# THE KAFAFIAN GROUP

**Are Your Management Reports Just an Illusion?** 

**December 11, 2020** 

Performance Measurement



Strategic Management



Profit & Process Improvement



Management Advisory



Financial Advisory



# **Are Your Management Reports Just an Illusion?**

## THE KAFAFIAN GROUP

**December 11, 2020** 

9:00 am - 10:00am



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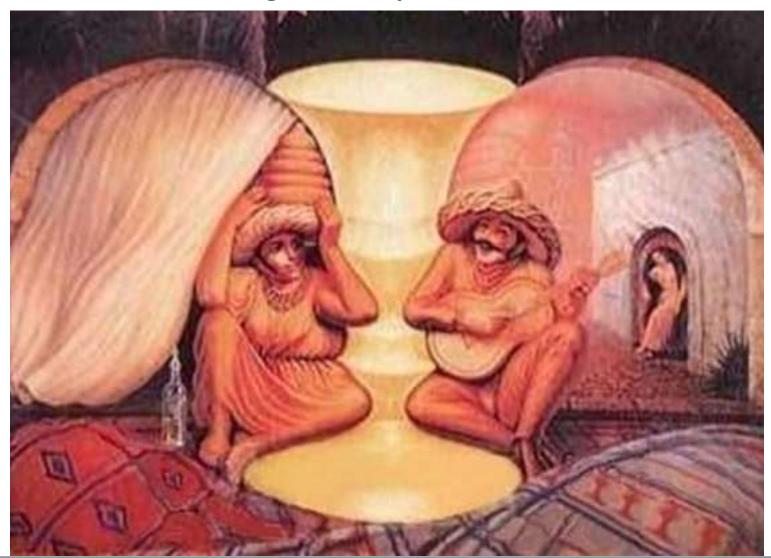


"Harness The Power Of Your Financial Data To Help Your Bank Make Smarter, More Confident Decisions That Drive Performance"

Go beyond your general ledger to produce more meaningful, decision generating financial reports.



## Are Your Management Reports Just an Illusion????





Using only general ledger data to provide data for your management reports is just an <u>ILLUSION!</u>



Adding <u>"Performance Measurement" data</u> will help transform these reports into a "Clear" picture of your performance!



# SAMPLE INSTITUTION RETAIL BRANCH PROFITABILITY REPORT Q2 2020

|   | "Without" Performance Measurement Data |          |  |  |  |
|---|----------------------------------------|----------|--|--|--|
|   |                                        |          |  |  |  |
|   | Balance Sheet                          | Branches |  |  |  |
| 1 | Deposits                               | 298,000  |  |  |  |
| 2 | Loans                                  | 73,000   |  |  |  |
| 3 | Net Funds Provided (Used)              | 225,000  |  |  |  |

|   | Income Statement                 |       |           |
|---|----------------------------------|-------|-----------|
| 4 | Interest Income                  | 703   |           |
| 5 | Interest Expense                 | 480   |           |
| 6 | Total Interest Spread            | 223   | Is this   |
| 5 | <b>Provision for Credit Loss</b> | 24    | just an   |
| 6 | Marginal Inc (Loss) After Prov.  | 199   |           |
| 7 | Non-Interest Income              | 234   | Illusion? |
| 6 | <b>Total Income</b>              | 433   |           |
| 7 | Direct Expense                   | 672   |           |
| 8 | Pretax Profit (Loss)             | (239) |           |

- On a <u>"direct basis"</u>, the branch network of this bank is operating at a loss!
- Calculating profit on a direct basis does not tell the true profitability story of the branch network.
- <u>Basing decisions on this</u> <u>information may lead to</u> <u>unintended results!</u>



