

Essays on Open Banking, Account Portability, Digitizing a Bank, Crypto Lending, and Social Commerce



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ABSTRACT: This paper discusses five topics: open banking, account portability, bank digitization, crypto lending, and social commerce. In the first section, open banking is defined, how open banking works is described, the advantages and disadvantages of open banking are highlighted, and regulations and open banking are outlined. The second section examines account portability. First, it is defined, and its characteristics are listed. Consumer empowerment and liquidity risks are considered. The fall of Silicon Valley Bank and Signature Bank are then reviewed. The third section appraises bank digitization, evaluating the technological options and their advantages and disadvantages. The financial controls and the regulatory considerations are then assessed. In the fourth section, crypto lending is studied. It is first defined, followed by a subsection on how crypto lending works. The third subsection shows how to make money with crypto lending, indicates the risks associated with crypto lending, and finally illustrates the differences between crypto lending and traditional lending. The final section talks about social commerce, where the controls to enhance the customer experience and to protect the customer are disclosed.

KEYWORDS: Account Portability • Bank Digitization • Crypto Lending • Open Banking • Social Commerce

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LIST OF ABBREVIATIONS

Abbreviation	Description
API	Application Programming Interface
CASS	Current Account Switch Service
FDIC	Federal Deposit Insurance Corporation
NPCI	National Payments Corporation of India
SB	Signature Bank
SVB	Silicon Valley Bank
SVBB	Silicon Valley Bridge Bank
UK	United Kingdom
YNAB	You Need a Budget

INTRODUCTION

This paper discusses five topics: open banking, account portability, bank digitization, crypto lending, and social commerce. In the first section, open banking is defined, how open banking works is described, the advantages and disadvantages of open banking are highlighted, and regulations and open banking are outlined. The second section examines account portability. First, it is defined, and its characteristics are listed. Consumer empowerment and liquidity risks are considered. The fall of Silicon Valley Bank and Signature Bank are then reviewed. The third section appraises bank digitization, evaluating the technological options and their advantages and disadvantages. The financial controls and the regulatory considerations are then assessed. In the fourth section, crypto lending is studied. It is first defined, followed by a subsection on how crypto lending works. The third subsection shows how to make money with crypto lending, indicates the risks associated with crypto lending, and finally illustrates the differences between crypto lending and traditional lending. The final section talks about social commerce, where the controls to enhance the customer experience and protect the customer are disclosed.

OPEN BANKING

This section discusses open banking by evaluating how it is currently employed. First, open banking is defined. Second, the section describes how open banking works. Third, the section highlights the advantages and disadvantages of open banking. The fourth subsection talks about some of the regulatory issues surrounding open banking. The final subsection points out that open banking is not for everyone. The affinity for open banking depends on an individual's risk aversion when their financial data can be breached, hacked, or otherwise violated.

Definition of Open Banking

According to the Investopedia Team, open banking, also known as open bank data, is a "banking practice that provides third-party financial service providers open access to consumer banking, transaction, and other financial data from banks and non-bank financial institutions through the use of application programming interfaces (APIs)."¹ Open banking allows accounts to be networked across institutions that consumers, financial institutions, and third-party service providers can access.² Open banking is currently perceived as a significant source of banking innovation.³

According to Stevens and Whiteman, open banking is "securely sharing financial data between banks and third-party service providers, such as fintech apps."⁴ Previously, consumer financial data was controlled solely by a customer's bank. With open banking, consumers can manage their financial information by accessing it through different software applications.⁵ Open banking gives customers a more personalized experience when managing their financial data. Open banking also promotes competition by pushing existing banks to improve their offerings when competing with smaller and newer banks. Customers may also benefit by paying lower costs while enjoying improved technology and customer service.⁶

How Does Open Banking Work?

Open banking employs APIs, permitting two or more different programs to communicate with each other.⁷ Given that a chain is only as strong as its weakest link, the risks of using open banking are directly related to the strength of the weakest API. When a third party receives financial information from a customer's bank, it can offer personalized solutions. Examples of open banking APIs include *Mint*, and *You Need a Budget (YNAB)*.⁸

Open banking can affect different institutions in the following ways:⁹

- **Financial Service Providers:** Open banking encourages innovation by providing more choices for consumers;
- **Businesses:** Open banking allows businesses to understand and appreciate the needs of their customers, tailoring their product and service offerings; and
- **Consumers:** Open banking gives customers more control of their financial data by providing efficient and personalized money management tools.

¹ The Investopedia Team, Open Banking: Definition, How It Works, and Risks, *Investopedia* (May 10, 2024), available at <https://www.investopedia.com/terms/o/open-banking.asp>.

² *Id.*

³ *Id.*

⁴ Theresa Stevens, & Doug Whiteman, What Is Open Banking, *Forbes* (Oct. 13, 2022), available at <https://www.forbes.com/advisor/banking/open-banking/>.

⁵ *Id.*

⁶ *Id.*

⁷ *Id.*

⁸ *Id.*

⁹ *Id.*

Advantages and Disadvantages of Open Banking

Open banking advertises convenient access to consumers' financial data and streamlines costs for financial institutions. In other words, open banking externalizes the costs and responsibilities of managing consumer financial data.¹⁰ If financial data is breached, open banking may relieve financial institutions of the legal responsibilities of managing financial data. If a malicious third party were to zero out a customer's account under open banking, a given financial institution may not be liable to restore a customer's lost assets. Other security risks include data breaches caused by poor security, hacking, or even insider threats.¹¹

Open banking is likely to change the competitive environment of the financial services industry by benefiting consumers. However, consumer costs may increase if open banking consolidates financial services due to economies of scale. Increased market concentration due to the natural economic tendency for markets to form oligopolies could wipe out the cost advantages of open banking.¹² These days, Internet-based services are consolidated in online shopping, search engines, and social media. Consumers and regulators widely believe that Internet-based consolidated services seem to promote tech giants' misuse of customer data.¹³ The General Data Protection Regulation (GDPR) legally protects customer data in the European Union (EU). However, no such comprehensive data protection law exists in the United States.¹⁴

Regulations and Open Banking

A significant issue with open banking is who is responsible when customer financial data is breached. According to the analysis above, individuals are responsible for their financial data. This externalization of responsibility to the customer relieves financial institutions of their present fiduciary responsibilities under the law. The advantages of open banking are seemingly being promoted to consumers without a thorough understanding of its disadvantages, mainly why and what happens when data breaches occur. Even so, the EU permits open banking,¹⁵ but they have the GDPR to rely on regarding privacy concerns and data breaches.¹⁶ The United States has no such comprehensive federal law. Open banking can be viewed as an end to United States financial statutes assuming that what is not forbidden is permitted. This is an unacceptable situation. Thus, for open banking to have merit in the United States, the appropriate federal and state laws must be passed or modified to regulate it. Without such laws, open banking is a regression mechanism that returns to a laissez-faire banking environment where anything goes. Such a situation is simply unacceptable.

Open Banking Conclusion

Thus, based on the above information, open banking is an excellent opportunity for individuals who want to take control of their financial lives. They are seemingly willing to incur the risk of loss if their financial data is breached, hacked, or otherwise violated. On the other hand, individuals who would prefer not to engage in open banking are likely risk-averse because they are transferring the risk of loss due to a breach of their financial data to the financial institution entrusted with their data. The question that any individual must answer when deciding whether to engage in open banking is how risk-averse they are (or how much of a risk-lover they are) when a financial data violation is at stake. This is not an easy question to answer. Each person must decide for themselves.

