

ABA Stonier Graduate School of Banking  
2019 Capstone Project

## Debit Card Profitability and Opportunity Analysis

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## Executive Summary

The Association (“S&L”) is a federally chartered savings and loan association headquartered in a rural area. S&L was founded in the early 1900s and has a long tradition of serving the needs of the local community for loans and deposits. Traditionally S&L only operated in one county. In 2014, S&L expanded into neighboring counties through the acquisition of another institution. The acquisition provided new markets, products, and opportunities for personnel additions and growth. Integration is complete now and S&L is emphasizing the ability to compete with the national banks on product offerings while keeping credit decisions local.

S&L’s third largest noninterest income source in 2018 was ATM & debit card income. Debit card transactions have two sides that can be analyzed to look for opportunities. First S&L can approach it from a vendor management perspective. Debit card processing is a complex set of back and forth transactions that involve multiple companies. Payment networks (Switch) act the intermediary between the merchant’s bank (Acquirer) and the cardholder’s bank (Issuer). Merchants pay an interchange fee in exchange for the Issuer processing the transaction, billing the customer, collecting the money and providing customer service. Issuers must utilize a minimum of two independent networks for processing transactions<sup>1</sup>. One of the networks will be a Signature Network, which is owned and operated by either Mastercard or Visa. Issuers then choose at least one PIN debit network (PIN Network) membership for transaction processing. There are many options of PIN Networks and each network has different rates for interchange fees. Regulation II of the Dodd-Frank Act allowed merchants to choose which network would process the transaction, rather than allowing the cardholder or Issuer to choose<sup>2</sup>. This means that Issuers can choose as many Networks as they want, but only the merchants will determine which are actually used. Vendor management changes to be considered include working directly with Mastercard as a

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<sup>1</sup> FRB Website - <https://www.federalreserve.gov/newsevents/pressreleases/bcreg20110629a.htm>

<sup>2</sup> FRB Website - <https://www.federalreserve.gov/newsevents/pressreleases/bcreg20110629a.htm>

direct Issuer, adding or changing PIN Networks and renegotiating the current debit card contract with Processor.

S&L is a member of the Master Money (Mastercard) Signature Network through its relationship with Processor. Per discussions with Mike Holt, Partner at Profit Resources Inc., who specializes in debit card profitability, Mastercard will pay a brand loyalty fee for signing a multi-year contract to issue all cards as part of their network<sup>3</sup>. The estimate is over \$XXX thousand for a 10 year contract. This would be paid as an upfront lump sum and amortized into income over the life of the contract for accounting purposes. In order to get this incentive S&L would need to contact Mastercard and inquire about becoming a Direct Issuer. The actual processing of transactions should not change, but the ordering and back office processes may be slightly different. There does not appear to be any exclusion in the current Master Agreement with Processor to prevent the change to Direct Issuer status. **It is recommended that management contact Mastercard to determine the exact changes required and incentives being offered to become a Direct Issuer.**

S&L is a member of the two PIN Networks for point of sale (POS) transaction processing. S&L received an average of \$0.XX per transaction from Processor's network (PIN Network 1) and \$0.XX per transaction from the PIN Network 2 during 2018. According to data published by the Federal Reserve Board (FRB) for 2017, the networks being used paid lower than average interchange fees to Issuers, at \$0.XX and \$0.XX per applicable transaction<sup>4</sup>. In comparison, the FRB data listed an average fee of \$0.35 per transaction for Interlink, owned by Visa, followed by \$0.29 and \$0.28 per transaction respectively for NYCE and Pulse. S&L can consider adding one or more of these higher paying PIN Networks to the debit cards. There is no guarantee that any transactions will be processed through these networks since the Issuer does not have the choice; however, if even 10% of the transactions were processed at an average

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<sup>3</sup> Telephone conversation with Mike Holt on August 29, 2018.

<sup>4</sup> FRB Website - <https://www.federalreserve.gov/paymentsystems/regii-average-interchange-fee.htm>

rate of \$0.28, gross interchange revenue would increase by almost \$XX thousand annually. **It is recommended that management have a conversation with NYCE or Pulse to determine the costs associated with membership and the likelihood of merchants choosing their network over the current PIN Networks.**

The third component of vendor management to be considered is renegotiating with Processor. S&L does not have much leverage with Processor since the current contract is in force for several more years. Mr. Holt stated that is common to receive a \$0.03 per transaction rebate incentive from the processor that is a pass through of income they receive from Mastercard for each transaction they process. **It is recommended that management consider having a conversation with the processor about the possibility of revenue sharing or ceasing to use the current network. If further contract negotiations are considered necessary, management should consider the cost of hiring a specialist in the debit card field to maximize the impact of any changes to terms.**

The second side of the debit card process is cardholder usage and fees. Business debit cards, rewards programs and overdrafts were considered in this analysis. Business debit cards can be issued with a business Bank Identification Number (BIN) that identifies it to the processor and networks as being exempt from the consumer regulations and therefore paying a higher interchange fee to the Issuer. S&L had XX business BIN debit cards issued as of December 2017. By December 2018 that number increased to XX. A system query was run in February 2019 that showed over XX active debit cards associated with business accounts that were using a consumer BIN. **It is recommended that management train branch staff on the importance of asking business if they would like a debit card and training back office staff to ensure that the correct BIN is used for all business customers to maximize revenue.**