#### **SAMPLE INSTITUTION** RETAIL BRANCH PROFITABILITY REPORT Q2 2020 **Total Balance Sheet** Branches **Deposits** 298,000 Loans 73,000 To provide a true picture of the **Net Funds Provided (Used)** 225,000 profitability of the branch **Income Statement** network, you must include the **Interest Income** 703 following items: **Cost of Funds** 5 703 **Net Asset Spread Credit for Funds Funds Transfer Pricing Interest Expense** 480 8 9 **Net Liability Spread** 480 **Total Interest Spread** 223 10 Allocate Indirect Expenses 11 Provision for Credit Loss 24 and Overhead Expenses 199 Marginal Inc (Loss) After Prov. from support centers 13 **Non-Interest Income** 234 **Total Income** 433 14 throughout the institution **Direct Expense** 672 **Indirect Support & Allocated Overhead** 17 **Total Non-Interest Expense** 18 672 19 Pretax Profit (Loss) (239)



## **Transfer Pricing - Definition**

Without Transfer Pricing, Deposits would only have <u>interest expense</u> and Loans & Investments would only have <u>interest income</u>.

Transfer pricing provides "Interest Income" for deposits and "Interest Expense" for Loans.

#### **Deposit Transfer Pricing:**

Provides a "Credit to Deposited Funds" to reward a branch for providing funding at a lower rate than if the institution had to fund only through the FHLB.

#### **Loan Transfer Pricing:**

Provides a <u>"Cost of Funds"</u> to charge loans interest expense to match the actual maturity and interest rate characteristics of each loan in your portfolio.

#### Funds Transfer Pricing (FTP) - Definition

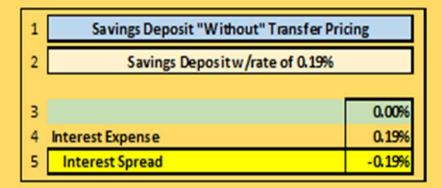
Transfer pricing is tied to an external benchmark ("FHLB Fixed Rate Advance Curve") for interest rates.

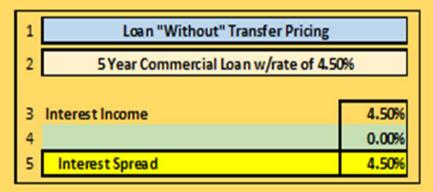
<u>This eliminates the influence of other decisions not under the control of the management responsible</u> for each product.



## **Transfer Pricing - Definition**

Without Transfer Pricing, Deposits would only have interest expense and Loans & Investments would only have interest income.

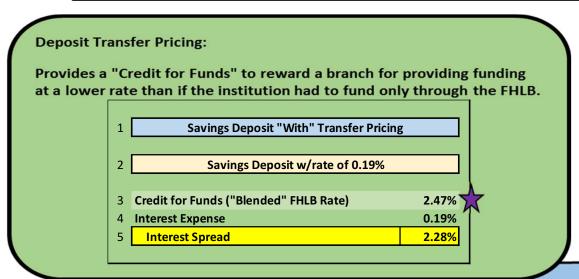




Transfer pricing provides "Interest Income" for deposits and "Interest Expense" for Loans.



# **Transfer Pricing - Definition**



#### **Loan & Investment Transfer Pricing:**

Provides a <u>"Cost of Funds"</u> to match the actual maturity and interest rate characteristics of a loan and investment.

| Loan "With" Transfer Pricing             |       |
|------------------------------------------|-------|
| 5 Year Commercial Loan w/rate of 4.50    | %     |
| Interest Income                          | 4.50% |
| Cost of Funds (FHLB 5 Year Advance Rate) | 1.61% |
| Interest Spread                          | 2.89% |



