CUSTOMER PROFITABILITY MANAGEMENT

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Executive Summary

It is not unusual for a business in a mature, highly competitive industry with homogeneous products to eventually experience shrinking profit margins. This is the scenario that many community banks are now facing, and it is essential for individual institutions to seek out new methods to enhance competitive advantages and profitability.

Federal Savings Bank (FSB) is a community savings bank with a market area of approximately 200 square miles in the seacoast region of southern New Hampshire. Vibrant economic conditions in this market since the end of the Great Recession have attracted new banks from within and outside of the State creating the most competitive environment that FSB has ever experienced. Although FSB’s growth trends have been satisfactory, competitive pressure on product pricing combined with increases in operating costs, especially those related to regulatory compliance, have placed downward pressure on its return on average assets (ROAA). To address this issue, the writer recommends implementing a formalized customer profitability management process with a goal of improving ROAA. This project explores methodologies currently utilized in the banking industry and identifies a methodology to be utilized by FSB along with the steps required to implement and measure its level of success.

The writer has reviewed the components of the most robust formal bank profitability management methodologies, which are most appropriate for mid-tier to large banks, as well as those that are more appropriate for a small community bank, such as FSB. The methodology selected for consideration is the Contribution Margin Approach. This approach is applied with the assumption that FSB has the capacity to increase sales volume without increasing fixed operating expenses, at least for the first several years after implementation. Therefore, the focus
is on the incremental margin after the variable cost of delivering additional products. Conversations with management of departments within FSB that would be impacted by higher sales volume support this assumption. Utilization of this approach for a small bank is also supported by the writer’s research on methods used by other small banks. The approach is relatively easy to apply and utilize by back office and front-line personnel. This is important, as buy-in by users is essential for the process to succeed.

To effectively structure this chosen methodology, the next step is the initial manual process of structuring customer data on FSB’s operating system and establishing a customer identifier (i.e. social security number) that is used to identify the full existing customer relationship (deposit accounts, loans, etc.) along with relevant demographic characteristics. This structured data provides FSB’s marketing department with quality information to be used in targeted marketing campaigns. The data for the campaigns would be structured utilizing an internally developed Excel spreadsheet. As the process expands, more sophisticated technology to maintain the process may be considered.

With the structured methodology, along with the organization of customer data on FSB’s operating system, the foundation for implementation of a formalized process to efficiently market and deliver product bundles to FSB’s existing and prospective customers could be put in place. This allows sales and marketing staff to build targeted business development campaigns. It includes segmenting customers and prospects based on their demographic profiles to determine which products they currently utilize, if known, and those they are most likely to utilize. This strategy seeks to increase the size of relationships through product and service bundling to increase profit margin per customer relationship. The results of the process would be measured
on a quarterly basis via comparison of ROAA results reported in Uniform Bank Performance Reports of FSB to seven banks considered to be FSB’s most relevant local competitors.

This process is in line with FSB’s overall strategy to strengthen its brand, increase deposits and loans, and utilize technology to improve efficiency. It focuses on growing the Bank by building comprehensive customer relationships that provide customers with the product and service bundles they value, and at the same time these bundles are developed to meet the profit margins that FSB needs to improve ROAA.

To facilitate the process a committee including individuals with expertise in branch administration, lending, sales training, marketing, information technology, and finance would be assembled. The only cost associated with the committee would be the opportunity cost of forgoing other projects that the members could be working on in place of this project.

The potential benefits and drawbacks of implementing this process are as follows.

**Potential Benefits:**

- Improve ROAA without incurring new material cost to FSB.
- Improve customer satisfaction and retention with product bundles developed and marketed specifically for their individual needs.
- Supports current initiatives within FSB’s developing sales culture.

**Potential Drawbacks:**

- Expenditure of Bank resources with no favorable results realized in ROAA.
- Lack of buy-in by employees and resistance to another aspect of change.
Competitive pressure is unlikely to subside, operating costs will not decrease (especially around compliance), and there is initially no new cost to FSB by initiating this process. Therefore, the writer recommends that FSB proceed with its development.
Introduction/Background

Project:

This project is undertaken to develop a method and process to effectively manage customer profitability for Federal Savings Bank (FSB). It is a change process to assist management with implementing a chosen method to enhance and measure the profitability of customer relationships while maintaining the community bank operating model and overall mission of FSB.

The topic has been chosen to help address FSB’s problem of deteriorating Return on Average Assets (ROAA) over the past several years. Due to the nature of community banking, where its core business is taking in low cost deposits to fund interest bearing loans, Net Interest Margin (NIM) is the primary driver of ROAA, so it is of primary focus. Although deteriorating ROAA over the past several years is of concern to FSB, it is also an industry-wide issue driven by the current interest rate and competitive environment. The changes taking place in the industry include increased competition from bank and non-bank competitors and increased operating costs, most notably around compliance, that may continue to place downward pressure on ROAA even when the interest rate environment turns in a more favorable direction for banks. This trend adds urgency to considering methods for managing customer profitability. For FSB this will be accomplished through a framework that tailors the scope and complexity of customer profitability measures to a reasonable level based on the size of the Bank ($350 million in assets). Although there is some moderately complex quantitative analysis to explore regarding cost allocation, funds transfer pricing and capital allocation, the process that will be considered is
designed to minimize complexity. This will help to maintain a practical, user-friendly focus for use more by front-line management than back office analysts.

**Federal Savings Bank’s Background:**

FSB, headquartered in Dover, New Hampshire, is a true mutual community bank. It was established in 1890, as Dover Co-operative Savings Fund and Loan Association. After 65 years it changed its name to Dover Cooperative Bank and later to Dover Federal Savings and Loan Association. In 1983 its name was changed to Federal Savings Bank to reflect a growing customer base in areas outside of the City of Dover. The Bank now has four additional locations in nearby communities with a total of seventy employees. It is one of the few remaining independently owned financial institutions in the region. Local management with concerns about community needs has enhanced its reputation and quality of service throughout its history. It has grown from a savings and loan association to a full-service institution. This growth is attributed to public confidence in FSB, customer loyalty, FSB’s community support, and its commitment to quality service. To continue to meet the banking needs of families and businesses in its market area, FSB has spent the last decade building its technological infrastructure and hiring some of the most experienced banking staff in the area.

FSB’s business model includes the offering of traditional products and services including deposit accounts, retail mortgage loans, consumer loans, and commercial loans. Additionally, over the past few years FSB has put a concerted effort into expanding wealth management services. The products appeal to individuals, families and closely held businesses. The Bank’s market segment is broad, and it is customer focused. It has built a good reputation and a strong customer base in its small geographic footprint (approximately 200 square miles). The geographic market area is focused in and around three small cities (Portsmouth, Dover,
Rochester) in the New Hampshire seacoast region (maps are attached as appendix A). The narrow geographical band around each city shares similar demographic characteristics to the city which it surrounds. The market area moves from the south starting in Portsmouth, north to Dover and continuing to Rochester. The distance between Portsmouth and Rochester is approximately 26 miles. On either side of this north south route there is an approximate 15 mile east to west band of geography making up the physical footprint. FSB has a branch in each of these primary cities with another in Durham, a more secondary location, between Portsmouth and Dover and another in Barrington, again in a more secondary location, between Dover and Rochester. The market area enjoys a diverse industry base and ready access to cultural centers, air and rail transportation, lakes, ocean, and mountain activities.

