

# Banking the Unbanked Innovators

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*Innovators are necessary for the engine of economic growth. Why do banks still find innovators, from startups to high growth companies, unattractive as potential customers for banking and lending products? Banks typically make business loans to established companies with positive cash flow and physical assets. Banks are eager to make loans in real estate transactions. Throughout modern time, banks persistently avoid banking innovators. Nationwide, only five outlier banks are defying conventional banking practices, and the leader among them is Silicon Valley Bank. Against all the odds, Silicon Valley Bank began as a local, community bank for innovators in 1982, and has continued its success in banking innovators and became the 37th largest bank in the nation. Using Silicon Valley Bank as a case study, this Article provides a much-needed model of banking innovators. Embracing innovators' intellectual property assets, cultivating networks of experts to assist innovators, and behaving like entrepreneurs, not bankers, are key factors to the model of banking innovators. The model traverses secured transactions, intellectual property, contracts, and banking laws and regulations to create an ecosystem incubating and advancing innovators.*

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## I. INTRODUCTION

From innovation centers across the nation to state capitols and the halls of Congress, startups are known to be the engine for jobs.<sup>1</sup> Startups have historically created 11% of all private sector jobs, added 10% of total U.S. sales, and contributed 21% of U.S. GDP.<sup>2</sup> Startups in technology-based industries contribute a higher employment share than startups in other fields.<sup>3</sup> The high risks, high growth, and high rewards are common features associated with technology-based startups.<sup>4</sup> These are the same features pushing banks away from accepting startups as potentially attractive customers.

Conventional banking practices dictate banks to make loans to legacy and established companies with physical assets. Banks require borrowers to have positive cash flow and long credit histories. Banks are eager to participate in real estate, from commercial to residential, transactions. Banks ignore innovators in the technology sector, avoiding startups and high growth companies.<sup>5</sup>

One of the common reasons for shunning startups and high growth companies is that these companies lack hard assets. Their most valuable assets are intellectual property, including patents, trade secrets, trademarks, and copyrights. Banks do not lend against intellectual property assets owned by the innovators because there is no certainty in determining the value of the assets. Even if any bank accepts the intellectual property assets as security for a loan, there is no market for the bank to readily dispose of the intellectual property assets when the borrower is in default. Moreover, many tech companies have no revenue. If they generate revenue, they still have no profits. Banks cannot lend to such companies out of fear that loans will not be paid. Across the United States today, banks

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1. See generally Press Release, Senator Marco Rubio, Reauthorization of the SBA's Access to Capital Programs (Apr. 3, 2019), <https://www.rubio.senate.gov/public/index.cfm/press-releases?id=DE3B60F3-6EC5-47B3-8086-6ADC12363796> [<https://perma.cc/R7PL-QAPE>] (stating that small businesses created 65.9% of jobs from 2000 to 2017); Press Release, U.S. Census Bureau, Startup Firms Created Over 2 Million Jobs in 2015 (Sept. 20, 2017), <https://www.census.gov/newsroom/press-releases/2017/business-dynamics.html> [<https://perma.cc/D7BT-99PT>] (“the nation’s 414,000 startup firms created 2.5 million new jobs”); Jason Wiens & Chris Jackson, *The Importance of Young Firms for Economic Growth*, EWING MARION KAUFFMAN FOUND. (Sept. 13, 2015), <https://www.kauffman.org/what-we-do/resources/entrepreneurship-policy-digest/the-importance-of-young-firms-for-economic-growth> [<https://perma.cc/KD9Z-Y3VD>] (describing small businesses’ contributions to the economy); Nish Acharya, *You’ll Never Guess Where the New Centers of Innovation Are*, FORBES (Nov. 12, 2013), <https://www.forbes.com/sites/nishacharya/2013/11/12/youll-never-guess-where-the-new-centers-of-innovation/#247e8e5f6025> [<https://perma.cc/N9Z8-RH7F>] (describing the roll American universities play in establishing businesses).

2. Letter from Joe Morgan, Chief Innovation Officer, Silicon Valley Bank, to Elizabeth M. Murphy, Sec. & Exch. Comm’n, <https://www.sec.gov/comments/s7-03-13/s70313-153.pdf> [<https://perma.cc/9GJY-NXG5>] (last visited Feb. 28, 2020).

3. See John Wu & Robert D. Atkinson, *How Technology-Based Start-Ups Support U.S. Economic Growth*, INFO. TECH. & INNOVATION FOUND. (Nov. 28, 2017), <https://itif.org/publications/2017/11/28/how-technology-based-start-ups-support-us-economic-growth> [<https://perma.cc/BT3F-PWTK>] (“Technology-based start-ups account for a larger share of technology-based employment than typical start-ups’ share of total economy employment . . .”).

4. *Id.*

5. In addition to ignoring tech innovators as clients, banks also do not lend to other small businesses. See, e.g., Kate Rooney, *PayPal and Square Quietly Grow Small Business Lending Using Data as their Edge Over Banks*, CNBC (Nov. 16, 2018), <https://www.cnbc.com/2018/11/16/paypal-and-other-tech-giants-are-quietly-becoming-lenders-of-choice.html> [<https://perma.cc/6UGN-92CV>] (explaining how these tech companies have begun making small business loans that banks are hesitant to make).

still do not dare to lend to tech companies. In other words, tech companies are still unbanked today.

It is time for banks to provide banking and lending services to the unbanked innovators. Banking the innovators compels banks themselves to be innovative in meeting local innovators' needs. The new approach requires banks to embrace intellectual property assets, cultivate networks of experts to assist innovators, and behave, not like bankers, but their entrepreneurial clients.

Using Silicon Valley Bank as a case study, Part III identifies the model of banking for innovators first developed in the United States. This part traces the origin of Silicon Valley Bank, explaining how three entrepreneurs decided to form a community bank to meet the local needs of the unbanked technology companies in the late 1970s and early 1980s. The founders worked with the state bank regulators who were responsive to local banking demands, and navigated state banking laws and regulations to charter successfully a new community bank to serve the technology sector.

Part IV reveals that the model of banking innovators dictates that banks must create an ecosystem and leverage the ecosystem's network effects to assist innovators. The network includes investors, technical experts, founders, entrepreneurs, business and community leaders, and politicians. Utilizing the network effects, the banks can seek investments, enhance publicity, vet new ideas proposed by innovators, and connect innovators to members of the network. In the ecosystem, banks incubate and nurture innovators, becoming builders of companies, besides providing the typical banking and lending services to clients.

The model demands an understanding of what startups and high growth companies own, their growth appetite in meeting milestones, and their pre-revenue, revenue, and profit stages of the enterprise. That understanding forces banks to embrace intellectual property assets owned by the clients.

Part V explains that the embrace allows the banks to accept accounts receivable as the immediate byproduct of intellectual property assets.<sup>6</sup> Most importantly, the embrace provides the banks the opportunity to require the innovators to issue the warrants to purchase shares in the enterprise that represents the long-term investment in the intellectual property assets as the key driver of the enterprise's growth.

Part VI recognizes the private ordering of contracts that connects parts of the model of banking innovators together. Through private ordering, the banks mitigate against risks by obtaining senior priority security interest in the innovators' assets, dictating the innovators to protect, enhance, and defend the intellectual property collateral, and purchasing insurance policies specific to the innovator's intellectual property assets.

The Article concludes that the model of banking innovators pioneered by Silicon Valley Bank has turned the unbanked, local technology companies into bankable clients. Across the United States, there are still many unbanked technology companies. They are waiting for banks, from small to large, community to regional, regional to national, to adopt, revise, and adapt the banking innovators model, meeting the needs of tech

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6. Silicon Valley Bank devotes business development approach to startup companies while seeking larger companies with revenue for lending activities. See SILICON VALLEY BANK FIN. GRP., LETTER TO OUR SHAREHOLDERS (2010), <https://ir.svb.com/static-files/3851e0b1-b161-43d7-8ab7-c70e92994acb> [<https://perma.cc/N5PT-KRY3>] [hereinafter SVB Letter to Shareholders] (“While most of our new business development involves start-up companies, most of our revenues today come from our larger clients.”).

companies for the nation's benefits.

## II. A COMMUNITY BANK CREATED FOR INNOVATORS

### A. Local Bank's Bold Vision

In the late 1970s, there existed no Silicon Valley as the epicenter for innovations greatly admired by today's populace.<sup>7</sup> During that decade, graduate students from nearby universities with ideas and dreams of starting their own companies wanted to obtain financing for their companies.<sup>8</sup> Venture capitalists were not yet in existence, and the term "venture capital" was not part of the lexicon in investment finance.<sup>9</sup> Banks rejected the enterprising graduate students who were founders of young companies as too risky prospective customers.<sup>10</sup>

Robert Medearis, then a Professor of Construction Management at Stanford University, kept hearing complaints from his graduate students about the lack of banking and access to loans for innovators.<sup>11</sup> The subsequent ten years passed by, yet the complaints persisted as banks continued to close their doors tightly shut on innovators.<sup>12</sup> Innovators were the "unbanked."<sup>13</sup> Medearis floated the idea of a bank for innovators with William

7. Silicon Valley's success has intrigued many. Academics have attempted to identify potential reasons why and how Silicon Valley became the epicenter for innovation. *See, e.g.*, Darian M. Ibrahim, *Financing the Next Silicon Valley*, 87 WASH. U. L. REV. 717, 723–28 (2010) (describing the Silicon Valley Ecosystem that many other regions have attempted to imitate); ANNALEE SAXENIAN, *REGIONAL ADVANTAGE: CULTURE AND COMPETITION IN SILICON VALLEY AND ROUTE 128* (Harv. Univ. Press 1994) (providing an account of the history of Silicon Valley and explaining how firms efficiently transfer knowledge through employees mobility that facilitate the advantages enjoyed by the region); Ronald J. Gilson, *The Legal Infrastructure of High Technology Industrial Districts: Silicon Valley, Route 128, and Covenants Not to Compete*, 74 N.Y.U. L. REV. 575 (1999) (arguing that California's law governing the enforceability of postemployment covenants not to compete may serve as a causal factor of the Silicon Valley's prominence).

8. STEPHEN SMITH, SILICON VALLEY BANK ORAL HISTORY PANEL ROBERT MEDEARIS AND ROGER SMITH (Nov. 11, 2014), <https://archive.computerhistory.org/resources/access/text/2015/07/102739977-05-01-acc.pdf> [<https://perma.cc/G3FP-TDXD>] [hereinafter SVB Transcript].

9. *See generally* Arthur Rock, *Early Bay Area Venture Capitalists: Shaping the Economic and Business Landscape*, REGIONAL ORAL HIST. OFF., BANCROFT LIBR., U.C. BERKELEY 20 (2009), [http://digitalassets.lib.berkeley.edu/roho/ucb/text/rock\\_arthur.pdf](http://digitalassets.lib.berkeley.edu/roho/ucb/text/rock_arthur.pdf) [<https://perma.cc/4RR5-ZB75>] (explaining the early date of "private situations" and "provincial" investment as precursor to venture capital); Jennifer S. Fan, *Catching Disruption: Regulating Corporate Venture Capital*, 2018 COLUM. BUS. L. REV. 341, 347–48 (2018) (identifying that, in addition to the emergence of venture capital firms in the early 1970s, many corporations also engage in their own corporate venture capital funds).

10. SVB Transcript, *supra* note 8, at 3. *See also* Xuan-Thao Nguyen & Erik Hille, *Patent Aversion: An Empirical Study of Patents Collateral in Bank Lending, 1980-2016*, 9 U.C. IRVINE L. REV. 141 (2018) (identifying, through empirical patents, data how banks declined to provide credit to technology companies); Ronald J. Gilson, *Engineering a Venture Capital Market: Lessons from the American Experience*, 55 STAN. L. REV. 1067, 1076 (2003) ("The special character of venture capital contracting is shaped by the fact that investing in early stage, high technology companies presents these problems in an extreme form.").

11. SVB Transcript, *supra* note 8, at 5.

12. *Id.* As of today, banks still don't lend to small businesses. *See generally* John Rampton, *5 Main Reasons Banks Turn Down Small Business Owners for Loans*, ENTREPRENEUR (Dec. 20, 2016), <https://www.entrepreneur.com/article/286737> [<https://perma.cc/NHF4-H9K3>] (discussing why banks deny small business loans); Mark Sunshine, *Small Business Finance – Why Aren't Banks Lending?*, ABF J. (Apr. 23, 2013), <https://www.abfjournal.com/articles/small-business-finance-why-arent-banks-lending/> [<https://perma.cc/8L7L-7V57>].

13. *See* Silicon Valley Bank, *Silicon Valley Bank: The Founders' Story*, YOUTUBE (Oct. 7, 2013),

Biggerstaff, who had held senior positions at the Ford Motor Company and Wells Fargo & Company—and was then working for a Mexican bank in San Jose.<sup>14</sup> After six months of discussions at many meetings in Medearis’s office in Menlo Park, Medearis and Biggerstaff together embraced the idea of a community bank for innovators.<sup>15</sup> However, it would take them three more years to finally start the bank.<sup>16</sup> They brought in Roger Smith, a banker at Wells Fargo, to be the President and CEO of the future bank, just before they filed for the bank charter with the State of California.<sup>17</sup> The year when they filed the document to establish a community bank in California was 1982.<sup>18</sup>

The founders planned to have a “bank with three stools” wherein the bank would devote one-third of the business in each of the three areas: real estate, commercial, and technology banking.<sup>19</sup> All other banks in operation as of 1982, however, adhered to the conventional banking model of focusing only on “two stools” of real estate and commercial banking areas.<sup>20</sup> No banks then dared to, and only a few banks today would, conduct business in the technology sector due to perceived risks associated with innovators.<sup>21</sup>

Moreover, the California state banking regulators cited risks and refused to allow banks to concentrate in high tech banking.<sup>22</sup> The founders persuaded the state banking regulators during the charter approval process to allow the bank to have a “technology” niche.<sup>23</sup> They convinced the regulators that the bank was not going to have a high-tech lending concentration but a “broad” “technology” niche.<sup>24</sup>

Opening a community bank for innovators needs investors and influencers. The three founders crafted the idea of signing up 100 local leaders to be 100 investor founders listed on the S1 filing with the SEC.<sup>25</sup> Each of the 100 founders contributed \$10,000. In 45 days, these founders together raised the necessary financing of \$5 million to open the door of a community bank for innovators in Silicon Valley.<sup>26</sup>

The new community bank welcomed innovators from the technology sector in 1983.

