Executive Suite™ Banking Simulation

Version 22.1

Performance Solutions International

www.goto-psi.com

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O V E R V I E W

The *Executive Suite™* simulation has been developed to improve your understanding of the banking and financial services business.

In this simulation, you and your team will assume the role of senior executives for a fictional bank. You and your team will compete against other teams in the simulation to:

- Grow your business by attracting new customers through marketing and competitive pricing
- Retain customers by providing appropriate levels of customer service
- Balance growth with appropriate funding
- Manage credit and market risk
- Invest and support your operations and technology infrastructure
- Attract and retain employees
- Control operating costs

Upon completing this simulation, you will be able to:

- Discuss key strategic decisions made by executives
- Identify the various market-related decisions made by financial institutions, including:
  - Customer segments to target
  - Product and service configuration
  - Appropriate delivery channels to employ
- Explain how financial institutions manage:
  - Profitability
  - Market risk
  - Credit risk
  - Interest-rate risk
  - Liquidity risk
- Discuss operational issues financial institutions need to manage, including:
  - Managing the technology and operational infrastructure
  - Budgeting
  - Aligning operational support with business strategy
  - Recruiting, training and compensating employees
  - Controlling operational risks and costs
- Explain the basics of treasury and asset/liability management
- Identify the interrelationships between the different business units within a financial institution

- Discuss the impact of business decisions on financial performance, and how institutions are measured by management, the investment community and customers, including:
  - Profitability measures
  - Credit quality measures
  - Market measures
  - Regulatory measures
  - Customer satisfaction measures
  - Competitive measures

Ultimately, you will gain a richer understanding of financial services and the difficult task that executives face in running a diverse institution. This experience will allow you to:

- Apply that understanding to your real-life responsibilities
- Understand the importance of learning as much as you can about an institution's strategy and competition
- Contribute more to the success of the institution through a greater appreciation of the "big picture"
- Improve your ability to make decisions that align with the institution's strategic goals and improve the bottom-line

SimStart Analysis Exercise

To begin your adventure, it will be helpful to gain a better understanding of the institution you will inherit at SimStart. Please:

- Read the Background Information on the bank you are inheriting
- Answer the questions that follow

Background Information

You are now a senior executive at a large financial institution.

You offer a full line of retail banking and corporate banking services. Your primary businesses include traditional deposit and lending services (including consumer, mortgage and commercial lending) as well as investment management, investment banking and treasury management services.

To better understand the institution you are inheriting and the challenges you face, review the performance measures below, as well as the financial statements on the next two pages. Use this information to answer the questions that follow.

Key Performance Indicator	Previous Year Year (-1)	SimStart Year 0
Stock Price	$60.00	$60.00
Earnings per Share (EPS)	$3.63	$3.90
Dividends per Share (DPS)	$1.27	$1.36
Total Assets	$407 billion	$429 billion
Net Income	$4.2 billion	$4.5 billion
Return on Equity (ROE)	10.0%	11.1%
Return on Assets (ROA)	1.05%	1.07%
Net Interest Margin	3.36%	3.39%
Efficiency Ratio	62.0%	60.8%
Charge-Off Rate	0.75%	0.78%
NPL Ratio (NPLs/Loans)	0.84%	0.85%
Tier 1 Capital Ratio	12.7%	12.9%

Income Statement	**Sim Start**		**Report: 2**
($-millions)			**Year: 0**
	Year (-1)	**Year 0**	**%-Change**
Interest Income			
Interest and fees on loans	13,149	14,786	12.4%
Interest and dividends on securities	3,822	4,152	8.6%
Interest on Fed Funds sold	0	0	n/a
Total interest income	16,971	18,938	11.6%
Interest Expense			
Interest on deposits	3,145	4,062	29.2%
Interest on Fed Funds purchased	10	14	40.0%
Interest on debt	993	1,034	4.1%
Total interest expense	4,148	5,110	23.2%
Net Interest Income	12,823	13,828	7.8%
Provision for credit losses	2,397	2,675	11.6%
Net Interest Income After Provision	10,427	11,153	7.0%
Noninterest Income			
Service fees	1,283	1,354	5.6%
Investment management fees	2,858	2,985	4.5%
Investment banking fees	1,211	1,269	4.8%
Treasury management fees	1,701	1,798	5.7%
Card fees	1,697	1,874	10.5%
Capital gains (losses)	0	(148)	n/a
Total noninterest income	8,749	9,132	4.4%
Noninterest expense			
Compensation and benefits	9,387	9,882	5.3%
Net occupancy expense	1,339	1,392	4.0%
Equipment expense	1,845	1,914	3.7%
Marketing costs	508	548	7.9%
Commissions paid	286	299	4.5%
Branch restructuring costs	13	20	48.0%
Total noninterest expense	13,378	14,055	5.1%
Net income before taxes	5,798	6,230	7.4%
Taxes	1,624	1,744	7.5%
Net income	**4,174**	**4,486**	7.4%
Earnings per share	$ 3.63	$ 3.90	7.4%
Dividends per share	$ 1.27	$ 1.36	7.4%

Balance Sheet	Sim Start		Report: 3
($-millions)			Year: 0
	Year (-1)	**Year 0**	**%-Change**
Assets			
Cash and due from banks	9,046	9,302	3.6%
Fed Funds sold	0	0	n/a
Securities available for sale	102,700	107,100	4.3%
Loans			
Commercial loans	146,684	153,276	4.5%
Residential mortgages	43,158	47,730	10.6%
Consumer loans	103,997	110,900	6.6%
Allowance for loan losses	(4,399)	(4,749)	8.0%
Net loans	289,440	307,157	6.1%
Premises and equipment	5,528	5,614	1.6%
Total assets	**406,714**	**429,173**	5.5%
Liabilities			
Deposits			
Retail deposits	207,116	219,654	6.1%
Commercial deposits	125,130	132,314	5.7%
Total deposits	332,246	351,968	5.9%
Fed Funds purchased	55	1,036	1783.6%
Commercial paper	167	3,107	1760.5%
Long-term debt	28,277	28,277	0.0%
Other liabilities	4,810	4,810	0.0%
Total Liabilities	365,555	389,198	6.5%
Shareholders Equity			
Common stock	3,125	3,125	0.0%
Additional paid-in capital	9,476	9,476	0.0%
Retained earnings	25,644	28,575	11.7%
Unrealized gains (losses) on securities	2,914	(1,201)	(141.2%)
Total shareholders equity	41,159	39,975	(2.7%)
Total liabilities and shareholders equity	**406,714**	**429,173**	5.5%
Common shares outstanding (millions of shares)	1,150	1,150	0.0%

Part 1

Review the Balance Sheet and answer the following questions.

1. **What is the asset size of this bank at SimStart?** ______________________

2. **How much did total assets grow in Year 0 (in %)?** ______________________

3. **What percentage of assets are net loans in Year 0?** ______________________

4. **What was the net loan growth for Year 0 (in %)?** ______________________

5. **What percentage of loans are commercial loans? Residential mortgages? Consumer loans?**

   ____

   ____

6. **What percentage of assets are securities available for sale in Year 0?** ______________________

7. **How much did total deposits grow (in %) during Year 0?** ______________________

8. **What percentage of total liabilities are deposits?** ______________________

9. **What line items changed the most significantly in Year 0?**

   ____

   ____

10. **After reviewing the balance sheet, how would you describe this institution?**

    ____

    ____

Part 2

Review the Income Statement and answer the following questions.

1. **How much did Net Income change during Year 0 (in %)?___________________________________**

2. **Examine each component of Net Interest Income:**

   How much did Total Interest Income increase in Year 0 (in %)? ____________________________

   How much did Total Interest Expense increase in Year 0 (in %)? ___________________________

   What was the change in Net Interest Income from Year (-1) to Year 0 (in %)? _________________

   How much did the Net Interest Margin change from Year (-1) to Year 0 (in basis points)?____

   How much did the Provision for Credit Losses increase in Year 0 (in %)? ____________________

   What was the change in Net Interest Income After Provision from Year (-1) to Year 0 (in %)?

   ____

   What percentage of total revenue is contributed by Net Interest Income? Total revenue is the sum of Net Interest Income (before the Provision) and Noninterest Income.

   ____

5. **How much did Noninterest Income change in Year 0 (in %)?_______________________________**

   Which line items grew the most? ____

   ____

   Which line items grew the least? ____

   ____

   What percentage of total revenue is contributed by noninterest Income? Total revenue is the sum of Net Interest Income (before the Provision) and Noninterest Income.

   ____

6. **How much did Noninterest Expense change in Year 0 (in %)?_____________________________**

   Which line items grew the most? ____

   ____

   Which line items grew the least? ____

   ____

   How much did the Efficiency Ratio change in Year 0 (in basis points)? _______________________

Part 3

Examine the key performance indicators and your findings in this analysis to summarize the overall performance of this institution in Year 0. Identify the positives and negatives and share your overall thoughts.

Getting Started

We suggest organizing your team into three functional roles:

- EVP of Retail Banking, who is responsible for managing the bank's:
  - Retail deposits
  - Investment management services
  - Consumer and mortgage lending
  - Retail operations
  - Retail personnel
- EVP of Corporate Banking, who is responsible for managing the bank's:
  - Commercial lending services
  - Investment banking services
  - Treasury management services
  - Corporate operations
  - Corporate personnel
- Asset/Liability Management, who is responsible for managing the bank's:
  - Investment portfolio
  - Funding mix
  - Dividend payout strategy

Of course, a successful team will work closely together to ensure its strategy is implemented consistently across the bank.

To support your decision-making, we will provide you with:

- These detailed instructions to help you understand the impacts of your decisions
- Updated Management Reports reflecting your results at the end of each round of activity

There are three rounds of activity in the simulation:

- Each team starts in the same position, referred to as SimStart
- You will make Round 1 decisions, and these decisions will be combined with the decisions from the other teams you are competing against to generate Year 1 results
- You will then review your Year 1 results and make Round 2 decisions, which will generate Year 2 results
- Lastly, you will review your Year 2 results and make Round 3 decisions, which will generate the final year (Year 3) of results

The current position of the bank you are inheriting is known as SimStart, and the SimStart reports showing this position are shown in the SimStart Reports section of these instructions. The decisions the previous executive team made generated these current results (called SimStart results), and these decisions are shown in the Decision Entry section of these instructions.

Going forward, you may adjust or continue with these decisions to reflect your bank's particular strategy. A detailed explanation of each decision is provided in the individual decision-making sections of these instructions (Retail Banking, Corporate Banking and Asset/Liability Management).

Entering Decisions

Your team will be given a website address and team password to use to enter your decisions.

There are different pages for each decision area:

- Retail Banking
  - Retail Deposits
  - Investment Management
  - Consumer Lending
  - Mortgage Lending
  - Operations
  - Human Resources
- Corporate Banking
  - Commercial Lending
  - Investment Banking
  - Treasury Services
  - Operations
  - Human Resources
- Asset Liability Management

After you have completed all of your decisions for the current round, choose Submit Decisions on the Dashboard page and let the Simulation Administrator know you have completed your decisions.

On the decision pages, the decision fields are prepopulated with your decisions from the previous round (in Round 1 these prepopulated values are the SimStart decisions). To change an existing value, simply enter a new value.

Next to many decision fields you will see the information icon. Clicking on this icon will take you to the section in these Participant Instructions that provides information related to that decision.

On the top of each page you can click on Related Reports to see a list of reports related to the current page. You can download these reports from the Dashboard page.

Decision Making Cause-and-Effect

The calculation of each round's results begins when the decisions from all teams are entered into the *Executive Suite* simulation model.

The simulation then calculates the number of new customers generated by each team, based on factors such as:

- Marketing expenditures (used to attract new customers)
- Pricing competitiveness between simulation teams
- Employee training and staffing levels
- Investments in technology (to process your transactions and in some cases provide competitive advantage)

For loans, the simulation then uses your team's credit criteria to determine the percentage of applications approved, as well as the quality of your loan portfolio. The quality of your loan portfolio, in combination with your bank's collections strategy, determines your loan charge-offs for the year.

The simulation then evaluates your operating budgets to determine your customer service levels. These customer service levels, along with the competitiveness of your pricing, the training your staff receives and your investments in new technology drive your customer retention rates.

Your bank's investment decisions, along with changes in the market, then determine the performance of your bank's investment portfolio.

Lastly, your team's funding decisions are used to determine your bank's sources of funding. Your bank's performance is then consolidated to determine overall profitability.

Reporting Results

The results for each round of decision-making are provided on updated reports that you receive after each round is completed. Your team will receive the following reports:

- Team Reports
  - Scoring and Key Indicators (Report 1)
  - Income Statement (Report 2)
  - Balance Sheet (Report 3)
  - Economic Data (Report 4)
  - Allowance for Loan Losses (Report 18)
  - Average Balance Sheet and Net Interest Analysis (Report19)
- Retail Banking Reports
  - Deposits (Report 5)
  - Investment Management (Report 6)
  - Consumer Lending (Report 7)
  - Mortgage Lending (Report 8)
  - Operations (Report 9)
  - Personnel (Report 10)
  - Retail Banking Decisions (Reports 20-23)
  - Competitive Information (Reports 29-32)
- Corporate Banking Reports
  - Commercial Lending (Report 11)
  - Investment Banking (Report 12)
  - Treasury Services (Report 13)
  - Operations (Report 14)
  - Personnel (Report 15)
  - Corporate Banking Decisions (Reports 24-27)
  - Competitive Information (Reports 33-36)
- Asset/Liability Management
  - Investment Portfolio (Report 16)
  - Asset/Liability Management (Report 17)
  - Asset/Liability Management Decisions (Report 28)

Team Scoring

In this simulation, scoring is based on stock price. Since the number of shares issued by each team is the same (and will not change during the simulation), the team with the highest share price is the team with the highest market capitalization. The team with the highest share price at the end of Year 3 is the winner.

Your stock price at the end of each round is determined by taking your stock price from the previous round and adjusting that stock price based on your team's performance across seven financial ratios:

- Return on equity (ROE)
- Net interest margin
- Core fee income growth
- Core revenue growth
- Efficiency ratio
- Nonperforming loan (NPL) ratio
- Tier 1 capital ratio

These ratios are displayed on the Scoring and Key Indicators reports at the end of each round and are calculated as follows:

- Return on equity (ROE)
  - Net Income divided by Average Total Shareholders Equity
    - Average Total Shareholders Equity is calculated by taking the average of your Total Shareholders Equity at the beginning of the round and your Total Shareholders Equity at the end of the round
- Net Interest Margin
  - Net Interest Income divided by Average Earning Assets
    - Earning assets are assets that generate interest income for your institution
    - In this simulation, earning assets include loans, securities available for sale and Fed Funds sold
    - This calculation uses Net Interest Income *before* the impact of the Provision for Credit Losses
- Core Fee Income Growth
  - Current year's Core Noninterest Income divided by previous year's Core Noninterest Income
    - Core Noninterest Income is your Total Noninterest Income minus your Capital Gains (Losses) for the year

- Core Revenue Growth
  - Current year's Core Revenue divided by previous year's Core Revenue
    - Core Revenue is the sum of your Net Interest Income and Noninterest Income minus your Capital Gains (Losses) for the year
- Efficiency Ratio
  - Total Noninterest Expense divided by Total Revenue
    - Total Revenue is the sum of Net Interest Income and Noninterest Income
- NPL Ratio
  - Total Nonperforming Loans divided by Total Gross Loans (at year-end)
- Tier 1 Capital Ratio
  - Tier 1 Capital divided by Risk-Adjusted Assets
  - In this simulation, Tier 1 Capital includes:
    - Common Stock
    - Additional Paid-In Capital
    - Retained Earnings
  - In this simulation, the risk-adjusted weighting for assets is as follows:
    - Cash and Treasuries: 0%
    - Fed Funds Sold and Mortgage-Backed Securities: 20%
    - Mortgage Loans: 50%
    - All other assets: 100%

These ratios are compared to simulation benchmarks to determine their impact on your stock price:

Scoring Metric	Scoring Weight	SimStart Value	Target
ROE	40%	11.1%	13%
Net Interest Margin	10%	3.39%	3.25%
Core Fee Income Growth	10%	6.1%	5%
Core Revenue Growth	10%	7.1%	6%
Efficiency Ratio	10%	60.8%	55%
NPL Ratio	10%	0.85%	1.00%
Tier 1 Capital Ratio	10%	12.9%	12%

- If your team's **ROE** is more than 13%, your stock price will rise (or if it's less than 13%, your stock price will drop)
- If your team's **Net Interest Margin** is more than 3.25%, your stock price will rise (or if it's less than 3.25%, your stock price will drop)
- If your team's **Core Fee Income Growth** is more than 5%, your stock price will rise (or if it's less than 5%, your stock price will drop)
- If your team's **Core Revenue Growth** is more than 6%, your stock price will rise (or if it's less than 6%, your stock price will drop)
- If your team's **Efficiency Ratio** is less than 55%, your stock price will rise (or if it's more than 55%, your stock price will drop)

- If your team's **NPL Ratio** is less than 1.00%, your stock price will rise (or if it's more than 1.00%, your stock price will drop)
- If your team's **Tier 1 Capital Ratio** is more than 12%, your stock price will rise (or if it's less than 12%, your stock price will drop)

The impact of each of these ratios is weighted:

- Your ROE has a 40% weighting on your stock price
  - For example, if your ROE is 15.6% (20% above the 13% benchmark), it will increase your stock price by 8% (40% of 20%)
- All other ratios have a 10% weighting on your stock price
  - For example, if your NPL Ratio is 1.20% (20% above the 1.00% benchmark), it will decrease your stock price by 2% (10% of 20%)

Lastly, there is an additional penalty. If your Tier 1 Capital Ratio falls below the 8.5% regulatory minimum, your stock price will be reduced by an additional 10%.

Strategy Development

The key to success in this simulation is to develop a solid strategy, and then implement that strategy consistently through the decisions available to you.

The first step in setting your strategy is to define your bank's "culture" or "guiding principles". To do this, we suggest answering the following questions:

1. **How will you create competitive differentiation in the market? Do you plan to compete on:**

   Price (i.e., offer prices that are lower than your competitors)? ______________________________

   Service (i.e., offer customer service that is better than your competitors)? ____________________

   Technology (i.e., leveraging technology to create competitive advantage)? ___________________

If you choose to compete on price, be sure to aggressively control costs. If not, your profitability will shrink as you earn less revenue without reducing expense.

If you choose to compete on service, be sure to invest in staffing, training, operational support and new information technology to create true differentiation. You will also need to ensure your pricing reflects the value added by your higher level of service. If not, your profitability will shrink as you realize higher expenses without earning higher revenue to offset this expense.

If you choose to compete on technology, be sure to invest in new information technology to improve your ability to meet customer expectations, analyze risk, introduce new services and lower operating costs. You will also need to ensure your pricing and service levels remain near market averages so your IT investment dollars are not wasted.

Keep in mind, you can vary your strategy by business unit. For example, you can choose to compete on price in Retail Banking while choosing to compete on service in Corporate Banking.

2. What business units/customer markets will you focus on? Will you increase/decrease/maintain your focus on:

Retail Banking? ____

Corporate Banking? ____

3. Will you expand your bank's focus on financial services beyond traditional banking? Will you increase/decrease/maintain your focus on:

Traditional, interest-based banking services (i.e., retail/commercial lending and deposit services)?

____

Other fee-based financial services (such as investment management, investment banking and treasury services)?

____

4. What is your bank's general appetite for risk? Are you willing to accept more risk to generate higher returns? More specifically:

Will you loosen/strengthen/maintain your credit criteria on new loans?

____

Will you emphasize fixed-rate, term loans to benefit from drops in the interest-rate environment?

____

Will you emphasize variable-rate loans to limit your exposure to rising interest rates?

____

5. **What is your view of operations and technology? Will you look to reduce/control operations/technology expenses to control costs, or do you view operations/technology as an opportunity to create competitive differentiation?**

____

____

____

With these questions answered, consider setting some specific, financial objectives, such as:

Financial Goals	SimStart	Round 1	Round 2	Round 3
Stock Price ($)	$60.00			
Return on Equity (ROE)	11.05%			
Net Income Growth (%)	7.4%			
Core Fee Income Growth (%)	6.1%			
Core Revenue Growth (%)	7.1%			
Net Interest Margin	3.39%			
Efficiency Ratio	60.8%			
Asset Growth (%)	5.5%			
Loan Growth (%)	6.1%			
NPL Ratio	0.85%			
What are your goals for:				
Number of Investment Management clients?	612,824			
Assets Under Management ($-billions)?	298.5			
Investment Banking Fees ($-millions)?	1,269			
Treasury Management Fees ($-millions)?	1,798			
Deposit Growth (%)	5.9%			
Funds Management (%)	0.2%			
Tier 1 Capital Ratio	12.9%			

With these targets identified, you are ready to make your individual management decisions. You should revisit your strategy and these targets in every round.

Everyone wants to win, and spirited competition is what makes this business simulation fun. But don't lose sight of the learning opportunity for you here. It is the process of playing the game that is important. You'll get the most out of this experience by:

- Evaluating the information presented
- Understanding how different bank objectives and strategies translate into different decision patterns
- Observing the implications and outcomes associated with these different approaches
- Applying your observations to the real-world banking problems you encounter every day

As you work through the simulation, please don't hesitate to ask the Simulation Administrator questions. It's the role of the Administrator to help you understand how the simulation works and how the simulation relates to the "real world".

Good luck!

RETAIL BANKING

In the *Executive Suite* simulation, the Retail Banking group is responsible for managing the bank's relationships with individual customers. To meet the financial needs of these customers, your bank offers:

- Deposit products
- Investment management services
- Consumer loans
- Mortgage loans

You will manage these products across three customer segments:

- Segment #1: Underbanked customers
  - These are customers/prospects with family incomes below $50,000 a year
- Segment #2: Mass Market customers
  - These are customers/prospects with family incomes between $50,000 and $150,000 year
- Segment #3: Mass Affluent customers
  - These are customers/prospects with family incomes above $150,000 a year

In the simulation, you are required to serve Underbanked customers. After each round, your bank will receive a Community Reinvestment Act (CRA) rating based on the percentage of your Retail Banking customers considered Underbanked. The CRA ratings are:

- Outstanding (more than 25% of your customers are Underbanked)
- Satisfactory (15% - 25% of your customers are Underbanked)
- Warning (10% - 15% of your customers are Underbanked)
- Noncompliance (less than 10% of your customers are Underbanked)

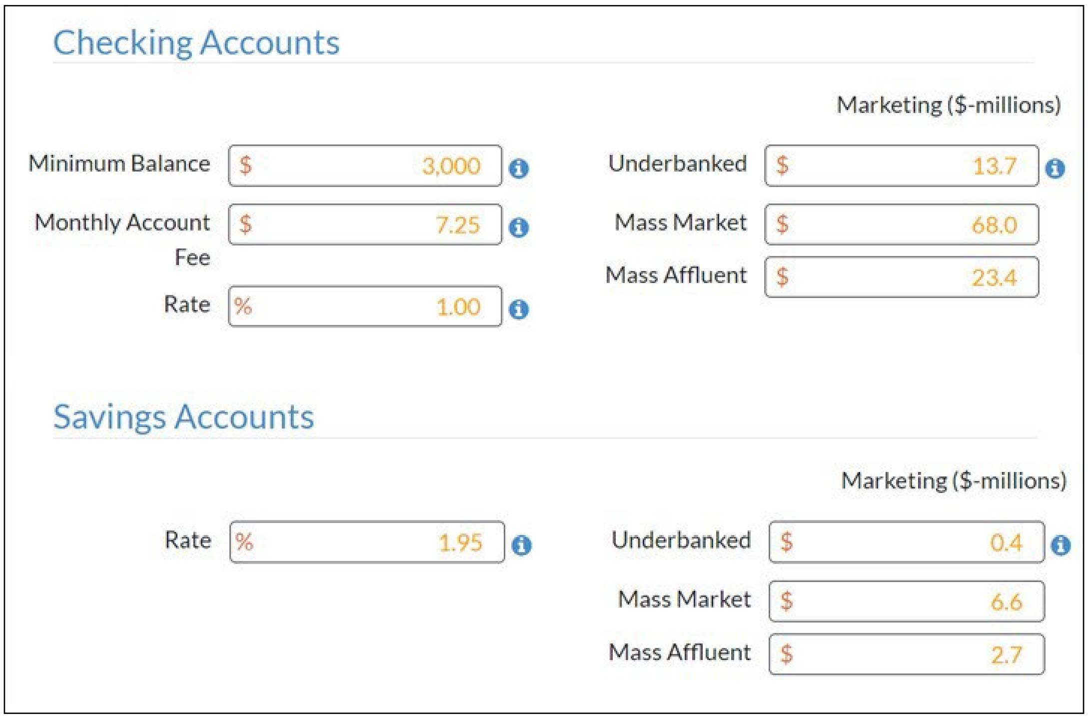
Your CRA rating is shown on the Scorings & Key Indicators Report. ***If your CRA rating is Noncompliance, your bank will be fined $50 million.***

In addition to managing your Retail Banking products, you will also make Operations and Personnel decisions to support your Retail Banking business.

This section will help you understand the Retail Banking decisions you will be asked to make and the impact of these decisions on your bank's performance. This section is organized into five parts:

- Deposit products
- Investment management services
- Retail loans
- Operations
- Human resources

Deposit Products



In the *Executive Suite* simulation, you offer two deposit products:

- Checking accounts
- Savings accounts

For your customers, checking accounts serve a dual purpose. They provide a safe place to deposit their funds, and they also provide the customer with easy access to these funds. Customers can make payments from their checking accounts by using debit cards at the point-of-sale, making payments online or writing checks. They can also withdraw funds from their checking account through an ATM or by making a withdrawal in one of your branches. Customers typically deposit funds in their checking account to meet short-term needs.

Savings accounts provide your customers with a place to deposit their funds for a longer period of time. Customers receive interest on these funds. While savings accounts typically offer lower returns than those offered by other investments (e.g., stocks, mutual funds etc.), savings accounts do offer your customers guaranteed returns and the safety of FDIC insurance.

For your bank, deposits provide a source of relatively inexpensive funding. While you will pay interest on savings account deposits and some checking account deposits, the interest rate you pay will be lower than the interest rate you earn by lending these funds to other customers (hopefully!). This difference between the interest earned on loans and the interest paid for deposits (i.e., your net interest margin or "spread") generates net interest income for your bank.

Your deposit function also generates fee income by charging checking account customers a monthly fee if they fall below the minimum balance. Of course, you may choose to waive this fee in an effort to attract more checking account deposits.

In addition, you will also cross-sell additional retail banking products (e.g., savings accounts, investment management services, credit cards) to your checking account customers. The response rates associated with marketing these additional products to existing checking account customers is higher than the response rates associated with marketing these additional products to non-bank customers. This means the more checking accounts customers you have, the faster you can grow your other retail banking products and services (because cross-selling to existing customers is more effective than selling to non-bank customers).

In the end, your success in this area depends upon your ability to:

- Attract deposits to fund your lending activities
- Offer interest rates and service fees on your deposit products that allow you to attract a sufficient number of deposits while minimizing your interest expense and maximizing fee income
- Control the costs associated with your deposit function

Let’s take a closer look at the specific decisions associated with your deposits:

- Marketing expenditures
- Deposits pricing

Marketing Expenditures

Your marketing budget encompasses the money you spend on marketing to new and existing customers, including digital advertising, print/television/radio advertising and direct mail. Marketing is critical to increasing your business. The amount spent on marketing has a direct effect on the number of new accounts booked.

Marketing Budget	Prospects Reached	New Accounts	Marketing Costs
↗	↗	↗	↗
As you increase your Marketing budget…	…you will reach more prospects…	…leading to more new Accounts	…but also increasing your Marketing Costs

For checking accounts, you will only market to new prospects (i.e., people currently not bank customers). For savings accounts, you will market to existing checking account customers as well as new prospects.

Your marketing budget directly determines how may prospects you will reach. The amount of prospects generated by marketing varies by product and customer segment (as shown on the chart on the right).

See Sample Calculation R-1 for examples.

Cost of Reaching a Prospect (New Customers)	Underbanked	Mass Market	Mass Affluent
Checking Accounts	$0.25	$0.40	$0.50
Savings Accounts	$0.25	$0.40	$0.50

Cost of Reaching a Prospect (Cross-Selling)	Underbanked	Mass Market	Mass Affluent
Savings Accounts	$0.10	$0.10	$0.10

However, not all prospects will respond to your marketing. The percentage of prospects who respond to your marketing by opening a new deposit account is referred to as the ***response rate***. The expected response rates for each product and customer segment are shown on the chart on the right. Keep in mind the response rate expected for existing customers is higher than the response rate expected from new prospects.

Expected Response Rates (New Customers)	Underbanked	Mass Market	Mass Affluent
Checking Accounts	1.00%	0.90%	0.85%
Savings Accounts	1.50%	1.20%	1.00%

Expected Response Rates (Cross-Selling)	Underbanked	Mass Market	Mass Affluent
Savings Accounts	2.25%	1.50%	1.50%

See Sample Calculation R-2 for an example.

***NOTE**: Your actual response rates may vary from your expected response rates. The competitiveness of your pricing and your investment in new technology both impact your response rates.

***NOTE**: Market saturation can also impact your response rates. In other words, if all teams aggressively go after a specific customer segment for a specific product, the response rate for that segment will begin to drop. For deposit products, market saturation is reached when the total marketing dollars spent for a specific customer segment is double the total marketing dollars spent at SimStart.

Deposit Pricing

In the simulation, you will set a Minimum Balance for your checking accounts. Accounts falling below this balance will pay the Monthly Account Fee, which generates fee income for your bank. You also do not pay interest on accounts that fall below the Minimum Balance.

As you raise your Minimum Balance, more accounts will fall below this minimum. This will create more fee income and lower your interest expense. At the same time, as you raise this minimum balance you become less attractive to customers and prospects, leading to:

Minimum Balance	Fee Income	Retention Interest Expense	Retention Rate	Response Rate
↗	↗	↗	↘	↘
As you increase your Minimum Balance…	…your fee income will increase…	…as will your interest expense….	…but your retention rate will fall….	…as will your response rate from new customers

- Lower retention rates on existing customers
- Lower response rates from prospects

The opposite is also true. As you lower your Minimum Balance, more accounts will meet the minimum balance. This will lower your fee income and increase your interest expense. At the same time, as you lower this minimum balance, you become more attractive to customers and prospects, leading to:

- Higher retention rates on existing customers
- Higher response rates from prospects

As you raise your Monthly Account Fee, you will earn more fee income from each account below the minimum balance. At the same time, as you raise this fee, you become less attractive to customers and prospects, leading to:

Monthly Account Fee	Fee Income	Retention Rate	Response Rate
↗	↗	↘	↘
As you increase your Monthly Account Fee	…your fee income will increase…	…but your retention rate will fall….	…as will your response rate from new customers

- Lower retention rates on existing customers
- Lower response rates from prospects

The opposite is true here as well. As you lower your Monthly Account Fee, you will earn less fee income from each account below the minimum balance. However, you will become more attractive to customers and prospects, leading to:

- Higher retention rates on existing customers
- Higher response rates from prospects

In the simulation, "high" and "low" fees are relative to your competition. In other words, if you charge your customers $20 a month for their checking accounts, and your competition charges $30 a month, your pricing is low and you will get higher than expected retention and response rates. However, if you charge your customers $20 a month for their checking accounts, and your competition offers free monthly checking, your pricing is high and you will get lower than expected retention and response rates.

