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REPORT

Choosing Relevance: How Credit Unions Can Harness Transparency and Show Impact

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CARD SERVICES FOR CREDIT UNIONS

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Overview

Credit unions are navigating through a transformative era in which members' needs are evolving and disruptive technologies are influencing service delivery. The time is now to refocus so that your credit union is positioned to deliver measurable impact in the digital age.

MEET THE AUTHOR

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As the credit union system completes its first century, technology raises new opportunities and new threats. Competition for financial services is intense. Institutional transparency and transactional fairness are required to meet post-2008 financial crisis and Great Recession member, regulator, and media demands.

A three-year study of 10,000 young adults showed that all four of the leading US banks are among the 10 least loved by millennials.[1] In this environment, impacts-aware products and services offer a renaissance moment for credit unions to rethink and rebuild relevance in attracting members from post–baby boomer generations, the 18- to 46-year-olds of today.

What Is the Research About?

With pride, credit unions speak about making meaningful impacts in their communities as volunteers and philanthropists. A range of credit unions, with assets from $27 million to $11 billion, were interviewed for this report. No credit union interviewed has quantified the role and impacts of the credit union and its members, nor the savings achieved through membership, and no credit union has compared its impacts priorities with the objectively known needs of its members and community setting. Moreover, no credit union interviewed uses a quality-of-life or life-cycle anticipation framework to handle and help resolve community disaster response, major employer shutdown, real estate market swings, or other events that affect credit union members on a recurring basis. No credit union interviewed has a robust set of sustainability goals and metrics for benchmarking the impacts of its and its members' transactions or setting interest rates in line with sustainability goals.

In short, credit unions do a poor job showing their own impact.

This report explores potential credit union roles and services in supplementing the life-cycle challenge, literacy, and financial capability of members and their communities. Credit unions can help members and groups understand and make sustainable choices.

Without Proof of Impacts, the Credit Union Charter Is Vulnerable

Credit unions are vulnerable legislatively in fighting to (1) defend their tax-exempt status and (2) avoid imposition of requirements such as those that the Community Reinvestment Act (CRA) imposes on banks. Without proof of the sustainability and demographic contributions of credit unions' cooperative form of banking, federal and state governments looking for additional revenues can be more easily swayed by bank industry pressures to reduce or withdraw the tax exemption subsidy now enjoyed as part of credit union net revenues.

Technology Strategies to Attract and Keep New Generations of Credit Union Members

Trends identified in researching this report also suggest a fork in the road as credit unions built on a baby boomer base (adults now aged 47–66) aim to refocus credit union messaging and prove credit union relevance in the digital age. With the speed of technology adoption to permit remote servicing of members, the outsourcing of core technology development and implementations, and the fading of employer sponsorship of credit unions, the unique operations and culture features of small and midsized credit unions are disappearing. This convergence trend is ripening the climate for mergers and consolidations.

This report explores credit unions' technology investments and what differentiation they achieve, and suggests how to mission-align investments in technology in order to deliver relevant member services in innovative ways.

What Are the Credit Union Implications?

Credit unions will look better to consumers and to regulators if they show:

- **Impacts.** Credit unions should show how they help members navigate life-cycle and other financial challenges in normal and turbulent economic periods.
- **Transparency.** Credit unions should use business intelligence to see, show, and share impacts benefiting members and the communities that they serve.
- **Competitiveness.** Credit unions must invest strategically in user-facing technology.

Fulfilling these goals will mean going beyond typical banking metrics and practices. Strategies that emerged from credit union executive interviews include:

- Pool purchasing of core technology so that credit unions focus more resources and attention on differentiating, member-facing technology.

- Go beyond member satisfaction scores and credit union organizational history in order to grow community impacts through "member returns" in addition to basic interest payouts, financial capability programs, payment deferral during community emergencies, and working with members facing life-cycle challenges.
- Target particular segments for impact work and measure such impacts, for example, through financial literacy and accounts management for members who are now vulnerable (such as pre–high school children, young adults, retirees, and the elderly).
- Experiment with the sharing economy as a strategy for growing member well-being. As members focus more on use and less on ownership, consider how the credit union can responsibly finance life activities (education, small business, transportation) and not just asset purchases.
- Rebrand the credit union as a knowledge transfer hub that places the credit union at the center of members' financial lives by allowing them to trade peer advice and insights about budgeting, buying, retiring, and saving.

THE THREE COMPETING GOALS IN ADOPTING AND UPDATING TECHNOLOGY

Growth goal	Questions management asks	Success metrics
Grow efficiency	"Will this technology investment do what we did previously, cheaper, faster, at less risk?" "Will this technology safely add member self-service for transactions previously conducted in the branch, so as to let our credit union grow?"	• Reduce operating expenses, fraud, bad loan losses • Increase spread
Grow member satisfaction	"Will this technology investment, adding on to or replacing our existing technology platforms, attract new members and deepen family personal finance share and loyalty of existing members?" "Will this technology let our credit union not charge members as much for services offered by banks?"	• Add members • Add family assets and loans at credit union • Reduce interest rates and fees charged to members
Grow employee satisfaction	"If our employees learn and fully use this technology, will it improve our ability to hire and retain talent by: • Validating employee-initiated technology that reframes traditional credit union thinking, and • Rewarding employees committed to work life and satisfaction in serving members?"	• Reduce employee turnover and fraud risks • Recruit talent from Gen Y/ millennial generation

Choosing Relevance: How Credit Unions Can Harness Transparency and Show Impact

CHAPTER 1

Introduction

As of June 2014, 6,429 federally insured credit unions with 98 million members[2] held assets of just over $1 trillion, of which $674 billion (B) represented loans for houses (52%), cars (32%), and credit cards (6%).[3] By comparison, as of June 2014, federally insured banks held just over $15 trillion in assets, of which $8.1 trillion (63%) represented loans.[4] For the second quarter 2014, return on average assets was 81 basis points at credit unions and 107 basis points at banks; the delinquency ratio on credit union loans was 0.85%, while the aggregate delinquency rate on all bank loans was 2.24%. At just 7% the asset size of banks, credit unions are a significant factor in providing financial services in regions and for populations where banks would otherwise have little competition[5] or might skim the profits that come with monopoly/oligopoly market share.[6]

After the 2008 financial crisis, grassroots campaigns (such as the Occupy Wall Street Movement and MoveYourMoney.org) generated renewed customer loyalty and preference for the cooperative, nonprofit roots and sensibilities of credit unions, and grew credit union deposits and loans at record rates.[7]

While credit union growth rates remain impressive after the near collapse of the global banking system, the employer-sponsored traditional credit union customer base[8] shrank: Corporations became leaner to weather a stubbornly slow US recovery, and they quickened the pace of retiring job titles and transitioning roles to better fit the digital economy.[9] The diversity and demographics of the American worker, home, and neighborhood context shifted with new immigrants and domestic migration in search of job prospects, better schools, and progressive social settings.[10] And Gen Y/millennials'[11] always-online habit and "iPhone simply works" user experience expectations quickened the types of everyday activities—like personal finance—that needed to adapt.[12] Regulators are aware of the risks of rapid technology implementation and monitor that credit union management adopts "good innovations" while mitigating unintended consequences.[13]

In short, if credit unions are to remain relevant, it is not a time for complacency or for doing things as credit unions have always done them. Rather, this transformative era is a time for deeply rethinking and reimagining the relevance of credit unions, and then rapidly adapting cooperative institutional and technology innovations in how services are built and delivered.

Questions Worth Asking

This report explores three specific questions that will define the future for credit unions:

- **Impacts.** Do credit unions help members navigate life-cycle and other financial challenges?
- **Transparency.** Are credit unions using business intelligence to see, show, and share impacts on members and the communities that they serve?
- **Competitiveness.** How are credit unions strategically investing in technology that differentiates the user experience from what banks offer?

CHAPTER 2

Methodology

This report is the result of empirical and web research. Given the resources and time frame available for this preliminary study, research started by gleaning first-person accounts of the real-world environment in which a limited number of credit union executives and technologists determine strategy and allocate budget. The reader is therefore cautioned that the conclusions in this report may not be generalizable across all sizes of credit unions or the populations and regions that they serve.

During November 2013, a series of interviews were conducted with senior credit union and credit union service organization (CUSO) managers and technology integrators, 12 in number, lasting approximately one hour each. A range of credit unions, with assets from $27 million (M) to $11 billion (B), were interviewed for this report. The interviewees were asked a standard set of questions to create open dialogue and free exchange of insights and opinions. In order to increase the knowledge shared and to protect the interviewees, it was agreed that interviewee anonymity would be preserved in quoting them.

Additionally, web research of credit union technology outsource providers, credit union system statistics, unofficial credit union safety rankings, and other relevant materials were used to put in context the interviewees' observations and points of view on credit union relevancy and technology pain points, trends, and opportunities.

CHAPTER 3

Competitive Pressures to Invest in Technology—The Arms Race

Customers' daily lifestyles and long-term plans are moving exclusively online, including using Amazon to buy books read on digital tablets, shopping on Apple's iTunes Store for music played on smartphones, searching Netflix to watch movies on any device, using Expedia and Travelocity to plan and book airplane flights and hotels, turning tax season into an intimate Intuit household expense sorting hat in order to file and pay taxes, and filling out the Common Application[14] to apply to college for the chance to earn a job or find a new career to pay for it all.

Today's landscape of financial providers offers significant financial technology (FinTech) competition. Commercial banks (systemically important financial institutions [SIFIs] such as Bank of America, J.P. Morgan Chase, and Wells Fargo), diversified financial services companies (such as Fidelity Investments, Charles Schwab, and USAA), brokers of bank services (such as Moven and BBVA/Simple[15]), specialty lenders and brokers for auto, home, and student loans and peer-to-peer lending services (such as Endurance and Lending Club), remittance services (such as Currency Cloud and Western Union), and nonbanks (such as Google, PayPal, and Square) are investing in technologies that:

- Automate customer self-service.
- Reduce fraud through multiparticipant credit scoring and analysis of customer authentication and financial health.
- Aggregate transactions in order to reduce the frictions and fees of handling them separately.
- Create significant expectations of user convenience.

This is today's FinTech world.

A post-Depression 1930s population of cast-aside, hyper-local, expensive-to-service small customers catalyzed the US credit union system.[16] The credit union landscape is going through a rapid metamorphosis following the 2008 Great Recession. Today, making, servicing, and bundling small-dollar loans is easier over the Internet, with credit scoring and secondary markets readily available to entrenched and start-up financial servicers. Credit unions have competition from banks, social impact funds and bond programs,[17] peer-to-peer lending platforms (such as Lending Club, Prosper, and Endurance),[18] and micro-lenders (Kiva and Grameen America are notable). In serving rural and agricultural members, "back to basics" money movements (Slow Money[19] is a well-known example) and state-owned bank proposals[20] are gaining attention and members. And virtual currencies, also called crypto-currencies (such as Bitcoin),[21] are in their earliest days of making the ownership, movement, and use of money fully fluid globally, freed of traditional bank, credit union, and financial intermediary handling frictions previously involved in creating and storing fiat currency in paper or digital forms.