ACCOUNT PORTABILITY

This section discusses account portability in light of consumer empowerment and the liquidity risk of retail deposits. The first subsection defines account portability, while the second subsection describes the characteristics of account portability. The third subsection outlines how customer empowerment and liquidity risks are affected by account portability. The fourth subsection highlights the failures of Silicon Valley Bank and Signature Bank, focusing on how account portability contributed to these failures. The final subsection concludes that although account portability offers customers convenience and control, it may harm the U.S. banking system under the right conditions.

¹⁰ The Investopedia Team, *supra*, note 1.

¹¹ *Id.*

¹² *Id.*

¹³ *Id.*

¹⁴ Donald L. Buresh, Should Personal Information and Biometric Data Be Protected under a Comprehensive Federal Privacy Statute that Uses the California Consumer Privacy Act and the Illinois Biometric Information Privacy Act as Model Laws?, 38 SANTA CLARA HIGH TECHNOLOGY LAW JOURNAL 1, 39-93 (Oct. 2021), available at <https://digitalcommons.law.scu.edu/ctlj/vol38/iss1/2/>.

¹⁵ Theresa Stevens, & Doug Whiteman, *supra*, note 4.

¹⁶ Donald L. Buresh, *supra*, note 14.

Account Portability Definition

According to Patel, account portability means a customer can “move away from one bank to the other by just transferring his bank account number and not having to open a new account altogether in another bank.”¹⁷ Account portability is accomplished in India because individuals are given unique Aadhaar card numbers from the National Payments Corporation of India (NPCI), which are used to identify individuals exclusively.¹⁸ Currently, banks provide customers with account numbers that are specific to that bank. It is possible that the same account number could be given to one customer from one bank and to another customer from another bank.¹⁹ In other words, account portability strictly depends on uniquely identifying customers independent of the bank where they do business.

Account Portability Characteristics

The benefits of account portability include switching banks while keeping the same account number and standing instructions.²⁰ For example, in the United Kingdom (UK), the Current Account Switch Service (CASS) permits customers to switch banks while keeping their account numbers.²¹ Portability can also allow customers to move their money to other accounts, such as when employees maintain benefits such as health insurance or retirement plans when they change jobs.²² In another example, a surviving spouse could add their deceased spouse's unused estate tax exemption to their exemption.²³ Finally, with account portability, individuals can move, copy, or reuse their personal data in different financial services and IT environments.²⁴

There is a flip side of account portability that bears stating. With account portability comes the blurring of individual banking corporations. One can view account portability as a transitory situation, where the goal is for all individuals to bank at the same organization. In contrast, under the current banking system, individuals and businesses may have:²⁵

- Limited liability to the assets in specific banks;
- Credibility because it demonstrates that an individual or business is legitimate;
- Legal separation is maintained by disconnecting personal and business expenses and finances;
- Credit applications are more straightforward because fewer financial institutions are involved;
- Legal protection is increased when personal and business assets are not commingled; and
- Tax returns are more straightforward to generate because there is no maze of financial institutions to be navigated.

If account portability is indeed a transitory state where the goal is for all individuals to bank at a single behemoth bank, what can an individual do if the bank closes their account or refuses to release their money on demand? In this society, many rely on putting their earnings into their bank as a security measure. Account portability seemingly removes these constraints in the name of customer convenience. The issue is whether the constraints above still have value in a fast-moving financial environment.

A common misconception is that when individuals put their money in a bank, they retain title to that money.²⁶ This is incorrect. A debt relation is created when an individual deposits their money in a bank.²⁷ The bank that receives the funds must return the monetary equivalent of the deposited funds, not identical ones.²⁸ The bank/debtor becomes the legal and beneficial owner (holds the title) of the money received from the depositor. The depositor has a claim against the bank/debtor for the return of an

¹⁷ Himali Patel, Brace Yourself for Bank Account Portability, *Outlook Money* (Jun. 6, 2017), available at <https://www.outlookmoney.com/banking/brace-yourself-for-bank-account-portability-1750>.

¹⁸ *Id.*

¹⁹ *Id.*

²⁰ FCA Staff, Account Number Portability, *Financial Conduct Authority* (Mar. 2015), available at <https://www.fca.org.uk/publication/research/andp-research.pdf>.

²¹ *Id.*

²² Julia Kagan, Portability, *Investopedia* (Feb. 23, 2021), available at <https://www.investopedia.com/terms/p/portability.asp#:~:text=Portability%20refers%20to%20an%20employee's,members%20based%20on%20health%20factors>.

²³ Trustate Team, What Is Portability, *Trustate* (n.d.), available at <https://www.trustate.com/post/what-is-portability#:~:text=Let's%20use%20an%20example:,were%20to%20die%20in%202022>.

²⁴ Craig S. Mullins, Data Portability, *Tech Target* (Feb. 2021), available at <https://www.techtarget.com/searchcloudcomputing/definition/data-portability#:~:text=What%20data%20does%20the%20data,phone%20number>.

²⁵ See generally, Multipass Staff, 9 Reasons to Separate Business and Personal Bank Accounts, *Multipass* (n.d.), available at <https://multipass.co/help-centre/knowledge-base/9-reasons-to-separate-business-and-personal-bank-accounts>.

²⁶ Oliver3642, You Don't Own the Money in Your Bank Account. Here's Why, *Valhalla Network* (Feb. 17, 2023), available at <https://www.valhallanetwork.io/post/2-who-owns-the-money-in-your-bank-account>.

²⁷ *Id.*

²⁸ *Id.*

equivalent amount of money.²⁹ In other words, customer's money passes to the bank after the deposit is made, and the "money paid into a bank account belongs legally and beneficially to the bank and not the account holder."³⁰ With account portability, where the title of deposited money can be blurred, if a single financial institution withholds customer money for political rather than financial reasons, an individual attempting to access their funds from multiple institutions may be breaking multiple laws, one count for each attempt. This is not merely speculative but an actual situation that occurs frequently these days.^{31 32 33} Under account portability, the question is, who has title to customer funds when multiple institutions can titularly claim the money in a customer's account?

The conventional wisdom states that being unbanked or underbanked is a disadvantage.³⁴ Contino observed that 23 percent of Americans who make less than \$25,000 annually live without a bank account.³⁵ The percentage drops to 6 percent when annual income is ignored.³⁶ Contino noted that the percentages were 14 percent for blacks, 11 percent for Hispanics, 4 percent for whites, and 4 percent for Asians.³⁷ Why? It is difficult to believe that they are holdovers from the Great Depression of 1929, but they may have been adversely affected by the Great Recession of 2008. Contino argued that distrust of banks is transmitted from generation to generation, but the proposition needs empirical verification.³⁸

The advantage that the unbanked and underbanked possess is that they retain title to their money by not using banking services. They may fear a banking collapse sometime in the future, but they may also intrinsically realize that they are retaining title by holding on to their funds.

Account Portability, Customer Empowerment, and Liquidity Risks

The common belief is that account portability empowers individuals.³⁹ The benefits of account portability include increased control, convenience, innovation, and retirement security.⁴⁰ These benefits are real and should not be discounted arbitrarily. However, like all things in life, they come with a price. It was previously discussed that with account portability comes the blurring of banking institutions, the lack of title to funds, and a host of legal and tax considerations.