FSB’s primary competitors are determined by the products and services each competitor offers, the market level that they target, and how assertive they are in pursuing growth. This includes a relatively consolidated group of local banks, as follows in order of significance: Optima Bank, Kennebunk Savings Bank, Bank of NH, Profile Bank, Eastern Bank, Provident Bank and Peoples United Bank. Each competes at the same market level as FSB with similar product and service offerings (see Appendix B with writer’s comments). These institutions, as well as new competitors recently coming from out of the area, are aggressively pursuing growth in the market. This highly competitive environment has forced FSB to focus on developing a disciplined sales culture over the past three years to retain and add new customers. To support this sales culture, FSB needs a method to measure whether it is maximizing its efforts in areas that not only increase the size of the Bank and relationship volume but also focuses on the profitability of the increased volume. The goal is to manage margins at maximum potential levels while the Bank grows. FSB has done a good job adding new customers over the past
several years, but overall, they have come at lower margins compared to prior periods. The charts in Appendix B show recent period changes in NIM and ROAA for FSB and its competitors. In general, the larger banks have seen more favorable performance, which is likely due to economies of scale helping to absorb the increased cost of compliance.

Three large banks (TD Bank, Citizens Bank and Bank of America) dominate the deposit market share. This is important because availability of low cost core deposits is a key component of FSB’s business and profit growth potential. Residential loan market share data is also readily available, however it is reported on a county and sub-county level rather than by zip code. As such, it is a less geographically targeted measure. However, it does provide valuable information on market shareholders. The largest market shareholders are not banks, but rather mortgage companies (see Appendix C for deposit and residential loan market share data).

The large banks are strong competition for deposit market share, but are less so for other profitable services including commercial loans to small closely held businesses. The big three are focused on much larger commercial lending and deposit relationships in comparison to FSB and its primary competitors. The mortgage companies are focused on residential mortgages only, so they are not considered wide based competitors. Commercial and consumer loan market share information is not readily available. Although direct competitor’s Uniform Bank Performance Reports (UBPR) indicate their portfolio size, it is not segmented by market area. FSB does its best to monitor its competitors’ commercial loan activity, interest rates, and credit underwriting standards. Overall, FSB knows its competitors’ strengths and weaknesses and monitors movement in product offerings and pricing.
FSB’s overall goals are to continue to support the financial needs of the communities it serves and at the same time maintain financial viability. Its overall strategy for meeting these goals is to focus on strengthening its brand, leveraging its position as a strong contributor to the needs of the communities it serves, increasing loans and deposits, utilizing technology to improve efficiency, and increasing customer acquisition. Marketing is tasked with developing product bundles that are in demand by the customer base. These products must be competitively priced to attract customers and at the same time provide adequate profitability to FSB.

FSB’s overall financial condition is considered satisfactory. Financial highlights taken from UBPR reports for the years ending 12/31/14, 12/31/15, 12/31/16 and for the most recent two quarters ended 6/30/17 and 9/30/17 are included in Appendix D. FSB is adequately capitalized with satisfactory capacity to support its continued asset growth pattern. The primary area of concern is the downward pressure the Bank is experiencing on NIM and ROAA. These pressures are included in the top threats and risks in the near term, as outlined in FSB’s 2017 Strategic Plan. Managing this pressure is one of FSB’s primary challenges going forward. Its efficiency ratio is higher than its peers and management accepts this for now and makes reasonable effort to contain costs with longer range plans for improvements in non-interest income. This will be accomplished primarily by expanding wealth management services to boost fee income helping to mitigate high overhead costs. If it were a stock bank there may be more immediate pressure on FSB to improve earnings and bring some of the ratios more in line with peers. Non-performing loans have been nominal over the period of measure and FSB by far outperforms in this area compared to peers. Asset/Liability management is monitored closely. Due to a successful concerted effort beginning in mid-2015 to increase core deposits and reduce borrowing from the Federal Home Loan Bank, FSB’s liquidity position has improved
significantly. FSB is well managed, well capitalized and considered to be in a good position to continue to grow.

**Strategy/Implementation**

**The Process and the Writer’s Role:**

This process is being considered to develop metrics and human behavior that directs attention towards profitable customer relationship building. It will help to provide a structured system for use by both front-line and back-office personnel to systematically identify and analyze which customer relationships are the most and least profitable. This structure will be used as a tool to help grow and maintain profitable relationships along with helping to migrate unprofitable relationships to profitable ones. To tackle this challenge, the writer will bring together a committee of stakeholders, including front-line producers and support staff, to develop a process and system of measurement focused on customer profitability.

FSB’s business model is largely taking deposits and making loans, so this will be the primary focus of the initial profitability assessment system with other products built into the model as its level of sophistication increases. A customer relationship typically starts with a deposit account with other services being added over time (i.e. loans, wealth management). It includes business customers as well, as this base is primarily made up of closely held family businesses. A core customer (relationship) calls FSB their bank and has at least three product types, which typically consist of checking/savings accounts, debit cards and a residential mortgage. To improve profitability FSB seeks to expand customer relationships in volume and number of products per household or share of wallet. Expanding volume and breadth of products specifically targeted to customer needs, along with relationship pricing, can assist with
maximizing profitability through pricing and reduced cost through efficiencies gained with target marketing techniques and use of technology. Employee buy-in to the process, market knowledge, good segmentation data, and effective use of technology are key components to success. This process is consistent with FSB’s overall strategy of strengthening its brand, increasing deposits and loans, and utilizing technology to improve efficiency.

The following steps outline the writer’s role and the strategy used to meet the goal of developing a methodology and process that is effective in enhancing ROAA.

- The writer will establish a committee comprised of front-line management/producers and individuals that have access to relevant accounting information, system data and market knowledge.
- The writer will educate the committee on structured profitability management methodologies used within the industry by identifying and reviewing the basic components of an established comprehensive approach to profitability management. This includes the review of an ideal robust system, provided there were no limitations to cost in terms of dollars and human resources. These more robust systems are appropriate for mid-tier to large banks rather than a small community bank, but the review provides a good outline of the big picture including the detailed data collection and analysis needed to set up a comprehensive bank profitability management system.
- With the understanding of how the most sophisticated systems are structured, the committee can then explore the best approach for FSB to take to begin building and implementing a customer profitability process that fits its size and unique requirements. This includes considering the financial, as well as the non-financial impacts that implementation will have on FSB, its employees, and customers.
• The results of the process will be measured quarterly from UBPR Reports based on comparing improvement in NIM and ROAA from period to period in comparison to the local banks identified as primary competitors (outlined in Appendix B). This is the most appropriate method of determining success, as FSB and its competitors are working to maximize returns from the same customer pool. The competitor with the highest return is the best at maximizing use of resources, and from a financial return perspective is the most successful.

The writer is currently a front line commercial lender responsible for developing and managing commercial banking relationships. When a relationship is being established, or new products added to an existing relationship, consideration is given to the spread above the cost of funding. FSB must also be sure it is competitive compared to its local peers regarding pricing so that its offerings are considered viable as customers and prospects compare banks. The proper mix of loans, deposits, and other products is an important component of management’s decision-making process when differentiating whether a relationship will be attractive to FSB. For commercial loans for instance, the spread over an index (i.e. Federal Home Loan Bank Advance Rates, Wall Street Journal Prime Rate) is used. If the spread on a loan is less than typical, a large deposit relationship may mitigate the weaker spread. Although a formal measurement structure is not in place now, management follows the financial position of the Bank in such detail that it is generally understood when a relationship is profitable or not. The formalized process being researched helps to quantify profitability at the customer level, so adjustments can be made to pricing based on the product mix in a relationship to meet the customer’s needs and maximize return to FSB.
The project provides an opportunity for professional growth personally for the writer by getting behind the front-line and delving into this formalized process that, if deployed properly, has the potential to result in a measurable positive change in FSB’s ROAA. The whole process adds a much deeper understanding for the writer of how FSB’s departmental disciplines (i.e. accounting, deposit operations) function behind the front-line and opens an opportunity for taking on responsibility that is beyond the scope of that which the writer has experienced in the past.

