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Are Prize-Linked Savings Accounts the Solution to Arkansas' Savings Problem?

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by

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I. Introduction: The Savings Crisis

Personal savings is an essential ingredient for the financial stability of households and society as a whole. For American households, the amount of money in the bank may define their ability to weather an unforeseen crisis, like sudden unemployment or a broken down vehicle. The amount of their savings may determine whether they can afford an anticipated future event like retirement or a child's college tuition. At the macro-level, economists study the consumer savings rate as a factor in determining overall economic health.

The personal saving rate in the United States has been steadily decreasing over the last several decades, according to economic data collected by the Federal Reserve Bank of St. Louis (Appendix A). This Federal Reserve Economic Data (FRED) graph shows the U.S. personal saving rate, calculated as the ratio of personal savings to disposable personal income, over time. Personal savings peaked at 17% in 1975, a stark contrast to the 2.5% personal saving rate recorded at the end of December 2017. Excluding a six-month period in 2005, this rate is lower than any other time since the Federal Reserve began collecting this data in 1959 (U.S. Bureau of Economic Analysis).

Americans have a long-standing global reputation for their wealth. In mid-2017, American adults had an average wealth (or the difference between one's total assets, including savings, and one's debts) of $388,565, according to the Credit Suisse Global Wealth Report 2017. Only Iceland, Switzerland and Australia ranked higher. However, the large number of high-income Americans skews this figure – roughly 43% of the world's millionaires reside in the United States (Shorrocks et al.). Median adult wealth of $55,876, which is more representative of the middle class, places the United States 25th in global rankings (Appendix B). Despite Americans' reputation for wealth accumulation, they are falling behind other world economies.

A 2011 research study sheds additional light on Americans' financial fragility (Lusardi). Respondents were asked about confidence in their ability to come up with $2,000 in 30 days. This figure was chosen because it represents the approximate cost of an everyday emergency, like a major car or home repair, medical expense copay or legal expense. One quarter of survey respondents stated that they certainly could not come up with this sum of money, and another 15% probably could not do so. This finding suggests that nearly half of Americans are incapable of coping with a moderate financial shock.

When compared to the national average, Arkansans have an even greater issue with financial stability, as indicated by median income, poverty levels, and income inequality. In 2016, the real median household income in Arkansas was $45,907, 22% less than the national median of $59,039 (U.S. Bureau of the Census). The Center for American Progress measures economic security and poverty for each of the 50 states plus Washington, D.C. In its 2017 report, Arkansas ranks 45th in the share of people with incomes below the poverty line, which was $24,340 for a family of four in 2016. Talk Poverty, a project of the Center for American Progress, reports that 17.2% of Arkansans are impoverished, according to 2016 data. This percentage is well above the U.S. national poverty rate of 12.7% for the same year (Arkansas Report). Regarding income inequality, The Center for American Progress' 2015 State of the States Report reveals that the wealthiest 20% of American households' share of the national income is 16.4 times the amount the bottom 20% receives (West).

State-specific rates of liquid asset poverty reinforce the severity of Arkansans' financial vulnerability. The liquid asset poverty rate measures the liquid savings households have available to cover three months of basic expenses if they experienced a sudden loss of stable income. Ranking below all states but Mississippi, 48.4% of Arkansas households are liquid asset poor, compared to the 36.8% national average. In other words, about half of Arkansans would likely suffer serious hardships in the event of a financial emergency due to lack of savings (Prosperity Now Scorecard).

Furthermore, a large number of Arkansas households are underserved by banks, and many Arkansans use high-cost, high-risk credit to pay for expenses. In 2015, 9.7% of Arkansas households were unbanked, meaning that no one in the household had a savings or checking account. An additional 22.7% of Arkansas households were underbanked. An underbanked household has a savings or checking account, but also uses an alternative, non-bank service to meet their financial needs, like non-bank check-cashing services, money orders and loans. These rates for Arkansas are higher than the national underbanked and unbanked averages of 19.9% and 7.1%, respectively ("National Survey of Unbanked and Underbanked Households"). Nonbank financial services can be much more costly and risky than comparative services available at banks. For example, 10.3% of Arkansas households used a high-cost, high-risk form of credit, such as payday loans, automobile title loans, refund anticipation loans, rent-to-own, and pawning, to make ends meet in 2015 (Arkansas Report). In fact, being unbanked or underbanked may contribute to lottery play. Kearney explains, "For those with few assets or who encounter other barriers – either real or psychological – to engaging in the world of traditional financial markets, a lottery ticket might fill the void of a 'missing market'." (Kearney et al.)

The savings problem is exacerbated by a lack of financial literacy and trust in the banking system and financial markets as vehicles to assist in wealth creation. Two surveys conducted by the Consumer Federation of America and the Financial Planning Association found "More than one-fifth of Americans (21%) – 38% of those with incomes below $25,000 – think that winning the lottery represents the most practical way for them to accumulate several hundred thousand dollars." ("How Americans View Personal Wealth") One-quarter of Americans purchase a lottery ticket at least weekly, and half report having purchased one in their lifetime. In 2014, Americans spent more than $70 billion on lottery tickets, which is more than they spent on music, movie tickets, books, sports tickets and video games combined (Cohen).

