American Bankers Association

# Product Profitability

## Out of the Shadows

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ABA Professional Development

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## Product Profitability – Why It's Important

The underlying premise for this white paper is that bank marketers seek profitable customers. If you believe this to be true, read on.

Clearly, product profitability is not customer or relationship profitability. But, product profitability is a pre-requisite to them. Banks are commonly organized by product groups, for example, commercial lending, commercial real estate, construction loans, asset based lending, or factoring. Individual effort and departmental resources are attributed to specific product types. Think of the credit analyst that specializes in SBA loans, or a branch CSR that opens various deposit accounts.

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Determining the cost to originate and maintain a personal checking account requires surveying the entire organization to derive a reasonable estimate of the resources dedicated by product. Ask a deposit operations person how they spend their typical day, and they will describe tasks and activities by product groups, not by individual

customers or customer segments. So, in order to determine a bank's cost per account, you must determine cost per product type(s).

In this light, product profitability is a powerful measurement tool. Using it can help us improve our most common banking metrics such as, return on assets (ROA), return on equity (ROE), and efficiency ratio. When we have product profitability data, some of the most common questions asked are what is our most profitable product, who are our most profitable customers and how do we get more customers like them?

Many financial institutions manage by whole-institution, or "top of the house," financials. This may be effective for small institutions with limited products and few branches. But as the bank grows larger and more complex, more granular measurement tools are needed for improved decision making. Organizational profitability is the common tool for holding managers accountable for their performance. But product profitability is typically required to determine spread revenues within organizational units, allocating support center costs to those units, and allocating capital based on the risk of products sold by them.

Similarly, when measuring customer profitability to focus marketing efforts on delivering superior service to the most profitable customers, and acquiring more of them, product profitability is the fuel that feeds those models. Yet product profitability remains the Rodney Dangerfield of management reporting. It gets "no respect."

## How is Product Profitability Made

It is not the goal of this white paper to make you an expert in building a product profitability model. But it is important to understand three key components to product profitability so you can ultimately understand organizational, customer, relationship and other component profitability models and use the information to efficiently pursue your bank's strategy.

## Funds Transfer Pricing (FTP)

If you are the quarterback of your football team, does it make sense to hold you accountable for the performance of special teams? If you are a commercial lender, should you be rewarded for a branch network that delivers low-cost deposit funding for you to lend? Yet many financial institutions will use their cost of funds to determine the spread delivered by the Commercial Loan Department when measuring that department's profitability. And what department should benefit by the bank taking interest rate risk, i.e. borrowing short and lending long?

Funds Transfer Pricing, or FTP, is the industry best practice for solving this dilemma. Much like sports statistics isolate the performance of an individual or unit, such as the quarterback or the offense, FTP isolates the performance of organizational units, products, bank officers, and customers.

The concept is simple. Take a market rate, such as a Treasury Note, or more commonly, the Federal Home Loan Bank borrowing rate, and match it against the instrument you are measuring to calculate spread. For example, if your branch manager books a $100,000 one-year CD today at an interest expense of 0.50%, you just committed to $500 of annual interest expense. Where are the revenues?

You could use the bank's yield on earning assets. But then the branch manager benefits from two things: 1) the yeoman's work done by the Commercial Lending Department to earn respectable yields, and 2) the interest rate risk the bank is willing to take. Both have little to do with the branch manager or the CD product's performance.

FTP, on the other hand, removes both of those non-controllables. It takes a market rate for the same duration. For example, the one-year CD is matched against a one-year FHLB borrowing. So the one-year, 0.50% CD receives a credit for funds (CFF) of, say, 0.80%, for a total spread of 0.30%. That generates $300 of annual net spread. We'll discuss the CD's operating cost below.

FTP naysayers point out that the sum total of all FTP spread does not equal the bank's net interest income. This is true. But the difference represents the bank's interest rate risk position. This difference is typically pushed into the Treasury function of the bank, where it belongs. FTP provides laser-like accountability within your bank.

## Cost Assignment

Typically, forty to fifty percent of a bank's non-interest expense is in support centers. Measuring the profit of organizational units, products, and customers without accounting for the army of resources outside of profit centers makes little sense. Ignore this sizeable cost at your peril.