If FSB can utilize customer segmentation data, target marketing, and product bundle pricing techniques to produce a stronger margin than its competitors from the same customer pool, this provides it with an advantage when taking in relationships that may initially appear to be low margin but once on board and bundled with the proper mix of product and price can otherwise prove to be quite profitable. If, without utilizing these processes, these relationships are not targeted and effectively bundled with products and services that customers want and need, then opportunity for profitable growth may be overlooked. Understanding the Bank’s customer demographics and delivering appropriate products at a price level where the customer perceives the value to be commensurate with cost and at the same time meets or exceeds FSB’s margin requirements adds value to FSB. By taking a lead role in this process the writer could become a more valuable asset to FSB.

For this project, the writer has the responsibility to organize the committee, perform initial research, and implement the best approach to establishing a system to measure customer profitability. The research includes reviewing existing comprehensive profitability processes used in the industry, actual approaches taken by other small community banks, researching potential vendors that provide the service, researching the cost of automated systems suitable for
a small community bank, and interviews with relevant internal staff (i.e. Finance, IT, Marketing). Once the structure that is considered best for FSB is identified, it is the writer’s responsibility to begin the process of implementing the internal approach. Upon acceptance of the approach by the committee along with completion of data structuring and target marketing templates, a test run will be performed followed by changes that may be necessary. Initially this will be done on an Excel based spreadsheet. At this point the structure will be in place for utilization of a system that the committee agrees is best. Because there are limitations on time that the writer and committee members must put into the technical aspects of this project on an ongoing basis, consideration needs to be given to the possibility of choosing a vendor at some point to automate this process.

A more subjective aspect to the committee’s learning process is to determine whether there will be adequate buy-in of the process from senior management and front-line personnel. It will be especially important to have buy-in from the front-line lending staff and particularly from commercial relationship officers because pricing is risk based, which is somewhat subjective. The commercial lenders may view pricing and cost measures as a restrictive process and resist its implementation. This buy-in and continual support from senior management and communication on methods of gaining incremental margin increases, without jeopardizing relationships, is crucial to the success of this process.

The committee members and the basic expertise of each are listed below.

1) Director of Branch Administration: Tracks competitors’ deposit pricing activity, recommends the implementation of new deposit products, and is in tune with pricing sensitivities.
2) Director of residential and consumer loan administration: Understands the residential/consumer market and pricing sensitivities.

3) Senior Commercial Loan Officer: Understands the commercial market and pricing sensitivities.

4) Director of Marketing: Experienced with market area demographics, customer segmentation, and implementing general and targeted campaigns.

5) Director of Information Technology: Has primary relationship with the Bank’s core processor provider (Fiserv), knows how to identify households, and can compile system information for reporting purposes.

6) Director of Sales and Training: Develops and manages Bank-wide sales initiatives. Works with front line branch, residential lending, commercial lending and wealth management staff. Could facilitate buy-in of the process organization-wide.

7) Financial Controller: Has the direct access to accounting records, can assist with building the initial excel spreadsheet that will be used to run scenarios for analysis and reporting purposes.

The committee members are the primary stakeholders in seeing this project succeed. Even though other employees are not involved in developing the process, they really are stakeholders as well, as all employee annual incentive compensation is tied to meeting ROAA targets set at the beginning of each year. The leaders of the committee are the front-line members with the writer making the final call on any decisions that may slow the initial process. The writer has reviewed the goals of the project with FSB’s President/CEO, CFO, Director of IT, Director of Marketing, Senior Commercial Loan Officer, Controller, and Deposit Operations Manager. These individuals are all on board with the writer proceeding with the research to determine if it
makes sense to implement a formal system. It is agreed upon that we need to understand the big picture regarding how a sophisticated process is developed, and then develop a system that works best for FSB’s unique needs.

**Components of a Sophisticated Formal Process:**

As a model for a sophisticated system, the writer reviewed Kaufman Hall & Associates, LLC’s Axiom Software for Profitability Management outline. It is targeted to mid-size to large organizations. Profitability analysis is defined as the process by which a bank aligns its income and expenses to better represent contributors and consumers of those dollars. It allows a bank to understand how customers, products, and delivery channels contribute to bottom line net income. There are four basic components of this method of profitability analysis: funds transfer pricing (FTP), expense and income attribution, capital assignment, and reporting and analysis.

1) FTP allocates net interest margin to each account on the balance sheet. It is the first step in understanding the overall profitability of the bank. It also assists in the analysis of profitability from specific accounts up to customer, products, producers, and departments. FTP allows the calculation of net interest margin allocated to every account on the balance sheet by assigning the cost of funds to assets and a credit to liabilities and equity. To calculate the organizations performance and make better product and pricing decisions, it is ideal to have an accurate FTP spread at the account level.

2) Expense and income attribution allocates the bank’s non-account specific income and expenses to various dimensions of profitability. From an income perspective this is typically necessary where certain account-level fees are booked to a single account for a group of customers or products. This is straightforward using an account or transaction-basis depending on data availability.
Attribution of operating expenses is typically associated with the application of activity-based costing (ABC) methodologies. ABC first involves the identification of key activities within the bank. Then the activity cost is developed by aligning the resources, such as salaries, FF&E, etc. to form pools according to various methodologies, such as time-driven, percentage based, and volume based. These pools are then mapped to cost objects (products and services) using the volumes that drive the consumptions of these resources. In addition, the allocation and segregation of overhead functions are performed to support the ABC process.

A more simplistic approach to allocating operating expenses is to utilize Absorption Costing. This method accumulates all operating costs throughout the bank, which is then spread over all accounts based on percentage of total account values. It is a more arbitrary method of distributing the operating expenses over accounts but may be a more practical starting approach if used by a small bank with limited cost accounting history.

3) Capital Assignment assigns capital based on the risk profile of an instrument or portfolio, along with the customer and account type, for a return on capital calculation. The final calculation step in the profitability measurement (before reporting) is the assignment of economic capital. Return on capital is a critical performance indicator. The allocation of capital can be as simple as taking income after FTP and ABC and dividing it by average balance of the product multiplied by net capital percentage.

4) Reporting and analysis allows the bank to better understand its overall profitability by uniting the outputs of the above processes in a single, multi-dimensional repository. This allows for profitability analysis across any desired dimension. This type of analysis also
leads to a better understanding of profitability drivers. Further, this type of insight assists front-line decision makers in the pricing of new offerings. Product-level information can then be used to determine which products to promote, as well as drive the modeling of new offerings. At an organizational level, units can be evaluated for contribution to the overall institution, as well as the amount of excess capacity available within their unit. Giving front-line personnel insight into the profitability of a customer, along with the ability to model the impact of modifications to existing products or the addition of new products, can lead to better pricing decisions based on economic contribution rather than volume.¹

A profitability measurement process has three segments, all of which require a single funds transfer pricing mechanism. The segments are as follows:

1) Organizational: Measures the contribution of selected departmental and branch units into income.