The current customer debit card rewards program (the "Program") was implemented and promoted to customers in March 2018. The Program has a fixed cost component and a point redemption cost. Points earned by cardholders are generally 1 for every \$2 spent on a registered debit card. It takes

approximately 120 point to get \$1 value as a gift card redemption. From March through December 2018, S&L paid \$X thousand in redemption costs. The fixed cost, which is based on overall eligible cards, averaged \$X thousand per month during 2018. The annualized expected cost for 2019 is \$XX thousand based on the 2018 actuals. S&L earned net income of approximately \$0.XX per transaction in 2018. At this rate, the program would need to generate XX thousand additional transaction per month to recoup the direct expenses. From March 2018 through December 2018 the average transactions increased to XX thousand from an average of about XX thousand. This increase can only be partially attributed to the addition of the Program and does not cover the direct costs. **It is recommended that management consider other rewards programs, such as a direct cash incentive to deposit accounts that meet certain fees, to determine if a profitable option is available.**

A third option to increase transaction volume and increase fee revenue would be to implement more options for customers to affirmatively choose, (opt-in), to the non-recurring debit card overdraft program, Regulation E. Customers are currently sent an opt-in form with the welcome letter as they are added to the standard overdraft program at S&L. The opt-in form instruction include calling our toll-free number, mailing the form, or visiting a branch to participate, but do not list a fax number or email address. Other financial institutions have added the form to their website to be downloaded and then returned via one of the methods listed as well as an option to electronically complete the consent after signing in to the online banking or mobile app. During December 2018, S&L had over X thousand POS declines due to insufficient funds. If even 10% of those could be paid after getting proper consent from customers, an additional \$X thousand of service fee revenue would be generated per month.

**Management should consider making the opt-in form more accessible by adding fax and email return methods as well as the form to the website to be downloaded and submitted. Further exploration of options to add a paperless opt-in through the online banking or mobile banking app should also be considered.**

Debit cards are an important part of the banking industry and have a large impact on net income. By understanding the processes and managing the third party vendors, marginal net income gains can be achieved that add up to significant revenue over the course of a year. Proper identification of business users and management of rewards and overdraft programs might make incremental differences in fee income as well as enhance customer relationships. S&L has the systems in place and the necessary talent to make the debit card program a great success and stay competitive in the industry.

## Introduction & Background

### Bank History

The Association (S&L) is a federally chartered savings and loan association headquartered in a rural area. S&L was originally chartered by the State in the early 1900s and converted to a federal charter in the 1990s. S&L went through a mutual holding company reorganization that created a three tier structure. S&L is wholly-owned by the mid-tier holding company, Association Corp., a publicly-traded company. Association Corp. is majority owned by Association, MHC, the top tier holding company. Association, MHC is a federally-chartered non-stock mutual holding company. Association, MHC has as its members all current holders of deposit accounts at S&L and certain borrowers whose borrowings remain outstanding. This three tier ownership structure is currently very rare and allows S&L's decisions to be controlled by management while still getting the benefits of being a publicly traded company.

For almost 100 years, S&L operated solely in one county. In 2014, S&L completed the acquisition of another institution. This added three branches in neighboring counties. Additionally, this added many

new loan and deposit products to S&L. As of June 30, 2018, S&L had assets of almost \$XXX million and deposit market share of 23%<sup>5</sup>, 25%<sup>6</sup>, and 8%<sup>7</sup>, respectively, in County 1, County 2 and County 3 counties.

Since the merger, S&L has been adding talent from outside of either legacy organization in order to develop a more progressive institution that meets the needs of a larger base of operations. Eight of the top ten ranked officers did not work for either S&L or the acquired institution at the time of merger. The changes in leadership are bringing about new ideas, product offerings, sales and marketing strategies as well as the talent to manage the additional offerings and continue to expand to other markets. S&L is emphasizing the ability to compete with the national banks on product offerings while keeping credit decisions local.

### Debit Card Transaction Process

Debit card processing is a complex set of back and forth transactions that involve multiple companies. The simple version is a consumer uses a debit card from his bank (Issuer) to deposit money into the merchant's bank (Acquirer). In order to process the transaction, a payment network, or Switch, is used to relay the information between the Issuer and Acquirer. The Acquirer requests authorization to complete the transaction. The request and the response go through the Switch to the Issuer and back to the Acquirer. If the transaction is approved by the Issuer, a request is sent through the Switch for the actual transfer of funds. The Issuer then must collect the money from the Cardholder. An interchange fee is paid by the merchant to reimburse the Issuer for costs associated with processing the payments, billing the customer, collections and customer service. The Switches are the rulemaking and enforcing agencies that ensure that the Acquirers and Issuers follow standard protocols. This allows Issuers and Acquirers that have no direct relationship to trust that the payments will be processed correctly and to

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<sup>5</sup> Summary of Deposits Report. FDIC / County 1. 2018

<sup>6</sup> Summary of Deposits Report. FDIC / County 2. 2018

<sup>7</sup> Summary of Deposits Report. FDIC / County 3. 2018

avoid having to deal directly with each other if there is an issue. Both the Acquirer and Issuer pay a fee to the Switch for membership as well as per transaction processed.

For a financial institution to become an Issuer, it must begin by choosing the networks that it wants to join. There are two types of networks, signature debit networks (Signature Networks) and PIN debit networks (PIN Networks). The Dodd-Frank Wall Street Reform and Consumer Protection Act's Debit Card Interchange Fees and Routing Regulation (Regulation II), required that Issuers have a minimum of two unaffiliated network memberships<sup>8</sup>. There are currently only two Signature Networks and they are operated by the brands that the cardholders and merchants are the most familiar with, Visa and Mastercard. The Signature Networks are based on the credit card network model, though they are not the same actual channel, and pay the Issuer a licensing (Brand) fee based on the number of cards issued as well as a processing (Interchange) fee for each transaction. Every debit card is associated with one of the two Signature Networks. The PIN Networks were an evolution of the ATM networks. Many of the giant financial processing companies have entered the market; including Accel, owned by Fiserv, NYCE, owned by FIS, and Star, owned by First Data in addition to others. PIN Networks are not brands that are considered to hold value to the cardholders and generally are only listed on the back of debit cards, if at all.