# **Transfer Pricing - Deposit Methods**

| Deposit Product                        | Pool Priced/Blended Rate                                               |
|----------------------------------------|------------------------------------------------------------------------|
|                                        | 10% 3 Month + 30% 1 Year + 60% 7 Year                                  |
| Non-Interest Bearing Demand - Retail   | (10% X 3 Months) + (30% X 12 Months) + (60% X 84 Months) = 54.3 Months |
| Non-Interest Bearing Demand – Business | 30% 1 Month + 30% 3 Month + 40% 7 Year                                 |
|                                        | (30% X 1 Month) + (30% X 3 Months) + (40% X 84 Months) = 34.8 Months   |
| Interest-Bearing Demand                | 10% 3 Month + 30% 1 Year + 60% 7 Year                                  |
|                                        | (10% X 3 Months) + (30% X 12 Months) + (60% X 84 Months) = 54.3 Months |
| Money Market                           | 10% 3 Month + 10% 6 Month + 20% 1 Year + 60% 3 Year                    |
|                                        | (10% X 3 Months) + (10% X 6 Months) + (20% X 12 Months) + (60% X 36    |
|                                        | Months) = 24.9 Months                                                  |
| Savings                                | 20% 6 Month + 30% 3 Year + 50% 7 Year                                  |
|                                        | (20% X 6 Months) + (30% X 36 Months) + (50% X 84 Months) = 54 Months   |
| Certificates of Deposit                | Matched Maturity by instrument                                         |
| Borrowings                             | Pool Priced @ Actual Cost or Matched Maturity by instrument            |
|                                        |                                                                        |



# Funds Transfer Princing - Savings 2nd Quarter 2020

The Funds Transfer Pricing Method used to calculate the Credit for Funds for Savings Accounts (and other core deposits) is the "Blended Rate" method:

| 1                      |                       |                       |                       |                  |
|------------------------|-----------------------|-----------------------|-----------------------|------------------|
|                        |                       |                       |                       |                  |
|                        | 6 Month FHLB          | 3 Year FHLB           | 7 Year FHLB           |                  |
|                        | "Rolling Average"     | "Rolling Average"     | "Rolling Average"     |                  |
|                        | <b>Borrowing Rate</b> | <b>Borrowing Rate</b> | <b>Borrowing Rate</b> | Credit for Funds |
| FHLB Rolling Avg. Rate | 0.98%                 | 2.23%                 | 2.47%                 |                  |
| Factor                 | 20%                   | 30%                   | 50%                   |                  |
| Credit for Funds       | 0.20%                 | 0.67%                 | 1.26%                 | 2.12%            |

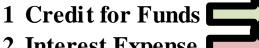


|   |                 |            |            |            | Savings Account Average Life |
|---|-----------------|------------|------------|------------|------------------------------|
| 5 |                 | 20% Factor | 30% Factor | 50% Factor | (Months)                     |
| 6 | Months          | 6          | 36         | 84         |                              |
| 7 | Factor          | 20%        | 30%        | 50%        |                              |
| 8 | Factored Months | 1.20       | 10.80      | 42.00      | 54.00                        |
|   |                 |            |            |            |                              |



## SAMPLE INSTITUTION FUND PROVIDING PRODUCTS 2ND QUARTER 2020

| Non-Int | Interest |        |         |      |
|---------|----------|--------|---------|------|
| Bearing | Bearing  | Money  |         |      |
| Demand  | Demand   | Market | Savings | CD's |



2 Interest Expense

3 Total Interest Spread

| 1.88 % | 2.00 % | 1.79 % | 2.12 % | 1.85 % |
|--------|--------|--------|--------|--------|
| 0.00 % | 0.75 % | 0.90 % | 0.26 % | 1.81 % |
| 1.88 % | 1.25 % | 0.89 % | 1.86 % | 0.04 % |













# SAMPLE INSTITUTION Branch Deposit "Credit for Funds" Calculation Q2 2020

|   | Average Quarterly Balance | То   | tal Branches |
|---|---------------------------|------|--------------|
| 1 | Checking (Non-Int)        | \$   | 58,000,000   |
| 2 | Interest Checking         |      | 77,000,000   |
| 3 | Money Market              |      | 56,000,000   |
| 4 | Savings                   |      | 70,000,000   |
| 5 | Certificates of Deposit   |      | 37,000,000   |
| 6 | Total Branch Deposits     | \$ 2 | 298,000,000  |

| Credit | (  | Credit for |  |
|--------|----|------------|--|
| for    |    | Funds      |  |
| Funds  | \$ |            |  |
| 1.88%  | \$ | 271,000    |  |
| 2.00%  |    | 383,000    |  |
| 1.79%  |    | 249,000    |  |
| 2.12%  |    | 369,000    |  |
| 1.85%  |    | 190,000    |  |
|        | \$ | 1,462,000  |  |