How do you assign this cost to profit centers? There are many methods, and it is not our objective to identify every one. But developing a rational means to determine the work being done in support centers to allocate to profitable endeavors is critical if your bank wants to know the true cost of doing business.

Most support center personnel can tell you how much time they spend doing tasks that are related to products, not organizational units. For example, the operations clerk may

spend two hours of her day working on overdrafts, relating mostly to checking accounts. This clerk could not practically determine how much time she spends on overdrafts for checking accounts from the Market Street branch. You can use statistics to break this down into allocations to profit centers.

As an example, let's assume there are two people in Deposit Operations, a supervisor and clerk. The supervisor makes twice the salary as the clerk. If the supervisor spends 100% of her time doing new deposit account verifications, and the clerk spends 100% of her time doing checking account overdrafts, then Deposit Ops gets allocated as follows: Two-thirds to new deposit accounts (for the supervisors time) based on new accounts per deposit product, and one-third to existing checking accounts.

Prior to these allocations taking place, special accounts get allocated based on the nature of the accounts. For example, it is common for the FDIC insurance expense to be in one center. That line item would be allocated prior to the departmental allocation as described above.

When completed, cost assignment calculates operating cost per account per product type. As most marketers know, this is a critical input to most customer and relationship profitability systems.

## Risk Adjusted Return on Capital (RAROC)

The most common ratios to gauge bank profits are Return on Assets (ROA) and Return on Equity (ROE). Both are relatively easy to calculate when measuring at the top of the house. The "A" and the "E" are right in front of you.

But what if you want to measure to a more granular level than top of the house? The "A" still remains relatively simple. If you are measuring the ROA of the Commercial Loan Department, or the business line of credit product, the portfolio balance is the proxy for the "A". But what if you are focused on ROE?

In comes RAROC (pronounced RAY-ROK). RAROC allows you to allocate capital to products based on the risk profile of those products. For example, suppose your bank had two products: business loans and business checking. Each had $100 million in balances. Your risk spectrum was 1 – 5, with 5 being the riskiest. Capital allocation ranges from 0%-10%. Your risk team assesses that institutional risk is weighted 80% credit, and 20% liquidity.

Now assigning capital is a function of risk assessment and math. If your team determines business loans have a credit risk of 5 (riskiest loans that you make), and a liquidity risk of 2, then the weighted average risk is 4.4.

$$(5 \times 80\%) + (2 \times 20\%) = 4.4$$

This equates to an 8.8% capital allocation (if a "4" risk equates to 8%, and a "5" risk equates to 10%, you solve for the .4 of the difference between 8 and 10). You perform similar analysis for all of your product groups. In this manner, you can allocate the "E" to products, which then can translate into the "E" for organizational units and customers.

As a reminder, it is not the purpose of this paper to make the reader an expert on product profitability or RAROC. But it is critical to understand the genesis of the "E" if bank marketers are tasked with developing products that deliver an ROE greater than the bank's target. How did that product group get the "E"? Now you know.

## Profitability and Strategic Decision Making

As bankers, we are focused on delivering value to customers, employees, community, and shareholders while keeping regulators at bay. No small task. This focus can pressure us to think very short term, such as next year's budget. This is one reason that there is little noticeable difference between banks.

That mentality is changing and bank marketers will play a critical role in determining our individual bank's destiny, and the evolution of our industry. We must decide the bank we want to become, and implement strategies to get there.

The bank you want to become is your vision. This term gets terrible press in banking circles. Yet, strategic effort is meaningless without identifying your destination. Product profitability plays a small part in determining a bank's hoped-for future by identifying the most and least profitable products and services and their related trends. If your strategic vision is to be the best small business bank in Northern New Jersey, yet your SBA products are losing money and trending worse, perhaps you want to rethink the vision and how you price your small business products.

But there are a number of layers beneath your vision where product profitability should play a critical role. For example, your Situation Analysis can identify strengths and weaknesses of your bank based on facts, not anecdotes, by using product profitability.

Using the example above, if this bank pursued its vision then SBA product profitability would clearly be a weakness that must be addressed in the plan.