If accumulating personal savings is so crucial, why not encourage individuals to save more by raising interest rates? This solution might work if this cause and effect could occur in isolation, but the reality is that interest rates are heavily influenced by the Federal Reserve, and changing those rates creates a ripple effect across the whole economy. Low interest rates encourage borrowing and spending, and are traditionally linked to economic expansion; conversely, an interest rate increase is correlated with low consumption and investment, rising unemployment and generally slow economic growth ("Why Do Interest Rates Matter?"). Higher interest rates would also increase the U.S. government's debt burden. A *National Review* article phrased the issue this way: "The problem is that the same higher interest rates that would make saving more attractive threaten the fiscal stability of the federal government, which is the world's largest debtor." (Williamson) We need a more creative solution to increase personal savings rates, especially for Arkansas households.

II. Prize-Linked Savings: Banking on Gambling

Prize-linked savings (PLS) accounts are a potential solution to the low savings problem. The effective implementation of prize-linked savings programs could incentivize Arkansans to save without requiring an increase in interest rates. Prize-linked savings products have encouraged many individuals to save more, and research has shown that they are especially attractive and beneficial for the financially vulnerable segment of the population.

Characteristics

Prize-linked savings accounts (also called lottery-linked deposit accounts) are a type of savings incentive product that offer depositors an alternative payoff to the current low, yet stable, interest rates borne by traditional savings accounts: the chance to win cash prizes. Combining the thrill of the lottery with the security of a savings account, PLS accounts attract unbanked and underbanked individuals into the banking system and increase overall saving in a given financial institution.

Although each prize-linked savings program may vary in its specific implementation, all prize-linked savings programs have the same fundamental characteristics. First, the more depositors save, the more often they are eligible to win cash prizes (typically up to a maximum number of entries per period). Prize-linked savings programs require depositors to deposit a predetermined amount, $25 for example, in the savings account in order to be issued a digital ticket. Each digital ticket represents one random chance to win. Keeping with this example, for every additional $25 the saver deposits during the raffle period, they receive another ticket. Prizes may be given away daily, monthly, quarterly, or annually; each individual financial institution determines the details of the prize-linked savings programs' structure. Second, and perhaps most importantly, a PLS depositor will never lose principal. This feature sets PLS accounts apart from the lottery and other traditional gambling devices.

PLS accounts capitalize on a behavioral bias of individuals' propensity for lottery-like risk-taking to inspire the productive behavior of personal saving. Many Americans play the lottery each year, even though the game offers a relatively large negative expected return – about 50 cents for every dollar gambled on the average lottery ticket (Bhattacharyya). The willingness to engage in such games can be explained by behavioral biases where individuals tend to overweight the occurrence of a low-probability event (Kahneman). On a *Freakomomics Radio* podcast, Melissa Kearney, a top researcher of prize-linked savings in the United States, refers to this phenomenon as skewness. According to Kearney, "[Skewness is] the chance of changing your life…. That's the big-win outcome that might allow you to buy a beach house or to send your kids to college." (Dubner) The idea that your life might be totally transformed with one lucky jackpot win can be very powerful and compelling, regardless of how high the odds are stacked against you. Prize-linked savings programs attempt to harness the power of skewness to motivate people to choose to save more, increasing their financial security by merging the magnetism of winning it big with zero potential for losses.

Global History

Prize-linked savings accounts have an established worldwide presence and popularity. Perhaps the earliest version of a prize-linked savings program was the Million Adventure implemented in the United Kingdom in 1694. Designed to offset debts from the Nine Years War (1689-97), 100,000 tickets were sold at a cost of £10 each. Ultimately, 2,500 prizes were offered over the course of 16 years. The innovative prize savings aspect of this lottery's design was that even the holders of the losing tickets received a modest £1 annual return (Murphy).

There are many recent international examples of prize-linked savings programs as well. In 1918, Sweden began to offer bonds with coupon payments determined by a lottery. A Japanese bank started offering a form of PLS account called 'lottery linked deposit accounts' in 1994. In a matter of days, deposits in the bank's PLS accounts increased to around $305 million USD, leading thirteen additional banks to immediately begin offering PLS products of their own. The PLS program headed by Banco Bilbao Vizcaya Argentaria, a large private bank with a presence in Spain, Argentina, Columbia and Venezuela, gives depositors the chance to win cars in addition to cash. PLS programs in Brazil and Pakistan offer a diverse array of prizes as well, including motorcycles, electronics, gold bars and travel (Kearney, et al.).

The prize-linked savings aspects of United Kingdom Premium Bonds and First National Bank's MaMa accounts have gained the attention of behavioral economists and academics, including Peter Tufano and Melissa Kearney, two of the leading researchers of prize-linked savings. Peter Tufano holds a Ph. D. in Business Economics from Harvard, and is acting Dean in the University of Oxford Saïd Business School. Melissa Kearney is an economics professor at the University of Maryland and research fellow at the National Bureau of Economic Research.