Issuers often choose multiple PIN Networks to ensure that the cardholders will be able to use their debit cards at merchants and ATMs throughout the world. The amount of competition in the PIN Networks has driven processing costs and annual membership fees to all time low levels. This also leads to lower interchange fees being charged to the merchants and passed on to the Issuers. The PIN Networks must balance the needs of both parties in order to sell their network since it does not work if only merchants or only Issuers are members.

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<sup>8</sup> FRB Website - <https://www.federalreserve.gov/newsevents/pressreleases/bcreg20110629a.htm>

Issuers receive a much larger interchange fee from transactions processed through the Signature Networks versus the PIN Networks. Regulation II requires that merchants be given the choice of which network to use for processing from any network that Issuer is setup to use for processing. Regulation II also restricted the interchange fee allowable for transactions of Issuers with \$10 billion or greater in assets. S&L's asset size is under the threshold for covered transactions; therefore, all transactions are considered exempt from the revenue limitations. Data compiled by the Federal Reserve shows that exempt transactions on the Signature Networks paid an average debit card interchange fee of approximately \$0.53 in 2011, before Regulation II became effective<sup>9</sup>. Since the implementation of Regulation II, the data shows a decrease of about \$0.03 per transaction on the Signature Networks; however, the average has come back up and is shown as approximately \$0.52 for 2018. The same trends are not true for the PIN Networks. The Federal Reserve data shows an average debit card interchange fee of approximately \$0.31 in 2011. Since then the data shows consistent declines in the fees paid to approximately \$0.25 per transaction in 2018. This data suggests that the lack of brand power in the PIN Networks makes it relatively easy for new companies to enter the market and the resulting competition to get merchants and Issuers signed up has made the margins thin.

Due to the complexity of the network system, many Issuers utilize independent sales organizations (ISOs) to manage the process. Issuers can be direct issuers with the networks or they can go through an ISO in order to deal with only one company for processing, billing, reporting, dispute/fraud processing, customer service and negotiations among other tasks. ISOs definitely streamline the process and are probably necessary for most small banks who would not have sufficient staffing to handle each of the processes; however, the condensed process can lead to a lack of transparency in the processing fees being charged and the interchange and branding revenue being earned. It is possible to use ISOs for most

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<sup>9</sup> FRB Website - <https://www.federalreserve.gov/paymentsystems/regii-average-interchange-fee.htm>

services, but still negotiate separately with the networks or issue cards directly while using the ISO for the remaining processes and networks.

## Strategy & Implementation

### Investment and Change Being Considered – Debit Card Vendors & Products

Debit card revenue can be optimized through a combination of vendor management and customer usage. This project is intended to analyze both sides of the process in order to identify possible changes to decrease costs and increase revenue. Processor currently serves as the ISO and manages all vendor relationships and processing of debit cards. In the past it made sense to outsource all of the decisions due to the limited personnel, transaction volume and services offered to customers. With the expansion of the customer base through the acquisition, as well as the additional experienced management staff that have been brought in, it would be prudent to evaluate if some or all of the processes should be more proactively managed by S&L. Vendor management changes to be considered include:

- Becoming a direct issuer with Mastercard
- Changing or adding additional PIN Networks
- Renegotiating the current debit card contract

The second part of the analysis is to identify other potential opportunities to increase cardholder usage and fee revenue. S&L is also looking for products or process improvements that will provide additional revenue from customer usage of debit cards. During the past few years S&L has added mobile banking, an expanded overdraft program, HELOC availability through debit cards, Debit Card Rewards Program, added additional ATM network participation, online card management for customers, EMV security as well as adding ATMs at every branch location. Additionally, new deposit accounts that require debit card usage to get the preferred rate have been added to S&L's product offering. Sales campaigns to

promote the addition of the Rewards Program and the Rewards deposit products were established at the time each was offered to customers. The specific debit card services to be evaluated include:

- Business debit cards
- Rewards programs
- Overdrafts

### Why the Changes are Being Considered and Management Expectations

Non-interest income is a focus of management as interest margins are decreasing in the banking industry. Debit card income is the third largest category of non-interest income for S&L after bank-owned life insurance and service charges on deposit accounts. Debit card income is based on a large transaction volume, which means that small changes can add up to significant revenue increases.

Interchange income is paid by merchants that are likely not bank customers, so there is no negative stigma associated with it. Service charges are a more sensitive topic with regulators and customers.

S&L also wants to encourage customers to use debit cards for customer retention purposes. Customers are more likely to stay with a financial institution if they have multiple products. It is a more difficult process to change if there are direct deposits, debit cards, bill payments and other services associated with an account. To be competitive S&L, must offer debit card services that are comparable to those offered by the local and national banks in S&L's market.

The expectation of the debit card analysis is to have better understanding of both the costs and revenue streams involved in offering debit cards. Currently management knows that debit cards provide income, but the exact amount of income after direct expenses is unknown. The goal of the analysis is to find opportunities to increase customer usage as well as getting a better understanding of the current revenue and expenses.

## Author's Role

S&L does not have a reporting process in place to combine the information on debit card usage and net income. The author's role is to compile information from the various reporting systems and invoices into a useable format that will summarize the full picture. The information about recent usage will be used understand the current impact of the identified segments of the process as well to run scenarios to gauge the potential impact of changes being considered. The author has a background in data analysis from experience gained in public accounting and as the Controller of S&L. The author's current role as Controller will make access to system data and personnel involved in the debit card processing and contract negotiations possible. Currently the author has no direct impact to on the processes or decisions related to debit cards.