2) Product: Measures the income contribution of products sold by the organization to customers.

3) Customer: Measures the contribution of individual customers to income.²

Ideally it would be best to model FSB’s process with the four components of profitability analysis indicated above combined with analyzing organizational and product measurement, and then build further into customer profitability. Because this is time consuming to the point where it may take several years from start to implementation and is likely to become much too costly, a more simplistic user-friendly approach will be taken. This project initiates the process for FSB

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¹ https://www.kaufmanhall.com/resources/financial-institution-profitability-measurement-and-reporting
with a simplistic method that primarily focuses on contribution margin derived from products and services. Once the value added has been determined, with the addition of a loan or deposit account to a customer relationship, we can measure the incremental profitability using a contribution model. This essentially assumes that FSB has the capacity to add new accounts without adding to fixed costs so the only cost to add another account is the incremental variable cost. For instance, it is estimated that the typical bank branch can handle up to 2,500 to 3,000 business and personal deposit accounts.³ FSB deposit operations estimates that total accounts including all five branches, is just under 10,000 and that each branch has more than enough capacity to absorb new accounts without adding anything to any overhead item including staff.

The contribution model that FSB will consider with this process first looks at incremental variable costs only and the contribution that the additional revenue per product adds toward gross income. In contrast, a Fully Allocated Cost Model would use a process based on type of account to assign a share of overhead and a larger share if for instance a customer uses a branch more often than another customer. It combines allocated overhead with variable cost depending on account type. It is more accurate than the contribution model, but initially for FSB the additional effort is not considered to be worth the added cost.⁴

**Basic Components of Federal Savings Bank’s Process:**

The four basic components of building the process of deploying a flexible bank-wide system for FSB’s purposes are:

- **Methodology:** The contribution margin method has been chosen.

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• **Structure data:** Account-level relationship information will be collected, as it is the primary building block for customer profitability systems. Customers with an identifier will be assigned to relationship types that the system to be utilized can handle. The customer tax ID numbers will be the identifier. It will also be necessary to assign a segment identifier to each relationship.

• **Develop and implement marketing campaigns:** FSB will take an approach like that in which other banks have used to initiate the process. At the customer level, a study will be conducted to obtain demographic characteristics, identification of what needs are being met (i.e. credit, transaction, savings), and how the customer uses the products (transaction type, volume, channel). Profit tiers will be developed (using three-to-six-month smoothed relationship profit) within segments (high profit, marginal, losers). The base within the profit tiers will be analyzed by key drivers (i.e. margin) to help answer these questions. The next step is to identify three learnings that can be applied in the short-term.⁵ There will be four relationship segments as follows: 1) Deposits Only, 2) Deposits and Residential Loans, 3) Deposits, Residential Loans, and Business Loans, 4) Deposits, Loans, and Other Services.

• **Measurement of results:** ROAA will be measured quarterly in comparison to primary competitors to determine progress.

⁵ [https://www.bai.org/banking-strategies/article-detail/customer-profitability-analysis-for-better-decisions](https://www.bai.org/banking-strategies/article-detail/customer-profitability-analysis-for-better-decisions)
**Automation:**

Now that the basics of the process that FSB will utilize has been developed, a couple of automated system alternatives can be explored. To do so when considering limited human resources, consideration will be given by the committee to explore piggybacking on products that FSB is already generally familiar with utilizing. The first is a product introduced to FSB by the same service provider that handles its ALCO analysis and reporting. This product is called Deposits 360 and it is a deposit intelligence tool. It tracks non-maturity and CD migration, quantifies deposit cannibalization, measures marginal cost of funds, tracks deposit attrition, measures the success of new product initiatives, segments deposit base (age, product, branch, date opened, relationship attributes), identifies deposits at risk through early warning system and drills down to customer level analysis. To expand the system to include other products, FSB first needs to go through the manual process of structuring customer data on its operating system to provide the vendor with detailed existing relationship data beyond deposits. The second is utilizing FSB’s core processor provider, Fiserv, as it has a module that may also be considered as the process moves forward. The initial review of this module, Enterprise Level Pricing for Managing All Account Types, indicates that it may be a good fit once FSB has reached a data compilation sophistication level that will take approximately ten months to put in place. This module hits the highlights that FSB is looking for including growth by increasing wallet share, customer-centric pricing by offering products that meet their specific needs and increasing efficiency by streamlining processes and technology. It also helps determine total relationship value, designs pricing strategies for fees and rates, automatically segments customers, and uncovers new revenue opportunities with “What if” modeling. Between the two options it is the writer’s initial observation that the Fiserv module may be the best option.
Integration into Federal Savings Bank’s Way of Doing Business:

The system needs to be used regularly along with quarterly reporting from the committee on the results. This information must be shared with customer contact staff with continual training provided on its uses and benefits. This will assist staff with focusing on retention of high value customers, expanding relationships through better understanding of customer needs and behavior, and guide customers to products that better fit their needs and how they interact with the Bank.

The required buy-in from stakeholders and from the front-line lending staff is a critical component of the process to be addressed by the committee. The lenders will need to be educated on why this process makes a difference and just how much of a difference this process will make to FSB, even with slight incremental pricing efforts that focus on increasing margin. The sales director and senior lending staff will be relied upon to continually deliver this message. Notable incremental changes in NIM and ROAA performance will be discussed with monthly interim financial statement reviews and quarterly with review of comparisons between the local competitors outlined in Appendix B.

Future Opportunities:

Once FSB has developed a starting point for measuring customer profitability then it can continually build on the system. The most intriguing opportunity is building a system where FSB over time builds a better understanding of its customer base, demographic characteristics, generation migration, and keeping ahead of what services customers demand so needs can be met. This will ultimately determine FSB’s ability to continue to meet its mission by serving the
individuals and business needs in the communities where it does business and at the same time remaining profitable and financially sound. Other opportunities include the following:

- Keep ahead of the competition regarding being proactive to changes related to generation migration and what products and services each generation demands. FSB’s customer base is largely made up of the baby boom generation. Along with other competitors, it is looking for methods to attract and retain more millennials.
- Develop a means to implement true relationship pricing that rewards customers and provides FSB with better customer retention through increased wallet share per household/customer.
- Encourage customer behavior toward utilizing electronic and other low-cost channels to gain efficiency.
- Continue to improve the customer’s experience and strengthen FSB’s brand.

At present there are two significant events taking place in FSB’s market. A large bank is closing a well-established branch near one of FSB’s branches. For the front-line producers this is already a new pool of prospective customers. If the profitability model were in place, it could be used as a tool gauge the value of the relationship bundle and provide information on where pricing can or cannot be more competitive in relation to other competitors and still be profitable for FSB. There has also been a senior management disturbance with one of FSB’s competitor banks. Again, knowing what kind of pricing FSB can come in with to add new relationships makes a difference when competing for new business with other competitors that will also inevitably be looking at a competitor’s vulnerability as an opportunity.
Implementation Schedule:

The process will begin March 1, 2018 with an in-house system being functional within 10 months, ending December 31, 2018.

- Create the committee and educate members on the process by March 31, 2018.
  Responsibility: Writer.

- Complete a written outline of the structure of the system. This includes detailed system data structure and organization, test marketing campaign drafts with profitability of each test campaign outlined on an excel spreadsheet by May 31, 2018. Responsibility: Writer, IT, Marketing, Deposit Operations, Accounting.

