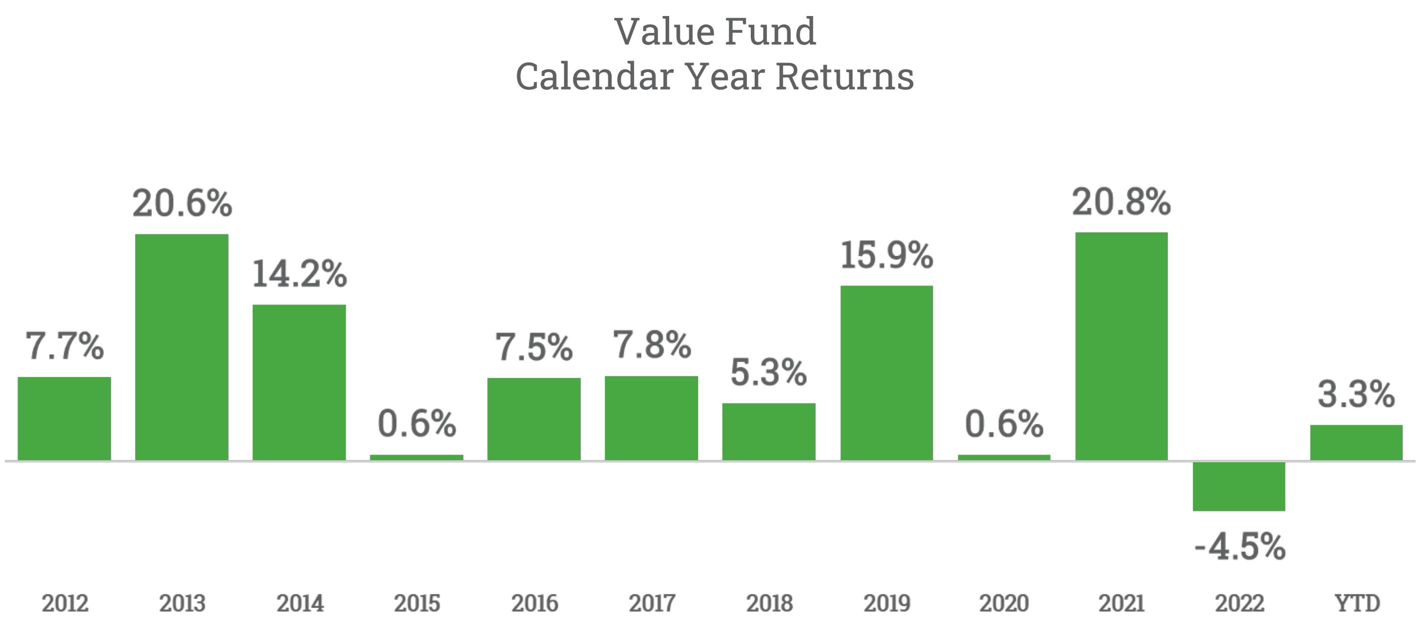
April 26, 2023

Banking's Endgame

The Value Fund was up +3.3% in Q1. The US dollar lowered our returns by approximately -0.2% for the quarter. The broader markets recovered some of their losses from last year, with the S&P/TSX +4.6% and the S&P500 +7.3%. [1]



Investors are on edge. Rapid interest rate increases are creating stresses in the banking sector, and March witnessed the failure of three US banks and the once-venerable Credit Suisse. First Republic Bank may be next.

Our portfolios had no exposure, but we have much to say below about what is happening and important lessons to be learned. We also highlight some differences between the US and Canadian banking systems that our clients will appreciate.

[1] Index returns are for the total return indexes which include dividends and are measured in Canadian dollars, the Value Fund's reporting currency.