## Organizational Fit

The project is a good fit for the organization since the focus is primarily on getting and retaining customers long-term and on maximizing the revenue from those customers. S&L has been investing in products, infrastructure and personnel to facilitate market share growth. Management is excited about the possibility of increasing the revenue from the debit card program. Any suggestions that can reduce costs without removing products will be appreciated. While S&L is a relatively small community bank, the model has been shifting to more of a sales culture over the past few months. Cross-selling suggestions will be particularly well received since they fit the model of customer retention through the use of multiple product. It is unlikely that any suggestions to remove or replace current products will be implemented since that would not fit with the current management philosophy of forward movement and growth.

This analysis is meant to keep from falling behind peers rather than to truly provide a competitive advantage. S&L is a conservative organization that favors staying within the normal operating procedures of the industry. This limits the potential impact of any changes. Therefore a true competitive advantage

as a result of any changes to the debit card processes or offerings are unlikely. This analysis is meant as a defensive move to ensure that S&L's operating margins stay competitive with the industry.

### Future Opportunities

Developing a system for monitoring the results of the debit card revenue will be useful for evaluating the impact of sales campaigns and new products in future periods. Without a comprehensive system and baseline information there is no statistical proof of the positive or negative impact of each change that is made. A systematic monitoring process will give S&L a chance to know more than just how many new accounts were opened that had a debit card associated with them. At the most basic level, S&L will have a general idea of how many additional debit card transactions would be needed to break-even on any product being considered. Goals can then be established to monitor if the estimated transaction increases are occurring.

Bringing some of the functions currently performed by Processor in-house could lead to long-term cost savings as well as growth opportunities for S&L personnel. If the analysis shows that continuing to rely on Processor to manage the full process is the best choice, management can feel confident in that decision until any major changes to operations of Processor or S&L occur. This analysis is only a starting point for discussions with the department managers. For any changes that appear from an accounting standpoint to be worth further exploration, a project team consisting of personnel from IT, deposit services, branch operations, sales and accounting would need to work together to determine if the changes can get full management acceptance to go forward with discussions with Processor. The multi department implementation team will provide more visibility to each department about the process as a whole. It may also provide opportunities for leadership training and relationship building particularly for the second level managers in some departments.

## Process Changes

The scope of the project does not include discussions with Processor or other vendors. Instead, the initial process change would be to perform a regular cost/benefit analysis of the debit card process in order to make well informed decisions in the future that optimize net income and align with the bank's goals. The future process should include a lookback analysis after products are added or sales campaigns have concluded to allow management to determine the impact of the initiatives and allow for each change to be a learning experience for future endeavors. There is no implementation schedule since the analysis is meant to be a starting point for discussions, rather than a dynamic process change.

## Financial Impact

### Current debit card revenue

During calendar year 2018, S&L had over X million completed debit card transactions and made approximately \$XXX thousand in net income from those transactions. The net income includes gross interchange income of \$XXX thousand from point of sale (POS) transactions and gross expenses of approximately \$XXX thousand<sup>10</sup>. The expenses were categorized as direct or ancillary. The direct expenses includes network fees, processing fees, card issuance fees and other similar fees that are a direct result of the debit card program. Ancillary expenses are considered either optional or unpredictable and include rewards programs, fraud losses, and estimated minimal personnel costs associated with the debit card program. The costs associated with the two debit card related advertising campaigns during the year were not included. See Appendix A for net income by month.

S&L is a member of the Mastercard, PIN Network 1 and PIN Network 2 networks for POS transactions. During 2018, S&L had nearly XXX thousand posted transactions through the Master Money

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<sup>10</sup> ATMs are expected to generate net losses, but are a necessary expense for the ease of customers; therefore, all income from ATM surcharges was excluded and wherever possible, the expenses from ATM transactions were segregated and excluded from the analysis.

Network, Mastercard's Network. The gross interchange income from the Master Money transactions was just under \$XXX thousand, or \$0.XX per transaction. In comparison, according to the annual Federal Reserve Average Debit Card Interchange Fee by Payment Card Network the average interchange fee per exempt transaction on the Mastercard Network in 2017 was \$0.58<sup>11</sup>. S&L had XXX thousand transactions in 2018 on PIN Network 2 and gross income of \$XX thousand for an average interchange fee of \$0.XX per transaction. The Federal Reserve data shows an average of \$0.25 per transaction on the PIN Network 2. The third network, PIN Network 1, had almost XXX thousand transactions by S&L cardholders in 2018 and gross interchange income of nearly \$XX thousand. This equates to an average interchange fee of \$0.XX per transaction on PIN Network 1. PIN Network 1 average was \$0.21 per transaction according to the same Federal Reserve study. See Appendix B for a breakdown of S&L's income by network. The numbers indicate that S&L is doing well on PIN Network 2, but receiving below average interchange income on the PIN Network 1 and Mastercard Networks. It also shows that PIN Network 2 is paying out significantly higher than PIN Network 1 for essentially the same service.

The Federal Reserve data lists 12 PIN Networks that are operational as of the end of 2017<sup>12</sup>. The average interchange fee per transaction for 2017 was highest for Interlink at \$0.35, followed by NYCE at \$0.29, Pulse at \$0.28 and Shazam, Maestro and Jeanie each at \$0.25. The Federal Reserve data showed that PIN Network 1 paid lower than average of the 12 PIN Networks in 2017. Interlink is owned by VISA, and may not be an option for S&L as a Mastercard member, but the other networks are independent. If S&L could replace even half of PIN Network 1 transactions with a network that paid an average of \$0.28 per transaction, the gross interchange fee income should increase by over \$XX thousand a year based on the actual 2018 volume. That is a significant increase for not changing cardholder habits.