- Basic structure is reviewed with the committee and approved by July 31, 2018.
  Responsibility: Writer, IT, Marketing, Accounting.

- A test run of the financial aspects of the basic structure and assumptions are run by August 2018. Responsibility: Writer, Accounting, IT, Marketing.

- Obtain buy-in by senior management and frontline staff by October 31, 2018.
  Responsibility: Writer, Sales, Accounting, IT, Marketing.

- Implement the in-house system in marketing campaigns by December 31, 2018 and determine a time frame of when and if an outside provider system should be considered.
  Responsibility: Writer, Accounting, IT, Marketing.
Financial Impact

**Investment Type and Cost:**

The investment type is the utilization of existing human resources, of which the cost is already included in FSB’s operating budget. The investment of time by the individuals on the committee is considered an opportunity cost rather than a new investment to be undertaken by FSB. Time spent in other areas will be forgone to pursue this project. If the process is showing signs of success it should be further developed. If not, then resources should be employed elsewhere in the Bank. This is looked at like FSB’s ALCO where the process, assuming it is providing results, should be built into the routine operation of the Bank. For at least the first year, it is likely that the internally developed worksheets and process will be utilized. Once the committee and the front line are more familiar with the process and enough research has been performed, the purchase of an automated system may then be considered.

The writer recently interviewed a Director at the firm that provides ALCO consulting services to FSB to discuss whether they provide the service and what systems that they see other small banks utilizing for relationship profitability analysis. The answer is they are not providing this comprehensive service to its customers now and small banks that are doing any analysis are primarily using spreadsheets prepared in house. If the provider were to consider this service, the biggest problem mentioned, excluding cost, is having the ability internally to compile and provide the consulting firm with adequate data on products connected to existing relationships, along with demographic characteristics. The cost of the Deposit 360 program that the ALCO consultant provided was $5,000 and this was successful because FSB was able to provide enough data on
deposit customers only. This was also done on a one-time basis. If additional services were to be retained by FSB and used more frequently, the annual cost would be expected to increase.

FSB’s Information Technology Director received a quote from Fiserv on its relationship pricing module that includes a one-time cost of $3,000 and $200 per month. Fiserv would like more information as to how FSB plans to use the system along with an opportunity to provide a presentation to FSB management. During at least the first year, automated systems will be discussed but it will be too early in the process to consider making this kind of purchase, as the committee is not expected to have thoroughly determined the scope of what its request will be from the provider.

If the internally developed process is kept simple enough to be managed by stakeholders and strong buy-in is maintained, then exploring methods through customer profitability analysis to improve ROAA is expected to be a financially sound use of employee time and budgeted funds. The return is ultimately going to be measured by taking the base starting point profitability ratios and measuring them in future periods in comparison to local competitors to determine any difference the process is making. For FSB, the ROAA and its sub-components will be closely watched not only by all involved in implementation but bank wide as this is the key performance ratio for all employee’s incentive payout. There will be other factors that impact ROAA in the short-term, so this measurement process is not without flaw, but over several quarters and years if results are favorable compared to competitor banks, an assumption will be made that the process is successful.

As indicated in the Strategy/Implementation section above, FSB will initiate the process utilizing the contribution model approach to customer profitability. Organizational measurement is considered a separate analysis not within the scope of this project. This is considered the most
appropriate approach to start with for a small bank that hasn’t utilized cost accounting or other advanced internal bank or customer segmenting measures in the past. For this process, customer and product profitability are considered to go together rather than analyzed separately because customer profitability is derived from product pricing, marketing, and customer service efforts of which each are integral parts of customer profitability.

Where the initial focus will primarily be on deposits and loans, the impact of the cost of funds will be considered the primary variable cost. FSB’s annualized cost of funds, as of 6/30/17 and 9/30/17 is approximately .55%. As the process progresses other costs could be allocated to accounts for comparison purposes, but initially it needs to be kept very user friendly or buy-in to the process from the front-line is not likely to be sustained.

The first area to be considered with some measurement metrics attached are the relationship segments. The next step is to look at target marketing customers with specific demographic profiles to obtain the best mix of products and services and to maximize relationship profitability. For instance, a promotion run to increase mortgage loan refinancing may target households with the borrower in the 25 to 50 age range, as this age group may be the target group that does refinancing of residential debt.

Segmentation will initially be done through utilization of the existing data that FSB is able to manually collect on customers that it already has on the Fiserv system. For instance, the demographic for most of the products that FSB offers is broad and falls within the age group of 25 to 65. As more information is gathered on demographic characteristics that correspond to bundles of products and services that meet the demand of specific customer segments, more target marketing techniques can be developed. The chart below, along with the explanation that
follows, outlines a simplistic hypothetical approach to measuring the difference that adding one more product to a household makes to the household contribution margin.

**Amounts are in $1,000’s**

<table>
<thead>
<tr>
<th></th>
<th>Deposits</th>
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</table>

This chart includes basic products that FSB offers and an example of customer relationship segments. If it is assumed that the typical relationship starts with a checking account and the goal is to build comprehensive relationships, which helps with retention and profitability, then each new account added should add to the relationship contribution margin. After paying interest on the deposit account the remainder, assuming FSB is not making an allocation to overhead, is all available to reduce the cost of funding new interest-bearing loans. FSB’s current cost of funds for deposits is approximately .50% and for borrowing it is approximately 1.1%. This demonstrates the importance of deposit account balances in a customer relationship. With a new 15-year $200,000 residential loan added to the relationship at a rate of 3.5% the contribution margin after the cost of funds of .55% is 2.95% or $5,735 in year one. With a new five-year $200,000 commercial loan added to the mix with a rate of 5% the margin after the cost is 4.45% or $8,080 in year one. If a $200,000 wealth management account is added the contribution margin is approximately 1.0% or $2,000 in year one. The contribution per additional product beyond the initial deposit account, in this example, demonstrates the following:
• Customer demographic profiles matter. Determining the services that customers currently use and adding additional products that meet their needs can significantly add to relationship profitability.

• With bundling of services, FSB has the potential to add to the customer relationship contribution margin. It also opens the option to offer relationship pricing incentives.

Once the segment identifiers are set up on the Bank’s system and good demographic analysis is completed by marketing, customers and prospects can be solicited for products and services that they need and want. By doing this, FSB is using the technology and market knowledge it already has available to begin the process of implementing customer profitability management.

In the Future Opportunities section, a competitor’s branch closing near one of FSB’s branches was mentioned. Because FSB has data on its deposit customers in the market area, it can target market to those deposit customers to try to capture additional business from its existing customers that also have accounts at the branch being closed. It is a good opportunity as it is a $55 million-dollar branch in deposits. FSB’s marketing and finance departments came up with the following cost budget with a modest new deposit level of $500,000 and 78 new checking accounts targeted.
For the above example, Marketing has estimated the cost needed to be taken from its budget to run this promotion. The benefit to contribution margin based on the initial approach that will be used is the reduction in FSB’s cost of borrowing, which reduces cost of funds. The total expense to bring in $500,000 with this promotion is $41,700 but this cost is absorbed from funds available in the existing marketing budget. For analysis purposes, the analyst estimated the cost of borrowing at 1.80% (budgets in anticipated future rate increases), which on $500,000 would cost the bank $9,000 annually in interest. Utilizing deposits with a cost of .50% or $2,500 rather than borrowing at a cost 1.8% or $9,000 results in an annual cost savings of $6,500 by taking in deposits. This demonstrates the benefits of using deposits over borrowing and excludes other income from cross sell opportunities while interacting with customers.