Credit union managers report feeling significant competitive pressures to invest in FinTech. The questions include which Core Technologies or User-Facing Technologies to invest in first, what features to include in the original system, and whether to outsource or bring more technology in-house.

Technology—Winning Competitive Strategies

Credit unions budget for technology using three main buckets: Core, User-Facing, and Research and Development. Core Technologies (Core Tech) process the basic accounting, fraud detection, regulatory compliance, and similar generic functions handled by credit union tellers, ATMs, and networks. User-Facing Technologies (User Tech) let members interact with the credit union or each other, such as through mobile apps, smartphones, remote-deposit capture, and personal finance management. Research and Development Technologies (R&D) include experimenting with a credit union version of technologies that the major banks offer or that are inspired by customers' nonfinancial services, such as Apple's iTunes for browsing music available for download or Amazon for browsing e-books.

Core Tech Spending: Keeping the Lights On, Keeping Us Safe inside the Credit Union

Core Tech is viewed by credit union management as a cost center offering little upside potential beyond fraud and cyber-threat detection, similar to paying for credit union branch rent, telephone service, or other overhead. Given its generic, out-of-public-view nature, Core Tech is routinely outsourced to major financial technology vendors, such as FIS Global,[22] Fiserv, Jack Henry & Associates (Jack Henry), Open Solutions Inc. (acquired January 2013 by Fiserv),[23] Symitar (acquired in 2000 by Jack Henry),[24] and Harland Financial Solutions (the credit union services division of Davis + Henderson Corporation). Major Core Tech vendors also serve community banks, payment processors, and other financial services providers, which, on the one hand, ensures a level of safety and interoperability in the features made available to credit unions and, on the other hand, slows the rate of credit union Core Tech innovation offerings. Given the high switching and training costs, credit union innovation in Core Tech is low, with one interviewee suggesting that once a Core Tech system commitment is made, management is very slow to shift from it. With credit unions "locked in" to their Core Tech platforms and with each credit union representing a fraction of the technology budgets spent by the banks and online financial services providers, credit unions have limited sway to demand that vendors adapt or update it, resulting in a Hobson's Choice: Take what the vendor offers by way of upgrade modules, or shut down.

Core Tech goes beyond "keeping the lights on" services such as payments processing, deposit and credit card clearance, and business interruption continuity services like offsite and cloud-based backup and redundancy. The security and safety of credit union online technologies and back-office systems are an increasing concern: credit unions are investing in Core Tech firewalls against attacks, malware, and virus infections; more sophisticated encryption and handling of member and system log-on credentials and passwords; and fraud monitoring through early detection of unusual patterns of transactions in member and credit union accounts. The security portfolio investments of Core Tech are prudent and mandated by regulatory standards, and can be justified as "loss prevention vaccines."

User Tech Spending: Personalizing the Credit Union for Member Loyalty

Each member is a story that he or she wants the credit union to relate to and improve. Such "storytelling relevance" requires a bridge from credit unions' traditional member stories for technology-phobic baby boomers to the digitally native younger generation.

Everyone can buy a race car, but winning the race depends on the driver knowing how to steer, shift, and seize raceway openings.

User Tech and getting members to adopt new technology are viewed by credit union management as brand defining,[25] as the way to show members that the credit union is simplifying access to its mission. Most interviewees consider User Tech a major strategic element, so important that User Tech project managers report to credit union Executive Committee members (the CFO or CIO). Increasingly, credit unions are hiring web and mobile developers, and, in some cases, data scientists, to build applications in-house using Core Tech application program interfaces (APIs) features, social media APIs, and extensible Open Standards protocols. Credit union management appetite for innovation and spending on User Tech is significantly greater than for Core Tech. With so much of the same User Tech readily available from third-party vendors, one industry veteran observed: "Everyone can buy a race car, but winning the race depends on the driver knowing how to steer, shift, and seize raceway openings."

R&D Spending: Skating to Where the Puck Will Be for Credit Union Members

Research and development by credit unions is carried out in proportion to their size and is conducted mostly by the larger credit unions in markets where banks (global, regional, or community banks) pose a viable competitive threat by offering better loan pricing, lower fees, or customer-facing ease of use.

Infrequently, small credit unions use the economics and mind-set of Silicon Valley start-up founders to codevelop disruptive User Tech, as Element Federal Credit Union did in 2009, with the first Apple iTunes app to offer secure remote deposit capture.[26] Occasionally, like all start-ups, credit unions can offer a new online or mobile service too early, before the market is ready to adopt (or has been brought by bank ads to the "trough to drink"). In 2005, UWCU created a free service for its largely student member population to make it easier to transfer funds, called Money Link.[27] With PayPal and Square, Money Link is now being redesigned as a cheaper option for UWCU's student members.

Aside from the "gee whiz, let's try to build it and see if members like us more" reasons for an R&D project, the credit union business model needs efficiency, member self-service cost savings, and revenue generators to replace charges (such as credit card interchange fee revenues) capped by new legislation (Dodd Frank) and its new regulatory environment (Consumer Finance Protection Bureau [CFPB]). As three industry veterans observed:

- "If you've outsourced most of your Core Tech to a one-stop-shop FinTech leader, you have little influence over the vendor's speed of innovation, and whether to offer the innovation to banks first, before their smaller credit union clients."
- "If the SIFI banks and their R&D budgets fund the first-wave innovations and the marketing to create customer awareness and demand for version 1.0, credit union in-house developer talent can likely release a version 2.0 innovation faster, at less cost, with the right user feature set."
- "Use an insurgency strategy: invest in R&D where the SIFI banks are not going, do a quick attack to win the member market there, and then pop up in other less visible innovation areas."

Buying Technology Smarter: Going It Alone versus Cooperative Bulk Purchasing

Pooled arrangements to acquire technology cheaper or on better terms is easiest in the generic case of Core Tech, with a number of CUSOs[28] and similar arrangements[29] helping to reduce the higher relative cost of Core Technology. Too often, CUSOs see and cannot change the pattern of multiple small credit unions requiring nearly identical Core Tech or User Tech upgrades but failing to synchronize investments so as to reduce redundant customizations.

In order to improve the results of innovations in User Tech and to reduce the cost for each individual credit union, large credit unions in Canada[30] have come together to jointly nominate and specify elements of User Tech applications and efficiencies for development.

Compass Settings for Managers: Technology Plans That Stand Up to News Cycles

Core Tech spending increases and shifts directions with management concern for regulatory compliance, business continuity planning, and risk mitigation. Occasionally, Core Tech is therefore sensitive to knee-jerk reactions to spend based on hearing negative stories where Core Tech was found inadequate to guard against fraud, led to an accounting charge, or failed to satisfy an independent audit (also known as the Band-Aid approach of investing in patching older technologies).

Looking in the rearview mirror at past risk scenarios—akin to buying insurance once the house is ablaze—creates a patchwork of fixes that fail to mitigate the next technology risk.

If reactively and retrospectively a credit union outsources its Core Tech and fails to adopt and review its strategic technology plans and seasonal buying options, the credit union risks buying inefficiency, ending up with less Core Tech functionality and resiliency at greater cost. Looking in the rearview mirror at past risk scenarios—akin to buying insurance once the house is ablaze—creates a patchwork of fixes that fail to mitigate the next technology risk. Smaller credit unions with limited in-house technology expertise are especially susceptible to this inefficiency cycle.

Credit union managers balance three competing goals in adopting and updating technology, shown in Figure 1.

Best Practices in Competitive Technology Investments

- **Budget smarter.**
  - Adopt a technology budget covering at least a two-year cycle and use it to update the credit union's overall strategic plan.
  - Recognize that the technology adoption culture of a credit union's management or staff may need to change—from Green Belts focused only on initial costs to Black Belts that see the game-changing impacts[31] and use site visits to other credit unions, visioning, and role-playing games to reimagine an upgraded culture.
  - Empower credit union employees on the front lines and in the back office by forming project teams and review boards to champion business process improvements, simplify user interactions and product offerings and pricing, and define the technologies they need to be effective.

FIGURE 1

THE THREE COMPETING GOALS IN ADOPTING AND UPDATING TECHNOLOGY

Growth goal	Questions management asks	Success metrics
Grow efficiency	"Will this technology investment do what we did previously, cheaper, faster, at less risk?" "Will this technology safely add member self-service for transactions previously conducted in the branch, so as to let our credit union grow?"	• Reduce operating expenses, fraud, bad loan losses • Increase spread
Grow member satisfaction	"Will this technology investment, adding on to or replacing our existing technology platforms, attract new members and deepen family personal finance share and loyalty of existing members?" "Will this technology let our credit union not charge members as much for services offered by banks?"	• Add members • Add family assets and loans at credit union • Reduce interest rates and fees charged to members
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- Use biweekly pitch sessions by credit union employees to credit union management to score and prioritize project team ideas, saving the business case development cost and delay of outside analysts.
- Use life-cycle net return on investment (ROI) benchmarks to test the business case for technology project.
- Make sure ROI includes the total life-cycle costs of transitioning, operating, enhancing, and (rarely) exiting the technology (also known as "incurring technology debt").
- Pair technologists functionally by assigning a separate business analyst to work with each credit union business line specialty function and staff (for instance, online banking technology would belong to e-branch operations).

Cooperatively bundle credit union technology purchasing power and pool lessons learned.

- Ask other credit unions for validation and lessons learned in considering new technology or cloud or open standards solutions to replace existing technology.

- Put the mundane Core Tech (like remote check deposit imagery sent out for processing) in outsourced hands.
- Where possible and pragmatic through CUSOs or directly, bundle multiple credit unions' Core Tech and User Tech purchasing requirements and plans together so that the bids attract deeper discounts and better terms, and eventually standardize enterprise computing platforms across credit unions.

Use data science and big data analytics to map the future of member needs.

- Track the demographics of the adoption rate for User Tech that allows credit union members to self-serve without coming into physical branch locations, while simultaneously generating greater utilization of credit union branch staff, for instance, through video ATM kiosks or mobile phone apps that communicate securely.
- Listen for the big data analytics signals in mobile channels (such as which features are used most often or are uncompleted by day of the week or month), the time of day, member demographics, and other metadata. These signals are members "voting with their feet" in prioritizing enhancement of Android versus Apple iOS applications and user experiences, and seeking further integration for self-service.