# SAMPLE INSTITUTION RETAIL BRANCH PROFITABILITY REPORT Q2 2020

|   |                           | Total    |
|---|---------------------------|----------|
|   | Balance Sheet             | Branches |
| 1 | Deposits                  | 298,000  |
| 2 | Loans                     | 73,000   |
| 3 | Net Funds Provided (Used) | 225,000  |

|    | Income Statement                  |       |
|----|-----------------------------------|-------|
| 4  | Interest Income                   | 703   |
| 5  | Cost of Funds                     | -     |
| 6  | Net Asset Spread                  | 703   |
| 7  | Credit for Funds                  | 1,462 |
| 8  | Interest Expense                  | 480   |
| 9  | Net Liability Spread              | 982   |
| 10 | <b>Total Interest Spread</b>      | 1,685 |
| 11 | Provision for Credit Loss         | 24    |
| 12 | Marginal Inc (Loss) After Prov.   | 1,661 |
| 13 | Non-Interest Income               | 234   |
| 14 | <b>Total Income</b>               | 1,895 |
| 15 | Direct Expense                    | 672   |
| 16 | Indirect Support &                |       |
| 17 | Allocated Overhead                | ?     |
| 18 | <b>Total Non-Interest Expense</b> | 672   |
| 19 | Pretax Profit (Loss)              | 1,223 |



#### **FUNDS TRANSFER PRICING - LOAN EXAMPLE**

#### Transfer Pricing: Actual Loan Example: Commercial Real Estate

| 1      | Loan#                    | 404774             | Rate Source  |
|--------|--------------------------|--------------------|--------------|
| 2      | Settlement Date          | 1/12/2018          |              |
| 3      | Maturity Date            | 1/12/2038          | Rate Type    |
| _      | Next Reprice Date        | 1/12/2023          |              |
| 5      | # Days to Reprice Date   | 1,825 days (5 yrs) | FHLB_PITT_DO |
| 5      | Original Loan Amount     | \$500,000          | FHLB_PITT_M  |
| 7      | Interest Rate            | 5.13%              |              |
| 8<br>9 | Cost of Funds Net Spread | 2.6068%            | FHLB_PITT_M  |
|        | iver spread              | 2.3276             | FHLB_PITT_M  |
|        |                          | ng Date of loan    | FHLB_PITT_YO |
|        | Funds                    | 2.61% Cost of      | FHLB_PITT_YO |
|        | ,                        |                    | FHLB_PITT_YO |
|        |                          |                    | FHLB_PITT_Y0 |
|        |                          |                    | FHLB_PITT_Y0 |
|        |                          |                    |              |
|        |                          |                    | FHLB_PITT_Y  |

| Rate Source FH | LB_PITT ▼ Date 01/12/20   | 018        |
|----------------|---------------------------|------------|
| Rate Type      | Description               | Rate Value |
| FHLB_PITT_D01  | FHLB Pittsburgh Overnight | 1.5900     |
| FHLB_PITT_M01  | FHLB Pittsburgh One Month | 1.6300     |
| FHLB_PITT_M03  | FHLB Pittsburgh 3 Month   | 1.7150     |
| FHLB_PYTT_M06  | FHLB Pittsburgh 6 Month   | 1.8580     |
| FHLB_PITT_Mc9  | FHLB Pittsburgh 9 Month   | 1.9820     |
| FHLB_PITT_Y01  | FHEB Pittsburgh 12 Month  | 2.0960     |
| FHLB_PITT_Y02  | FHLB Pittsburgh 2 Year    | 2.2755     |
| FHLB_PITT_Y03  | FHLB Pittsburgh 3 Year    | 2.3962     |
| FHLB_PITT_Y04  | FHLB Pittsburgh 4 Year    | 2.5012     |
| FHLB_PITT_Y05  | FHLB Pittsburgh 5 Year    | 2.6068     |
| FHLB_PITT_Y06  | FHLB Pittsburgh 6 Year    | 2.7254     |
| FHLB_PITT_Y07  | FHLB Pittsburgh 7 Year    | 2.8332     |
| FHLB_PITT_Y08  | FHLB Pittsburgh 8 Year    | 2.9465     |
| FHLB_PITT_Y09  | FHLB Pittsburgh 9 Year    | 3.0432     |
| FHLB_PITT_Y10  | FHLB Pittsburgh 10 Year   | 3.1136     |
| FHLB_PITT_Y20  | FHLB Pittsburgh 20 Year   | 3.5275     |
| FHLB_PITT_Y30  | FHLB Pittsburgh 30 Year   | 3.6947     |
|                |                           |            |