The United Kingdom's lottery bond program provides the most-purchased PLS assets in Europe. This non-taxable government bond, formally called a Premium Bond, was first offered in 1956. Premium Bonds offer no guaranteed interest to investors. Instead, the interest pool is periodically and randomly given away in the form of cash prizes, in a manner akin to a lottery. As a result, many investors don't win a prize, but a small percent of investors win big. In the U.K., 23 million depositors were holding more than £33 billion in Premium Bonds in 2006. By 2011, this had increased to more than £40 billion in bonds outstanding (Pfiffelmann). The massive investment in these bonds contributes to a sizeable prize pool, which awards substantial prizes (Appendix C).

Another current example of global prize-linked savings is the Million a Month Accounts (MaMa) offered by First National Bank of South Africa between 2005-2008. Initially, MaMa accounts paid no interest, and First National Bank awarded one grand prize of 1,000,000 rand, along with a few 100,000, 20,000 and 1,000 rand prizes each month. In September 2007 they began doubling the number of small prizes given each month. At the time, the traditional savings accounts most comparable to the MaMa were paying out 4-4.75% interest (Kearney et al.). The program was very successful until its termination in March 2008, when deposits in MaMa had reached nearly approximately 200 million rand (Dubner). South Africa's Supreme Court of Appeals ultimately ruled that it was a violation of the Lotteries Act of 1997, effectively securing the South African National Lottery's monopoly of for-profit lotteries in the country. Analysis of data from First National Bank revealed that financially vulnerable individuals have more demand for the characteristics of PLS accounts and confirmed that there was strong "unmet consumer demand…for savings products that offer the (remote) prospect of changing current wealth status, rather than incrementally building wealth with certainty." (Cole) The relaxation of regulatory barriers in the United States over the past decade has resulted in the expansion of the body of research on the implementation and study of prize-linked savings in the United States.

Prize-Linked Savings in the United States

In the United States, prize-linked savings are beginning to grow in popularity. Little public policy was focused on encouraging short-term savings until the recent and gradual enactment of various prize-linked savings legislations this decade (Tufano). When the Save to Win program piloted in Michigan credit unions in 2009, it became the first prize-linked savings program to be implemented in the U.S. Over the last decade, this program and other credit union-based PLS programs have expanded to reach members nationwide. More recently, a few community banks have launched PLS programs as well.

Save to Win, a PLS program for credit unions, was co-created by Commonwealth and the Michigan Credit Union League. Originally called the Doorways to Dreams Fund when it was founded in 2000, Commonwealth's mission is to "Create a stronger and more prosperous society where everyone has financial opportunity…by building innovative solutions that make people financially secure." (Our Story) Introducing PLS accounts to the United States was a part of this mission, an effort to draw underbanked individuals into the banking system and promote financial security. Demand for Save to Win accounts was strong in its pilot year. Between the eight credit unions that participated, 11,600 accounts were opened, with a total of $8.6 million in deposits; by the end of 2010 this number had tripled to $28.2 million in deposits being held. A survey of accountholders shed more light on their demographic qualities. Over two thirds (67%) of accountholders had an annual household income under $60,000, and 16% had an annual household income under $20,000. Additionally, nearly two thirds of survey respondents had not earned a college degree (Flacke).

Since 2009, Save to Win has expanded to become a national prize-linked savings program, currently promoted by 112 credit unions in eleven states (Thelen). Commonwealth has also assisted in the development of two additional prize-linked savings programs: Wincentive Savings Accounts offered by the Minnesota Credit Union and Lucky Savers in New York. Between these three programs, members of 165 participating credit unions have saved over $190 million since 2009, with an average account balance of $2,409. More than 30,000 winners have received $2.73 million in prizes since the programs' launch. It is evident that PLS programs are not only attractive to depositors, they are also making an impact on individuals who may benefit most from this type of savings vehicle. Data collected by Commonwealth shows that at least 86% of accountholders are financially vulnerable, meaning they are "not regular savers, asset poor, low to moderate income, had high debt, or had no emergency savings." ("Prize-Linked Savings in Credit Unions 2017")

Although credit unions were first to really get behind prize-linked savings in the United States, banks are beginning to show interest in offering PLS accounts. According to recent email correspondence with Commonwealth, there are three banks currently offering PLS programs in the United States: Blue Ridge Bank in Virginia (Jackpot Savings), First County Bank in Connecticut (FirstPrize Savings) and Community Bank in Oregon (Win-Win CD), which also has branches in Washington (McGlazer 2018). Community Bank is a mid-size bank with 14 branches in Washington and Oregon. Its program, Win-Win CD, is structured similarly to the credit unions' PLS products: it is a 12-month certificate of deposit account that gives depositors additional chances to win with every additional $25 saved. The Win-Win CD is an add-on certificate of deposit, which allows the owner to continue to deposit funds during the term. There is a small penalty for early withdrawal (180 days of interest at 0.1%). In 2017, Community Bank offered monthly prizes of $100 and a yearly grand prize of $1000 (McGlazer 2017). Now in its second year, the value of the monthly prizes has doubled and the grand prize has increased to $2,500 (Moran).

III. A Safe Bet for Savers and Financial Institutions in Arkansas

Prize-linked savings products have had a marked impact on savers worldwide, and they would be a good fit for Arkansas as well. In 2015, state legislation authorized Arkansas banks and credit unions to offer PLS programs, so there are currently no legal barriers to implementation. What is the potential demand for and impact of PLS programs for Arkansas households, and why would PLS programs make good business sense for Arkansas financial institutions?