Portfolio Review

The most significant contributor to the portfolio in Q1 was our position in **Alphabet** (GOOG/GOOGL) +17.6%. The stock's recent price action followed Q4's selloff related to the launch of AI-powered chatbot ChatGPT. **Microsoft's** (MSFT) $10 billion investment in ChatGPT and its integration into their Bing search browser has the market worried that Google's search engine dominance is at risk. That concern seems to have abated somewhat.

We concede that ChatGPT is a remarkable breakthrough and that large language models (LLMs) have enormous potential for creative tasks. But we aren't convinced they are ready to materially disrupt Google's search business.

LLM-enabled search is computationally intensive—reportedly 10x more expensive than traditional search—and much slower. In addition, LLMs tend to make things up (hallucinate) and occasionally threaten users with harm. We aren't yet sure if these issues can be fixed or if it is an issue inherent to how they work. In either case, until these significant shortcomings are addressed, we believe that Google's search business will be fine. Market share data from March 2023 shows virtually no change in Google Search's dominance. Ingrained user habits are difficult to change.

And Alphabet isn't standing still. Despite the botched rollout of its Bard chatbot, the company has deep roots in AI and machine learning. For years the company has spent billions on leading-edge AI research. Alphabet recently announced that their DeepMind and Google Brain teams are merging to accelerate innovation and product introductions. The Google playbook is one of test, iterate and innovate. They will figure out how these new technologies can be used to make Google Search even better. It is still early days in LLM/AI, and Alphabet is taking the potential threat to its cash cow seriously. We wouldn't sell them short.

TVA Group (TVA.B) +26.3% was the second-largest contributor in Q1. Given the soft ad market, its Q4 results were weak, as expected. But the stock rallied after a fund manager commented in the press that the stock was cheap and that the company should be taken private by its controlling shareholder **Quebecor** (QBR.B). As a small cap, TVA Group is largely unknown, so any news can cause a big move in the stock. There will continue to be some ups and downs. But we suspect that eventually, the market will value the stock more in line with our estimate of its intrinsic value of $6.40 per share.

The biggest detractor from the portfolio in Q1 was **Elevance Health** (ELV) -10.4%. The company's recent financial results were in line. We attribute the stock's selloff to a broader shift to risker stocks as competitor **UnitedHealth Group** (UNH) experienced a similar decline.

Overall, Q1 was quiet, as there were no material changes to the Value Fund portfolio or our top ten holdings. Additional portfolio disclosures, including performance statistics, can be found on the pages immediately following this letter.

GreensKeeper Value Fund

Top 10 Holdings *	Sector
Alphabet Inc.	Technology
American Express	Financial Services
Berkshire Hathaway Inc.	Insurance
Elevance Health	Healthcare & Pharma
Fiserv Inc.	Technology
Intercontinental Exchange, Inc.	Financial Services
Merck & Co., Inc.	Healthcare & Pharma
S&P Global Inc.	Technology
Vertex Pharmaceuticals	Healthcare & Pharma
Visa Inc.	Technology

* As of Mar. 31, 2023. The Value Fund's holdings are subject to change and are not recommendations to buy or sell any security.

The Business of Banking

Given the dominance of the Canadian banking industry, many Canadians own bank stocks in their portfolios. The recent failures of **Silicon Valley Bank**, **Signature Bank**, and **Credit Suisse** are stark reminders that even large and seemingly well-established banks can fail. In banking, mistakes can cause the unthinkable to happen.

Unlike insured depositors, *investors* in bank securities cannot afford to be complacent. Investors in banks should be interested in learning about what went wrong and using those lessons to help monitor their bank exposures. It is usually far less painful to learn from the mistakes of others.

We find the current banking crisis strangely fascinating. For those who share our enthusiasm or are simply curious and want to learn more about the banking sector, please read on. For those less interested, feel free to skip forward to our Firm Update on page 12.