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<sup>11</sup> FRB Website - <https://www.federalreserve.gov/paymentsystems/regii-average-interchange-fee.htm>

<sup>12</sup> FRB Website - <https://www.federalreserve.gov/paymentsystems/regii-average-interchange-fee.htm>

## Vendor Management

S&L is under contract to Processor and their wholly-owned subsidiary, PIN Network 1, for several more years. The Processor contract allows S&L to add other networks in addition to PIN Network 1, but requires that all debit cards issued participate in PIN Network 1. S&L can consider adding additional networks, such as NYCE or Pulse, but there is no guarantee that merchants will choose to use these for processing instead of PIN Network 1. Conversations could be started with these or other PIN Networks to see how much it would cost to add them and how often their networks are chosen by merchants over PIN Network 1 when there is an option. Adding additional networks may or may not increase the interchange fee income.

If S&L is able to renegotiate the contract with Processor to participation in PIN Network 1 to cease, there is potential for a significant increase in interchange fee revenue. Based on the average per transaction data published by the Federal Reserve, it is estimated that S&L could receive an average of \$0.XX more per transaction by using one of the other networks as a replacement for PIN Network 1. Over the remaining years of the contract with PIN Network 1, assuming a 5% increase in transaction volume each year, the increase in interchange fee income would be over \$XXX thousand.

Processor also manages the relationship with Mastercard. Per discussions with Mike Holt, Partner at Profit Resources, who specializes in debit card profitability, Mastercard will pay a branding fee to Issuers that sign contracts to remain part of the Mastercard Network for a period of years<sup>13</sup>. S&L can consider negotiating directly with Mastercard in order to get this upfront incentive as a Direct Issuer. It does not appear that the Master Agreement with Processor prevents S&L from becoming a Direct Issuer with Mastercard. The transactions would still be processed through Processor, so the Deposit Services and IT staff should have limited, if any, impact from the change on an ongoing basis. Initial conversations with Mr. Holt indicated that most institutions sign a 10 year agreement in order to avoid having to

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<sup>13</sup> Telephone conversation with Mike Holt on August 29, 2018.

negotiate frequently and to receive a higher upfront benefit. Mr. Holt estimated that the upfront incentive would likely range from \$XXX thousand to \$XXX thousand dollars for a 10 year contract. The income would be taken over the life of the contract, but the cash would be available to utilize immediately. There does not appear to be any impediment to starting conversations with Mastercard about the process to become a Direct Issuer. Specific information would be needed from Mastercard to determine the true operational impact in addition to validating the potential branding revenue.

In exchange for Processor working with Mastercard, they receive incentives from Mastercard. Mr. Holt noted that it is common practice for an Issuer to request that the incentives received by Processor are shared between Processor and the Issuer. The incentive rebate is generally \$0.XX per Mastercard transaction and would be shown as an offset to charges on the monthly Processor invoices. Based on an analysis of actual card usage during S&L's during calendar year 2018, there were approximately XXX thousand signature transactions. Using the \$0.XX per transaction estimate, that would equal more than \$XX thousand of additional income in the first year without S&L needing to change any processes.

Negotiations with Processor to change the current contract may or may not be successful. There is a risk that Processor would increase prices in other areas, such as product add-ons, in the future. Other concessions or currently negotiated fees may also change in a negative way. In order to get the most out of the negotiations, S&L can consider hiring a consultant that specializes in card management. Since all of the negotiations are only typically done every 5-10 years, it is important to get the most possible from each negotiation in order to have a better starting point for future negotiations. Once a new starting point is reached, it may not be necessary to utilize outside parties in the future. Knowing what questions to ask before actual negotiations take place can set S&L for success.

## Cardholder Usage & Fees

After looking over how to make the most from the vendor side of the transactions, the next step is to analyze the cardholder usage. Interchange revenue is higher on larger dollar transactions, but each transaction provides revenue. Therefore, getting customers to have a debit card and use their cards frequently and on the larger ticket items can increase debit card income for the Issuer.

As of December 2018, S&L had X thousand active demand deposit accounts and almost X thousand debit cards issued. Of the debit cards issues, nearly X thousand had a transaction during the month. A system report showed that approximately XX% of the accounts with debit cards have multiple cards associated with them. This means that as of December 2018, only about XX% of the demand deposit accounts have one or more debit cards linked to them. In comparison, as of December 2017, S&L had almost X thousand debit cards issued with X thousand active cards that had a transaction during the month. Total demand deposit accounts were a little over X thousand as of December 2017. Active demand deposit accounts increased by X% during 2018 while active cards increased by XX%. This indicates that the sales campaigns and product offerings are increasing the number of cards in use.

Another consideration is the number of times each card is used. During December 2017, almost X thousand debit cards were used 4 to 19 times. This would indicate regular usage on at least a weekly basis. Almost X thousand debit cards were used 20 or more times during December 2017. This indicates that the debit card is probably the primary card being used by the cardholder. By December 2018, the debit cards used 4 to 19 times had increased by XX% to over X thousand cards. The 20+ transaction debit cards increased by X% to over X thousand cards. The average transactions per active card remained the same, at XX, for both years.

The card system reports show that debit cards issued as business cards are very low, but increasing significantly. Business debit cards are issued with a separate Bank Identification Number (BIN) than consumer debit cards due to the differences in rules and regulations and generate a higher

interchange fee. In December 2017, only XX debit cards were used that had a business BIN. By December 2018, that number had increased to XX debit cards. It is important to get the business customers into the proper BIN since the interchange fees paid on business accounts are higher than on consumer accounts. A system query report showed that at least XX active cards were issued as consumer cards, but were linked to business deposit accounts. Additional training may needed for branch and deposit services personnel to make sure that the maximum revenue possible is earned off of debit cards. System queries can be run on a periodic basis to ensure that the procedures are being followed consistently, though it may or may not be possible to reissue a card to an existing account holder.