Breaking through Legal Barriers

Despite their worldwide presence, prize-linked savings programs are only just coming to the U.S. this decade because gambling laws formerly disallowed this type of savings product.

The American Savings Promotion Act, which was co-sponsored by Arkansas Representative Tom Cotton, was unanimously passed in December 2014. This legislation amended "lottery" definitions in the Revised Statutes of the United States, Federal Deposit Insurance Act, Federal Reserve Act, and Homeowners' Loan Act to exclude "savings promotion raffles" from rules against financial institutions' dealing with lottery tickets (United States Congress). In this legislation, a "savings promotion raffle" is defined as "a contest in which the sole consideration required for a chance of winning designated prizes is obtained by the deposit of a specified amount of money in a savings account or other savings program, where each ticket or entry has an equal chance of being drawn, such contest being subject to regulations that may from time to time be promulgated by the appropriate prudential regulator (as defined in section 1002 of the Consumer Financial Protection Act of 2010)." (American Savings Promotion Act)

Before the federal act was passed, prize-linked savings programs were restricted to being offered by a few state credit unions. The American Savings Promotion Act essentially turned the decision of whether to allow prize-linked savings programs over to each individual state. As of April 2018, 26 states, including Arkansas, have passed legislation to allow prize-linked savings programs to be offered to some extent by financial institutions in their state (see Appendix D for state-specific information) (Prosperity Now Scorecard). Months after the federal legislation was signed into law, the Arkansas Savings Promotion Act came into effect on March 30, 2015. The Arkansas Savings Promotion Act amended Arkansas Code Title 23, Chapter 47, Subchapter 2, and authorized all Arkansas banks and credit unions to conduct savings promotion raffles (Arkansas State, Legislature).

In the three-plus years since these federal and state laws were passed, no prize-linked savings programs have been established in the state of Arkansas. In fact, only over half of the states with legislation authorizing these programs have implemented a PLS program to date ("Prize-Linked Savings in Credit Unions 2017"). Given the relatively low income levels of Arkansas households, demand for prize-linked savings should be high in the state. The use of these savings vehicles should bring substantial benefits to Arkansas households as a result of building savings and guarding against financial distress.

A Good Fit for Arkansas Households

In the U.S., prize-linked savings accounts have been found to especially appeal to millennials, the financially vulnerable, undereducated, and those who enjoy playing games of chance (Thelen). Demand for an innovative savings product like PLS should be strong in Arkansas, given the low median incomes, high liquid asset poverty rates, and high levels of underbanked individuals compared to the rest of the U.S. "There is a potentially large group of consumers whose savings patterns might be enhanced if given a chance, however remote, of winning a life-altering prize," (Cole) and many Arkansans fall into this category. Census data for Arkansas reveals that only 32.5% of adults from the age of 25-34 had an associate's degree or higher in 2016. By this measurement, Arkansan young adults are the second-least educated in the nation, behind only Nevada (Arkansas Report). Arkansas began a state lottery in 2009, and current lottery participants could be drawn to PLS instruments as well. It's possible that the many individuals who believe the lottery is their most practical solution to wealth building, not perceiving the value in saving through the traditional savings products that are available, will be attracted to the PLS account because of its resemblance to gambling.

When the Arkansas Scholarship Lottery Act passed in 2008, lotteries were allowed to be offered in Arkansas under the condition that they fund scholarships for state citizens. In the recent decade, the popularity of the Arkansas Scholarship Lottery has established that many

Arkansans like to gamble. Nearly 2 million Arkansans played the lottery in 2012, and the average Arkansas household spent roughly $422 on tickets. To put this amount into perspective, the average American household spent $418 on dairy products in the same year (Covington). In 2017, the Arkansas Scholarship Lottery collected approximately $449 million in revenue from instant and online sales together (Myarkansaslottery.com). Of this amount, $305 million was returned to ticket buyers in the form of cash prizes, and $71 million was transferred to the Education Trust Account. Unfortunately, the state's high poverty rates reveal that many Arkansans simply cannot afford such an expensive pursuit. St. Francis, Lee, and Phillips counties are the top three most impoverished counties in the state, with 31-36% of their residents (and 44-50% of their children) living in poverty (USDA Economic Research Service). Taken together, these three counties located in in the Delta Region of east Arkansas reported $7,183,764 of retail lottery revenue in 2014 (Comprehensive Annual Financial Report). Based on 2016 population estimates, this revenue signifies an average spending for the year of $171.21 on lottery tickets per adult in the tri-county region ("American FactFinder") (Appendix E).

However beneficial the Arkansas state lottery setup may be for many college students in the state who receive lottery scholarships each year, the lottery functions as a regressive tax. Even if low-income earners spend a smaller dollar amount on the lottery each year than high-income earners, the percent of their income spent is actually much higher. Furthermore, state lotteries certainly earn their label as a "poverty trap": they offer a payout lower than any other form of legal gambling, while providing a much lower rate of return than the types of assets that more affluent individuals typically invest in (Haisley). As a result, the lottery takes much more from low-income individuals who are rewarded by sparse or negative winnings, many of whom never have the opportunity to receive lottery-based scholarships for themselves. Prize-linked savings accounts have the potential to help low-income and financially vulnerable Arkansans to better save for unexpected expenses.