Banking 201

We wrote about the basics of banking way back in 2011 in Scorecard #2 during the European Debt Crisis:

> **Banking 101**
>
> At its heart, banking should be a simple business. Banks accept depositors' savings and recycle them into loans for credit-worthy borrowers. In this way, banks serve a useful capital allocation function like the equity markets. Banks borrow from depositors at a rate below their lending rate and pocket the difference (referred to as a bank's 'net interest margin').
>
> Banks repeat this process many times, and by growing their assets and adding leverage to their equity base, they can earn attractive returns for shareholders.
>
> One prominent feature of this arrangement is that depositors can withdraw their money on demand (hence the term demand deposits), yet banks make loan commitments for much longer periods of time. Banks borrow short (and cheap) and lend long. To avoid bank runs like the one that befell our protagonist George Bailey [the banker in *It's a Wonderful Life*] and maintain stability, governments invented deposit insurance to assure retail depositors that their money was safe.
>
> Given this arrangement, bank runs and panics are things that governments prefer to avoid as they end up holding the bag. Hence, they regulate banking activity through several means, including limits on a bank's ability to use leverage.

This simplistic account glossed over many of the intricacies of the banking industry that we will now expand upon. Here's a helpful explanation from Bloomberg's Matt Levine:

> Banks are in some deep sense in the business of maturity transformation; their whole function is to borrow short-term from depositors (who can take their money back any time, but mostly don't) and invest long-term in loans and bonds. The way they get paid for doing that business, most of the time, is through the yield curve: Short-term interest rates are usually lower than long-term rates, so a bank that borrows short to lend long makes money from the difference in rates. And then if rates suddenly go up a lot (and invert, so that short-term deposit rates are higher than long-term bond rates) the banks lose a ton of money, whoops. [2]

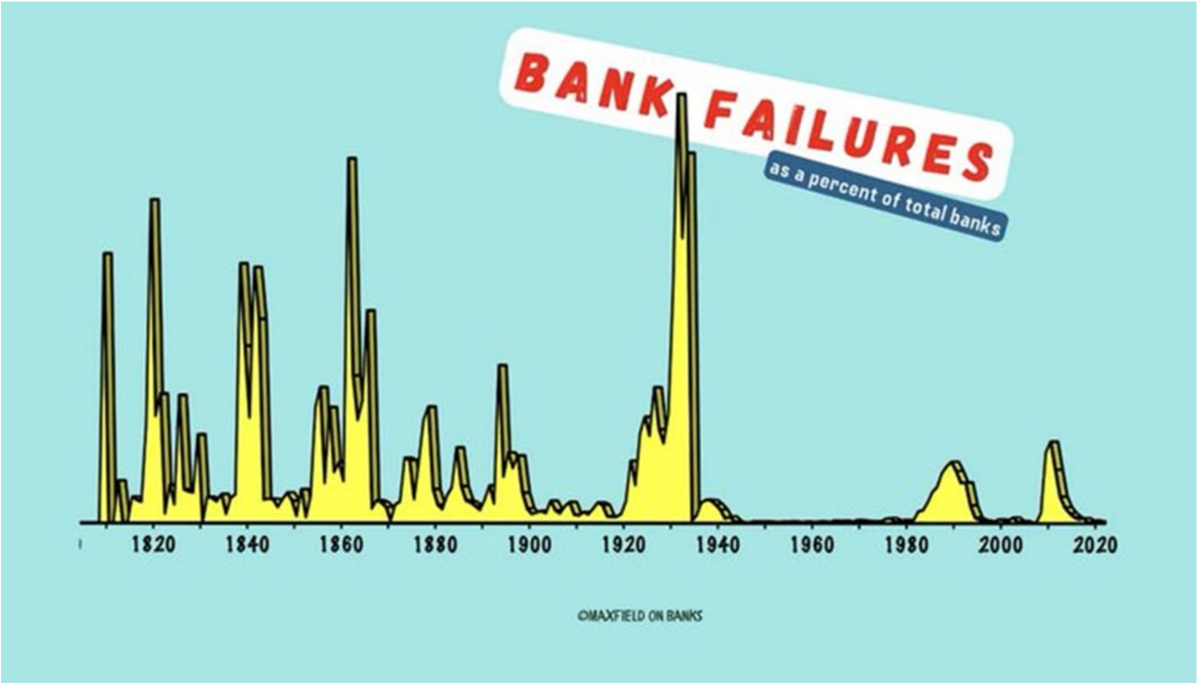
Our fractional reserve banking system magically transforms our money (demand deposits) into longer-term loans that fund the economy. At the same time, our money is available immediately if needed. Banks must maintain a certain percentage of their assets in cash to satisfy their customers' cash needs. If we trust that our money is safe, we don't need immediate access to much of it, and life goes on.