## SAMPLE INSTITUTION **FUND USING PRODUCTS 2ND QUARTER 2020**

|             | Home   | Home   |       |          |
|-------------|--------|--------|-------|----------|
| Residential | Equtiy | Equity | Auto  | Personal |
| Mortgage    | Loans  | LOC    | Loans | Loans    |





3 Total Interest Spread

| • |        |        |        |        |        |
|---|--------|--------|--------|--------|--------|
|   | 1.83 % | 2.53 % | 2.43 % | 1.37 % | 2.99 % |
| > | 2.23 % | 1.98 % | 0.48 % | 1.97 % | 0.50 % |
|   | 4.06 % | 4.51 % | 2.91 % | 3.34 % | 3.49 % |













#### **Sample Institution Branch Loan "Cost of Funds" Calculation** Q2 2020 Cost of Cost of **Funds Total Branches** Average Quarterly Balance **Funds** \$ 151,762 1 Residential Mortgage \$ 27,000,000 2.23% 2 Home Equity Loans 14,000,000 1.98% 69,870 3 Home Equity Lines of Credit 19,000,000 0.48% 22,987 4 Auto Loans 10,000,000 1.97% 49,655 5 Personal Loans 3,000,000 0.50% 3,781 \$ 73,000,000 298,055 **Total Branch Loans** 6

#### SAMPLE CREDIT UNION RETAIL BRANCH PROFITABILITY REPORT Q2 2020

|   |                           | Total    |
|---|---------------------------|----------|
|   | Balance Sheet             | Branches |
| 1 | Deposits                  | 298,000  |
| 2 | Loans                     | 73,000   |
| 3 | Net Funds Provided (Used) | 225,000  |

|     | Income Statement                  |       |
|-----|-----------------------------------|-------|
| 4   | Interest Income                   | 703   |
| 5   | Cost of Funds                     | 298   |
| 6   | Net Asset Spread                  | 405   |
| 7   | Credit for Funds                  | 1,462 |
| 8   | Interest Expense                  | 480   |
| 9   | Net Liability Spread              | 982   |
| 10  | <b>Total Interest Spread</b>      | 1,387 |
| ملا | Provision for Credit Loss         | 24    |
| 12  | Marginal Inc (Loss) After Prov.   | 1,363 |
| 13  | Non-Interest Income               | 234   |
| 14  | <b>Total Income</b>               | 1,597 |
| 15  | Direct Expense                    | 672   |
| 16  | Indirect Support &                |       |
| 17  | Allocated Overhead                | ?     |
| 18  | <b>Total Non-Interest Expense</b> | 672   |
| 19  | Pretax Profit (Loss)              | 925   |



#### **COST ALLOCATION METHODS**

#### **DIRECT EXPENSE - Method**

Controllable expense associated with day-to-day operations within a responsibility center (e.g., Compensation, Benefits, Occupancy, Equipment Expense, Other Expense, etc.). Data is from the banks general ledger system.

#### **INDIRECT SUPPORT - Method**

Expense invoiced to Line Organizations ("Profit Centers") for services provided by administrative support areas (Deposit Operations, Appraisal Review, Audit, etc.). Allocations determined utilizing an objective basis based on interviews.