One issue that needs additional analysis is liquidity risks for banks. According to Shapiro, MacDonald, and Greenlaw, the three tools of the Federal Reserve are the reserve requirements ratio, the discount rate, and open market operations.⁴¹ The reserve requirement ratio is one of the three monetary policy tools that the Federal Reserve employs to manage the economy of the United States. The purpose of the reserve requirement ratio is to specify the percentage of liquid assets a bank must hold.⁴² The reserve requirement ratio is the percentage of "reservable liabilities that commercial banks must hold onto, rather than lend out or invest."⁴³ The Federal Reserve determines the ratio and the minimum percentage of reserves a bank must hold. The reserve requirement ratio

²⁹ E. P. Ellinger, E. Lomnicka, and C. V. M. Hare, *Ellinger's Modern Banking Law* 120 (Oxford University Press, 5th ed, 2011), available at https://www.google.com/books/edition/Ellinger_s_Modern_Banking_Law/rUKcAQAAQBAJ?hl=en&gbpv=1&printsec=frontcover.

³⁰ *Id.*

³¹ See generally, Ashley Eneriz, Why Is My Bank Account Frozen?, *Investopedia* (Feb. 23, 2024), available at <https://www.investopedia.com/articles/markets-economy/082316/3-reasons-banks-can-freeze-your-account.asp#:~:text=Banks%20may%20freeze%20bank%20accounts,unpaid%20taxes%20or%20student%20loans>.

³² Ron Leiber, & Tara Siegel Bernhard, Why Banks Are Suddenly Closing Down Customer Accounts, *The New York Times* (Nov. 5, 2023), available at <https://www.nytimes.com/2023/11/05/business/banks-accounts-close-suddenly.html>.

³³ Tara Siegel Bernhard, & Ron Leiber, Banks Are Closing Customer Accounts, With Little Explanation, *The New York Times* (Apr. 8, 2023), available at <https://www.nytimes.com/2023/04/08/your-money/bank-account-suspicious-activity.html>.

³⁴ Genna Contino, 23% of Low-Income Americans Are Living Without a Bank Account, *CNBC* (Aug. 2, 2024), available at <https://www.cnb.com/2024/08/02/23percent-of-low-income-americans-are-living-without-a-bank-account.html#:~:text=About%206%25%20of%20Americans%20were,people%20making%20less%20than%20%20%2425%2C000>.

³⁵ *Id.*

³⁶ *Id.*

³⁷ *Id.*

³⁸ *Id.*

³⁹ See generally, OECD Staff, The Impact of Data Portability on User Empowerment, Innovation, and Competition, *Organisation for Economic Co-operation and Development* (Jun. 29, 2024), available at https://www.oecd.org/en/publications/the-impact-of-data-portability-on-user-empowerment-innovation-and-competition_319f420f-en.html.

⁴⁰ MantraSys Staff, Navigating Data Portability: Unveiling Benefits and Challenges for Consumers, *LinkedIn.com* (Feb. 9, 2024), available at <https://www.linkedin.com/pulse/navigating-data-portability-unveiling-benefits-challenges-sznwe/>.

⁴¹ *Id.*

⁴² David Shapiro, Daniel MacDonald, & Steven A. Greenlaw (contrib. eds.), *Principles of Economics* (OpenStax 3ed. 2022).

⁴³ Will Kenton, What Is the Reserve Ratio, and How Is It Calculated?, *Investopedia* (Jan. 17, 2022), available at <https://www.investopedia.com/terms/r/reserveratio.asp#:~:text=The%20reserve%20ratio%20is%20the,as%20the%20cash%20reserve%20ratio>.

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is controlled by Regulation D, where the percentage is specified for all member banks of the Federal Reserve System.⁴⁴ The reserve requirements ratio is also known as the cash reserve ratio.

On March 26, 2020, the Federal Reserve eliminated the reserve requirement due to the global financial crisis caused by the Covid-19 pandemic.⁴⁵ A zero percent reserve requirements ratio means that banks are not required to keep any deposits at the Federal Reserve or in their vaults. If desired, banks can now loan out all their deposits.⁴⁶

This fact has massive implications when account portability enters into the equation. With account portability, individuals can move their funds from account to account and from bank to bank to maximize the effective use of their money. When the Federal Reserve does not require banking institutions to hold required reserves, as is the case today, problems can occur not only when individuals desire to withdraw their funds, mainly when the amount to be withdrawn is significant, but also in the case of a bank run. Banks and other financial institutions may not have available reserves to meet the withdrawal demand. In this situation, the lack of liquidity in the form of reserves can seriously impact individuals and the economy, particularly those using account portability facilities. In other words, account portability may potentially exacerbate an already risky situation due to the lack of required reserves.

Silicon Valley Bank, Signature Bank, and Account Portability

The issue that is addressed in this section is whether FinTech and banking innovations (i.e., account portability) led to Silicon Valley Bank's and Signature Bank's failures. Each bank failure will be discussed in turn.

Silicon Valley Bank Failure

On Friday, March 10, 2023, the Silicon Valley Bank (SVB) of Santa Clara, California, was closed by the California Department of Financial Protection & Innovation.⁴⁷ The Federal Deposit Insurance Corporation (FDIC) was named Receiver.⁴⁸ No advance notice was given to the public when SVB closed. The FDIC transferred all the deposits and substantially all of the assets of SVB to Silicon Valley Bridge Bank (SVBB), a full-service bank operated by the FDIC.⁴⁹ On March 26, 2023, the FDIC entered into a purchase and assumption agreement for all deposits, excluding Cede & Co. deposits and the loans of SVBB by First-Citizens Bank & Trust Company of Raleigh, North Carolina.⁵⁰ As part of this transaction, SVBB was also placed into receivership.⁵¹

According to Siokis, the federal funds rate grew rapidly from January 2022 to January 2023, from 0.25 to about 4.5 percent.⁵² The federal funds rate is a market rate where banks trade with each other and is based on the discount rate that the Federal Reserve sets.⁵³ The hurried increase in the federal funds rate precipitated a sharply inverted yield curve, where short-term rates exceeded long-term rates.⁵⁴ An inverted yield curve is a reliable indicator of a recession.⁵⁶

With the rise of interest rates, the economic environment weakened, start-ups needed more working capital or cash, and withdrawals increased.⁵⁷ With the excessive need for *hot money*, or currency that quickly and regularly moves between financial markets to ensure that investors lock in the highest available short-term interest rates,⁵⁸ and the apparent absence of long-term funding sources, such as revolving credit lines, precipitated an insolvent bank environment.⁵⁹ It should be remembered that informed investors, such as individuals engaged in employing account portability, are likely to flee at the first sign of trouble.⁶⁰ To meet

⁴⁴ *Id.*

⁴⁵ Gary Smith, Federal Reserve Eliminates Reserve Requirements, *Eide Bailly* (Dec. 7, 2020), available at <https://www.eidebailly.com/insights/articles/2020/4/federal-reserve-eliminates-reserve-requirements>.

⁴⁶ *Id.*

⁴⁷ FDIC Staff, Failed Bank Information for Silicon Valley Bank, Santa Clara, CA, *Federal Deposit Insurance Corp.* (Sep. 3, 2024), available at <https://www.fdic.gov/resources/resolutions/bank-failures/failed-bank-list/silicon-valley.html>.

⁴⁸ *Id.*

⁴⁹ *Id.*

⁵⁰ *Id.*

⁵¹ *Id.*

⁵² Fotis Siokis, Silicon Valley Bank Failure Explained, *The Economic Studies Group* (Mar. 28, 2023), available at <https://esg.gc.cuny.edu/2023/03/28/silicon-valley-bank-failure-explained/#>.