More specifically, in attracting new checking accounts:

- If your Monthly Fee is within +/- 20% of the market average, there is no impact on your response rates
- If your Monthly Fee is outside this +/- 20% range, your response rates will be adjusted by 50% of the difference between your fee and the market average

See [Sample Calculation R-3](#) for an example.

The impact on retention rates is similar, but your existing customers are less sensitive than new customers:

- If your Monthly Fee is within +/- 30% of the market average, there is no impact on your retention rates
- If your Monthly Fee is outside this +/- 30% range, your retention rates will be adjusted by 20% of the difference between your fees and the market average

See [Sample Calculation R-4](#) for an example.

Percentage Rate	Interest Expense	Retention Rate	Response Rate
↘	↘	↘	↘
As you lower your Percentage Rate…	...your interest expense will drop…	…but your retention rate will fall….	…as will your response rate from new customers

The Percentage Rate is the interest rate you offer to checking account or savings account customers.

As you lower this interest rate, you will lower the interest you need to pay to your deposit customers. At the same time, if you offer lower rates on deposits, you become less attractive to customers and prospects, leading to:

- Lower retention rates on existing deposit customers
- Lower response rates from deposit prospects

Alternatively, as you raise interest rates, you will increase the interest you need to pay to your deposit customers, increasing your interest expense. However, you do become more attractive to customers and prospects, leading to:

- Higher retention rates on existing deposit customers
- Higher response rates from deposit prospects

Again, in this simulation, "high" and "low" rates are relative to your competition. In other words, if you offer your customers a rate of 2.00% on savings accounts, and your competition offers 2.50%, your pricing is low and you will get lower than expected retention and response rates. However, if you offer your customers 2.00% and your competition offers 1.50%, your pricing is high and you will get higher than expected retention and response rates.

More specifically:

- If your Percentage Rate is within +/- 10% of the market average, there is no impact on your response rates

- If your Percentage Rate is outside this +/- 10% range, your response rates will be adjusted by 50% of the difference between your rate and the market average

See Sample Calculation R-5 for an example.

Attracting and retaining depositors is a very challenging task for a bank. It directly impacts a bank's cost of funds and profitability. It also directly impacts its ability to use these funds to create earning assets in the form of loans and securities.

Investment Management

In the simulation, you offer an investment management service. This service provides your customers with the ability to meet their investment needs. Customers can invest in stocks, bonds and other financial instruments through their Investment Management Accounts.

For your bank your investment management service generates fee income through investment management fees.

In the end, your success in this area depends upon your ability to:

- Attract and retain Financial Advisors to serve your investment management customers
- Offer an investment management fee that allows you to attract new customers and retain existing customers while maximizing fee income
- Control the costs associated with your investment services, while providing appropriate customer service

Let's take a closer look at the specific decisions associated with your investment services:

- Marketing expenditures
- Investment management fee
- Financial Advisors
- Commission rate paid

Let's take a look at each of these…

Marketing Expenditures

Marketing Budget	Prospects Reached	New Accounts	Marketing Costs
↗	↗	↗	↗
As you increase your Marketing budget…	…you will reach more prospects…	…leading to more new Accounts	…but also increasing your Marketing Costs

The amount you spend on marketing has a direct effect on the number of new clients you attract. You will market to existing checking account customers and new prospects.

Your marketing budget directly determines how may prospects you will reach. The amount of prospects generated by marketing varies by customer segment (as shown) on the chart on the right.

Cost of Reaching a Prospect (New Customer)	Underbanked	Mass Market	Mass Affluent
Investment Management Accounts	$1.00	$1.00	$1.00

Cost of Reaching a Prospect (Cross-Selling)	Underbanked	Mass Market	Mass Affluent
Investment Management Accounts	$0.50	$0.50	$0.50

See Sample Calculation R-6 for an example.

Expected Response Rates (New Customers)	Underbanked	Mass Market	Mass Affluent
Investment Management Accounts	0.25%	0.15%	0.05%

Expected Response Rates (Cross-Selling)	Underbanked	Mass Market	Mass Affluent
Investment Management Accounts	0.30%	0.20%	0.08%

However, not all prospects will respond to your marketing. The percentage of prospects who respond to your marketing by opening a new investment management account is referred to as the ***response rate***. The expected response rates for each customer segment are shown on the chart on the right. Keep in mind the response rate expected for existing checking account customers is higher than the response rate expected from new prospects.

See Sample Calculation R-7 for an example.

***NOTE**: Your actual response rates may vary from your expected response rates. The competitiveness of your pricing, number of financial advisors and your investment in new technology all impact your response rates.

***NOTE**: Market saturation can also impact your response rates. In other words, if all teams aggressively go after a specific customer segment, the response rate for that segment will begin to drop. For investment management, market saturation is reached when the total marketing dollars spent for a specific customer segment is double the total marketing dollars spent at SimStart.

Investment Management Fee

The Investment Management Fee is the fee clients pay for your investment management services. This fee is a percentage of a client's assets in an account. These fees generate fee income for your bank.

Management Fee	Fee Income	Retention Rate	Response Rate
↗	↗	↘	↘
As you increase your Management Fee	…your fee income will increase…	…but your retention rate will fall….	…as will your response rate from new customers

As you raise this Management Fee, you will earn more fee income relative to the assets under management. At the same time, as you raise this Management Fee, you become less attractive to customers and prospects, leading to:

- Lower retention rates on existing customers
- Lower response rates from prospects

The opposite is also true. As you lower the management fee, you will earn less fee income relative to the assets under management. However, you will become more attractive to customers and prospects, leading to:

- Higher retention rates on existing customers
- Higher response rates from prospects

More specifically:

- If your Management Fee is within +/- 10% of the market average, there is no impact on your response rates
- If your Management Fee is outside this +/- 10% range, your response rates will be adjusted by 100% of the difference between your fee and the market average

See Sample Calculation R-8 for an example.

The impact on retention rates is similar, but your existing customers are less sensitive than new customers:

- If your Management Fees are within +/- 30% of the market average, there is no impact on your retention rates
- If your Management Fees are outside this +/- 30% range, your retention rates will be adjusted by 100% of the difference between your fees and the market average

See Sample Calculation R-9 for an example.

Financial Advisors

In the simulation, you determine how many Financial Advisors your bank will have on staff. If you do not have enough Financial Advisors, the number of Clients per Advisor increases (which negatively impacts your customer service). The "expected" number of Clients per Advisor is 150. If your Clients per Advisor is outside of the "expected" range, your response rates for new clients and retention rates for existing clients will be adjusted. More specifically:

- If your Clients per Advisor is within +/- 20% of the expected number of Clients per Advisor (i.e., between 120 and 180), there is no impact on your response rates
  - If your Clients per Advisor is outside this +/- 20% range, your response rates will be adjusted by 50% of the difference between your rate and the expected number of Clients per Advisor (150)
- If your Clients per Advisor is within +/- 15% of the expected number of Clients per Advisor (i.e., between 127 and 172), there is no impact on your retention rates
  - If your Clients per Advisor is outside this +/- 15% range, your response rates will be adjusted by 50% of the difference between your rate and the expected number of Clients per Advisor (150)

In this simulation, Financial Advisors earn a base salary of $50,000 a year plus commissions (see next section).

Commission Rate Paid

The Commission Rate Paid is the amount of commission you pay to your Financial Advisors. The rate you enter is a percentage of assets under management paid to each Financial Advisor.

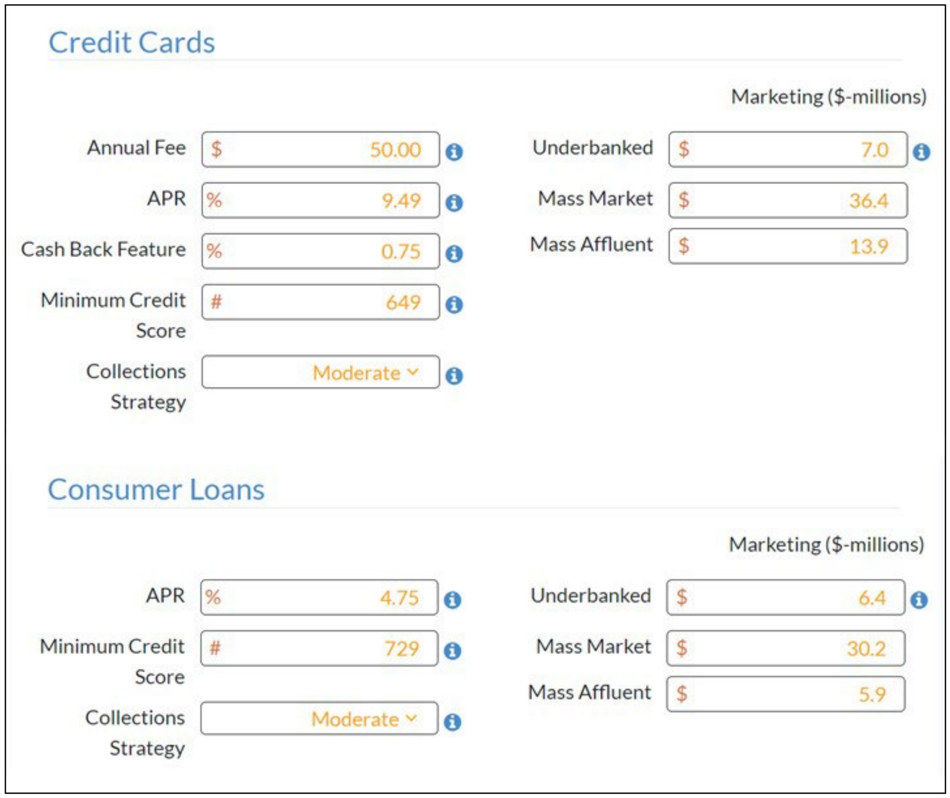
The rate you pay has a direct impact on your ability to retain Financial Advisors:

- If your Commission Rate Paid is within +/- 10% of the market average, there is no impact on your retention rates
- If your Commission Rate Paid is outside this +/- 10% range, your retention rates will be adjusted by 35% of the difference between your fees and the market average

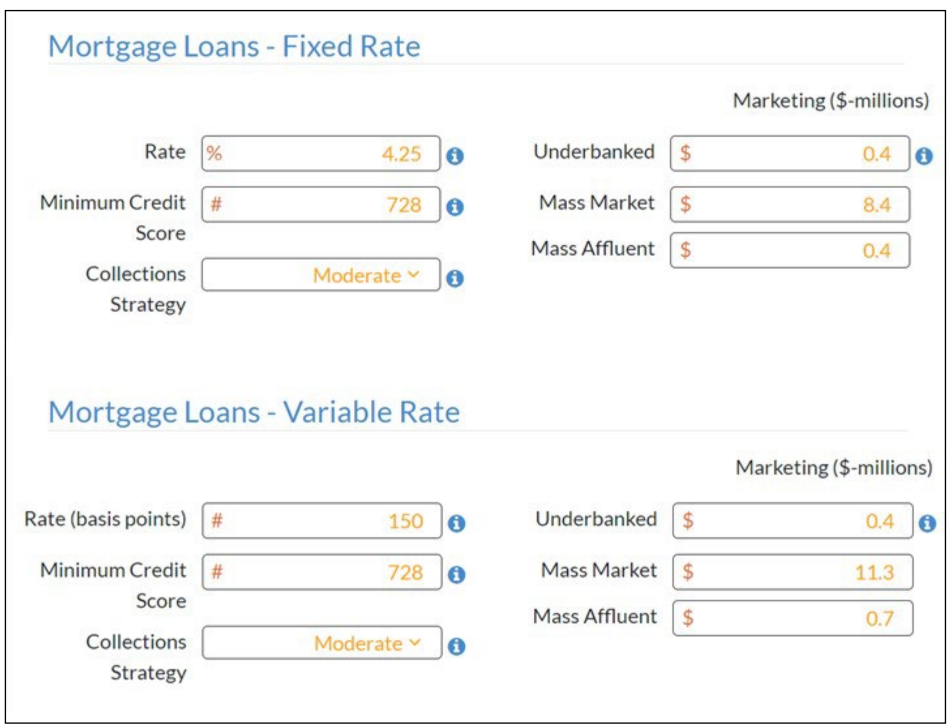
Retail Lending

In the *Executive Suite* simulation, you offer four retail lending products:

- Credit cards
- Consumer loans
- Fixed-rate mortgage loans
- Variable-rate mortgage loans



Credit cards provide your customers with unsecured lines of credit that can be used to pay for goods online or at merchants. Consumer loans provide customers with fixed-rate term loans for buying autos, boats, mobile homes, paying for education or making home improvements. Fixed-rate and variable-rate mortgage loans provide customers with loans for buying homes.



For your bank, retail loans provide a significant amount of revenue in the form of interest income. They also provide a significant amount of credit risk (i.e., the risk that borrowers will be unable to repay the loan).

In the end, your success in this area depends upon your ability to:

- Utilize the funds gathered by your deposits area to generate revenue from retail loans
- Offer interest rates and fees on your lending products that allow you to attract (and retain) customers while also maximizing your interest income
- Manage the credit and interest rate risks associated with retail lending

- Control the costs associated with your lending services, while providing appropriate customer service

Let's take a closer look at the specific decisions associated with your retail loans:

- Marketing expenditures
- Interest rates
- Fees
- Credit scores
- Collections

Let's look at each of these…

Marketing Expenditures

Marketing expenditures are critical in attracting new loans. The amount spent on marketing has a direct effect on the number of new customers booked. You will market to existing checking account customers and new prospects.

Marketing Budget	Prospects Reached	New Applications	Marketing Costs
↗	↗	↗	↗
As you increase your Marketing budget…	…you will reach more prospects…	…leading to more new applications…	…but also increasing your Marketing Costs

Your marketing budget directly determines how may prospects you will reach. The amount of prospects generated by marketing varies by product and customer segment (as shown) on the chart on the right.

See Sample Calculation R-10 for an example.

Cost of Reaching a Prospect (New Customers)	Underbanked	Mass Market	Mass Affluent
Credit Cards	$0.50	$0.50	$0.50
Consumer Loans	$0.50	$0.50	$0.50
Fixed-Rate Mortgages	$0.50	$0.50	$0.50
Variable-Rate Mortgages	$0.50	$0.50	$0.50

Cost of Reaching a Prospect (Cross-Selling)	Underbanked	Mass Market	Mass Affluent
Credit Cards	$0.10	$0.10	$0.10
Consumer Loans	$0.10	$0.10	$0.10
Fixed-Rate Mortgages	$0.10	$0.10	$0.10
Variable-Rate Mortgages	$0.10	$0.10	$0.10

However, not all prospects will respond to your marketing. The percentage of prospects who respond to your marketing by applying for new loans is referred to as the ***response rate***. The expected response rates for each product and customer segment are shown on the chart on the right. Keep in mind the response rate expected for existing checking account customers is higher than the response rate expected from new prospects.

Expected Response Rates (New Customers)	Underbanked	Mass Market	Mass Affluent
Credit Cards	1.50%	1.20%	0.90%
Consumer Loans	1.90%	1.60%	1.40%
Fixed-Rate Mortgages	0.25%	0.15%	0.10%
Variable-Rate Mortgages	0.25%	0.15%	0.10%

Expected Response Rates (Cross-Selling)	Underbanked	Mass Market	Mass Affluent
Credit Cards	2.25%	1.80%	1.35%
Consumer Loans	2.25%	1.90%	1.70%
Fixed-Rate Mortgages	0.50%	0.30%	0.20%
Variable-Rate Mortgages	0.50%	0.30%	0.20%

See Sample Calculation R-11 for an example.

***NOTE**: Your actual response rates may vary from your expected response rates. The competitiveness of your pricing and your investment in new technology both impact your response rates.

***NOTE**: Market saturation can also impact your response rates. In other words, if all teams aggressively go after a specific customer segment for a specific product, the response rate for that segment will begin to drop. For retail lending products, market saturation is reached when the total marketing dollars spent for a specific customer segment is 50% more than the total marketing dollars spent at SimStart.

The number of new loans you book is based on the number of prospects applying for loans and the number of loans you approve. Your approval rates are driven by your minimum credit scores. Credit scores are covered in more detail later in these instructions.

Interest Rates

Interest Rates are the rates you charge your lending customers for borrowing money.

- For Credit Card customers, the APR (annual percentage rate) is the interest rate paid on revolving balances
  - As you adjust this APR, the APR paid by all Credit Card customers is adjusted
- For Consumer Loan customers, the APR is the interest rate paid for the life of the loan
  - As you adjust this APR, only new customers receive the new interest rate
- For Fixed-Rate Mortgages, the Rate is the fixed interest rate paid for the life of the loan
  - As you adjust this APR, only new customers receive the new interest rate

- For Variable-Rate Mortgages, the Rate you enter is the amount above a benchmark used to calculate the interest rate each year
  - In the simulation, the benchmark is the yield on 1-year Treasury Bills (set in advance by the Simulation Administrator)
  - The Rate you enter is the number of basis points above the yield on 1-year Treasury Bills that customers will be charged
  - In other words, if you set a Rate of 150 basis points (equal to 1.50%) and the yield on 1-year Treasury Bills in Round 1 is 3.25%, your variable rate customers will pay an interest rate of 4.75% (3.25% plus 1.50%)
  - If the yield on 1-year Treasury Bills rises to 3.75% in Round 2, these same customers will pay an interest rate of 5.25% in Round 2 (3.75% plus 1.50%)

As you raise interest rates, you will increase the amount of interest you earn from your customers. At the same time, as you raise interest rates, you become less attractive to customers and prospects, leading to:

Interest Rate	Interest Income	Retention Rate	Response Rate
↗	↗	↘	↘
As you raise your Interest Rate…	...your interest income will grow…	…but your retention rate will fall….	…as will your response rate from new customers

- Lower retention rates on existing customers
- Lower response rates from prospects

As you lower interest rates, you will decrease the interest you earn from lending customers. However, you do become more attractive to customers and prospects, leading to:

- Higher retention rates on existing customers
- Higher response rates from prospects

In this simulation, "high" and "low" rates are relative to your competition. In other words, if you offer your customers a rate of 10.00%, and your competition offers 11.00%, your pricing is low and you will get higher than expected retention and response rates. However, if you offer your customers 10.00% and your competition offers 9.50%, your pricing is high and you will get lower than expected retention and response rates.

More specifically, for ***Credit Cards***:

- If your Interest Rate is within +/- 10% of the market average, there is no impact on your response rates

- If your Interest Rate is outside this +/- 10% range, your response rates will be adjusted by 15% of the difference between your rate and the market average

See Sample Calculation R-12 for an example.

The impact on retention rates is similar, but your existing customers are less sensitive than new customers:

- If your Interest Rate is within +/- 15% of the market average, there is no impact on your retention rates
- If your Interest Rate is outside this +/- 15% range, your retention rates will be adjusted by 25% of the difference between your rate and the market average

See Sample Calculation R-13 for an example.

This holds true for all of your lending products:

- For **Consumer Loans**:
  - If your Interest Rate is within +/- 10% of the market average, there is no impact on your response rates
  - If your Interest Rate is outside this +/- 10% range, your response rates will be adjusted by 75% of the difference between your rate and the market average
  - If your Interest Rate is within +/- 30% of the market average, there is no impact on your retention rates
  - If your Interest Rate is outside this +/- 30% range, your retention rates will be adjusted by 30% of the difference between your rate and the market average
- For **Mortgage Loans**:
  - If your Interest Rate is within +/- 5% of the market average, there is no impact on your response rates
  - If your Interest Rate is outside this +/- 5% range, your response rates will be adjusted by 100% of the difference between your rate and the market average
  - If your Interest Rate is within +/- 15% of the market average, there is no impact on your retention rates
  - If your Interest Rate is outside this +/- 30% range, your retention rates will be adjusted by 30% of the difference between your rate and the market average

Annual Fee

In addition to interest, you can also charge an annual fee on your credit cards. The annual fee is a fee every customer pays each year.

Annual Fee	Revenue	Retention Rate	Response Rate
↗	↗	↘	↘
As you raise your Annual Fee...	...your revenue will grow...	...but your retention rate will fall....	...as will your response rate from new customers

As with interest rates, raising this fee makes you less attractive to customers and prospects, leading to lower response rates and lower retention rates. However, higher fees will generate more revenue from each customer.

More specifically:

- If your Annual Fee is within +/- 10% of the market average, there is no impact on your response rates
    - If your Annual Fee is outside this +/- 10% range, your response rates will be adjusted by 50% of the difference between your fee and the market average
- If your Annual Fee is within +/- 30% of the market average, there is no impact on your retention rates
    - If your Annual Fee is outside this +/- 30% range, your retention rates will be adjusted by 10% of the difference between your rate and the market average

Cash Back Feature

In the simulation you have the ability to offer cash back to your credit card customers. You decide the percentage of customer card spending you want to return to your customers.

Cash Back Rebate	Revenue	Retention Rate	Response Rate
↗	↘	↗	↗
As you raise your Cash Back Rebate…	…your revenue will fall as higher cash rebates to customers lowers your revenue…	…but your retention rate will increase….	…as will your response rate from new customers

As you raise this percentage, you will increase the amount of cash rebates you pay to customers, which will lower your overall card fees revenue. At the same time, as you raise the amount of cash you pay to customers, you become more attractive to customers and prospects, leading to:

- Higher retention rates on existing customers
- Higher response rates from prospects

As you lower the amount of cash you pay to customers, you will decrease the cash rebates you pay to customers (increasing your overall card fees revenue). However, you do become less attractive to customers and prospects, leading to:

- Lower retention rates on existing customers
- Lower response rates from prospects

More specifically:

- If your Cash Back Rebate is within +/- 10% of the market average, there is no impact on your response rates
    - If your Cash Back Rebate is outside this +/- 10% range, your response rates will be adjusted by 40% of the difference between your Cash Back Rebate and the market average
- If your Cash Back Feature is within +/- 15% of the market average, there is no impact on your retention rates
    - If your Cash Back Feature is outside this +/- 15% range, your retention rates will be adjusted by 20% of the difference between your Cash Back Feature and the market average

Credit Scores

Credit Scores	Approval Rates	New Customers	Loan Losses
↗	↘	↘	↘
As you raise your Credit Scores…	...your approval rates will drop…	…leading to fewer new customers….	…but your credit losses will go down

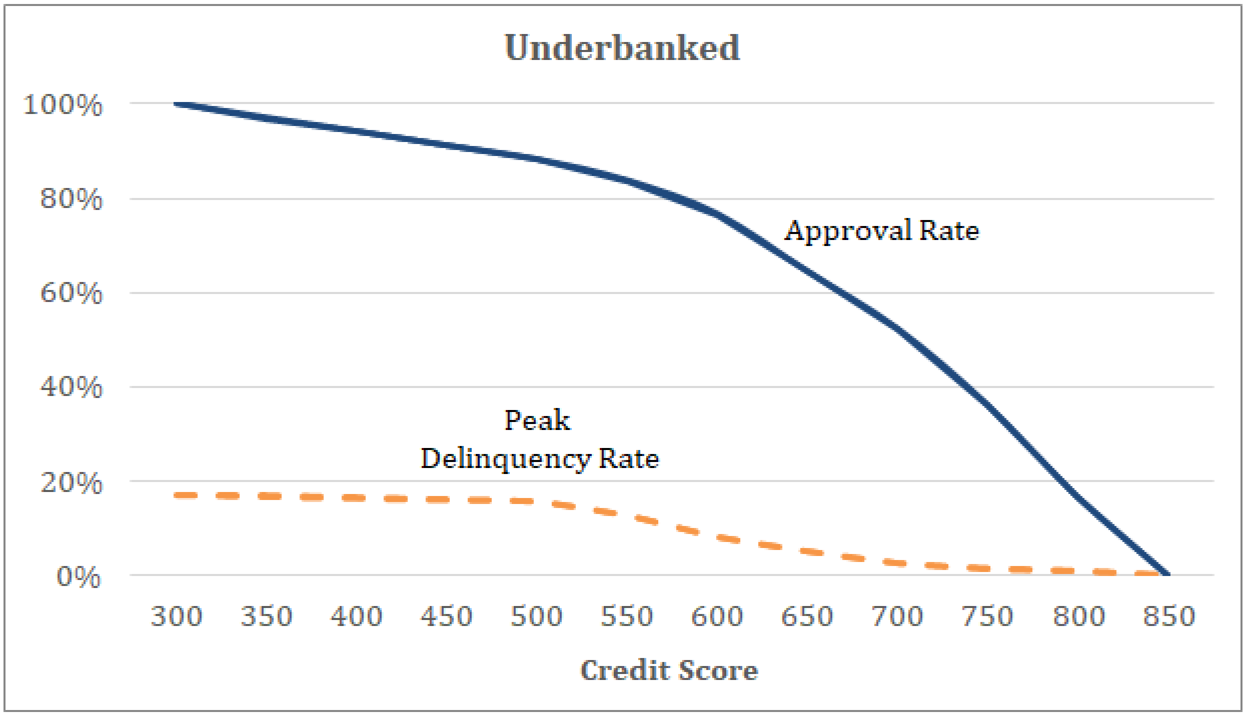
Credit scoring is the primary risk management tool used by banks to manage the credit risk associated with new retail loans.

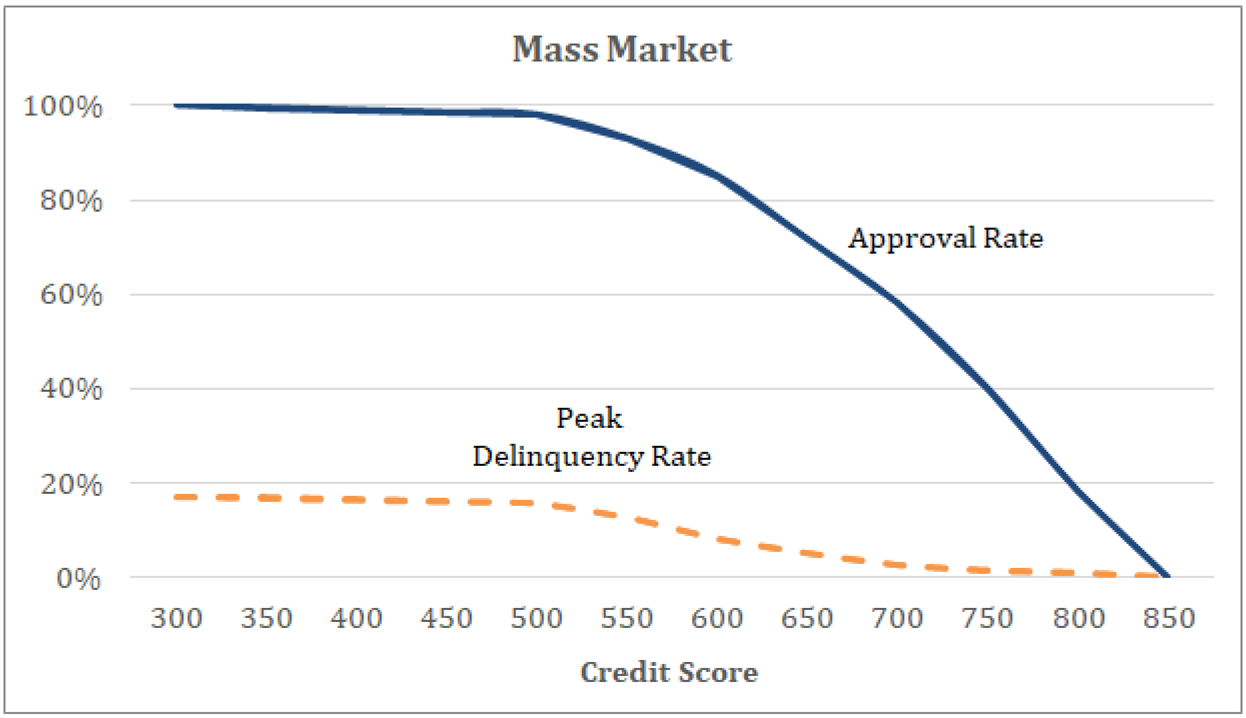
Credit scoring models create a credit score number for every applicant, based on input such as the applicant's income, age, payment history, credit bureau rating etc. The lower a credit score, the higher the risk associated with the applicant. To manage credit risk, banks set minimum credit scores. Applicants with credit scores above this minimum are approved. Applicants with credit scores below this minimum are declined.

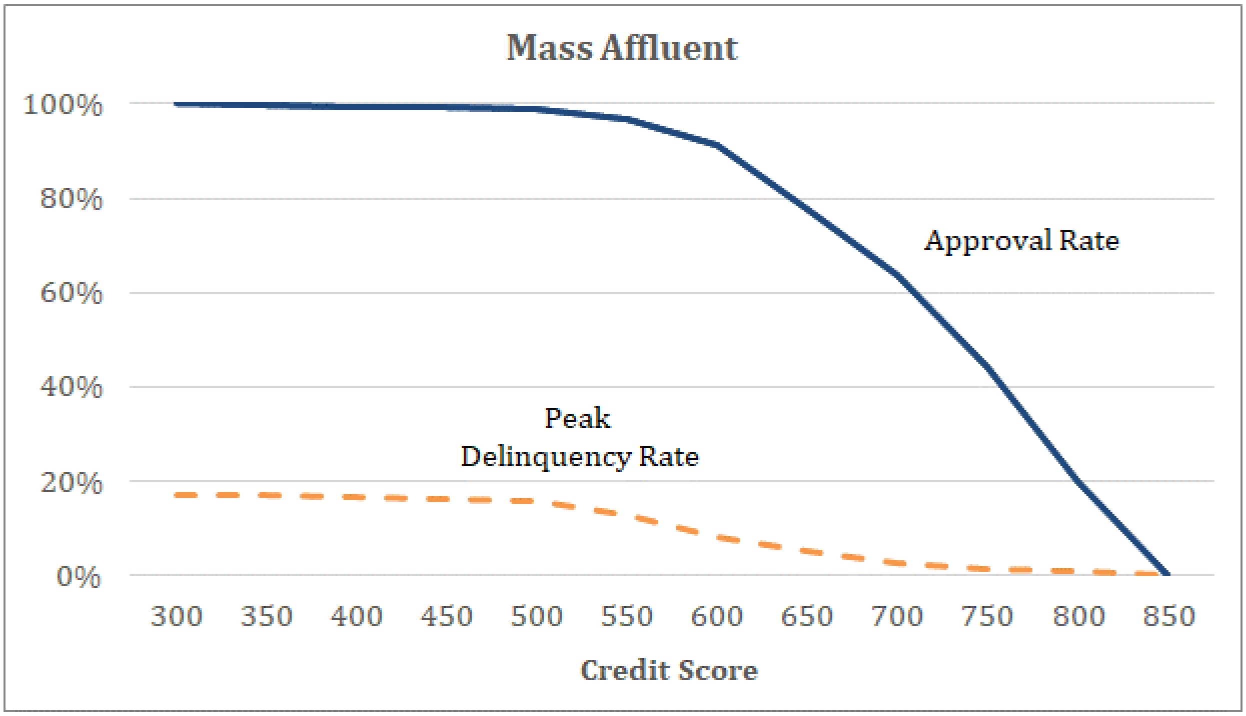
As you raise the minimum credit score for a specific customer segment, you are raising your credit standards. As a result, your approval rates will go down (making it harder to book new loans), but the quality of your portfolio will improve (leading to fewer delinquent loans). Conversely, as you lower the minimum credit score for a specific customer segment, you are lowering your credit standards. This raises your approval rates (making it easier to grow the portfolio), but the quality of your portfolio will decline.