It is only when an unusual rush of withdrawals happens simultaneously that the flaw in the system is revealed. If every depositor wants their money back at the same time, they can't all get it. This is a risk for virtually all banks as they tie up a percentage of their balance sheet in longer-term assets. In other words, a depositor panic means that banks run out of cash.

[2] https://www.bloomberg.com/opinion/articles/2023-04-19/betterment-missed-some-tax-trades.

Banks, by their very structure—highly levered and borrowing short to lend long—are structurally risky. That isn't a bug; it's a feature.

Fortunately, this rarely happens. Hence our modern banking system works almost all the time. US banking innovations such as the creation of the Federal Reserve System (1913) and the introduction of deposit insurance (1934) have reduced the frequency of bank failures but haven't totally eliminated them.



Source: https://twitter.com/MaxfieldOnBanks

Bankers, being human, make mistakes. Sometimes, big ones. All it takes to start a panic is an event that causes depositors to start to worry about the safety of their money. Depositors quickly reach for their cash whenever that happens, and the contagion spreads.

As a result of banking's structural vulnerabilities, we will always have occasional bank failures caused by mismanagement or a specific event. But we should continue striving to minimize these crises, given their high costs to society. This leads us to the recent bank failures.

The 2023 Banking Crisis

Every banking crisis is different. The primary triggers of the 2008 Global Financial Crisis were credit issues caused by US banks' lending to low-income (subprime) homebuyers and transmission via derivatives. The current bank failures were primarily caused by a combination of rapidly rising interest rates and mismanagement.

The Federal Reserve and other central banks worldwide have rapidly increased interest rates to combat inflation. Typically, banks raise their deposit rates slower than interest rates on their loans and pocket the difference. Depositors usually shrug and accept it, given the effort required to move their money (switching costs). But when the spread between what their deposits earn and what they *could* earn gets big enough, many will shift their cash into money market funds or other higher-yielding alternatives.

As a result of the rapid rate increases over the past year, banks are under pressure to pay their depositors more, as deposits are moving to assets offering higher yields. It is within this environment that Silicon Valley Bank (SVB), Signature Bank, Silvergate Bank, and Credit Suisse all made mistakes that led to their respective failures. Here is our assessment of what went wrong and the takeaways.

Mistake #1: Asset/Liability Mismanagement

With interest rates near zero for an extended period, SVB management became complacent and reached for yield. They invested a significant portion of the bank's balance sheet in 'safe' government-guaranteed securities of long duration because they paid more than short-term investments. By doing so, the bank took duration risk by making a one-way (unhedged) bet on interest rates remaining low.

SVB management was incentivized to maximize short-term earnings and assumed significant risks to do so. Properly managing the assets and liabilities of a bank's balance sheet while maintaining sufficient liquidity is fundamental to the banking business. SVB management failed at these essential tasks. It probably didn't help that the bank didn't have a Chief Risk Officer in place for most of 2022.