⁵³ David Shapiro, Daniel MacDonald, & Steven A. Greenlaw, *supra*, note 26.

⁵⁴ Fotis Siokis, *supra*, note 36.

⁵⁵ Daniel Liberto, Inverted Yield Curve: Definition, What It Can Tell Investors, and Examples, *Investopedia* (Oct. 13, 2024), available at

<https://www.investopedia.com/terms/i/invertedyieldcurve.asp#:~:text=An%20inverted%20yield%20curve%20shows,reliable%20indicator%20of%20a%20recession>.

⁵⁶ *Id.*

⁵⁷ Fotis Siokis, *supra*, note 52.

⁵⁸ James Chen, What Is 'Hot Money'? Definition and Economic Impact, *Investopedia* (Nov. 8, 2020), available at <https://www.investopedia.com/terms/h/hotmoney.asp#:~:text=Hot%20money%20signifies%20currency%20that,to%20those%20with%20higher%20rates>.

⁵⁹ Fotis Siokis, *supra*, note 52

⁶⁰ *Id.*

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depositors' claims for cash, SVB was forced to sell \$21 billion from the \$26 billion (81 percent) in its available-for-sale securities portfolio.⁶¹ Due to the inverted yield curve, SVB lost \$2 billion.⁶² SVB announced an unsuccessful sale of \$2.25 billion of stock shares to strengthen its balance sheet.⁶³ These events caused a bank run and SVB's failure.

It is hard to determine precisely the effect of account portability on the SVB failure. Even so, given that individuals who use account portability are likely to move money quickly to lock in the highest available short-term interest rates, it is not a stretch to conclude that account portability contributed to SVB's demise. Given the existence of an inverted yield curve at the time of the bank failure, it is no surprise that account portability may have played a pivotable role in the SVB failure. However, a more detailed analysis of the account portability's contribution to the bank's failure is required to determine the extent of the contribution.

Signature Bank Failure

On March 12, 2023, two days after SVB failed, Signature Bank (SB) also failed.⁶⁴ SB closed after its customers withdrew billions of dollars immediately after the collapse of SVB.⁶⁵ SB experienced a 23 percent decline in its stock price on March 10, 2023, and SB stock trading was halted that day due to volatility.⁶⁶ Federal regulators stated that guaranteeing the funds of the insured and uninsured would not be at taxpayer expense.⁶⁷ The two bank failures presented a significant risk to the U.S. banking system.

When SB failed, the bank served clients in the cryptocurrency environment but was attempting to reduce its exposure.⁶⁸ SB also focused on commercial clients, providing banking services for a significant percentage of uninsured commercial clients.⁶⁹ At the end of 2018, SB's uninsured deposits were \$30 billion, or 63 percent of the bank's total assets.⁷⁰ In December 2021, uninsured deposits were approximately \$98 billion, or 82 percent of total assets.⁷¹ SB relied extensively on uninsured deposits, where depositors could quickly withdraw their deposits if the bank were at risk of failure because if a bank failure occurred, depositors would not receive their funds.⁷² SB failed because it announced the liquidation of Silvergate Bank and the SVB failure.⁷³ Given the large percentage of uninsured deposits and that uninsured depositors flee at the least sign of trouble, SB failure was not a surprise.

Like SVB, deciding the effect of account portability on the SB failure is challenging. Even so, given that individual and business account portability is used extensively by savvy investors who desire to obtain the highest short-term interest rates possible, account portability was likely one of the culprits in SB's failure. Without an extensive analysis and understanding of the failure, it is hard to quantify the scope of account portability's contribution. It is likely that account portability playing a pivotable role in SB's failure, which occurred two days after the SVB failure.

Account Portability Conclusion

In conclusion, account portability and other banking innovations were likely some of the causes that precipitated the SVB and SF failures. Account portability, although offering customer control and convenience of their funds, can result in systematic banking failures due to the rapid ability to move money from one financial institution to another. The velocity of the movement can contribute to adverse financial effects when these institutions assume too many financial and other risks. Account portability is not a panacea for the ills of the banking sector. Instead, it is a mechanism that should be carefully monitored and controlled to ensure the viability of the American financial system.

BANK DIGITIZATION

This section discusses the issues of moving a bank into the digital world. First, a digital bank is defined. Second, the technological options for digitizing a bank are described. Third, the advantages and disadvantages of digitizing a bank are listed. Fourth, the controls needed when digitizing a bank are highlighted. It should be noted that many of the controls that digital banks

⁶¹ *Id.*

⁶² *Id.*

⁶³ *Id.*

⁶⁴ Karen Bennett, The Signature Bank Collapse: What You Need to Know, *Bankrate* (Mar. 19, 2023), available at <https://www.bankrate.com/banking/signature-bank-collapse/>.

⁶⁵ *Id.*

⁶⁶ *Id.*

⁶⁷ *Id.*

⁶⁸ David Hollerith, Regulators Seize Signature Bank in Third-Largest US Bank Failure, *Yahoo Finance* (Mar. 12, 2023), available at <https://finance.yahoo.com/news/regulators-seize-signature-bank-in-third-largest-us-bank-failure-231404695.html>.

⁶⁹ NYS-DFS Staff, New York State Department of Financial Services Internal Review of the Supervision and Closure Of Signature Bank, *New York State Department of Financial Services* (Apr. 28, 2023), available at [https://www.dfs.ny.gov/reports_and_publications/other_reports/internal_review_signature_bank_20230428#:~:text=The%20immediate%20cause%20of%20the,deficit%20of%20nearly%20\\$4%20billion.&text=-bank-run-in-history](https://www.dfs.ny.gov/reports_and_publications/other_reports/internal_review_signature_bank_20230428#:~:text=The%20immediate%20cause%20of%20the,deficit%20of%20nearly%20$4%20billion.&text=-bank-run-in-history).

⁷⁰ *Id.*

⁷¹ *Id.*

⁷² *Id.*

⁷³ *Id.*

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are subject to are also controls that traditional banks on a day-in, day-out basis. Fifth, regulatory considerations are itemized. Again, many of the regulatory considerations are relevant for traditional banks. The memorandum concludes by observing that digitizing a bank is an evolutionary process, and should be done in phases. In this way, the bank can warrant that the digital activities implemented are subject to established controls and conform with existing laws and regulations. It is the only way to ensure the effort is successful in the long run.

Definition of a Digital Bank

According to Malyshev, a digital bank is “a bank that operates online and provides its customers the services that were previously available only at a bank branch.”⁷⁴ Napoletano observed that digital banking combines online banking and mobile banking under one roof.⁷⁵ Online banking means “accessing banking features and services via [the] bank’s website from [a] computer.”⁷⁶ With online banking, an individual may log into their account to check their balance or pay an electric bill.⁷⁷ Online banking can also be used to apply for a credit card or a loan.⁷⁸ Mobile banking means “using an app to access many of those same banking features via mobile devices such as smartphones or tablets.”⁷⁹ The apps are typically proprietary and issued by a bank, where login information is usually the same as on the bank’s portal.⁸⁰ Banking apps include the most frequently used features, such as mobile check deposits, fund transfers, and bill payments.⁸¹ Banks sometimes use banking apps to send their customers alerts regarding fraud detection and balance notifications.⁸² Digital banking can be considered taking online banking to the next level.⁸³ Digital banking is an advanced financial solution that employs technology to deliver a complete set of banking services.⁸⁴

Technological Options When Digitizing a Bank

There are various technological options when digitizing a bank, including:

- **Cloud computing** – Cloud computing can improve operations, productivity, and the speed of delivering products and services.⁸⁵
- **Digital banking tools** – These automated tools digitize banking transactions, offering digital financial products to customer interactions.⁸⁶
- **Contactless payments** – Contactless payments are made through digital wallets, which allow mobile device transactions.⁸⁷
- **Bank transfers** – Bank transfers are a secure online payment method in which a customer authenticates a transaction before a bank accepts it.⁸⁸

⁷⁴ Alex Malyshev, What Is Digital Banking? Meaning, Types and Benefits, *SDK Finance* (Nov. 7, 2023), available at <https://sdk.finance/what-is-digital-banking/>.