Gamblers are particularly prone to lack precautionary savings (Lusardi et al.). Thus, prize-linked savings programs may be uniquely positioned to attract savings from these individuals, who are less likely to maintain emergency savings in the formal banking sector. (Cole). When someone buys a lottery ticket, he or she may do so for the entertainment value and the opportunity to build wealth. Timothy Flacke, executive director of Commonwealth, explains that prize-linked savings programs can capitalize on the lottery's attractive qualities by strengthening an individual's wealth accumulation potential without sacrificing the entertainment value of the product used to get them there (Flacke).

Financial fragility is typically the most severe among those with low educational attainment, no financial education, families with children, those who suffer large wealth losses, and the unemployed. However, a large portion of Americans who are "middle class" also perceive themselves to be financially fragile, as reflected by either an unexpectedly low financial position or high level of financial pessimism or anxiety (Lusardi et al.). This perception effectively means that an even larger number of Arkansans could benefit from the improved financial stability that participation in a prize-linked savings program can offer.

Financial Institution Considerations

While hundreds of credit unions have established successful prize-linked savings programs over the last ten years in the United States, only three community banks are offering PLS programs in the United States today. The lack of bank participation may be because banks are more hesitant than credit unions to venture out into the unfamiliar waters of prize-linked savings programs due to concerns about regulatory compliance, skepticism of the business case for PLS, and perception that PLS products are "gimmicky," and not in line with the seriousness of traditional bank offerings (McGlazer 2017). Further, many banks (and credit unions) simply are not educated about prize-linked savings programs, and this lack of awareness is holding financial institutions back from even considering PLS as an option.

The collective experiences of financial institutions that have already piloted prize-linked savings programs across the United States provide a useful body of knowledge about the implementation process. By studying these examples, Arkansas banks and credit unions can gain valuable insight from these institutions' initial enthusiasms and concerns about offering PLS programs. Analyzing these established programs reveals details about program design, marketing, results, and potential benefits that could help Arkansas financial institutions to execute prize-linked savings programs of their own.

Credit unions in Arkansas can look to several examples of prize-linked savings programs in the United States. The Commonwealth co-created PLS program, Save to Win, is easily the most widespread program, reaching 1,900 members in 20 states. In a webinar on March 27, 2018, Jessica Thelen, Save to Win Project Manager, shared how credit unions can expect to "encourage smart saving and attract new members" as a result of implementing a Save to Win program at their branches. Credit unions that get involved in Save to Win can look to Commonwealth for legislative and product development support, as well as continued research into prize-linked savings and credit union performance. A 2017 survey of Save to Win members conducted by Commonwealth revealed that 8% of members joined their credit union specifically for the Save to Win program, and 65% of members reported being likely to use other credit union products in the future (Thelen). By selecting a turnkey PLS product like Save to Win, Arkansas credit unions can expect to pique the interest of potential new members without the headache of designing the product from the ground up on their own. Monthly data transfers allow Save to Win to manage the bulk of the PLS logistics of members' accounts, such as determining payouts and randomly choosing winners.

Save to Win is restricted to credit unions, but there are new programs and products becoming available for banks as well. Omnetrium is one financial technology company trailblazing the way for prize-linked savings products for banks, and it expects to launch its first two PLS programs with banks in the second quarter of 2018. Omnetrium provides all of the technology and most of the manpower required to run the prize-linked savings program day-to-day. Banks are left with the principal responsibility of determining the desired prize structure and developing and implementing a marketing plan, as well as transferring encrypted deposit data to Omnetrium daily following the program's launch (Hackett). Omnetrium participated in the 2017 Venture Center Fintech Accelerator in Little Rock, Arkansas. The Accelerator is sponsored by FIS, as part of their strategy to invest in and bring new innovative financial technologies to market.

Bank regulators have looked favorably upon PLS programs. Since the American Savings Promotion Act of 2014 was passed, no federal regulatory barriers have existed to prevent banks from offering PLS products in states allowing them, of which Arkansas is included. Moreover, the FDIC classifies prize-linked savings deposits as "core" rather than "brokered" deposits, which improves banks' liquidity profiles. In addition, banks may receive Community Reinvestment Act (CRA) credit from offering PLS programs because the programs encourage saving among low- and moderate-income households. The CRA's purpose is "to encourage depository institutions to help meet the credit needs of the communities in which they operate, including low- and moderate-income neighborhoods, consistent with safe and sound banking operations." (Community Reinvestment Act)

For banks to consider offering prize-linked savings programs, the benefits must outweigh the costs. Three benefits include ease of marketing, flexibility in product design and implementation, and the ability to expand the customer base while attracting additional low-cost deposits.

PLS products require much simpler marketing than other more complex financial instruments, because the concept of a lottery is already widely understood. For example, Community Bank advertises the Win-Win CD early in the year with a "Get Your Finances In Shape" theme to tie in with the season of New Year's resolutions. The bank utilizes flyers and radio advertising, and even gathers exercise equipment in the branches to spark conversations. One of Community Bank's flyers reads: "You don't have to do all the heavy lifting! Our Win-Win CD now has even more prize money to help your savings grow." (Johnson) This marketing plan effectively communicates the purpose and playfulness of the prize-linked savings product, and is able to both educate and engage a potential customer in less than two-dozen words.