[https://www.youtube.com/watch?v=ktSQZP\\_vYug](https://www.youtube.com/watch?v=ktSQZP_vYug).

14. SVB Transcript, *supra* note 8, at 5–6. *See also* Silicon Valley Bank, *supra* note 13.

15. The legend about the genesis of Silicon Valley Bank is that the idea of a bank for innovators was hatched at a poker game. SVB Transcript, *supra* note 8, at 9; *see also* Silicon Valley Bank, *supra* note 13. Medearis corrected the genesis story during an interview where both Medearis and Roger Smith participated. *See* SVB Transcript, *supra* note 8, at 6.

16. SVB Transcript, *supra* note 8, at 8.

17. *Id.* at 8.

18. *Id.* at 5.

19. *Id.* at 11. It is important to clarify that Silicon Valley Bank is not an investment bank. The bank is a regular, full-service bank, accepting deposits, making loans, and providing treasury management, international banking, wealth advisory, online banking, foreign exchange, trade finance, and other services. *See Silicon Valley Bank*, BLOOMBERG, <https://www.bloomberg.com/profiles/companies/410992Z:US-silicon-valley-bank> [<https://perma.cc/DRM6-PF5A>] (last visited Feb. 6, 2020).

20. SVB Transcript, *supra* note 8, at 11.

21. *Id.* at 15. *See also* Clint Betts, *Silicon Valley Bank Bets on Utah*, BEEHIVE STARTUPS (June 30, 2016), <https://beehivestartups.com/silicon-valley-bank-bets-on-utah-399f9185ab97> [<https://perma.cc/XLL3-6D9A>] (stating that in early 1980s “the burgeoning tech and life science companies that were blooming like so many wildflowers in the valley at the time were substantially underbanked—if not unbanked”).

22. SVB Transcript, *supra* note 8, at 11 (“the regulators didn’t like high tech”).

23. *Id.* at 15.

24. *Id.* at 11 (the founders learned to stop using the word “high tech” and began saying “technology” as one of the three stools).

25. *Id.* at 11.

26. *Id.* at 12.

The founders applied for and obtained the name “Silicon Valley Bank” because it was an uncommon name at that time.<sup>27</sup> In addition, as the Silicon Valley region was unknown in 1983, the information technology industry was practically non-existent in the economy; the uncommon name was still available for taking by the three original founders.<sup>28</sup> Opening the door of the community bank under the atypical “Silicon Valley Bank,” the three thinkers set their goal to become a “high-tech lender,” believing that “this is going to be big business,” and therefore they all must work smartly for the bold vision.<sup>29</sup>

As the three founders would later learn, to their surprise and others’ in conventional banking, real estate lending is a riskier business compared to technology lending.<sup>30</sup> Indeed, Silicon Valley Bank suffered a loss in the first quarter of 1992 as the one and only time in its history of banking, due to nonperforming real estate loans.<sup>31</sup> The bank then decided to focus on the technology sector and prospered as the bank truly for innovators.<sup>32</sup>

Today, Silicon Valley Bank, or SVB, is known among innovators across the United States<sup>33</sup> and in other countries.<sup>34</sup> The bank counts 50% of all venture capital-backed tech

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27. SVB Transcript, *supra* note 8, at 8–9.

28. *Id.* at 8–9.

29. *Id.* at 8.

30. *Id.* at 31–34.

31. *Id.* at 32. The losses led to class action filed against the Bank and its subsidiary, Silicon Valley Bancshares. *See generally* Adam v. Silicon Valley Bancshares, No. C 93-20399 RMW (EAI), 1994 WL 619300, at \*1 (N.D. Cal. Feb. 8, 1994). The class action plaintiffs purchased the common stock of Silicon Valley Bancshares between January 9, 1991 and October 22, 1992. The plaintiffs contend that the defendants “violated sections 10(b) and rule 10b–5 promulgated thereunder and section 20 of the Securities and Exchange Act, by issuing a series false and misleading statements regarding SVB and its management, earnings, loan reserves and future prospects thereby artificially inflating the value of SVB’s common stock.” *Id.* The defendants allegedly “commenced a scheme to deceive SVB’s shareholders and the financial marketplace with respect to the true nature of the loan losses already suffered by SVB and to be suffered in the foreseeable future.” *Id.* The Court dismissed on all counts with prejudice. *Id.*

32. SVB Transcript, *supra* note 8, at 34. *See also* SVB Letter to Shareholders, *supra* note 6 (reporting about the ten years from 2000-2010 and stating that “when many banks circled their wagons, slowed lending, and hoarded capital, we did our best to put our record level of liquidity to work for the benefit of the innovation community”). The bank also completely reorganized its practice in response to market needs during the 2000-2010 decade. *Id.* (“We now have dedicated teams focusing exclusively on early-stage, mid-stage and more mature companies around the world. By segmenting our approach to the market, we enable our lenders to look at the world through our clients’ eyes, better preparing them to assist with each client’s specific needs.”).

33. *See, e.g., About Us*, SILICON VALLEY BANK, <https://www.svb.com/about-silicon-valley-bank> [<https://perma.cc/B7M8-AL6H>] (last visited Feb. 6, 2020) (providing a map of innovation centers where Silicon Valley Bank operates). The bank strategically teams up with other investors to serve innovators. *See Lighter Capital and Silicon Valley Bank Partner to Provide Pre-Venture Funded Tech Startups with Access to Capital and Banking Services*, SILICON VALLEY BANK (Jan. 30, 2019), <https://www.svb.com/news/company-news/lighter-capital-and-silicon-valley-bank-partner-to-provide-pre-venture-funded-tech-startups-with-access-to-capital-and-banking-services> [<https://perma.cc/28RH-WMVA>].

34. *See Inside Silicon Valley Bank, A Support Scaffold for Med Tech Innovation*, VERDICT MED. DEVICES (Jan. 16, 2018), <https://www.medicaldevice-network.com/features/inside-silicon-valley-bank-support-scaffold-med-tech-innovation/> [<https://perma.cc/4JFK-RM62>] (explaining that the Bank’s 2500 clients in life sciences in many countries, and the clients come to the bank for “not just basic banking services, but insights and connections”); *Silicon Valley Bank Opens in Canada*, PR NEWSWIRE (Mar. 4, 2019), <https://www.prnewswire.com/news-releases/silicon-valley-bank-opens-in-canada-300805545.html> [<https://perma.cc/R6KL-DG9B>] (stating that SVB now offers financial services in Canada); *SPD Silicon Valley Bank Opens Shenzhen Branch*, BARRON’S (Sept. 26, 2018), <https://www.barrons.com/press-release/PR-CO-20180926-911977?tesla=y> [<https://perma.cc/3V9X-3USE>].

and life science companies in the United States as clients.<sup>35</sup> It also enjoys 69% of all U.S. venture capital-backed companies with an IPO in 2019 as clients.<sup>36</sup> For startup companies, the bank has helped fund more than 35,000 companies.<sup>37</sup> The bank's loan portfolio targets 5% to startups with revenue of less than \$5 million and the remainder to larger companies, concentrating in software, hardware, life science, healthcare tech, energy, and resource innovation sectors.<sup>38</sup> With its visionary dream of helping innovators gain access to financial and banking services, SVB reaps great rewards. The bank now possesses \$57 billion in assets, positioning itself as the 37th largest commercial bank in the United States.<sup>39</sup> The bank relishes \$161 billion in deposits and investments while it makes \$31 billion in loans, as reported in the fourth quarter of 2019.<sup>40</sup>

### *B. The Law, the Regulators, and the Entrepreneurial Spirit for the Creation of a Community Bank*

With the national stature of being one of the top 40 largest commercial banks in the country, Silicon Valley Bank, however, remains a state-chartered bank member instead of becoming chartered as a reserve bank under the federal system.<sup>41</sup> There are several reasons for the Bank to maintain its state-chartered form.<sup>42</sup> Chief among the reasons are California laws favorable to state-chartered banks, and the state regulators are eager to work with state banks.<sup>43</sup>

35. *Get to Know Us*, SILICON VALLEY BANK, <https://www.svb.com/newsroom/facts-at-a-glance> [<https://perma.cc/67ST-PH2Y>] (last visited Feb. 6, 2020).

36. *Id.*

37. Megan Scheffel, Silicon Valley Bank Overview Presentation (June 10, 2013), <https://slideplayer.com/slide/6380638/> [<https://perma.cc/74R8-XAQW>] (stating that the Bank has assisted 35,000 startups in 31 years); see also Susie Gharib, *The Best Leadership Tip Silicon Valley Bank CEO Learned from Entrepreneurs: Think Big*, FORTUNE (Aug. 28, 2018), <http://fortune.com/2018/08/28/silicon-valley-bank-greg-becker/> (stating that the banks have funded more than 30,000 startups); *Silicon Valley Bank Celebrates 20 Years of Dedication to Entrepreneurs*, SILICON VALLEY BANK (Oct. 17, 2003), <https://www.svb.com/news/company-news/silicon-valley-bank-celebrates-20-years-of-dedication-to-entrepreneurs> [<https://perma.cc/6SH5-F39R>] (indicating that, as of 2003, 30,000 plus startups had utilized Silicon Valley Bank).

38. *Get to Know Us*, *supra* note 35.

39. Gharib, *supra* note 37. A list of large commercial banks as of December 31, 2018 is provided by the Federal Reserve Bank. *Large Commercial Banks*, FED. RES. (Dec. 31, 2018), <https://www.federalreserve.gov/releases/lbr/20181231/default.htm> [<https://perma.cc/9F4X-N55W>] [hereinafter *Large Commercial Banks*].

40. *Get to Know Us*, *supra* note 35.

41. *Large Commercial Banks*, *supra* note 39. Banks in the United States operate under the dual banking system. Elizabeth J. Upton, *Chartering Fintech: The OCC's Newest Nonbank Proposal*, 86 GEO. WASH. L. REV. 1392, 1396 (2018) (explaining the dual banking system under which the federal charters supplement, not supplant, state charters). State-chartered banks can compete nationally while their customers enjoy the benefits of the law "of each bank's home state," and that "benefits of competition follow from federalism." Frank H. Easterbrook, *Federalism and Commerce*, 36 HARV. J.L. & PUB. POL'Y 935, 938 (2013).

42. Federal and state banking regulators compete in the chartering business while ensuring a safe and sound banking system. See generally Upton, *supra* note 41, at 1398 (identifying proximity and accountability to local communities are among benefits of the dual banking system); Henry N. Butler & Jonathan R. Macey, *The Myth of Competition in the Dual Banking System*, 73 CORNELL L. REV. 677, 678 (1988) (positing that the efficiency justifications for the dual banking system are misplaced because there are many differences between federal and state chartering regulations).

43. See generally Elizabeth R. Schiltz, *Damming Watters: Channeling the Power of Federal Preemption of State Consumer Banking Laws*, 35 FLA. ST. U. L. REV. 893 (2008) (advancing competition argument between

The California Department of Business Oversight (“Department”) is the current regulator of state banks chartered by the State of California.<sup>44</sup> The benefits gained by state banks are the close proximity with their primary regulators, direct communications, timely responses, and effective solutions to local issues.<sup>45</sup> Besides, the fees for applications and assessments charged by the Department are typically lower than what the federal Office of the Comptroller of the Currency charges reserve banks.<sup>46</sup> Moreover, state banks can make more loans because the definition for secured lending is broader under state banking law than the comparable federal law.<sup>47</sup> Flexibility is another benefit under the state banking law.<sup>48</sup> The California Financial Code, for example, provides a parity provision that allows the Commissioner to issue regulations that facilitate state banks to conduct activity permitted to national banks.<sup>49</sup>

Overall, what the Department has provided to state-chartered banks is part of California’s efforts to attract banks to incorporate under the laws of or doing business in California.<sup>50</sup> The Bank Act of 1909 passed by California installed the State Banking Department to be the regulator of state-chartered banks. The Bank Act was later completely revised and codified in 1951, and was then substantially revised again in 1979 to bring the state banking system into modern time.<sup>51</sup>

Throughout the history of the state banking system, California has staked an important status for being an innovator in banking models. California regulators allowed banking experiments that led to imitation practices by other western states and, at times, caused the federal government to pass regulations curbing failures and preventing future banking problems.<sup>52</sup> At the local level, for an example of the best local banking experiment, the three founders of Silicon Valley Bank were inspired by the model of local banking to serve sectors in the economy that were ignored by big banks.<sup>53</sup> They looked up to Amadeo

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state and federal governments in bank regulations); Geoffrey P. Miller, *The Future of the Dual Banking System*, 53 BROOK. L. REV. 1, 2 (1987) (predicting that “banking [will] develop towards the pattern that is familiar for other industries: chartering by states, not by the federal government; high mobility by firms in terms of choosing where to charter; and regulation by the federal government to the extent necessary to protect the federal interest”).