By building on the same targeted customers, the IT and marketing department could query the accounts used for this promotion to determine data regarding age of the individual customer, length of time as a customer of FSB, and number and type of products with FSB. At the same time, a household identifier could be established for the customer. If other deposit
accounts, for instance, have business names on them then this may be a good prospect to target for a commercial loan. If a large account balance is held in an IRA CD account, targeting for wealth management may be warranted. This is part of a manual process and is how the system will initially be developed.

On a quarterly basis the measurement that the committee and stakeholders will be focusing on is the trend that NIM and ROAA is taking in comparison to its local competitors. This is indicated for recently past periods in the charts in Appendix B. Going forward it will show whether FSB is making progress in improving margin in comparison to its competitors. If it is, then it is likely that the focus on customer profitability is paying off. If the trend is adverse, then action will need to be taken to reverse this trend.

**Financial Risk:**

The primary risk is that the process is deemed to be too cumbersome and buy-in and stakeholder focus deteriorates. This process will take time and stakeholders need to know that this is a process that we entered with the understanding that the cost in time and effort will be high, but this does not mean that if it ultimately does not work that it is a failure. Until an outside system is purchased, the financial risk that is taken is just the costs incurred in the typical course of business like launching a new product. If this process proves to be successful and FSB can improve its ROAA, it benefits all stakeholders. If it is not, then the sunk cost is the opportunity cost lost by not employing resources elsewhere to other projects in the Bank. Overall the financial risk is considered low and the potential reward is high resulting in a favorable risk reward scenario.
Non-Financial Impact

Non-Financial Measures to be Considered:

The non-financial issues to be considered by FSB fall into the five categories discussed below, which are listed in order of weight of significance regarding potential success of the project. These include actual issues that have been experienced by financial institutions that have implemented customer profitability management processes. They include stakeholder buy-in, culture change issues, availability of resources, availability of reliable data, and the methodology utilized.\(^6\) Each of these issues are reviewed below.

- **Buy-in:** This is the most important non-financial part of the process for the committee to address with other stakeholders, because without buy-in from participants the likelihood of the process succeeding is significantly diminished. FSB is already in the process of significant change including implementation of a sales culture and bringing a new computerized customer relationship management system on-line. It is anticipated by the writer that employees, and particularly the front-line lending staff will see the importance of placing more focus on customer profitability, but even so are likely to be skeptical regarding the need for a formalized system, especially with all the other change currently taking place at FSB that involves them directly. Because of this, buy-in will be one of the primary issues that the committee and particularly the sales director will be relied upon to address.

- **Culture Change Issues:** FSB has initiated a sales culture that it has been developing over the past several years, which in theory should provide a good transition into the

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implementation of profitability management measures. Along with the new sales culture the new computerized customer relationship management system implementation and learning curve has taken more time and resources to implement than originally expected. The potential problem with implementing the profitability process with these other initiatives is that employees may view this as too much of a change in culture and resist outwardly or simply lack true buy-in to the process.

• **Availability of Human Resources:** To gain efficiency, as any business in a mature industry must, FSB attempts to operate with minimal excess capacity. This poses a challenge when implementing a new process. This process will require the allocation of time primarily from the committee members. Because of this, committee members that have been chosen are those with direct expertise in areas required for this process.

• **Availability of Reliable Data:** The gathering and segmenting of customer and product information on existing customers, as mentioned above, is initially going to be a manual process. The reliability will only be as good as the diligence in attention to detail in gathering and recording the data by operations personnel and marketing. Data from purchased prospect lists, for instance, will also need to be segregated and entered into a database in a way that ensures accurate segmentation. Participants in this part of the process will need to be assured that their efforts are worthwhile, as actual results may not be realized for several quarters in the future.

• **Methodology:** The Contribution Approach method that has been selected makes a lot of assumptions and all stakeholders may not agree on the method. The most significant assumption is that it is acceptable to focus on variable costs only, as fixed costs will be incurred regardless of whether this process is implemented or not. This method could be
considered to place accountability on front-line producers without sharing this accountability with back office personnel, as their individual cost is not segmented and measured in a contribution margin model. Because it does not go into enough detail, the focus on revenue and margin volume may be perceived to fall on the front-line.

Overcoming each of the above issues could be addressed individually, but there is a central theme when considering how to overcome these issues and this is the need for open and frequent communication. FSB’s senior management and the sales director will be asked to be the primary communicators of the importance of this process. The key points are that this process will be implemented over time with relatively small incremental changes as the project develops therefore it is not expected to be a major change taking place in a short period of time. The key individuals with expertise in the areas of lending, information technology, finance, operations, and marketing are identified to be committee members so that they can handle the manual procedures to be implemented up front efficiently and effectively with the least amount of impact to the routine of other employees. The big picture message that will be delivered is that to implement this process all individuals and departments in the Bank will need to understand that their input and buy-in is essential. Sales efforts will fall on the front line, but support provided by back office personnel is equally important in pulling this process and delivery of services method together to realize real results.

The manual time-consuming process of data collection and organization that will initially be required will be challenging but approached in a slow methodical manner built in with initiatives that are already taking place, such as ongoing marketing campaigns, which will help make this process manageable. As these manual processes become automated the workload will decrease. Gauging buy-in levels is done through listening and observing. Employees are not
expected to be overjoyed by this process, but if they are sincere and actively engaged in seeing the process move forward this will be apparent. Because this process compliments the sales culture combined with a long phase-in period and potential end results (improved ROAA) that favorably impact all participants, it is expected that the potential hurdles will be overcome.

Where ROAA is the one ratio that determines the level of the Bank-wide annual incentive compensation it is a ratio known to the employees. Communication regarding the continued deterioration in ROAA, its potential long-term adverse impact on the Bank in upholding its mission, and its effect on bonus payout will be key points of discussion. It will also be important to communicate that this is truly a team effort and for most employees will simply require enhancing their focus on delivering products and services that customers already want and need. Along with this, employees will be given the support necessary to instill confidence in the value of the service they provide in combination with other partners in the Bank. This will help to ensure they are making every quality new business referral possible, so FSB is building profitable relationships rather than simple transactions that may not add to the perception of value by the customer.

This change process is ultimately going to be measured quarterly over time by comparing FSB’s progress in improving its NIM and ROAA in comparison to its direct competitors. The key non-financial measures that will drive results are the level of buy-in obtained, progress with incorporating the process into FSB’s culture, and progress in gathering quality data for effective use in sales and marketing campaigns. Buy-in and acceptance of culture change measures are subjective and will be determined by whether employees are incorporating this process into their workflow and way of thinking and approaching business development. Data quality will be measured by the ability of the Bank’s operating system users to pull useful customer relationship
data and demographic profiles from the system that marketing and other front-line personnel can use to develop profitable comprehensive customer relationships.

**Impact on Organization, People, and Customers:**

At the organization level this process structures system data so that customer information can be used to effectively segment customers by product uses and potential needs. It allows marketing to develop campaigns that are targeted based on customer needs and work toward building profitable relationships that better meet the needs of the customer. It provides cohesion among the efforts of the back-office personnel and the front line. This approach focuses on the goal of driving improved ROAA results for the organization through collaborative efforts of all employees rather than placing the burden on any one department or individuals.