In evaluating this decision area, you will need to balance loan growth with loan quality. The charts below show you the approval rates you can expect for different minimum credit scores in each customer segment, along with expected peak delinquency rates. Keep in mind:

- The actual delinquency rates you experience will be different than these peak delinquency rates (depending upon the age or "vintage" of the loan portfolio).
- Adjusting your credit score only impacts new loans


Underbanked
100%
80%
60%
40%
20%
0%
Approval Rate
Peak
Delinquency Rate
300
350
400
450
500
550
600
650
700
750
800
850
Credit Score


Mass Market
100%
80%
60%
40%
20%
0%
Approval Rate
Peak
Delinquency Rate
300
350
400
450
500
550
600
650
700
750
800
850
Credit Score



Collections

The Collections area is responsible for collecting on delinquent loans. Credit Scoring and Collections provide you with the two "levers" available for managing credit risk.

In the simulation, you will set a Collections strategy for each of your loan products. You have three choices regarding collections strategy:

- High Service
- Moderate
- Aggressive

An Aggressive strategy will maximize your Collections effectiveness, but it has the highest costs and largest negative impact on customer service. A High Service strategy is at the other end of the spectrum with the lowest costs and least impact on customer service. However, it is the least effective strategy.

More specifically, you can expect the following collections effectiveness on past due loans:

Collections Effectiveness	High Service	Moderate	Aggressive
Credit Cards	10.7%	14.4%	18.1%
Consumer Loans	22.7%	28.0%	33.1%
Mortgage Loans	96.3%	98.0%	99.3%

You can also expect the following Collections costs for each past due account that is serviced:

Collections Costs (per account)	High Service	Moderate	Aggressive
Credit Cards	$900	$1,275	$1,725
Consumer Loans	$900	$1,275	$1,725
Mortgage Loans	$900	$1,275	$1,725

Operations

To support your deposit, investment management and lending products, you will also need to make decisions about your retail banking operations.

Operations makes up the majority of your bank's operating costs, so it's important to manage these expenses carefully. At the same time, under investing in Operations leads to poor customer service, which leads to lower customer retention rates. Success in this area requires a careful balancing act in which you spend enough in Operations to support your business and serve your customers appropriately, but only enough.

In the simulation, your retail banking Operations decisions fall into four areas:

- Retail network
- Operating budgets
- IT investment budgets

Let's look at each of these…

Retail Network

The first decision in this area is to determine the number of bank ***branches*** your bank will have. While other delivery channels, such as online and mobile banking, have grown in importance, bank branches remain a critical piece of any retail bank's delivery strategy.

In the simulation, the number of branches you have has a direct impact on your Checking Account, Savings Account and Investment Management customers.

Impact on Retention	Checking Accounts	Savings Accounts	Investment Management Accounts
Expected Number of Customers per Branch	5400 - 6300	4800 - 6900	5100 - 6900
Impact on Retention	50%	30%	100%

The chart to the right shows you the range of acceptable customers per branch for each product. If the number of customers per branch is less than this range, retention rates will improve. If the number of customers per branch is higher than this range, retention rates will decrease by the percentage shown.

See Sample Calculation R-15 for an example.

However, there is a cost associated with additional Branches. In the simulation, each Branch costs $950,000 in annual personnel, occupancy and equipment expenses. In addition, each new Branch requires $1.5 million in capital expenditures (which is depreciated over 20 years).

Fixed Cost for each Branch:
$950,000 in annual operating expenses
$1.5 million in capital expenditure

Note: According to Simulation Regulations, you cannot increase (or decrease) the amount of your branches by more than 10% in one round without approval from the Simulation Instructor.

Similar to your branch network, your ***ATM network*** has a direct impact on the retention associated with your Checking Account customers. If you do not have enough ATMs for your customers to use, they are forced to use the ATMs of other providers and pay additional surcharges, resulting in poor customer service. To provide adequate ATM coverage, you should maintain your "fair share" of ATMs in the market. In other words, if there are four teams in the simulation, you should own 25% of the ATMs in the market. If you own less than 25%, customer retention rates will drop. If you own more than 25%, customer retention rates will increase.

Owning more ATMs also gives you a greater share of "foreign" transactions completed in the market place. If you own 25% of the ATMs in the market, you will receive 25% of foreign ATM transactions completed (which is then adjusted based on the competitiveness of your ATM

Number of Foreign ATM Transactions =
Number of Teams x 25,000,000

fee). The total number of foreign ATM transactions in the marketplace is 25 million multiplied by the number of teams in the simulation. The amount of revenue generated by your ATMs is a function of the number of foreign transactions captured, and the ATM fee you charge.

See Sample Calculation R-16 for an example.

Your ATM pricing will also impact the amount of foreign ATM transactions you attract. If your ATM pricing is within +/- 33% of the market average, there is no impact on your share of foreign ATM transactions. If your ATM pricing is outside of this range, your number of foreign ATM transactions will drop by your percentage above/below the average.

See Sample Calculation R-17 for an example.

Fixed Costs for each ATM:
$13,000 in annual operating expenses
$100,000 in capital expenditure

Keep in mind there is a point of diminishing returns. If several teams aggressively invest in ATMs, the amount of revenue generated by foreign transaction fees may not be worth the amount required to install and run the ATMs. Each ATM costs you $13,000 in annual expenses to operate in the simulation. In addition, each new ATM requires $100,000 in capital expenditures (which is depreciated over 5 years).

Note: According to Simulation Regulations, you cannot increase (or decrease) the amount of your ATMs by more than 10% in one round without approval from the Simulation Instructor.

Operations (Service Levels)

Your operations represent the back office activities required to provide customer service and process retail banking transactions, such as:

Operating Budgets	Customer Service	Retention Rates	Expenses
↗	↗	↗	↗
As you increase your Operating Budgets…	…customer service improves…	…leading to higher retention rates…	…but your operating expenses will go up

- Processing payments and deposits
- Settling trades for investment management clients
- Processing credit card transactions, statements and payments
- Processing mortgage and consumer loan transactions and statements
- Handing calls in the call centers

These operational activities generate compensation, occupancy and equipment costs.

In the simulation, you set the service levels you want to provide to your customers (ranging from 80% to 100%). Setting your service levels at 100% will allow your bank to fulfill all of your customers' expectations for operations. For example, setting your Deposits service level at 100% ensures all of your checking account and savings account customers receive their monthly statement on a specific date each month. However, service levels of 100% does maximize your operational costs.

If you set your service levels to less than 100%, you can reduce your bank's back office operational costs, lowering your bank's overall operating expenses. However, lower service levels can lead to customer service problems. For example, setting your service level too low in Deposits may create problems processing monthly statements for your checking account and savings account customers.

So, the key to success in Operations is to invest enough to meet customer service expectations while not over investing in an effort to control operating costs.

If you set your service levels to 100%, you will realize the following costs:

Operations Costs (per Account)	New Accounts	Existing Accounts (Previous Year's Total)
Deposit Accounts	$40	$10
Investment Management Accounts	$5,000	$500
Card Card Accounts	$650	$200
Consumer Loan Accounts	$650	$200
Mortgage Loan Accounts	$5,000	$500

See Sample Calculation R-18 for an example.

IT Investment Budgets

The last decision area in Operations involves investments in new technology.

In the simulation, you can invest in new technology related to:
- Customer experience
- Payments
- Robo-advisory services
- Risk analytics
- Process automation
- Employee experience

As you increase your investments in new technology, you improve:
- The value of your products
- The quality of your service delivery
- The sophistication of your risk management

Depending on the investment, this leads to more sales (through higher response rates), better customer service (leading to higher retention rates) and/or improved risk management (leading to lower delinquency and charge-off rates).

More specifically:

- Investments in *Customer Experience* improves the experience customers have when they interact with your bank across delivery channels (including online banking, mobile banking, call center interactions and branch interactions)
    - As a result, investments in Customer Experience will improve sales and customer service for all of your retail banking products
- Investments in *Payments* allows you to develop new payment products
    - This leads to improved sales and customer service for your Checking Account and Credit Card products
- Investments in *Robo-Advisory Services* improves your Investment Management services
    - This leads to improved sales and customer service in Investment Management
- Investments in *Risk Analytics* lowers delinquency and charge-off rates for:
    - Credit cards
    - Consumer loans
    - Mortgage loans
- Investments in *Process Automation* improves the efficiency of your Operations
    - This counteracts lower Service Levels in Operations by improving retention rates for all retail banking products
- Investments in *Employee Experience* improves the experience employees realize when performing their day-to-day activities, improving employee satisfaction and efficiency
    - As a result, investments in Employee Experience will improve sales and customer service for all of your retail banking products

The appropriate amount to invest in new technology is relative to your competitors and your strategy. If your competitors spend more than you do, you will fall behind (leading to lower sales, lower retention rates and less effective risk management). To maintain your competitive position, your investments in new technology should be equal to your "fair share" of all investments in new technology. In other words, if there are four teams in the simulation, your investments in Risk Analytics should be equal to 25% of the total investments in Risk Analytics by all teams. Spending more than your fair share will provide you with a competitive advantage (i.e., higher sales, higher customer retention and improved risk management).

There is also a "lag" to the business benefit realized by these technology investments, It takes a year for your bank to design, develop, test and implement new technology. As a result, technology investments in the current year will create additional expenses for the current year, but won't improve sales, service or risk management until the following year.

Human Resources

The last area of decision making in Retail Banking is Human Resources. In this area, you will make decisions impacting your ability to attract and retain employees, including:

- Compensation
- Training

Let's look at each of these…

Compensation

Your ability to retain employees in the simulation is driven primarily by the amount of compensation you provide. At SimStart, the average compensation for retail banking employees is $66,000. You then decide the amount of increase (if any) to this average compensation. In other words, if you enter 3% in Round 1, your average employee compensation will be $67,980 in Year 1 (3% more than $65,000). If you enter 4% in Round 2, your average employee compensation will increase to $70,699 (4% more than $67,980).

Compensation	Employee Retention Rate	Customer Retention Rates	New Customers	Expenses
↗	↗	↗	↗	↗
As your increase your Compensation…	…your employee retention rate will improve…	…leading to improved customer service…	…and more new customers…	…but your operating expenses will go up

If your average compensation is higher than your competitors, your employee retention rate will increase. A higher employee retention rate leads to more experienced employees, improving your customer service and increasing your sales.

Conversely, if your average compensation is lower than your competitors, your employee retention rate will fall, requiring you to recruit more new employees. This increases your recruitment costs.

More specifically:

- If your average compensation is within +/- 10% of the market average, there is no impact on your employee retention rate

- If your average compensation is outside this +/- 10% range, your employee retention rate will be adjusted by 50% of the difference between your rate and the market average

See <u>Sample Calculation R-19</u> for an example.

Remember, as with any financial institution, employee compensation and benefits are your largest source of expense.

Training

Training is an important part of any successful bank's strategy. Training improves the effectiveness of your bank's employees, thereby improving customer service and sales efforts.

In the simulation, you will enter the retail banking training budget for:

- Sales training
- Services training
- Compliance training
- Financial advisor training

Increasing ***sales training*** helps your branch staff, call center representatives and other retail banking employees improve their sales skills, leading to more new customers. In the simulation, the "norm" for sales training is $400 per employee. If you spend more than this, the sales skills of your staff will improve, leading to more new customers. If you spend less than $400 per employee, your staff's sales skills are considered less effective, and the number of new customers you receive will fall.

Sales Training	Staff Sales Skills	New Customers	Training Costs
↗	↗	↗	↗
As you increase your Sales Training budget…	…your staff's sales skills will improve…	…leading to more new customers…	…but higher training costs

Increasing ***services training*** improves your customer service. In the simulation, the "norm" for services training is $1,000 per employee. If you spend more than this, the customer service skills of your staff will improve, leading to higher customer retention. If you spend less than $1,000 per employee, your staff's service skills are considered less effective, and your customer retention rates will drop.

Services Training	Staff Service Skills	Customer Retention	Training Costs
↗	↗	↗	↗
As you increase your Services Training budget…	…your staff's service skills will improve…	…leading to higher customer retention…	…but higher training costs

For compliance training, your bank is expected to spend $600 per employee. If you spend less than this, you may receive a "warning" from regulators to improve your compliance training. ***If your compliance training is found to be significantly below expected levels, your bank may be fined***. At the same time, there is no positive benefit to overspending on compliance training.

Compliance Training	Regulatory Risk	Training Costs
↗	↘	↗
As you increase your Compliance Training budget…	…your risk of regulatory noncompliance drops…	…but your training costs increase

Increasing ***financial advisor training*** helps your financial advisors improve their investing and client relationship skills, leading to more new clients and higher retention rates in Investment Management. In the simulation, the "norm" for financial advisor training is $1,100 per advisor. If you spend more than this, sales and retention rates in Investment Management will improve. If you spend less than this, sales and retention rates in Investment Management will improve.

CORPORATE BANKING

In the *Executive Suite* simulation, the Corporate Banking group is responsible for managing the bank's relationships with business customers. To meet the financial needs of these customers, your bank offers:

- Corporate Finance, including commercial lending and investment banking
- Treasury Services, such as cash management

You will manage these services across three customer segments:

- Small Business customers
  - These are businesses with less than $5 million a year in revenue
- Middle Market customers
  - These are businesses with between $5 million and $250 million a year in revenue
- Large Corporate customers
  - These are businesses with over $250 million a year in revenue

In addition, you will also make Operations and Personnel decisions to support your Corporate Banking business.

This section will help you understand the Corporate Banking decisions you will be asked to make and the impact of these decisions on your bank's performance. This section is organized into four parts:

- Corporate Finance
- Treasury Services
- Operations
- Personnel

Let's begin by looking at Corporate Finance…

Corporate Finance

In corporate finance, you provide your customers with services to meet their funding needs. These services include:

- Providing funding directly to customers in the form of Commercial Lines of Credit and Commercial Real Estate (CRE) Loans
- Assisting customers in raising funds from the capital markets by underwriting their equity (i.e., stock) and debt (i.e., bond) issuances

For your bank, corporate finance provides a significant amount of revenue. Your commercial lending activities (i.e., Lines of Credit and Commercial Real Estate Loans) provide interest income and loan fees, but also provide a significant amount of credit risk (i.e., the risk that borrowers will be unable to repay the loan). Your investment banking activities (i.e., Underwriting and Mergers & Acquisitions) provide fee income.

Lines of Credit

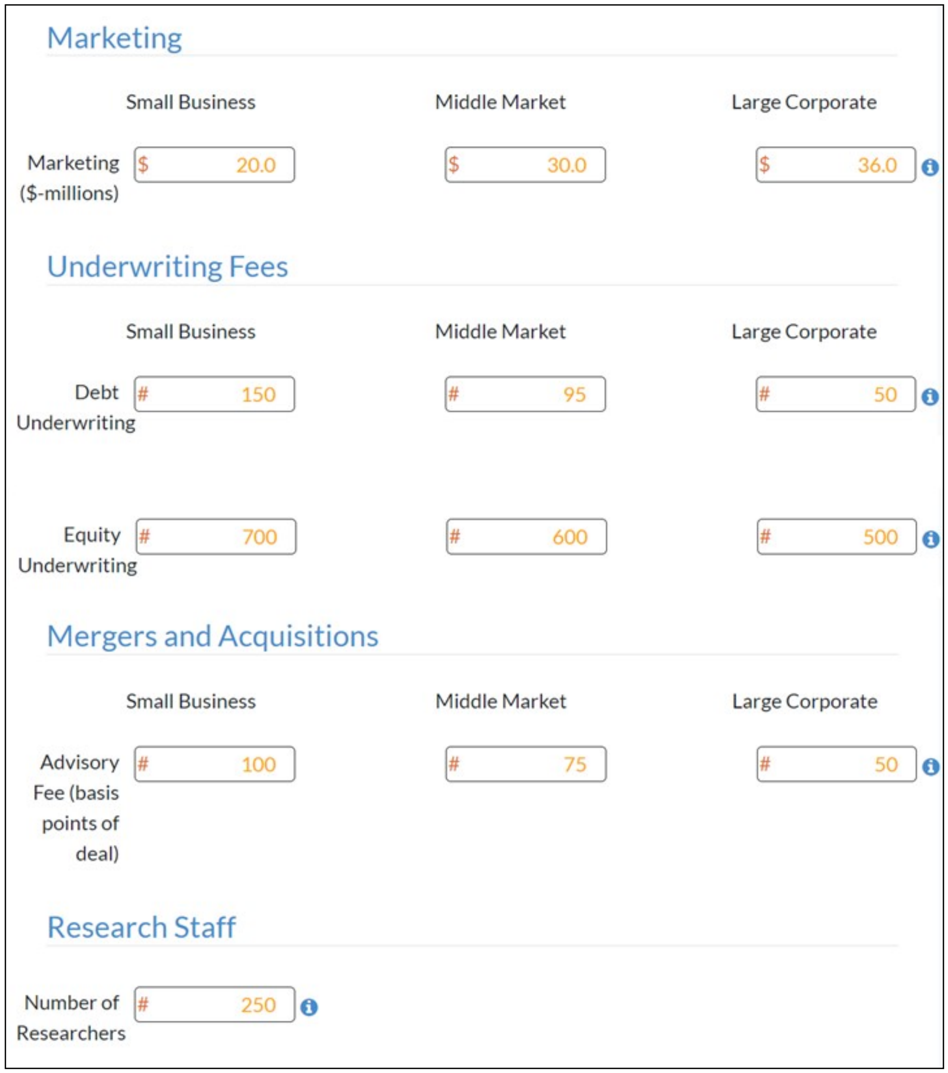
	Small Business	Middle Market	Large Corporate
Marketing ($-millions)	$ 21.6	$ 28.8	$ 29.8
Rate (basis points)	# 171	# 135	# 123
Credit Policy	Moderate	Moderate	Moderate
Collections Strategy	Moderate		

Commercial Real Estate (CRE) Loans

	Small Business	Middle Market	Large Corporate
Marketing ($-millions)	$ 14.6	$ 19.2	$ 18.4
Rate	% 4.14	% 4.00	% 3.91
Credit Policy	Moderate	Moderate	Moderate
Collections Strategy	Moderate		

In the end, your success in this area depends upon your ability to:

- Utilize the funds gathered from deposits and other sources to generate revenue from commercial loans
- Offer interest rates on your commercial lending products that allow you to attract (and retain) customers while also maximizing your interest income
- Manage the credit risks associated with commercial lending
- Offer fees on your investment banking services that allow you to attract new deals while also maximizing your fee income



Let's take a closer look at the specific decisions associated with your Corporate Finance services:

- Marketing expenditures
- Pricing
- Credit policy
- Collections
- Research

Let's look at each of these…

Marketing Expenditures

Marketing expenditures are critical in attracting new clients. The amount spent on marketing has a direct effect on the number of new loans booked and investment banking deals won.

Marketing Budget	Prospects Reached	New Applications	Marketing Costs
➚	➚	➚	➚
As you increase your Marketing budget…	…you will reach more prospects…	…leading to more new applications…	…but also increasing your Marketing Costs

Your marketing budget directly determines how many prospects you will reach. The amount of prospects generated by marketing varies by product and customer segment as shown on the chart on the right.

Marketing Cost for a New Prospect	Small Business	Middle Market	Large Corporate
Commercial Lines of Credit	$533	$4,725	$86,000
Commercial Real Estate Loans	$5,685	$49,600	$894,000

Marketing Cost for a New Prospect	Small Business	Middle Market	Large Corporate
Underwriting Debt	$49,250	$50,200	$180,000
Underwriting Equity	$260,000	$210,000	$2,250,000
Mergers & Acquisitions	$260,000	$74,000	$1,800,000

See Sample Calculation C-1 for an example.

However, not all prospects will respond to your marketing. The actual number of prospects applying for a new loan or interested in your investment banking services is also driven by your pricing, credit policy and research decisions.

Pricing

Although your prospects will *consider* your bank when a funding need arises, that doesn't mean they will *choose* your bank. To sell specific products and services to your prospects, you must also compete on pricing.

For your ***commercial loans***, pricing is related to the interest rates you offer on new loans:

- For Lines of Credit, the Rate you enter is the amount above a benchmark used to calculate the interest rate each year
  - In the simulation, the benchmark is the Secured Overnight Funding Rate or SOFR (set in advance by the Simulation Administrator)
    - SOFR is a benchmark based on prices related to overnight repurchase agreements between banks secured by US Treasuries
  - The Rate you enter is the number of basis points above SOFR that customers will be charged
  - In other words, if you set a Rate of 125 basis points (equal to 1.25%) and SOFR in Round 1 is 3.00%, your Line of Credit customers will pay an interest rate of 4.25% (3.00% + 1.25%)
  - If SOFR rises to 3.50% in Round 2, these same customers will pay an interest rate of 4.75% in Round 2 (3.50% + 1.25%)
  - For Lines of Credit, interest is paid on revolving balances
- For Commercial Real Estate Loans, the Percentage Rate is the fixed interest rate paid for the life of the loan
  - As you adjust this Percentage Rate, only new customers receive the new interest rate

As you raise your interest rates, you will increase the amount of interest you earn from each loan. At the same time, as you raise interest rates, you become less attractive to customers and prospects, leading to:

Interest Rate	Interest Income	Retention Rate	Response Rate
↗	↗	↘	↘
As you raise your Interest Rate…	...your interest income will grow…	…but your retention rate will fall….	…as will your response rate from new customers

- Lower retention rates on existing customers
- Fewer applications for new loans

Of course, the opposite is also true. As you lower interest rates, you will decrease the interest you earn from each loan. However, you do become more attractive to customers and prospects, leading to:

- Higher retention rates on existing customers
- More applications for new loans

In this simulation, "high" and "low" rates are relative to your competition. In other words, if you offer your customers a rate of 5.00%, and your competition offers 6.00%, your pricing is low and you will get more applications than expected and higher retention rates. However, if you offer your customers 5.00%

and your competition offers 4.00%, your pricing is high and you will get fewer applications than expected and lower retention rates.

More specifically, for ***Lines of Credit*** and ***Commercial Real Estate Loans***:

- If your Interest Rate is within +/- 15% of the market average, there is no impact on your response rates
- If your Interest Rate is outside this +/- 15% range, your response rates will be adjusted by 120% of the difference between your rate and the market average

See Sample Calculation C-2 for an example.

For your ***Investment Banking*** services, pricing is related to the fees you charge:

- For Underwriting Debt and Equity, the fee is an Underwriting Fee
  - This Underwriting Fee is a percentage of the amount of debt or equity issued by the customer
- For Mergers & Acquisitions, the fee is an Advisory Fee
  - This Advisory Fee is a percentage of the amount of the merger or acquisition

As you raise your fees, you will increase the amount of fee income you earn from each deal. However, as you raise fees, you become less attractive to prospects, leading to fewer deals.

Of course, the opposite is also true. As you lower Fees, you will decrease the fee income you earn from each deal. However, you do become more attractive to prospects, leading to more deals.

Fees	Revenue	Response Rate
↗	↗	↘
As you raise your Fees…	...your revenue per deal will grow…	…but your response rate will fall, leading to fewer deals….

For ***Underwriting Debt and Equity***:

- If your Underwriting Fee is within +/- 10% of the market average, there is no impact on the number of deals completed
- If your Underwriting Fee is outside this +/- 10% range, the number of deals is adjusted by 50% of the difference between your fee and the market average

See Sample Calculation C-3 for an example.

For ***Mergers & Acquisitions***:

- If your Advisory Fee is within +/- 15% of the market average, there is no impact on the number of deals completed
- If your Advisory Fee is outside this +/- 15% range, the number of deals is adjusted by 30% of the difference between your fee and the market average

Credit Policy

Your Credit Policy determines the level of risk you are willing to accept from new commercial lending customers.

In this simulation, you will set a Credit Policy for each customer segment across both Lines of Credit and Commercial Real Estate Loans. Within each segment, you have three choices regarding Credit Policy:

- Conservative
- Moderate
- Liberal

Credit Policy	Approval Rates	New Customers	Loan Losses
↗	↘	↘	↘
As you make your Credit Policy more conservative….	...your approval rates will drop…	…leading to fewer new customers….	…but your credit losses will go down

A Conservative credit policy will lead to lower approval rates (making loan growth more difficult), but will ensure your new loans are of the highest credit quality (i.e., fewer delinquent loans and fewer charge-offs). A Liberal credit policy will lead to higher approval rates (making loan growth easier), but will lead to a portfolio with lower overall credit quality (i.e., more delinquent loans and more charge-offs).

In evaluating this decision area, you will need to balance loan growth with loan quality. The chart to the right shows the approval rates you can expect for different credit policy decisions in each customer segment.

Credit Policy Impact on Approval Rates Commercial Loans	Small Business	Middle Market	Large Corporate
Conservative	40%	50%	60%
Moderate	50%	60%	70%
Liberal	60%	70%	80%

Note: Keep in mind, adjusting your credit policy only impacts new loans.

Collections

The Collections area is responsible for collecting on delinquent loans. Credit Policy and Collections provide you with two "levers" for managing credit losses.

For each loan type, you have three choices regarding collections strategy:

- High Service
- Moderate
- Aggressive

Collections Effectiveness	High Service	Moderate	Aggressive
Commercial Lines of Credit	45.6%	51.5%	60.1%
Commercial Real Estate Loans	69.0%	72.0%	74.8%

An Aggressive strategy will maximize your Collections effectiveness, but it has the highest costs and largest negative impact on customer service. A High Service strategy is at the other end of the spectrum with the lowest costs and least impact on customer service. However, it is the least effective collections strategy.

More specifically, the collections effectiveness you can expect for each category is shown on the chart to the right. Loans are charged off at 180 days.

You can also expect the following Collections costs:

Collections Costs (per account)	High Service	Moderate	Aggressive
Commercial Lines of Credit	$229,440	$367,830	$437,958
Commercial Real Estate Loans	$157,716	$258,000	$335,124

Research

In winning new investment banking deals (i.e., Underwriting and Mergers & Acquisitions), an investment banker's expertise and experience are often more important to a prospect than the fees charged.

In the simulation, this expertise is represented by your bank's Research staff and your bank's investment in Research Analytics.

Your ***Research Staff*** analyzes the capital markets, various industries and individual companies. In the simulation, your Research Staff uses this analysis to perform two critical functions:

- It makes research available to your bank's institutional and corporate clients
- It provides your internal investment bankers and Financial Advisors with research information

As the quality of your research improves, your bank is able to attract more investment banking clients as these clients look to your bank to provide them with superior research.

In addition, as your Research Staff provides better research, your Financial Advisors (see Financial Advisors in the Retail Banking section of these instructions) are also able to provide their clients with better advice (making your investment management services more attractive in the market place).

The simulation compares research across the teams by looking at two factors:

- Size of each team's Research Staff
- Each team's investment in Research Analytics

Your Research staff is compared to your "fair share" of all Researchers in the market place. In other words, if there are four teams in the simulation, your "fair share" of all Researchers is 25%. If you have fewer than 25% of all Researchers in the market place, the quality of your research goes down. Conversely, if you have more than 25% of all Researchers in the market place, the quality of your research improves.

More specifically:

- For Underwriting Debt:
  - If your Research Staff is within +/- 20% of your "fair share", there is no impact on the number of deals
  - As your percentage of total Researchers goes outside this +/-20%, your number of deals is impacted by 40% of your deviation from your "fair share"
- For Underwriting Equity:
  - If your Research Staff is within +/- 15% of your "fair share", there is no impact on the number of deals
  - As your percentage of total Researchers goes outside this +/-15%, your number of deals is impacted by 50% of your deviation from your "fair share"
- For Mergers & Acquisitions:
  - If your Research Staff is within +/- 10% of your "fair share", there is no impact on the number of deals
  - As you percentage of total Researchers goes outside this +/-10%, your number of deals is impacted by 40% of your deviation from your "fair share"

See Sample Calculation C-4 for an example.

You can also improve your bank's research quality by investing in Research Analytics.

The appropriate amount to invest in Research Analytics is also relative to your competitors. If your competitors spend more than you do, you will fall behind (leading to lower quality research). To maintain your competitive position, your investments in Research Analytics should be equal to your "fair share" of all investments in Research Analytics.

In other words, if there are four teams in the simulation, your investments in Research Analytics should be equal to 25% of the total investments in Research applications by all teams. Spending more than your fair share will provide you with a competitive advantage (i.e., better research).

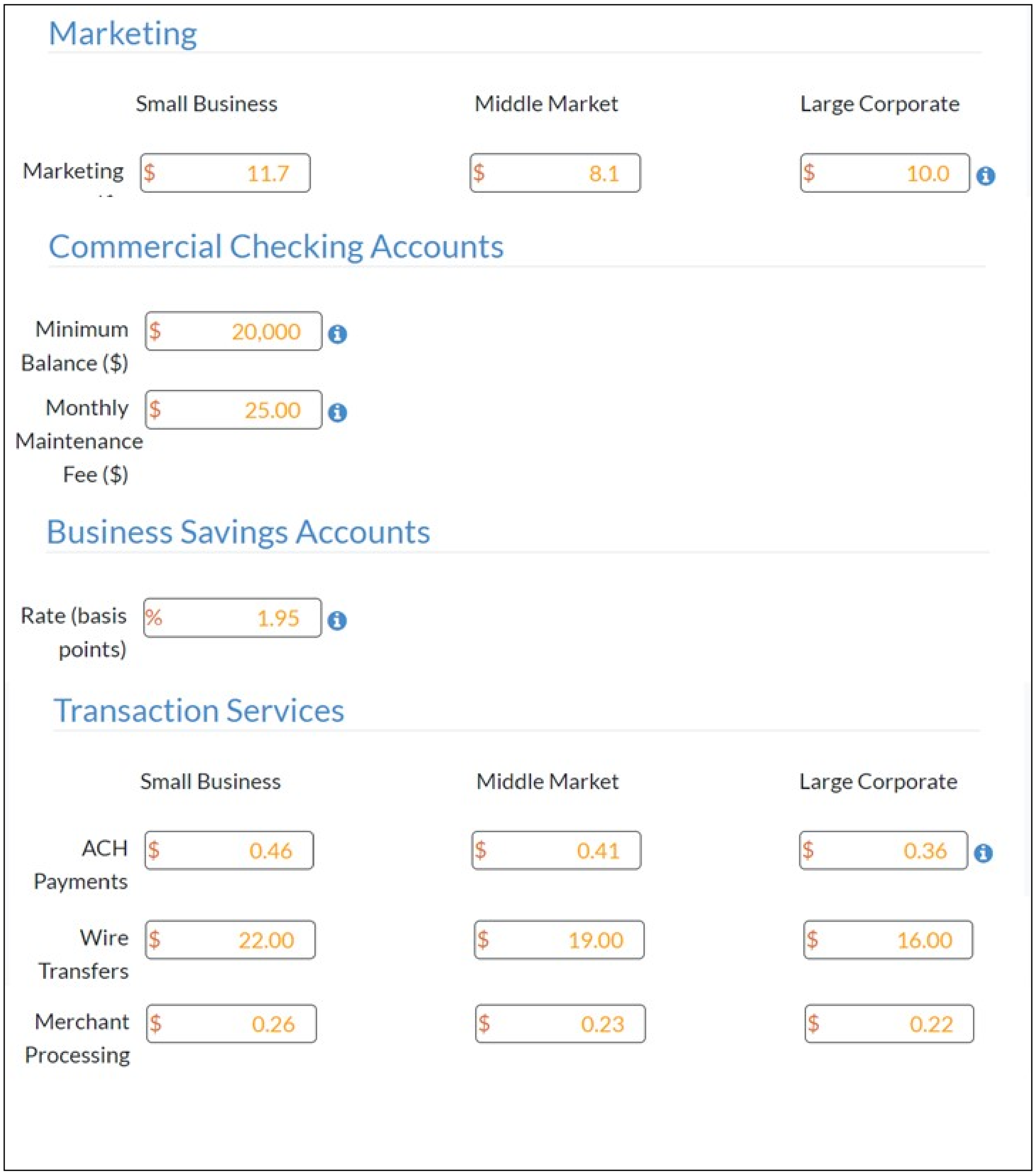
This should all be balanced based on your strategy. If you are not targeting these areas, then it's not wise to overspend in these areas.