44. The Department is the product of the merger of the Department of Corporations and the Department of Financial Institutions on July 1, 2013. The two former departments became divisions within the newly-formed Department. The change was part of then Governor Edmund G. Brown’s efforts to streamline government, increasing efficiency and cost effectiveness. See *Department of Business Oversight History*, CAL. DEPT. BUS. OVERSIGHT, <https://dbo.ca.gov/history/> [<https://perma.cc/9XNS-MJ74>] (last visited Feb. 6, 2020) [hereinafter *Department of Business Oversight History*].

45. *Advantages of State Charter*, CAL. DEPT. BUS. OVERSIGHT, <http://www.dbo.ca.gov/cacharter/advantages> [<https://perma.cc/6YDW-SSR5>] (last visited Feb. 6, 2020).

46. *Id.*

47. *Id.*

48. *Id.*

49. *Id.*

50. *Department of Business Oversight History*, *supra* note 44 (providing a history of California banking system from 1951 to present).

51. *Id.* (providing a history of the State Banking Department 1909-1997).

52. See Lynne Pierson Doti, *Banking in the Western U.S.*, ECON. HISTORY ASS’N, <https://eh.net/encyclopedia/banking-in-the-western-u-s/> [<https://perma.cc/YY2Z-4U2Q>] (last visited Apr. 15, 2019) (noting that the lower level of regulation in the American west resulted in greater innovation and experimentation in banking); see also Cheryl R. Lee, *Amalgamation of the Southern California Banking Industry: San Diego a Microcosm*, 35 CAL. W. L. REV. 41, 49–50 (1998) (explaining the role of California legislators in liberalizing the state banking system and the failure of the S&L industry for real estates).

53. Community banks, which are banks with less than one billion dollars in assets, have an enormously



Giannini, the founder of the Bank of Italy in San Francisco, which later merged into Bank of America, who brought his innovative thinking to bank the agriculture sector and delivered banking services to the ordinary people of California.<sup>54</sup>

In summary, witnessing other local banks being formed in California, the growth spurts in population in post-war years, and the new entrepreneurship spirit in the late 1970s and early 1980s, Medearis, Biggerstaff, and Smith seized the moment with the idea of a local bank for technology innovators in response to local needs.<sup>55</sup> By the time the original founders turned their idea of a bank for innovators to fruition in 1982, they joined 71 other newly state-chartered banks of that year in California. Together, the new local banks exhibited the banking spirit that local banks are created for local business, cementing California bank regulators' reputation as responsive to innovators.<sup>56</sup>

### III. THE 100 INVESTOR FOUNDERS AND THE NETWORK EFFECTS

Defying the conventional norms against banking innovators requires both an in-depth understanding and an authentic embrace of the innovators' entrepreneurial spirit.<sup>57</sup> In the

important role in providing banking services to local communities and fueling the U.S. economy at large. *See The Role of Community Banks in the U.S. Economy*, FED. RES. BANK KAN. CITY (2003), <https://www.kansascityfed.org/publicat/econrev/pdf/2q03keet.pdf> [<https://perma.cc/3CRG-PJRE>]; Ester George, *President's Message: Why Community Banks Matter*, FED. RES. BANK KAN. CITY (Aug. 1, 2017), [https://www.kansascityfed.org/publications/ten/articles/2017/summer/presidents\\_message](https://www.kansascityfed.org/publications/ten/articles/2017/summer/presidents_message) [<https://perma.cc/VPQ3-7HS4>].

54. SVB Transcript, *supra* note 8, at 7; *see also* Peter Hartlaub, *San Francisco Bankers of the Past Led the Broken City to Recovery*, S.F. CHRON. (June 13, 2015), <https://www.sfchronicle.com/oursf/article/Our-SF-Bankers-of-the-past-led-the-broken-city-6322673.php> [<https://perma.cc/ZH36-ZTE3>] (identifying Amadeo Giannini as one of the bankers whose efforts rebuilt San Francisco); *A.P. Giannini*, PBS, [https://www.pbs.org/wgbh/theymadeamerica/whomade/giannini\\_hi.html](https://www.pbs.org/wgbh/theymadeamerica/whomade/giannini_hi.html) [<https://perma.cc/GJ9V-GUXQ>] (last visited Feb. 6, 2020).

55. SVB Transcript, *supra* note 8, at 7. Banking is a complex business, but if banks don't evolve and innovate, they face extinction. *See generally* Julie L. Williams & Mark P. Jacobsen, *The Business of Banking: Looking to the Future*, 50 BUS. LAW. 783, 785 (1995).

56. SVB Transcript, *supra* note 8, at 7, 12.

57. *See generally* Jacquelyn Smith, *How to Keep Your Entrepreneurial Spirit Alive as the Company You Work for Grows*, FORBES (Oct. 22, 2013), <https://www.forbes.com/sites/jacquelynsmith/2013/10/22/how-to-keep-your-entrepreneurial-spirit-alive-as-the-company-you-work-for-grows/#6811d2c0c0d4> [<https://perma.cc/DXC3-WFZL>] ("Entrepreneurial spirit is a mindset. It's an attitude and approach to thinking that actively seeks out change, rather than waiting to adapt to change. It's a mindset that embraces critical questioning, innovation, service and continuous improvement."); Matt Ehrlichman, *5 Characteristics of Entrepreneurial Spirit*, INC. (Jan. 9, 2015), <https://www.inc.com/matt-ehrllichman/5-characteristics-of-entrepreneurial-spirit.html> [<https://perma.cc/6NEN-2THU>]; Chris Smith, *Don't Hire Entrepreneurs; Hire Entrepreneurial Spirit*, HARV. BUS. REV. (Feb. 1, 2013), <https://hbr.org/2013/02/dont-hire-entrepreneurs-hire-e> [<https://perma.cc/Y5PK-M99S>] ("Entrepreneurial spirited individuals are motivated by, and can find success in, the everyday activity of the company and the opportunities their role affords to grow the business."). Examples of Silicon Valley Bank's embrace of the entrepreneurial spirit can be seen through their daily work with innovators. *See generally* SVB Letter to Shareholders, *supra* note 6. Also, the bank annually showcases the entrepreneur clients. *See, e.g., Silicon Valley Bank Encourages Entrepreneurial Spirit at Showcase 2004*, SILICON VALLEY BANK (Oct. 11, 2004), <https://www.svb.com/news/company-news/silicon-valley-bank-encourages-entrepreneurial-spirit-at-showcase-2004> [<https://perma.cc/LKM5-RU6S>]; SVB Letter to Shareholders, *supra* note 6. The bank extends the entrepreneurial spirit beyond national borders. *See, e.g., Tracy Isacke, Taking the Entrepreneurial Spirit Global*, SILICON VALLEY BANK (Aug. 31, 2015), [https://www.svb.com/blogs/tracy\\_isacke/taking\\_the\\_entrepreneurial\\_spirit\\_global](https://www.svb.com/blogs/tracy_isacke/taking_the_entrepreneurial_spirit_global) [<https://perma.cc/3BRS-HHUZ>].

technology sector, innovators operate in an ecosystem wherein investors, experts, founders, and other entrepreneurs exist, assist, share, and compete.<sup>58</sup> In the heart of the ecosystem are layers of networking among the different members.<sup>59</sup> Silicon Valley Bank deftly navigates in and benefits from the ecosystem, and has done so since inception.<sup>60</sup> The bank leverages network effects that are paramount to the success of the local bank for innovators.<sup>61</sup>

Illustratively, Silicon Valley Bank's original three founders, Medearis, Biggerstaff, and Smith, canvassed the then small communities in the Silicon Valley area to enlist business, finance, real estate, investors, venture capitalists, lawyers, politicians, and community leaders to be the 100 investor-founders of the Bank. Among the 100 investor-founders were Larry Sonsini,<sup>62</sup> J. Burgess Jamieson,<sup>63</sup> Thomas Davis,<sup>64</sup> Kenneth Sletten,<sup>65</sup>

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58. See, e.g., *How to Build Your Local Startup Ecosystem*, FOUNDER INST. (Feb. 9, 2018), <https://fi.co/insight/how-to-build-your-local-startup-ecosystem> [https://perma.cc/96WB-GPGG]; Bojana Trajkovska, *Berlin's Startup Ecosystem at a Glance*, EU STARTUPS (Dec. 11, 2018), <https://www.eu-startups.com/2018/12/berlins-startup-ecosystem-at-a-glance/> [https://perma.cc/FMN5-HWGZ].

59. See, e.g., *About*, TIE SEATTLE, <https://seattle.tie.org/about/> [https://perma.cc/CY4Y-YL75] (last visited Feb. 6, 2020); *F50 Residence Program 2019 for Entrepreneurs and Investors Calls for HealthTech and DeepTech Experts – EIR & IIR*, SVE.IO (July 26, 2019), <https://sve.io/2018/f50-residence-program-2019-for-entrepreneurs-and-investors-calls-for-healthtech-and-deeptech-experts-eir-iir/> [https://perma.cc/J4ET-M8PY].

60. See also E. Scott Reckard, *At Silicon Valley Bank, Risky Tech Start-ups are Lucrative Business*, L.A. TIMES (Aug. 8, 2015), <https://www.latimes.com/business/la-fi-silicon-valley-bank-20150807-story.html> [https://perma.cc/VV6K-UDZP] (reporting how Silicon Valley Bank knows everyone and utilizes its networks to assist startups).

61. See *id.* (explaining how Silicon Valley Bank operates).

62. Larry Sonsini is a founding partner of Wilson Sonsini Goodrich & Rosati. He has been lead counsel in more than 250 initial public offerings of notable technology companies, including Seagate Technology, Apple Computer, Sun Microsystems, Netscape, Netflix, Google, among others. *Larry Sonsini*, COMPUTER HIST. MUSEUM, <https://www.computerhistory.org/trustee/larry-sonsini> [https://perma.cc/A387-6REL] (last visited Feb. 6, 2020).

63. J. Burgess Jamieson was a cofounder of Sigma Partners. As one of the original venture capitalists in the nation, Mr. Jamieson has a successful record of VC investment in the technology sector. His early VC investment began in the early 1970s. J. Burgess Jamieson, *Bay Area Venture Capitalists: Shaping the Economic and Business Landscape*, REGIONAL ORAL HIST. OFF., BANCROFT LIBR., U.C. BERKELEY (2010), [http://digitalassets.lib.berkeley.edu/roho/ucb/text/jamieson\\_burgess.pdf](http://digitalassets.lib.berkeley.edu/roho/ucb/text/jamieson_burgess.pdf) [https://perma.cc/SCT9-H4FD].

64. Thomas J. Davis was the founder of the Mayfield Fund that ushered 125 young companies in the high technology sector in 1969. *Thomas J. Davis, 77, Investment Executive*, N.Y. TIMES (Sept. 13, 1990), <https://www.nytimes.com/1990/09/13/obituaries/thomas-j-davis-77-investment-executive.html> [https://perma.cc/N694-L7BG]; PIERO SCARUFFI, *A HISTORY OF SILICON VALLEY* (2019), <https://www.scaruffi.com/svhistory/sv.html> [https://perma.cc/TBX3-UVRQ].

65. Kenneth Sletten was a cofounder of Rudolph and Sletten, a construction real estate industry innovator who began shaping technology facilities in Silicon Valley in the early 1960s and facilitating the fast growth in the Valley. *R&S Co-Founder Ken Sletten Remembered*, RUDOLPH & SLETTEN (Nov. 10, 2017), <https://www.rsconstruction.com/news/111017-ken-sletten-in-memoriam/> [https://perma.cc/F77M-LJWX]; *History*, RUDOLPH & SLETTEN, <https://www.rsconstruction.com/about/history/> [https://perma.cc/UQZ5-KEWE] (last visited Feb. 6, 2020).

Pete McCloskey,<sup>66</sup> and Ed Zschau,<sup>67</sup> among others.<sup>68</sup> The 100 investor-founders were the “who’s who of Silicon Valley” in the early 1980s.<sup>69</sup> Besides the monetary contribution provided by each of the 100 investor founders to the bank, their names, expertise, reputations, and networks instantly basked the new bank in positive visibility.<sup>70</sup> The 100 investor founders also reached into their own circles of influence to endow the bank with new connections, publicity, investors, and clients.<sup>71</sup>

The new bank also relied on the expertise of the technology leaders and university researchers whenever the bank desired to vet a potential client, together with the client’s proposed tech idea and business model.<sup>72</sup> From Stanford University to the Universities of California at Berkeley and San Francisco, from medical schools to high tech and business, the bank cultivates relationships and leverages geographical proximity to appeal to the tech experts for assistance.<sup>73</sup> The “participatory and collaborative relationships” of these institutions allow the bank to gain significant benefits from the ecosystem.<sup>74</sup> The bank leaned on the experts in sorting potential clients determining the worthy clients whom the bank may wish to provide banking and lending services.<sup>75</sup> Ultimately, the worthy clients can pay the loans back to the bank, minimizing the bank’s exposure to risks of

66. Pete McCloskey is a long-time Republican politician who ran for U.S. President on an anti-war platform in 1972. See Rick Schmitt, *Pete McCloskey: Still Speaking His Truth to Power*, 97 STAN. LAW. (Nov. 16, 2017), <https://law.stanford.edu/stanford-lawyer/articles/pete-mccloskey-still-speaking-his-truth-to-power/> [<https://perma.cc/5RCG-TYKV>]. McCloskey was a lawyer representing Wells Fargo when he first joined the 100 founders group of Silicon Valley Bank. See SVB Transcript, *supra* note 8, at 16.