⁷⁵ E. Napoletano, What Is Digital Banking?, *Forbes Advisor* (Feb. 24, 2021), available at <https://www.forbes.com/advisor/banking/what-is-digital-banking/>.

⁷⁶ *Id.*

⁷⁷ *Id.*

⁷⁸ *Id.*

⁷⁹ *Id.*

⁸⁰ *Id.*

⁸¹ *Id.*

⁸² *Id.*

⁸³ Chase Staff, Digital Banking vs. Online Banking: What's the Difference?, *JPMorgan Chase Bank, N.A.* (n.d.), available at <https://www.chase.com/personal/banking/education/basics/digital-banking-vs-online-banking-whats-the-difference>.

⁸⁴ *Id.*

⁸⁵ AEO Logic Staff, Digital Transformation Examples in Banking, *AEO Logic* (Jan. 2, 2023), available at <https://www.aeologic.com/blog/digital-transformation-examples-in-banking/#:~:text=Another%20digital%20transformation%20example%20in%20banking%20is,and%20instant%20delivery%20of%20products%20and%20services>.

⁸⁶ VMR Staff, Digital Banking Platform Market Size And Forecast, *Verified Market Research* (n.d.), available at <https://www.verifiedmarketresearch.com/product/digital-banking-platform-market/#:~:text=Digital%20banking%20is%20a%20tool%20for%20digitizing,banking%20can%20help%20speed%20up%20banking%20services>.

⁸⁷ Garima Bhatt, The Future of Payments: ‘From Cash to Digital Wallets’, *Status Neo* (n.d.), available at <https://statusneo.com/the-future-of-payments-from-cash-to-digital-wallets/#:~:text=Contactless%20Payments:%20Digital%20wallets%20allow%20users%20to,and%20help%20reduce%20the%20spread%20of%20germs>.

⁸⁸ OP Staff, Online Payment Methods for E-Commerce, *Ocean Payment* (Dec. 29, 2021), available at <https://www.oceanpayment.com/blog/20362/#:~:text=Bank%20Transfers%20Bank%20transfer%20is%20one%20of,and%20easy%20way%20to%20make%20online%20purchases>.

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- **Biometrics**—Biometrics employs facial recognition or fingerprints to verify customer identity and grant them access to their accounts.⁸⁹
- **Robotic process automation (RPA)** – RPA is a tool that automates and streamlines routine banking processes, reducing the time to open new accounts by decreasing errors.⁹⁰
- **Blockchain technology** – This technology digitizes money and banking by securely executing business processes via authentication.⁹¹
- **API banking** – Application programming interface (API) technology helps work effectively with FinTechs by digitizing their services.⁹²
- **Customer experience technologies** – These are technologies such as chatbots, visualization, augmented reality (AR), and virtual reality (VR) that can transform a customer’s banking experience.⁹³

Advantages and Disadvantages of Bank Digitization

The advantages and disadvantages of digitizing a bank are as follows:

Advantages

Advantages include:

- **Accessibility** – Digital banks are accessible 24/7 via apps and websites.⁹⁴
- **Cost reduction** – Digitizing a bank can decrease costs for banks and customers by reducing document courier fees and intermediary messaging system costs.⁹⁵
- **Better rates** – Digital banks can offer lower interest rates and fees than traditional banks.⁹⁶
- **Data-driven decision-making** – Digitized banks can employ large amounts of data to make decisions and improve processes efficiently and effectively using computers.⁹⁷
- **Transparency and Accountability**—Digital transactions typically have audit trails that leave a clear digital trail, which promotes transparency and accountability and decreases possible fraud.⁹⁸

⁸⁹ *Id.*

⁹⁰ TL Staff, Examples of RPA in Banking Operations—Robotic Process Automation Implementation in Commercial Lending, *The Lab* (Jul. 2, 2018), available at <https://thelabconsulting.com/examples-rpa-banking-operations-robotic-process-automation-implementation-commercial-lending/#:~:text=Robotic%20process%20automation%20or%20RPA%20is%20a,percent%20and%20cut%20error%20rates%20to%20zero>.

⁹¹ Sean Duffin, Crypto Considerations, *Cambridge Associates* (Oct. 2021), available at <https://www.cambridgeassociates.com/insight/crypto-considerations/#:~:text=Bitcoin%20is%20just%20one%20application%20of%20the,introduce%20authentication%20to%20intern et%20communication%20and%20commerce>.

⁹² TP Staff, What You Need to Know About API Banking, *Treasury Prime* (Apr. 6, 2021), available at <https://www.treasuryprime.com/blog/api-banking/#:~:text=API%20banking%20technology%20makes%20it%20possible%20for,experience%20to%20a%20larger%20spect rum%20of%20customers>.

⁹³ Roman Bevez, Banking Technology Trends to Watch for in 2024, *Avenga* (Mar. 15, 2024), available at <https://www.avenga.com/magazine/banking-technology-trends/>.

⁹⁴ Decta Staff, Pros and Cons of Digital Banks vs Traditional Banks, *Decta* (Aug. 19, 2024), available at <https://www.decta.com/company/media/pros-and-cons-of-digital-banks-vs-traditional-banks/#:~:text=Digital%20banks%20offer%2024/7,though%20each%20has%20unique%20considerations>.

⁹⁵ *Id.*

⁹⁶ *Id.*

⁹⁷ Karen Liedl, 5 Advantages of Digitalisation in the Banking Sector, *Softtek* (n.d.), available at <https://www.softtek.com/news-releases/5-advantages-of-digitalisation-in-the-banking-sector/#:~:text=Better%20decisions%20based%20on%20data:%20With%20the,their%20decisions%20or%20improve%20process es%20on%20the>.

⁹⁸ VFG Staff, Macquarie Bank Embraces Digital Cash: Advantages and Disadvantages of Going Cashless, *Vista Financial Group* (May 8, 2024), available at <https://www.vistafinancial.com.au/news-and-blogs/macquarie-bank-embraces-digital-cash-advantages-and-disadvantages-of-going-cashless/#:~:text=Dependency%20on%20Technology:%20A%20cashless%20society%20relies,of%20Certain%20Groups:%20Not%20all%20individuals%20have>.