Treasury Services

Banks provide business customers with services to help them manage their cash, investment, payment, collection and information reporting needs. These services are commonly referred to as Treasury Services or cash management services.

In the simulation, your bank offers the following Treasury Services to business customers:

- Commercial checking and business savings accounts
- ACH payments, which allow businesses to transfer funds electronically to employees, suppliers and others
- Wire transfers, which allow businesses to quickly transfer large funds to suppliers and others



- Merchant processing, in which the bank provides services to businesses (referred to as merchants) that allow these businesses to accept and process card and mobile payments online and at the point-of-sale (POS)

For your customers, Treasury Services allow them to fulfill their cash management needs. For your bank, treasury services can be an important source of funding (through commercial deposits) and fee income.

In the end, your success in this area depends upon your ability to:

- Offer fees on your Treasury Services that allow you to attract new customers while also maximizing fee income
- Offer interest rates and service fees on your deposit products that allow you to attract a sufficient number of deposits with the objectives of minimizing your interest expense and maximizing fee income
- Control the costs associated with your Treasury Services

Let's take a closer look at the specific decisions associated with your treasury services:

- Marketing expenditures
- Deposit decisions
- Treasury service fees

Marketing Expenditures

Marketing expenditures are used to create awareness of your Treasury Services with new and existing customers. The amount you spend on marketing has a direct impact on the number of new Treasury Services customers you attract each round.

Marketing Budget	Prospects Reached	New Customers	Marketing Costs
↗	↗	↗	↗
As you increase your Marketing budget…	…you will reach more prospects…	…leading to more new applications…	…but also increasing your Marketing Costs

You will cross-sell your Treasury Services to existing commercial lending customers, while also targeting non-bank prospects. The chart to the right shows the marketing cost associated with attracting a new Treasury Services customer.

Marketing Cost for a New Customer	Small Business	Middle Market	Large Corporate
Marketing to Commercial Lending Customers	\$30	\$200	\$4,500
Marketing to Non-Bank Customers	\$50	\$250	\$5,000

***NOTE:** The actual number of new customers you attract may vary. The competitiveness of your pricing and your investment in new technology both impact the number of new customers you attract.

***NOTE**: Market saturation can impact the number of new customers you attract. If multiple teams aggressively go after a specific customer segment, the marketing cost for that segment will begin to rise. Market saturation is reached in Treasury Services when the total marketing dollars spent for a specific customer segment is 50% more than the total marketing dollars spent at SimStart.

See Sample Calculation C-5 for an example.

Deposit Decisions

In the simulation, you will set a ***Minimum Balance*** for your Commercial Checking Accounts. Accounts falling below this balance will pay the Monthly Maintenance Fee, which generates fee income for your bank.

As you raise your Minimum Balance, more accounts will fall below this minimum. This will create more fee income. At the same time, as you raise this minimum balance, you become less attractive to customers and prospects, leading to:

- Lower retention rates on existing customers
- Fewer new customers

The opposite is also true. As you lower your Minimum Balance, more accounts will meet the minimum balance. This will lower your fee income, yet you will become more attractive to customers and prospects, leading to:

- Higher retention rates on existing customers
- More new customers

Minimum Balance	Fee Income	Interest Expense	Retention Rate	Response Rate
↗	↗	↘	↘	↘
As you increase your Minimum Balance…	…your fee income will increase…	your interest expense will drop…	…but your retention rate will fall….	…as will your response rate from new customers

In the simulation, "high" and "low" fees are relative to your competition. In other words, if you set a Minimum Balance of $20,000 and your competition sets a Minimum Balance of $30,000, your Minimum Balance is low and you will get more new customers and higher retention rates than expected. However, if you set your Minimum Balance at $20,000 and your competition sets a Minimum Balance of $12,000, your Minimum Balance is high and you will get fewer new customers and lower retention rates than expected.

More specifically, in attracting new checking accounts:

- If your Minimum Balance is within +/- 15% of the market average, there is no impact on new customers

- If your Minimum Balance is outside this +/- 15% range, your number of new customers will be adjusted by 15% of the difference between your Minimum Balance and the market average

The impact on retention rates is similar, but your existing customers are less sensitive than new customers:

- If your Minimum Balance is within +/- 30% of the market average, there is no impact on your retention rates
- If your Minimum Balance is outside this +/- 30% range, your retention rates will be adjusted by 20% of the difference between your Minimum Balance and the market average

As you raise your ***Monthly Maintenance Fee*** for Commercial Checking Accounts, you will earn more fee income from each account below the minimum balance. At the same time, as you raise this fee, you become less attractive to customers and prospects, leading to:

Monthly Account Fee	Fee Income	Retention Rate	Response Rate
➚	➚	➘	➘
As you increase your Monthly Account Fee	…your fee income will increase…	…but your retention rate will fall….	…as will your response rate from new customers

- Lower retention rates on existing customers
- Fewer new customers

The opposite is true here as well. As you lower your Monthly Account Fee, you will earn less fee income from each account below the minimum balance. However, you will become more attractive to customers and prospects, leading to:

- Higher retention rates on existing customers
- More new customers

In the simulation, "high" and "low" fees are relative to your competition. In other words, if you charge your customers $20 a month for their checking accounts, and your competition charges $30 a month, your pricing is low and you will get more new customers and higher retention rates than expected. However, if you charge your customers $20 a month for their checking accounts, and your competition offers free monthly checking, your pricing is high and you will get fewer new customers and lower retention rates than expected.

More specifically, in attracting new checking accounts:

- If your Monthly Fee is within +/- 10% of the market average, there is no impact on your response rates
- If your Monthly Fee is outside this +/- 10% range, your response rates will be adjusted by 50% of the difference between your fee and the market average

See Sample Calculation R-3 for an example.

The impact on retention rates is similar, but your existing customers are less sensitive than new customers:

- If your Monthly Fee is within +/- 30% of the market average, there is no impact on your retention rates
- If your Monthly Fee is outside this +/- 30% range, your retention rates will be adjusted by 20% of the difference between your fees and the market average

See Sample Calculation R-4 for an example.

The ***Rate*** is the interest rate you offer to Business Savings Account customers.

Percentage Rate	Interest Expense	Retention Rate	Response Rate
↘	↘	↘	↘
As you lower your Percentage Rate…	...your interest expense will drop…	…but your retention rate will fall….	…as will your response rate from new customers

As you lower this interest rate, you will lower the interest you need to pay to your deposit customers. At the same time, if you offer lower rates on deposits, you become less attractive to customers and prospects, leading to:

- Lower retention rates on existing customers
- Fewer new customers

Alternatively, as you raise interest rates, you will increase the interest you need to pay to your deposit customers, increasing your interest expense. However, you do become more attractive to customers and prospects, leading to:

- Higher retention rates on existing customers
- More new customers

Again, in this simulation, "high" and "low" rates are relative to your competition. In other words, if you offer your customers a rate of 2.00% on business savings accounts, and your competition offers 2.50%, your pricing is low and you will get fewer customers and lower retention rates than expected. However, if you offer your customers 2.00% and your competition offers 1.50%, your pricing is high and you will get more new customers and higher retention rates than expected.

More specifically:

- If your Percentage Rate is within +/- 15% of the market average, there is no impact on new customers
- If your Percentage Rate is outside this +/- 15% range, your new customers will be adjusted by 30% of the difference between your rate and the market average

The impact on retention rates is similar, but your existing customers are less sensitive than new customers:

- If your Percentage Rate is within +/- 20% of the market average, there is no impact on your retention rates

- If your Monthly Fee is outside this +/- 20% range, your retention rates will be adjusted by 20% of the difference between your fees and the market average

Treasury Service Fees

Transaction Fees	Revenue	Retention Rate	Response Rate
↗	↗	↘	↘
As you raise your Fees…	...your revenue per transaction will grow…	…but your retention rate will fall….	…and your response rate will fall, leading to fewer new customers

For Treasury Services, pricing is related to the fee you charge for each transaction. As you raise your fees, you will increase the amount of fee income you earn from each transaction. At the same time, as you raise fees, you become less attractive to prospects, leading to fewer new customers.

As you lower fees, you will decrease the fee income you earn from each transaction. However, you do become more attractive to prospects, leading to more new customers.

In this simulation, "high" and "low" rates are relative to your competition. In other words, if you charge your customers a fee of $1.00, and your competition charges $1.25, your pricing is low and you will get more new customers and higher retention rates than expected. However, if you charge your customers $1.00 and your competition charges $0.75, your pricing is high and you will get fewer new customers and lower retention rates than expected.

The impact of pricing on new customers varies by product:

- If your ACH pricing is within +/- 15% of the market average, there is no impact on new Treasury Services customers
  - If your ACH pricing is outside this +/- 15% range, new Treasury Services customers will be impacted by 15% of your deviation from the market average

See Sample Calculation C-6 for an example.

The impact of your pricing for other Treasury Services products is similar:

- If your Wire Transfers pricing is within +/- 20% of the market average, there is no impact on new Treasury Services customers
  - If your Wire Transfers pricing is outside this +/- 20% range, new Treasury Services customers will be impacted by 10% of your deviation from the market average
- If your Merchant Processing pricing is within +/- 15% of the market average, there is no impact on new Treasury Services customers
  - If your Merchant Processing pricing is outside this +/- 15% range, new Treasury Services customers will be impacted by 15% of your deviation from the market average

Once the impact of pricing has been determined, the number of new Treasury Services customers is added to the number of existing Treasury Services customers retained to determine the total number of Treasury Services customers.

Each of these customers will then generate the transaction volumes shown to the right.

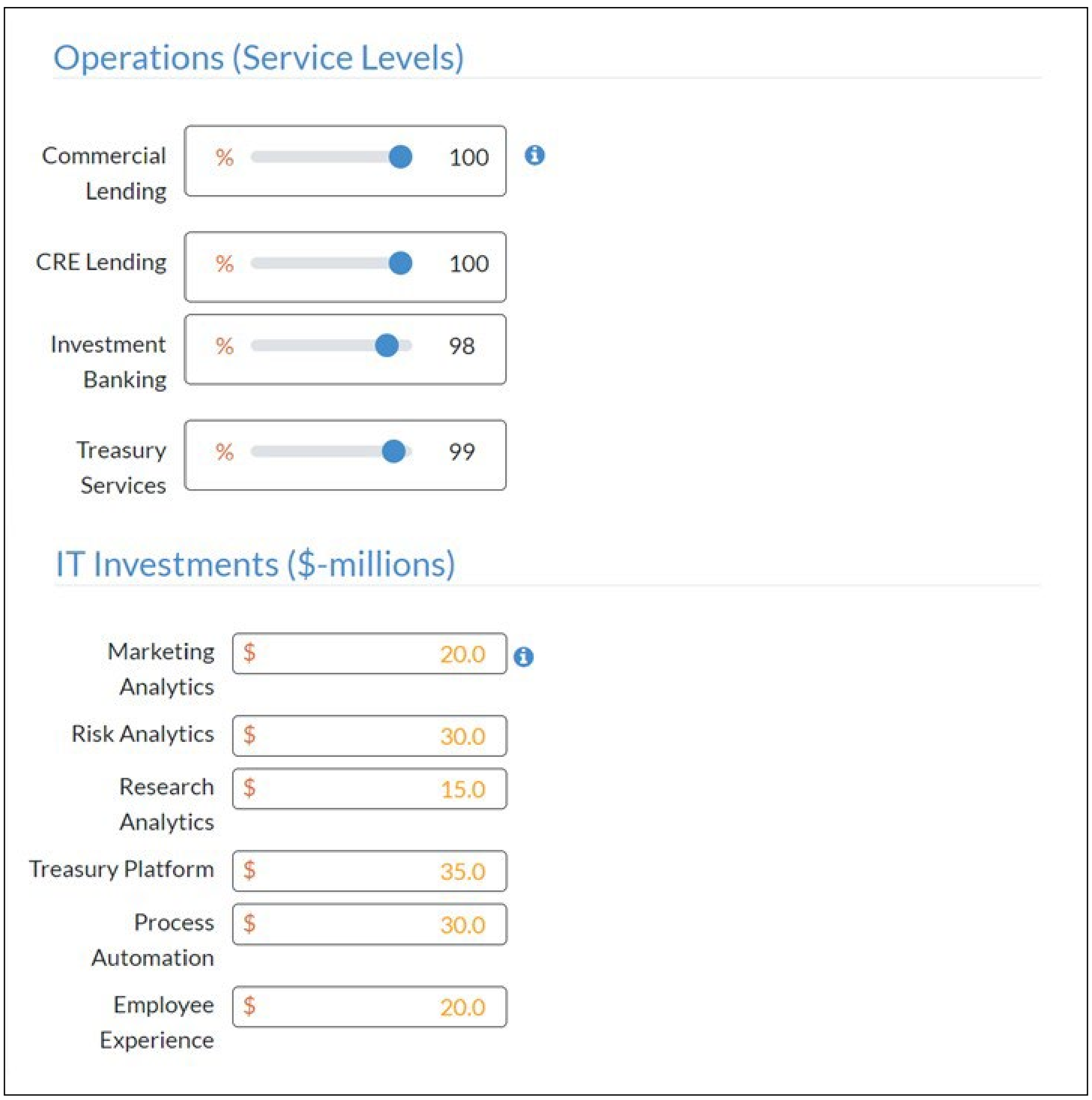
Transaction Volumes	Small Business	Middle Market	Large Corporate
ACH Transactions	195	3,000	40,000
Wire Transfers	6	35	1,250
Merchant Processing Transactions	250	5,400	75,000

Operations

To support your bank's Corporate Finance and Treasury services, you will also need to make decisions about your corporate banking Operations.

Operations makes up the majority of your bank's operating costs, so it's important to manage these expenses carefully. At the same time, under investing in Operations leads to poor customer service, which leads to lower customer retention rates. Success in this area requires a careful balancing act in which you spend enough in Operations, but only enough.

In the simulation, your Corporate Banking



Operations decisions fall into two areas:

- Operating budgets
- IT investment budgets

Let's look at each of these…

Operations (Service Levels)

Your operating budgets represent the costs associated with processing corporate banking transactions. These costs include compensation, occupancy and equipment costs. Corporate banking transactions include processing:

- Commercial loan transactions
- Investment banking deals
- ACH payments
- Wire transfers
- Merchant processing transactions

In the simulation, you set the service levels you want to provide to your customers (ranging from 80% to 100%). Setting your service levels at 100% will allow your bank to fulfill all of your customers' expectations for operations. For example, setting your CRE Lending service level at 100% ensures all of your CRE Lending customers receive their monthly statement on a specific date each month. However, service levels of 100% does maximize your operational costs.

If you set your service levels to less than 100%, you can reduce your bank's back office operational costs, lowering your bank's overall operating expenses. However, lower service levels can lead to customer service problems. For example, setting your service level to low in Treasury Services may create problems payments and other transactions for your Treasury Services customers. So, the key to success in Operations is to invest enough to meet customer service expectations while not over investing in an effort to control operating costs.

If you set your service levels to 100%, you will realize the following costs:

Operations Costs (per Account)	New Accounts	Existing Accounts
Commercial Lending	$30,000	$1,500
CRE Lending	$100,000	$10,000
Investment Banking	$200,000	n/a
Treasury Services	$1,000	$250

See Sample Calculation C-7 for an example.

IT Investment Budgets

The second decision area in Operations involves investments in new technology.

In the simulation, you can invest in new technology for:

- Marketing Analytics
- Risk Analytics
- Research Analytics
- Treasury Platform
- Process Automation
- Employee Experience

As you increase your investments in new technology, you improve:

- The value of your products
- The quality of your service delivery
- The sophistication of your risk management

Depending on the investment, this leads to more new accounts (created by superior products and services), better customer service (leading to higher retention rates) and/or improved risk management (leading to lower delinquency and charge-off rates).

More specifically:

- Investments in *Marketing Analytics* improves your ability to target, market and sell to new prospects
  - This leads to improved sales across all of your Corporate Banking products and services
- Investments in *Risk Analytics* lowers delinquency and charge-off rates for:
  - Commercial lines of credit
  - Commercial real estate loans
- Investments in *Research Analytics* improve the quality of your research, leading to more sales in:
  - Investment banking
  - Investment management
- Investments in your *Treasury Platform* improve the quality of your Treasury platform used by customers, leader to higher sales and retention rates in Treasury Services
- Investments in *Process Automation* improves the efficiency of your Operations
  - This counteracts lower Service Levels in Operations by improving retention rates for all Corporate Banking products
- Investments in *Employee Experience* improves the experience employees realize when performing their day-to-day activities, improving employee satisfaction and efficiency
  - As a result, investments in Employee Experience will improve sales and customer service for all of your Corporate Banking products

The appropriate amount to invest in new technology is relative to your competitors and your strategy. If your competitors spend more than you do, you will fall behind (leading to lower sales, lower retention rates and less effective risk management). To maintain your competitive position, your investments in new technology should be equal to your “fair share” of all investments in new technology. In other words, if there are four teams in the simulation, your investments in Risk Analytics should be equal to 25% of the total investments in Risk Analytics by all teams. Spending more than your fair share will provide you with a competitive advantage (i.e., higher sales, higher customer retention and improved risk management).

There is also a “lag” to the business benefit realized by these technology investments, It takes a year for your bank to design, develop, test and implement new technology. As a result, technology investments in the current year will create additional expenses for the current year, but won’t improve sales, service or risk management until the following year.

Human Resources

The last area of decision making in Corporate Banking is Human Resources. In this area, you will make decisions impacting your ability to attract and retain employees, including:

- Compensation
- Training

Let’s look at each of these…

Compensation

Compensation	Employee Retention Rate	Customer Retention Rates	New Customers	Expenses
↗	↗	↗	↗	↗
As your increase your Compensation…	…your employee retention rate will improve…	…leading to improved customer service…	…and more new customers…	…but your operating expenses will go up

Your ability to retain employees in the simulation is driven primarily by the amount of compensation you provide. At SimStart, the average compensation for corporate banking employees is $66,000. You then decide the amount of increase (if any) to this average compensation. In other words, if you enter 3% in Round 1, your average employee compensation will be $67,980 in Year 1 (3% more than $66,000). If you enter 4% in Round 2, your average employee compensation will increase to $70,699 (4% more than $67,890).

If your average compensation is higher than your competitors, your employee retention rate will increase. Conversely, if your average compensation is lower than your competitors, your employee retention rate will fall, requiring you to recruit more new employees.

More specifically:

- If your average compensation is within +/- 10% of the market average, there is no impact on your employee retention rate
- If your average compensation is outside this +/- 10% range, your employee retention rate will be adjusted by 50% of the difference between your rate and the market average

See Sample Calculation C-8 for an example.

Remember, as with any financial institution, employee compensation and benefits are your largest source of expense.

Training

Training is an important part of any successful bank's strategy. Training improves the effectiveness of your bank's employees, thereby improving customer service and sales efforts.

In the simulation, you will enter the corporate banking training budget for:

- Sales training
- Services training
- Compliance training

Increasing ***sales training*** helps your relationship managers and other corporate banking employees improve their sales skills, leading to more new customers. In the simulation, the “norm” for sales training is $600 per employee. If you spend more than this, the sales skills of your staff will improve, leading to more new customers. If you spend less than $600 per employee, your staff’s sales skills are considered less effective, and the number of new customers you receive will fall.

Sales Training	Staff Sales Skills	New Customers	Training Costs
↗	↗	↗	↗
As you increase your Sales Training budget…	…your staff's sales skills will improve…	…leading to more new customers…	…but higher training costs

Increasing ***services training*** improves your customer service. In the simulation, the “norm” for services training is $1,500 per employee. If you spend more than this, the customer service skills of your staff will improve, leading to higher customer retention. If you spend less than $1,500 per employee, your staff’s service skills are considered less effective, and your customer retention rates will drop.

Services Training	Staff Service Skills	Customer Retention	Training Costs
↗	↗	↗	↗
As you increase your Services Training budget…	…your staff's service skills will improve…	…leading to higher customer retention…	…but higher training costs

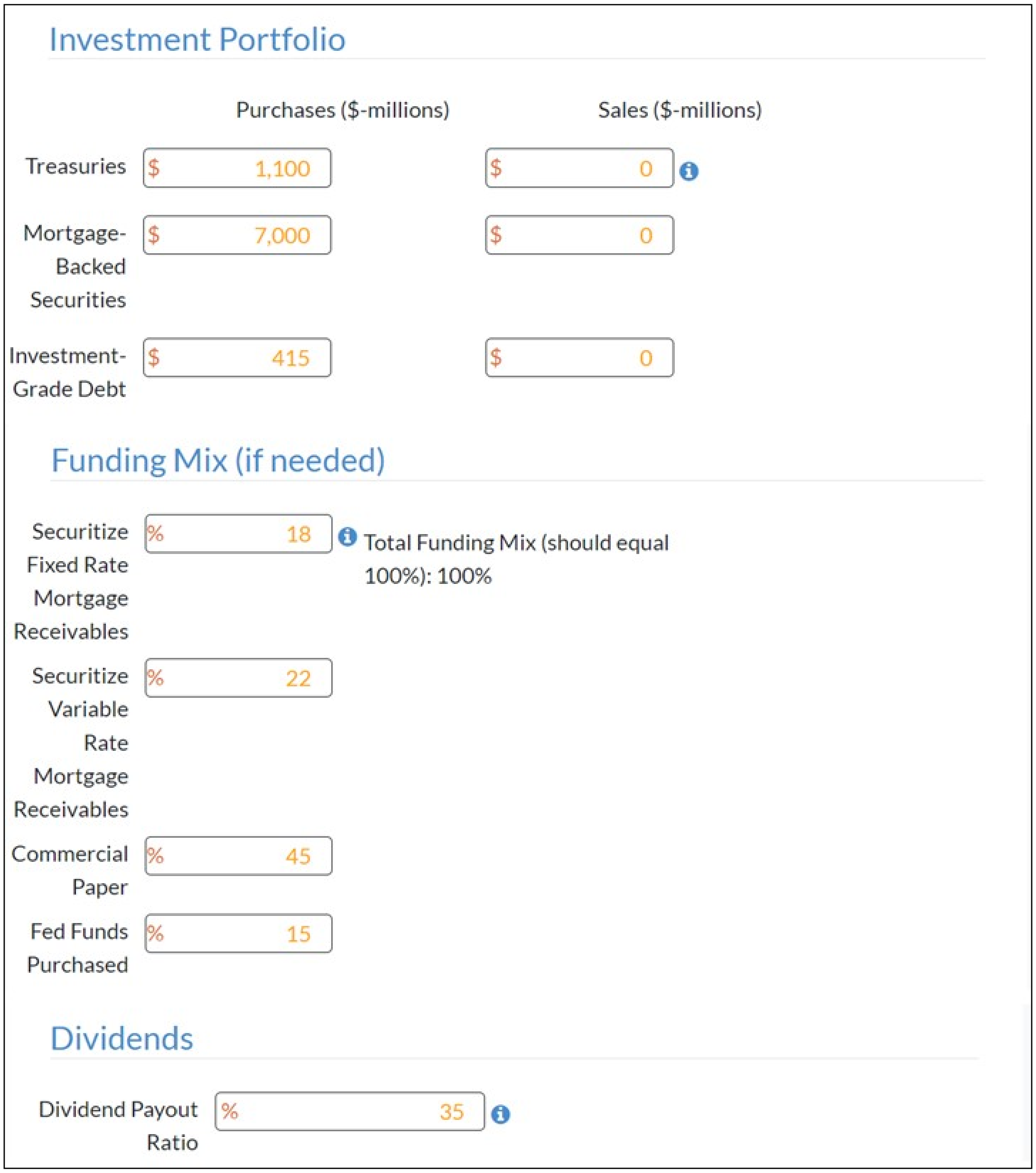
For compliance training, your bank is expected to spend $600 per employee. If you spend less than this, you may receive a “warning” from regulators to improve your compliance training. ***If your compliance training is found to be significantly below expected levels, your bank may be fined***. At the same time, there is no positive benefit to overspending on compliance training.

Compliance Training	Regulatory Risk	Training Costs
↗	↘	↗
As you increase your Compliance Training budget…	…your risk of regulatory noncompliance drops…	…but your training costs increase

ASSET/LIABILITY MANAGEMENT

In the simulation, the Asset/Liability Management group has three primary responsibilities:

- Manage the bank's investment portfolio to earn additional income while ensuring the bank maintains adequate levels of liquidity
- Balance funding sources to ensure the bank cost-effectively raises funds to meet its lending and investment goals
- Distribute capital to shareholders through dividends



This section will help you understand the Asset/Liability Management decisions you will be asked to make and the impact of these decisions on your bank's performance. This section is organized into three parts:

- Investment portfolio
- Funding mix
- Dividends

Let's begin by looking at your investment portfolio…

Investment Portfolio

While usually not as large as their lending portfolios, the investment portfolios of banks are a significant percentage of overall assets.

A bank's investment portfolio provides the bank with the ability to meet its liquidity needs (e.g., help fund deposit withdrawals) by holding liquid assets. Actively traded securities are considered more liquid than loans, because it is easier to sell them on the open market to raise funds on short notice. At the same time, the investment portfolio earns interest income for the bank.

In the simulation, you can invest in three different types of securities:

- Treasuries
- Mortgage-backed securities
- Investment-grade debt

Treasuries are bonds issued by the U.S. government and are backed by the "full faith and credit" of the government. As a result, Treasuries are considered "risk-free" and pay a lower yield than other investments.

Mortgage-backed securities are securities issued by financial institutions such as Fannie Mae. These institutions purchase mortgages from lenders and issue securities (backed by these mortgages) to raise new funds.

Investment-grade debt are bonds issued by corporations considered to be of high-quality. In other words, rating agencies consider the risk of these corporations defaulting to be low.

These securities are all sensitive to changes in the interest rate environment. As interest rates rise, these investments become less attractive and their market value drops. Conversely, as interest rates drop, your investments become more valuable and their market value rises.

See Sample Calculation ALM-1 for an example.

You do not have to sell investments to be impacted by changes in interest rates. Banks are required to record their investment portfolio on their balance sheet at market value, and any adjustment has an impact (positive or negative) on the bank's equity (through unrealized gains or losses on securities).

As a result, you want to carefully evaluate the impact of interest rate changes before you make your investments. The interest rate environment for all three rounds is set by the Simulation Administrator before the simulation begins.

In addition to interest rate risk, your debt instruments also contain ***credit risk***. Debt instruments are very much like loans, in that the bondholder is lending money to the bond issuer. And, just like loans, there is a possibility the issuer will default and be unable to repay the "loan". This results in a direct loss to the bondholder, just like a loan loss.

Your investment portfolio also impacts your liquidity risk. ***Liquidity risk*** is the risk that your bank will not have funds available to meet its obligations, such as funding deposit withdrawals or repaying commercial paper you have borrowed. To ensure minimum levels of liquidity, regulatory guidelines require banks to maintain Liquidity Coverage Ratios of at least 100%. In this simulation, if your Liquidity Coverage Ratio falls below 100%, regulators may require you to buy and/or sell specific securities to increase your liquidity coverage.

The ***Liquidity Coverage Ratio*** compares your high-quality liquid assets to your potential net cash outflows. As part of the Liquidity Coverage Ratio calculation, some investments are considered more liquid than others:

- *Treasuries* are considered very liquid, and the full market value of Treasuries you hold are included in the calculation of your high-quality liquid assets
- Other investments (including *mortgage-backed securities* and *investment-grade debt*) are considered "Level 2" liquid assets, and only a portion of their market value are included in the calculation of your high-quality liquid assets

As a result, if your Liquidity Coverage Ratio is low, you should consider shifting some of your investments (or other assets) into Treasuries.

Funding Mix

A key component of successful bank management is the careful balance between asset growth and funding growth.

Your bank needs funding to fund loans that your bank issues, purchase new investment securities and/or repay debt previously borrowed.

Deposits are your bank's primary source of funding (as they are for most banks). Deposits are also the most attractive source of funding, because they are a relatively inexpensive and stable source of funding.

However, banks often require additional sources of funding beyond deposits. In the simulation, if you do not have enough deposits to fund your balance sheet, the simulation will automatically raise funding from additional sources, which can include:

- Securitizing loans
- Issuing commercial paper
- Borrowing from other banks through Fed Funds Purchased

You determine what percentage of additional funding will come from each of these sources (if needed).

While using these additional sources of funding ensures your bank's balance sheet will remain "in balance", these additional sources of funding do come at a cost (see below). As a result, you want to grow deposits enough to fund your asset growth year-over-year to minimize your need for these additional funding sources.

So, how do you ensure your bank's deposit and asset growth are in balance? The first step is to project your funding needs for the next year:

- Work with Retail Banking to identify the expected growth (or decline) in:
  - Credit card loans
  - Consumer loans
  - Mortgage loans (fixed-rate and variable)
- Work with Corporate Banking to identify the expected growth (or decline) in:
  - Lines of credit
  - Commercial real estate loans
- Identify the amount of new investment securities you plan to purchase in the coming year
- Identify the expected growth (or decline) of your existing Investment Portfolio (created by changes in the interest rate environment)
- Identify any Fed Funds Purchased and/or Commercial Paper to be repaid

With this information identified, evaluate your funding sources:

- Work with Retail Banking and Corporate Banking to identify the expected growth (or decline) in deposits
- Determine if there are any Fed Funds Sold to be repaid to you

See Sample Calculation ALM-2 for an example.

If you project a funding shortfall, you have four options:

- You can attempt to attract more deposits
- You can slow down asset growth by limiting growth in loans and/or new investment portfolio purchases
- You can sell existing securities in your investment portfolio
- You can raise additional funds by securitizing loans , issuing commercial paper and/or borrowing money from other banks through Fed Funds Purchased

Asset/Liability Management Worksheet

The table below is designed to help you project your sources and uses of funds.