67. Ed Zschau was a professor at Stanford, and an entrepreneur from Silicon Valley, who was elected to U.S. Congress. John Balzar, *A Portrait of Serendipity: Ed Zschau: An Unknown Grabs for the Brass Ring*, L.A. TIMES (Sept. 7, 1986), <https://www.latimes.com/archives/la-xpm-1986-09-07-mn-12169-story.html> [<https://perma.cc/HMS7-M5BZ>]; Ed Zschau, WIKIPEDIA, [https://en.wikipedia.org/wiki/Ed\\_Zschau](https://en.wikipedia.org/wiki/Ed_Zschau) [<https://perma.cc/94XY-VQYM>] (last visited Feb. 6, 2020).

68. SVB Transcript, *supra* note 8, at 11.

69. *Id.* at 12.

70. *Id.* at 11–12. See Tom Groenfeldt, *Silicon Valley Bank—At the Core of a Tech Network*, FORBES (Dec. 18, 2014), <https://www.forbes.com/sites/tomgroenfeldt/2014/12/18/silicon-valley-bank-at-the-core-of-a-tech-network/#55dc5db266a6> [<https://perma.cc/BNC7-X2B9>] (explaining that the bank’s “value is less around the banking products and more around the relationship value [the bank] provide[s] to the innovation companies”).

71. SVB Transcript, *supra* note 8, at 11–13. The Bank continued to build and extend its network by using its network strength as a selling point to capture new clients. See “We Know People:” *Silicon Valley Bank Launches Ad Campaign*, SILICON VALLEY BANK (May 3, 2004), <https://ir.svb.com/static-files/61e8137f-91b5-4508-8c92-76b9d7b44a73> [<https://perma.cc/7X7L-6LQT>] (“Brand Strategy Targets Emerging and Mid-Sized Companies, Highlights SVB’s Passion, Global Network and Expertise”).

72. SVB Transcript, *supra* note 8, at 19–20. See also DEBORAH PERRY PISCIONE, SECRETS OF SILICON VALLEY: WHAT EVERYONE ELSE CAN LEARN FROM THE INNOVATION CAPITAL OF THE WORLD 145 (St. Martin’s Press 2013) (stating that Silicon Valley Bank launched with “100 initial investors and two ideas in mind: supporting technical entrepreneurship and providing ‘outside-the-box’ commercial banking services that young companies so desperately needed”).

73. SVB Transcript, *supra* note 8, at 21. The Bank has expanded its networks of experts and footprints with universities across the country. The Bank has now partnered with Brown, Cornell, Harvard, Stanford, Ohio State, Notre Dame, MIT, Penn, U.C. Berkeley, USC, University of Texas, University of Michigan, University of Monterrey, University of Waterloo, and Texas A&M University. See *Silicon Valley Bank Trek*, MAYS BUS. SCH., <https://mays.tamu.edu/mcferrin-center-for-entrepreneurship/silicon-valley-bank-trek/> [<https://perma.cc/4PHD-KXTG>] (last visited Feb. 6, 2020).

74. SVB Transcript, *supra* note 8, at 21.

75. *Id.* at 20.

nonperforming loans.<sup>76</sup>

Moreover, the network effects support the bank's efforts in nurturing the startup innovators. The bank can connect the startups with technologists, scientists, financial specialists, investors, other founders and entrepreneurs in the ecosystem.<sup>77</sup> This type of intangible assistance is exceedingly valuable to startups, in addition to the typical banking and lending services.<sup>78</sup> The bank maximizes the network of experts infusing the startups and high growth innovators with opportunities to meet their milestone and to scale for greater success.<sup>79</sup>

Critically, in the bank's early years, having the network of 100 investor founders means the bank was able to reach out and create many different and potential circles. In fact, the bank then published and distributed a client-centered newsletter that *only* highlighted the bank's clients and their activities to 10,000 people.<sup>80</sup> The newsletter allowed the bank to serve as a connector for innovators, as well as getting itself connected.<sup>81</sup> Early venture capitalists like Arthur Rock, who was revered as the first venture capitalist back when the term venture capital was not in existence and became an early investor in Intel and Apple, greatly enjoyed the bank's special newsletter.<sup>82</sup>

Moreover, the bank mined the connection with venture capitalists by having both the venture capitalist firms and their portfolio clients keep their deposits at the bank for maximum results.<sup>83</sup> For example, one of the bank's founders had a client who later also became one of the bank's clients.<sup>84</sup> The client raised a large round of financing of \$5 million at the time when the FDIC insurance was limited to only \$100,000.<sup>85</sup> The client placed the entire \$5 million as a deposit with the bank when the bank's total assets were only \$50 million. The bank capitalized on the fact that the client deposited \$5 million at

76. *Id.* at 19 (“We had both founders and friends of ours that were university-oriented professors and so on. If there was a real tough decision to make on—what is the background of this company? What are they doing? And is there—and we used to ask the question of, well, are there anything that is a fatal flaw in this loan—this company that’s requesting this loan? And if that were made, we’d talk with our friends at the university and bring them in. And there was this willingness to share and say, hey, what do you know about this product? Or what do you know about this field? Is this something that’s really good? And if they didn’t know anything and they said that there was no fatal flaw, then I’d go ahead and process the loan. If there was a fatal flaw, then you’d question further and find out should you do it.”).

77. As the Bank itself expands, it replicates the economic ecosystem to new innovation centers in other parts of the United States and in other countries. *See* PISCIONE, *supra* note 72, at 145 (stating that Silicon Valley Bank “took on the role of helping to create Silicon Valley-styled ‘economic ecosystem’”).

78. *Id.* (“Silicon Valley Bank increases its client’s probability of success by helping them solve problems. When a client needs to find a way to make the next payroll, the bank will work with them. If an entrepreneur needs an introduction to investors or partners, banker invite the heads of the company to pitch events or provide personal references, giving their clients great exposure. Large corporations looking for new innovative technologies to acquire or in which to invest can also make relevant connections through Silicon Valley Bank.”).

79. Nathaniel Popper, *Silicon Valley Bank Strengthens Its Roots*, N.Y. TIMES (Apr. 1, 2015), <https://www.nytimes.com/2015/04/02/business/dealbook/silicon-valley-bank-strengthens-its-roots.html> [https://perma.cc/5TTT-HAYM].

80. SVB Transcript, *supra* note 8, at 17.

81. *Id.*

82. *Id.*

83. *Id.*

84. *Id.*

85. SVB Transcript, *supra* note 8, at 17; *see also* Kathryn Judge, *The First Year: The Role of a Modern Lender of Last Resort*, 116 COLUM. L. REV. 843, 908 (2016) (noting that the Federal Deposit Insurance Coverage permanently increased from \$100,000 to \$250,000 in 2010).

the bank by immediately touting to potential clients that the bank's then existing client was entrusting the bank with a deposit of \$5 million!<sup>86</sup>

In summary, the bank knew before it first opened its doors that it must build networks of experts in order to assist innovators and achieve enduring success as the bank for innovators.<sup>87</sup> Nowadays, the bank enjoys a reputation that is "so strong that simply having the bank open an office is a milestone for a nation or region's innovation economy."<sup>88</sup>

#### IV. BE LIKE THE ENTREPRENEUR CLIENT BY BANKING ON GROWTH

In banking innovators, the local bank must realize that it cannot function like traditional bankers.<sup>89</sup> The bank must understand, operate, and behave like its entrepreneur clients.<sup>90</sup> In the technology sector, the innovators are the entrepreneurs who work both very hard and smartly in order to survive through different stages of funding.<sup>91</sup> The entrepreneurs desire growth, take risks, meet milestones, generate revenue, but earn no profits any time soon.<sup>92</sup> To have the entrepreneurs as clients, the local bank must provide banking and lending products fueling clients' growth.<sup>93</sup>

86. SVB Transcript, *supra* note 8, at 17.

87. As of today, Silicon Valley Bank does not stop on building and leveraging its networking prowess. See Groenfeldt, *supra* note 70 ("Networking is a huge part of what the bank does, . . . introducing early stage companies to venture capital firms, providing advice on timing and on equity vs. debt financing. With its many VC clients it can help a new company find the best fit.").

88. Mark Calvey, *JPMorgan Chase Ups Its Game to Court Bay Area Startups*, S.F. BUS. TIMES (Mar. 11, 2019), <https://www.bizjournals.com/sanfrancisco/news/2019/03/11/jpmorgan-chase-jpm-silicon-valley-bank-startups.html>; see also Penny Crosman, *Why is a U.S. Regional Expanding to Germany?*, AM. BANKER (June 4, 2018), <https://www.americanbanker.com/news/why-is-a-us-regional-expanding-to-germany> [<https://perma.cc/A42L-KZJF>] (noting that Silicon Valley Bank bringing together 300 venture capitalists, innovators and private-equity firm executives to celebrate its new offices in Berlin, "showing the kind of outside-the-box" thinking that all banks should learn from).

89. See, e.g., *Silicon Valley Bank: The Founders' Story*, *supra* note 13.

90. PISCIONE, *supra* note 72, at 145 ("The ties established between entrepreneurs and Silicon Valley Bank were unlike any other bank's relationships with newly established enterprises in the corporate lending market.").

91. Innovators face a daunting task in building their companies and obtaining funding for growth. See Shahin Farshchi, *Four Ways to Bridge the Widening Valley of Death for Startups*, TECH CRUNCH (Dec. 24, 2018), <https://techcrunch.com/2018/12/24/four-ways-to-bridge-the-widening-valley-of-death-for-startups/> [<https://perma.cc/DE6Q-JHRH>] (discussing methods for entrepreneurs to continue operating during the different stages of funding); see also Sam Hogg, *Why So Many Startups Never Reach Their Second Funding Round*, ENTREPRENEUR (Feb. 3, 2014), <https://www.entrepreneur.com/article/229746> [<https://perma.cc/5ARQ-UZZJ>] (mentioning the difficulty companies have surviving through early funding stages).

92. See Martin Zwilling, *10 Ways for Startups to Survive the Valley of Death*, FORBES (Feb. 18, 2013), <https://www.forbes.com/sites/martinzwilling/2013/02/18/10-ways-for-startups-to-survive-the-valley-of-death/#2f25137069ef> [<https://perma.cc/DTZ7-F368>] (offering ways for startups to navigate problems in overcoming challenges in early stages in pre-revenue); see also Ron Carucci, *How the Best Entrepreneurs Scale Their Startups for Growth*, FORBES (June 11, 2018), <https://www.forbes.com/sites/roncarucci/2018/06/11/how-the-best-entrepreneurs-scale-their-startups-for-growth/#4bdd76433570> [<https://perma.cc/UV2M-TTF4>] (describing how to scale startup growth).

93. Groenfeldt, *supra* note 70 ("[T]he bank has worked with so many startups, it understands their growth life cycle. It offers venture debt, lending to companies that are not cash flow positive."). SVB explains how the Bank understands high technology companies and their growth cycle: "We help them through their growth cycle," he explained. "The most important thing we provide is speed which is incredibly important to these startups. We understand the speed they have to operate at and we try to make everything we do simple. They don't want to spend time with a banker; they want to spend time in the market, building their model. Part of our model is really working with a company from the earliest stage when they are using seed funding or bootstrap

To most banks, banking and lending to clients who seek growth without generating revenues and profits pose unsafe and unsound banking practices that banks do not dare to venture.<sup>94</sup> Indeed, what banks see is a startup or high growth company that typically burns cash on its way trying to create new software, an app, or a cloud service to a niche business market, or build a platform to disrupt a massive consumer market.<sup>95</sup> The cash burn or negative cash flow means there are more expenses than revenue.<sup>96</sup> Ironically, without the cash burn, the startups cannot reach specific milestones.<sup>97</sup> But banks are not in the business of providing cash burn; banks require their loan money to be repaid.<sup>98</sup>

Consequently, Silicon Valley Bank must be innovative in identifying ways to bank innovators.<sup>99</sup> Otherwise, it would be just another bank running away from innovators. Illustratively, in the early 1980s, Silicon Valley Bank identified and focused on a smart strategy in lending to innovators where no commercial banks dared to tread.<sup>100</sup> The bank noticed that an innovative, pre-profit, high-growth firm could be a potential client if the firm has clients who are capable of paying the firm for its goods or services provided.<sup>101</sup> For example, if the firm counted Hewlett-Packard (HP) among its clients, the accounts receivable or future payments from HP are a very valuable source of comfort to the bank.<sup>102</sup> That means the bank can make a loan to the firm against the accounts receivable.<sup>103</sup> The

cash and understanding how to work with them through all of their growth stage.” *Id.*

94. See, e.g., *Northwest Nat'l Bank v. U.S. Dep't of the Treasury*, 917 F.2d 1111, 1115 (8th Cir. 1990) (“Unsafe and unsound banking practices are . . . ‘conduct deemed contrary to accepted standards of banking operations which might result in abnormal risk or loss to a banking institution or shareholder.’”) (quoting *First Nat'l Bank of Eden v. U.S. Dep't of the Treasury*, 568 F.2d 610, 611 n.2 (8th Cir. 1978)); *In re Seidman*, 37 F.3d 911, 927 (3d Cir. 1994) (“Among the specific acts that may constitute an unsafe and unsound practice are ‘paying excessive dividends, disregarding a borrower’s ability to repay, careless control of expenses, excessive advertising, and inadequate liquidity.’”) (quoting *Gulf Fed. Sav. & Loan Ass’n v. Fed. Home Loan Bank Bd.*, 651 F.2d 259, 264 (5th Cir. 1981)); *Michael v. FDIC*, 687 F.3d 337, 352–54 (7th Cir. 2012) (ruling that failure to verify the collateral and allowing double pledging collateral constitute unsafe and unsound banking practice).