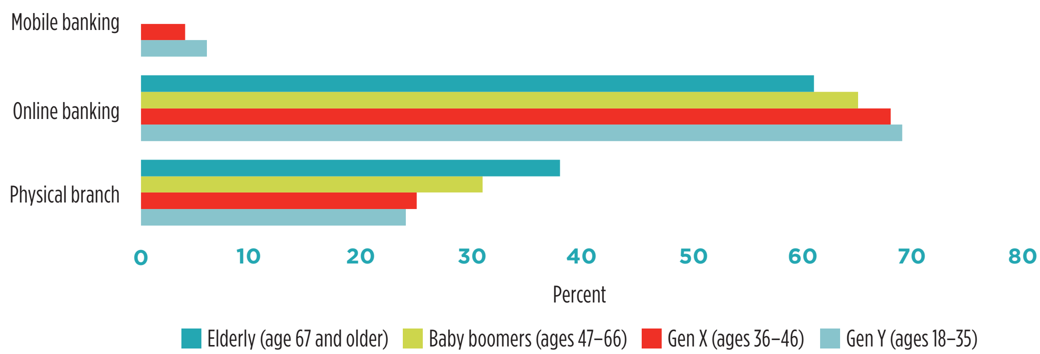
Focus on the quality and seamlessness of the user experience. Continuity across credit union access channels is key, so make sure that a loan offered online and in a branch, or the funds availability delay of a check deposited remotely and in an ATM, are the same, so as to retain trust in the credit union and its technologies.

Mobile is the future. Credit unions need to recruit younger members. Gen X and Gen Y/millennials as digital natives expect simple functionality and will tolerate a bit of "versioning" to iterate step-by-step getting there, hanging onto in-branch credit union identity as a backstop access point during the transition to near-fully online or digital credit union access.[32] One credit union executive interviewed described closing branches as the mobile and online experience ramped up member self-service preferences and fulfillment.

Embrace open standards development for credit union Core Tech and User Tech. The concept of "bank in a box" open technology standards has been discussed for several years and is moving forward at the edges of banking. Given the largely ubiquitous and generic aspects of credit union technologies, open standards are being explored in the Credit Union Financial Exchange Project[33] in order to reduce the cost and enrich the feature set of credit union Core and User Tech and to speed up new versions for them. Given credit unions' cooperative organizational structure and the international cooperative movement's resurgence, open

FIGURE 2

GENERATIONAL PREFERENCES



Source: Market Rates Insight, *Growth and Revenue Potential of Emerging Financial Services: Consumer, Competitive & Optimization Study*, 2013, www.marketratesinsight.com/docs/EFSPROSP5.17.13.PDF.

standards would allow credit unions to fill a more dominant role in global financial services in developed and developing country markets. The open standards could be developed and tested in collaborative environments that resemble the Open Geospatial Consortium (OGC), which provides for interoperable digital knowledge exchange standards,[34] or SEMATECH, which provides for computer chip manufacturers' supply chains.[35] The open standards could be certified by bodies such as the International Organization for Standardization (ISO) in order to gain the functionality and cost savings of modular open standards credit union Core and User Tech.[36] Today, credit unions do not routinely collaborate in technology strategy and investment, nor do they discuss technology missteps as often as their technology successes. An open standards collaboration setting—a credit union technology incubator—ideally aligned with university research in related fields might improve the rate of successful, within-budget technology rollouts, while allowing for "be free to fail" pilots that push R&D boundaries on Core and User Tech.

- **Measure impacts that matter to credit union members.** Credit unions often measure the life-cycle ROI of the technology project for the credit union as an institution, in terms of the avoided cost of a given technology over its useful life. However, a stronger measure of relevance is the ROI that a technology achieves for the credit union member as a human being, navigating the ups and downs of family, work, and community life.[37]

Using Impacts Analytics to Justify Credit Union Tax Exemption

Since 1935, credit unions have been exempt from federal taxation, meaning that net earnings from operations and investments could be enjoyed by members of the credit union through lower borrowing costs, higher interest rates on savings,[38] or as returns on member shares (patronage rewards for cooperative credit unions and dividends for corporate credit unions).[39]

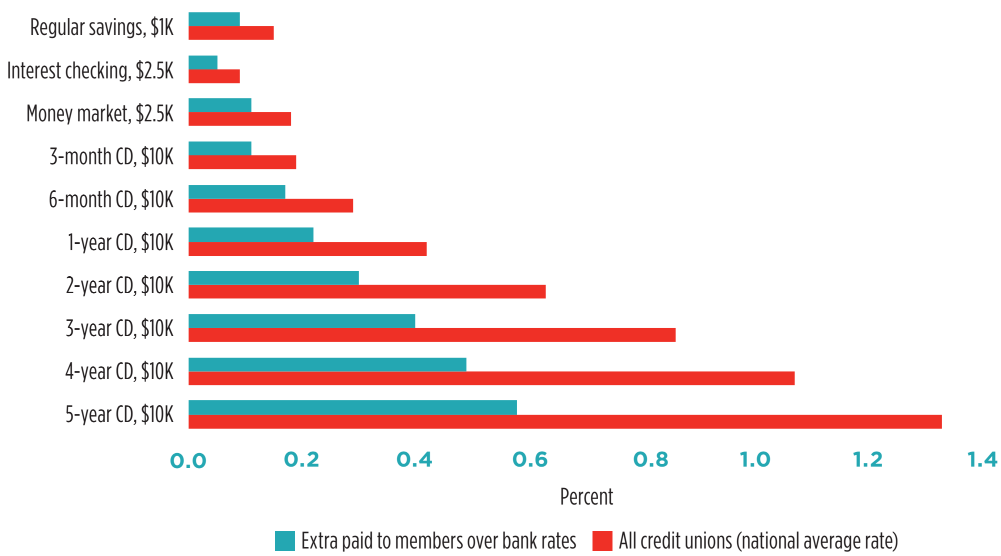
For decades, community and commercial banks have sought to end or decrease credit unions' tax-exempt status, seeing the exemption as an unfair competitive advantage in the financial services marketplace.[40] Each generation looks at the Swiss cheese nature of distinctions without a difference in the Internal Revenue Code's effective tax rates and asks for simplification, which, independent of the merits of credit unions, might reduce or eliminate their tax-exempt status—pending wholesale revision of the tax code.[41]

Today, credit unions rely on a mixture of organizational history, mission branding, and word-of-mouth referrals/Net Promoter scores to prove their impacts are so socially motivated and impactful that tax exemption—like exemptions given to nonprofit charities, hospitals, and schools—is well earned. However, the growing size of the largest credit unions (Navy Federal Credit Union in Vienna, Virginia, holds $54B in assets, and State Employees Credit Union in Raleigh, North Carolina, holds $26B)[42] and the growing asset shares of large credit unions are attracting business claims of unfair competition and lobbying attention from community banks, thrifts, and commercial banks.

Credit unions' main justifications for tax exemption may be losing appeal. Claiming "credit unions save their members money" by redistributing the tax exemption's savings or "banks use Subchapter S to achieve similar one-tier tax exemption"[43] may be a tautology insufficient to prove to the White House or Congress that credit unions deserve to keep their tax exemption. Claiming "credit unions offer their members more convenience" through local storefront branches in secondary and rural markets may be insufficient when every bank, thrift, payment service (PayPal[44] or Square[45]), and financial services bundler (BBVA/Simple, Moven) is equally as convenient and accessible as a mobile app on a smartphone or online video chat service—as convenient as downloading a song on Apple's iTunes or buying an e-book on Amazon's Kindle.

FIGURE 3

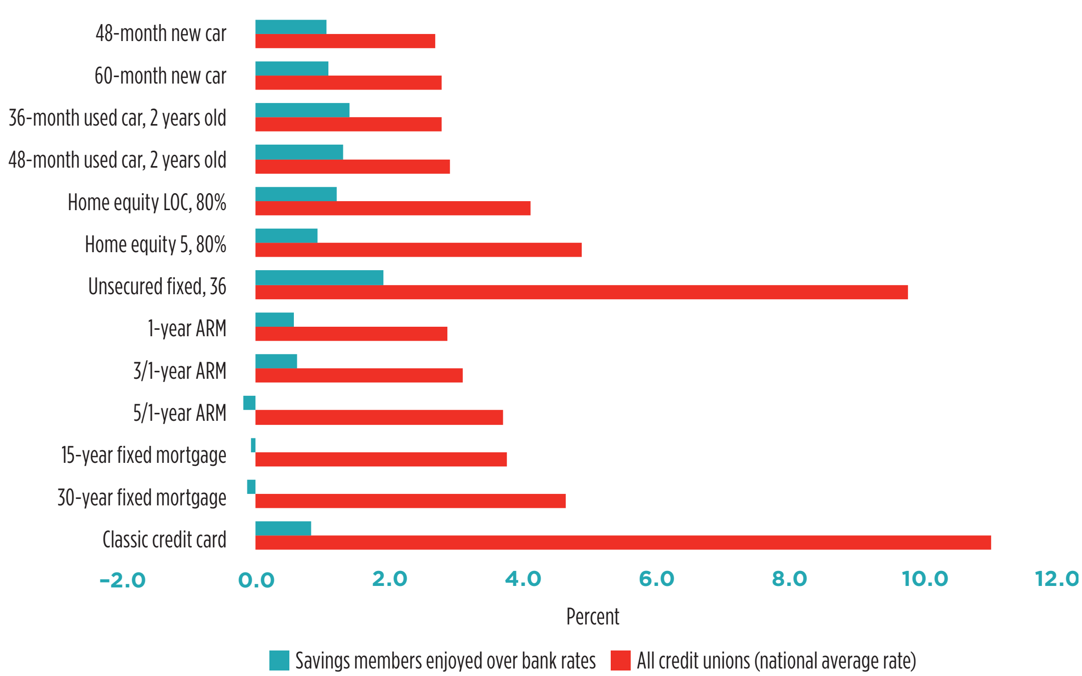
CREDIT UNION MEMBER SAVINGS VERSUS BANK RATES



Source: NCUA, *Comparison of Average Savings and Loan Rates at Credit Unions (CUs) and Banks*, September 30, 2013, www.ncua.gov/DataApps/Documents/CUBNK201309.pdf.

FIGURE 4

CREDIT UNION MEMBER BORROWING RATES VERSUS BANK RATES



Source: NCUA, *Comparison of Average Savings and Loan Rates at Credit Unions (CUs) and Banks*, September 30, 2013, www.ncua.gov/DataApps/Documents/CUBNK201309.pdf.

If credit unions want to present an accurate picture of their impacts amid calls for repeal or limits on their historic tax-exempt status, they must quantify credit union impacts using more robust data analytics than they have gathered to date.