Uses of Funds	Year 0 Actual	Year 1 Estimate	Year 1 Actual	Year 2 Estimate	Year 2 Actual	Year 3 Estimate
Increase (decrease) in Net Loans	20,479.0					
Investment Portfolio purchases	8,515.0					
Increase (decrease) in market value of Investment Portfolio	(4,115.0)					
Fed Funds Purchased in previous year	55.0	1.036.1	1,036.1			
Commercial Paper issued in previous year	167.0	3,107.0	3,107.0			
Other uses of funds	342.0					
Total Uses of Funds	25,443.0					

Sources of Funds	Year 0 Actual	Year 1 Estimate	Year 1 Actual	Year 2 Estimate	Year 2 Actual	Year 3 Estimate
Net increase (decrease) in Deposits	19,722.3					
Fed Funds Sold in previous year	0.0	0.0	0.0			
Investment Portfolio sales	0.0					
Loans securitized	2,761.6					
New Commercial Paper issued	3,107.0					
Increase (decrease) in Equity	(1,184.0)					
Other sources of funds	0.0					
Total Sources of Funds	24,406.9					

Fed Funds Sold (Purchased) *Total Sources of Funds – Total Uses of Funds*	(1,036.1)					

Securitizing Loans

Securitization is the process of raising new funds by “bundling” existing assets and converting them into securities, and then selling these securities to investors.

In this simulation, you can securitize:

- Fixed-rate mortgage loans
- Variable-rate mortgage loans

If you choose to ***securitize mortgage loans***, these assets are sold to a third party (e.g., Fannie Mae, Freddie Mac). The mortgage loans are removed from your bank’s Balance Sheet, and the funds become available to your institution. You will no longer process the mortgage loans, and any payments sent by the borrower will be sent to a third party processor who will then forward the payments to the mortgage holder.

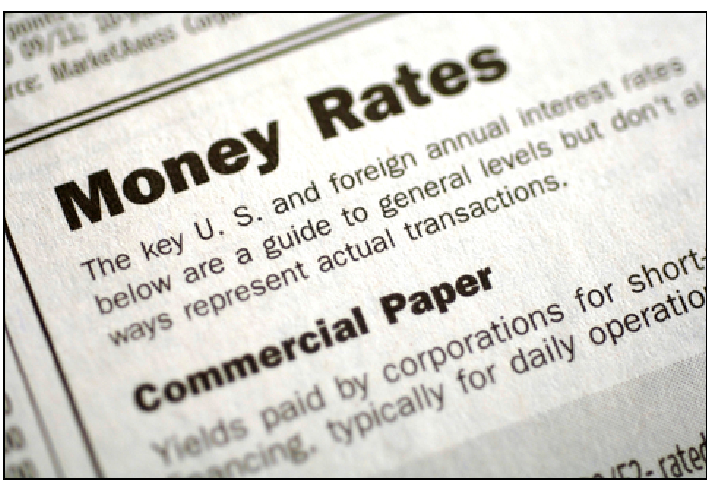
Securitizing mortgage loans allows you to turn illiquid assets into cash, reducing your need for funding. However, securitizing mortgage loans also means your bank no longer receives revenue from these interest-earning assets.

You may also experience a gain or loss on the sale of your fixed-rate mortgage loans. If the average yield on your fixed-rate mortgage portfolio is *above* market rates on current fixed-rate mortgages, you will realize a capital gain. If the average yield on your fixed-rate mortgage portfolio is *below* market rates on current fixed-rate mortgages, you will realize a capital loss.

See Sample Calculation ALM-3 for an example.

Variable-rate mortgage loans do not generate a gain or loss, because the simulation assumes they are priced at the current market rate.

Commercial Paper



In the simulation, you can issue new debt in the form of commercial paper if you need additional funding. Commercial paper is unsecured, short-term debt. Commercial paper is typically issued by banks, finance companies and other corporations with maturities of 30-60 days.

In the simulation, assume commercial paper has a maturity of less than 12 months. ***In other words, any commercial paper you issue in the current year will mature in the next year***. So, if you have $3 billion in commercial paper currently outstanding at the end of the previous year, you will need to repay this debt in the current year.

In this simulation, the funding costs associated with commercial paper you issue is 20 basis points above the Fed Funds rate for that year.

Fed Funds Purchased

Fed Funds Purchased represents short-term funding from other banks. Fed Funds Purchased are shown as a liability on your balance sheet.

These loans from other banks are made at the Fed Funds interest rate determined by the Simulation Administrator before the simulation begins.

Fed Funds Purchased are usually a more expensive source of funding than deposits. For example, at SimStart your bank is paying an interest rate of 1.00% - 1.95% on retail and commercial deposits. However, the Fed Funds Rate at SimStart is 2.50%.

Banking regulators and investors frown upon excessive Fed Funds Purchased. It represents a bank that is "out of balance". In other words, it represents a bank that is growing assets more quickly than deposits, forcing the bank to rely on more expensive, less stable sources of funding. As a result, if your Fed Funds Purchased are greater than 10% of your total assets, you will be penalized in that round with a 10% reduction in your stock price.

Fed Funds Sold

Your bank can also grow deposits too quickly. If your bank raises more deposits than needed to fund your loans and investments, the excess funds are lent out to other banks.

These short-term loans to other banks are referred to as Fed Funds Sold. Fed Funds Sold are shown as an asset on your balance sheet (like other loans).

These loans are made at the Fed Funds rate determined by the Simulation Administrator before the simulation begins.

While lending excess funds to other banks does generate some interest income for your bank, it does so at a relatively low interest rate. For example, at SimStart the Fed Funds Rate is 2.50%. However:

- Your bank is earning 4.00% - 9.49% on loans
- Yields on:
  - Treasuries are 3.06%
  - Mortgage-backed securities are 3.92%
  - Investment-grade debt are 4.62%

So, using deposits to lend money to other banks at a rate of 2.50% is the least profitable option available.

As with Fed Funds Purchased, banking regulators and investors do not like to see excessive Fed Funds Sold. It represents a bank that is "out of balance", because the bank is growing deposits more quickly than it can put those deposits “to work” effectively. As a result, in the simulation, you are trying to limit your Fed Funds Sold to no more than 10% of your total assets. If they are greater than 10% of your total assets, you will be penalized in that round with a 10% reduction in your stock price.

Dividends

In the simulation you determine what percentage of your net income will be distributed to your shareholders in the form of dividends. We refer to this decision as the ***dividend payout ratio***. At SimStart, the dividend payout ratio is 35%.

In general:

- Increasing your dividend payout ratio will push your short-term stock price up, since investors will receive higher dividends
- However, increasing this ratio will also leave your bank with less capital, since more of your retained earnings will go to shareholders

The impact of this decision on your stock price depends upon the actual amount of dividends you pay as compared to your competitors. More specifically:

- If the amount of dividends you pay per share is higher than the market average, it will drive your stock price up by the difference between your dividends per share and the market average; for example:
  - Assume your stock price before dividends per share are included is $60/share
  - Assume you pay $2.00/share in dividends per share and the market average for dividends per share is $1.50/share
  - Your stock price will be adjusted upwards $0.50/share ($2.00 - $1.50) to $60.50/share
- Conversely, if the amount of dividends you pay per share is lower than the market average, it will drive your stock price down by the difference between your dividends per share and the market average; for example:
  - Assume your stock price before dividends per share are included is $60/share
  - Assume you pay $0.75/share in dividends per share and the market average for dividends per share is $1.50/share
  - Your stock price will be adjusted downwards $0.75/share ($0.75 - $1.50) to $59.25/share

However, paying higher dividends to shareholders lowers your equity (and capital). For example:

- Assume your bank earns $5 billion in net income
- If your dividend payout ratio is 40%:
  - You will pay $2 billion to shareholders through dividends
  - This leaves your bank with $3 billion to add to your equity (through Retained Earnings)
- If you increase your dividend payout ratio is 60%:
  - You will pay $3 billion to shareholders through dividends
  - This leaves your bank with only $2 billion to add to your equity (through Retained Earnings)

Your dividend payout ratio is also limited by your regulatory capital. In the simulation, you must maintain a Tier 1 Capital Ratio of at least 8.5%. ***If your bank's Tier 1 Capital Ratio falls below this minimum, you will not be allowed to pay dividends in the following year.***

SIMULATION REPORTS

To evaluate your bank's current position and the impact of your decisions, you should examine the following reports after each round:

- Team Reports
  - Scoring and Key Indicators (Report 1)
  - Income Statement (Report 2)
  - Balance Sheet (Report 3)
  - Economic Data (Report 4)
  - Allowance for Loan Losses (Report 18)
  - Average Balance Sheet and Net Interest Analysis (Report 19)
- Retail Banking Reports
  - Deposits (Report 5)
  - Investment Management (Report 6)
  - Consumer Lending (Report 7)
  - Mortgage Lending (Report 8)
  - Operations (Report 9)
  - Personnel (Report 10)
  - Retail Banking Decisions (Reports 20-23)
  - Competitive Information (Reports 29-32)
- Corporate Banking Reports
  - Commercial Lending (Report 11)
  - Investment Banking (Report 12)
  - Treasury Services (Report 13)
  - Operations (Report 14)
  - Personnel (Report 15)
  - Corporate Banking Decisions (Reports 24-27)
  - Competitive Information (Reports 33-36)
- Asset/Liability Management
  - Investment Portfolio (Report 16)
  - Asset/Liability Management (Report 17)
  - Asset/Liability Management Decisions (Report 28)

Let's take a closer look at some of these reports…

Scoring and Key Indicators Report

This report shows the key performance metrics for all the teams in the simulation.

- **Stock Price**
  In this simulation, your stock price at the end of each round is determined by taking your stock price from the previous round and adjusting that stock price based on your team's performance across the seven scoring metrics
- **Earnings per Share**
  Net income divided by the number of common shares outstanding
- **ROE**
  Return on equity
  Net Income divided by Average Total Shareholders Equity
- **ROA**
  Return on assets
  Net Income divided by Average Total Assets
- **Net Income**
  Net income for the year
- **Core Revenue Growth**
  Current year's core revenue divided by previous year's core revenue
  Core Revenue is the sum of your Net Interest Income and Noninterest Income minus your Capital Gains (Losses) for the year

Scoring and Key Indicators

Report: 1
Year: 0

Team	Stock Price	Earnings per Share	ROE	ROA	Net Income ($-millions)	Core Revenue Growth	Dividends per Share
SimStart	$60.00	$3.90	11.05%	1.07%	4,484	7.1%	$1.36

Team	Core Fee Income Growth	Expense Growth	Efficiency Ratio	Operating Leverage	Margin	Charge-Off Rate	NPL Ratio
SimStart	6.1%	5.1%	60.8%	2.1%	3.39%	0.78%	0.85%

Team	Asset Growth	Loan Growth	Deposit Growth	Loans to Deposits	Tier 1 Capital Ratio	Liquidity Coverage Ratio	CRA Rating
SimStart	5.5%	6.1%	5.9%	87.3%	12.9%	149.6%	Satisfactory

- **Dividends per Share**
  Total dividends paid divided by the number of common shares outstanding
- **Core Fee Income Growth**
  Current year's core fee income divided by previous year's core fee income
  Core Fee Income is your total Noninterest Income minus your Capital Gains (Losses) for the year

- **Expense Growth**
  Current year's total noninterest expense divided by previous year's total noninterest expense
- **Efficiency Ratio**
  Total noninterest expense divided by total revenue
- **Operating Leverage**
  Core revenue growth minus expense growth
  Operating leverage compares a bank's revenue growth to its expense growth
  Positive operating leverage indicates a bank that is growing revenue more quickly than expenses
- **Margin**
  Net Interest Margin
  Net interest margin is equal to net interest income divided by average earning assets
  Earning assets are assets that generate interest income and include loans, securities available for sale and Fed Funds sold
  This calculation uses net interest income before the impact of the provision for credit losses
- **Charge-Off Rate**
  Charge-offs divided by average loans
- **NPL Ratio**
  Non-performing loans (NPL) divided by total loans at year-end
- **Asset Growth**
  Current year's total assets divided by previous year's total assets
- **Loan Growth**
  Current year's net loans divided by previous year's net loans
- **Deposit Growth**
  Current year's total deposits divided by previous year's total deposits
- **Loans to Deposits**
  Net loans divided by total deposits
- **Liquidity Coverage Ratio**
  The Liquidity Coverage Ratio compares your high-quality liquid assets to your potential net cash outflows
  To ensure minimum levels of liquidity, regulatory guidelines require banks to maintain Liquidity Coverage Ratios of at least 100%
  If your Liquidity Coverage Ratio is low, you should raise more deposits, shift some of your investments (or other assets) into Treasuries and/or reduce your assets
- **CRA Rating**
  Regulatory rating based on your percentage of Retail Banking customers considered Underbanked
  Outstanding (more than 25% of your customers are Underbanked)
  Satisfactory (15% - 25% of your customers are Underbanked)
  Warning (10% - 15% of your customers are Underbanked)
  Noncompliance (less than 10% of your customers are Underbanked)

Income Statement

The income statement is a summary of your profitability for the year and includes:

- Interest Income, which summarizes all of the interest income earned
- Interest Expense, which summarizes all of the interest expense paid
- Noninterest Income, which summarizes all of the fee income earned
- Noninterest Expense, which summarizes all of the operating expenses incurred

Income Statement ($-millions)	SimStart		Report: 2 Year: 0
	Year (-1)	Year 0	%-Change
Interest Income			
Interest and fees on loans	13,149	14,786	12.4%
Interest and dividends on securities	3,822	4,152	8.6%
Interest on Fed Funds sold	0	0	n/a
Total interest income	16,971	18,938	11.6%
Interest Expense			
Interest on deposits	3,145	4,062	29.2%
Interest on Fed Funds purchased	10	14	40.0%
Interest on debt	993	1,034	4.1%
Total interest expense	4,148	5,110	23.2%
Net Interest Income	12,823	13,828	7.8%
Provision for credit losses	2,397	2,675	11.6%
Net Interest Income After Provision	10,427	11,153	7.0%
Noninterest Income			
Service fees	1,283	1,354	5.6%
Investment management fees	2,858	2,985	4.5%
Investment banking fees	1,211	1,269	4.8%
Treasury management fees	1,701	1,798	5.7%
Card fees	1,697	1,874	10.5%
Capital gains (losses)	0	(148)	n/a
Total noninterest income	8,749	9,132	4.4%
Noninterest expense			
Compensation and benefits	9,387	9,882	5.3%
Net occupancy expense	1,339	1,392	4.0%
Equipment expense	1,845	1,914	3.7%
Marketing costs	508	548	7.9%
Commissions paid	286	299	4.5%
Branch restructuring costs	13	20	48.0%
Total noninterest expense	13,378	14,055	5.1%
Net income before taxes	5,798	6,230	7.4%
Taxes	1,624	1,744	7.5%
Net income	**4,174**	**4,486**	7.4%
Earnings per share	$ 3.63	$ 3.90	7.4%
Dividends per share	$ 1.27	$ 1.36	7.4%

Interest Income

- **Interest and fees on loans**
  The interest income earned on loans
- **Interest and dividends on securities**
  The interest income earned on the investment portfolio
- **Interest on Fed Funds sold**
  The interest income earned (if any) by lending funds to other banks

Interest Expense

- **Interest on deposits**
  The interest paid on deposits
- **Interest on Fed Funds Purchased**
  The interest paid (if any) for borrowing funds from other banks
- **Interest on debt**
  The interest paid on commercial paper and long-term debt issued

Net Interest Income

- **Net Interest Income**
  Total interest income
  - Total interest expense
- **Provision for credit losses**
  The amount set aside to fund the allowance for loan losses in the current year
- **Net Interest Income After Provision**
  Net interest income
  - Provision for credit losses

Noninterest Income

- **Service fees**
  Fees earned from monthly account fees on retail and commercial deposits
  + ATM fees earned from foreign ATM transactions
- **Investment management fees**
  Fees earned from investment management services
- **Investment banking fees**
  Fees earned from investment banking services
- **Treasury management fees**
  Fees earned from treasury management services
- **Card fees**
  Annual fees earned from credit card customers
  + Interchange revenue earned from credit card spending
  - Cash rebates paid to credit card customers
- **Capital gains (losses)**
  Capital gains (or losses) incurred by selling investment securities
  + Capital gains (or losses) on fixed-rate mortgage loans securitized

Noninterest Expense

- **Compensation and benefits**
  Compensation and benefits paid to employees
- **Net occupancy expense**
  Costs associated with using and operating physical locations (such as branches and operating centers)
- **Equipment expense**
  Costs associated with technology and other equipment
- **Marketing costs**
  Costs associated with marketing products and services
- **Commissions paid**
  Commissions paid to financial advisors in investment management

- **Branch restructuring costs**
  Costs associated with closing branches in the current year
  These costs are primarily an acceleration of depreciation expenses associated with these branches

Net Income

- **Net income before taxes**
  Net interest income after provision
  + Total noninterest income
  - Total noninterest expense
- **Taxes**
  Income taxes paid
- **Net income**
  Net income before taxes
  - Taxes
- **Earnings per Share**
  Net income divided by the number of common shares outstanding
- **Dividends per Share**
  Dividends paid to shareholders divided by the number of common shares outstanding

Balance Sheet

The balance sheet shows your overall financial position at the end of the year. The balance sheet is organized into three broad categories:

- Assets, which represent what you own
- Liabilities, which represent what you owe to others
- Equity, which represents the ownership of shareholders and is equal to assets minus liabilities

Balance Sheet (\$-millions)	SimStart		Report: 3 Year: 0
	Year (-1)	Year 0	%-Change
Assets			
Cash and due from banks	9,046	9,302	3.6%
Fed Funds sold	0	0	n/a
Securities available for sale	102,700	107,100	4.3%
Loans			
Commercial loans	146,684	153,276	4.5%
Residential mortgages	43,158	47,730	10.6%
Consumer loans	103,997	110,900	6.6%
Allowance for loan losses	(4,399)	(4,749)	8.0%
Net loans	289,440	307,157	6.1%
Premises and equipment	5,528	5,614	1.6%
Total assets	**406,714**	**429,173**	5.5%
Liabilities			
Deposits			
Retail deposits	207,116	219,654	6.1%
Commercial deposits	125,130	132,314	5.7%
Total deposits	332,246	351,968	5.9%
Fed Funds purchased	55	1,036	1783.6%
Commercial paper	167	3,107	1760.5%
Long-term debt	28,277	28,277	0.0%
Other liabilities	4,810	4,810	0.0%
Total Liabilities	365,555	389,198	6.5%
Shareholders Equity			
Common stock	3,125	3,125	0.0%
Additional paid-in capital	9,476	9,476	0.0%
Retained earnings	25,644	28,575	11.7%
Unrealized gains (losses) on securities	2,914	(1,201)	(141.2%)
Total shareholders equity	41,159	39,975	(2.7%)
Total liabilities and shareholders equity	**406,714**	**429,173**	5.5%

Assets

- **Cash and due from banks**
  Cash held by the bank and deposits in other banks
  You cannot directly impact this amount in the simulation
- **Fed Funds sold**
  Short-term loans to other banks
- **Securities available for sale**
  Securities used to manage liquidity risk (and generate interest income)
  These securities are also referred to as your Investment Portfolio
- **Commercial loans**
  Commercial loans outstanding
  Total Commercial Lines of Credit Loans
  + Total Commercial Real Estate (CRE) Loans
- **Residential mortgages**
  Mortgage loans outstanding
  Total Fixed-Rate Mortgage Loans
  + Total Variable-Rate Mortgage Loans
- **Consumer loans**
  Consumer loans outstanding
  Total Credit Card Loans
  + Total Consumer Loans
- **Allowance for loan losses**
  Funds set aside to absorb future loan losses associated with the current loan portfolio

- **Net loans**
  Gross loans (Commercial loans + Residential mortgages + Consumer loans)
  - Allowance for loan losses
- **Premises and equipment**
  Real estate property, technology and other equipment purchased for long-term use and not likely to be converted into cash
  Premises and equipment assets are depreciated over time
- **Total assets**
  Cash and due from banks
  + Fed Funds sold
  + Securities available for sale
  + Net loans
  + Premises and equipment

Liabilities

- **Retail deposits**
  Deposits raised by Retail Banking
  Total Checking Account Deposits
  + Total Savings Account Deposits
- **Commercial deposits**
  Deposits raised by Treasury Services
  Total Commercial Checking Account Deposits
  + Total Business Savings Deposits
- **Total deposits**
  Retail deposits
  + Commercial deposits
- **Fed Funds purchased**
  Short-term borrowings from other banks
- **Commercial paper**
  Short-term debt issued
- **Long-term debt**
  Long-term debt issued in the form of bonds
  You cannot issue/retire long-term debt in the simulation
- **Other liabilities**
  Liabilities not included in other categories
  You cannot directly impact this amount in the simulation

- **Total liabilities**
  Total deposits
  + Fed Funds purchased
  + Commercial paper
  + Long-term debt
  + Other liabilities

Equity

- **Common stock**
  The par value of stock issued by the bank
  This value will not change over the course of the simulation
- **Additional paid-in capital**
  Additional capital provided by investors
  This value will not change over the course of the simulation
- **Retained earnings**
  Profits reinvested into the bank
  In the simulation, net income that you do not distribute to shareholders as dividends will be added to retained earnings
- **Unrealized gains (losses) on securities**
  The difference between the current market value of your securities available for sale and their original purchase price
- **Total shareholders equity**
  Common stock
  + Additional paid-in capital
  + Retained earnings
  + Unrealized gains (losses) on securities
- **Total liabilities and shareholders equity**
  Total liabilities
  + Total shareholders' equity
  Total liabilities and shareholders equity will always equal total assets
- **Common shares outstanding**
  Number of common equity shares outstanding
  This value will not change over the course of the simulation

Economic Data

This report shows changes in the economy year over year.

- **Fed Funds Rate**
  This is the rate at which banks will lend money to each other
- **Commercial Paper**
  This is the average cost of funding associated with issuing commercial paper to raise funding
  In the simulation, the rate on commercial paper will always be 20 basis points above the Fed Funds Rate

Economic Data		Report: 4 Year: 0
	Year (-1)	**Year 0**
Fed Funds Rate	2.00%	2.50%
Commercial Paper	2.20%	2.70%
Yield on 1-Year Treasury Bills	2.44%	2.73%
Secured Overnight Financing Rate (SOFR)	2.15%	2.65%
Bond Yields		
Treasuries	2.85%	3.06%
Mortgage-Backed Securities	3.77%	3.92%
Investment-Grade Debt	4.47%	4.62%
Economic Indicators		
Change in GDP	3.0%	3.5%
Inflation Rate	1.8%	2.0%
Unemployment Rate	4.5%	4.0%
Stock Market Return	6.0%	8.0%

- **Yield on 1-Year Treasury Bills**
  This is the current yield on 1-year Treasury Bills
  In the simulation, the yield on 1-year Treasury Bills is the benchmark used to price your variable-rate mortgage loans
- **Secured Overnight Financing Rate (SOFR)**
  SOFR is a benchmark based on prices related to overnight repurchase agreements between banks secured by US Treasuries
  In the simulation, SOFR is the benchmark used to price your commercial lines of credit and SOFR will always be 15 basis points above the Fed Funds Rate
- **Bond Yields**
  These are the average yields associated with Treasuries, mortgage-backed securities and investment-grade debt
  You can buy and sell these bonds as part of your asset/liability management
- **Changes in GDP**
  Change in gross domestic product
  Gross domestic product measures a country's economic growth
- **Inflation Rate**
  Change in prices in an economy
- **Unemployment Rate**
  Percentage of workers currently unemployed in an economy
- **Stock Market Return**
  The average return in the stock market

Deposits Report

This report shows the results of your Deposits decisions.

This report is organized by deposit type. The following pages describe the individual elements included on this report. (Note that when appropriate, calculations are shown in *italics* for clarity.)

Retail Banking **SimStart** **Report: 5**
Deposits **Year: 0**

	Underbanked	Mass Market	Mass Affluent	Total	*Last Year's Total*
Checking Accounts					
New Customers (#)	548,000	1,530,000	397,800	2,475,800	*2,327,150*
Prospects Reached (#)	54,800,000	170,000,000	46,800,000	271,600,000	*255,225,000*
Response Rate (%)	1.00%	0.90%	0.85%	0.91%	*0.91%*
Closed Accounts (#)	341,368	956,321	248,396	1,546,085	*1,455,000*
Retention Rate (%)	90.0%	90.0%	90.0%	90.0%	*90.0%*
Total Accounts (#)	3,618,500	10,137,000	2,633,000	16,388,500	*15,458,785*
Monthly Account Fees ($-millions)	262.1	530.8	102.3	895.2	*844.4*
Payments Processed (#-millions)	736.9	3,098.5	1,072.9	4,908.3	*4,629.9*
Average Account Balance ($)	1,750	7,500	20,000	8,239	*8,239*
Total Deposits ($-millions)	6,332.4	76,027.5	52,660.0	135,019.9	*127,368.0*
Interest Paid ($-millions)	26.0	485.2	385.2	896.4	*845.6*
Savings Accounts					
New Accounts (#)	80,296	312,760	86,287	479,343	*453,008*
New Customers (#)	3,529	169,310	49,033	221,872	*210,090*
Prospects Reached (#)	235,253	14,109,170	4,903,281	19,247,704	*18,180,179*
Response Rate (%)	1.50%	1.20%	1.00%	1.15%	*1.16%*
New Cross-Sold Accounts (#)	76,767	143,450	37,254	257,471	*242,918*
Prospects Reached (#)	3,411,868	9,563,321	2,483,596	15,458,785	*14,586,601*
Response Rate (%)	2.25%	1.50%	1.50%	1.67%	*1.67%*
Closed Accounts (#)	41,132	195,094	52,564	288,790	*273,800*
Retention Rate (%)	89.6%	90.0%	90.7%	90.1%	*90.0%*
Total Accounts (#)	436,000	2,068,000	596,400	3,100,400	*2,908,641*
Average Account Balance ($)	3,500	20,000	70,000	27,298	*27,418*
Total Deposits ($-millions)	1,526.0	41,360.0	41,748.0	84,634.0	*79,748*
Interest Paid ($-millions)	28.9	783.4	790.7	1,603.0	*1,162.0*
Total Deposits ($-millions)	7,858.4	117,387.5	94,408.0	219,653.9	*207,116.0*
ATM Fees ($-millions)				75.0	*75.0*
Net New Checking Accounts (#)	206,632	573,679	149,404	929,715	*872,150*

Checking Accounts

- **New Customers**
  Number of new checking accounts booked in the current year
  Prospects Reached
  x Response Rate
- **Prospects Reached**
  Number of prospects reached through your marketing expenditures
- **Response Rate**
  Percentage of prospects reached that opened new checking accounts
- **Closed Accounts**
  Number of checking accounts closed by customers in the current year
- **Retention Rate**
  Percentage of last year's checking accounts your bank retained
- **Total Accounts**
  Total number of checking accounts
- **Monthly Account Fees**
  Amount of monthly account fees collected on Checking Accounts below the minimum balances
- **Payments Processed**
  Number of payments processed for Checking Account customers
- **Average Account Balance**
  Average account balance of checking accounts

- **Total Deposits**
  Total customer deposits

- **Interest Paid**
  Total interest paid to checking account customers

Savings Accounts

- **New Accounts**
  Number of new savings accounts booked in the current year
  New Customers + New Cross-Sold Accounts

- **New Customers**
  Number of new bank customers opening savings accounts in the current year
  Prospects Reached x Response Rate

- **Prospects Reached**
  Number of prospects reached through your marketing expenditures

- **Response Rate**
  Percentage of prospects reached that opened new savings accounts

- **New Cross-Sold Accounts**
  Number of existing bank customers opening savings accounts in the current year
  Prospects Reached x Response Rate

- **Closed Accounts**
  Number of savings accounts closed by customers in the current year

- **Retention Rate**
  Percentage of last year's savings accounts your bank retained

- **Total Accounts**
  Total number of savings accounts

- **Average Account Balance**
  Average account balance of savings accounts

- **Total Deposits**
  Total customer deposits

- **Interest Paid**
  Total interest paid to savings account customers

ATM Fees

- Total ATM fees earned from foreign transactions

Net New Checking Accounts

- New checking accounts added
  - Closed checking accounts

Investment Management Report

This report shows the results of your Investment Management decisions. The following pages describe the individual elements included on this report. (Note that when appropriate, calculations are shown in *italics* for clarity.)

Retail Banking **SimStart** **Report: 6**
Investment Management **Year: 0**

	Underbanked	Mass Market	Mass Affluent	Total	*Last Year's Total*
Investment Management Accounts					
New Accounts (#)	10,471	66,855	13,916	91,242	*87,794*
New Clients (#)	235	47,728	11,929	59,892	*58,224*
Prospects Reached (#)	94,066	31,818,340	23,858,202	55,770,608	*54,085,215*
Response Rate (%)	0.25%	0.15%	0.05%	0.11%	*0.11%*
New Cross-Sold Accounts (#)	10,236	19,127	1,987	31,350	*29,570*
Prospects Reached (#)	3,411,868	9,563,321	2,483,596	15,458,785	*14,587,000*
Response Rate (%)	0.30%	0.20%	0.08%	0.20%	*0.20%*
Closed Accounts (#)	1,870	46,406	9,680	57,956	*54,780*
Retention Rate (%)	90.0%	90.0%	90.0%	90.0%	*90.0%*
Total Clients (#)	27,286	484,478	101,060	612,824	*579,533*
Average Account Balance ($)	20,000	250,000	1,750,000	487,122	*493,133*
Assets Under Management ($-millions)	545.7	121,119.5	176,855.0	298,520.2	*285,796.8*
Investment Management Fees ($-millions)	5.5	1,211.2	1,768.6	2,985.2	*2,858.0*
Financial Advisors					
New Financial Advisors				608	*575*
Retention Rate				90.0%	*90.0%*
Total Financial Advisors				4,085	*3,863*
Clients per Advisor (#)				150.0	*150.0*

Investment Management Accounts

- **New Accounts**
  Number of new accounts opened in the current year
  New Clients
  + New Cross-Sold Accounts

- **New Clients**
  Number of new bank customers opening investment management accounts in the current year
  Prospects Reached
  x Response Rate

- **Prospects Reached**
  Number of prospects reached through your marketing expenditures

- **Response Rate**
  Percentage of prospects reached that opened new accounts

- **New Cross-Sold Accounts**
  Number of existing bank customers opening investment management accounts in the current year
  Prospects Reached
  x Response Rate

- **Closed Accounts**
  Number of accounts closed by customers in the current year

- **Retention Rate**
  Percentage of last year's accounts your bank retained

- **Total Clients**
  Total number of investment management accounts

- **Average Account Balance**
  Average account balance for investment management accounts

- **Assets Under Management**
  Total number of customer assets in investment management

- **Investment Management Fees**
  Total fees earned in investment management
  Assets Under Management
  x Investment Management Fee

Financial Advisors

- **New Financial Advisors**
  New financial advisors hired in the current year

- **Retention Rate**
  Percentage of last year's financial advisors your bank retained

- **Total Financial Advisors**
  Total number of financial advisors

- **Customers per advisor**
  Average number of clients assigned to each financial advisor

Consumer Lending Report

This report shows the results of your consumer lending decisions (i.e., Credit Cards and Consumer Loans).

This report is organized by product. The following pages describe the individual elements included on this report. (Note that when appropriate, calculations are shown in *italics* for clarity.)