Combining product profitability with a pro forma of a market's potential is a powerful tool in sizing up geographic markets your bank serves. Knowing how many you have as customers, how many you have left in your market and an estimate of how many you think you can acquire will allow the bank marketer to make meaningful contributions to strategic planning sessions.

Product profitability can also play a role in developing your banks strategic objectives. For example, suppose your strategy team establishes "achieving top quartile net interest margin" as a strategic objective critical to your success. How does that translate throughout the bank? How does marketing turn that into day to day action?

Using product profitability, the marketing manager may note the declining net interest spread in the money market product. This declining spread was the result of a long past money market promotion that was high cost, yet generated high volume. By analyzing

product profitability and digging deeper, the marketing manager discovered that introductory rates were not re-pricing in the system, thereby hurting the product's spread, and therefore the bank's margin. In this example, product profitability can be used to help this bank achieve its strategic objective and identify strategic impediments at base camp rather than top of the house.

Another strategic use for marketers to deploy product profitability is acquiring deposits. When the top of the house makes strategic goals such as increasing business and consumer checking deposits by $100 million next year, a defined level of each product's profitability is used in finance's pro-forma model. As a marketer, you don't want to deliver on that metric. You want to be able to exceed that metric. Knowing what your product profitability is and combining that knowledge with finding those business and consumer segments that can deliver at a higher level of profitability will increase your chances of succeeding in this strategic endeavor. The result: greater ROA, ROE, and efficiency ratio. Without product profitability, you might promote less profitable products to less profitable customer segments. That is not where you want to be as a marketer.

The marketing data analytics around product profitability and segmentation is powerful. When strategic decision makers make the top of the house projections for the bank they are using average profitability of the entire base of a deposit segment like non-interest bearing checking or interest bearing checking. Marketing can add value by acquiring new deposits at a higher level of profitability than the existing deposit base and using the traditional cross-sell and upsell techniques to improve the profitability of the legacy base. However, not all business and consumer accounts are created equal. Relationship profitability analysis uncovers a different set of opportunities.

## Ideas to Improve Your Bank's Performance

Measuring product profitability is important. The measure alone does not impact your bank's performance. Incorporating product profitability into your work as a bank marketer will give you the ability to be a better revenue producer. Relationship profitability, new product design and expense management are a few ideas to consider.

### Relationship Profitability

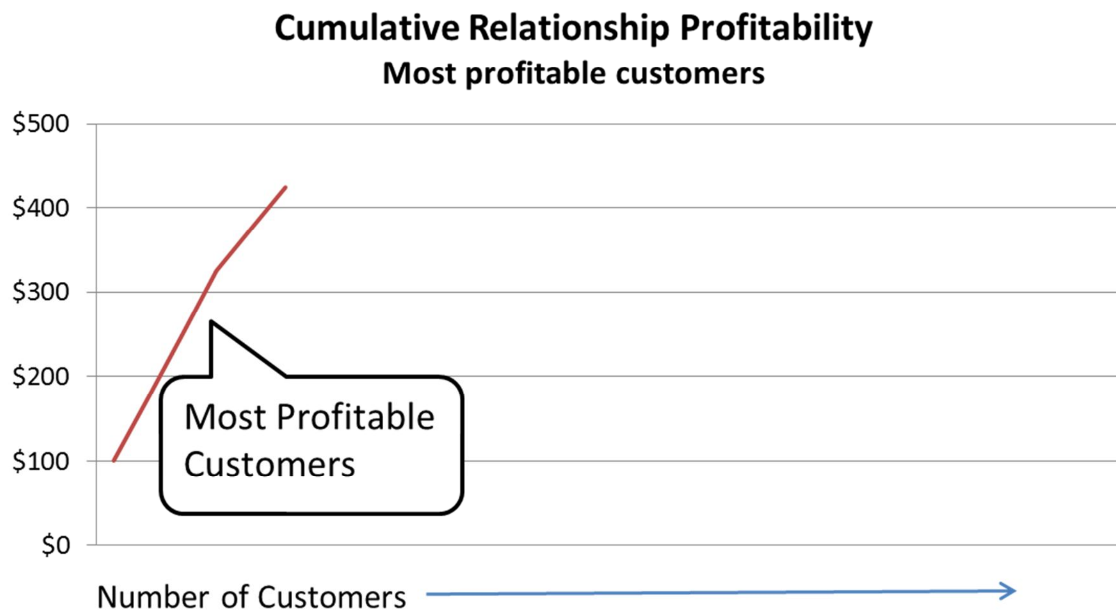
Product profitability is a powerful measurement tool, but we can make it even more powerful. The challenge is to aggregate product profitability data into something more meaningful. On the consumer side, all the products and services need to be aggregated

by household. One such technique is to aggregate the product profitability at the customer or household level. This is commonly referred to as customer profitability.