Social impacts emerge from the big data analytics that are in growing demand by socially responsible investors, social impact bond funds, venture philanthropists, foundations, and government pay-for-performance programs. Banks have relied on Community Reinvestment Act (CRA)[46] and Community Development Financial Institution ratings, which in the wake of the 2008 subprime mortgage, credit card, and student loan crises have proved to be inauthentic and misleading indicators of social impact. Credit unions should partner with impacts analytics innovators to provide input on emerging metrics standards, and how credit unions might use them. Likewise, standout credit unions should consider the impact-generating strategies described in the balance of this report.

CHAPTER 6

Impacts—Winning Competitive Strategies

Impacts—Current Practices

When asked "How is your credit union tracking and positively impacting members' quality of life?," industry veterans surveyed responded:

- **Pay member returns.** Credit unions' cooperative structure distributes net profits as "member returns" that amount to, at most, $200 per year per member.
- **Provide financial education and literacy programs.** In-branch and increasingly online, credit unions are providing personal financial management/family budgeting tools and training members in how to deal with and anticipate financial needs, such as college planning, retirement, saving for a house, and setting and keeping a budget. Cable television media and e-mail and online ads are saturated with credit score and "get rich quick" investment advice. The clarity that members need to act on financial wellness advice, and to not become cynical of advisors in the process, is a challenge that trusted credit unions can offer.[47]
- **Respond to community emergencies by deferring payments.** After a major flood or other disaster, credit unions will work with the affected members to defer

monthly payments for up to three months while insurance and disaster relief claims are processed and checks received.

- **Work with members facing life-cycle challenges.** Like the general public, credit union members can lose a job, face a health crisis, get divorced, close a business, or suffer other setbacks. Forward-thinking credit unions treat life-cycle events as moments to deepen the loyalty of and relationship with members who can and want to be helped.[48] For instance, Seattle's BECU has a Member Assistance Group and Affinity Plus in Minnesota has a Permanent Solutions Department that work one-on-one with their members to find new employment options or to get members back on their feet after life-cycle events.
- **Realign credit union practices to fulfill their original mission.** Several interviewees shared concerns that credit unions are moving along a path to lose their footing as cooperatives, similar to how immigrants take on the culture of their new country, and in a generation or two lose their cultural values, identity, language, and cohesive practices. Paraphrasing interviewees' concern: "Credit unions started in America to help the 'little guy.' Today, the challenge is to reduce the higher costs of serving the 'little guys,' knowing that many of us started as him and go through periods as the 'little guys' in needing personal finance coaching and services. We need a credit union to believe in us, to believe we can become the 'great people' we are meant to be, to give us hope and the opportunity assets to succeed. Credit unions can help or ignore the 'little guy,' and in doing so, credit unions can be just like banks, and head into a boxed canyon there, or can be better than banks."[49]

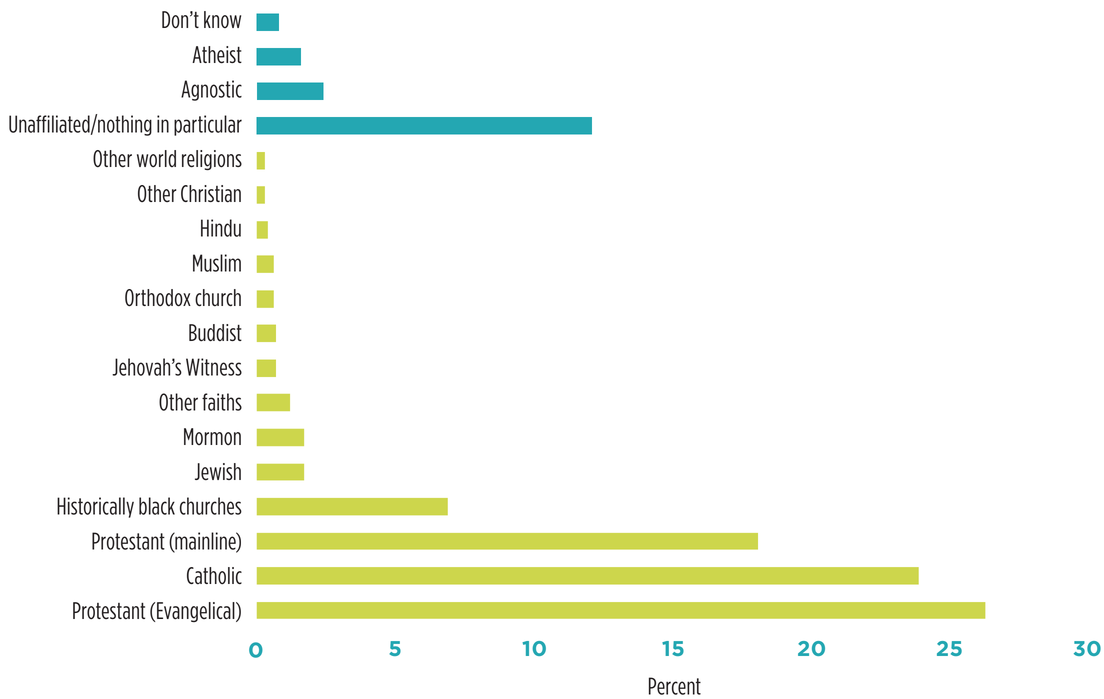
Impacts Information for Members Asking What Their Money Is Doing

Credit union members are searching for answers and meaning in their lives, alongside building wealth. That "we are all in this together" may be a positive credit union outcome of the Great Recession.[50] Credit union members may be the elderly thinking about the world they leave for future generations, or may be aging baby boomers rediscovering their 1960s roots, or may be Gen X or Gen Y/millennials asking how to use their personal finances to address global challenges.[51] Mirroring the US population, credit union members may choose to be faith-observant[52] or identify with gender, progressive, conservative, or other demographic clusters that seek validation of their identity beliefs through specialized personal financial services that validate their impacts.

Credit unions seeking to serve such "impacts-aware" members and their goals of achieving desired impacts or avoiding prohibited transactions[53] must review how to economically offer such assurances and impacts information services.

FIGURE 5

RELIGIOUS LANDSCAPE OF THE UNITED STATES



Source: Pew Forum on Religion & Public Life, *U.S. Religious Landscape Survey*, 2007, www.religions.pewforum.org/pdf/affiliations-all-traditions.pdf, and for state maps www.religions.pewforum.org.

The data on financial impacts will grow. Corporations are feeling the forces of regulatory enforcement, shareholder advocacy, and competition. They are responding to such pressures by managing their brand and market reputations through stronger corporate social responsibility (CSR) and environmental social governance (ESG) policies, validated through big data analytics and stakeholder empowerment, supplementing year-end glossy CSR or ESG reports.[54]

CHAPTER 7

Impacts—Improving and Enriching Member Impacts Practices

At present, the impacts of credit unions are observable or told as isolated stories, and largely go unmeasured. Research prior to and for this report revealed strategies for improving and enriching how credit unions can measurably impact their members' lives; these strategies are discussed below by generational subgroup.

Impacting the Youngest Members (Before High School Years)

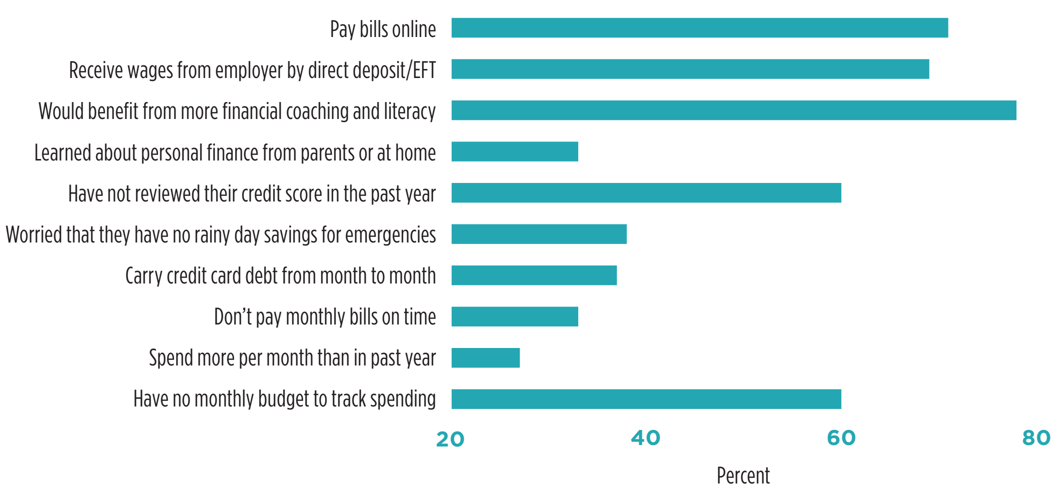
In the grammar and middle school years, many future credit union members hear and inherit their family's financial literacy,[55] alongside the taboo of not discussing, or always perseverating on, money. The Harris Survey found that significant deficiencies in the financial literacy of US adults (ages 18 and over) traced to their family's household taboos, as summarized in Figure 6.

The Genworth Survey found that a majority of middle-class Americans (household incomes over $50,000) are not teaching household budgeting, planning, or saving, resulting in adult fears about money, as summarized in Figure 7.

For young and future credit union members, the taboo of managing money needs to be reimagined as a game they can, and must, win. Singapore's PlayMoolah[56] and the UK's MyBnk[57] are gamifying money for students as young as grade school age. By engaging the youngest in financial literacy, their parents and caregivers confront and overcome the taboo of financial illiteracy.[58] Utah[59] and other states now mandate financial literacy coursework as a condition of graduating high school. Governmental efforts to improve the situation still leave one-third of US adults without a plan or hope of a plan for personal

FIGURE 6

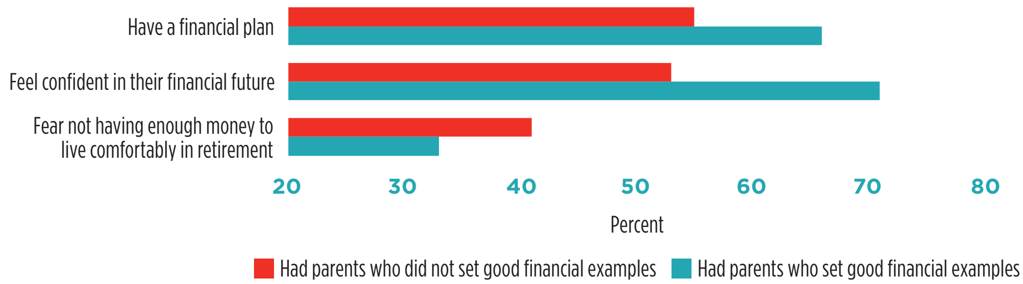
FAILING FINANCIAL LITERACY OR RESILIENCY IN THE UNITED STATES



Source: Harris Interactive, *The 2013 Consumer Financial Literacy Survey*, www.nfcc.org/newsroom/FinancialLiteracy/files2013/NFCC_NBPCA_2013%20FinancialLiteracy_survey_datasheet_key%20findings_032913.pdf.

