-448	-305	-281	-255
Net loans	73'614	65'854	44'734	32'860	28'057	22'851
Premises and equipment, net of accumulated depreciation and amortization	394	270	176	162	129	129
Goodwill	375	375	143	138	-	-
Other intangible assets, net	136	160	61	49	-	-
Lease right-of-use assets	335	313	210	197	-	-
Accrued interest receivable and other assets	3'082	1'791	3'206	1'745	951	876
Total assets	211'793	211'308	115'511	71'005	56'928	51'214
Liabilities and total equity						
Liabilities:						
Noninterest-bearing demand deposits	80'753	125'851	66'519	40'842	39'103	36'655
Interest-bearing deposits	92'356	63'352	35'463	20'916	10'225	7'599
Total deposits	173'109	189'203	101'982	61'758	49'329	44'254
Short-term borrowings	13'565	71	21	17	631	1'034
Lease liabilities	413	388	260	219	-	-
Other liabilities	3'041	2'467	3'972	2'042	1'006	912
Long-term debt	5'370	2'570	844	348	696	695
Total liabilities	195'498	194'699	107'078	64'384	51'663	46'895
SVBFG stockholders' equity:						
Preferred stock, $0.001 par value, 20,000,000 shares authorized	3'646	3'646	3'401	3'401	-	-
Common stock, $0.001 par value, 150,000,000 shares authorized	-	-	52	52	53	53
Additional paid-in capital	5'318	5'157	1'585	1'470	1'378	1'314
Retained earnings	8'951	7'442	5'672	4'576	3'792	2'867
Accumulated other comprehensive income (loss)	-1'911	-9	623	84	-54	-1
Total SVBFG stockholders' equity	16'004	16'236	8'220	6'470	5'116	4'180
Noncontrolling interests	291	373	214	151	149	140
Total equity	16'295	16'609	8'433	6'621	5'265	4'319
Total liabilities and total equity	211'793	211'308	115'511	71'005	56'928	51'214

Source: own illustration based on 10-K reports of SVB Financial Group. https://ir.svb.com/financials/sec-filings/default.aspx.

Exhibit 16 (continued) – Consolidated Financial Statements of SVB Financial Group (2017-2022)

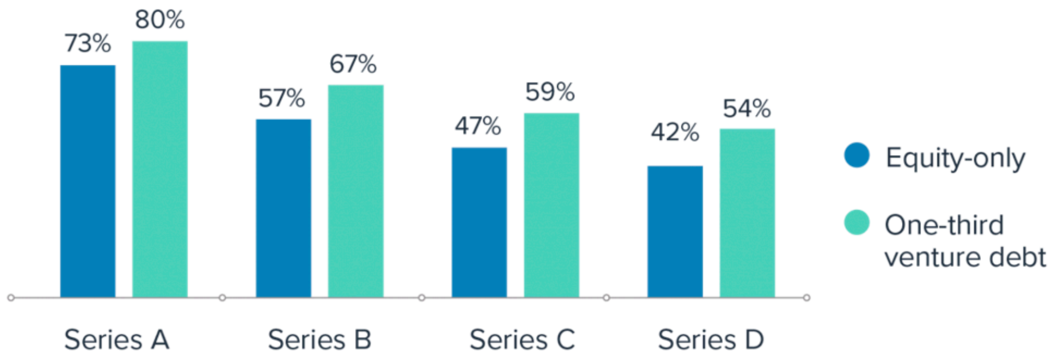
Income Statement:

(Dollars in millions, except per share amounts)	**2022**	**2021**	**2020**	**2019**	**2018**	**2017**
Interest income:						
Loans	3'208	1'966	1'520	1'599	1'358	1'026
Investment securities:				-	-	-
Taxable	2'113	1'199	635	569	542	412
Non-taxable	140	106	61	45	35	6
Federal funds sold, securities purchased under agreements to resell and other short-term investment securities	212	18	26	96	35	22
Total interest income	5'673	3'289	2'242	2'309	1'970	1'465
Interest expense:				-	-	-
Deposits	862	62	60	178	29	9
Borrowings	326	48	25	35	47	36
Total interest expense	1'188	110	85	213	76	45
Net interest income	*4'485*	*3'179*	*2'157*	*2'097*	*1'894*	*1'420*
Provision for credit losses	*420*	*123*	*220*	*106*	*88*	*92*
Net interest income after provision for credit losses	*4'065*	*3'056*	*1'937*	*1'990*	*1'806*	*1'328*
Noninterest income:				-	-	-
Gains (losses) on investment securities, net	-285	761	421	135	88	65
Gains on equity warrant assets, net	148	560	237	138	89	55
Client investment fees	386	75	132	182	130	56
Wealth management and trust fees	83	44	-	-	-	-
Foreign exchange fees	285	262	179	159	139	116
Credit card fees	150	131	98	119	94	77
Deposit service charges	126	112	90	89	76	59
Lending related fees	94	76	57	50	42	43
Letters of credit and standby letters of credit fees	57	51	47	43	35	29
Investment banking revenue	420	459	414	195	-	-
Commissions	98	79	67	56	-	-
Other	166	128	98	55	52	59
Total noninterest income	1'728	2'738	1'840	1'221	745	557
Noninterest expense:				-	-	-
Compensation and benefits	2'293	2'015	1'318	990	727	606
Professional services	480	392	247	205	159	122
Premises and equipment	269	178	127	97	78	72
Net occupancy	101	83	101	69	55	48
Business development and travel	85	24	24	69	48	42
FDIC and state assessments	75	48	28	19	34	35
Merger-related charges	50	129	-	-	-	-
Other	268	201	190	153	87	85
Total noninterest expense	3'621	3'070	2'035	1'601	1'188	1'011
Income before income tax expense	2'172	2'724	1'742	1'610	1'363	875
Income tax expense	563	651	448	426	352	355
Net income before noncontrolling interests and dividends	1'609	2'073	1'294	1'185	1'011	519
Net loss (income) attributable to noncontrolling interests	63	-240	-86	-48	-38	-29
Preferred stock dividends	-163	-63	-17	-	-	-
Net income available to common stockholders	1'509	1'770	1'191	1'137	974	491
Earnings per common share-basic	26	32	23	22	18	9
Earnings per common share-diluted	25	31	23	22	18	9

Source: own illustration based on 10-K reports of SVB Financial Group. https://ir.svb.com/financials/sec-filings/default.aspx.

Appendix Teaching Note (TN)

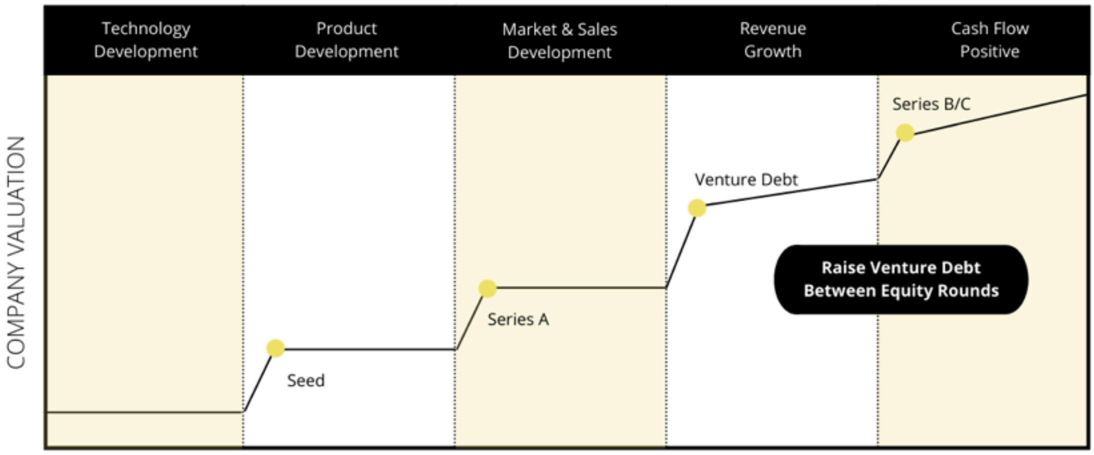
TN Exhibit 1 – Dilution of Equity Compared to Venture Debt



Note: Assumes Series A, Series B, Series C, and Series D rounds are each composed of one-third venture debt. Based on data from PitchBook deals in 2018.

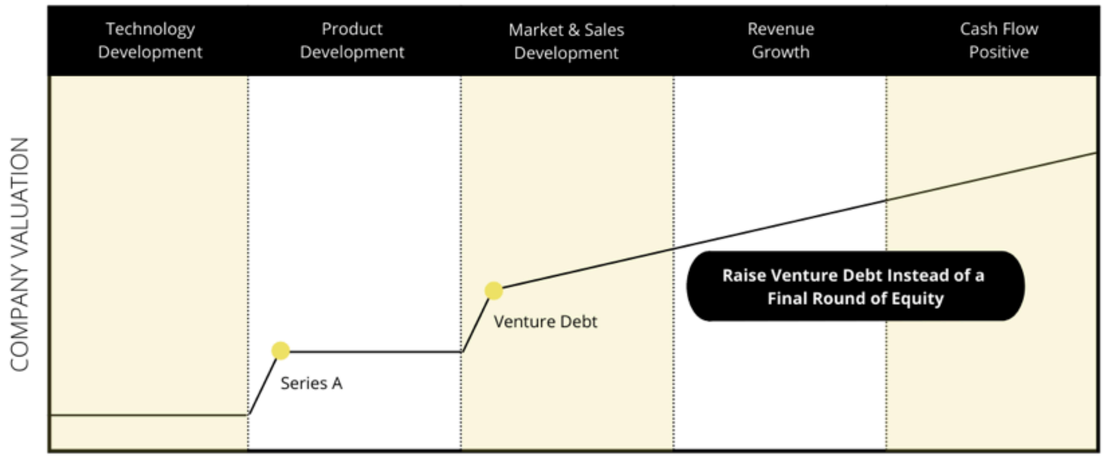
Source: Espresso Capital. 2023. "Venture Debt: Overview for Founders & CEOs." *Espresso Capital*. September 19. https://espressocapital.com/the-ultimate-guide-to-venture-debt/.