Business accounts also need to be aggregated. The same process that aggregates households can be used to aggregate businesses; however, that is not enough. Entire business relationships need to be aggregated. Think of the business owner with three dry cleaning businesses or a business person who is a major owner in multiple businesses. They all need to be aggregated into one relationship entity. Additionally, the retail accounts of the principal business owners should also be combined into this relationship. Many do not think to include the retail accounts of the business owners. These accounts are just as much a part of the business relationship as the business operating accounts. Household/relationship profitability is a method to leverage the power of product profitability.

A typical use of relationship profitability is to create a ranking of the most profitable relationships to the least profitable. Many like to segment this data into simple categories like commercial, middle market, small business, micro business, SOHO, or consumer relationship profitability. Once we have this list of the most profitable types of relationships or segments, we then can ask the next question: how do we acquire more of them?

Let's step back and look at the data. If we were to have a hypothetical bank with a business client base of 100,000 businesses, how many new business customers do we need to acquire to increase the overall profitability levels? What about our existing set of business customers? How are they adding value? A simple analysis of relationship profitability can help answer those questions and possibly uncover some opportunities.

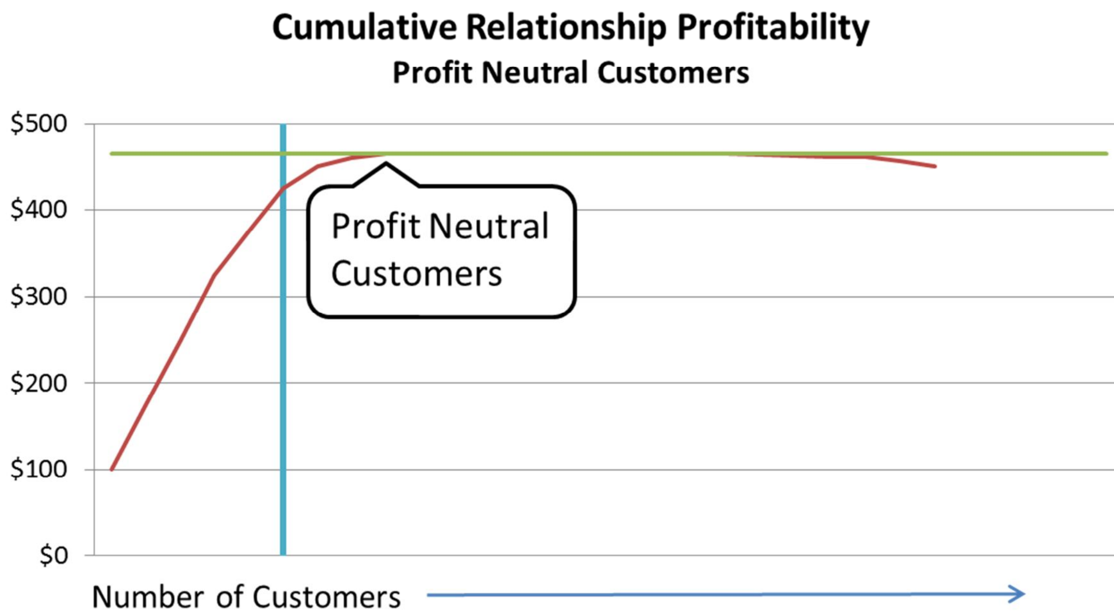



Let's take a look at the “Cumulative Relationship Profitability” data visualization above. Looking at the line chart left to right, we see the cumulative effect of the most profitable customer relationships. This is the segment of customers that must be retained and serves as a blueprint for acquiring similar customers.