#### ALLOCATED OVERHEAD- Method

Expense invoiced to Line Organizations ("Profit Centers") for services provided by administrative areas that provide support to the general enterprise (Example: Office of the CEO). Allocations are uniform and "broadbrush"; based upon amount of Direct/Indirect Expense in Line Units.



The median cost of <u>"Indirect" +</u>
<u>"Overhead"</u> costs per branch from
our clients = <u>0.97% of Total</u>
<u>Deposits</u>

|                                                    | Branch<br>Deposits |              |   |
|----------------------------------------------------|--------------------|--------------|---|
| <b>Branch Deposits</b>                             | \$                 | 298,000      |   |
| The Kafafian Group "PEER"  Median Total Indirect & |                    |              |   |
| Overhead Cost per Branch                           |                    | 0.97%        |   |
| Indirect & Overhead Expense                        | \$                 | 721 <b>-</b> | _ |

# SAMPLE INSTITUTION RETAIL BRANCH PROFITABILITY REPORT Q2 2020

|   |                           | Total    |
|---|---------------------------|----------|
|   | Balance Sheet             | Branches |
| 1 | Deposits                  | 298,000  |
| 2 | Loans                     | 73,000   |
| 3 | Net Funds Provided (Used) | 225,000  |

|    | Income Statement                 |              |
|----|----------------------------------|--------------|
| 4  | Interest Income                  | 703          |
| 5  | <b>Cost of Funds</b>             | 298          |
| 6  | Net Asset Spread                 | 405          |
| 7  | Credit for Funds                 | 1,462        |
| 8  | Interest Expense                 | 480          |
| 9  | Net Liability Spread             | 982          |
| 10 | <b>Total Interest Spread</b>     | 1,387        |
| 11 | <b>Provision for Credit Loss</b> | 24           |
| 12 | Marginal Inc (Loss) After Prov.  | 1,363        |
| 13 | Non-Interest Income              | 234          |
| 14 | <b>Total Income</b>              | 1,597        |
| 15 | Direct Expense                   | 672          |
| 16 | Indirect Support &               |              |
| 17 | Allocated Overhead               | <b>→</b> 721 |
| 18 | Tetal Non-Interest Expense       | 1,393        |
| 19 | Pretax Profit (Loss)             | 204          |



# SAMPLE INSTITUTION RETAIL BRANCH PROFITABILITY

Q2 2020

#### "Without" Performance Measurement Data

|   |                           | Total    |
|---|---------------------------|----------|
|   | Balance Sheet             | Branches |
| 1 | Deposits                  | 298,000  |
| 2 | Loans                     | 73,000   |
| 3 | Net Funds Provided (Used) | 225,000  |

|   | Income Statement                 |              |   |
|---|----------------------------------|--------------|---|
| 4 | Interest Income                  | 703          |   |
| 5 | Interest Expense                 | 480          |   |
| 6 | Total Interest Spread            | <b>223</b>   |   |
| 5 | <b>Provision for Credit Loss</b> | 24           |   |
| 6 | Marginal Inc (Loss) After Prov.  | 199          | ( |
| 7 | Non-Interest Income              | 234          |   |
| 6 | <b>Total Income</b>              | 433          |   |
| 7 | Direct Expense                   | <b>→</b> 672 |   |
| 8 | Pretax Profit (Loss)             | (239)        | • |

By adding <u>Transfer</u>
<u>Pricing</u> and <u>Cost</u>
<u>Allocations</u>, you now have a true picture of the profitability of the branch network.

Which statement do you want to use as the basis for your decisions?????

Is this just an Illusion?