S&L added the Rewards program in March 2018. Rewards requires the cardholder to setup an account on a website and register each debit card used to earn rewards. The base rate paid is 1 point for every \$2 spent on a registered debit card. Each month certain retailers will give a higher rate to customers who login to their Rewards account and sign-up for the applicable offer. The highest amount currently being offered is 5 points for every dollar spent. The points can be redeemed for gift cards, merchandise or event tickets. Gift cards cost approximately 120 points for dollar of value. In order to get a \$25 gift card, a customer would need to purchase a minimum of \$11,846 with their registered debit card(s) at the base earnings rate or \$1,185 at the maximum point earnings rate. The nearly \$12 thousand for the base scenario assumes that most purchase will be even by \$2 increments since anything less than a full \$2 does not earn any points. This system is inexpensive for S&L as far as actual payout costs since the rate is low and casual users are unlikely to earn enough points to redeem for a reward. More importantly, what are the fixed program costs and has it succeeded in getting more debit card swipes?

The cost of the Rewards program is based on debit cards issued as well as actual points redeemed. Currently S&L has a fixed cost of offering the program averaging \$X thousand a month during 2018. The cost of points being redeemed varied greatly from month to month and was significantly higher, as would be expected, in November and December than in the previous months. The total point

redemption cost during 2018 was \$X thousand. The total direct cost of the program from its official start date in March 2018 was \$XX thousand. Since the program was only active for 10 months, it would be expected to cost approximately \$XX thousand per year going forward. These costs do not include any start-up fees, advertising campaigns or other non-direct fees. Since S&L is earning roughly a blended rate of \$0.XX per debit card transaction, it would take nearly XX thousand additional transactions per month to recoup the base fees.

An advertising campaign was started in March in conjunction with the launch of the Rewards program to promote the program and make customers aware of how to sign-up. An immediate increase in debit card transactions was seen in March. Debit card transactions increased from an average of about XX thousand per month to an average of about XX thousand per month. The program and campaign appear to have effectively increased transactions. The increased volume remained steady through the end of 2018, but did not continue on an upward trend. This would imply that the program is at a static level or possibly losing value over time since the increase in usage is not fully attributable to the Rewards program. It would be recommended that S&L perform a usage analysis to determine the effectiveness of the current program.

As with any additional product offering, there is a non-financial impact as well as the financial impact. Many customers are likely to think that they will use a service and be more likely to choose an option that offers the service even if in reality they do not use it. Also, it would be seen as negative to remove a benefit to customers without a suitable replacement. Management can consider other rewards programs as replacements that might be more cost effective. According to Mr. Holt, points based rewards systems are generally a bad investment. Instead, offering a cash rebate to be automatically applied to the customer's account for each applicable debit card transaction might be much more effective. Given that S&L is a community bank and has been investing in technology to compete with the national banks, it would align well with the general positioning in the market to consider switching to a

direct cash rebate program. A sales campaign that advertises how S&L is different from the local competitors and makes it simple to get cash back without having to sign-up or do anything other than use your card could be very effective. Even if the cost was determined to be too much for the general consumer debit cards, it might be able to be applied to just the business BIN to encourage more businesses to get and use debit cards from S&L.

S&L's current core system has the capability of calculating cash rebates to cardholders based on predetermined parameters. According to the product documentation, marketing messages can appear on statements that list the amount of cash rebate earned to date and S&L can determine when and how to apply the rebates. The exact parameters that the system can offer would need to be discussed further and pricing would need to be obtained for implementation and ongoing monitoring in addition to the estimates of the cash rebates that would actually be paid out. If the pricing is similar to Rewards and the rebates can be held until they reach a certain amount before they are applied to the customer's account and/or only applied annually it might be worth the cost to differentiate S&L from the local competitors.

Another potentially significant source of fee income from debit cards is from overdrafts. In November 2009, the Federal Reserve adopted a final rule under Regulation E, which implements the Electronic Fund Transfer Act (EFTA), limiting a financial institution's ability to assess fees for paying ATM and one-time debit card transactions pursuant to the institution's overdraft service without the consumer's affirmative consent (opt-in)<sup>14</sup>. Overdraft fees are a key sources of non-interest income for most financial institutions, so understanding the rules and opportunities to educate customers and staff are important to the bank's revenue.

Traditionally S&L did not have a set program for overdraft privileges. Decisions were made on a case by case basis. At the time of merger, the acquired institution had an official overdraft program.

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<sup>14</sup> Federal Register Online - <https://www.govinfo.gov/content/pkg/FR-2010-06-04/html/2010-13280.htm>

Under the program, Deposit Services personnel run system queries of new accounts to determine which ones have met the eligibility requirements for the courtesy \$500 overdraft privilege on their account. To be eligible the account must be a personal account, in good standing, that has been open for at least 30 days. Only one account per person is eligible. When accounts are determined to have met the criteria, a letter is sent to inform the account holder that the privilege is available for checks, ACH, automatic bill payments and recurring debit card transactions. Deposit Services then updates the system so that the overdraft will be applied automatically for all allowable transactions. In April 2016, S&L rolled out the program to all customers.

The current overdraft program is only focused on the opt-out overdrafts. System reports are only run to determine if new accounts are eligible. The notice sent to newly added overdraft program accounts lists at the bottom that the customer can call the toll free number or stop by a branch to request that they either be removed from the opt-out program or are added to the opt-in, Regulation E transactions. Chances are likely that most customers do not read the notices carefully and incorrectly assume that they will be able to overdraft for debit card purchases. It is also reasonable to assume that a large number of active debit card users would like to have overdraft privileges in case they accidentally spend more than they have in their account. Avoiding the embarrassment of a declined card while in line at a store or trying to fill a car with gas is a valuable option to many customers.

S&L currently sends an opt-in form with the overdraft program welcome letter to all eligible account holders. System queries can also be run to target active debit card users that have not opted-in. Ideally a system query of non-Regulation E participants that have been in the overdraft program for at least three months and that have a debit card could be pulled annually. It would likely not be beneficial to send letters to new participants since they would have received a welcome letter and opt-in form already. By doing the mass mailing annually, staff would be aware that the notices are going out and to

expect questions about the program. Annual mailings are also not likely to be considered pushy by the recipients.