95. Lewis Hower, *How to Calculate Burn Rate and Understand a Cash Burn Analysis*, SILICON VALLEY BANK, <https://www.svb.com/blogs/lewis-hower/startup-burn-rate-cash-flow> [<https://perma.cc/F3C2-SDAG>] (last visited Feb. 6, 2020) (urging startups to focus on “[w]hat type of company do you hope to build?” and address their ultimate cash burn analysis).

96. *Id.*

97. *Id.*

98. Regulators do not allow bank officers to engage in lending conducts wherein borrowers cannot repay. See, e.g., *Blanton v. U.S. Comptroller of the Currency*, 909 F.3d 1162 (D.C. Cir. 2018); *FDIC v. Fay*, Civ. A. No. H-91-1273, 1993 WL 740984 (S.D. Tex. Dec. 17, 1993).

99. SVB bankers revealed that the bank has long found a way to bank innovators: “We’re an active funder of early-stage businesses, including companies that are still in R&D mode and aren’t yet making revenues, let alone profits. We’ve invented a way to do that and it’s one of our USPs as a bank.” *Inside Silicon Valley Bank, a Support Scaffold for Med Tech Innovation*, MED. DEVICE NETWORK (Jan. 16, 2018), <https://www.medicaldevice-network.com/features/inside-silicon-valley-bank-support-scaffold-med-tech-innovation/> [<https://perma.cc/7YV5-BKBL>].

100. SVB Transcript, *supra* note 8, at 19–20.

101. *Id.*

102. *Id.* (“[W]e loaned the money, and we want it back . . . And so we did it smartly, mainly in the early days, on receivables. And so here, you’re a new company, but you have a receivable from HP. That’s a pretty good piece of paper. And so we were able to track the company’s monthly, and so we worked very close—so we had to—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.”).

103. Typically, the bank will take a security interest in the account receivable and has a priority against others in the account receivable. See, e.g., *In re Tusa-Expo Holdings, Inc.*, 811 F.3d 786, 797 (5th Cir. 2016)

bank is certain that the firm will repay the loan from HP's accounts receivable.<sup>104</sup> The bank is therefore reducing its exposure risks.<sup>105</sup> Making loans against the HP-type accounts receivables, Silicon Valley Bank was able to carve its inroad into lending to technology companies; meanwhile, other banks were unable to devise a solution to lending to startups or high-growth firms.<sup>106</sup>

In some cases, Silicon Valley Bank would provide to small and young companies a line of credit even though the companies did not have any receivables.<sup>107</sup> The bank knew that the small line of credit was "good" and "helpful" to the companies because the companies were in need "for suppliers and stuff."<sup>108</sup> The bank believed that "the management of the company and the board and the investors" knew that the companies "could grow into it."<sup>109</sup> That means the bank was strategic in selecting which small and young companies to extend a line of credit.<sup>110</sup> The bank could not lend to just any small and young companies; the bank selected the companies that have the backing and confidence of the networks of experts, including board members, managers, and

(holding that creditor's first-priority security interest in debtor's accounts receivable, and in proceeds thereof, was not lost when debtor's customers made payments on their accounts to lockbox account that debtor had established for benefit of another creditor).

104. *Id.* Also, the bank and the firm can agree that the firm's clients would pay directly to a lockbox account held at the bank. Ben Luthi, *Is Lockbox Banking Right for My Business?*, BBVA COMPASS (Nov. 18, 2019), <https://www.bbvacompass.com/commercial/commercial-banking-strategies/treasury-management/what-is-lockbox-banking-.html> [<https://perma.cc/4AVH-RBUW>]; *Opus Bank Lockbox Treasury Management Service*, OPUSBANK, <https://www.opusbank.com/products/treasury-management/manage-receivables/lockbox> [<https://perma.cc/E4GP-SSWX>] (last visited Feb. 6, 2020); Cynthia Myers, *The Advantages & Disadvantages of Using a Lockbox Collection System*, CHRON, <https://smallbusiness.chron.com/advantages-disadvantages-using-lockbox-collection-system-39168.html> [<https://perma.cc/8TUS-MGZX>] (last visited Feb. 6, 2020).

105. The bank reduces its exposure by taking a security interest in the firm receivables. *In re Tusa-Expo Holdings, Inc.*, 811 F.3d at 797. Also, with the lockbox service, the bank can monitor the firm's activities.

106. SVB Transcript, *supra* note 8, at 20.

107. *Id.* at 28. Access to capital is a persistent problem for young firms and high-tech firms. ALICIA ROBB, ACCESS TO CAPITAL AMONG YOUNG FIRMS, MINORITY-OWNED FIRMS, WOMEN-OWNED FIRMS, AND HIGH-TECH FIRMS 4 (Apr. 2013), [https://www.sba.gov/sites/default/files/files/rs403tot\(2\).pdf](https://www.sba.gov/sites/default/files/files/rs403tot(2).pdf) [<https://perma.cc/55TN-933T>].

108. SVB Transcript, *supra* note 8, at 28.

109. *Id.*

110. SVB explains how they select technology companies as clients for the banking and lending sides:

On the banking side, we work from seed stage all the way to multinational companies. Many of our largest healthcare clients started with SVB at the seed stage. On the debt side, what we look for is similar to what VCs look for in an investment. They have to have an experienced management team or have solid leadership that has done an impressive job of nailing down the vision of how their solution is going to provide real value to patients and the system. They should have made good progress on the product development front, have a clear plan for regulatory approvals and should be able to speak to the current and future reimbursement environment. Lastly, they should also be thinking about the "ease of use" for the device and how much training will be needed during the commercial rollout of their product.

In the earlier stages, they need to have good-quality investors and board members—professionals with related experience who can help them save time and money, thus avoiding headaches and the tendency to burn through cash unnecessarily. We also look at whether the market that they are targeting is crowded, and if so, if there is room for more innovation or another player.

Birgit Johnston, *Q&A with Kevin Longo, Northeast Head of Medical Device and Digital Health, Silicon Valley Bank*, FOGARTY INST. (Oct. 30, 2018), <https://www.fogartyinstitute.org/qa-with-kevin-longo-northeast-head-of-medical-device-and-digital-health-silicon-valley-bank/> [<https://perma.cc/UDD3-8NHS>].

investors.<sup>111</sup>

By fueling the clients' growth, one of the bank's mottos became "we don't finance losses. We finance growth."<sup>112</sup> By banking on clients' growth, their growth, in turn, fuels the bank's own growth.<sup>113</sup> Overall, what the bank did was putting itself "in the entrepreneurs' shoes."<sup>114</sup> The bank participated in the circles of "builders of companies."<sup>115</sup> The bank enabled innovators to "grow and to maybe delay a round of financing" so the company can meet its milestones and, thereafter, obtain a better valuation at a later exiting event.<sup>116</sup> When the client reaps better valuation, the bank captures better returns.<sup>117</sup>

What Silicon Valley Bank is doing is not altruistic. The bank greatly benefits from all other banks who chose to be on the sideline of innovation. The local bank has witnessed first-hand that commercial banks steadfastly adhere to the belief that "new is not good, and growth is bad."<sup>118</sup> Commercial banks, then and still now, reinforce the belief that banking and lending to innovators are inherently risky.<sup>119</sup> To the contrary, Silicon Valley Bank discovered that the risks of lending to innovators were in fact "way under banking average of loan losses."<sup>120</sup> The bank learned that the "technology community" is a "good place to loan money," and, consequently, due to real estate lending losses in 1992, the bank de-emphasized the real estate stool of the three-stooled business model.<sup>121</sup>

111. Chrisie Wendin, *Silicon Valley's Farsighted Banker*, STRATEGY+BUS. (July 19, 2016), <https://www.strategy-business.com/article/Silicon-Valleys-Farsighted-Banker?gko=08619> [<https://perma.cc/3R9Q-WGLN>] (noting that the bank strategically "connects innovators and potential partners with one another").

112. SVB Transcript, *supra* note 8, at 15. The motto of banking on growth permeates through the Bank's DNA from the beginning to the present time. *See also* Dylan Martin, *Inside the Boston Bank that Acts and Feels Like a Startup*, AM. INNO (Dec. 15, 2015), <https://www.americaninno.com/boston/commercial-banking-for-boston-startups-silicon-valley-bank/> (observing that as a commercial bank for high technology startups on growth, Silicon Valley Bank moves into physical space where innovators are located to gain new clients as well as to help new clients with the bank's networks).

113. SVB Transcript, *supra* note 8, at 15 (stating that "[t]he gates were open . . . [other banks] had to say no [to lending to innovators because the banks] came out with a edict that if you didn't have a two-to-one—or one-to-one current ratio and a two-to-one debt ratio, we can't do anything with you. And the other thing that they then shied away from was if you were losing money. And so we had a number of sayings, one of which—we don't finance losses. We finance growth in assets.").

114. *Id.* at 28.

115. *Id.*

116. *Id.* at 29. *See also* Groenfeldt, *supra* note 70 (stating that Silicon Valley Bank helps "startup companies grow faster or achieve a higher level of A round funding").

117. The return is based on the use of warrant, an innovative private contracting order that the bank became among the first banks to implement. *See infra* Part V.B.

118. SVB Transcript, *supra* note 8, at 11.

119. Moreover, recent reports have shown that small businesses have not been able to receive bank loans after the great recession of 2008. *See* Brayden McCarthy, *Why Bank Lending to Small Businesses Isn't Recovering*, FUNDERA, <https://www.fundera.com/blog/bank-lending-small-businesses-isnt-recovering> [<https://perma.cc/K72W-Z7Z9>] (last updated Jan. 28, 2020) ("[O]ver the past two decades, small business loans have fallen from about half to under 30 percent of total bank loans. That secular decline is due to a multitude of factors, including high transaction costs of small business loans and regulators that push banks to hold more capital against business loans than consumer loans, further driving up the costs of small-business lending.").

120. SBV Transcript, *supra* note 8, at 32.

121. *Id.* Today's banks invest heavily in real estate loans and expose themselves to much greater risks. *See* Konrad Putzier & Rich Bockmann, *Banks are Far More Exposed to Risky Real Estate Loans Than You Think – Thanks to This Loophole*, REAL DEAL (Nov. 6, 2017, 7:00 AM), <https://therealdeal.com/2017/11/06/banks-are->



As Silicon Valley Bank learned when it began its operation in 1983 with the intention to devote one-third of the practice to banking the technology companies, the majority of banks in the local community in Silicon Valley failed to appreciate technology companies, their challenges for growth, and their operation within an ecosystem.<sup>122</sup> Most, if not all, banks, then and now, command the edict that lending can only occur if the potential borrower meets the five Cs: Collateral, Cash Flow, Credit, Capacity, and Character.<sup>123</sup>

Regarding Collateral, banks often ask for personal assets, from certificates of deposits, stocks, and real estate.<sup>124</sup> Unfortunately, startups do not own the type of collateral banks require.<sup>125</sup> About Credit, banks conduct credit-reporting checks to examine the entrepreneur's credit history, the startup's payment history with suppliers, business obligations, and payments with other financial institutions.<sup>126</sup> For many young startups, they are simply too young to have a credit history.<sup>127</sup> In addition, the entrepreneur herself has already burned her own cash, and family members' and/or friends' cash, without building a credit history. On Cash flow, banks define a firm's cash flow as "its net profit, plus its non-cash expenses—depreciation and amortization."<sup>128</sup> Moreover, banks' formula is that "for every \$1 in total loan payments, your business must generate \$1.50 in cash flow."<sup>129</sup> Simply put, startups cannot meet banks' cash flow requirement because startups are growing and burning cash.<sup>130</sup> As for Capacity, banks demand to know upfront how the innovators would be able to repay the loan when the firm cannot make payment, meaning

far-more-exposed-to-risky-real-estate-loans-than-you-think-thanks-to-this-loophole/ [https://perma.cc/UY3U-NRXXB] (reporting the maneuvers by conventional banks that provide finance for debt funds and mortgage REITs); Ben McLanahan, *Nonprime Has a Nice Ring to It: The Return of the High-Risk Mortgage*, FIN. TIMES (Aug. 30, 2017), https://www.ft.com/content/3c245dee-8d0f-11e7-a352-e46f43c5825d (explaining the return of high risk lending in real estate after the great financial crisis).

122. SVB Transcript, *supra* note 8, at 13 (observing that Wells Fargo bank has "unlimited 'no power'" to say to potential clients in the technology sector).

123. *How We Make Our Lending Decisions*, WELLS FARGO, https://www.wellsfargo.com/biz/help/faqs/lending-decisions/ [https://perma.cc/3LAA-E8R8] (last visited Feb. 6, 2020).

124. *Id.*

125. See Jean Murray, *Why Do Banks Say No to Business Startup Loans?*, BALANCE SMALL BUS. (Sept. 2, 2018), https://www.thebalancesmb.com/why-do-banks-say-no-to-business-startup-loans-398025 [https://perma.cc/D6RX-XNUJ] ("To understand why new business startups are risky for business lenders, take a look at the four C's of Credit (collateral, capital, capacity, character.); Rampton, *supra* note 12 (discussing factors such as bad credit, weak cash flow, time in business and limited collateral, lack of preparation, and outside conditions as main reasons banks refuse loans to small-business owners).

126. *How We Make Our Lending Decisions*, *supra* note 123.