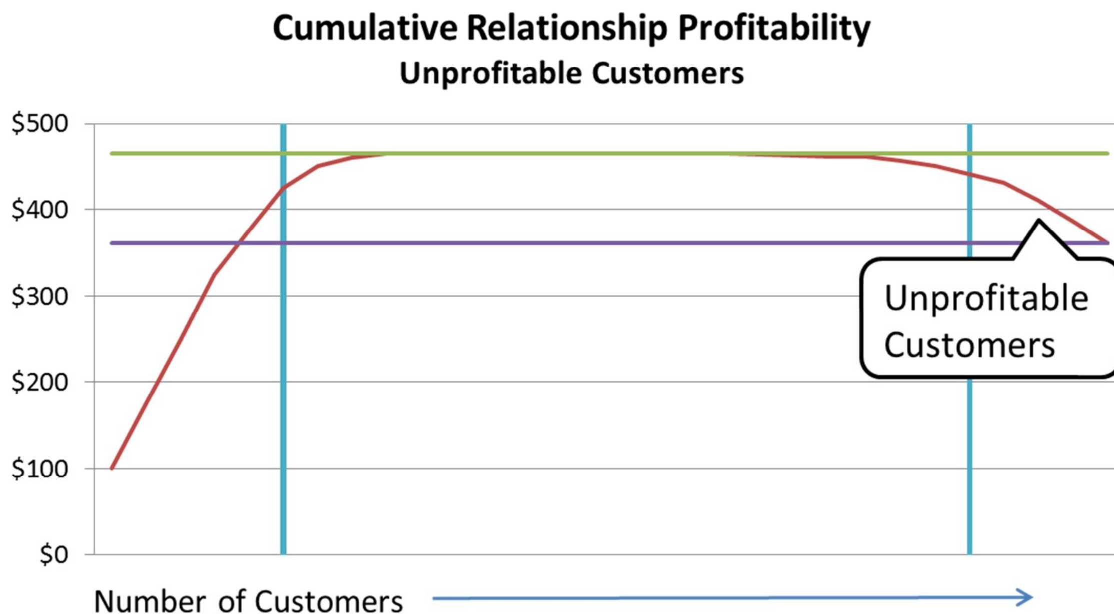
This group of relationships tends to be the group that has the biggest positive impact on a bank’s overall profitability. As you analyze this core group of high profit producers most banks will find some basic behaviors. The consumer group is biased towards very high average balance customers, many having loans with healthy yields. Business and commercial relationships will tend to bear similar results. Some banks may even find relationships in this group that are profitable mainly due to a very high incidence of penalty fees. Should these customers be a strategic focus, or are you happy to recoup the cost of serving them?

A common tactical use of this data is to analyze the segments to see if there is a type of business that appears in this group in abundance. For example, let’s say the data above is business and commercial relationships. Our analysis of business types shows that the largest grouping of companies have a North American Industry Classification System (NAICS pronounced “nakes”) code of 2111 (Oil and Gas Extraction). This finding would be an indication that we may have an opportunity to acquire more of these types of companies that have similar business firmographic data as our existing customers.

Continuing to the right on the chart below, we have profit neutral customers. As a segment they do not add or subtract materially to profitability. They are typically the largest group of customers at a bank. Due to the size of this segment, there is a potential opportunity to improve profitability. As marketers we should develop a strategy to improve this segment's profitability by making tweaks to products, and by smart cross-selling and up-selling. The challenge here is to identify customers receptive to deepening their relationship with your bank, and not waste resources marketing to those that couldn't care less.




Each grouping on the "Cumulative Relationship Profitability" charts tells a unique story. Moving along the chart further to the right we have our last story; unprofitable customers. Do you know the impact of unprofitable relationships? Does front line staff continually waive the fees of unprofitable customers? The next page highlights the effect unprofitable customers have on cumulative relationship profitability.




As you can see in the chart above, the unprofitable customers, called profitability disruptors, lower the cumulative relationship profitability. Are these customers getting fee waivers? Are they getting bonus rates of interest? Depending on the size of this universe, a bank can make a huge impact to the bottom line if they were to cut the average losses by $10 or $20 a year per relationship. Engaging this universe with traditional cross-sell marketing programs could actually increase the loss. So what is a bank marketer to do?