While based on the same core foundation, each prize-linked savings program is unique. When considering program design and implementation, Arkansas banks can learn from pre-existing products in determining program-specific characteristics, such as the distribution and frequency of prizes. The more PLS deposits a bank holds, the larger the prize pool can become. Generally, it is advisable to give away enough small prizes to generate chatter about people winning, while still reserving enough prize cash for the grand prize (Hackett). A 2013 study in *Applied Economics* calculated the optimal design for a lottery linked savings program. The study found that the size of the grand prize was the most important aspect of the program. "Investors are willing to accept a decrease in the value in the medium and small prizes in exchange for an increase in the value of the jackpot." (Pfiffelmann) Banks can vary the odds of winning prizes over time, which allows them to advertise consistent prize amounts even with a changing deposit pool size. A provider can also manage liquidity by making depositors who withdraw their funds ineligible to win prizes. Both Save to Win and Community Bank's Win-Win CD employ small withdrawal penalties on their prize-linked savings accounts to encourage short-term saving (Kearney et al.). While banks have the freedom to create a program tailor-made for their branches, financial technology products are available to vastly simplify these aspects of the PLS program.

The implementation of prize-linked savings programs has been found to increase deposits, both regular and PLS deposits, sometimes along with a decrease in overall deposit costs. A recent interview with Gary Head, president and CEO of Signature Bank of Arkansas, revealed useful insights about Arkansas banks' potential receptivity to the idea of offering prize-linked savings programs. He mused a conceivable reason banks may want to get on board, asserting "More banks need deposits today than ever before." Introducing prize-linked savings products could provide Arkansas banks with additional sources of low cost deposits, which is one way to satisfy this need (Head). A study of the South African MaMa accounts found that the award of a grand prize generated substantial buzz around the winner. This excitement was so great that prize-linked savings deposits at the winner's bank branch experienced excess growth of 11.6% the month after the win relative to all other bank branches with MaMa accounts (Cole). Regular deposits also grew by 4% in this time period. Buzz about the PLS products did not simply cannibalize regular saving, but instead led to an increase in overall saving.

PLS programs also help banks develop new customer relationships. Leah Johnson, the marketing manager for Community Bank, created the Win-Win CD and is responsible for the ongoing process of product management. In her words, “Our hope with offering this product is to simply make saving money fun for our customers, increasing their personal savings for emergencies. While it would be hard to calculate a return on investment, we do hope that by offering this product, our new contacts with community members may lead to full banking relationships.” (Johnson)

Now is a particularly good time to pique the interest of Arkansas banks and credit unions because competition for deposits will increase as the Fed nudges up interest rates, according to Dr. Timothy Yeager, University of Arkansas professor and former Assistant Vice President at the Federal Reserve Bank in St. Louis (Yeager). By offering prize-linked savings accounts, banks may be able to increase core deposits while paying the same or lower interest rates. In a study of U.K. Premium Bonds, Tufano notes “The prize rate has generally been lower than the rate paid on comparable government bonds, which (assuming the investors know this) suggests that Premium Bond investors are willing to forgo return to purchase this type of prize linked instrument.” (Kearney et al.) This finding suggests that the novelty and gaming aspects of the PLS account may provide customers with sufficient incentive to accept a prize pool that is smaller than the total interest pool paid on comparable savings products. Although there may be additional costs to the bank associated with program implementation, the deposits themselves would not be any more expensive for banks to hold.

Credit unions and banks that take the time to see if prize-linked savings are right for their institution may find that the benefits of offering a prize-linked savings product outweigh the costs. If so, Arkansas financial institutions should take the necessary steps to bring this innovative savings product to the state.