127. See generally *Why Banks Don't Lend to Startups*, GLOBAL CAP. PARTNERS FUND (Oct. 4, 2018), https://gcpfund.com/news/banks-dont-lend-to-startups/ [https://perma.cc/F3WT-JPTV]; Sarah E. Needleman, *When Banks Won't Lend to Your Startup*, WALL ST. J. (Mar. 8, 2014), https://www.wsj.com/articles/when-banks-wont-lend-to-your-startup-1394328392 [https://perma.cc/XB3M-9B68].

128. *How We Make Our Lending Decisions*, *supra* note 123.

129. *Id.*; See also David Goldin, *Top 10 Reasons Banks Won't Loan Money to Your Business*, BUS. JS. (Nov. 5, 2014), https://www.bizjournals.com/bizjournals/how-to/funding/2014/11/top-10-reasons-banks-wont-loan-to-your-business.html (explaining why banks do not loan money to businesses).

130. Taylor Soper, *How Startups Spend Their Money: New Data Shows How Burn Rates Differ by Industry and Region*, GEEKWIRE (Dec. 6, 2018), https://www.geekwire.com/2018/startups-spend-money-new-data-shows-burn-rates-differ-industry-region/ [https://perma.cc/TS37-ZFAK]; Helaine Olen, *The Harsh Truth about Startup Burn Rates*, INC. (Feb. 2016), https://www.inc.com/magazine/201602/helaine-olen/startup-burn-rates-spend-money-to-make-money.html [https://perma.cc/RJ6X-TGXZ].

whether the entrepreneurs have other sources to pay the banks.<sup>131</sup> The demand for capacity is not possible for the entrepreneurs to meet because the entrepreneurs in the technology sector are typically young individuals without built-up assets.<sup>132</sup> With respect to Character, banks concentrate on the “best clue” to a borrower’s character, which is the borrower’s “personal credit history” because a “strong” personal credit history proves that the borrower has “the willingness and the discipline” to repay old and new debts.<sup>133</sup> Like the other four Cs, a typical entrepreneur in the technology sector may not be able to meet the Character requirement because a young individual does not have a personal credit history.<sup>134</sup> The absurdity of the five Cs edict means that most banks often readily and emphatically reject entrepreneurs as clients.<sup>135</sup>

As most banks summarily turn away entrepreneurs because they do not meet banks’ edicts, banks fall into a trap of outdated practice, lacking the will to be innovative in search of potential solutions to have entrepreneurs as clients.<sup>136</sup> While commercial banks were feeling contented in their conventional focus on only commercial and real estate concentrations, the Silicon Valley Bank in 1983 seized the opening to be creative, identifying how the new local bank could assist the local young technology companies.<sup>137</sup>

Like its young clients, the local Silicon Valley Bank worked very hard. It carefully watched how it spent money; it kept expenses low.<sup>138</sup> But it wanted to generate publicity, to be noticed with little cost. It invented and embraced unconventional ways to attract attention in the media.<sup>139</sup> Like its entrepreneur clients who must have the right talents for the success of the startups, the young Silicon Valley Bank recruited bankers who were passionate about banking young technology companies but received neither understanding, appreciation, nor encouragement at their former employers.<sup>140</sup> These bankers understood how startups and high growth firms operated.<sup>141</sup> They also devised an approach to embrace

131. *How We Make Our Lending Decisions*, *supra* note 123.

132. Further, the assets startups build up are intellectual property assets which are valuable to the startups but banks avoid. Rhett Power, *Startup Success: The Top Ten Obstacles to Overcome*, INC. (Jan. 9, 2018), <https://www.inc.com/rhett-power/startup-success-top-ten-obstacles-to-overcome.html> [<https://perma.cc/JTY5-BNNJ>]; Paroma Sanyal & Catherine L. Mann, *The Financial Structure of Startup Firms: The Role of Assets, Information, and Entrepreneur Characteristic 1* (Fed. Reserve Bank of Boston, Working Paper No. 10-17, 2010), <https://ssrn.com/abstract=1768099> or <http://dx.doi.org/10.2139/ssrn.1768099>.

133. *How We Make Our Lending Decisions*, *supra* note 123.

134. Moreover, personal credit may not be a good indicator in helping startups to grow. See Robb Mandelbaum, *A New Study Says Business Loans Help Startups Grow. Personal Loans Don't*, FORBES (Feb. 19, 2018), <https://www.forbes.com/sites/robbmandelbaum/2018/02/19/a-new-study-says-business-loans-help-startups-grow-personal-loans-dont/#bf594b067b02> [<https://perma.cc/NC2J-THSC>] (explaining a study that shows business loans are better for startups than personal loans).

135. See SVB Transcript, *supra* note 8, at 13 (criticizing other banks for lack of innovation and too readily rejecting tech startups).

136. *Id.* at 15. Mark Zuckerberg, for example, was an entrepreneur without the ability to fulfil the 4Cs. See *ConnectU LLC v. Zuckerberg*, 482 F. Supp. 2d 3, 28–31 (D. Mass. 2007) (describing Zuckerberg’s activities during the early months of Facebook in 2004), *rev'd on other grounds*, 522 F.3d 82 (1st Cir. 2008).

137. SVB Transcript, *supra* note 8, at 15. See also Reckard, *supra* note 60 (describing the business model of Silicon Valley Bank).

138. SVB Transcript, *supra* note 8, at 23.

139. *Id.* at 16 (recalling how he and another earlier employee at the bank wore bunny suit and visited the clean room).

140. *Id.* at 30–31.

141. *Id.* at 11 (criticizing other banks that “don’t realize the R&D that goes into the next product and the intellectual property”).

the most valuable assets the innovators own: intellectual property.

#### V. EMBRACING INTELLECTUAL PROPERTY ASSETS IN TECH LANDING

In the late 1970s, intellectual property assets like patents, copyrights, and trademarks were not in the normative business lexicon. Technological advancements experienced a major turn in the 1980s. The computer and software industries profoundly shifted upwards in that decade, as personal computers appeared on every desktop in offices across the United States. The biotech industry expanded with the Supreme Court's 1980 ruling in *Diamond v. Chakrabarty* recognizing patent protection for genetically modified organisms, opening the growth in genetic engineering products and processes.<sup>142</sup> The creation of the Federal Circuit by Congress in 1982 both harmonized patent law and propelled the growth in patents. With the new intellectual property assets, are patents, copyrights, and trademarks the type of assets that commercial banks would embrace in determining whether they lend to firms? Would banks count patents, copyrights, and trademarks in calculating the borrowing base?

As of today, commercial banks nationwide answer both questions in the negative. Banks do not embrace patents, copyrights, and trademarks in determining whether they should lend to firms. Banks do not count patents, copyrights, and trademarks in the borrowing base. There are several reasons for banks' aversion to intellectual property.<sup>143</sup> The intellectual property assets are unattractive to banks because these assets are uncertain in value. Intellectual property assets are highly illiquid because there is no established market for readily reselling the assets in the event of foreclosure. Because the most valuable assets that startups and high growth companies own are intellectual property, banks decline to reach out to the companies as clients. If there are outlier banks, what have they done and how do they embrace the potential borrower's intellectual property assets?

Silicon Valley Bank in 1983 had a solution to avoid problems associated with intellectual property assets while extracting benefits from intellectual property assets unobvious to most banks. The bank realized that the client's "R&D . . . goes into the next product and the intellectual property."<sup>144</sup> That means the intellectual property assets are

142. *Diamond v. Chakrabarty*, 447 U.S. 303, 318 (1980).

143. See generally Nguyen & Hille, *supra* note 10 (citing empirical data on why banks do not account for intellectual property when making lending decisions); Xuan-Thao Nguyen & Erik D. Hille, *The Puzzle in Financing with Trademark Collateral*, 56 HOUS. L. REV. 365 (2018) (explaining how banks use trademarks as idle assets).

144. SVB Transcript, *supra* note 8, at 11. Over time, Silicon Valley Bank becomes the expert recommending the client's innovative products to investors. For example, a witness at the trial in *Fractus, S.A. v. Samsung Electronics Co.*, relied on Silicon Valley Bank's analysis comparing the importance of small, multiband internal antennas to that of modern cell phones:

Mr. Nawrocki testified and presented the jury with documents establishing the relative importance of small, multiband internal antennas to modern cell phones. For example, Mr. Nawrocki presented the jury with a document from Silicon Valley Bank ("SVB") extolling the importance of small, multiband internal antennas that allow cell phone manufacturers the freedom to meet market demand for sleek and compact cell phones. The SVB analysis explains that market forces require small multiband internal antennas to meet the "end users' insatiable demand for compact devices" as well as "manufacturers' desire for increasing design flexibility."

*Fractus, S.A. v. Samsung Elecs. Co.*, 876 F. Supp. 2d 802, 836 (E.D. Tex. 2012) (citation omitted). The SVB analysis also recognizes Fractus as one company that was developing "innovative technology for embedded

exceedingly valuable to the client; the assets are the embodiments of the client's resources and efforts. Consequently, embracing the client's intellectual property must yield both immediate and long-term benefits to the bank. The solution rests on exploiting accounts receivables and warrants as byproducts of the client's intellectual property assets.

*A. The Immediate: Accounts Receivables as By-Products of Intellectual Property Assets*

One of the hallmarks of intellectual property assets is the right to exclude others.<sup>145</sup> The research and development efforts that technology companies devote to reach final products can be protected under various types of intellectual property law, including patent law.<sup>146</sup> If the invention passes the patentability requirements of novelty, non-obviousness, and utility, among others, the technology company has 20 years of exclusivity in its patents.<sup>147</sup> That means the company will have the exclusive rights in creating products based on the patents and potentially dominating the market related to the patented products.<sup>148</sup> In other words, the company will have a better opportunity to develop a customer base who will pay for the patented products or services or a licensing market.<sup>149</sup> That means the company's accounts receivables are the byproduct of its intellectual property assets.

Moreover, in the technology sector, a company that has accounts receivables means the company is generating revenue and may be in need of a "growth loan and accounts receivable credit lines."<sup>150</sup> To work with the clients having accounts receivables, the bank

mobile device antennas." *Id.* "Fractus presented additional evidence demonstrating that internal antennas are essential to modern cell phone production, as well as evidence of how Fractus's technology meets the market demands for such antennas." *Id.* "Mr. Nawrocki explained that he used these data points, among others, to analyze the relative value of an internal multiband antenna to the overall value of the infringing cell phones." *Id.*

145. Adam Mossoff, *Exclusion and Exclusive Use in Patent Law*, 22 HARV. J.L. & TECH. 321, 327 (2009); *Coll. Sav. Bank v. Fla. Prepaid Postsecondary Educ. Expense Bd.*, 527 U.S. 666, 673 (1999) ("[T]he right to exclude" is "the hallmark of a protected property interest."). *See also* *Visto Corp. v. Seven Networks, Inc.*, No. 2:03-CV-333-TJW, 2006 WL 3741891, at \*4 (E.D. Tex. 2006) ("[T]he very right to exclude . . . is the essence of the intellectual property at issue.").

146. Daniel A. Crane, *Intellectual Liability*, 88 TEX. L. REV. 253, 253 (2009) ("[T]he right to exclude is the defining characteristic of property and incentives to engage in inventive and creative activity are increasingly being granted in the form of liability rights (which allow the holder of the right to collect a royalty from users) rather than property rights (which allow the holder of the right to exclude others from using the invention or creation).").

147. 35 U.S.C. § 154(a)(2) (2019). *See also* David Taylor, *Confusing Patent Eligibility*, 84 TENN. L. REV. 157, 174 (2016) (stating the requirement for patentability); Emily Michiko Morris, *Intuitive Patenting*, 66 S.C. L. REV. 61, 81 (2014) ("The patentability requirements of novelty, non-obviousness, utility, and full disclosure (particularly enablement) 'serve a critical role in adjusting the ever present tension in patent law between stimulating innovation by protecting inventors, and impeding progress by granting patents when not justified by the statutory design.'").

148. Emily Michiko Morris, *What is "Technology"?*, 20 B.U. J. SCI. & TECH. L. 24, 26–27 (2014) (discussing the bundle of patent rights that incentivizes investment in patents).

149. *Amgen, Inc. v. F. Hoffman-LaRoche Ltd.*, 456 F. Supp. 2d 267, 283 (D. Mass. 2006) ("Patent owners can divide their bundle of rights not only into separate exclusive licenses to make, sell, and use the patented item, but also divide each of those licenses into exclusive licenses of infinite geographical or temporal scope."); Andrew C. Michaels, *Patent Transfer and the Bundle of Rights*, 83 BROOK. L. REV. 933, 936 (2018) (stating that "by entering into the license agreement, the patentee diminishes the patent bundle of rights, in exchange for other forms of value such as royalty rights or cross-licenses").

150. Alex McCracken, *Guide to Financing Growth*, SILICON VALLEY BANK (Oct. 15, 2018), <https://www.svb.com/blogs/alex-mccracken/guide-to-financing-growth> [<https://perma.cc/4424-YJD5>]. Today

and the technology company would typically enter into an accounts receivable financing agreement.<sup>151</sup> Under the agreement, the bank agrees to make an advance based on the firm's "financed receivables."<sup>152</sup> The bank protects its right by claiming a security interest in the accounts receivables even after the firm may have repaid the advance, but not other obligations.<sup>153</sup> For example, Silicon Valley Bank and I-many, Inc., a company founded in 1989 to provide software solutions in business-to-business e-commerce, agreed to an accounts receivable financing agreement in 2000.<sup>154</sup>

Additionally, in the accounts receivables financing agreement, which was later renamed "Working Capital Line of Credit" agreement, the bank takes a security interest in the borrower's intellectual property assets.<sup>155</sup> The bank also requires the borrower to "[p]rotect, defend and maintain the validity and enforceability of its Intellectual Property that is material to [the] [b]orrower's business."<sup>156</sup> No other assets owned by the borrower bear the same requirements.<sup>157</sup> That means the bank understands that with the intellectual property assets, the borrower can distinguish itself from competitors. By requiring the borrower to protect the intellectual property assets, the bank is protecting its own interest and minimizing its risk exposure.