The problem with SVB's strategy is that as interest rates rose, its bond portfolio naturally declined in value. We have long shared our view that investing money for a decade in exchange for a 2% yield strikes us as a bad idea. As a result, the bank found itself sitting on $15 billion of unrealized losses on its investment portfolio. But an accounting quirk allows banks to value their long-term assets at historical cost, even if their fair market value has declined. This held-to-maturity (HTM) accounting rule allowed SVB to paper over its losses. (3)

(3) Banks can designate assets as 'available for sale,' which means they are valued using market prices. Another option is to designate them as 'held to maturity' (HTM), meaning they won't be sold and are valued at cost. As a result, there is no income statement impact for HTM assets, and regulatory capital ratios are higher than they would be if they were forced to mark them to market. Other banks are playing this game: Jonathan Weil, *Wall Street Journal*, Mar. 29, 2023. https://www.wsj.com/articles/as-interest-rates-rose-banks-did-a-balance-sheet-switcheroo-8e71336f

Unfortunately for SVB, firms like GreensKeeper read the footnotes. We can see that the 'imaginary' $15 billion of losses exceeded SVB's $12 billion tangible equity base. Uninsured depositors at SVB had reason to worry.

In order for this accounting gimmick to work, a bank must actually hold these assets to maturity. Unfortunately, too many depositors demanded their money, and SVB was forced to sell these assets to generate liquidity. And accounting rules provide that if a bank sells any of its HTM securities, it may be forced to mark all of them to market. Suddenly, SVB's paper losses became all too real and ate into the bank's equity. Management attempted a last-minute financing to plug the hole, but it was too late.

Bank regulators and accounting bodies should consider fixing the HTM accounting loophole. And bank boards should tie management compensation to the bank's long-term results. Bank boards would also be well-served to ensure that management owns a material amount of bank stock (not options), paid for with their own money. Properly aligning incentives would go a long way to ensuring that bank executives make better long-term decisions.

Mistake #2: Insufficient Regulatory Scrutiny

A post-mortem of what when wrong at SVB is being conducted by the Federal Reserve. But the probe has already revealed that for years examiners issued multiple formal warnings to SVB and that the Fed was well aware of SVB's duration risk issue. [4]

From the public's perspective, banks are largely opaque. Even seemingly well-run banks can have significant issues brewing. Regulators get an inside look and have the power to mandate changes. That makes their enforcement role crucial to ensure the stability of the system and the protection of the public.

Prudential regulation is meant to ensure that banks are always well capitalized, have sufficient liquidity and solid risk-management practices. When problems are discovered, they need to be dealt with quickly. If a bank needs additional capital, it is wise to move fast before too many people notice. If a bank CEO has to say to the public that the bank has strong capital ratios and plenty of liquidity, it is often too late.

Management will resist issuing capital as they (and existing shareholders) don't like dilution. That's when it is up to the regulator to step up and say, "Tough luck." Banks exist at the pleasure of the state, and their failure puts the public and the economy at risk. Management teams and shareholders get the rewards that come with banking. They should also be forced to bear the consequences when they screw up. That's how capitalism is supposed to work.

[4] Andrew Ackerman and Dave Michaels: "Fed Raised Concerns About SVB's Risk Management in 2019", *Wall Street Journal*, Mar. 19, 2023. https://www.wsj.com/articles/fed-raised-concerns-about-svbs-risk-management-in-2019-4a1d802c

Mistake #3: Inferior Deposit Bases

As SVB's name implied, the bank's deposit base was concentrated amongst venture-capital-backed tech companies in Silicon Valley. These were large depositors, and S&P Global reports that a staggering 94% of SVB's deposits were uninsured. (5)

This concentration of uninsured deposits meant that once a few customers started to worry, that concern quickly morphed into a full-out panic via VC networks and social media.

Signature Bank and Silvergate Bank both catered to the cryptocurrency community, and the recent crypto selloff led to the withdrawal of crypto-related deposits. In Signature Bank's case, about 90% of its deposit base was uninsured.