FIGURE 7

FAILING FINANCIAL LITERACY STARTS EARLY IN THE UNITED STATES



Source: Toluna and J&K Solutions, *Psychology of Financial Planning Survey*, December 2012, as referenced in "Lesson Learned: Parents' Good Examples Key to Financial Preparedness," PR Newswire, January 29, 2013, www.multivu.com/mnr/54347-genworth-lesson-learned-parents-good-example-key-to-financial-preparedness.

financial management. Credit unions could provide better, hands-on financial literacy at all ages.

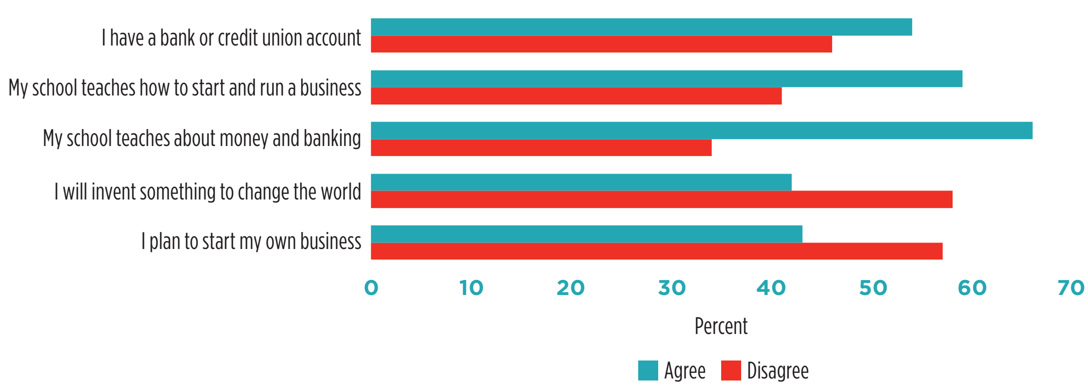
The National Credit Union Administration[60] and credit union system leadership[61] are beginning to gamify the transactions and mission of credit unions so as to upgrade financial literacy and attract younger members.

Impacting Teen and Young Adult Members (High School and College Years)

The youngest generation, those between ages 8 and 18, has grown up with Facebook, Google, Instagram, Twitter, and social and mainstream media. They watch Lady Gaga,

FIGURE 8

FINANCIAL LITERACY AND ASPIRATIONS OF US YOUTH



Source: Gallup and Operation Hope, *The 2012 Gallup-Hope Index*, www.gallup.com/file/strategicconsulting/159902/2013 Gallup HOPE Report.pdf.

Beyonce, Jay-Z, Sergey Brin, Mark Zuckerberg, Sheryl Sandberg, and other icons of pop culture hawking lifestyles of wealth, influence, style, and affluence—the bling of "making it." This age group represents roughly $140 trillion of untapped global gross domestic product (GDP) between 2012 and 2040.[62]

The Great Recession dashed the hopes and dreams of many high school students aiming to gain admission to and be able to afford elite colleges, and of many college graduates aiming for jobs paying enough to repay their student loans.[63] As of May 2014, the unemployment rate among recent college graduates was 8.5% (9.0% for men and 8.0% for women).[64] It still helps to have an undergraduate degree: The average salary for those with a bachelor's degree working full-time is $1,187 per week, compared with $666 per week for those with a high school diploma and only $492 for those who didn't finish high school.[65]

As of February 2014, with the Great Recession slowly fading and job prospects starting to improve, the unemployment rate among recent college graduates began to improve downward from 13% in 2011. But the quality of jobs for the employed and the percentage of recent college graduates in the labor market seeking the jobs that the economy offered remained disheartening.[66]

PriceWaterhouseCooper's annual Employee Financial Wellness Survey[67] shows that financial stress continues to preoccupy many US employees, with midcareer employees (Gen X, born 1960s–1980s) and the new entrants into the workforce, the millennials (Gen Y, born 1980s–2000s), reporting feeling more stress.

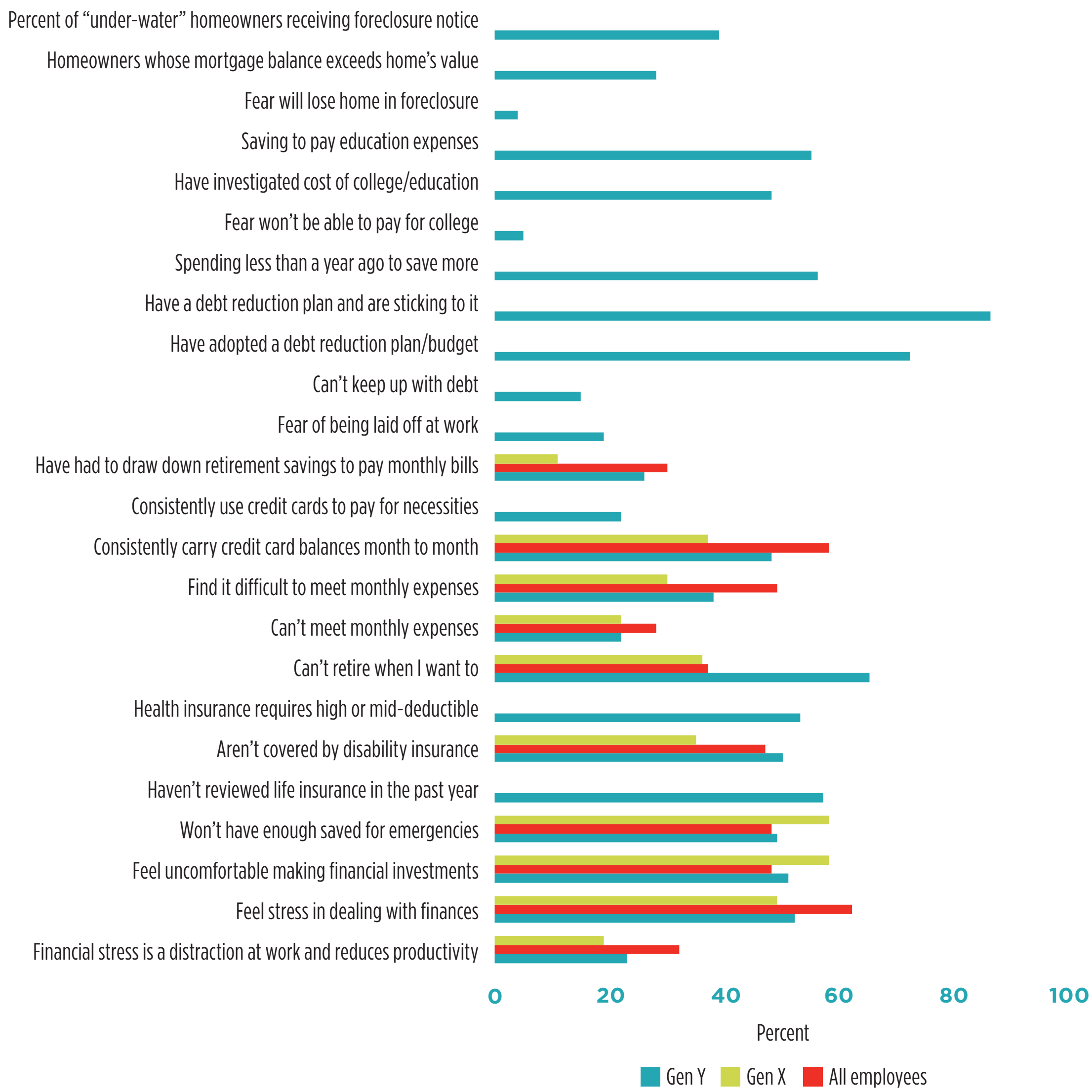
Those in the prime of their working lives and careers need the safety, impacts, and transparency tools for financial literacy and personal financial management discussed throughout this report.

To maintain vibrant lifestyles and take pressure off consuming what they don't have the incomes to buy outright, a movement known as the Sharing Economy[68] is taking root among and being built by Gen X and Gen Y:

- **Transportation**—Instead of owning a car, they use ride-sharing services like City Car Share,[69] Lyft,[70] Smart Car, or Uber[71] to schedule a day and time for using one.
- **Homes, offices, and work/lifestyles**—Instead of owning a home, they rent or live in co-living arrangements like the Embassy in San Francisco,[72] and instead of long-term rental of office space, they co-work in clusters of diverse businesses and social entrepreneurs while seasoning their business model in spaces like Impact Hub[73] and Brooklyn Creative League.[74]

FIGURE 9

FINANCIAL STRESS SHOWS UP AT WORK



Source: PricewaterhouseCoopers, *Employee Financial Wellness Survey*, June 2013, archived at www.web.archive.org/web/20140701162815/http://www.pwc.com/en_US/us/private-company-services/publications/assets/pwc-financial-wellness-survey.pdf; updated at www.pwc.com/en_US/us/private-company-services/publications/assets/pwc-employee-financial-wellness-survey-2014-results.pdf.

- **Hotels and travel**—Instead of booking a room in a hotel, they use AirBnB[75] to enjoy a stranger's apartment or even "couch-surf" through a membership nonprofit.[76]
- **Project-based purchases**—When they need a lawnmower, a drill for a home repair project, or an extra amplifier for a music performance, they go on NeighborGoods[77] or SnapGoods[78] to borrow one.

- **College coursework, lifelong learning, and the future of education online**—Instead of paying for four years of college to end up with a bachelor's degree, a mound of student loan debt, and few job prospects, they use free online courseware from Coursera or Khan Academy[79] or visit Wikipedia[80] to gain exactly the subject matter insights they need to start new companies with the tuition they save and the knowledge they have gathered in a "virtual lab setting" on the Internet.

Today, as cooperatives, credit unions could play a natural role in the sharing economy—credit unions could be the broker of persistent trusted identity, earning millennial members rights to use assets short-term.

In the 1900s, credit unions were a means to *share financial capital to acquire useful assets*: cars, homes, college educations, and daily and long-term needs. Gen Xers and Gen Yers seek lifestyles with a minimum of debt and a maximum of education, travel, and work/lifestyle experiences. Among many Gen Xers and Gen Yers, accumulating and owning assets is less valued than using them.

In this context, credit unions—once places to save and borrow money to buy what now can easily be and is being shared—make less sense to younger consumers.

Today, as cooperatives, credit unions could play a natural role in the sharing economy—credit unions could be the broker of persistent trusted identity, earning Gen X and Gen Y/millennial members rights to use assets short-term.