This process is developed with the intention to be low impact on the people involved in development and implementation. Results are expected to take place through incremental changes as the process proceeds. It allows the people involved to utilize their skill sets at a controlled moderate pace to contribute to FSB’s need to change to meet the demands of its customers and succeed financially. It is an interactive process facilitated via support from senior management, peers and individuals from other disciplines. This approach is expected to reduce the stress that could otherwise be experienced with this type of change.

The process of obtaining buy-in, structuring quality customer and demographic data, developing effective marketing campaigns, and changing FSB’s culture to accept this approach to doing business provides the foundation needed to develop the customer profitability management process. This foundation provides FSB with the ability to develop effective sales and marketing procedures to deliver targeted product bundles to customers and prospects that
meet their needs and at the same time provides FSB the ability to increase relationship size and profit margin. This is an approach that builds relationships that are deeper than what FSB has historically experienced and helps to sustain long-term profitability that is measurable.

**Conclusion**

The writer recommends initiation of the process as proposed above, utilizing the contribution margin approach. The benefit of implementing the process is the potential for improvement in ROAA, which strengthens FSB’s financial position and helps to ensure its viability as a leading competitor in its marketplace. The key to succeeding is getting started, even on a small scale, and taking advantage of incremental wins along the way that will ultimately result in positive overall organizational change. This proposed process supports FSB’s strategy in meeting established goals. It also assists with meeting the bank’s mission to serve the financial needs of individuals and businesses, and to support the needs of the communities where it does business. The benefits outweigh the potential negative impact and the most important step, as supported by the writer’s research and learning while exploring his project, is to choose a methodology and get started. By acting to adapt to its changing environment, FSB will continue to differentiate itself from its competitors and build upon its competitive advantages.
Bibliography


Appendix A

The following map of New England displays the geographic area where NH is located. The bank’s footprint is in the southeast corner of the state (seacoast region).

Note: Images - Map of New England States.

State of NH (see writer’s comments below the map)

Writer’s Comments:

The bank’s footprint is in the northeast corner of Rockingham County and essentially all of Strafford County. The general market footprint is outlined in red.
### Appendix B

**Federal Savings Bank (FSB) and primary competitors**

<table>
<thead>
<tr>
<th></th>
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**Bank/Asset Size**
- Federal Savings Bank, $350 mil
- Optima Bank, $443 mil
- Bank of NH, $1.514 bil
- Kennebunk Savings Bank, $1.143 bil
- Profile Bank, $212 mil
- Eastern Bank, $10.574 bil
- Provident Bank, $883 mil
- Peoples United Bank, $42.706 bil
Note: Information is from Uniform Bank Performance Reports, as of 9/30/17.

https://www.FFEIC.gov > UBPR.

Writer’s Notes:

1. Optima (headquartered in Portsmouth, NH) is currently constructing a new branch office in Dover. The most significant portion of its footprint is like FSB’s. It is aggressive in originating both commercial and residential loans and has the same target market as FSB.

2. Kennebunk Savings (headquartered in Kennebunk, ME) has a larger footprint that includes all of FSB’s footprint. It is aggressive in originating commercial loans but has
scaled back some on residential lending. Its target market is the same as FSB’s but because of its larger size, takes on some larger commercial loans without the need to participate a portion to remain within house and legal lending limits.

3. Bank of NH (headquartered in Laconia, NH) has similar characteristics indicated above for Kennebunk Savings.

4. Profile Bank (headquartered in Rochester, NH) operates in the Rochester/Dover markets and goes slightly further north into the State of NH in comparison to FSB. It has a stronghold particularly in the Rochester market. Profile is highly competitive in commercial and residential lending with the same target market as FSB.

5. Eastern Bank (headquartered in Boston, MA) covers the FSB market area and has a much larger footprint that covers a large portion of Boston north into NH. Its target market is like FSB, but over the past year it seems to be focusing more on the larger commercial relationships in comparison to what FSB would consider.

6. The Provident Bank (headquartered in Amesbury, MA) is very competitive in the commercial lending market throughout FSB’s footprint but has recently backed away from residential lending. Its target commercial customer is the same as FSB’s.

7. People’s (headquartered in Bridgeport, CT) target market for commercial relationships is on much larger relationships (more middle market) compared to what FSB is focused on but they do have a good small business lending group that FSB competes with from time to time.
## Appendix C

**Deposit Market Share, June 30, 2017** (by primary city - most recently posted in percentage and dollars)

### Portsmouth:

<table>
<thead>
<tr>
<th>Company</th>
<th>Market Share %</th>
<th>Market Share ($000’s)</th>
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<td>TD Bank</td>
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<td>Newburyport Five Cents Saving Bank</td>
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*Note: Reprinted from Offices and Deposits of all FDIC-Insured Institutions. Deposit Market Share Report for zip code 03801, as of June 30, 2017.*


### Dover:

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**Note:** Reprinted from Offices and Deposits of all FDIC-Insured Institutions. Deposit Market Share Report for zip code 03820, as of June 30, 2017.


### Rochester:

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</table>


**Writer’s Comments:**

**Portsmouth:** FSB is in the middle of its competitors in the Portsmouth market. It has room to grow but the extremely competitive nature of the market will make it a slow process. Peoples, Optima and Provident have a strong foothold. Profile doesn’t have a branch in Portsmouth.

**Dover:** With Dover being the Bank’s headquarters and historically its main area of focus, FSB has the largest market share in comparison to its direct competitors. It can maintain this market share and continue to grow at a reasonable pace. Optima, Profile and Provident do not have branches in Dover at this point in time.

**Rochester:** Profile has the largest market share of the direct competitors. It is also headquartered in Rochester, which is its primary area of focus. The Bank can continue to grow...
in the market, but it will continue to be moderate growth. Optima, Kennebunk, Eastern and Provident do not have branches in Rochester.

**Residential Loan Market Share by County and Sub-County.** Rockingham County only includes the sub-market (geographic location) where FSB does business, which is primarily Portsmouth and its surrounding area. Dover and Rochester cover almost all of Strafford County, which is demonstrated with its larger market share in Strafford County of 3.0% compared to 1.95% in Rockingham County Sub-Market.

**Rockingham County (6 months year-to-date through June 2017): Top Five**

<table>
<thead>
<tr>
<th></th>
<th>$ Volume</th>
<th>% of Market</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optima Bank</td>
<td>34.839 million</td>
<td>6.57%</td>
</tr>
<tr>
<td>Lend USA</td>
<td>26.007 million</td>
<td>4.90%</td>
</tr>
<tr>
<td>FBC Mortgage</td>
<td>23.822 million</td>
<td>4.49%</td>
</tr>
<tr>
<td>Loan Depot</td>
<td>17.577 million</td>
<td>3.31%</td>
</tr>
<tr>
<td>Quicken Loan</td>
<td>17.281 million</td>
<td>3.26%</td>
</tr>
</tbody>
</table>

**Federal Savings Bank and primary competitors in Rockingham County**

<table>
<thead>
<tr>
<th></th>
<th>$ Volume</th>
<th>% of Market</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Savings Bank</td>
<td>10.328 million</td>
<td>1.95%</td>
</tr>
<tr>
<td>Optima Bank</td>
<td>34.839 million</td>
<td>6.57%</td>
</tr>
<tr>
<td>Kennebunk Savings Bank</td>
<td>7.946 million</td>
<td>1.50%</td>
</tr>
<tr>
<td>Provident Bank</td>
<td>7.833 million</td>
<td>1.48%</td>
</tr>
<tr>
<td>People's United Bank</td>
<td>6.607 million</td>
<td>1.25%</td>
</tr>
<tr>
<td>Eastern Bank</td>
<td>4.412 million</td>
<td>.83%</td>
</tr>
<tr>
<td>Bank of NH</td>
<td>0 million (new in market)</td>
<td></td>
</tr>
<tr>
<td>Profile Bank</td>
<td>Not in market</td>
<td></td>
</tr>
</tbody>
</table>