Disadvantages

Disadvantages include:

- **Cybersecurity** - Digital banking customers may be vulnerable to cyber-attacks and identity theft.⁹⁹
- **Customer support** – Digital banks typically have limited customer service hours where customers can speak with human beings.¹⁰⁰
- **Deposit limitations** – Digital banks may limit the amount deposited by cash or check.¹⁰¹
- **Dependency on technology**—A cashless society, where digital banking is ubiquitous, is vulnerable to disruptions such as system outages or technological failures.¹⁰²
- **Exclusion of certain groups** – Some individuals, such as the elderly, low-income individuals, those without access to technology, or those who do not fully participate in the economy, do not have access to digital payment methods.¹⁰³

Financial Controls Needed When Digitizing a Bank

The types of internal controls are the categories of internal controls and the processes applicable to these controls.¹⁰⁴ Banking internal controls can be classified as controls that prevent risk, controls that detect risk, and controls that mitigate risk.¹⁰⁵ For each one of these classifications, banks should possess internal control checklists that include:¹⁰⁶

- Accessing systems and data;
- Business financing;
- Cash flow management;
- Cash payments;
- Cash receipts; and
- Payroll.

Digital banking is no different from traditional banking when internal controls are at issue. Controls should be developed and documented so they can be audited.¹⁰⁷ Internal controls could include:¹⁰⁸

Access Controls

- Sensitive areas should have restricted access;
- Systems access should require unique credentials for every employee;
- Credentials should be periodically updated; and
- Access should be revoked when employment ends.

Information Security Controls

- Customer and bank data should be encrypted;
- Firewalls should exist to safeguard all systems and customers;
- System histories should be present to validate changes; and
- Employees should not have access to data that is not within their job description.

⁹⁹ Camilo Maldonado, Digital Banking – Strengths & Weaknesses of Online Banks, *QBE Money* (Apr. 8, 2021), available at <https://blog.qubemoney.com/strengths-and-weaknesses-of-digital-banking/#:~:text=Cybersecurity%20concerns.%20A%20common%20argument%20against%20digital,still%20vulnerable%20at%20any%20type%20of%20bank.>

¹⁰⁰ Nazar Kwartalnyi, Pros and Cons of Online Banking for Businesses to Consider, *Inoxoft* (Sep. 15, 2024), available at <https://inoxoft.com/blog/what-is-mobile-banking-advantages-and-disadvantages-of-mobile-banking/>.

¹⁰¹ *Id.*

¹⁰² VFG Staff, *supra*, note 25.

¹⁰³ *Id.*

¹⁰⁴ Miles Hitchcock, Banking Internal Controls Checklist for Operations & Audits, *Diligent* (Dec. 5, 2023), available at <https://www.diligent.com/resources/blog/banking-internal-controls-checklist.>

¹⁰⁵ *Id.*

¹⁰⁶ *Id.*

¹⁰⁷ *Id.*

¹⁰⁸ *Id.*

Cash Handling Controls

- Cash should be secured;
- Limited amounts of cash should be accessible;
- Only a few individuals should have more than read access to other individuals' cash accounts and actual physical cash; and
- Reconciliation of digital cash should be checked automatically and manually.

Internal Controls Checklist for Bank Audits

Given that the checklists above are documented, an internal auditor should be able to evaluate these controls. An auditor's banking internal controls checklist should include:¹⁰⁹

- Assessing internal controls over financial reporting;
- Auditing the deposit process;
- Checking balance sheets and financial statements;
- Reconciling the bank's ledgers;
- Reviewing lending operations;
- Validating all bank and customer transactions; and
- Verifying regulatory compliance, such as Know Your Customer (KYC) and Anti-Money Laundering (AML).

Regulatory Considerations When Digitizing a Bank

When a bank decides to digitize, various regulatory issues need to be considered, including:

- **Data privacy and protection** – Banks are legally required to safeguard their customers' personally identifiable information (PII), which can be achieved through encryption, regular audits, and access controls.¹¹⁰
- **Electronic disclosures**—Digital banks, traditional banks, and FinTech partners must warrant that they comply with electronic disclosure regulations by testing various devices and correcting any deficiencies.¹¹¹
- **Anti-Money Laundering (AML) risk**—Digital banks should address AML risks in their compliance protocols. Digital transactions can be cross-border and anonymous, which can indicate the presence of money laundering.¹¹²
- **Cross-border regulations** – Because digital banks typically operate across multiple jurisdictions with distinct regulations, cross-border regulations are an issue.¹¹³
- **Rapid technological advancements** – Regulatory frameworks must adapt as technology advances, making it challenging for regulators and digital banks.¹¹⁴
- **Cybersecurity practices** – Regulators establish standards and guidelines for cybersecurity policies and practices. Digital banks are required to report cyber incidents and conduct periodic assessments.¹¹⁵
- **Other considerations** – These issues include phishing, malicious software, virtual currencies, technology spending, and regulatory pressures.¹¹⁶

Digitizing a Bank Conclusion

Based on the various lists above, it is evident that taking a bank from traditional banking activities into the digital world is likely a difficult task, fraught with many twists and turns. There are numerous issues to consider, such as the technological options

¹⁰⁹ *Id.*

¹¹⁰ Quratulain Farrukh, Digital Transformation Strategies in Banking, *Wavetec* (Aug. 25, 2024), available at <https://www.wavetec.com/blog/banking/digital-transformation-tips-for-banks/#>.

¹¹¹ Dolores Collazo, Digital Banking Compliance Considerations, *Consumer Compliance Outlook* (First Issue 2023), available at <https://www.consumercomplianceoutlook.org/2023/first-issue/digital-banking-compliance-considerations/#:~:text=A%20sound%20practice%20for%20financial,or%20changes%20to%20existing%20products>.

¹¹² Igor Izraylevych, Digital Banking Regulatory Compliance – The Ultimate Guide [2024], *S-Pro* (May 14, 2024), available at <https://s-pro.io/blog/regulatory-compliance-digital-banking#:~:text=With%20regards%20to%20the%20latter,to%20be%20released%20later%20on>.

¹¹³ Yaron Shoshani, Regulatory Compliance in Digital Banking: What You Need to Know, *EzBob* (Jul. 23, 2024), available at <https://www.ezbob.com/regulatory-compliance-in-digital-banking/>.

¹¹⁴ *Id.*

¹¹⁵ D4 Insight, Digital Transformation in Banking: Regulatory Compliance and Security, *LinkedIn.com* (Jun. 5, 2024), available at <https://www.linkedin.com/pulse/digital-transformation-banking-regulatory-compliance-security-qy3gc/>.

¹¹⁶ Christopher Wolfe, How Technology and Regulation Are Shaping the Future of Banking for Regional and Community Banks, *Bank Director* (Sep. 19, 2024), available at <https://www.bankdirector.com/article/how-technology-and-regulation-are-shaping-the-future-of-banking-for-regional-and-community-banks/#:~:text=Banks%20will%20need%20to%20balance,largely%20been%20end-user%20customers>.

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available, the advantages and disadvantages of digitalization, and the controls required to ensure that a bank remains compliant with federal and state laws and regulations. Probably the best thing to do is for a bank to be digitized in degrees. In other words, it offers some digital services to its banking customers and then certifies that these digital services are appropriately controlled and that the various banking regulations are not violated. Once this has been accomplished, the next step should likely be implementing additional digital products and services while confirming that the proper controls are in place and no federal or state laws have been violated.

This process may take several years to complete. It is imperative that a bank not digitize too fast. If it does, it is probable that some controls will not be correctly applied and some federal or state laws or regulations will be broken. If this occurs, the penalties may be severe, and regulators may hover around a bank, looking for easy mistakes like picking the low-hanging fruit. Thus, considering the issues above, an evolutionary plan should be created. The author believes it is the only way to ensure a successful move into digital banking.