Retail Banking Consumer Lending		SimStart			Report: 7 Year: 0
	Underbanked	Mass Market	Mass Affluent	Total	*Total (Last Year)*
Credit Cards					
New Accounts (#)	211,823	870,393	261,386	1,343,602	*1,219,302*
New Customer Applications (#)	199,764	850,648	245,730	1,296,142	*1,304,702*
Prospects Reached (#)	13,317,626	70,887,336	27,303,281	111,508,243	*108,374,311*
Response Rate (%)	1.50%	1.20%	0.90%	1.16%	*1.16%*
Cross-Sold Applications (#)	76,767	172,140	33,529	282,436	*128,449*
Prospects Reached (#)	3,411,868	9,563,321	2,483,596	15,458,785	*2,349,635*
Response Rate (%)	2.25%	1.80%	1.35%	1.83%	*1.83%*
Approval Rate (%)	76.6%	85.1%	93.6%	85.1%	*85.1%*
Closed Accounts - voluntary (#)	86,659	360,464	107,931	555,054	*501,000*
Retention Rate (%)	90.0%	90.0%	90.0%	90.0%	*90.0%*
Closed Accounts - charge-offs (#)	32,528	135,304	40,513	208,345	*188,603*
Total Customers (#)	956,710	3,979,523	1,191,559	6,127,792	*5,547,138*
Loan Fees ($-millions)	53.8	223.8	67.0	344.6	*311.9*
Total Spending ($-millions)	6,829.9	75,837.9	39,721.9	122,389.8	*110,792.4*
Interchange Revenue ($-millions)	136.6	1,516.8	794.4	2,447.8	*2,215.8*
Average Account Balance ($)	5,500	7,500	3,000	6,313	*6,314*
Total Loans ($-millions)	5,262	29,846	3,575	38,683	*35,022*
Interest Revenue ($-millions)	476	2,698	323	3,497	*2,999*
Delinquency Rate (%)	4.17%	4.17%	4.17%	4.17%	*3.99%*
NPLs (%-loans)	3.66%	3.66%	3.66%	3.66%	*3.50%*
Charge-Off Rate (%)	3.57%	3.57%	3.57%	3.57%	*3.42%*
ALL Build (Release) ($-millions)	33.3	185.2	22.4	240.9	*218.1*
Cash Rebates Paid ($-millions)	51.2	568.8	297.9	917.9	*830.9*
Consumer Loans					
New Accounts (#)	131,704	533,048	105,045	769,797	*737,073*
New Customer Applications (#)	230,235	935,797	158,246	1,324,278	*1,272,665*
Prospects Reached (#)	12,117,626	58,487,336	11,303,281	81,908,243	*78,743,260*
Response Rate (%)	1.90%	1.60%	1.40%	1.62%	*1.62%*
Cross-Sold Applications (#)	76,767	181,703	42,221	300,691	*283,702*
Prospects Reached (#)	3,411,868	9,563,321	2,483,596	15,458,785	*14,586,626*
Response Rate (%)	2.25%	1.90%	1.70%	1.95%	*1.94%*
Approval Rate (%)	42.9%	47.7%	52.4%	47.4%	*47.4%*
Closed Accounts - voluntary (#)	82,522	337,344	67,090	486,956	*466,000*
Retention Rate (%)	90.0%	90.0%	90.0%	90.0%	*90.0%*
Closed Accounts - charge-offs (#)	9,072	37,086	7,376	53,534	*51,129*
Total Customers (#)	864,006	3,531,995	702,429	5,098,430	*4,869,360*
Average Loan Balance ($)	7,648	14,585	20,066	14,165	*14,165*
Total Loans Outstanding ($-millions	6,608	51,514	14,095	72,217	*68,975*
Interest Revenue ($-millions)	307	2,392	655	3,353	*3,202*
Delinquency Rate (%)	1.49%	1.49%	1.49%	1.49%	*1.45%*
NPLs (%-loans)	1.17%	1.17%	1.17%	1.17%	*1.15%*
Charge-Offs ($-millions)	69.4	540.9	148.0	758.3	*724.2*
Charge-Off Rate (%)	1.07%	1.07%	1.07%	1.07%	*1.05%*
ALL Build (Release) ($-millions)	6.3	48.6	13.2	68.1	*65.0*
Total Consumer Loans ($-millions)				110,900	*103,997*

- **New Accounts**
  Number of new accounts opened (or loans issued) in the current year
- **New Customer Applications**
  Number of new bank customers applying for a loan in the current year
- **Prospects Reached**
  Number of prospects reached with your marketing expenditures
- **Response Rate**
  Percentage of prospects applying for a loan
- **Cross-Sold Applications**
  Number of existing bank customers applying for a loan in the current year
- **Approval Rate**
  Percentage of applications approved
- **Closed Accounts - Voluntary**
  Number of accounts closed by customers in the current year
- **Retention Rate**
  Percentage of last year's customers retained by your bank
- **Closed Accounts – Charge-Offs**
  Number of accounts closed by your bank because of default

- **Total Customers**
  Total number of accounts at year-end
- **Loan Fees**
  Annual fees paid by customers
  This is for Credit Cards only
- **Total Spending**
  Total credit card spending by customers
  This is for Credit Cards only
- **Interchange Revenue**
  Total revenue earned from customer credit card spending
  This is for Credit Cards only
- **Average Account/Loan Balance**
  Average loan balance for accounts
- **Total Loans (Credit Cards)**
  Total number of credit card receivables in your bank's portfolio
- **Total Loans Outstanding (Consumer Loans)**
  Total loans outstanding at year-end
- **Interest Revenue**
  Interest income generated by your loans
- **Delinquency Rate**
  Year-end delinquent loans as a percentage of year-end outstanding loans
- **NPLs (%-loans)**
  Year-end nonperforming loans as a percentage of year-end outstanding loans
- **Charge-Offs**
  Total loans charged-off during the year
- **Charge-Off Rate**
  Charge-offs as a percentage of average outstanding loans
- **ALL Build (Release)**
  Dollar amount added to the allowance for loan losses to absorb future charge-offs
- **Cash Rebates Paid**
  Cash rebates paid to credit card customers

Mortgage Lending Report

This report shows the results of your mortgage lending decisions for both Fixed-Rate Mortgages and Variable-Rate Mortgages.

This report is organized by product. The following pages describe the individual elements included on this report. (Note that when appropriate, calculations are shown in *italics* for clarity.)

Retail Banking — **SimStart** — **Report: 8**
Mortgage Lending — **Year: 0**

	Underbanked	Mass Market	Mass Affluent	Total	*Total (Last Year)*
Fixed-Rate Mortgage Loans					
New Accounts (#)	7,497	24,490	2,783	34,770	*32,539*
New Customer Applications (#)	294	22,331	303	22,928	*21,083*
Prospects Reached (#)	117,626	14,887,336	303,281	15,308,243	*13,990,431*
Response Rate (%)	0.25%	0.15%	0.10%	0.15%	*0.15%*
Cross-Sold Applications (#)	17,059	28,690	4,967	50,716	*47,841*
Prospects Reached (#)	3,411,868	9,563,321	2,483,596	15,458,785	*14,586,300*
Response Rate (%)	0.50%	0.30%	0.20%	0.33%	*0.33%*
Approval Rate (%)	43.2%	48.0%	52.8%	47.2%	*47.2%*
Closed Accounts - voluntary (#)	2,336	11,698	1,135	15,169	*13,850*
Retention Rate (%)	88.7%	90.0%	89.6%	89.8%	90.0%
Closed Accounts - charge-offs (#)	7	37	4	48	*46*
Accounts Securitized (#)	1,401	7,019	681	9,101	*8,504*
Total Customers (#)	24,506	122,731	11,903	159,140	*148,706*
Average Loan Balance ($)	94,738	151,936	442,000	164,823	*165,434*
Total Loans ($-millions)	2,322	18,647	5,261	26,230	*24,601*
Interest Revenue ($-millions)	91	774	215	1,080	*1,013*
Delinquency Rate (%)	1.55%	1.54%	1.75%	1.58%	*1.55%*
NPLs (%-loans)	0.14%	0.15%	0.17%	0.15%	*0.13%*
Charge-Offs ($-millions)	0.7	5.6	1.8	8.1	*7.5*
Charge-Off Rate (%)	0.03%	0.03%	0.03%	0.03%	*0.03%*
ALL Build (Release) ($-millions)	0.9	2.3	1.2	4.4	*4.1*
Variable-Rate Mortgage Loans					
New Accounts (#)	7,497	28,666	3,100	39,263	*33,692*
New Customer Applications (#)	294	31,031	903	32,228	*23,483*
Prospects Reached (#)	117,626	20,687,336	903,281	21,708,243	*15,590,431*
Response Rate (%)	0.25%	0.15%	0.10%	0.15%	*0.15%*
Cross-Sold Applications (#)	17,059	28,690	4,967	50,716	*47,841*
Prospects Reached (#)	3,411,868	9,563,321	2,483,596	15,458,785	*14,586,300*
Response Rate (%)	0.50%	0.30%	0.20%	0.33%	*0.33%*
Approval Rate (%)	43.2%	48.0%	52.8%	47.3%	*47.2%*
Closed Accounts - voluntary (#)	1,880	8,658	916	11,454	*9,685*
Retention Rate (%)	89.3%	90.0%	89.9%	89.9%	90.0%
Closed Accounts - charge-offs (#)	6	30	3	39	*34*
Accounts Securitized (#)	1,508	6,945	734	9,187	*7,892*
Total Customers (#)	21,619	99,543	10,527	131,689	*113,122*
Average Loan Balance ($)	94,616	147,623	452,133	163,263	*164,044*
Total Loans ($-millions)	2,046	14,695	4,760	21,500	*18,557*
Interest Revenue ($-millions)	78	581	188	847	*731*
Delinquency Rate (%)	1.54%	1.61%	1.53%	1.59%	*1.56%*
NPLs (%-loans)	0.14%	0.15%	0.14%	0.15%	*0.13%*
Charge-Offs ($-millions)	0.6	4.4	1.4	6.4	*5.5*
Charge-Off Rate (%)	0.03%	0.03%	0.03%	0.03%	*0.03%*
ALL Build (Release) ($-millions)	1.0	5.2	1.6	7.8	6.7

- **New Accounts**
  Number of new loans issued in the current year
- **New Customer Applications**
  Number of new bank customers applying for a loan in the current year
- **Prospects Reached**
  Number of prospects reached with your marketing expenditures
- **Response Rate**
  Percentage of prospects applying for a loan
- **Cross-Sold Applications**
  Number of existing bank customers applying for a loan in the current year
- **Approval Rate**
  Percentage of applications approved
- **Closed Accounts - Voluntary**
  Number of loans closed by customers in the current year
- **Retention Rate**
  Percentage of last year's loans retained by your bank
- **Closed Accounts – Charge-Offs**
  Number of loans closed by your bank because of default

- **Accounts Securitized**
  Number of loans sold by your bank
- **Total Customers**
  Total number of loans at year-end
- **Average Loan Balance**
  Average loan balance for accounts
- **Total Loans**
  Total loans outstanding at year-end
- **Interest Revenue**
  Interest income generated by your mortgage loans
- **Delinquency Rate**
  Year-end delinquent loans as a percentage of year-end outstanding loans
- **NPLs (%-loans)**
  Year-end nonperforming loans as a percentage of year-end outstanding loans
- **Charge-Offs**
  Total loans charged-off during the year
- **Charge-Off Rate**
  Charge-offs as a percentage of average outstanding loans
- **ALL Build (Release)**
  Dollar amount added to the allowance for loan losses to absorb future charge-offs

Operations Report

This report shows the impact of your Operations decisions.

The following pages describe the individual elements included on this report. (Note that when appropriate, calculations are shown in *Italics* for clarity.)

Retail Banking | **SimStart** | **Report: 9**
Operations | | **Year: 0**

	Year (-1)	Year 0
Branches		
Branches (#)	3,560	3,529
Customers per Branch (#)	5,420	5,801
Internet and Mobile Banking		
Active Internet Banking Users (#)	7,087,595	7,513,508
Active Mobile Banking Users (#)	5,512,574	5,843,840
Operating Costs ($-millions)		
Deposit and Payment Operations	284.4	301.9
Investment Management Operations	712.2	745.9
Card Operations	1,776.0	1,960.9
Mortgage Lending Operations	447.8	499.6
Consumer Lending Operations	1,371.8	1,435.1

- **Branches**
  Total number of branches at year-end
- **Customer per Branch**
  Average number of customers per branch
- **Internet and Mobile Banking**
  Number of active Internet and Mobile Banking Users
- **Operating Costs**
  Your actual budget for each Operations area in the current year (driven by your decision and actual account/transaction amounts)

Personnel Report

This report shows the impact of your Personnel decisions.

Retail Banking Personnel	SimStart		Report: 10 Year: 0
	Year (-1)	Year 0	
Employees			
Total Employees (#)	41,104	42,094	
Employee Retention Rate (%)	90.0%	90.0%	
New Employees Recruited (#)	4,980	5,100	
Average Compensation ($)	64,706	66,000	
Recruiting Costs ($-millions)	62.3	63.8	
Training			
Actual Sales Training vs. Expected Sales Training	100%	100%	
Actual Services Training vs. Expected Services Training	100%	100%	
Actual Compliance Training vs. Expected Compliance Training	100%	100%	
Actual Financial Advisor Training vs. Expected FA Training	100%	100%	

Employees

- **Total Employees**
  Number of retail banking employees at year-end
- **Employee Retention Rate**
  Percentage of last year's employees retained in the current year
- **New Employees Recruited**
  Number of new retail banking employees recruited in the current year
- **Average Compensation**
  Average compensation paid to each retail banking employee
- **Recruiting Costs**
  Amount spent recruiting new employees

Training

- **Actual Sales Training vs. Expected Sales Training**
  Level of actual sales training provided to each retail banking employee as a percentage of the expected amount of sales training
  Less than 100% represents lower than expected levels of training, which could lead to lower sales
- **Actual Services Training vs. Expected Services Training**
  Level of actual services training provided to each retail banking employee as a percentage of the expected amount of services training
  Less than 100% represents lower than expected levels of training, which could lead to lower customer retention
- **Actual Compliance Training vs. Expected Compliance Training**
  Level of actual compliance training provided to each retail banking employee as a percentage of the expected amount of compliance training
  Less than 100% represents lower than expected levels of training, which could lead to regulatory compliance problems
- **Actual Financial Advisor Training vs. Expected FA Training**
  Level of actual training provided to each Financial Advisor as a percentage of the expected amount of Financial Advisor training
  Less than 100% represents lower than expected levels of training, which could lead to lower sales and lower customer retention in Investment Management

Commercial Lending Report

This report shows the results of your Corporate Finance decisions as they relate to your Lines of Credit and Commercial Real Estate accounts.

This report is organized by loan type. The following pages describe the individual elements included on this report. (Note that when appropriate, calculations are shown in *Italics* for clarity.)

Corporate Banking Commercial Lending		SimStart			Report: 11 Year: 0
	Small Business	Middle Market	Large Corporate	Total	*Total (Last Year)*
Lines of Credit					
New Accounts (#)	20,263	3,657	243	24,163	*22,929*
Applications (#)	40,525	6,095	347	46,967	*44,570*
Approval Rate (%)	50.0%	60.0%	70.0%	51.4%	*51.4%*
Closed Accounts - voluntary (#)	12,977	2,343	156	15,476	*14,643*
Retention Rate (%)	90.0%	90.0%	90.0%	90.0%	*90.5%*
Closed Accounts - charge-offs (#)	274	49	3	326	*309*
Total Accounts (#)	136,778	24,697	1,641	163,116	*154,775*
Average Account Balance ($)	100,000	2,500,000	25,000,000	713,880	*713,823*
Total Loans ($-millions)	13,677.8	61,742.5	41,025.0	116,445.3	*110,482.0*
Interest Revenue ($-millions)	581.1	2,406.5	1,551.0	4,538.5	*3,768.0*
Delinquency Rate (%)	0.42%	0.42%	0.38%	0.40%	*0.40%*
NPLs (%-Loans)	0.26%	0.26%	0.23%	0.25%	*0.25%*
Charge-Offs ($-millions)	27.4	122.5	75.0	224.9	*213.4*
Charge-Off Rate (%)	0.21%	0.20%	0.19%	0.20%	*0.20%*
ALL Build (Release) ($-millions)	3.3	14.8	8.7	26.8	*25.4*
Commercial Real Estate					
New Accounts (#)	1,284	232	15	1,531	*1,500*
Applications (#)	2,568	387	21	2,976	*2,915*
Approval Rate (%)	50.0%	59.9%	71.4%	51.4%	*51.5%*
Closed Accounts - voluntary (#)	1,089	196	13	1,298	*1,276*
Closed Accounts - charge-offs (#)	3	1	0	4	*4*
Total Accounts (#)	11,084	1,996	136	13,216	*12,983*
Average Account Balance ($)	973,400	9,731,105	48,665,000	2,786,842	*2,788,416*
Total Loans ($-millions)	10,789.2	19,423.3	6,618.4	36,830.9	*36,202.0*
Interest Revenue ($-millions)	442.7	769.9	256.9	1,469.5	*1,436.0*
Delinquency Rate (%)	0.10%	0.20%	0.00%	0.14%	*0.14%*
NPLs (%-Loans)	0.04%	0.08%	0.00%	0.05%	*0.05%*
Charge-Offs ($-millions)	2.9	9.7	0.0	12.7	*12.4*
Charge-Off Rate (%)	0.03%	0.05%	0.00%	0.03%	*0.03%*
ALL Build (Release) ($-millions)	0.1	0.5	0.0	0.6	*0.6*

- **New Accounts**
  Number of new loan accounts booked in the current year
  Applications
  x Approval Rate

- **Applications**
  Number of loan applications received in the current year

- **Approval Rate**
  Percentage of loan applications approved in the current year

- **Closed Accounts - Voluntary**
  Number of accounts closed by the customer in the current year

- **Retention Rate**
  Percentage of last year's accounts retained in the current year
  This is for Lines of Credit only

- **Closed Accounts – Charge-Offs**
  Number of accounts closed by the bank because of default by the borrower

- **Total Accounts**
  Total number of current accounts
  Last Year's Total Accounts
  - Closed Accounts (Voluntary)
  - Closed Accounts (Charge-Offs)
  + New Accounts

- **Average Account Balance**
  Average loan balance for customers in each segment

- **Total Loans**
  Total loans outstanding in each segment

- **Interest Revenue**
  Total interest revenue earned in the current year

- **NPL (%-Loans)**
  Nonperforming loans as a percentage of total loans outstanding

- **Charge-Offs**
  Total dollar amount of loans charged off in the current year

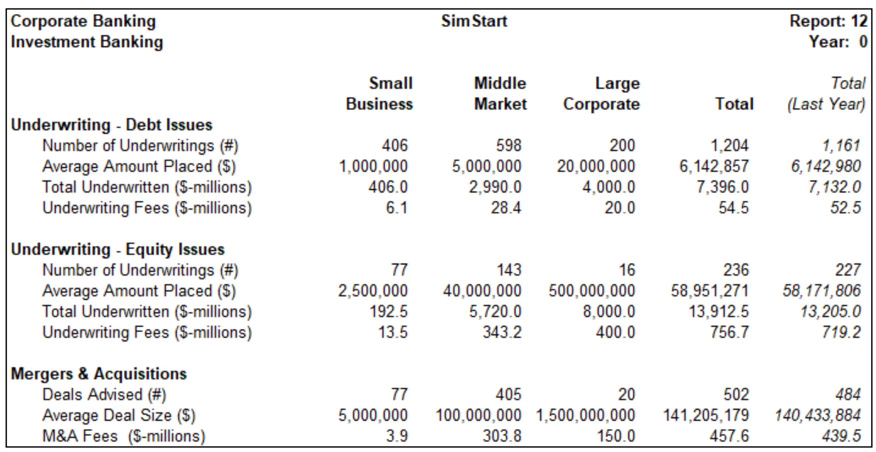
- **Charge-Off Rate**
  Charge-offs as a percentage of average Total Loans

- **ALL Build (Release)**
  Dollar amount added to the allowance for loan losses to absorb future charge-offs

Investment Banking Report

This report shows the results of your Corporate Finance decisions as they relate to your investment banking services.

This report is organized by service. The following pages describe the individual elements included on this report. (Note that when appropriate, calculations are shown in *Italics* for clarity.)



Corporate Banking — SimStart — Report: 12
Investment Banking — Year: 0

	Small Business	Middle Market	Large Corporate	Total	*Total (Last Year)*
Underwriting - Debt Issues					
Number of Underwritings (#)	406	598	200	1,204	*1,161*
Average Amount Placed ($)	1,000,000	5,000,000	20,000,000	6,142,857	*6,142,980*
Total Underwritten ($-millions)	406.0	2,990.0	4,000.0	7,396.0	*7,132.0*
Underwriting Fees ($-millions)	6.1	28.4	20.0	54.5	*52.5*
Underwriting - Equity Issues					
Number of Underwritings (#)	77	143	16	236	*227*
Average Amount Placed ($)	2,500,000	40,000,000	500,000,000	58,951,271	*58,171,806*
Total Underwritten ($-millions)	192.5	5,720.0	8,000.0	13,912.5	*13,205.0*
Underwriting Fees ($-millions)	13.5	343.2	400.0	756.7	*719.2*
Mergers & Acquisitions					
Deals Advised (#)	77	405	20	502	*484*
Average Deal Size ($)	5,000,000	100,000,000	1,500,000,000	141,205,179	*140,433,884*
M&A Fees ($-millions)	3.9	303.8	150.0	457.6	*439.5*

Underwriting – Debt Issues
Underwriting – Equity Issues

- **Number of Underwritings**
  Number of debt or equity issuances your bank underwrote this year

- **Average Amount Placed**
  Average size of each debt or equity issuance

- **Total Underwritten**
  Total amount of debt or equity your bank underwrote in the current year

- **Underwriting Fees**
  Fees your bank earned from underwriting the equity or debt issuances
  Total Equity/Debt Underwritten
  x Underwriting Fee (per your decision)

Mergers & Acquisitions

- **Deals Advised**
  Number of mergers or acquisitions in which your bank served as an advisor

- **Average Deal Size**
  Average size of each merger or acquisition

- **M&A Fees**
  Fees your bank earned from mergers and acquisitions
  Deals Advised x Average Deal Size x Advisory Fee (per your decision)

Treasury Services Report

This report shows the results of your Treasury Services decisions.

This report is organized by segments horizontally and products and transaction types vertically. The following pages describe the individual elements included on this report. (Note that when appropriate, calculations are shown in *Italics* for clarity.)

Corporate Banking Treasury Services	SimStart				Report: 13 Year: 0
	Small Business	**Middle Market**	**Large Corporate**	**Total**	*Total (Last Year)*
New Acounts (#)	243,110	32,892	2,005	278,007	*262,287*
Closed Accounts (#)	154,579	20,852	1,280	176,711	*171,250*
Retention Rate (%)	90.0%	90.0%	90.0%	90.0%	90.0%
Total Accounts (#)	1,633,904	220,407	13,525	1,867,836	*1,766,540*
Commercial Checking Accounts					
Average Account Balance ($)	21,000	60,000	175,000	26,717	*26,716*
Total Deposits ($-millions)	34,312	13,224	2,367	49,903	*47,195*
Account Maintenance Fees ($-millions)	357.7	25.7	0.8	384.2	*363.3*
Business Savings Accounts					
Average Account Balance ($)	18,500	180,000	925,000	44,121	*44,117*
Total Deposits ($-millions)	30,227	39,673	12,511	82,411	*77,935*
Interest Paid ($-millions)	573	752	238	1,563	*1,137*
Total Commercial Deposits	64,539	52,898	14,878	132,314	*125,130*
ACH Payments					
Transactions (#-millions)	310.0	643.2	526.5	1,479.6	*1,399.4*
Wire Transfers					
Transactions (#-millions)	9.5	7.5	16.5	33.5	*31.7*
Merchant Processing					
Transactions (#-millions)	397.4	1,157.7	987.2	2,542.3	*2,404.4*
Fees Earned ($-millions)	455.7	672.5	670.0	1,789.3	*1,700.7*

- **New Accounts**
  Number of new Treasury Services accounts opened in the current year

- **Closed Accounts**
  Number of Treasury Services accounts closed by customers in the current year

- **Retention Rate**
  Percentage of existing Treasury Services accounts retained in the current year

- **Total Accounts**
  Number of total Treasury Services accounts

- **Average Account Balance**
  Average account balance held by customers in commercial checking and business savings accounts

- **Total Deposits**
  Total deposits in commercial checking and business savings accounts
  Total Accounts x Average Account Balance

- **Account Maintenance Fees**
  Fees earned from commercial checking account customers that did not maintain the minimum balance

- **Interest Paid**
  Interest paid by your bank on business savings account deposits

- **Total Commercial Deposits**
  Sum of total commercial checking account deposits and total business savings account deposits

- **ACH Payments**
  Number of ACH transactions processed by your bank in the current year

- **Wire Transfers**
  Number of wire transfers processed by your bank in the current year

- **Merchant Processing**
  Number of merchant processing transactions processed by your bank in the current year

- **Fees Earned**
  Fee income earned by your bank from Treasury Services
  Transactions
  x Your Transaction Fees (per your decisions)

Operations Report

This report shows the impact of your Operations area.

Corporate Banking Operations	SimStart		Report: 14 Year: 0
	Year (-1)	Year 0	
Operating Costs ($-millions)			
Commerical Lending Operations	875.6	957.1	
CRE Lending Operations	277.6	283.0	
Investment Banking Operations	374.4	388.4	
Treasury Services Operations	675.8	715.2	

- **Operating Costs**
  Your actual budget for each Operations area in the current year (driven by your decision and actual account/transaction amounts)

Personnel Report

This report shows the impact of your Personnel decisions.

This report is organized into two areas: Employees and Training.

Corporate Banking Personnel	SimStart		Report: 15 Year: 0
	Year (-1)	Year 0	
Employees			
Total Employees (#)	14,845	15,476	
Employee Retention Rate (%)	90.0%	90.0%	
New Employees Recruited (#)	2,029	2,116	
Average Compensation ($)	64,706	66,000	
Recruiting Costs ($-millions)	25.4	26.4	
Training			
Actual Sales Training vs. Expected Sales Training	100%	100%	
Actual Services Training vs. Expected Services Training	100%	100%	
Actual Compliance Training vs. Expected Compliance Training	100%	100%	

Employees

- **Total Employees**
  Number of corporate banking employees at year-end
- **Employee Retention Rate**
  Percentage of last year's employees retained in the current year
- **New Employees Recruited**
  Number of new corporate banking employees recruited in the current year
- **Average Compensation**
  Average compensation paid to each corporate banking employee
- **Recruiting Costs**
  Amount spent recruiting new employees

Training

- **Actual Sales Training vs. Expected Sales Training**
  Level of actual sales training provided to each corporate banking employee as a percentage of the expected amount of sales training
  Less than 100% represents lower than expected levels of training, which could lead to lower sales

- **Actual Services Training vs. Expected Services Training**
  Level of actual services training provided to each corporate banking employee as a percentage of the expected amount of services training
  Less than 100% represents lower than expected levels of training, which could lead to lower customer retention

- **Actual Compliance Training vs. Expected Compliance Training**
  Level of actual compliance training provided to each corporate banking employee as a percentage of the expected amount of compliance training
  Less than 100% represents lower than expected levels of training, which could lead to regulatory compliance problems

Investment Portfolio Report

This report shows any purchases and sales you made as part of your investment portfolio in the current year. It also shows the amount of interest income earned, as well as realized (and unrealized) capital gains (and losses).

This report is organized by investment type. The individual elements included on this report are described below. (Note that when appropriate, calculations are shown in *Italics* for clarity.)

Asset/Liability Management Investment Portfolio	SimStart		Report: 16 Year: 0
	Year (-1)	**Year 0**	**Year 1**
Treasuries			
Purchases ($-millions)	1,050.0	1,100.0	
Sales ($-millions)	0.0	0.0	
Capital Gains ($-millions)	0.0	0.0	
Interest Income ($-millions)	277.9	311.4	
Current Market Value ($-millions)	9,750.0	10,175.0	10,555.9
Unrealized Capital Gains ($-millions)	625.0	(50.0)	330.9
Mortgage-Backed Securities			
Purchases ($-millions)	6,700.0	7,000.0	
Sales ($-millions)	0.0	0.0	
Capital Gains ($-millions)	0.0	0.0	
Interest Income ($-millions)	3,289.3	3,567.2	
Current Market Value ($-millions)	87,250.0	91,000.0	93,873.7
Unrealized Capital Gains ($-millions)	2,170.0	(1,080.0)	1,793.7
Investment-Grade Debt			
Purchases ($-millions)	400.0	415.0	
Sales ($-millions)	0.0	0.0	
Capital Gains ($-millions)	0.0	0.0	
Interest Income ($-millions)	254.8	273.7	
Current Market Value ($-millions)	5,700.0	5,925.0	6,082.2
Unrealized Capital Gains ($-millions)	119.0	(71.0)	86.2
Credit Defaults ($-millions)	115.0	118.5	

- **Purchases**
  Dollar amount of new securities purchased in the current year

- **Sales**
  Dollar amount of securities sold in the current year

- **Capital Gains**
  Fee income earned from securities sold in the current year

- **Interest Income**
  Interest income realized from these securities in the current year

- **Current Market Value**
  Current market value of these securities
  The current market value shown under the current year is the value of these securities if you sell them in the current round

- **Unrealized Capital Gains**
  The difference between the original amount paid for these securities and the current market value
  The unrealized capital gains shown under the current year is the capital gain you will realize if you sell these securities in the current round

- **Credit Defaults**
  Any losses experienced by bond defaults

Asset/Liability Management Report

This report shows your bank's uses and sources of funds for the year.

The following pages describe the individual elements included on this report. (Note that when appropriate, calculations are shown in *italics* for clarity.)