**Strafford County (6 months year-to-date through June 2017): Top Five**

<table>
<thead>
<tr>
<th></th>
<th>$ Volume</th>
<th>% of Market</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lend USA</td>
<td>19.953 million</td>
<td>6.03%</td>
</tr>
<tr>
<td>Quicken Loan</td>
<td>15.221 million</td>
<td>4.69%</td>
</tr>
<tr>
<td>Envoy Mortgage</td>
<td>12.328 million</td>
<td>3.80%</td>
</tr>
<tr>
<td>Northpoint Mortgage</td>
<td>11.453 million</td>
<td>3.53%</td>
</tr>
<tr>
<td>Merrimack Mortgage</td>
<td>11.212 million</td>
<td>3.45%</td>
</tr>
</tbody>
</table>
## Federal Savings Bank and primary competitors in Strafford County

<table>
<thead>
<tr>
<th>Bank</th>
<th>Deposits</th>
<th>Share %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Savings Bank</td>
<td>9.754 million</td>
<td>3.00%</td>
</tr>
<tr>
<td>Bank of NH</td>
<td>7.946 million</td>
<td>2.45%</td>
</tr>
<tr>
<td>Optima Bank</td>
<td>7.652 million</td>
<td>2.36%</td>
</tr>
<tr>
<td>Profile Bank</td>
<td>6.382 million</td>
<td>1.96%</td>
</tr>
<tr>
<td>Kennebunk Savings Bank</td>
<td>5.286 million</td>
<td>1.63%</td>
</tr>
<tr>
<td>Eastern Bank</td>
<td>4.643 million</td>
<td>1.43%</td>
</tr>
<tr>
<td>Provident Bank</td>
<td>0 million</td>
<td></td>
</tr>
<tr>
<td>People’s United Bank</td>
<td>0 million</td>
<td></td>
</tr>
</tbody>
</table>

*Note: Reprinted from The Warren Group’s Market Share Reports.*

[www.thewarrengroup.com](http://www.thewarrengroup.com)

**Writer’s Comments:**

County market areas are used rather than by city, as it is the only available data that is reliable.

The information is from the bank’s subscription to The Warren Groups Market Share reports.
APPENDIX D

The time periods included in the financial highlights below are for the years ending 12/31/14, 12/31/15, 12/31/16 and for the most recent two quarters ended 6/30/17 and 9/30/17. These periods are chosen to demonstrate trends.

**ROA, Tier 1 Leverage Capital and Average Total Assets**

<table>
<thead>
<tr>
<th></th>
<th>9/30/17</th>
<th>PG</th>
<th>6/30/17</th>
<th>PG</th>
<th>12/31/16</th>
<th>PG</th>
<th>12/31/15</th>
<th>PG</th>
<th>12/31/14</th>
<th>PG</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>.33</td>
<td>.66</td>
<td>.27</td>
<td>.64</td>
<td>.32</td>
<td>.65</td>
<td>.36</td>
<td>.61</td>
<td>.36</td>
<td>.57</td>
</tr>
<tr>
<td>Average Total Assets</td>
<td>342,380</td>
<td>337,168</td>
<td>311,937</td>
<td>302,868</td>
<td>295,255</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: The bank’s policy requires a minimum Tier 1 Leverage Capital Ratio of 8.0 and the regulatory minimum is 4.0. It is well within the policy and regulatory requirement over the period of measure.

**Net interest margin:**

<table>
<thead>
<tr>
<th></th>
<th>9/30/17</th>
<th>PG</th>
<th>6/30/17</th>
<th>PG</th>
<th>12/31/16</th>
<th>PG</th>
<th>12/31/15</th>
<th>PG</th>
<th>12/31/14</th>
<th>PG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest income to average earning assets</td>
<td>3.85</td>
<td>3.89</td>
<td>3.82</td>
<td>3.88</td>
<td>3.89</td>
<td>3.85</td>
<td>3.93</td>
<td>3.87</td>
<td>3.90</td>
<td>3.91</td>
</tr>
<tr>
<td>Interest expense to average earning assets</td>
<td>.52</td>
<td>.57</td>
<td>.49</td>
<td>.57</td>
<td>.50</td>
<td>.56</td>
<td>.36</td>
<td>.57</td>
<td>.32</td>
<td>.60</td>
</tr>
<tr>
<td>Net interest margin</td>
<td>3.33</td>
<td>3.31</td>
<td>3.33</td>
<td>3.30</td>
<td>3.40</td>
<td>3.28</td>
<td>3.57</td>
<td>3.29</td>
<td>3.59</td>
<td>3.31</td>
</tr>
</tbody>
</table>
**Efficiency Ratio:**

The following chart shows the quarterly Efficiency Ratio (total overhead divided by net interest income plus non-interest income).

<table>
<thead>
<tr>
<th></th>
<th>9/30/17</th>
<th>PG</th>
<th>6/30/17</th>
<th>PG</th>
<th>12/31/16</th>
<th>PG</th>
<th>12/31/15</th>
<th>PG</th>
<th>12/31/14</th>
<th>PG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficiency</td>
<td>86.87</td>
<td>73.51</td>
<td>89.18</td>
<td>73.63</td>
<td>87.28</td>
<td>74.81</td>
<td>86.76</td>
<td>76.26</td>
<td>86.02</td>
<td>77.02</td>
</tr>
<tr>
<td>Total overhead</td>
<td>3.20</td>
<td>2.76</td>
<td>3.24</td>
<td>2.75</td>
<td>3.23</td>
<td>2.81</td>
<td>3.42</td>
<td>2.88</td>
<td>3.39</td>
<td>2.90</td>
</tr>
<tr>
<td>Net interest</td>
<td>3.23</td>
<td>3.12</td>
<td>3.23</td>
<td>3.11</td>
<td>3.30</td>
<td>3.09</td>
<td>3.46</td>
<td>3.10</td>
<td>3.48</td>
<td>3.10</td>
</tr>
<tr>
<td>Non-interest</td>
<td>.45</td>
<td>.58</td>
<td>.40</td>
<td>.57</td>
<td>.40</td>
<td>.64</td>
<td>.47</td>
<td>.62</td>
<td>.46</td>
<td>.59</td>
</tr>
</tbody>
</table>

**Non-performing loans to total loans:**

<table>
<thead>
<tr>
<th></th>
<th>9/30/17</th>
<th>PG</th>
<th>6/30/17</th>
<th>PG</th>
<th>12/31/16</th>
<th>PG</th>
<th>12/31/15</th>
<th>PG</th>
<th>12/31/14</th>
<th>PG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-performing</td>
<td>.28</td>
<td>.77</td>
<td>.03</td>
<td>.81</td>
<td>.03</td>
<td>.81</td>
<td>.13</td>
<td>.95</td>
<td>.95</td>
<td>1.16</td>
</tr>
<tr>
<td>loans to total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: Information is from Uniform Bank Performance Reports, as of 9/30/17.*

[https://www.FFEIC.gov > UBPR.](https://www.FFEIC.gov > UBPR.)