S&L can also consider adding additional ways for customers to opt-in. One possibility is to add the opt-in form to S&L's website. As an example, Armed Forces Bank has a page on their website that will allow you to download the opt-in form and lists the fax number and email address that can be used to return the form in addition to the mailing address and telephone number<sup>15</sup>. It would not cost anything to create a dedicated group email account for Regulation E opt-in forms or questions. Having a separate, dedicated email address for opt-in might make it easier for the Deposit Services team to identify and process. Some people still prefer to fax forms, so that number should probably be added to the opt-in form as well since it does not cost anything to include the option. The Armed Forces Bank website also notes an option of logging into your online banking account and pressing a button that will allow users to opt-in without a physical form or contact with bank personnel. It would be ideal if S&L could offer an online interface that did not require a signed form or a conversation with a bank representative. By requiring the customer to login to either their online banking or mobile app, it should be sufficient to cover the risk of an unauthorized person making the request. It is assumed that the user would need to check a box stating that they have read the applicable documents and agree to the terms. A follow-up letter would probably need to be sent confirming that the account has been enrolled as well. The online enrollment option may or may not be available through the current online banking platform or mobile app. Further research would be required to explore those options. Another less technical option would be include postage paid envelopes with the mailed forms. While the cost of each envelope returned is high, at about \$1.80 per envelope, the cost of printing the discarded envelopes is quite low. With a \$35 per overdraft transaction fee, it might be worth considering the prepaid option.

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<sup>15</sup> Armed Forces Bank Website - <https://www.afbank.com/personal/accounts-checking/optin.cfm>

Management can also consider expanding the overdraft privilege program. Under the current program, individuals can only have a \$500 limit and the overdraft privilege can only be associated with one account. S&L could consider working with the core system provider to allow overdraft privileges on multiple accounts as long as the total overdraft for each customer does not exceed the approved limit. This is unlikely to have a large impact, but may generate some additional fees and would be a courtesy to customers that manage multiple accounts. Another option is to allow customers to request a higher overdraft limit. A higher limit could increase fees on all types of overdrafts, not just debit card overdrafts. Since ACHs and checks can be returned, any that do not meet the automatic overdraft provisions are manually reviewed by branch personnel on a customer by customer basis in order to approve or return. The manual process is not an option for debit card transactions since they cannot be returned by the bank after they have been approved. This means that if the \$500 limit is reached, all further debit card transactions will be denied. It would make sense to have a process for approving customers for higher automatic overdraft limits if they request it. For customers that generally carrying large balances, it would be a small risk to allow them a higher limit just in case a deposit does not clear as expected and they need to use their debit card for a day or two to get their situation resolved. S&L currently offers higher ATM withdrawal limits and debit card transaction limits when requested, so it would seem reasonable that similar processes might be used for overdrafts.

Another source of fee income could be business customers. There is not a program for a businesses to sign-up for debit card overdrafts at this time. Given how few business debit cards are currently issued, S&L could have the branch manager or loan officer who manages the relationship offer courtesy overdraft privileges to the business accounts based on an individual account analysis. Regulation E only applies to consumers, so no opt-in is necessary and there does not need to be a limit on fees charged. This would likely generate very limited income until the business card usage increases

significantly. The option to overdraw the account might be considered a valuable service though and a selling point.

During December 2018, S&L had X thousand debit card transactions denied due to insufficient balance. In many cases the card will be tried more than once, so the true number of individual transactions that might have been processed would be lower. Even if the only 10% of the transactions met the criteria other to be eligible to opt-in, that would represent additional revenue of \$X thousand. Transaction volume in September 2018 was lower than many other months, but there were still X thousand transactions denied due to insufficient funds. This appears to be a profitable opportunity to help customers and as well as generate more revenue for S&L.

## Non-Financial Impact

### Potential Hurdles

Changes to vendor management will have cultural hurdles. The most recent contract with Processor was negotiated by the executive management team, which includes the Chief Executive Officer (CEO), Chief Banking Officer (CBO), Chief Financial Officer (CFO), and the head of the IT Department in August 2018. Any implications that they did not negotiate as well as they could have are likely to be perceived negatively and dismissed. Prior to the most recent negotiations, management considered hiring a vendor that specializes in contract negotiations with Processor, which had been used in the past. Ultimately, S&L determined that no outside help was needed to handle the process.

Similarly, there are cultural hurdles regarding looking back on prior decisions in order to learn from them and determine if they provide ongoing value. Many changes have been necessary with the merging of two institutions and bringing in management from other organizations. Legacy employees of both S&L and the acquired institution were often resistant to necessary changes since it was not the way they were accustomed to doing things. As a result of this tension between old ways and new ways, any

resistance to new programs that are implemented by senior management is dismissed as a personal problem rather than being evaluated for efficacy. Looking backwards to analytically evaluate results might show that the choices made were not the best option. This feedback would likely not be welcome.

### Overcoming Hurdles

To get past the cultural biases towards an infallible past, the changes will be presented as additional opportunities that build on the great things S&L has implemented so far. Conversations with Mastercard about a progression to being a Direct Issuer can be seen as S&L being able to handle the responsibility of taking over that process and therefore reaping the reward. The possibility of renegotiating with Processor is highly unlikely to be pursued. However, it is somewhat likely that management will be open to having discussions with other PIN Networks to see if adding more networks might lead to a favorable outcome. Additional items that might generate revenue fit within the cultural ideal.

Product and program changes will need to have a similar theme of adding to the current practices, rather than changing or removing anything. While there might be a more effective rewards program, management is unlikely to explore the option since it has been less than a year since the current rewards campaign was launched. Changes to the current program might be seen by branch staff or customers as an admittance by management that they made a poor decision originally. Educating staff on the importance of assigning the correct BIN to business accounts and promoting business debit cards will fit well with the general objectives of retaining customers, especially business customers.