From a bank's perspective, deposits are its cost of goods sold. A diversified deposit base comprised of millions of individual retail depositors who are geographically dispersed is ideal. These deposits tend to be cheap and sticky. Large banks have built vast networks of physical branches, primarily as sales outlets to gather them. By contrast, wholesale deposits tend to demand higher rates, are more concentrated and are much flightier. Both SVB and Signature Bank had a concentrated deposit base comprised of almost entirely uninsured deposits. Not good.

And the quaint notion of George Bailey facing a line of depositors is from a bygone era. In the modern age, uninsured depositors no longer run to the bank at the first sign of trouble. They reach for their smartphones.

The prior US record for the largest bank run in history was Washington Mutual, where $16.7 billion was withdrawn over nine days in 2008 before it was put into receivership. SVB received *$140 billion* of deposit withdrawal requests in two days. A staggering amount, even more so considering that SVB's total deposit base was reportedly $175 billion. Signature Bank allegedly lost $18 billion in a single day before being shut down. (6)

Regulators quickly moved in and closed both banks over a weekend and guaranteed that all depositors would be paid in full no later than Monday morning. We will give the US banking regulators this: they are very good at resolving problem banks once the jig is up.

(5) The advent of deposit insurance has bolstered trust in the banking system as many governments now guarantee that depositor funds are safe. But an important nuance is that deposit insurance isn't unlimited, and each country sets its own limits. In the US, the limit is $250,000, and in Canada, it is $100,000 (per depositor and covered bank).

(6) Felix Salmon, *Axios*, Mar. 9, 2023. https://www.axios.com/2023/03/11/the-largest-bank-run-in-history. Hugh Son, CNBC, Mar. 28, 2023. https://www.cnbc.com/2023/03/28/svb-customers-tried-to-pull-nearly-all-deposits-in-two-days-barr-says.html

Mistake #4: Continual Erosion of Trust

The demise of Credit Suisse is the story of a series of scandals (Archegos, Greensill, spying, money laundering, etc.) that continued to erode confidence in the bank. In addition, in its 2022 annual report, Credit Suisse revealed that it had identified several material weaknesses in its internal controls over financial reporting and monitoring.

Rumours circulated last year about the bank's demise, which led clients to pull their assets, and the bank's stock and bond prices rapidly declined. A 50 billion Swiss Franc ($54 billion) lifeline from the Swiss National Bank tried to bolster confidence, but investors were nervous given the recent SVB and Signature Bank failures in the US.

The coup de grace was an interview given by the chair of the Saudi National Bank (Credit Suisse's largest shareholder). When asked by Bloomberg TV if the Saudis would be open to investing additional funds to bolster the bank's liquidity, he replied, "Absolutely not." That stark admission shook investor confidence even further, the bank bled deposits, and within 48 hours, Credit Suisse had been bought by UBS in a marriage hastily arranged by the Swiss regulator (FINMA).

Credit Suisse's failure cannot be blamed on that poor Saudi banker (who has since resigned for 'personal reasons'). No, the real cause of the bank's failure was a steady stream of scandals, poor financial results, and multiple restructurings. They were bad at banking!

Banks are structurally fragile, and they must earn and maintain the trust of their customers. Once that trust is lost, it is usually gone for good. Credit Suisse continually eroded that trust, and in the nervous environment created by the SVB and Signature bank failures, investors and depositors fled. Perhaps the lesson from Credit Suisse is as simple as bankers need to be good at banking, and even well-capitalized banks can die from a thousand cuts.

Banking's Endgame

To our thinking, banking is a quasi-public utility and should be regulated as such. Banks are gradually but relentlessly consolidating in the modern era due to factors including economies of scale, brand (trust) and regulatory complexity. The banking industry's natural state is probably a small group of core banks that dominate (e.g., oligopoly).