Asset/Liability Management Funding	SimStart		Report: 17 Year: 0
	Year (-1)	Year 0	
Uses of Funds			
Increase (decrease) in Net Loans ($-millions)	12,345.8	20,479.0	
Investment Portfolio purchases ($-millions)	8,150.0	8,515.0	
Increase (decrease) in market value of Inv Portfolio	0.0	(4,115.0)	
Fed Funds Purchased in previous year ($-millions)	50.0	55.0	
Commercial Paper issued in previous year	167.0	167.0	
Other uses of funds ($-millions)	400.0	342.0	
Total Uses of Funds ($-millions)	**21,112.8**	**25,443.0**	
Sources of Funds			
Increase (decrease) in Deposits ($-millions)	18,616.0	19,722.3	
Fed Funds Sold in previous year ($-millions)	0.0	0.0	
Investment Portfolio sales ($-millions)	0.0	0.0	
Fixed-Rate Mortgages Securitized ($-millions)	466.0	1,261.8	
Variable-Rate Mortgages Securitized ($-millions)	76.0	1,499.8	
New Commercial Paper Issued ($-millions)	167.0	3,107.0	
Increase (decrease) in Equity ($-millions)	1,237.3	(1,184.0)	
Other sources of funds ($-millions)	0.0	0.0	
Total Sources of Funds	**20,562.3**	**24,406.9**	
Fed Funds			
Fed Funds Sold (Purchased) ($-millions)	(550)	(1,036)	
Average Interest Rate (%)	2.00%	2.50%	
Gains (Losses) on Fixed-Rate Mortgages Sold	0.0	(148.4)	

Uses of Funds

- **Increase (Decrease) in Net Loans**
  Dollar amount that your loan portfolio increased (or decreased) before loan securitizations

- **Investment Portfolio Purchases**
  Dollar amount of investment securities purchased
  This is equal to the dollar amount you entered as a decision

- **Increase (Decrease) in Market Value of Inv Portfolio**
  Dollar amount that the market value of your investment portfolio increased (or decreased) based on changes in the interest rate environment
  This number does not include new investment portfolio purchases

- **Fed Funds Purchased in Previous Year**
  Dollar amount of Fed Funds your bank purchased in the previous year
  These Fed Funds were repaid in the current year

- **Commercial Paper Issued in Previous Year**
  Dollar amount of commercial paper your bank issued in the previous year
  This commercial paper was repaid in the current year

- **Other Uses of Funds**
  Dollar amount of all other uses of funds in the current year

Sources of Funds

- **Increase (Decrease) in Deposits**
  Dollar amount your deposits increased (or decreased)
- **Fed Funds Sold in Previous Year**
  Dollar amount of Fed Funds your bank lent to other banks in the previous year
  These Fed Funds were repaid to you in the current year
- **Investment Portfolio Sales**
  Dollar amount of investment securities sold
  This is equal to the dollar amount you entered as a decision
- **Fixed-Rate Mortgages Securitized**
  Variable-Rate Mortgages Securitized
  Dollar amount of new fixed-rate or variable-rate mortgage loans securitized
  This is equal to the amount of additional funding you needed multiplied by the percentage of Funding Mix you allocated to securitizing fixed-rate and/or variable-rate mortgage receivables
- **New Commercial Paper Issued**
  Dollar amount of commercial paper your bank issued in the current year
  This is equal to the amount of additional funding you needed multiplied by the percentage of Funding Mix you allocated to commercial paper
  This commercial paper will need to be repaid in the next year
- **Increase (Decrease) in Equity**
  Dollar amount that your equity increased (or decreased) in the current year
  Changes in equity are driven by changes in your retained earnings and changes in your unrealized gains (or losses) in your investment portfolio
- **Other Sources of Funds**
  Dollar amount of all other sources of funds in the current year

Fed Funds

- **Fed Funds Sold (Purchased)**
  Dollar amount of Fed Funds Sold to other banks (or Purchased from other banks)
  A positive amount indicates Fed Funds Sold (i.e., your bank raised more funds than it used)
  A negative amount indicates Fed Funds Purchased (i.e., your bank did not raise enough funds)
- **Average Interest Rate**
  Interest rate received (or paid) on Fed Funds Sold (or Purchased)
  This interest rate is determined by the Simulation Administrator before the simulation begins

Gains (Losses) on Fixed-Rate Mortgages Sold

- Dollar amount of capital gain (or loss) on fixed-rate mortgage loans securitized

Allowance for Loan Losses

This report shows the changes in your allowance for loan losses.

- **Beginning Allowance for Loan Losses (ALL)**
  The ALL at the beginning of the year
- **Net Charge-Offs**
  The amount charged off during the year for each loan product
- **Provision for Credit Losses**
  The amount added to the ALL during the year
- **Ending Allowance for Loan Losses (ALL)**
  The ALL at the end of the year
  Beginning ALL
  - Net Charge-Offs
  + Provision for Credit Losses

Allowance for Loan Losses	SimStart		Report: 18 Year: 0
	Year (-1)	**Year 0**	
Beginning Allowance for Loan Losses (ALL) *($-millions)*	**4,156.3**	**4,399.2**	
Net Charge-Offs ($-millions)			
Credit Cards	1,190.7	1,315.2	
Consumer Loans	724.2	758.3	
Fixed-Rate Mortgage Loans	7.5	8.1	
Variable-Rate Mortgage Loans	5.5	6.4	
Commercial Lines of Credit	213.4	224.9	
Commercial Real Estate Loans	12.4	12.7	
Total Charge-Offs	**2,153.7**	**2,325.6**	
Provision for Credit Losses ($-millions)	**2,396.6**	**2,675.2**	
Ending Allowance for Loan Losses (ALL) *($-millions)*	**4,399.2**	**4,749.0**	

Average Balance Sheet and Net Interest Analysis Report

This report shows the average balances, interest income/expense and average yield/rate associated with your assets and liabilities.

- **Average Balances**
  The average balances associated with each asset, liability and equity category over the course of the year
  (Last year's ending balance + Current year's ending balance) ÷ 2

- **Interest Income/Expense**
  The amount of interest earned (on assets) or paid (on liabilities)

- **Average Yield/Rate**
  The average yield earned (on assets) or average rate paid (on liabilities)
  Interest income/expense ÷ Average balance

- **Net Interest Income/Spread**
  Average yield on earning assets - average rate on interest-bearing liabilities

Average Balance Sheet and Net Interest Analysis	**SimStart**		**Report: 19 Year: 0**
	Average Balances	**Interest Income/Expense**	**Average Yield/Rate**
Assets			
Fed funds sold	0	0	
Securities available for sale			
Treasuries	9,963	311	3.13%
Mortgage-backed securities	89,125	3,567	4.00%
Investment-grade debt	5,813	274	4.71%
Total securities	104,901	4,152	3.96%
Loans			
Commercial LOCs	113,464	4,539	4.00%
CRE loans	36,516	1,469	4.02%
Credit cards	36,853	3,497	9.49%
Consumer loans	70,596	3,353	4.75%
Fixed-rate mortgages	25,416	1,080	4.25%
Variable-rate mortgages	20,028	847	4.23%
Total loans	302,873	14,786	4.88%
Total earning assets	407,774	18,938	4.64%
Allowance for loan losses	(4,574)		
Other assets	14,745		
Total assets	417,913		
Liabilities			
Deposits			
Noninterest bearing	90,099		
Interest checking	89,644	896	1.00%
Savings accounts	162,364	3,166	1.95%
Total deposits	342,107	4,062	1.19%
Fed Funds purchased	546	14	2.57%
Commercial paper	1,637	44	2.70%
Long-term debt	28,277	990	3.50%
Total interest-bearing liabilities	282,468	5,110	1.81%
Other liabilities	4,810		
Total Liabilities	377,377		
Shareholders Equity	40,566		
Total liabilities and shareholders equity	417,943		
Net interest income/spread		13,828	2.84%
Impact of non-interest bearing funding			0.56%
Net interest margin			3.39%

- **Impact of Non-Interest Bearing Funding**
  Contribution of non-interest bearing funding on lowering the average cost of funding across all funding sources (including non-interest bearing funding sources)

- **Net Interest Margin**
  Net interest income divided by average earning assets
  Net interest income/spread + Impact of non-interest bearing funding

DECISION ENTRY FORMS

RETAIL DEPOSITS - SIMSTART

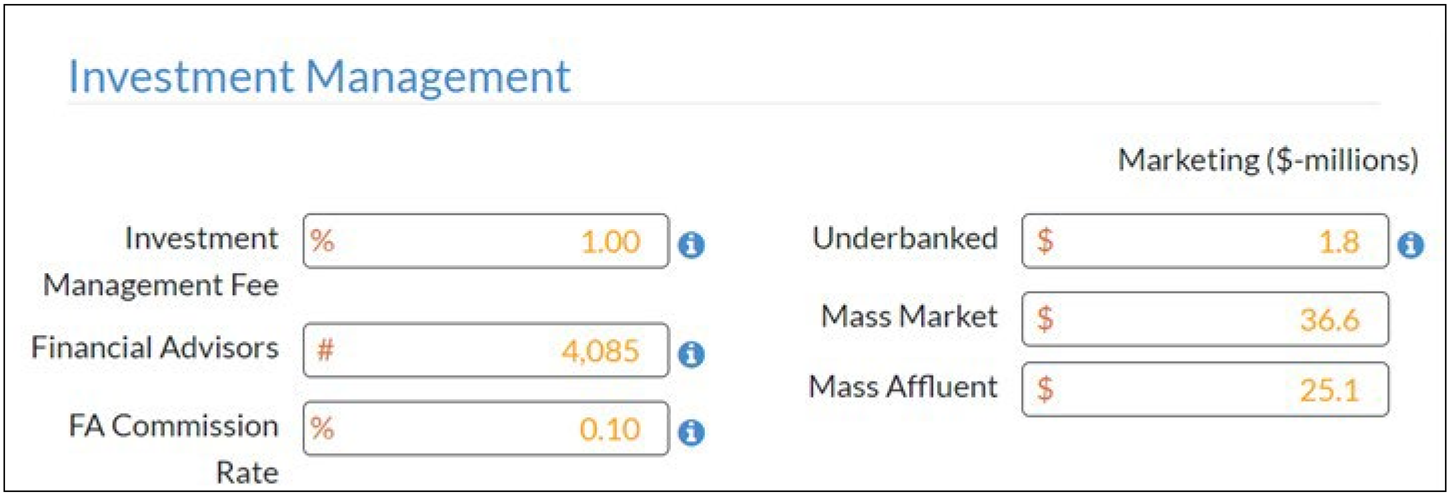
Checking Accounts

			Marketing ($-millions)	
Minimum Balance	$ 3,000		Underbanked	$ 13.7
Monthly Account Fee	$ 7.25		Mass Market	$ 68.0
Rate	% 1.00		Mass Affluent	$ 23.4

Savings Accounts

			Marketing ($-millions)	
Rate	% 1.95		Underbanked	$ 0.4
			Mass Market	$ 6.6
			Mass Affluent	$ 2.7

INVESTMENT MANAGEMENT - SIMSTART



Investment Management

Marketing ($-millions)

Investment Management Fee % 1.00

Underbanked $ 1.8

Mass Market $ 36.6

Financial Advisors # 4,085

Mass Affluent $ 25.1

FA Commission Rate % 0.10

CONSUMER LENDING - SIMSTART

Credit Cards

Annual Fee	$	50.00
APR	%	9.49
Cash Back Feature	%	0.75
Minimum Credit Score	#	649
Collections Strategy		Moderate

Marketing ($-millions)

Underbanked	$	7.0
Mass Market	$	36.4
Mass Affluent	$	13.9

Consumer Loans

APR	%	4.75
Minimum Credit Score	#	729
Collections Strategy		Moderate

Marketing ($-millions)

Underbanked	$	6.4
Mass Market	$	30.2
Mass Affluent	$	5.9

MORTGAGE LENDING – SIMSTART

Mortgage Loans - Fixed Rate

Rate	% 4.25		Marketing ($-millions)
Minimum Credit Score	# 728	Underbanked	$ 0.4
Collections Strategy	Moderate	Mass Market	$ 8.4
		Mass Affluent	$ 0.4

Mortgage Loans - Variable Rate

Rate (basis points)	# 150		Marketing ($-millions)
Minimum Credit Score	# 728	Underbanked	$ 0.4
Collections Strategy	Moderate	Mass Market	$ 11.3
		Mass Affluent	$ 0.7

RETAIL BANKING OPERATIONS – SIMSTART

Retail Network

Branches	#	3,529
ATMs	#	9,500
ATM Fee	$	3.00

Operations (Service Levels)

Deposits	%	100
Investment Management	%	100
Credit Cards	%	98
Consumer Lending	%	99
Mortgage Lending	%	96

IT Investments ($ - millions)

Customer Experience	$	20.0	Risk Analytics	$	30.0
Payments	$	30.0	Process Automation	$	30.0
Robo Advisory	$	20.0	Employee Experience	$	20.0

RETAIL BANKING HUMAN RESOURCES – SIMSTART

Retail Banking Employee Compensation

Change In Compensation	% 2.00

Training Budgets ($ per employee)

Sales Training	$ 400
Services Training	$ 1,000
Compliance Training	$ 600
Financial Advisor Training	$ 1,100

COMMERCIAL LENDING – SIMSTART

Lines of Credit

	Small Business	Middle Market	Large Corporate
Marketing ($-millions)	$ 21.6	$ 28.8	$ 29.8
Rate (basis points)	# 171	# 135	# 123
Credit Policy	Moderate	Moderate	Moderate
Collections Strategy	Moderate		

Commercial Real Estate (CRE) Loans

	Small Business	Middle Market	Large Corporate
Marketing ($-millions)	$ 14.6	$ 19.2	$ 18.4
Rate	% 4.14	% 4.00	% 3.91
Credit Policy	Moderate	Moderate	Moderate
Collections Strategy	Moderate		

INVESTMENT BANKING – SIMSTART

Marketing

	Small Business	Middle Market	Large Corporate
Marketing ($-millions)	$ 20.0	$ 30.0	$ 36.0

Underwriting Fees

	Small Business	Middle Market	Large Corporate
Debt Underwriting	# 150	# 95	# 50
Equity Underwriting	# 700	# 600	# 500

Mergers and Acquisitions

	Small Business	Middle Market	Large Corporate
Advisory Fee (basis points of deal)	# 100	# 75	# 50

Research Staff

Number of Researchers	# 250

TREASURY SERVICES – SIMSTART

Marketing

	Small Business	Middle Market	Large Corporate
Marketing	$ 11.7	$ 8.1	$ 10.0

Commercial Checking Accounts

Minimum Balance ($)	$ 20,000
Monthly Maintenance Fee ($)	$ 25.00

Business Savings Accounts

Rate (basis points)	% 1.95

Transaction Services

	Small Business	Middle Market	Large Corporate
ACH Payments	$ 0.46	$ 0.41	$ 0.36
Wire Transfers	$ 22.00	$ 19.00	$ 16.00
Merchant Processing	$ 0.26	$ 0.23	$ 0.22

CORPORATE BANKING OPERATIONS – SIMSTART

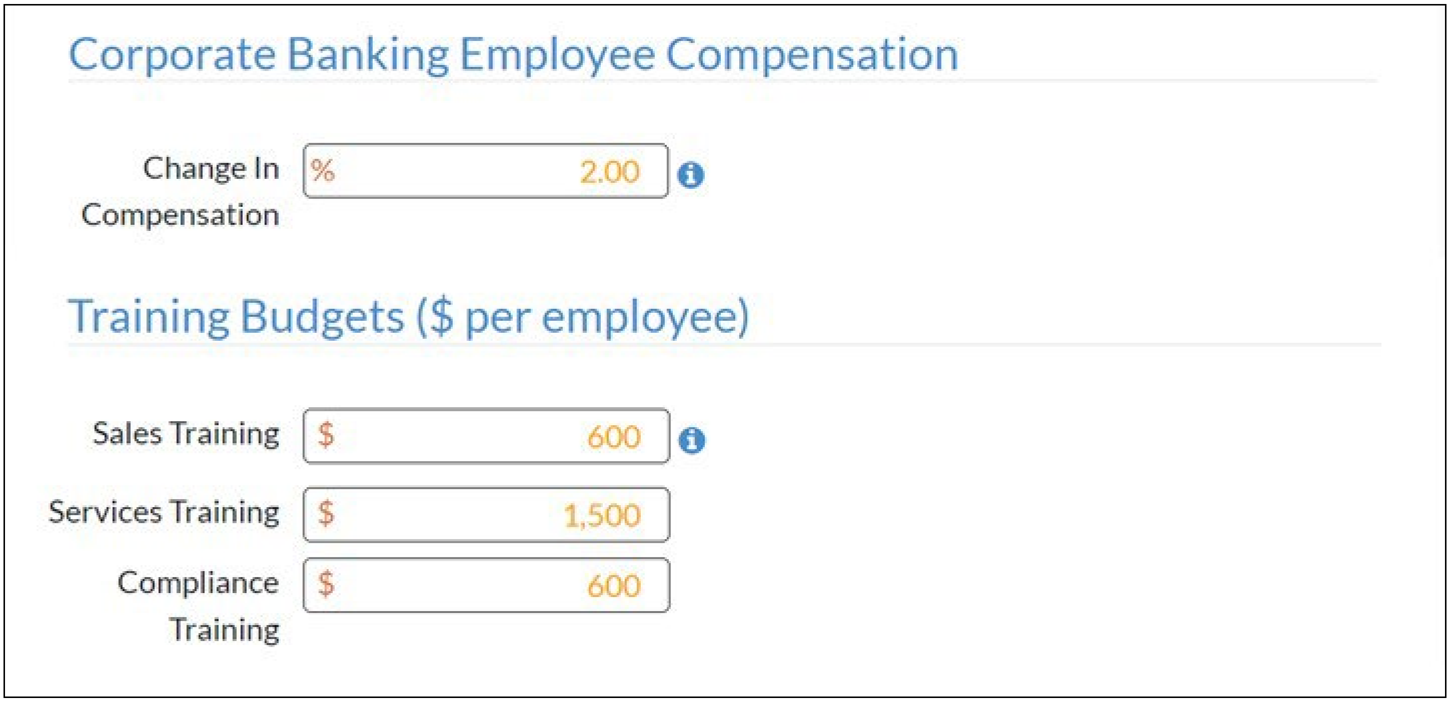
Operations (Service Levels)

Commercial Lending	%	100
CRE Lending	%	100
Investment Banking	%	98
Treasury Services	%	99

IT Investments ($-millions)

Marketing Analytics	$	20.0
Risk Analytics	$	30.0
Research Analytics	$	15.0
Treasury Platform	$	35.0
Process Automation	$	30.0
Employee Experience	$	20.0

Corporate Banking Human Resources – SimStart



Corporate Banking Employee Compensation

Change In Compensation: % 2.00

Training Budgets ($ per employee)

Sales Training: $ 600

Services Training: $ 1,500

Compliance Training: $ 600

ASSET/LIABILITY MANAGEMENT – SIMSTART

Investment Portfolio

	Purchases ($-millions)	Sales ($-millions)
Treasuries	$ 1,100	$ 0
Mortgage-Backed Securities	$ 7,000	$ 0
Investment-Grade Debt	$ 415	$ 0

Funding Mix (if needed)

Securitize Fixed Rate Mortgage Receivables	% 18
Securitize Variable Rate Mortgage Receivables	% 22
Commercial Paper	% 45
Fed Funds Purchased	% 15

Total Funding Mix (should equal 100%): 100%

Dividends

Dividend Payout Ratio	% 35

RETAIL DEPOSITS – ROUND 1

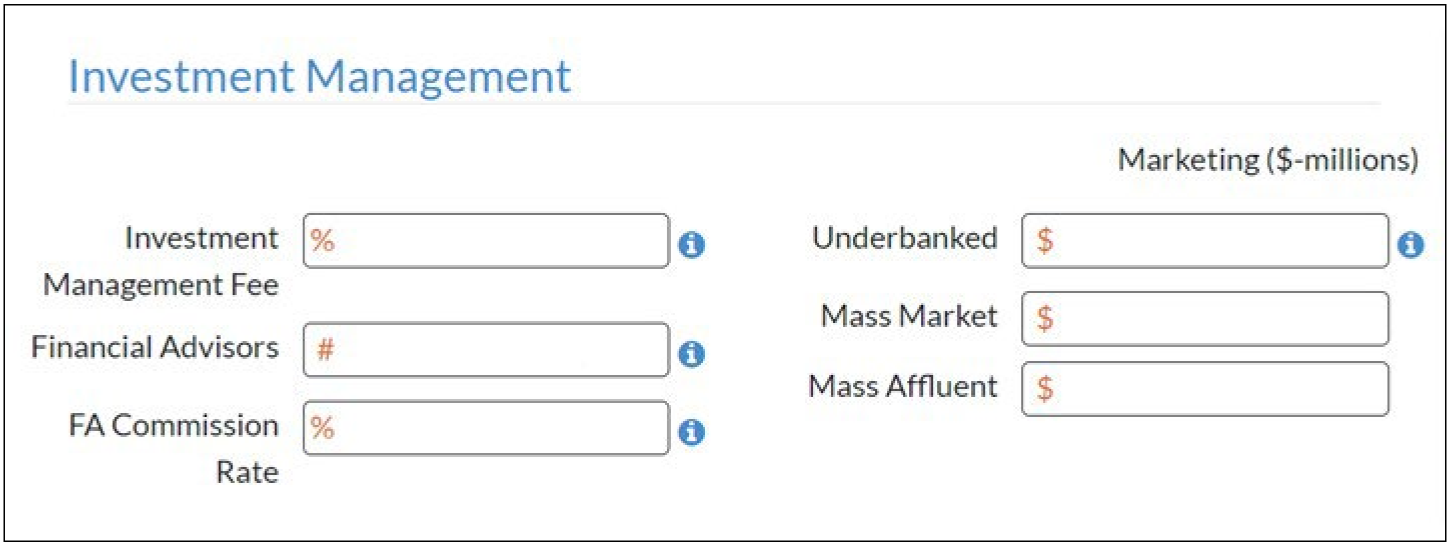
Checking Accounts

		Marketing ($-millions)	
Minimum Balance	$	Underbanked	$
Monthly Account Fee	$	Mass Market	$
		Mass Affluent	$
Rate	%		

Savings Accounts

		Marketing ($-millions)	
Rate	%	Underbanked	$
		Mass Market	$
		Mass Affluent	$

INVESTMENT MANAGEMENT - ROUND 1


Investment Management

Marketing ($-millions)

Investment Management Fee %

Financial Advisors #

FA Commission Rate %

Underbanked $

Mass Market $

Mass Affluent $

Consumer Lending - Round 1

Credit Cards

Annual Fee	$	Underbanked	$
APR	%	Mass Market	$
Cash Back Feature	%	Mass Affluent	$
Minimum Credit Score	#		
Collections Strategy			

The $ fields on the right are headed "Marketing ($-millions)".

Consumer Loans

APR	%	Underbanked	$
Minimum Credit Score	#	Mass Market	$
Collections Strategy		Mass Affluent	$

The $ fields on the right are headed "Marketing ($-millions)".

Mortgage Lending – Round 1

Mortgage Loans - Fixed Rate

Marketing ($-millions)

Rate	%	Underbanked	$
Minimum Credit Score	#	Mass Market	$
Collections Strategy		Mass Affluent	$

Mortgage Loans - Variable Rate

Marketing ($-millions)

Rate (basis points)	#	Underbanked	$
Minimum Credit Score	#	Mass Market	$
Collections Strategy		Mass Affluent	$

RETAIL BANKING OPERATIONS – ROUND 1

Retail Network

Branches #

ATMs #

ATM Fee $

Operations (Service Levels)

Deposits %

Investment Management %

Credit Cards %

Consumer Lending %

Mortgage Lending %

IT Investments ($ - millions)

Customer Experience $

Payments $

Robo Advisory $

Risk Analytics $

Process Automation $

Employee Experience $

RETAIL BANKING HUMAN RESOURCES – ROUND 1

Retail Banking Employee Compensation

Change In Compensation %

Training Budgets ($ per employee)

Sales Training $

Services Training $

Compliance Training $

Financial Advisor Training $

Commercial Lending – Round 1

Lines of Credit

	Small Business	Middle Market	Large Corporate
Marketing ($-millions)	$	$	$
Rate (basis points)	#	#	#
Credit Policy			
Collections Strategy			

Commercial Real Estate (CRE) Loans

	Small Business	Middle Market	Large Corporate
Marketing ($-millions)	$	$	$
Rate	%	%	%
Credit Policy			
Collections Strategy			

Investment Banking – Round 1

Marketing

	Small Business	Middle Market	Large Corporate
Marketing ($-millions)	$	$	$

Underwriting Fees

	Small Business	Middle Market	Large Corporate
Debt Underwriting	#	#	#
Equity Underwriting	#	#	#

Mergers and Acquisitions

	Small Business	Middle Market	Large Corporate
Advisory Fee (basis points of deal)	#	#	#

Research Staff

Number of Researchers	#

Treasury Services – Round 1

Marketing

	Small Business	Middle Market	Large Corporate
Marketing	$	$	$

Commercial Checking Accounts

Minimum Balance ($)	$
Monthly Maintenance Fee ($)	$

Business Savings Accounts

Rate (basis points)	%

Transaction Services

	Small Business	Middle Market	Large Corporate
ACH Payments	$	$	$
Wire Transfers	$	$	$
Merchant Processing	$	$	$

CORPORATE BANKING OPERATIONS – ROUND 1

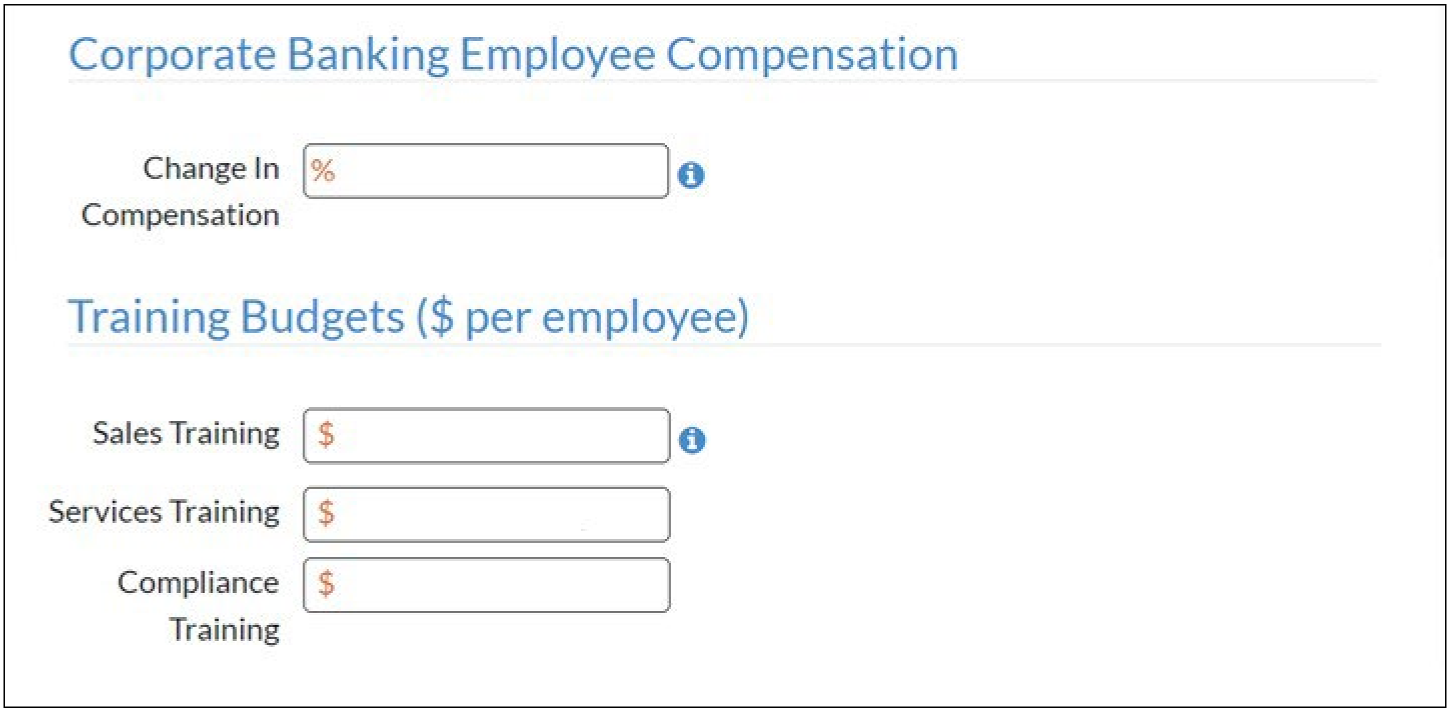
Operations (Service Levels)

Commercial Lending	%
CRE Lending	%
Investment Banking	%
Treasury Services	%

IT Investments ($-millions)

Marketing Analytics	$
Risk Analytics	$
Research Analytics	$
Treasury Platform	$
Process Automation	$
Employee Experience	$

Corporate Banking Human Resources – Round 1


Corporate Banking Employee Compensation

Change In Compensation: %

Training Budgets ($ per employee)

Sales Training: $

Services Training: $

Compliance Training: $

ASSET/LIABILITY MANAGEMENT – ROUND 1

Investment Portfolio

	Purchases ($-millions)	Sales ($-millions)
Treasuries	$	$
Mortgage-Backed Securities	$	$
Investment-Grade Debt	$	$

Funding Mix (if needed)

Securitize Fixed Rate Mortgage Receivables %

Total Funding Mix (should equal 100%):

Securitize Variable Rate Mortgage Receivables %

Commercial Paper %

Fed Funds Purchased %

Dividends

Dividend Payout Ratio %

RETAIL DEPOSITS – ROUND 2

Checking Accounts

Marketing ($-millions)

Minimum Balance $

Monthly Account Fee $

Rate %

Underbanked $

Mass Market $

Mass Affluent $

Savings Accounts

Marketing ($-millions)

Rate %

Underbanked $

Mass Market $

Mass Affluent $

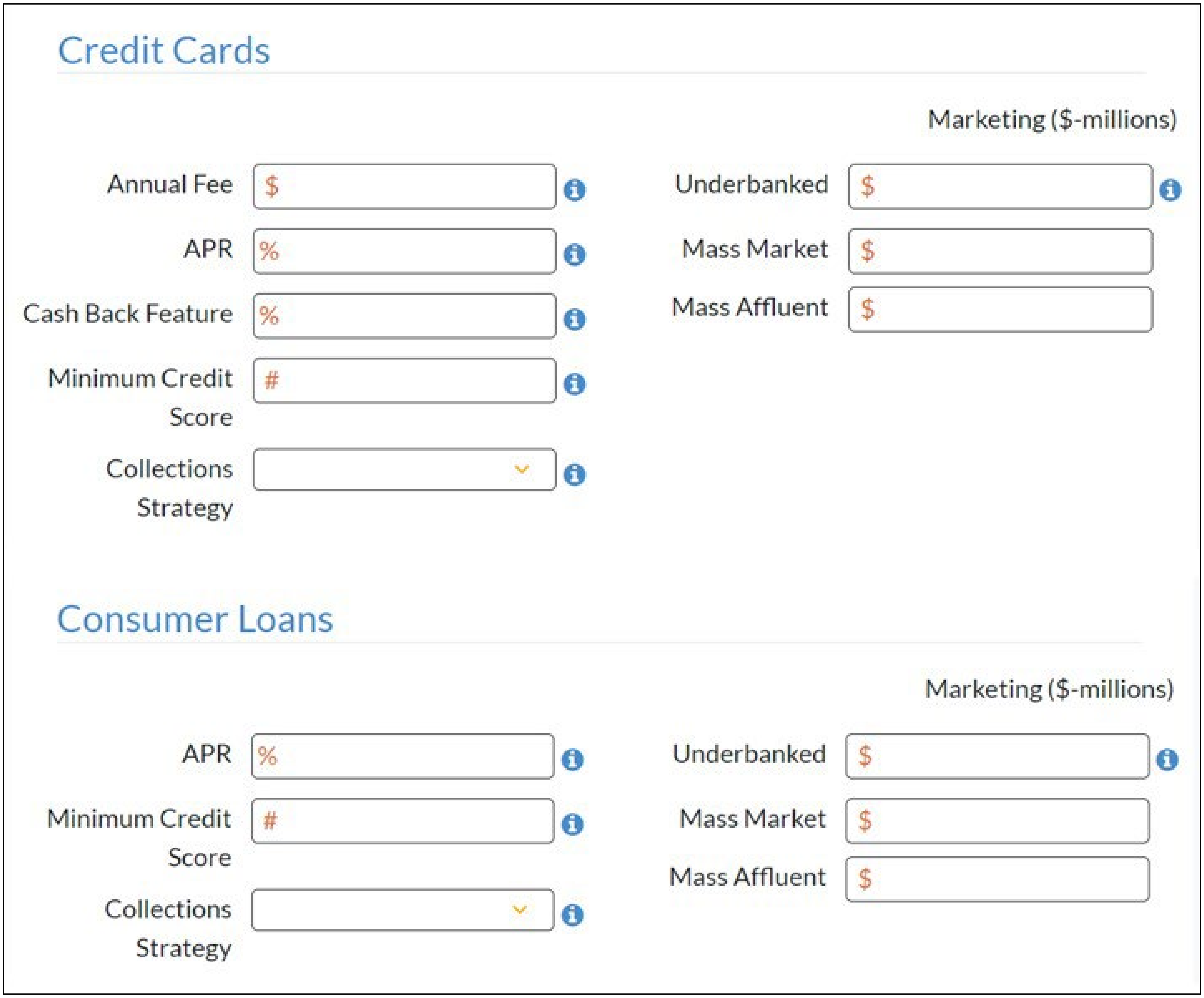
INVESTMENT MANAGEMENT - ROUND 2

Investment Management

Marketing ($-millions)