A credit union car-share program for college students could generate a "trust score" for safe driving that would be at least as reliable as a student credit card score. A credit union travel voucher program earned by deposits in credit union savings accounts and redeemed while interviewing for a first or next job or graduate school would be at least as valuable in earning member loyalty as "rewards points" earned only by deepening credit union debt. And for those already in debt, the option of reducing debt through participation in the collaborative sharing economy would let the credit union add $1 to the student member's savings account for each $100 unspent on shared assets.[81]

Members may wonder if their credit union is a relic of their student years or first job, or is a force for good for life.

Knowledge Transfer Hubs: Impacting Members in the Prime of Their Working Years (Ages 30–70)

In the digital economy, jobs and the skills to perform dramatically change. When the automotive age arrived, the economy needed fewer horse carriage manufacturers and trolley cars. When the television age launched, traditional newspapers and newspaper advertising gave way. The cycling of jobs into and out of the modern US economy is happening faster, pushed by technology and by global labor markets.

In this context, credit union members are navigating a working life journey that will take them to a series of employers, to jobs in multiple cities. Is their credit union a relic of their student years or first job, or is it a force for good in life? Credit unions—like banks—see their customers' success and failures in moving through life-cycle challenges every month. They see members in one career switch to another; return for adult education; manage divorce and child rearing; prevent and cope with health challenges; start or take over a business successfully, or wind it down; and ultimately buy a home, pay for their children's college, and retire.

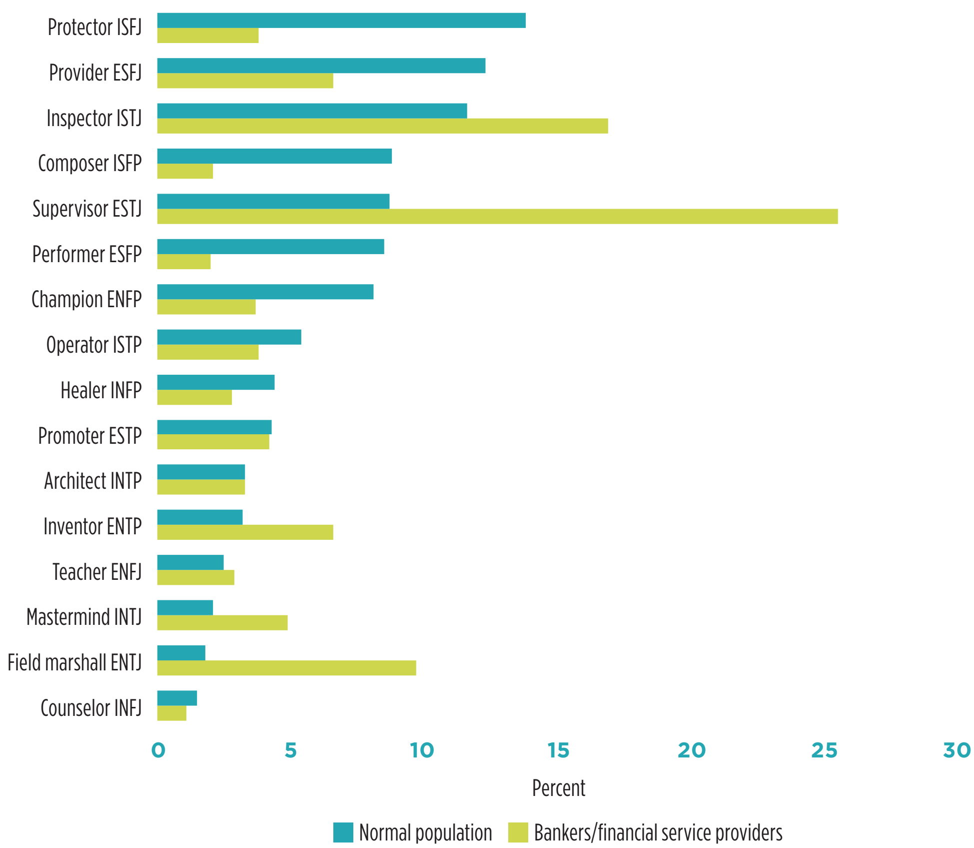
Not every credit union member is expert at navigating every life-cycle challenge, for cultural and even psychological reasons. Each person's personality type inhales the information requiring change, pivots, and adapts uniquely. The personality types drawn to careers in banking and financial services are markedly different from the personality types in the general population.[82] It is no mystery why people often feel misunderstood by banks and financial services providers: Their personality types see the world and its options for solutions dramatically differently. It is no wonder that credit unions—like banks—may not have or ever hope to have all of the contextual knowledge and instincts for using that knowledge in the moment when credit union members need that knowledge and instinct most.

A knowledge transfer hub strategy creates a peer-to-peer trust network as social capital, which is a life-cycle asset that can travel with the credit union member through multiple cities, jobs, life-cycle challenges, and other contexts.

In the aggregate, 96 million credit union members possess a wealth of collective intelligence and business intelligence for guiding the choices available, the contexts in which life-cycle choices arise, and the timing for making better choices, individually and as affected groups.

FIGURE 10

MYERS-BRIGGS PERSONALITY TYPES



Source: Myers & Briggs Foundation, "How Frequent Is My Type?" www.myersbriggs.org/my-mbti-personality-type/my-mbti-results/how-frequent-is-my-type.asp; Mary McCaulley, "Myers-Briggs Type Indicator: A Bridge between Counseling and Consulting," *Consulting Psychology Journal: Practice and Research* 52, no. 2 (2000): 117–32, www.psycnet.apa.org/journals/cpb/52/2/117.html.

Urban Logic has proposed reconceiving banks and credit unions as knowledge transfer hubs (KTHs),[83] in which credit union members gain credit for sharing what they know through member-to-member mentoring and similar arrangements.[84] A KTH strategy creates a peer-to-peer trust network as social capital, which is a life-cycle asset that can travel with the credit union member through multiple cities, jobs, life-cycle challenges, and other contexts.

The KTH strategy also broadens the one-to-many knowledge exchange platform of the traditional credit union. Beyond just coming to a credit union branch and being handed a trifold brochure explaining the credit union's range of helping with financing college or a home, or with direct deposit of payroll, credit union members can reach out to one another—a credit union member who has found a new job in design, education, engineering, or health care can offer insights to another credit union member recently laid off or desiring to move into such a career path.

Familiar examples of KTHs in the general social web include Quora[85] and Wikipedia,[86] and KTHs are also in curated and specialized communities like climate change (Intergovernmental Panel on Climate Change [IPCC]),[87] disaster response (Pacific Disaster Center [PDC]),[88] media (TEDx),[89] education (Coursera and Khan Academy),[90] and computer coding (Codecademy and regional hackathons).[91]

Intuit and its Mint, QuickBooks, and TurboTax divisions have created a set of live communities[92] as KTHs for customers to answer their financial services information in peer-to-peer forums. While these KTHs remain islands for exchanging financial challenge information, they extend the Intuit brand and product reach and influence to impact and simplify people's lives. Intuit's successful social media and business transformation strategy was described by its creator as follows:[93]

> *At Intuit, users of Mint, QuickBooks, and TurboTax serve as "live communities," providing peer-to-peer advice for everything from special tax circumstances to competitive pay issues. To date they have answered more than 25 million questions—about 74% of all questions that have come in. "In one product line, this approach has slashed support costs by 35%," says Per-Kristian (Kris) Halvorsen, the chief innovation officer of Intuit. And then there's the upside of having a community of super-users built around and invested in the Intuit platform, creating a competitive moat.*
>
> *The benefits of open innovation are clear. Yet many companies still worry about an approach that involves collaborating and sharing power with many.*

The trust needed for KTH members to engage in sharing knowledge and life-cycle situations already exists inside credit unions, by reason of the common bond affinity of members' eligibility, employer or geographic identity, or even faith-based or fraternal/sorority ties.

Imagine a KTH hypothetical using a specific case in point: Thrivent Financial started as a Lutheran fraternal benefit society in 1902[94] and now serves more than 2 million members from across the spectrum of Christian faiths.[95] Thrivent is organized across 1,320 chapters[96] in the United States and has generous community donation and disaster aid programs that fund faith-based and nondenominational nonprofits.[97] In 2013, Thrivent placed 325th on the Fortune 500 List, and in 2014 it was one of Ethisphere's most ethical companies.[98] Thrivent's financial success and mission of service seem to go hand in hand. Chapter-guided program governance and a networked focus on community and member service[99] position

Thrivent chapters as trusted settings to host and augment member life-cycle challenge resources with a KTH, as the organized member knowledge transfer gatherer, sharer, and responder tool for growing Thrivent's social capital.

Impacting Members in Their Retirement or Nonworking Periods (Ages 30–70)

People do not work for many reasons. Some voluntarily retire (temporarily or permanently) or are between jobs. Others deal with an illness or disability (temporarily or permanently)—their own or that of a family member or friend. Some take time off to have and raise children, to teach or volunteer, to start a business or shift careers. Unlike career employees in the industrial age, credit union members have frequent periods of work and nonwork, and move between them during their adult lives.

Credit union wealth management, personal finance management, and financial literacy courseware can bring expert advice to members in transition. New platforms and potential technology pilots suitable for early adopter credit union members are constantly emerging, such as Addepar[100] for high-net-worth investors, Wealthfront[101] or PersonalCapital[102] for active middle-income investors, and MoneyFarm[103] for investors who are passive, lazy, or still learning how to invest. Nontraditional services like the sharing economy and KTH services described above can support members' life-cycle transitions and capacity to better navigate within and across them.

Interest rate differences are hardly the best way to articulate a value proposition.

As the rollout of the Affordable Care Act (also called Obamacare) illustrated,[104] adult US citizens and residents face a dizzying array of choices in finding and obtaining the corporate, government, foundation, and emergency services for which a member's situation may qualify as eligible for discounted payments, enhanced features, or both. The *situational awareness* of credit unions in filtering, qualifying, and sharing member ratings of their experiences with third parties is too modest today.[105] Elderly[106] and disabled credit union members are regularly the victims of credit card fraud or other abuse. Wouldn't a gatekeeper credit card (such as the prepaid card by True Link Financial,[107] which adds an extra layer of approval to stop suspicious charges before they accrue) make sense for such members and the credit union? The goal of being eligible for Medicare and Social Security, unemployment, disaster relief, workmen's compensation, or other insurance shouldn't be to figure out how to obtain its benefits. Credit unions are directly impacted by the "learning curve" faced by their members in transition, albeit that credit unions can absolutely anticipate the aging of their members and reasonably anticipate the situational settings of life-cycle challenges.

A life-cycle change management dashboard seems a User Tech project worthy of multiple credit unions' participation, so as to pool their situational awareness of member needs and test the dashboard's features and impacts on members collaboratively. Researchers at Stanford University[108] and other institutions are designing and building such dashboards to bring together credit unions' internal and credit-union-to-credit-union knowledge of how third parties treat credit union members, and open up the impacts of credit union membership.