Take Canada, for example. The Canadian experience may be the natural endgame for the optimal industry structure. Canada's Big Six account for 93 percent of all banking assets in the country. We have fewer banks in Canada than in the single state of North Dakota, [7] and they are generally well-regulated by a competent supervisor with teeth. [8]

[7] Marc Rubinstein, *Bloomberg*, Mar. 29, 2023. https://www.bloomberg.com/opinion/articles/2023-03-29/us-consumers-have-so-many-banks-to-choose-from-but-that-s-a-cause-of-instability

[8] Canada's banks are regulated by the Office of the Superintendent of Financial Institutions (OSFI).

The Canadian shadow banking (unregulated) sector is small relative to the size of our economy. And while the US has experienced a dozen banking crises since the 1840s, Canada has had precisely *zero*. [9]

There are downsides to this industry concentration. The lack of competition means that our banks are generally less innovative, Canadians pay more for financial services and have more restrictive access to credit.

Collude is a strong word. Let's just say that Canadian banks tend to cooperate on matters that are in their collective best interest. Having competed against Canada's goliaths for the past 21 years in various capacities, we can assure you that they are not shy in throwing their weight around.

And the elephant in the room—Canada's Big Six are all too big to fail, practically and politically. If one ever got into trouble, it would be quickly subsumed by one of the others, and depositors would be protected. Stability and the collective good are prioritized over what is best for individual consumers, consistent with Canada's overall attitude toward capitalism. [10]

But given the tradeoffs, we think that these are prices worth paying. A nation should strive to ensure that its banks are profitable and well-capitalized. Banks struggling with profitability lead to more significant issues that society ultimately pays for if they become unstable and fail. [11]

We recognize that this reduced competition imposes a greater responsibility on regulators to protect the public. In our view, Canada's regulators have mainly been up to the task. Our banking issues have been relatively minor, and our central banking regulator (OSFI) has done its job through a combination of leverage restrictions, higher capital requirements and expertise built up over decades. [12]

By contrast, the US banking industry is highly fragmented, with too many regulatory entities regulating its thousands of banks at the state and federal levels. We believe a central regulator would better serve the American public with jurisdiction over a smaller, more manageable number of banks. Just as we believe that the centralization of securities regulation in the US via the Securities and Exchange Commission (SEC) is a better model than Canada's balkanized provincial securities regulation.

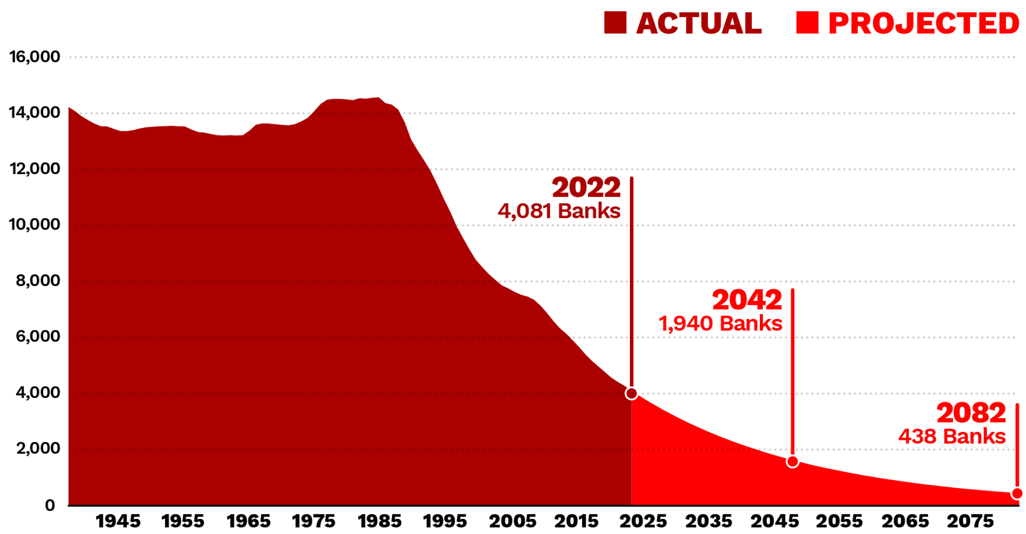
(9) Renee Haltom: "Why Was Canada Exempt from the Financial Crisis?", *Econ Focus (Richmond Fed)*, Fourth Quarter 2013. The article highlights that during the Great Recession, 9,000 US banks failed, whereas Canada lost only one bank (due to fraud).