Overdraft programs are always a potential hot button for customers and regulators. S&L successfully implemented a program recently to try to capture more of this income. Efforts are currently being made to get customers to opt-in to Regulation E. Making the opt-in form easier to find and return should be received well by management, regulators and customers. There will likely be no serious objections to adding the fax number or a group email address to the current opt-in forms in order to give

customers more flexibility in their communication. Working with current vendors to see what options are available through S&L's current website, online banking and mobile app can be framed as a positive addition to the already substantial ease of access solutions for customers.

### Measurement of Non-Financial Impact

The non-financial impact is based on attitudes of management, staff and customers to the potential changes. If management decides to assign personnel to do further research into any of the suggested areas it will be at least a partial success. Any form of ongoing monitoring of the debit card revenue would also indicate that information from past decisions might be available for use to inform future decisions. Another measurement would be to see if the number of business debit cards issued with a consumer BIN decrease going forward. Encouraging branch staff to have conversations with their business customers about the benefits of having a debit card would also indicate success in thinking about where additional revenue opportunities can be found.

### Long-term Non-Financial Impact

Cultural shifts in attitude to a more analytical and team based approach will have a substantial long-term impact by involving more areas of the bank that will be affected and removing some of the personal biases towards products or processes. S&L has developed performance measurements for each role within the organization. Getting into the habit of running most likely scenarios prior to making decisions and then looking back to see what the actual results were and making adjustments will facilitate more measurable goals for staff across the organization. Using numerical analysis as part of the decision process should result in easier acceptance from the involved parties. Trust that management is thinking through decisions and is willing to admit if they need to make adjustments will help remove the emotional resistance to future endeavors.

## Conclusion

Debit card income is one of the largest sources of non-interest income for S&L. As the organization and customer base have grown, there are new opportunities to manage the process as well to add, attract and retain customers. S&L has invested in software and personnel in order to compete with the national banks in the area. Using the talent available to look for incremental changes will increase the bottom line as well as increase trust in management decisions.

S&L should approach the analysis from both the vendor management and customer sides. Having discussions with Mastercard and other PIN Networks that S&L is not currently a member of will either open opportunities or re-emphasize that the current practices are still the best for the organization at this time. Making it easier for customers to locate and return the Regulation E opt-in forms should provide incremental increases in fee revenue over time without upsetting regulators or customers by trying to upsell a product. Bank personnel will also be more likely to accept changes to programs if it is known that management is actively analyzing changes instead of just assuming that it is profitable since other institutions do it. Being open to suggestions for improvements to product offerings can also develop talent and trust in management.

The debit card program is profitable and can be even more so with the coordination of all of the departments including branch staff on the sales line, back office processing and support, IT, sales and marketing, and accounting. Each part of the process is important and everyone succeeds from S&L offering the best products and services at the best price.

## Appendix A

	January 2018	February 2018	March 2018	April 2018	May 2018	June 2018	July 2018	August 2018	September 2018	October 2018	November 2018	December 2018	Total 2018
<b>INCOME</b>													
Gross Interchange Income - POS	\$ XX,XXX	\$ XXX,XXX											
<b>DIRECT EXPENSES</b>													
Direct, Operational Expense	\$ XX,XXX	\$ XXX,XXX											
<b>Net Direct Income</b>	\$ XX,XXX	\$ XXX,XXX											
<b>ANCILLARY EXPENSES</b>													
UChoose Rewards Program	\$ XX,XXX	\$ XXX,XXX											
Fraud Losses	\$ XX,XXX	\$ XXX,XXX											
Personnel Cost	\$ XX,XXX	\$ XXX,XXX											
Total Ancillary Expenses	\$ XX,XXX	\$ XXX,XXX											
<b>Net Income</b>	<b>\$ XX,XXX</b>	<b>\$ XXX,XXX</b>											

## Appendix B

	January 2018	February 2018	March 2018	April 2018	May 2018	June 2018	July 2018	August 2018	September 2018	October 2018	November 2018	December 2018	Total 2018
<b>PIN Network 1</b>													
Settled Transaction Volume	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
Gross Interchange Revenue	\$ XX	\$ XX	\$ XX	\$ XX	\$ XX	\$ XX	\$ XX	\$ XX	\$ XX	\$ XX	\$ XX	\$ XX	\$ XX
Average Revenue/Transaction	\$0.XX	\$0.XX	\$0.XX	\$0.XX	\$0.XX	\$0.XX	\$0.XX	\$0.XX	\$0.XX	\$0.XX	\$0.XX	\$0.XX	\$0.XX
<b>PIN Network 2</b>													
Settled Transaction Volume	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
Gross Interchange Revenue	\$ XX	\$ XX	\$ XX	\$ XX	\$ XX	\$ XX	\$ XX	\$ XX	\$ XX	\$ XX	\$ XX	\$ XX	\$ XX
Average Revenue/Transaction	\$0.XX	\$0.XX	\$0.XX	\$0.XX	\$0.XX	\$0.XX	\$0.XX	\$0.XX	\$0.XX	\$0.XX	\$0.XX	\$0.XX	\$0.XX
<b>Master Money Network</b>													
Settled Transaction Volume	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
Gross Interchange Revenue	\$ XX	\$ XX	\$ XX	\$ XX	\$ XX	\$ XX	\$ XX	\$ XX	\$ XX	\$ XX	\$ XX	\$ XX	\$ XX
Average Revenue/Transaction	\$0.XX	\$0.XX	\$0.XX	\$0.XX	\$0.XX	\$0.XX	\$0.XX	\$0.XX	\$0.XX	\$0.XX	\$0.XX	\$0.XX	\$0.XX

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