Scenarios of Three Impacts—Respond to Disasters, Lower Bills, Reduce Inequality

Credit unions often tout better interest rates as their differentiator. But interest rate differences are hardly the best way to articulate a value proposition. Instead, imagine a range of scenarios in which credit unions take visible steps to improve members' financial well-being.

The Disaster Response Scenario

Imagine that a natural or manmade disaster affects 100 credit union members from four credit unions and that these 100 members use their credit unions to pay monthly bills to 500 creditors (telephone and cable companies, mortgage servicers, health plans, insurers). Each credit union member could negotiate separately with the 500 creditors for deferred payments or other relief while continuing to receive telephone, cable, health care, and other services. Or the four credit unions could come together and work to reduce the individual member struggling with late payment terms, expedited insurance claim processing, and other impacts so that emotional, family, and work disruptions of the disaster are reduced. This disaster preparedness and response service from the credit unions will be increasingly impactful, given the fallout of climate change and the complexity of interconnected disaster consequences.

Reduce Our Bills Scenario

Now imagine that the same 100 members deal with the same 500 creditors under regular, non-disaster circumstances. About half of the creditors are purely financial in their relationship with the members (hold credit card, car, home, student, or other debt) and the other half provides services (health-care insurance, telephone/cable service, groceries, and housing).

For the first purely financial creditor group, bundling the certainty of credit union member payments represents a significant reduction in collections and payment processing risks and costs. For the second creditor group, which provides ongoing services, bundling credit union members' loyalty and market demand as a bulk purchasing group represents a sales opportunity, allowing for greater discounts than any individual credit union member would be able to negotiate.

Within the first, purely financial group, there is a subgroup that bought original debt (a mortgage, credit card receivable, car loan) at a discount based on FICO scoring or that offers payday loans.[109] This group would be quite pleased to be bought out of their debt, without credit union member bankruptcy, at a deep discount. In this second example, the credit union could offer a platform through which willing credit union members and their creditors can "opt in" to reducing the overall monthly outflows so as to build up credit union member savings and household wealth. This bill-reducing service will provide savings from credit union membership on top of the small wallet-share spread that credit unions save bank customers.[110]

The Inequality Response Scenario

Each year, the 98 million members of credit unions, as 30% of the US population, participate in the economy as consumers,[111] based on their income level (Figure 11).

The bottom and top income earners' spending patterns for housing, transportation, food, education, and other goods and services significantly differ. While they spend similar portions of income on clothing, other consumables require a greater portion of earnings from those less able to pay: the young, the poor, the middle income, the middle aged, the disabled, and the elderly.

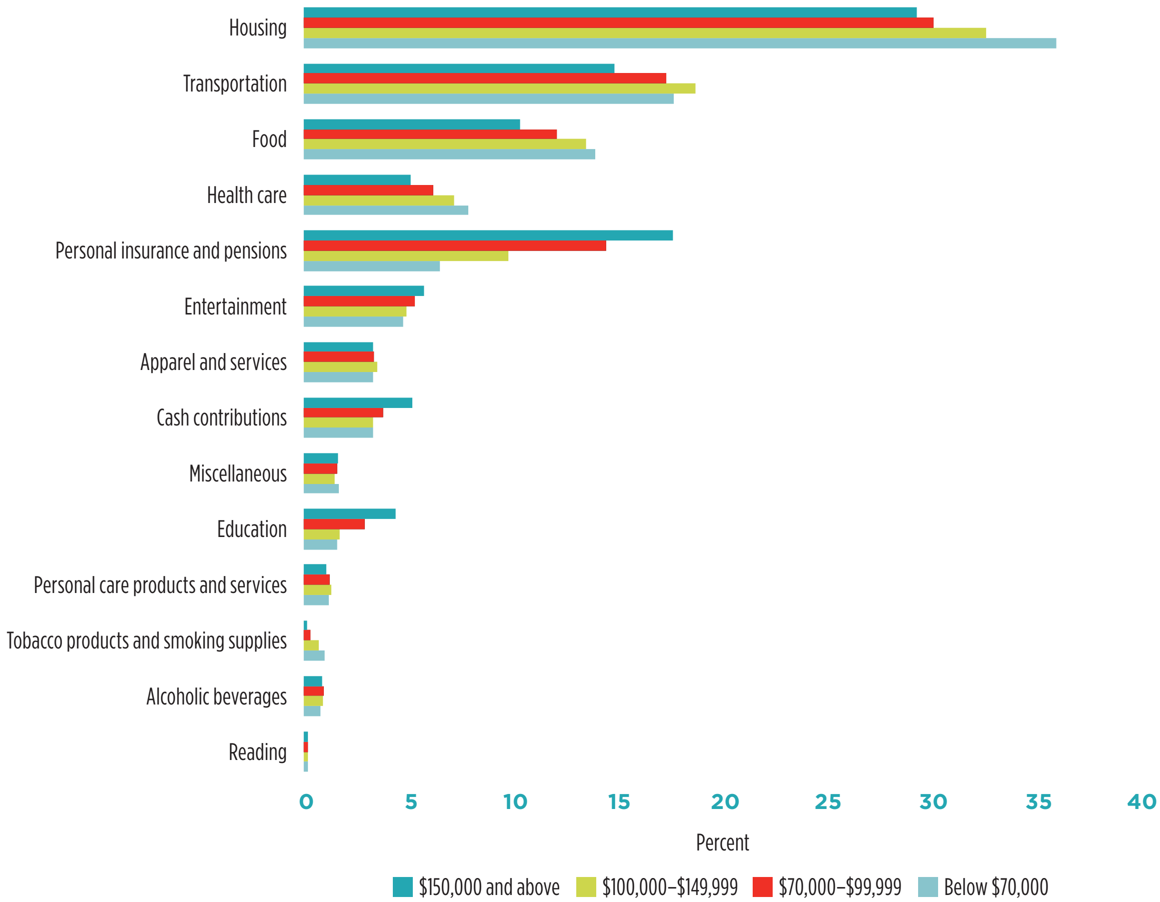
Inequality in the United States today fits squarely inside and defines the target role for credit unions, their mission, and membership. Personal financial management feedback tools, such as "safe to spend" mobile apps[112] that check spending levels against upcoming bills payable for housing, health care, cars, and other items, are User Tech that can measure credit union member improvements in financial literacy and earn members credit union rewards for staying on budget.

Proof of the credit union role in combatting inequality would present a unique counterargument to preserve credit unions' federal tax-exempt status.

Each credit union is positioned to serve a range of income, gender, age, region, and other demographic clusters. Members' unequal spending power—the needs of the poor, students, or elderly to rent rather than buy housing, or to take public transportation with extended commute times that reduce family hours and increase stress—sets priorities for credit union impacts that would improve the quality of life of affected members. Proof of the credit

FIGURE 11

US CONSUMER SPENDING BASED ON ANNUAL INCOME LEVEL, 2012



Source: US Bureau of Labor Statistics, "Consumer Expenditure Survey 2012," September 10, 2013, www.bls.gov/cex/home.htm#tables.

union's role in combatting inequality would present a unique counterargument to preserve credit unions' federal tax-exempt status.

An Inequality Solutions Cooperative could be the KTH linking a group of credit unions so as to combine and reward sharing the collective intelligence of credit union members who understand and navigate the choices and challenges of inequality in feeding, housing, transporting, and educating family members and friends. At banks, wealthier customers not only receive cheaper interest rates and terms, their complaints of credit abuse receive more attention for resolution.[113] In such a KTH, "citizen business intelligence" would generate group advocacy statistics (e.g., how many credit union members are affected by a given government agency program's subsidy or rules change)—big data proof points—that extend the reasons for loyalty to, and reach of, lifelong credit union membership.

Transparency—Proving Credit Unions Achieve Their Missions

Prior sections of this report discussed how credit union technology is shaped by and can achieve competition and the impacts that members require. Transparency shows impacts that drive competitive positioning and advantage. Transparency is more than the financial reports required by regulators. Transparency proves that the credit union is maximizing three goals:

- **Safety** = the credit union is safe as an institution.
- **Trust** = the credit union's impacts on members' lives earn trust in the credit union and its mission.
- **Sustainability** = the credit union is good for the community and region that it serves.

In essence, transparency tells the story of why a credit union matters.

Transparency—Safety of the Credit Union

Federal and state regulators require financial reports and audits to track the operations, solvency, and liquidity of credit unions. Healthy credit unions and problem credit unions are known to regulators, and the credit unions themselves.[114] Just as for banks,[115] however, the ratings of institutional safety—known as CAMEL scores from 1 to 5—are required to remain confidential and may not be disclosed to the public or even to credit union members.[116]

Information asymmetry will be reduced over time, and the public will know or have tools to readily predict the safety and soundness of credit unions.

In the digital era, where money moves in nanoseconds and rumored tinge of scandal or irregularity swiftly moves stock and bond prices among Wall Street traders and bankers,[117] it is odd that secrecy keeps the public from knowing to move their money from unsafe banks and credit unions, until the quarterly reports are filed and their analysis available publicly.[118] The information asymmetry will reduce over time, and the public will know or have tools to readily predict the safety and soundness of credit unions.

The system of federal deposit insurance created an illusion that members can handle their personal finances without impacting the health of their credit union. This illusion is one that credit unions must confront. As one interviewee mentioned: “The public perception is that credit unions are not as safe or tech savvy as banks.”

While credit unions cannot directly release regulators’ *official* safety and soundness CAMELS ratings, a part of member financial literacy could include a personal financial management application that correlates how credit union safety and soundness ratings (CAMELS) are affected by six financial functions that members normally conduct at the credit union: saving, spending, investing, borrowing, insuring, and donating. This application might be instrumental in gaining more member involvement in credit union governance and accountability, and help personalize the social contract of personal financial management and responsible debt management within the credit union model.[119]

Transparency—Trustworthiness of the Credit Union

Trustworthiness quantifies how a credit union “has its members’ back.” Beyond making sure the credit union is not a predatory financial servicer, trustworthiness is proactive, making sure that others are not taking unfair advantage of the credit union member, and stepping in to correct the unfairness before it occurs or when it is discovered. Credit unions are not and cannot afford to be the “fairness insurers” of their members’ lives and life-cycle patterns. As described in the earlier section of this report on impacts, technology, big data business intelligence, and the power of bundling multiple members’ similar life-cycle patterns offer new options for earning member trust and lifetime loyalty.

Ideas that emerged for transparencies that would earn members’ trust include mobile applications and online dashboards that show:

- Real-world benefits of credit union membership:
  - Aggregate actual savings enjoyed at credit union versus regional bank rates for members, given their loan types and FICO credit scores.
  - Potential savings that a member would enjoy by refinancing loans or moving deposits to the credit union.
  - Based on the last few months of activity,[120] the savings available to credit union members in buying major items (homes and vehicles) and regular household items like cable, Internet and telephone, clean energy, locally sourced food, or other services as a group through the credit union’s cooperative purchasing programs.