For example, USM Technology Corporation, an early manufacturer of electronic circuit boards for personal computers, and Silicon Valley Bank entered into a loan and security interest agreement.<sup>158</sup> USM had clients, and its primary important assets were the

the interest rates for the growth loans for companies with predictable, growing revenues, are in "the 6%–9% range (depending on stage of the business)." *Id.* The accounts receivable credit lines also carry similar interest rates, but "if a company takes a line of credit from a bank but does not use the line for a period, then the bank may charge a non-utilisation fee (typically 1% of the facility size)." *Id.* With respect to borrowers who have a growing Software as a Service (SaaS) with more than half a million dollars and monthly recurring revenue, the SaaS credit line is based on a formula of "2x to 4x" the monthly recurring revenue. *Id.*

151. SVB later changed the title of "Account Receivable Financing Agreement" to "Working Capital Line of Credit." See *Accounts Receivable Purchase Agreement*, SEC, [https://www.sec.gov/Archives/edgar/data/1003640/000110465902000494/j2831\\_ex10d39.htm](https://www.sec.gov/Archives/edgar/data/1003640/000110465902000494/j2831_ex10d39.htm) [<https://perma.cc/9WQ7-5N32>] (last visited Feb. 6, 2020); *Loan and Security Agreement*, SEC, <https://www.sec.gov/Archives/edgar/data/890264/000119312511208397/dex1012.htm> [<https://perma.cc/A593-QHZJ>] (last visited Feb. 6, 2020) [hereinafter SEC].

152. "Financed receivables" is defined as "all those accounts, receivables, chattel paper, instruments, contract rights, documents, general intangibles, letters of credit, drafts, bankers acceptances, and rights to payment, and all proceeds, including their proceeds (collectively 'receivables'), which Bank finances and makes an Advance." *Sample Business Contracts*, ONECLE, <https://contracts.onecle.com/i-many/svbank-financing-2000-04-26.shtml> [<https://perma.cc/SG8V-CH5U>] (last visited Feb. 28, 2020). "A Financed Receivable stops being a Financed Receivable (but remains Collateral) when the Advance made for the Financed Receivable has been finally paid." *Id.*

153. "A Financed Receivable stops being a Financed Receivable (but remains Collateral) when the Advance made for the Financed Receivable has been finally paid." *Id.*

154. *Id.* According to Crunchbase, I-many obtained two VC rounds of funding and was then acquired by LLR Partners in 2009. *I-many*, CRUNCHBASE, <https://www.crunchbase.com/organization/i-many#section-overview> [<https://perma.cc/9CQT-9DN4>] (last visited Feb. 6, 2020).

155. See SEC, *supra* note 151, ¶ 6.8 ("Protection and Registration of Intellectual Property Rights") (stipulating Borrower's obligations related to the Bank receiving a security interest in Borrower's intellectual property).

156. *Loan and Security Agreement between Silicon Valley Bank and Sienna Biopharmaceuticals, Inc.*, SEC ¶ 6.8, <https://www.sec.gov/Archives/edgar/data/1656328/000119312518210676/d855168dex101.htm> [<https://perma.cc/XBK2-2TJR>] (last visited Feb. 6, 2020).

157. See generally *id.* (showing requirements for other assets).

158. *In re USM Tech. Corp.*, 158 B.R. 821, 823 (Bankr. N.D. Cal. 1993).

accounts receivables.<sup>159</sup> The accounts receivables served as collateral for the loan. Similarly, Focus Enhancements, Inc. was in the business of making and selling a proprietary line of video conversion products for the computer and television industries, and the firm and Silicon Valley Bank entered into an accounts receivable financing agreement.<sup>160</sup> Likewise, the bank provided a loan to the software company, TouchStar Software Corporation, because the firm had clients for the services and the bank took senior security interest in TouchStar's accounts receivables.<sup>161</sup> In the event that TouchStar failed to pay the loan, the bank could collect on the accounts receivables.<sup>162</sup> Similarly, ABV Electronics, doing business as Sienna Corporation, had a line of credit with the bank because the firm had solid "annual sales" of its products.<sup>163</sup>

In sum, the bank satisfied its lending requirement and minimized its risk exposure. Recognizing that accounts receivables are byproducts of the intellectual property assets, the bank makes loans against the accounts receivables, in addition to taking security interests in both the intellectual property and accounts receivables and imposing other conditions to protect the bank's interests.

#### *B. The Long-Term: Warrants as By-Products of Intellectual Property Assets*

Silicon Valley Bank understood in the early years that some companies in the high technology sector had captured tremendous growth and high valuation by investors, and the bank wanted a more direct benefit from the client's growth.<sup>164</sup> Investors, in providing capital infusion to finance growth, typically conduct a valuation of the enterprise.<sup>165</sup> For the companies selected by the investors, intellectual property assets are the key driver of

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159. *Id.*

160. *In re Focus Enhancements, Inc. Sec. Litig.*, 309 F. Supp. 2d 134, 138, 140 n.3 (D. Mass. 2001).

161. *See Rote v. Silicon Valley Bank, Inc.*, No. 3:16-cv-00471-SI, 2016 WL 4565776, at \*2-3 (D. Or. Sept. 1, 2016) ("SVB . . . was TouchStar's senior secured creditor.").

162. *Id.* at \*3 ("SVB filed a complaint against NDT in Colorado state court in August 2009, seeking to collect the outstanding TouchStar account receivable.").

163. *ABV Elecs., Inc. v. Ceton Corp.*, No. 1:12-CV-2178-ODE, 2014 WL 12573015, at \*1 (N.D. Ga. Mar. 25, 2014) (describing the financing deal wherein "Ceton designs and sells digital cable devices that enable personal computers to decode multiple cable video signals and to distribute different content to different televisions at the same time. Sienna manufactured Ceton product for Ceton . . . . Ceton lacked the resources to fund major production runs, but Sienna, whose annual sales are approximately \$60 million, had a line of credit with Silicon Valley Bank ("SVB"), which allowed Ceton to finance manufacturing by paying Sienna once Ceton product was sold.").

164. *See, e.g., Adam Lashinsky, It Figures a Bank from Silicon Valley Would Have a Soaring Stock*, THE STREET (Mar. 8, 2000, 7:00 AM), <https://www.thestreet.com/story/896663/1/it-figures-a-bank-from-silicon-valley-would-have-a-soaring-stock.html> [<https://perma.cc/5KP8-9M56>] ("To compensate for the lack of hard assets a bank would require from a more mature company, Silicon Valley Bank often asks for warrants on shares of its upstart clients. And it's the unrealized gains on those investments that have propelled shares of Silicon Valley Bank to new highs as other banks plunge to new lows . . . . The number analysts will be watching is the value of its unrealized gains, which amounted to about \$110 million, or \$4.63 per share, at the end of the year. The bank reported earnings last year of just \$2.46 per share. In short, this bank is starting to take on the characteristics of an 'incubator,' that trendy species of investment company valued more for its assets than its profits.").

165. Investors and venture capital funds conduct extensive, costly due diligence. Banks can neither perform this due diligence nor shift the cost to cash-deficient clients. *See Erin Platts, How Venture Debt Can Help Minimise Dilution and Enable You to Scale*, NOTION (Nov. 24, 2015), <https://notion.vc/resources/how-venture-debt-can-help-minimise-dilution-and-enable-you-to-scale/> [<https://perma.cc/K2FH-TUBE>].

the enterprise.<sup>166</sup> One of Silicon Valley Bank's earliest bankers hatched the idea of warrants to capture the benefits of a client's intellectual property as embodied in the potentially high valuation of the enterprise in the future.<sup>167</sup>

A warrant is the right to purchase shares in a company. That means if the company receives a high valuation, the holder of the warrant can reap the benefits of the increase in per share value. Silicon Valley Bank had identified that if the bank required the borrower to give a warrant as part of the cost the borrower must pay to obtain the loan, the bank would cash in on the warrant in the event that the borrower later experienced a high valuation by investors.<sup>168</sup>

The bank implemented the warrant requirement in its "core" products of loans that was later referred to as "venture debt" products marketed to early stage companies.<sup>169</sup> The bank saw the warrant as a long-term investment. To illustrate, consider the following example. An early stage startup has just received its first round of funding from venture capital firms.<sup>170</sup> The startup burns lots of cash and requires new rounds of equity funding from VCs.<sup>171</sup> In between rounds of funding, the startup needs a loan, preferably a loan from a bank, which is cheaper than a loan from a non-bank lender, to survive and to meet a milestone to reach the next round of funding.<sup>172</sup> The loan is risky to the bank. To minimize risks, the bank relies on the due diligence and valuation performed by the VCs.<sup>173</sup> The bank requires a fixed interest rate in the range of 10% to 12%.<sup>174</sup> The bank also demands that the borrower provide a warrant that constitutes 0.5% to 1% of all the shares or 7% to 12% of the loan amount.<sup>175</sup>

Exploiting the warrants as long-term investments, the bank began to require warrants in the early years. The bank continues to insist on having warrants in technology companies as the bank expands its client base. For example, one report indicates that the bank held warrants in 853 companies in the first 15 years of opening the door to innovators.<sup>176</sup> In recent years, the bank's success in demanding warrants and holding on to the warrants for long-term investment became the feature innovation that other outlier banks have attempted to adopt.<sup>177</sup>

166. See generally Xuan-Thao Nguyen & Erik Hille, *Disruptive Lending for Innovations: Signaling Model and Banks Selection of Startups*, 21 U. PA. J. BUS. L. 200 (2018).

167. SVB Transcript, *supra* note 8, at 14–15.

168. See Lashinsky, *supra* note 164.

169. McCracken, *supra* note 150. For example, startups with software as service or SaaS as their growth business model can approach Silicon Valley Bank for a loan or "revolving credit line," but they must issue covenants to the Bank in addition to fulfilling other requirements.

This revolving facility gives credit available based on a formula (typically 2x to 4x MRR [monthly recurring revenue]), and the credit facility may have covenants and/or warrants depending on the cash burn of the company. Interest is paid on drawn balances and the credit line availability increases as the MRR grows. However, SaaS credit lines are not suitable for companies with a high churn rate, or to finance cash runway. *Id.*

170. *Id.*

171. *Id.*

172. *Id.*

173. See Platts, *supra* note 165.

174. McCracken, *supra* note 150.

175. *Id.*; Platts, *supra* note 165.

176. Lashinsky, *supra* note 164.

177. See Reckard, *supra* note 60.

In summary, the intellectual property assets are the key driver for the client's growth. Accordingly, to capitalize on the client's intellectual property, the bank recognizes (a) that the client's accounts receivables are a byproduct of the intellectual property assets; and (b) that the client's warrant agreement is a growth byproduct of the intellectual property assets, suitable for valuable long-term investment.

#### VI. PRIVATE ORDERING: WARRANTS, SENIOR PRIORITY SECURITY INTEREST, INTELLECTUAL PROPERTY PROTECTION, AND INSURANCE

In banking innovators, success is dependent on the private ordering of contracts to obtain favorable results.<sup>178</sup> Specifically, warrants to purchase shares, senior security interests in the collateral, and intellectual property protection as affirmative covenants cannot occur without contractual agreements drafted with the understanding of contracts, banking, securities, secured transactions, and intellectual property laws.<sup>179</sup>

With respect to intellectual property and security interests, Silicon Valley Bank structures its lending deals with technology companies either as “the loan and security agreement” or “working capital agreement” for maximum benefits.<sup>180</sup> Through contracts, the bank demands a senior security interest in the collateral because it wants to obtain priority over other investors or third party interests in the same collateral in the event of default.<sup>181</sup>

The collateral typically includes the intellectual property assets and the byproducts of the intellectual property assets in the form of the most liquid type—accounts receivables.<sup>182</sup> The bank requires the borrower to maintain, protect, and defend the

178. For example, in a typical loan and security agreement between the bank and a borrower, the bank negotiates and obtains first priority of security interest in all collateral. *See Loan and Security Agreement between Silicon Valley Bank and Sienna Biopharmaceuticals, Inc.*, *supra* note 156.

179. Contract design is also seen in venture capital financing. *See, e.g.*, Spencer Williams, *Venture Capital Contract Design: An Empirical Analysis of the Connection Between Bargaining Power and Venture Financing Contract Terms*, 23 *FORDHAM J. CORP. & FIN. L.* 105 (2017).

180. Among many favorable requirements, the bank also demands payment of attorney fees and court costs in addition to the typical loan repayment, interest payment, and security interests in the collateral. *Silicon Valley Bank v. Nucentcom, Inc.*, No. 3:12-CV-4310-B, 2013 WL 12126257 (N.D. Tex. Mar. 7, 2013) (ruling that “SVB is entitled to \$4,958,505.99 plus interest accruing at the per diem rate of \$1,198.97 beginning from November 30, 2012. SVB is further entitled to \$6,560.00 in attorney’s fees and \$350.00 in court costs as provided by the Loan Agreement.”).