(10) We think that this is a sensible approach. Further consolidation will not be permitted, and heavy and competent prudential regulation is essential. In the late 1990s, four of the Big Six tried to merge, but these transactions were blocked by the Canadian government as "they were not in the best interests of Canadians." https://apnews.com/article/11eb72730472f852e63cf022f2846dba. Switzerland is now going through what a major banking consolidation means. The failure of Credit Suisse and its rescue by UBS means that the combined entity is too big to fail and may have become too big to rescue: https://www.cnn.com/2023/03/23/investing/credit-suisse-ubs-impact-switzerland/index.html

(11) Rubinstein, note 7.

(12) Haltom, note 9.

But the US banking industry is a function of its history. Its formative free banking era led to most US banks being chartered and regulated at the state level and not permitted to operate across state lines. [13] Americans also have a greater cultural aversion to the concentration of power, and their banking sector is the natural extension of that philosophy.



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Over the decades, US banking regulations have gradually become more permissive, and the industry's consolidation, which began in the 1980s, continues to this day. The four largest US banks (JP Morgan Chase, Bank of America, Wells Fargo and Citibank) now hold about half of all banking assets and deposits.

So, while the US is slowly moving in the direction of the Canadian model, it still has far too many banks. As a result, most American banks will likely continue to be more difficult to effectively supervise and structurally riskier due to their smaller size and narrower diversification.

The American banking endgame is likely still decades away. As a result, additional bank runs are all but inevitable when the next crisis strikes.

Canadians Take Note

We tend to shy away from bank stocks at GreensKeeper for a few reasons. Banks are tough to analyze (their annual reports run to hundreds of pages and are essentially "black boxes"). Banks are in a commodity business, and their highly leveraged structure means that credit and other losses can quickly wipe out their capital base.

[13] https://en.wikipedia.org/wiki/History_of_banking_in_the_United_States

Many (most?) Canadians own bank shares in their portfolios. Historically, they have been well rewarded via share price appreciation and dividend increases. And as we noted above, Canada's banks have a history of being well-managed and well-regulated. Our banks never engaged in the lax (or outright fraudulent) lending that led to the 2008 financial crisis in the US banking sector. While commendable, the downside is that our housing market never corrected. It has been widely reported that Canada has one of the most overvalued housing markets in the world. We aren't saying that a significant housing correction will happen, just that it could.

Add in the other risks associated with banking in general, and we conclude that the Canadian banks go into the 'too hard' pile. There are plenty of other places to invest where we don't have to deal with these issues. But if you invest in the sector, hopefully, the lessons learned from the failures of Silicon Valley Bank, Signature Bank, and Credit Suisse help you monitor your investments. In banking, mistakes can cause the unthinkable to happen.

Firm Update

Mark your calendars: **GreensKeeper's Annual Meeting** will be held on **Thursday, June 22, at 7:00 pm** at the Mississaugua Golf & Country Club. Clients, potential clients, and friends of the firm are welcome. Additional details will follow by separate invitation. If you aren't a current client and would like to be included, please send us a note.

We are also excited to welcome Laurier business student Jude Campbell to the firm's research team for the summer. And in June, Michael Van Loon rejoins the firm full-time as a research analyst upon graduating from the Ivey HBA program. A summer of stock picking is in their future.

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Each of our employees has their entire investment portfolio invested at GreensKeeper. In my case, it represents the bulk of my household's net worth. We invest in the same stocks as our clients, and our approach is one of partnership.

If our partnership approach resonates with you or someone you know could use some help with their investments, please give me a call.

Michael P. McCloskey

President, Founder &
Chief Investment Officer