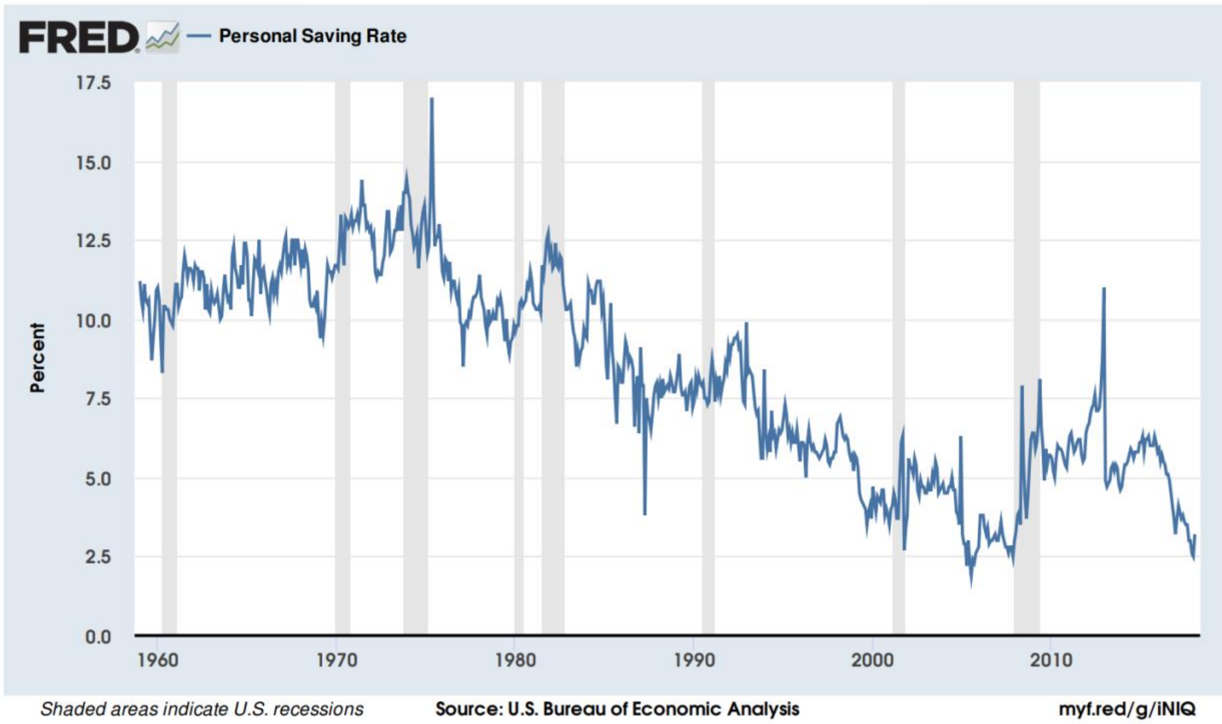
IV. Conclusion

A 2013 *National Review* article called the savings crisis America’s second most serious domestic problem (Williamson). This crisis is even more pronounced at the state level. Arkansans trail the rest of the nation on economic measures such as median income, poverty, asset liquidity, and rates of unbanked and underbanked households. Studies in the United States and abroad have demonstrated that PLS products are attractive savings vehicles for a range of individuals, but especially those who could stand to benefit from these instruments the most: people who are in a place of financial vulnerability, many of whom haven’t experienced the financial security that comes with building up personal savings in a bank account. Furthermore, the Arkansas Scholarship Lottery’s success has shown that many individuals in the state are attracted to the idea of winning a life-altering prize. A clear response to this savings problem is to expand access to prize-linked savings programs to individuals in the state of Arkansas.

Federal and Arkansas state laws, as well as relevant banking regulations, have given prize-linked savings programs the green light. PLS programs are flexible to design, operate and market, and are a creative way for banks to attract low-cost deposits. Moreover, many prize-linked savings products already exist, which simplifies implementation for Arkansas banks and credit unions. Ultimately, a logical step is to raise awareness among state banks and credit unions of the opportunity to provide Arkansas households with a new, entertaining, lottery-like way to increase personal savings and strengthen their financial situation through prize-linked savings accounts. It’s a gamble where everyone wins.

Appendices

A. U.S. Personal Saving Rate (1959-2017)



Source: U.S. Bureau of Economic Analysis, Personal Saving Rate [PSAVERT], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/PSAVERT, March 24, 2018.

B. Wealth Estimates By Country (Mid-2017)

Average Wealth Per Adult (USD)		Rank	Median Wealth Per Adult (USD)	
587,649	Iceland	**1**	Iceland	444,999
537,599	Switzerland	**2**	Switzerland	229,059
402,603	Australia	**3**	Australia	195,417
388,585	**United States**	**4**	Luxembourg	167,664
337,441	New Zealand	**5**	Belgium	161,589
320,475	Norway	**6**	New Zealand	147,593
313,687	Luxembourg	**7**	Norway	130,543
281,542	Denmark	**8**	Italy	124,636
278,139	Belgium	**9**	Japan	123,724
278,038	United Kingdom	**10**	France	119,720
268,776	Singapore	**11**	Singapore	108,850
263,399	France	**12**	United Kingdom	102,641
260,667	Sweden	**13**	Netherlands	94,373
259,271	Canada	**14**	Canada	91,058
248,466	Ireland	**15**	Taiwan	87,257
225,057	Japan	**16**	Denmark	87,231
223,572	Italy	**17**	Ireland	84,592
221,456	Austria	**18**	Israel	78,244
204,045	Netherlands	**19**	Qatar	71,118
203,946	Germany	**20**	Malta	67,980
198,406	Israel	**21**	South Korea	67,934
193,248	Hong Kong	**22**	Spain	63,369
188,081	Taiwan	**23**	Finland	57,850
160,609	South Korea	**24**	Austria	57,534
159,098	Finland	**25**	**United States**	**55,876**
129,578	Spain	**26**	Greece	54,665
119,802	Malta	**27**	Germany	47,091
111,684	Greece	**28**	Hong Kong	46,079
102,517	Qatar	**29**	Sweden	45,235
102,384	Cyprus	**30**	Slovenia	42,195