TN Exhibit 2a – Extend Cash Runway to the next Milestone



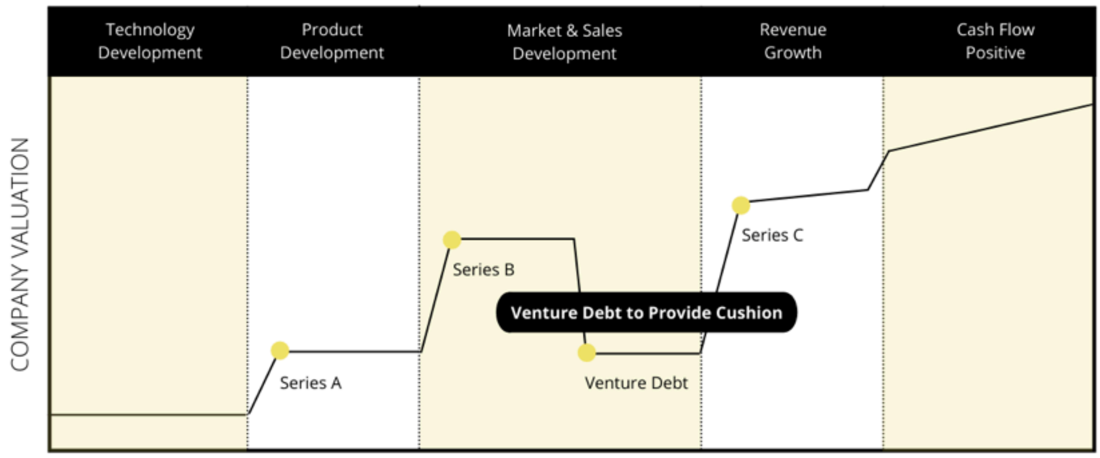
Source: Flow Capital Corp. 2021. "The Founder's Guide to Venture Debt | Flow Capital." September 22. https://flowcap.com/founders-guide-to-venture-debt/#:~:text=Venture%20debt%20is%20often%20used,to%20secure%20their%20loan%20to.

TN Exhibit 2b – Extend Cash Runway to Cash Flow Positive



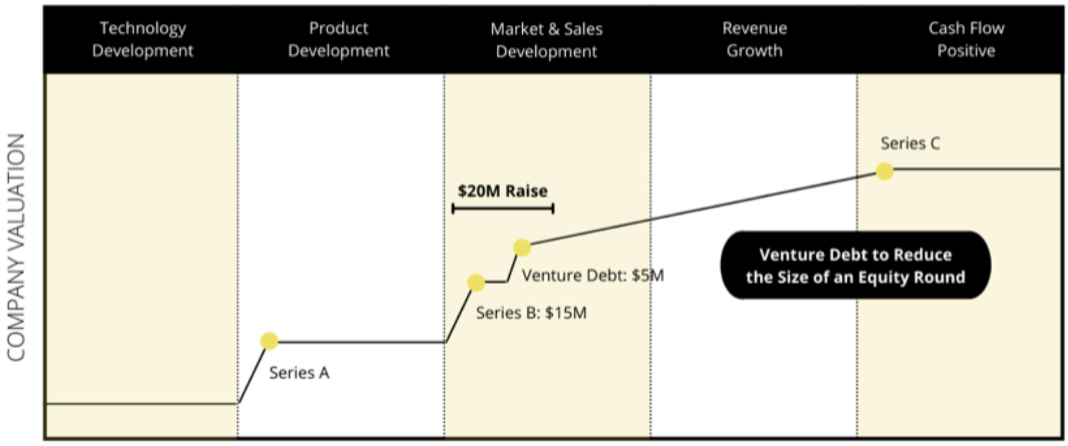
Source: Flow Capital Corp. 2021. "The Founder's Guide to Venture Debt | Flow Capital." September 22. https://flowcap.com/founders-guide-to-venture-debt/#:~:text=Venture%20debt%20is%20often%20used,to%20secure%20their%20loan%20to.