CRYPTO LENDING

This section compares and contrasts crypto lending with traditional lending. First, crypto lending is defined. Second, how crypto lending works is described. Third, the subsection talks about how to make money by crypto lending. The fourth subsection explains four material differences between crypto lending and traditional lending, including (1) the fact that the FDIC does not insure deposits at crypto platforms for up to \$250,000, (2) crypto lenders are not subject to Federal Reserve regulations, (3) a borrower from a crypto platform directly pays the lender, where the crypto platform acts as a pass-through, and (4) the title of the funds deposited at a crypto platform remains with the lender, not the crypto platform. The section concludes that there are material differences between crypto lending and traditional lending.

Definition of Crypto Lending

According to Wade, crypto lending is the “process of depositing cryptocurrency that is lent out to borrowers in return for regular interest payments.”¹¹⁷ The payments are in cryptocurrency, where the deposits are compounded daily, weekly, or monthly.¹¹⁸ There are two types of crypto lending platforms: centralized and decentralized. Both have annual interest rates as high as 20 percent and usually require borrowers to deposit collateral to access a crypto loan.¹¹⁹

How Crypto Lending Works

Like banks, cryptocurrency lending platforms are intermediaries that put borrowers together with lenders.¹²⁰ While lenders deposit their cryptocurrency in high-interest lending accounts, crypto lending platforms borrow the depositor’s cryptocurrency.¹²¹ A crypto lending platform establishes borrowing interest rates and makes money by charging a borrower an interest rate higher than the interest rate paid to a depositor.¹²² Interest rates vary depending on the platform, the cryptocurrency, and the loan period.¹²³ Crypto lending platforms also charge for the services that they render.¹²⁴ Smart contracts are used to connect the crypto wallets of the borrowers and lenders to the crypto platform, where a smart contract is a “block of code that runs automatically on blockchain networks when certain conditions are met.”¹²⁵

The first step in participating in crypto lending is to find a reputable crypto platform, such as Nexo, BlockFi, Celsius Network, or Crypto.com.¹²⁶ Once a trusted crypto platform is selected, the process is as follows:¹²⁷

- **Create an account** – The first step is to create a crypto account, where a borrower reveals know-your-customer (KYC) information such as one’s name, address, and password.
- **Deposit cryptocurrency** – Cryptocurrency is deposited into the account with the intention of lending it out to other customers or borrowing additional cryptocurrency from other account holders.

¹¹⁷ Jacob Wade, Crypto Lending: What It Is, How It Works, and Types, *Investopedia* (Jun. 8, 2024), available at <https://www.investopedia.com/crypto-lending-5443191>.

¹¹⁸ *Id.*

¹¹⁹ *Id.*

¹²⁰ Wayne Duggan, Crypto Lending: Earn Money From Your Crypto Holdings, *Forbes Advisor* (May 13, 2024), available at <https://www.forbes.com/advisor/investing/cryptocurrency/crypto-lending/#:~:text=Crypto%20lending%20is%20a%20decentralized,in%20a%20traditional%20savings%20account>.

¹²¹ *Id.*

¹²² *Id.*

¹²³ *Id.*

¹²⁴ *Id.*

¹²⁵ *Id.*

¹²⁶ Sumit Meghani, Crypto Lending Explained - Benefits, Risks and Top Lending Platforms in 2023, *Token Metrics* (2023), available at <https://www.tokenmetrics.com/blog/crypto-lending>.

¹²⁷ *Id.*

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- **Choose a lending or borrowing option**—Once cryptocurrency is in the account, the depositor decides whether to lend or borrow the funds. If a person decides to lend the cryptocurrency, the amount of cryptocurrency, the interest rate, and the loan term are selected. If an individual wants to borrow cryptocurrency, the amount to be borrowed, the interest rate one is willing to pay, and the loan term are selected.
- **Wait for approval**—After selecting the lending or borrowing option, an individual awaits approval. This may involve a credit check or some other verification process.
- **Receive funds** – A borrower receives the borrowed cryptocurrency in their account after approval.
- **Making payments**—Like any other loan, the borrower must make regular payments to repay the loan, which may involve periodic interest payments and a portion of the principal. For some types of loans, the principal may be repaid at the end of the loan.
- **Close the loan**—When the loan period has elapsed, the borrower must repay the principal and interest.

Making Money with Crypto Lending

Earning a passive income via crypto lending can be an excellent money-making activity. Some things to consider are:¹²⁸

- **Choose a reputable crypto lending platform.** Search for platforms with a proven track record, solid security policies and practices, and transparent lending terms.
- **Determine your lending strategy.** Determine the amount of cryptocurrency you want to lend and for how long. Remember that more extended periods provide a higher return and higher risk.
- **Set competitive interest rates**—The selected interest rate should be competitive with other crypto lending platforms. A high interest rate may attract more borrowers, but it also increases default risk.
- **Manage the risk**—Conduct due diligence on possible borrowers and establish a diversified portfolio to mitigate risk. When choosing a borrower, a lender should consider requiring collateral and loan-to-value ratios.
- **Reinvest earnings** – Reinvesting earnings can take advantage of the time value of money, thereby increasing overall profits.

Risks Associated with Crypto Lending

According to Wade, some of the risks to crypto lending include:¹²⁹

- **Margin calls** – When a borrower pledges collateral against a loan, a decline in the value of the collateral can trigger a margin call. This occurs when the loan-to-value of a crypto loan falls below a pre-specified value or rate. Then, a borrower must either deposit more collateral to raise the loan-to-value or risk liquidation of the loan.
- **Illiquidity**—When a crypto asset is deposited at a crypto lending platform, it becomes illiquid and may not be quickly accessed. Some lending platforms require long waiting periods before funds can be accessed.
- **Unregulated** – Crypto lending platforms are not regulated and are unprotected. Deposited assets are not protected by the FDIC up to \$250,000 per depositor in the case of insolvency.
- **High interest rates** – Crypto loans offer rates as low as 5 percent, with some lending platforms charging 13 percent or more.

Differences between Crypto Lending and Traditional Lending

There are several similarities and differences between crypto lending and traditional lending. The lending process described above is approximately the same for both. Even so, there are two critical differences. First, deposits at traditional banks are FDIC-insured up to \$250,000. However, for large banks such as the Silicon Valley Bank and the Signature Bank, the FDIC declared that all deposits, including those above the \$250,000 limit, would be eligible for FDIC coverage.¹³⁰ This means that in some instances, the deposits at traditional banks are covered, regardless of the amount at issue. However, deposits at crypto-lending institutions are unprotected and not covered by the FDIC.

Another difference is more subtle. At a crypto-lending platform, the borrower directly repays the lender, while the platform acts as a pass-through from the borrower to the lender.¹³¹ When cryptocurrency is deposited at a lending platform, the title to the cryptocurrency remains with the lender. The lender does not give up the title to the cryptocurrency to the lending platform.

In contrast, when individuals put their money in a traditional bank, they do not retain title to that money.¹³² A debt relation is established when a person deposits their money in a traditional bank.¹³³ The bank receiving the funds must return the monetary

¹²⁸ *Id.*

¹²⁹ Jacob Wade, *supra*, note 117.