- Across the entire credit union membership, the reduction in predatory interest rates achieved for credit union members, reported by demographics for the members helped (gender, ethnicity, age, disability, income level), and illustrated by stories (anonymized as needed) of loans made outside normal FICO guidelines and their impacts on the individual or family involved.

→ Local soul of credit union:

- An interactive map of credit union and member investment and loan activity geographically, so that credit union members can virtually trace a dollar to validate local benefits of membership.[121]

- An interactive map of credit union employee and member community volunteer hours and credit union financial contributions, where members and employees have "time-banked" accounts[122] to recognize and earn financial rewards (merchant discounts, matched donations to recognized charities).

- A map of the portion of credit union budget spent locally, for employees and suppliers, and highlighting where certain decisions improve quality of life, such as locating credit union data centers in underserved or poorer neighborhoods to spur economic development activity there.

→ Transparent governance of credit union:

- Two versions of a "know your banking options" exploration—one a simpler, gamified version and the other a more augmented version of Bankrate-type[123] scoring to use the credit union as a fulcrum for financial literacy, where the credit union discusses in lay language its quarterly achievements, challenges, and plans, contextualized using NCUA 5300 Call Report data,[124] bank performance data,[125] and metropolitan banking markets structure data.[126]

- A technology road map of the credit union, the chronology of how much has been spent on technology (Core Tech, User Tech, and R&D), and what technology services were implemented and the rate of adoption they achieved. The road map would include a wiki that invites and engages "tech-savvy" and "tech-simple" credit union members and employees as "virtual CIOs" in meaningful dialogue on the strategic needs, and casting votes (validated by big data analytics on past user adoption rates) on wish-list technologies and other features of the user experience and back office.

- A moderated social media blog or wiki space for members, where their issues can be voiced and responded to within hours and the analytics of issues that are solved/fixed in a timely manner can be displayed so as to validate that credit unions are more responsive than banks. This "help us be a better credit union" social media approach also offers a forum to recognize and reward members for suggesting product features and pricing in ways that generate positive referrals for new members and for growing the wallet share of existing members.[127]

Transparency—Sustainability Impacts of the Credit Union

Credit unions originated as a financial cooperative to address significant community and regional conditions in Canada, Europe, the United States, the United Kingdom, and elsewhere. Immigrant farm workers, urban slum dwellers, and others in poverty or barely living paycheck to paycheck, who believed in themselves, joined with their coworkers and their neighbors, organized credit unions, and enlightened employers seeking to ensure better living conditions for their workforces. With the improved conditions, cities grew and revived, creating inclusive economic advantages for credit union members and nonmembers.

In 2014, the United States is a sea of strangers, domestic and foreign migrants who move regularly, often in search of a career, an education, a household setting, or a lifestyle.[128] The intimacy of credit union membership founded on a "common bond" of lifetime employment or geography is a relic of history, as most credit union members are otherwise strangers to one another, and lack the knowledge of what the credit union community builds.

Senior credit union executives interviewed for this report agree that credit unions need better transparency tools through which to prove that their credit union and its members are improving quality of life in regions and for group demographics of concern. Credit unions like Vancity in British Columbia are baking sustainability into their brand and services.[129]

Why would strangers in a credit union band together to improve a region's quality of life? Simple answer: Because improving quality of life and removing inequality provide meaning to them, earn them financial and social rewards, and feel better than treating their combined financial transaction impacts as an externality, as something never counted or counting.

Emerging research suggests that "sustainable banks" are financially more resilient to recessionary shock and other operating pressures, as compared with global SIFIs.[130] As the culture and technology tools for sustainable banking emerge,[131] credit unions will want to use these innovations to improve their safety, impact, and transparency, so as to remain relevant and competitive.

In 2014, credit union missions can use technology to refocus on removing gaps in quality of life—economic opportunity, environmental quality, food equity, preventive health care, affordable housing, job-supportive education and lifelong skills development, and other areas ripe for social impact and entrepreneurship.

Credit Union Merger Momentum and Technology Investments

Maximizing technology's return on investment means spreading it over more transactions, and that efficiency pressure feeds an appetite to grow credit unions larger. Exponential innovators[132] like Amazon and Apple reshape the retail customer's experience with the goal of aggregating huge transaction volumes that narrow supplier spreads and streamline handling the customer's identity and delivery. As Amazon did for bookstores and Apple did for music stores, money accessed previously in the branch is now just digital content that can be technologically gathered quickly in large quantities, as payments services PayPal and Square prove.

Pressure to invest in technology may be both a proactive strategy to attract younger credit union members and a defensive response to blunt SIFI banks' latest FinTech mobile app and regulatory capital somersaults and exits from consumer and small business lending.

Consolidation in banking and financial services is well under way. Over the past twenty years, the number of banks operating in the United States has decreased from 18,000 to fewer than 7,000, with further consolidation expected.[133] As credit unions move into the digital era, Core Tech and User Tech investments likely will speed consolidation within the credit union system.[134]

Through the economic necessity of outsourcing to a handful of large technology firms and CUSOs, small and midsized credit unions are removing cultural, geographic, operational, pricing, and technology barriers to consolidation and merger. Moreover, the transaction volumes needed to buy Core Tech and User Tech upgrades and the shortening of upgrade cycles require small and midsized credit unions to either collaborate on technology investment strategy and fulfillment as their norm, or whither and become legacy, less relevant financial services providers. Strategic thinking about where the future of the credit union system will be—skating the technology to where the puck of credit union member expectations will be—is an important mind-set as merger options appear on the horizon, and investments in soon-to-be-outdated legacy technology implementations or state-of-the-art outsourced applications count for little in the merger negotiations or the future of the merged credit unions.

Consolidation of multiple credit unions—facilitated by open or common technologies—might make credit unions more relevant locally and safer as institutions by (1) renewing community development roles for credit unions (as part of the Community Development Financial Institution movement) and (2) enhancing the balance sheet ballast and inter-credit-union liquidity arrangements that improve credit union resiliency to weather recession or economic stress.[135]

CHAPTER 10

Conclusion

This report started by interviewing and listening to seasoned credit union executives and technologists about the state of play for credit union technology strategy development and investments. Credit union veterans shared pain points, collaboration and innovation options being pursued, and options worth thinking about and trying anew.

Further research revealed significant trends in the US economy, in banks and in adjacent financial industries adapting to the preferences of a new generation of future credit union members born in the digital era. Simultaneously, and as worsened through the Great Recession of 2008–11, the conditions of inequality in the United States today resemble the early 1900s, when the credit union system started—presenting another historic moment of relevance for credit unions whose missions tackle inequality.

Specific activities were described that ensure credit union relevance and how credit unions offer and prove that they offer products and services that are relevant to members through their life phases from pre-teen through retirement, from starting up a business to transitioning the business to match changes in the economy, including a KTH, social financial literacy, and collaborating with cutting-edge impacts transparency research.

This report revealed competitive impacts and transparency options for attracting new generations of members and building new technologies that redefine member lifelong loyalty to the credit unions of today and tomorrow.

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>
> *Although smart machines substitute for unskilled workers, they are designed and run by skilled workers. So it's no surprise that the incomes of skilled workers have risen relative to those of unskilled workers. One indicator is the U.S. college-wage premium, which has increased from around 40 percent in 1999 to more than 80 percent today. Another is the dramatic growth in recent years in income inequality, documented by Atkinson, Piketty, and Saez (2011), most of which they trace to "an unprecedented surge in top wage incomes." The top 10 percent of U.S. households now receive 50 percent of all income—up from 35 percent four decades ago. (p. 3)*
>
> *Even if economists have been reluctant to view machines, be they drones or microprocessors, as dangerous competitors, those whose jobs have been lost to machines are facing a terrible time finding employment that pays a decent wage. In contrast, those who own the*

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collection rates as their goal. Such bundling rewards the bundler and the creditors but not necessarily the debtor.

Bills that are already too high due to unequal bargaining knowledge, financial literacy, or isolated group buying power (such as for cars, cellular telephones, or food) need to be renegotiated and reduced. Jim Quinn, "Subprime Auto Nation," The Burning Platform, September 7, 2012, www.theburningplatform.com/2012/09/07/subprime-auto-nation/.

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> *On Thursday September 11, [2008] an email time-stamped 8:26 A.M. from Susan McCabe, a Goldman Sachs executive, to [New York Federal Reserve Bank president and former Goldman Sachs executive William] Dudley and others set the tone for the day: "It is not pretty, This is getting pretty scary and ugly again. . . . They [Lehman Brothers] have much bigger counter-party risk than Bear [Stearns] did, especially in Derivatives market, so . . . [t]he market is getting very spooked, nervous. Also have AIG, [Washington Mutual] concerns. This is just spinning out of control again. Just fyi, this is shaping up as going to be a rough day." [Federal Reserve Bank Chairman Ben] Bernanke was informed that if Lehman failed, "it would be a much more complex proposition to unwind their positions than it would have been*

to unwind the positions held by Bear Stearns," because Lehman was "nearly twice the size of Bear Stearns." (p. 332; footnotes omitted)

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List of Figures

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Bruce Cahan is a visiting scholar in Stanford University's Engineering Department and previously was a CodeX Fellow at Stanford's Center for Legal Informatics. Bruce cofounded Stanford's Sustainable Banking Initiative and is currently developing GoodBank™(IO) as a prototype for high-transparency, impacts-aware commercial banking.

Bruce has advised Fortune 1000 corporations and federal technology investors; negotiated billions in finance, merger, and reorganization transactions; innovated investment strategies for sharing smarter open data; and now is redesigning banking and its impacts and safety.

Bruce was trained as an international finance lawyer at Weil Gotshal & Manges and was managing director at a Hong Kong–based merchant bank. Recognized as an Ashoka social entrepreneur, Bruce applies his skills in finance, government technology, emergency response, and sustainable urban systems to develop strategies for reconnecting a world that works equitably for all.

Bruce cofounded Urban Logic to improve urban sustainability decisions in real time. Bruce's New York City and federal geospatial technology experience and networks provided valuable emergency response assets after the September 11, 2001, World Trade Center attacks.

Drawing on his 9/11 and transactional experience, Bruce decided to create a new type of banking, where regional quality-of-life impacts reward the sustainable choices of customers and businesses and fund the environmental, health, and other social-sector innovations of purpose-driven businesses, nonprofits, and social entrepreneurs.

Bruce graduated from the Wharton School at the University of Pennsylvania (B.S. Economics and International Business 1976) and Temple Law School (J.D. 1979); was admitted to practice law in California (2006), New York (1980), and Pennsylvania (1980); and specialized in corporate and government finance, real estate, and reorganization law.

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