Find the needles in the haystack. The needles in this case are those unprofitable relationships that actually have the deposits and/or loan balances elsewhere. This can be done via building a predictive model with 3rd party data appended to the profitability you already have. This model will help pinpoint the unprofitable relationships that should be either making money or where losses can be significantly reduced.

Each of the three profitability segments mentioned above has many opportunities to improve the financial condition of a bank. They all should be addressed as the potential impact to profitability can be significant.

## New Product Design

Product profitability is also a powerful tool when it comes to new product development or product enhancement. If marketing's support of the strategic plan is to grow checking deposits, we already discussed how product profitability can help with targeted advertising. By using product profitability, marketing can design a new checking account product that is built from the ground up to be highly profitable when populated with its corresponding matching segment. The pro-forma model of the new product can be tested with real data as you already have the profit model in place. Imagine the performance difference of a checking account that appeals to anyone vs. a checking account designed for high net worth individuals. The high net worth individuals would have an account that has high average balances and therefore be in a position to deliver more profitability.

## Expense Management

Marketing spends a lot of time and money to acquire new customers, bring them onboard, and cross-sell mature relationships. The normal expectation is that all products and services will perform by the rules of engagement as defined by account agreements and loan documents. When these rules breakdown, the expected return on marketing's investment is damaged. One of the main culprits is the fee waiver. Fee waivers are the enemy of profitability. When not closely monitored they can have a significant negative impact to the bottom line. Marketers need to protect the investment of their budget. They need to team up with the retail and business sales force to make sure the proper controls are put into place to keep the fee waiver damages to a minimum.

A northeast bank client had aspirations to embark on a growth strategy by taking the lion's share of its new customers from the competition because their markets did not have enough growth to support their plan. As part of their product profitability analysis, they dissected cost per account in all of their retail checking products to identify capacity constraints, if any. This included a look at their long-term trend in costs to originate and maintain the retail checking group of products. They highlighted peak production periods, and the impact on their cost per account, and compared it to their current production. By using cost per account as a data set resulting from the cost assignment function of product profitability, this bank determined that there was enough capacity to increase new checking accounts by an estimated 5% without adding resources. That's a little more scientific than waiting until six o'clock to see if the employee parking lot still has cars.

One favorite method of using product profitability is as a tool to help business line managers increase revenues to their organizational unit. For example, if your branch managers are accountable for their organizational profitability, how do they translate that to everyday action?

Using product profitability, banks can rank products distributed by branches according to their revenue generating prowess. The common formula for such a ranking:

Spread – Provision (if applicable) + Fees

All are stated as a percent of the product balance. But you can take it one step further, by multiplying the result times the average balance per account. By doing this, it becomes clear where branch business development efforts should be spent. And it's not with the person that begs you for a 25 basis point concession on his $250,000 CD!

Product profitability is a key component in a rational pricing model. For example, the key input in determining price for a specific loan is what is the bank's operating expense per loan? This question was recently posed by a Pacific Coast Bankers School student from a community bank that did not own an expensive loan pricing model.

Loan pricing need not be complex. If solving for an ROE, assuming the bank assigns "E" as described above, then there are relatively few additional inputs to solve for the yield the bank must receive to achieve its hurdle ROE.

One input is clearly the provision. Another is a transfer price rate. Although this is not an extract from your profitability system, the logic in determining the transfer price is. The last input is operating cost per account. This is clearly an output of product profitability and a key variable in determining the optimal price to charge customers.

## Summary

Profitability needs to be pervasive in your bank. It impacts every aspect of your business, from the middle market lender to the teller working in a branch, back office operations teams, product managers and, of course, every member of the marketing team.

Whereas organizational profitability is a management tool, giving leadership the mechanism to measure line of business performance, product profitability is a marketing tool. But not just for the Marketing Department. It's for all employees. It's for support centers in helping drive down cost per account and realizing economies of scale, it's for marketing and product specialists to understand profit drivers and focus growth on the most profitable products and customers. And it's for front line personnel to plan their day around customers that demand products that drive organizational profits.

Ignore product profitability at your peril.

## About the Authors

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