TN Exhibit 2c – Provide Insurance for potential Delays



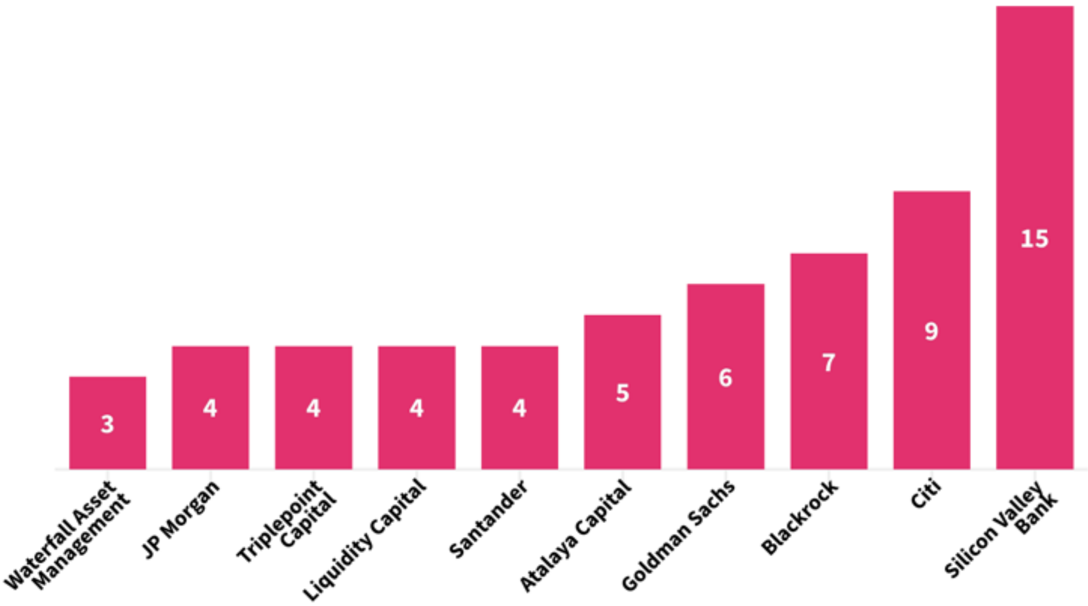
Source: Flow Capital Corp. 2021. "The Founder's Guide to Venture Debt | Flow Capital." September 22. https://flowcap.com/founders-guide-to-venture-debt/#:~:text=Venture%20debt%20is%20often%20used,to%20secure%20their%20loan%20to.

TN Exhibit 2d – Co-Invest to reduce Equity Dilution



Source: Flow Capital Corp. 2021. "The Founder's Guide to Venture Debt | Flow Capital." September 22. https://flowcap.com/founders-guide-to-venture-debt/#:~:text=Venture%20debt%20is%20often%20used,to%20secure%20their%20loan%20to.

TN Exhibit 3 – The top Ten Debt Investors in Europe by Number of Rounds between 2021-2022



Source: O'Brien, Amy. 2022. "The most active US debt providers for European startups." *Sifted.* October 25. https://sifted.eu/articles/top-us-debt-investors-europe-startups

TN Exhibit 4 – Executive Profile Rob McMillan

Silicon Valley Bank Wine Division

EVP & Founder

St. Helena

Email Me ›

Rob McMillan

Rob McMillan is one of the top wine-business analysts in the United States and the author of Silicon Valley Bank's highly regarded annual *State of the Wine Industry Report*. With decades of experience researching the wine business, his views are sought after and trusted by winery owners, journalists, entrepreneurs and investors. He is a prominent speaker, both domestically and internationally, and he is extensively quoted in national, regional and trade press. He has also been named several times as one of the Top 50 Most Influential People in the US wine industry.

Rob's banking career has spanned 35-plus years — more than 25 with Silicon Valley Bank. In that time, he has held positions of increasing responsibility, including division manager of the Wine Group, executive manager of the bank's Commercial Division and several years as a member of Silicon Valley Bank's Managing Committee. He is currently responsible for establishing new winery relationships and offers private management presentations and strategic consulting to the bank's clients across the portfolio.

Rob received a bachelor's degree in finance/economics from Sacramento State University and an MBA from Santa Clara University's Leavey School of Business. He has served on boards in diverse industries and continues to be an advisor to wineries and industry associations across the wine business.

Rob is a father of two. He enjoys the outdoors, travel and golf and takes any opportunity to play percussion and drums in live settings.

Source: Silicon Valley Bank. 2023. "Rob McMillan – EVP & Founder of SVB Wine Business." https://www.svb.com/profile/rob-mcmillan.