181. *In re Satcon Tech. Corp.*, No. 12-12869 KG, 2012 WL 6091160, at \*2, \*4 (Bankr. D. Del. Dec. 7, 2012) (finding that Silicon Valley Bank as “Senior Secured Creditor” and other secured creditors “are more than adequately protected” in the action related to the bankruptcy at issue); *In re Wiley*, 238 B.R. 895, 899 (Bankr. M.D. Fla. 1999) (“Plaintiff participated in arranging primary and secondary financing for NMI. In promoting this endeavor, Plaintiff and Hiller negotiated and arranged for Silicon Valley Bank (‘SVB’) to replace Bank of Boston as NMI’s senior lender.”). In addition to the collateral, in some cases, the bank insisted on personal guarantee. *See 21X Capital Ltd. v. Werra*, No. C 06-04135 JW, 2009 WL 8613005, at \*1 (N.D. Cal. Mar. 19, 2009) (requiring personal guarantee for the loan, in addition to security interest in the collateral); *see also Pahl v. CIR*, 150 F.3d 1124, 1126 (9th Cir. 1998) (“At the same meeting, Pahl and Gosselin were elected directors of the corporation. Pahl was elected President of the board, Gosselin and Cecchini became Vice-Presidents, and Niesar remained Secretary. The board authorized Pahl to negotiate a half-million dollar line of credit with Silicon Valley Bank, which Pahl and Gosselin personally guaranteed . . .”).

182. *See generally* Cam Merritt, *What Has More Liquidity—Merchandise Inventory or Accounts Receivable?*, *CHRON*, <https://smallbusiness.chron.com/liquidity-merchandise-inventory-accounts-receivable-59810.html> [<https://perma.cc/RM7M-Q3EW>] (last visited Feb. 6, 2020) (stating that accounts receivable are considered more liquid than merchandise inventory); *Order of Liquidity*, *ACCT. TOOLS* (Dec. 25, 2018),



intellectual property assets.<sup>183</sup> Such efforts are costly but necessary to the borrower's daily operation. Without the intellectual property rights, the borrower cannot continue to enjoy the exclusivity in making and distributing its patented products or services. In turn, the borrower will not be able to generate revenue, and the bank cannot collect on the borrower's accounts receivables.

Moreover, in the event of default, the bank can foreclose on both the accounts receivables and the intellectual property assets.<sup>184</sup> Pursuant to the agreements between the bank and a technology borrower, the bank attains senior security interest in the collateral. The bank has priority over other competing interests in the accounts receivables and intellectual property assets.<sup>185</sup> With the priority, the bank can then sell its rights in the collateral to others, minimizing its exposure.<sup>186</sup>

Intellectual property assets, rights, and interest are complex.<sup>187</sup> Ownership, enforcement action, and defense assertion are prohibitively expensive. Although the bank has a security interest in the assets, in the event of default, the bank knows that in some cases it wants neither to foreclose on the intellectual property collateral,<sup>188</sup> nor exercise strict foreclosure right to own the intellectual property assets.<sup>189</sup> Instead, the bank reaches in its circles of experts, founders, and entrepreneurs to offload its senior security interest rights in the intellectual property collateral as soon as possible, passing the burden to

<https://www.accountingtools.com/articles/what-is-order-of-liquidity.html> [https://perma.cc/D5QJ-DZLE] (providing that accounts receivable is highly liquid after cash and marketable securities).

183. *Loan and Security Agreement between Silicon Valley Bank and Bigband Networks Bas, Inc.*, SEC § 6.8, <https://www.sec.gov/Archives/edgar/data/1381325/000119312506259296/dex1022.htm>

[https://perma.cc/25WJ-6SAF] (last visited Feb. 6, 2020); *Accounts Receivable Purchase Agreement, supra* note 151, § 6.8; *Loan and Security Agreement between Silicon Valley Bank and Hyperion Therapeutics Inc.*, SEC § 6.7, <https://www.sec.gov/Archives/edgar/data/1386858/000119312512245995/d178027dex1024.htm> [https://perma.cc/YTS6-FX6P] (last visited Feb. 6, 2020).

184. *See, e.g., In re World Auxiliary Power Co.*, 303 F.3d 1120, 1123, 1131 (9th Cir. 2002) (stating that Silicon Valley Bank provided loans to the borrower and obtained a priority security interest in the debtor's assets, including, account receivables, copyrights to software, and ruling the bank perfected its security interest in the unregistered copyrights for software and had priority over the bankruptcy trustee).

185. With the security interest in the account receivables, the bank has priority over the bankruptcy trustee when the debtor is in default. For example, in *In re USM Tech. Corp.*, 158 B.R. 821, 823 (Bankr. N.D. Cal. 1993), the bankruptcy trustee yielded the accounts receivable proceeds to Silicon Valley Bank because the bank had secured status.

186. For example, in *21X Capital Ltd. V. Werra*, No. C 06-04135 JW, 2009 WL 8613005 at \*1 (N.D. Cal. Mar. 19, 2009), *amended*, 2009 WL 10680570 (N.D. Cal. May 27, 2009), *rev'd*, 418 F. App'x 605 (9th Cir. 2011). RJW Acquisitions and Silicon Valley Bank were secured creditors of Sunrise Technologies International, Inc. ("Sunrise"). Sunrise defaulted on both loans. As the "lead secured creditor," the Bank began "foreclosure proceedings by setting up an auction of Sunrise's property. In order to gain control of the foreclosure process and to protect their pledges and personal guarantees, Plaintiffs purchased the rights of the Bank. Plaintiffs also assumed operating control of Sunrise." *Id.* at 1.

187. *In re World Auxiliary Power Co.*, 303 F.3d at 1131–32 (discussing the complexity of the intersection of copyright law, unregistered and registered copyrights as collateral in secured transaction, constitutional interpretation of the intellectual property clause, and preemption in a seminal case involving Silicon Valley Bank's security interest in unregistered copyrights in software).

188. The bank, as a senior secured party has the right to foreclose on the collateral. *See* U.C.C. §§ 9-609–615 (AM. LAW INST. & UNIF. LAW COMM'N 1977) (providing procedures and requirements for foreclosure and disposition of the collateral).

189. *See* U.C.C. § 9-620 (providing the procedures for "acceptance of collateral in full or partial satisfaction of obligation"); U.C.C. § 9-622 (providing the effect of the secured party's acceptance of the collateral in full or partial satisfaction of the loan that the debtor transfers all rights in the collateral to the secured party).

dispose of the intellectual property to the acquirer.<sup>190</sup> For example, in *Sky Technologies v. SAP*, Silicon Valley Bank received senior security interest in Ozro, Inc.'s assets, including patents.<sup>191</sup> Ozro was a technology company providing online supplier relationship management solutions.<sup>192</sup> When Ozro was in financial difficulty and defaulted on the loan, SVB assigned its senior security interest in the patent collateral to Cross Atlantic Capital Partners, Inc., which later foreclosed and sold the patents at public auction.<sup>193</sup> Through the assignment of its senior security interest right in the collateral to other venture firms, the bank saves time and effort in handling the sale of the foreclosed intellectual property.<sup>194</sup> The burden was then on the venture firms to dispose of the collateral.<sup>195</sup>

Silicon Valley Bank, for example, is aware that a startup company with VC backing will not be able to issue stock options to the bank. The startup and its investors both will not find the enterprise attractive if the shares are diluted due to granting stock options to the bank. In addition, the bank is not permitted to be in the business of being an investor in startups because banks operate in a highly regulated industry. Therefore, Silicon Valley Bank opts for the warrants to purchase shares from the startups.<sup>196</sup> Pursuant to the warrant, the bank and the startup agree to the terms of the warrant, including the expiration date, number of shares, and per share value.<sup>197</sup>

190. See, e.g., *Sky Techs. LLC v. SAP AG*, 576 F.3d 1374, 1376–77 (Fed. Cir. 2009) (an example of offloading its senior security interest rights).

191. *Sky Techs. LLC*, 576 F.3d at 1376–77 (explaining that on April 2, 2001 SVB recorded its security interest in Ozro's assets and patents, and on April 3, 2001 Ozro granted XACP security interest in the same collateral).

192. See Fred Krazeise & Evan Zall, *Ozro and Unibex Partner to Bring Negotiation to Online Relationship Management*, CISION:PRWEB (Apr. 5, 2001), <https://www.prweb.com/releases/2001/04/prweb24123.htm> [<https://perma.cc/97B3-MT2Q>].

193. *Sky Techs.*, 576 F.3d at 1377.

194. *Id.* at 1378. The venture firm, XACP, bought the collateral at the public auction and later sold the collateral through a settlement agreement with another entity who then brought a patent infringement action against SAP. *Id.*

195. *Id.*

196. Xoom Corp. granted Silicon Valley Bank a warrant to purchase 100,000 shares of common stock at \$1.71 per share with an expiration date ten years after issue date. *Warrant to Purchase Stock Issued by Xoom Corporation to Silicon Valley Bank*, SEC, <https://www.sec.gov/Archives/edgar/data/1315657/000119312513010596/d364901dex45.htm> [<https://perma.cc/L34C-T4GN>] (last visited Feb. 6, 2020).

Alphatec Holdings granted Silicon Valley Bank a warrant to purchase 190,476 shares of common stock at \$1.89 per share for ten years after issue date. *Warrant to Purchase Stock issued by Alphatec Holdings, Inc. to Silicon Valley Bank*, SEC, <https://www.sec.gov/Archives/edgar/data/1350653/000119312509044992/dex43.htm> [<https://perma.cc/EAJ2-AFU8>] (last visited Feb. 6, 2020); see also *Warrant to Purchase Stock issued by Nuvectra Corporation to Silicon Valley Bank*, SEC, [https://content.edgar-online.com/ExternalLink/EDGAR/0001437749-18-017908.html?hash=22f2a2363a3514d3a7a89d88eff10fc2276810bae8bad51849bfb8e89724bce&dest=EX\\_124988\\_HTM#EX\\_124988\\_HTM](https://content.edgar-online.com/ExternalLink/EDGAR/0001437749-18-017908.html?hash=22f2a2363a3514d3a7a89d88eff10fc2276810bae8bad51849bfb8e89724bce&dest=EX_124988_HTM#EX_124988_HTM) [<https://perma.cc/7BVA-3TEV>] (last visited Feb. 6, 2020).

197. *ESSA Secures \$10MM Term Loan from Silicon Valley Bank*, ABF J. (Nov. 22, 2016), <https://www.abfjournal.com/dailynews/essa-secures-10mm-term-loan-from-silicon-valley-bank/> [<https://perma.cc/5ZFF-7LM8>] (describing the warrant issued by ESSA Pharma to Silicon Valley Bank in connection with a term loan; the bank received “warrants to purchase shares of the company’s common stock equal to 4% of the amount advanced, divided by the exercise price of the warrants, based on the five-day volume weighted average trading price of the company’s common shares on the Toronto Stock Exchange, to be determined prior to the time of the issuance of the warrants. In connection with the advance to the company of \$8 million, the company granted to the bank and Life Science Loans II, an aggregate of 149,532 warrants. Each warrant entitles the holder to purchase one common share of the company for a period of seven years at a price

Moreover, to minimize risk exposure in lending to technology companies, insurance products may be necessary to guard against losses. Illustratively, Silicon Valley Bank extended multi-million dollar loans to motion picture production companies to produce two films, “It Had to be You” and “The Calling.”<sup>198</sup> The Bank insured the loans against the risk that the borrowers would fail to repay the loans due to lack of audience interest in the movies.<sup>199</sup> The Bank purchased insurance policies from New Hampshire Insurance Company, AIG Europe, AXA Corporate Solutions, and Great Lakes Reinsurance.<sup>200</sup> When the movies failed to generate sufficient revenue, the Bank brought a breach of contract action against the insurance companies because they did not pay the Bank’s claim.<sup>201</sup>

In summary, reliance on the private ordering of contracts is necessary for the model of banking innovators.<sup>202</sup> Contracts facilitate and hold different prongs of the model together, allowing both the banks and their clients to benefit from the innovators’ intellectual property assets and growth.

## VII. CONCLUSION

The model of banking innovators pioneered by Silicon Valley Bank turned the unbanked, local technology companies into bankable clients in Silicon Valley in the late 1970s and early 1980s. As of today, across the United States, banks continue to shun innovators. Local and national economic growth necessitates banks innovate and accept new clients. Without banking innovators, banks themselves face their own existential risks.<sup>203</sup>

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of \$2.14 per warrant share. The warrants contain adjustment mechanisms in the event of a share split, stock reclassification, exchange, combination and similar events, and also provide for cashless exercise.”); *see also* *Sophiris Bio Secures up to \$10 Million in Term Loans from Silicon Valley Bank*, SOPHIRIS (Sept. 13, 2018), <https://investor.sophirisbio.com/news-releases/news-release-details/sophiris-bio-secures-10-million-term-loans-silicon-valley-bank> [<https://perma.cc/X25A-F5QV>] (summarizing Sophiris’ warrant to purchase 99,526 stock to Silicon Valley Bank in connection with a loan).

198. *Silicon Valley Bank v. N.H. Ins. Co.*, 203 F. Supp. 2d 1152, 1154 (C.D. Cal. 2002).

199. *Id.*

200. *Id.* at 1155.

201. *Id.*

202. Private ordering of contracts is important in venture capital, as seen in recent contractual innovation. John F. Coyle & Joseph M. Green, *Contractual Innovation in Venture Capital*, 66 HASTINGS L.J. 133, 133 (2014).

203. A few small community banks have embraced innovation to alter their struggling existence after the 2008 financial crisis. Kate Rooney, *Small Banks You’ve Never Heard of Are Quietly Enabling the Tech Takeover of the Financial Industry*, CNBC (Feb. 15, 2019, 12:15 PM), <https://www.cnbc.com/2019/02/15/small-banks-youve-never-heard-of-quietly-power-the-booming-fintech-industry--.html> [<https://perma.cc/W5GQ-Y6JR>].