Investment Management Fee	%	Underbanked	$
Financial Advisors	#	Mass Market	$
FA Commission Rate	%	Mass Affluent	$

CONSUMER LENDING - ROUND 2



Credit Cards

Marketing ($-millions)

Annual Fee $

APR %

Cash Back Feature %

Minimum Credit Score #

Collections Strategy

Underbanked $

Mass Market $

Mass Affluent $

Consumer Loans

Marketing ($-millions)

APR %

Minimum Credit Score #

Collections Strategy

Underbanked $

Mass Market $

Mass Affluent $

MORTGAGE LENDING – ROUND 2

Mortgage Loans - Fixed Rate

Marketing ($-millions)

Rate %

Minimum Credit Score #

Collections Strategy

Underbanked $

Mass Market $

Mass Affluent $

Mortgage Loans - Variable Rate

Marketing ($-millions)

Rate (basis points) #

Minimum Credit Score #

Collections Strategy

Underbanked $

Mass Market $

Mass Affluent $

Retail Banking Operations – Round 2

Retail Network

Branches	#
ATMs	#
ATM Fee	$

Operations (Service Levels)

Deposits	%
Investment Management	%
Credit Cards	%
Consumer Lending	%
Mortgage Lending	%

IT Investments ($ - millions)

Customer Experience	$	Risk Analytics	$
Payments	$	Process Automation	$
Robo Advisory	$	Employee Experience	$

RETAIL BANKING HUMAN RESOURCES – ROUND 2

Retail Banking Employee Compensation

Change In Compensation %

Training Budgets ($ per employee)

Sales Training $

Services Training $

Compliance Training $

Financial Advisor Training $

COMMERCIAL LENDING – ROUND 2

Lines of Credit

	Small Business	Middle Market	Large Corporate
Marketing ($-millions)	$	$	$
Rate (basis points)	#	#	#
Credit Policy			
Collections Strategy			

Commercial Real Estate (CRE) Loans

	Small Business	Middle Market	Large Corporate
Marketing ($-millions)	$	$	$
Rate	%	%	%
Credit Policy			
Collections Strategy			

INVESTMENT BANKING – ROUND 2

Marketing

	Small Business	Middle Market	Large Corporate
Marketing ($-millions)	$	$	$

Underwriting Fees

	Small Business	Middle Market	Large Corporate
Debt Underwriting	#	#	#
Equity Underwriting	#	#	#

Mergers and Acquisitions

	Small Business	Middle Market	Large Corporate
Advisory Fee (basis points of deal)	#	#	#

Research Staff

Number of Researchers	#

TREASURY SERVICES – ROUND 2

Marketing

	Small Business	Middle Market	Large Corporate
Marketing	$	$	$

Commercial Checking Accounts

Minimum Balance ($)	$
Monthly Maintenance Fee ($)	$

Business Savings Accounts

Rate (basis points)	%

Transaction Services

	Small Business	Middle Market	Large Corporate
ACH Payments	$	$	$
Wire Transfers	$	$	$
Merchant Processing	$	$	$

CORPORATE BANKING OPERATIONS – ROUND 2

Operations (Service Levels)

Commercial Lending %

CRE Lending %

Investment Banking %

Treasury Services %

IT Investments ($-millions)

Marketing Analytics $

Risk Analytics $

Research Analytics $

Treasury Platform $

Process Automation $

Employee Experience $

CORPORATE BANKING HUMAN RESOURCES – ROUND 2

Corporate Banking Employee Compensation

Change In Compensation %

Training Budgets ($ per employee)

Sales Training $

Services Training $

Compliance Training $

ASSET/LIABILITY MANAGEMENT – ROUND 2

Investment Portfolio

	Purchases ($-millions)	Sales ($-millions)
Treasuries	$	$
Mortgage-Backed Securities	$	$
Investment-Grade Debt	$	$

Funding Mix (if needed)

Securitize Fixed Rate Mortgage Receivables	%	Total Funding Mix (should equal 100%):
Securitize Variable Rate Mortgage Receivables	%	
Commercial Paper	%	
Fed Funds Purchased	%	

Dividends

Dividend Payout Ratio	%

RETAIL DEPOSITS – ROUND 3

Checking Accounts

		Marketing ($-millions)	
Minimum Balance	$	Underbanked	$
Monthly Account Fee	$	Mass Market	$
Rate	%	Mass Affluent	$

Savings Accounts

		Marketing ($-millions)	
Rate	%	Underbanked	$
		Mass Market	$
		Mass Affluent	$

INVESTMENT MANAGEMENT - ROUND 3

Investment Management

Investment Management Fee	%	Underbanked	$
Financial Advisors	#	Mass Market	$
FA Commission Rate	%	Mass Affluent	$

Marketing ($-millions)

Consumer Lending - Round 3

Credit Cards

		Marketing ($-millions)	
Annual Fee	$	Underbanked	$
APR	%	Mass Market	$
Cash Back Feature	%	Mass Affluent	$
Minimum Credit Score	#		
Collections Strategy			

Consumer Loans

		Marketing ($-millions)	
APR	%	Underbanked	$
Minimum Credit Score	#	Mass Market	$
Collections Strategy		Mass Affluent	$

MORTGAGE LENDING – ROUND 3

Mortgage Loans - Fixed Rate

Marketing ($-millions)

Rate %

Minimum Credit Score #

Collections Strategy

Underbanked $

Mass Market $

Mass Affluent $

Mortgage Loans - Variable Rate

Marketing ($-millions)

Rate (basis points) #

Minimum Credit Score #

Collections Strategy

Underbanked $

Mass Market $

Mass Affluent $

RETAIL BANKING OPERATIONS – ROUND 3

Retail Network

Branches #

ATMs #

ATM Fee $

Operations (Service Levels)

Deposits %

Investment Management %

Credit Cards %

Consumer Lending %

Mortgage Lending %

IT Investments ($ - millions)

Customer Experience $

Payments $

Robo Advisory $

Risk Analytics $

Process Automation $

Employee Experience $

RETAIL BANKING HUMAN RESOURCES – ROUND 3

Retail Banking Employee Compensation

Change In Compensation: %

Training Budgets ($ per employee)

Sales Training: $

Services Training: $

Compliance Training: $

Financial Advisor Training: $

COMMERCIAL LENDING – ROUND 3

Lines of Credit

	Small Business	Middle Market	Large Corporate
Marketing ($-millions)	$	$	$
Rate (basis points)	#	#	#
Credit Policy			
Collections Strategy			

Commercial Real Estate (CRE) Loans

	Small Business	Middle Market	Large Corporate
Marketing ($-millions)	$	$	$
Rate	%	%	%
Credit Policy			
Collections Strategy			

INVESTMENT BANKING – ROUND 3

Marketing

	Small Business	Middle Market	Large Corporate
Marketing ($-millions)	$	$	$

Underwriting Fees

	Small Business	Middle Market	Large Corporate
Debt Underwriting	#	#	#
Equity Underwriting	#	#	#

Mergers and Acquisitions

	Small Business	Middle Market	Large Corporate
Advisory Fee (basis points of deal)	#	#	#

Research Staff

Number of Researchers #

TREASURY SERVICES – ROUND 3

Marketing

	Small Business	Middle Market	Large Corporate
Marketing	$	$	$

Commercial Checking Accounts

Minimum Balance ($)	$
Monthly Maintenance Fee ($)	$

Business Savings Accounts

Rate (basis points)	%

Transaction Services

	Small Business	Middle Market	Large Corporate
ACH Payments	$	$	$
Wire Transfers	$	$	$
Merchant Processing	$	$	$

Corporate Banking Operations – Round 3

Operations (Service Levels)

Commercial Lending %

CRE Lending %

Investment Banking %

Treasury Services %

IT Investments ($-millions)

Marketing Analytics $

Risk Analytics $

Research Analytics $

Treasury Platform $

Process Automation $

Employee Experience $

Corporate Banking Human Resources – Round 3

Corporate Banking Employee Compensation

Change In Compensation %

Training Budgets ($ per employee)

Sales Training $

Services Training $

Compliance Training $

ASSET/LIABILITY MANAGEMENT – ROUND 3

Investment Portfolio

	Purchases ($-millions)	Sales ($-millions)
Treasuries	$	$
Mortgage-Backed Securities	$	$
Investment-Grade Debt	$	$

Funding Mix (if needed)

Securitize Fixed Rate Mortgage Receivables %

Total Funding Mix (should equal 100%):

Securitize Variable Rate Mortgage Receivables %

Commercial Paper %

Fed Funds Purchased %

Dividends

Dividend Payout Ratio %

SAMPLE CALCULATIONS

This section has been developed to provide you with detailed examples of calculations you may use as you prepare your simulation decisions.

Sample Calculations for Retail Banking

Sample Calculation R-1

Cost of Reaching a Prospect (New Customers)	Underbanked	Mass Market	Mass Affluent
Checking Accounts	$0.25	$0.40	$0.50
Savings Accounts	$0.25	$0.40	$0.50

Cost of Reaching a Prospect (Cross-Selling)	Underbanked	Mass Market	Mass Affluent
Savings Accounts	$0.10	$0.10	$0.10

- Assume you spend $68 million to market your checking accounts to Mass Market customers
  - You will reach 170 million checking account prospects ($68 million divided by $0.40 per prospect)
- Now, assume you spend $2.7 million to market your savings accounts to Mass Affluent customers
  - The simulation will maximize your marketing budget by first using marketing dollars to cross-sell your savings accounts to existing checking account customers
  - In Round 1 your cross-selling efforts will target the 2,633,000 Mass Affluent checking accounts you have at SimStart, using $263,300 of your market budget (2,633,000 prospects at a cost of $0.10 each)
  - This leaves $2,436,700 in your marketing budget ($2,700,000 minus $263,300), which will allow you to reach 4,873,400 new prospects ($2,436,700 divided by $0.50 per prospect)
  - This gives you 7,506,400 total new prospects (2,633,000 plus 4,873,400)

Go back to Deposits - Marketing Expenditures

Sample Calculation R-2

- Assume you reach 170 million Mass Market prospects for checking accounts (based on your marketing budget)
- If your response rate is 0.90%, you will realize 1,530,000 new Mass Market checking account customers (170 million multiplied by 0.90%)

Expected Response Rates (New Customers)	Underbanked	Mass Market	Mass Affluent
Checking Accounts	1.00%	0.90%	0.85%
Savings Accounts	1.50%	1.20%	1.00%

Expected Response Rates (Cross-Selling)	Underbanked	Mass Market	Mass Affluent
Savings Accounts	2.25%	1.50%	1.50%

***NOTE:** Your actual response rates may vary from your expected response rates. The competitiveness of your pricing and your investment in new technology both impact your response rates.

***NOTE**: Market saturation can also impact your response rates. In other words, if all teams aggressively go after a specific customer segment for a specific product, the response rate for that segment will begin to drop. For deposit products, market saturation is reached when the total marketing dollars spent for a specific customer segment is double the total marketing dollars spent at SimStart.

Go back to Deposits - Marketing Expenditures

Sample Calculation R-3

- If you charge a monthly fee of $11 for Checking Accounts, and the market average is $10, your response rates will not be adjusted because your fee is only 10% above the market average
- However, if you charge a monthly fee of $13 for Checking Accounts, and the market average is $10, your fee is 30% above the market average
  - As a result, your response rates will drop by 15% (50% of the 30% deviation from the market average)
- Similarly, if you charge a monthly fee of $7 for Checking Accounts, and the market average is $10, your fee is 30% below the market average
  - As a result, your response rates will increase by 15% (50% of the 30% deviation from the market average)

Go back to Retail Banking - Deposits Pricing

Go back to Corporate Banking - Deposit Decisions

Sample Calculation R-4

- If you charge a monthly fee of $14 for Checking Accounts, and the market average is $10, your fee is 40% above the market average

- As a result, your retention rates will drop by 8% (20% of the 40% deviation from the market average)

Go back to Retail Banking - Deposits Pricing

Go back to Corporate Banking - Deposit Decisions

Sample Calculation R-5

- If you offer a percentage rate of 2.10% on Savings Accounts, and the market average is 2.00%, your response rates will not be adjusted because your rate is only 5% above the market average
- However, if you offer a percentage rate of 2.40% and the market average is 2.00%, your rate is 20% above the market average
  - As a result, your response rates will increase by 10% (50% of the 20% deviation from the market average)
- Similarly, if you offer a percentage rate of 1.60%, and the market average is 2.00%, your rate is 20% below the market average
  - As a result, your response rates will decrease by 10% (50% of the 20% deviation from the market average)

Go back to Retail Banking - Deposits Pricing

Sample Calculation R-6

Cost of Reaching a Prospect (New Customer)	Underbanked	Mass Market	Mass Affluent
Investment Management Accounts	$1.00	$1.00	$1.00

Cost of Reaching a Prospect (Cross-Selling)	Underbanked	Mass Market	Mass Affluent
Investment Management Accounts	$0.50	$0.50	$0.50

- Assume you spend $25.1 million to market your investment management accounts to Mass Affluent customers
- The simulation will maximize your marketing budget by first using marketing dollars to cross-sell investment management accounts to existing checking account customers
- In Round 1 your cross-selling efforts will target the 2,633,000 Mass Affluent checking accounts you have at SimStart, using $1,316,500 of your market budget (2,633,000 prospects at a cost of $0.50 each)
- This leaves $23,783,500 in your marketing budget ($25,100,000 minus $1,316,500), which will allow you to reach 23,783,500 new prospects ($23,783,500 divided by $1.00 per prospect)
- This gives you 26,416,500 total new prospects (23,783,500 plus 2,633,400)

Go back to Investment Management - Marketing Expenditures

Sample Calculation R-7

Expected Response Rates (New Customers)	Underbanked	Mass Market	Mass Affluent
Investment Management Accounts	0.25%	0.15%	0.05%

Expected Response Rates (Cross-Selling)	Underbanked	Mass Market	Mass Affluent
Investment Management Accounts	0.30%	0.20%	0.08%

- Assume you reach the 26.4 million Mass Affluent prospects described in Sample Calculation R-6
- If your response rate for existing checking account customers is 0.08%, you will cross-sell 2,106 new Mass Affluent investment management clients (2,633,000 prospects multiplied by 0.08%)
- If your response rate for new customers is 0.05%, you will realize an additional 11,982 new Mass Affluent investment management clients (23,783,500 prospects multiplied by 0.05%)
- This will give you a total of 13,998 new Mass Affluent investment management clients (2,106 + 11,982)

***NOTE**: Your actual response rates may vary from your expected response rates. The competitiveness of your pricing, number of financial advisors and investment in new technology all impact your response rates.

***NOTE**: Market saturation can also impact your response rates. In other words, if all teams aggressively go after a specific customer segment for a specific product, the response rate for that segment will begin to drop. For investment management, market saturation is reached when the total marketing dollars spent for a specific customer segment is double the total marketing dollars spent at SimStart.

Go back to Investment Management - Marketing Expenditures

Sample Calculation R-8

- If you charge an Investment Management Fee of 1.00% and the market average is 1.25%, your fee is 20% below the market average
  - As a result, your response rates will increase by 20% (100% of the 20% deviation from the market average)

Go back to Investment Management Fee

Sample Calculation R-9

- If you charge an Investment Management Fee of 1.00% and the market average is 1.47%, your fee is 32% below the market average
  - As a result, your retention rates will increase by 32% (100% of the 32% deviation from the market average)

Go back to Investment Management Fee

Sample Calculation R-10

- Assume you spend $7 million to market your consumer loans to Underbanked customers
- The simulation will maximize your marketing budget by first using marketing dollars to cross-sell consumer loans to existing checking account customers
- In Round 1 your cross-selling efforts will target the 3,618,500 Underbanked checking accounts you have at SimStart, using $361,850 of your market budget (3,618,500 prospects at a cost of $0.10 each)

Cost of Reaching a Prospect (New Customers)	Underbanked	Mass Market	Mass Affluent
Credit Cards	$0.50	$0.50	$0.50
Consumer Loans	$0.50	$0.50	$0.50
Fixed-Rate Mortgages	$0.50	$0.50	$0.50
Variable-Rate Mortgages	$0.50	$0.50	$0.50

Cost of Reaching a Prospect (Cross-Selling)	Underbanked	Mass Market	Mass Affluent
Credit Cards	$0.10	$0.10	$0.10
Consumer Loans	$0.10	$0.10	$0.10
Fixed-Rate Mortgages	$0.10	$0.10	$0.10
Variable-Rate Mortgages	$0.10	$0.10	$0.10

- This leaves $6,638,150 in your marketing budget ($7 million minus $361,850), which will allow you to reach 13,276,300 new prospects ($6,638,150 divided by $0.50 per prospect)
- This gives you 16,894,800 total new prospects (13,276,300 plus 3,618,500)

Go back to Lending - Marketing Expenditures

Sample Calculation R-11

Expected Response Rates (New Customers)	Underbanked	Mass Market	Mass Affluent
Credit Cards	1.50%	1.20%	0.90%
Consumer Loans	1.90%	1.60%	1.40%
Fixed-Rate Mortgages	0.25%	0.15%	0.10%
Variable-Rate Mortgages	0.25%	0.15%	0.10%

Expected Response Rates (Cross-Selling)	Underbanked	Mass Market	Mass Affluent
Credit Cards	2.25%	1.80%	1.35%
Consumer Loans	2.25%	1.90%	1.70%
Fixed-Rate Mortgages	0.50%	0.30%	0.20%
Variable-Rate Mortgages	0.50%	0.30%	0.20%

- Assume you reach the 16,894,800 Underbanked prospects for consumer loans described in Sample Calculation R-10
- If your response rate for existing checking account customers is 2.25%, you will cross-sell 81,416 new Underbanked consumer loan applicants (3,618,500 prospects multiplied by 2.25%)
- If your response rate for new customers is 1.90%, you will realize an additional 252,250 new Underbanked consumer loan applicants (13,276,300 prospects multiplied by 1.90%)
- This will give you a total of 333,666 new Underbanked consumer loan applicants (81,416 + 252,250)

***NOTE:** Your actual response rates may vary from your expected response rates. The competitiveness of your pricing and your investment in new technology both impact your response rates.

***NOTE**: Market saturation can also impact your response rates. In other words, if all teams aggressively go after a specific customer segment for a specific product, the response rate for that segment will begin to drop. For lending products, market saturation is reached when the total marketing dollars spent for a specific customer segment is 50% more than the total marketing dollars spent at SimStart.

Go back to Lending - Marketing Expenditures

Sample Calculation R-12

- If you offer a percentage rate of 9.50% on Credit Cards, and the market average is 9.75%, your response rates will not be adjusted because your rate is only 2.6% below the market average
- However, if you offer a percentage rate of 9.50% and the market average is 11.50%, your rate is 17.4% below the market average
  - As a result, your response rates will increase by 2.6% (15% of the 17.4% deviation from the market average)

Go back to Retail Lending - Interest Rates

Sample Calculation R-13

- If you offer a rate of 15.00% and the market average is 10.00%, your rate is 50% above the market average
  - As a result, your retention rates will drop by 5% (10% of the 50% deviation from the market average)

Go back to Retail Lending - Interest Rates

Sample Calculation R-14

- Assume you keep the minimum credit score at 729 for consumer loan applications
- For the Mass Market segment, this translates into an approval rate of 47.7%
- If you have 1,117,500 applicants, you will approve 533,048 new loans (47.7% x 1,117,500)
- The peak delinquency rate for these new loans will be 1.99%

Go back to Retail Lending – Credit Scores

Sample Calculation R-15

- If you have 20 million Checking Accounts, Savings Account and Investment Management accounts and you have 3,500 Branches, you have 5,714 customers per Branch (20 million ÷ 3,500)
  - As a result, there would be no impact on retention rates

Impact on Retention	Checking Accounts	Savings Accounts	Investment Management Accounts
Expected Number of Customers per Branch	5400 - 6300	4800 - 6900	5100 - 6900
Impact on Retention	50%	30%	100%

- However, if you only had 2,800 branches, you would have 7,143 customers per Branch; as a result:
  - The retention rates on Checking Accounts would be reduced by 9.5% (7,143 is 19% above 6,000 customers per branch; 50% of this deviation is 9.5%)
  - The retention rates on Savings Accounts would be reduced by 5.7% (7,143 is 19% above 6,000 customers per branch; 30% of this deviation is 5.7%)
  - The retention rates on Investment Management Accounts would be reduced by 19% (7,143 is 19% above 6,000 customers per branch; 100% of this deviation is 19%)

Go back to Operations - Retail Network

Sample Calculation R-16

- If there are 5 teams competing in the simulation, there will be 125 million foreign ATM transactions per round (5 x 25 million)
- If you own 25% of the ATMs in the marketplace, you will generate 31.25 million foreign ATM transactions (25% of 125 million)
- If you charge an ATM fee of $3.00, this will result in an additional $93.75 million in revenue (31.25 million transactions x $3)

Go back to Operations - Retail Network

Sample Calculation R-17

- If there are 5 teams competing in the simulation, there will be 125 million foreign ATM transactions per round (5 x 25 million)
- If you own 25% of the ATMs in the marketplace, you should receive 31.25 million foreign ATM transactions (25% of 125 million)
- However, if you charge an ATM fee of $3.00 and the market average is $2.00, you are 50% above the market average
- Your number of foreign ATM transactions will then drop to 15.625 million (50% less than 31.25 million)

Go back to Operations - Retail Network

Sample Calculation R-18

- Assume you:
  - Have 643,910 Investment Management accounts when the round starts
  - Attract 90,000 new Investment Management accounts in the current round

Operations Costs (per Account)	New Accounts	Existing Accounts (Previous Year's Total)
Deposit Accounts	$40	$10
Investment Management Accounts	$5,000	$500
Card Card Accounts	$650	$200
Consumer Loan Accounts	$650	$200
Mortgage Loan Accounts	$5,000	$500

- If you set your Operations Service Level for Investment Management to 100%, you will generate $771,955,000 in operating costs for Investment Management:
  - $321,955,000 in operating costs to support existing accounts (643,910 accounts x $500 per account)
  - $450,000,000 in operating costs to set up and support new accounts (90,000 accounts x $5,000 per account)
- If you set your Operations Service Level for Investment Management to 94%, you will only generate $678,637,700 in operating costs for Investment Management (94% of $771,955,000)
  - However, your retention rate for Investment Management accounts will fall by 6%

Go back to Operations – Operations Service Levels

Sample Calculation R-19

- If your average compensation is $67,000 and the market average is $70,000 your retention rates will not be adjusted because your employee compensation is only 4.3% below the market average
- However, if your average compensation is $67,000 and the market average is $75,000, your employee compensation is 10.67% below the market average
  - As a result, your employee retention rate will decrease by 5.33% (50% of the 10.67% deviation from the market average)

Go back to Personnel - Compensation

Sample Calculations for Corporate Banking

Sample Calculation C-1

- Assume you spend $29.8 million to market your commercial lines of credit to Large Corporate clients
- You will receive 347 commercial line of credit applications ($29.8 million divided by $86,000 per prospect)

***NOTE:** The actual number of applications your receive may vary. The competitiveness of your pricing, your research and your investment in new technology all impact the actual number of applications you receive.

***NOTE:** Market saturation can impact your cost of reaching new contacts. In other words, if all teams aggressively go after a specific customer segment, the marketing cost for that segment will begin to rise. Market saturation is reached when the total marketing dollars spent for a specific customer segment is more than double the total marketing dollars spent at SimStart.

Go back to Corporate Finance - Marketing Expenditures

Sample Calculation C-2

- If you offer a percentage rate of 6.50% on Commercial Real Estate Loans, and the market average is 6.00%, the number of new loan applicants will not be adjusted because your rate is only 8.3% above the market average
- However, if you offer a percentage rate of 6.50% and the market average is 5.25%, your rate is 23.8% above the market average
  - As a result, your number of new loan applicants will decrease by 28.6% (120% of the 23.8% deviation from the market average)

Go back to Corporate Finance - Pricing

Sample Calculation C-3

- If you offer an Underwriting Fee of 500 basis points (i.e., 5% of the total issuance) and the market average is 550 basis points, your number of deals will not be adjusted because your rate is only 9.1% below the market average
- However, if you offer an Underwriting Fee of 500 basis points and the market average is 600 basis points, your rate is 16.7% below the market average
  - As a result, your number of deals will increase by 8.35% (50% of the 16.7% deviation from the market average)

Go back to Corporate Finance - Pricing

Sample Calculation C-4

- If there are 5 teams in the simulation, your “fair share” of Researchers is 20%
- If you have 224 Researchers out of a total of 1,000 researchers across all teams, you have 22.4% of the market
- Since this is 12% higher than your “fair share”
  - There is no impact on your underwriting deals
  - However, you will see a 4.8% increase in the number of M&A deals (40% x 12%)

Go back to Research

Sample Calculation C-5

- Assume you spend $11.7 million to market your Treasury Services to Small Businesses
- The simulation will maximize your marketing budget by first using marketing dollars to cross-sell your Treasury Services to existing commercial lending customers
  - In Round 1 your cross-selling efforts will target the 147,862 Small Business commercial lending customers you have at SimStart (136,778 Commercial Lines of Credit customers and 11,084 Commercial Real Estate customers)
  - 36,966 existing Small Business commercial lending customers will respond to your marketing efforts (25% of 147,862)
  - At a cost of $30 each, attracting these 36,966 existing commercial lending customers will use $1.1 million of your marketing budget

Marketing to Existing Commercial Lending Customers	Small Business	Middle Market	Large Corporate
% of Customers Responding	25%	15%	5%

Marketing Cost for a New Customer	Small Business	Middle Market	Large Corporate
Marketing to Commercial Lending Customers	$30	$200	$4,500
Marketing to Non-Bank Customers	$50	$250	$5,000

- This leaves $10.6 million in your marketing budget ($11.7 million minus $1.1 million), which will allow you to reach 212,000 new prospects ($10.6 million divided by $50 per prospect)
- This gives you 248,966 total new prospects (36,966 + 212,000)

***NOTE:** The actual number of new customers you attract may vary. The competitiveness of your pricing and your investment in new technology both impact the number of new customers you attract.

***NOTE:** Market saturation can impact the number of new customers you attract. If multiple teams aggressively go after a specific customer segment, the marketing cost for that segment will begin to rise. Market saturation is reached in Treasury Services when the total marketing dollars spent for a specific customer segment is 50% more than the total marketing dollars spent at SimStart.

Go back to Treasury Services - Marketing Expenditures

Sample Calculation C-6

- If you offer ACH transactions at $0.50 per transaction and the market average is $0.40, you are 25% above market average
- Your new Treasury Services customers will be reduced by 3.75% (15% of the 25% deviation from market average)

Go back to Treasury Services - Fees

Sample Calculation C-7

Operations Costs (per Account)	New Accounts	Existing Accounts
Commercial Lending	$30,000	$1,500
CRE Lending	$100,000	$10,000
Investment Banking	$200,000	n/a
Treasury Services	$1,000	$250

- Assume you:
  - Have 1,867,836 Treasury Services accounts when the round starts
  - Attract 300,000 new Treasury Services accounts in the current round
- If you set your Operations Service Level for Treasury Services to 100%, you will generate $767 million in operating costs for Treasury Services:
  - $467 million in operating costs to support existing accounts (1,876,836 accounts x $250 per account)
  - $300 million in operating costs to set up and support new accounts (300,000 accounts x $1,000 per account)
- If you set your Operations Service Level for Treasury Service to 94%, you will only generate $721 million in operating costs for Treasury Services (94% of $767 million)
  - However, your retention rate for Treasury Services accounts will fall by 6%

Go back to Operations - Operating Budget

Sample Calculation C-8

- If your average compensation is $67,000 and the market average is $70,000 your retention rates will not be adjusted because your rate is only 4.3% below the market average
- However, if your average compensation is $67,000 and the market average is $75,000, your rate is 10.67% below the market average
  - As a result, your employee retention rate will decrease by 5.33% (50% of the 10.67% deviation from the market average)

Go back to Personnel - Compensation

Sample Calculations for Asset/Liability Management

Sample Calculation ALM-1

- Assume you own a bond with a face value of $100,000 paying an interest rate of 4%
  - This bond would pay $4,000 a year in interest over the life of the bond
- Assume interest rates rise, and new bonds with similar levels of credit risk are being issued with an interest rate of 5%
  - New bonds with a face value of $100,000 would pay $5,000 a year in interest
- The market value of your existing bond would drop to $80,000
  - In other words, another investor paying $80,000 for your bond would still receive $4,000 a year in interest
  - This translates to a yield of 5% ($4,000 ÷ $80,000), which is comparable to new bonds
- If you sold this bond for $80,000, you would realize a capital loss of $20,000 ($100,000 - $80,000)

You do not have to sell investments to be impacted by changes in interest rates. Banks are required to record their investment portfolio on their balance sheet at market value, and any adjustment has an impact (positive or negative) on the bank's equity. In other words, when your bank originally bought the bond in this example, it showed up on the Balance Sheet as an asset worth $100,000. If it dropped to $80,000 in the next year, the value of your asset would drop by $20,000. At the same time, Unrealized Gains (Losses) on Securities, which is part of your bank's equity, would also be reduced by $20,000 (keeping the balance sheet in balance).

Go back to Investment Portfolio

Sample Calculation ALM-2

- Assume the following:
  - Retail Banking is planning to:
    - Grow retail loans by $10 billion
    - Grow deposits by $11 billion
  - Assume Corporate Banking is planning to:
    - Grow commercial loans by $6 billion
    - Grow commercial deposits by $7 billion
  - You are planning to purchase $5 billion in new investment securities
  - You need to repay $4 billion in Fed Funds Purchased and Commercial Paper from the year before
- This leaves you with $25 billion in new funds needed
  ($10 billion for retail loans + $6 billion for commercial loans + $5 billion to purchase investment securities + $4 billion to repay Fed Funds Purchased and commercial paper)
  - However, you only have $18 billion in new funds coming in ($11 billion in retail deposits + $7 billion in commercial deposits)
  - This leaves you with a projected funding shortfall of $7 billion

As a result of the funding shortfall, you have three options:

- You could attempt to attract more deposits
- You could slow down asset growth by:
  - Limiting growth in loans
  - Limiting your investment portfolio purchases
  - Selling investments in your investment portfolio
- You could raise additional funding by securitizing assets, issuing new commercial paper and/or borrowing from other banks

Go back to Funding Mix

Sample Calculation ALM-3

- Assume the average yield on your fixed-rate mortgage loan portfolio is 5.75% and you decide to securitize $2 billion in fixed-rate mortgages
- Assume the average interest rate on fixed-rate mortgages in the current round (based on team decisions) is 6.00%
- You will realize an $83.3 million capital loss on your fixed rate mortgage securitizations
  ((5.75% ÷ 6.00%) – 1) * $2 billion

  Go back to Securitization