Source: Credit Suisse Global Wealth Databook, 2017

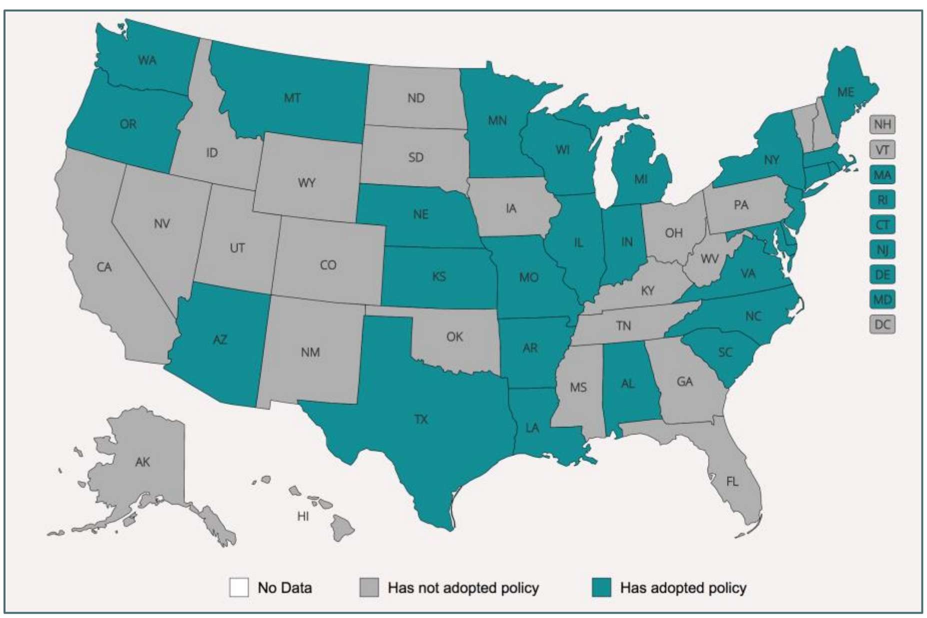
C. United Kingdom Premium Bond Prizes – June 2011

Prize Band	Prize Value	Number of Prizes	Probability
Higher value – 6% of prize fund	1,000,000	1	$2.34995*10^{-11}$
	100,000	4	$9.39978*10^{-11}$
	50,000	10	$2.34995*10^{-10}$
	25,000	17	$3.99491*10^{-10}$
	10,000	43	$1.01048*10^{-9}$
	5,000	87	$2.04445*10^{91}$
Medium value – 5% of prize fund	1,000	1,064	$2.50034*10^{-8}$
	500	3,192	$7.50103*10^{-8}$
Lower value – 89% of prize fund	100	31,259	$7.34569*10^{-7}$
	50	31,259	$7.34569*10^{-7}$
	25	1,706,155	$4.00937*10^{-5}$
	0	41,877,247,042	.999987
Total Value	**5.32 millions**	**41,878,992,000**	

Source: Pfiffelmann, Marie. "What Is the Optimal Design for Lottery-Linked Savings Programmes?"

D. States with Prize-Linked Savings Legislation

State	Legality	PLS Program Implemented?
Alabama	Legal for all financial institutions	No
Arizona	Legal for credit unions only	No
Arkansas	Legal for all financial institutions	No
Connecticut	Legal for all financial institutions	Yes
Delaware	Legal for all financial institutions	Yes
Illinois	Legal for all financial institutions	Yes
Indiana	Legal for all financial institutions	Yes
Kansas	Legal for all financial institutions	Yes
Louisiana	Legal for credit unions	No
Maine	Legal for credit unions only	Yes
Maryland	Legal for all financial institutions	No
Massachusetts	Legal for all financial institutions	No
Michigan	Legal for all financial institutions	Yes
Minnesota	Legal for all financial institutions	Yes
Missouri	Legal for all financial institutions	Yes
Montana	Legal for all financial institutions	Yes
Nebraska	Legal for all financial institutions	No
New Jersey	Legal for all financial institutions	No
New York	Legal for all financial institutions	Yes
North Carolina	Legal for credit unions only	Yes
Oregon	Legal for all financial institutions	Yes
Rhode Island	Legal for credit unions only	Yes
South Carolina	Legal for all financial institutions	Yes
Texas	Legal for all financial institutions	No
Virginia	Legal for all financial institutions	Yes
Washington	Legal for all financial institutions	Yes
Wisconsin	Legal for all financial institutions	No



Source: Prosperity Now Scorecard

E. Poverty Rates and Average Adult Lottery Expenditures for 3 Arkansas Counties

Arkansas County	2016 Poverty Rate[1]	2014 Lottery Spending[2]	2016 Adult Population[3]	Average lottery spending per adult[4]
Lee	35.9%	$1,028,484	7,689	$133.76
Phillips	32.3%	$2,838,924	14,030	$202.34
St. Francis	31.6%	3,316,156	20,240	$163.84
Total		**$7,183,764**	**41,959**	**$171.21**

Source:

1. "Percent of Total Population in Poverty, Arkansas: 2016". United States Department of Agriculture Economic Research Service, 25 Jan. 2018, data.ers.usda.gov/reports.aspx?reportPath=/State_Fact_Sheets/PovertyReport.

2. Comprehensive Annual Financial Report. *Arkansas Lottery Commission*, 30 June 2014, www.myarkansaslottery.com/sites/default/files/components/files/fy_2014_annual_financial_report.pdf.

3. "American Fact Finder". United States Census Bureau, factfinder.census.gov/.

4. Calculated figure

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