¹³⁰ *Id.*

¹³¹ *Id.*

¹³² Oliver3642, *supra*, note 26

¹³³ *Id.*

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equivalent of the deposited funds, not identical funds.¹³⁴ The traditional bank becomes the legal owner of the money the depositor gives. The depositor can demand the equivalent amount of money from a traditional bank.¹³⁵ The deposited money belongs to a traditional bank, not the customer.¹³⁶

This difference in who has title to the financial asset (money or cryptocurrency) is a critical difference between a traditional bank and a crypto lending platform. The public poorly understands this issue because it is commonly misperceived that money deposited at a traditional bank belongs to the depositor. It does not.

Crypto Lending Conclusion

In conclusion, crypto lending is materially different from traditional lending. The first difference is that the FDIC insures none of the money loaned by a crypto platform. In traditional lending, the first \$250,000 is insured, and in some cases, the FDIC insures deposited amounts over \$250,000, such as the Silicon Valley Bank and the Signature Bank. The second difference is that crypto lenders are not currently subject to Federal Reserve regulations, whereas Federal Reserve regulations bind traditional lenders.

The third difference is that with crypto lending, the borrower pays the borrowed funds directly to the lender, where the money passes through the crypto platform. In contrast, with traditional lending, the borrower borrows the funds from a traditional bank and not a specific lender. The fourth difference is that when a lender deposits money or cryptocurrency to a crypto platform account, the lender retains title to the funds, whereas with traditional banking, a depositor gives up title to the deposited funds because the bank becomes a debtor. When a depositor demands money from a traditional bank, they receive equivalent funds, not those originally deposited.

Thus, there are numerous material differences between crypto lending and traditional lending. These differences are sufficient to ensure that the risks associated with crypto lending should be carefully examined before engaging in the process. It is the prudent thing to do.

SOCIAL COMMERCE

This final section discusses social commerce from three perspectives. First, social commerce is defined. Second, the issues enhancing a customer's experience are described and listed. Third, the protections consumers desire are enumerated so that social commerce constraints are revealed. Finally, the section concludes that social commerce is an effective way to purchase goods because of its ease, convenience, and data and financial protection mechanisms.

Definition of Social Commerce

Social commerce is a "rapidly growing branch of e-commerce that uses social networks and digital media to facilitate transactions between businesses and customers."¹³⁷ Social commerce includes product discovery, reviews, ratings, sharing, recommendations, transactions, and loyalty programs.¹³⁸ The idea behind social commerce is to permit customers to purchase products on a social media platform, such as Facebook, and then encourage customers to comment on the products.¹³⁹ By employing user-generated content, companies can build relationships with customers while at the same time externalizing marketing costs because the product pictures and descriptions originate with customers, not with the firm's marketing department.¹⁴⁰ Another advantage is that by asking questions about a product before making a purchase, customers become more engaged with the social media platform, thereby increasing customer loyalty while discouraging customers from visiting other websites to buy products.¹⁴¹ Thus, social commerce can be perceived as a mechanism for stealing market share from traditional product-offering sites, such as Amazon.com.

¹³⁴ *Id.*

¹³⁵ E. P. Ellinger, E. Lomnicka, and C. V. M. Hare, *supra*, note 29.

¹³⁶ *Id.*

¹³⁷ Griffin LaFleur, Social Commerce, Tech Target (Feb, 2023), available at <https://www.techtarget.com/searchcustomerexperience/definition/social-commerce>.

¹³⁸ *Id.*

¹³⁹ *Id.*

¹⁴⁰ *Id.*

¹⁴¹ *Id.*

Controls that Enhance the Customer Experience

The key to enhancing the user experience by social commerce platforms is simplifying the buying process. In other words, the website should make finding the desired goods easy, thereby generating a seamless shopping experience. The characteristics should include.^{142 143 144}

- **Frictionless checkout** – The checkout process should be contained within the application, and if the consumer desires, the payment details should be saved so that the shopping experience is hassle-free and convenient.
- **Shoppable posts** – Buyers can review the characteristics and summaries of the products online.
- **Direct interaction** – Producers can interact with customers via comments, live streams, etc.
- **Social proof** – Reviews and recommendations should be displayed to help customers make buying decisions.
- **User-generated content** – This feature builds trust among consumers.
- **Personalization** – Customer analytics can enhance the shopping experience.
- **Fulfillment and delivery** – A seamless fulfillment and delivery process can enrich buying.

Thus, it is critical that customers feel that engaging in social commerce is easy and simple. Most importantly, customers find what they want, so they perceive that the product they buy is worth more to them than the dollars in their pocket.

Controls that Protect the Consumer

Social commerce controls that help and protect consumers include:^{145 146 147}

- Access to accurate product information;
- Accessible customer service, including telephone and email communication mechanisms;
- Clear and easy-to-follow return policies;
- Compliance with data protection and anti-fraud laws and regulations;
- Customer reviews and product and service ratings;
- Expressed and explicit policies against fraudulent activities;
- Safe payment methods and procedures;
- Secure methods and gateways to purchase the desired products;
- Straightforward ways through social media to communicate issues with sellers,
- Transparent pricing with no hidden fees; and
- Vigorous data privacy procedures;

Thus, the protection of the customer experience is critical. In social commerce, customers want a seamless experience that protects their data, privacy, and, most of all, their pocketbook.

Social Commerce Conclusion

In conclusion, social commerce is here to stay. As long as the Internet remains a vital staple of economic interactions, social commerce will continue to grow and thrive. The key is that social commerce is charged with making the buying transaction seamless and easy while at the same time ensuring data and financial security. As long as social commerce effectively models the traditional purchasing experience while removing many traditional buying frustrations, it will continue to grow and thrive.

CONCLUSION

In conclusion, this article discussed open banking, account portability, digitizing a bank, crypto lending, and social commerce. As society fully embraces the digital financial world, it becomes increasingly evident that computers and mobile devices are permeating everyday existence. These topics indicate that individuals are evolving into sovereign beings where independence,

¹⁴² Jiaolong Xue, Xinjian Liang, Tao Xie, & Haizhong Wang, See Now, Act Now: How to Interact with Customers to Enhance Social Commerce Engagement?, 57 *Information Management* 6 (Sep. 2020), available at <https://www.sciencedirect.com/science/article/abs/pii/S0378720620302573>.

¹⁴³ Anastasija Čaikina, What is Social Commerce? Stats, Trends, and Tips Marketers Should Know for 2024, *ScandiWeb* (Nov. 24, 2023), available at <https://scandiweb.com/blog/what-is-social-commerce-stats-trends-and-tips-2024/>.

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self-sufficiency, and intelligence are now almost a byword. Centralized organizations are being transformed, voluntarily or involuntarily, into entities that act like their smaller counterparts. A non-financial example is what is happening in the media. Alternative media are increasingly dominating the information communication domain. In ever-increasing numbers, individuals are finding sources of information unrelated to mainstream media. In general, and with exceptions, major news networks are losing market share to small and diverse media outlets.

The same is occurring in the financial world. Individuals are asserting themselves, desiring control over their personally identifiable information (PII). As traditional values morph into new values and then return again when appropriate, individuals want control over their financial lives. Individuals are seemingly unwilling to cede their decision-making powers to monolithic corporations, where previously, one was told to latch their star onto big companies that would take care of them. The Information Revolution is more than just an innate information processing mechanism. Instead, it is a means of empowering individuals to take control of the flow of their lives. Finance, and thus money, is the lifeblood of modern society. Being in control of one's existence is just as important today as years ago. These are the lessons to be learned from open banking, account portability, digitizing a bank, crypto lending, and social commerce. They empower the individual, and that is a very good thing indeed.

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