# SAMPLE INSTITUTION RETAIL BRANCH PROFITABILITY REPORT Q2 2020

|   | "With" Performance Measurement Data |          |  |
|---|-------------------------------------|----------|--|
|   | To                                  |          |  |
|   | Balance Sheet                       | Branches |  |
| 1 | Deposits                            | 298,000  |  |
| 2 | Loans                               | 73,000   |  |
| 3 | Net Funds Provided (Used)           | 225,000  |  |

|           |                                  | 1     |   |
|-----------|----------------------------------|-------|---|
|           | Income Statement                 |       |   |
| 4         | Interest Income                  | 703   |   |
| 5         | Cost of Funds                    | 298   |   |
| 6         | Net Asset Spread                 | 405   |   |
| 7         | Credit for Funds                 | 1,462 |   |
| 8         | Interest Expense                 | 480   |   |
| 9         | Net Liability Spread             | 982   |   |
| 10        | Total Interest Spread            | 1,387 |   |
| 11        | <b>Provision for Credit Loss</b> | 24    | 1 |
| 12        | Marginal Inc (Loss) After Prov.  | 1,363 |   |
| 13        | Non-Interest Income              | 234   |   |
| 14        | <b>Total Income</b>              | 1,597 |   |
| 15        | Direct Expense                   | 672   |   |
| 16        | Indirect Support &               |       |   |
| <b>17</b> | Allocated Overhead               | 721   |   |
| 18        | Total Non-Interest Expense       | 1,393 | 6 |
| 19        | Pretax Profit (Loss)             | 204   | 5 |
|           |                                  |       |   |



now

have

clear

vision

#### SAMPLE INSTITUTION

|                                    |          | RETA     | AIL BR   | ANCH F   | PROFIT   | ABILITY  | REPC            | RT       |          |          |          |          |
|------------------------------------|----------|----------|----------|----------|----------|----------|-----------------|----------|----------|----------|----------|----------|
|                                    | Total    | % of     |          | % of     |          | % of     |                 | % of     |          | % of     |          | % of     |
| FUNDS FLOW:                        | Branches | Deposits | Branch A | Deposits | Branch B | Deposits | <b>Branch</b> C | Deposits | Branch D | Deposits | Branch E | Deposits |
| 1 Deposits                         | 298,000  | 100.00 % | 121,000  | 100.00 % | 54,000   | 100.00 % | 46,000          | 100.00 % | 19,000   | 100.00 % | 58,000   | 100.00 % |
| 2 Loans                            | 73,000   | 24.50 %  | 36,000   | 29.75 %  | 13,000   | 24.07 %  | 9,000           | 19.57 %  | 5,000    | 26.32 %  | 10,000   | 17.24 %  |
| 3 Net Funds Provided (Used)        | 225,000  | 75.50 %  | 85,000   | 70.25 %  | 41,000   | 75.93 %  | 37,000          | 80.43 %  | 14,000   | 73.68 %  | 48,000   | 82.76 %  |
| 8                                  |          | 0/ 6     |          | 0/ 6     |          | 0/ 6     |                 | 0/ 6     |          | 0/ 6     |          | 0/ 6     |
| 0.001                              |          | % of     |          | % of     |          | % of     |                 | % of     |          | % of     |          | % of     |
| 9 <u>P &amp; L:</u>                |          | Deposits |          | Deposits |          | Deposits |                 | Deposits |          | Deposits |          | Deposits |
| 10 Interest Income                 | 703      | 0.95 %   | 341      | 1.13 %   | 126      | 0.94 %   | 82              | 0.72 %   | 53       | 1.12 %   | 101      | 0.70 %   |
| 11 Cost of Funds                   | 298      | 0.40 %   | 145      | 0.48 %   | 56       | 0.42 %   | 33              | 0.29 %   | 22       | 0.47 %   | 42       | 0.29 %   |
| 12 Net Asset Spread                | 405      | 0.55 %   | 196      | 0.65 %   | 70       | 0.52 %   | 49              | 0.43 %   | 31       | 0.66 %   | 59       | 0.41 %   |
| 13 Credit for Funds                | 1,462    | 1.97 %   | 590      | 1.96 %   | 265      | 1.97 %   | 225             | 1.97 %   | 92       | 1.95 %   | 290      | 2.01 %   |
| 14 Interest Expense                | 480      | 0.65 %   | 193      | 0.64 %   | 94       | 0.70 %   | 78              | 0.68 %   | 30       | 0.64 %   | 85       | 0.59 %   |
| 15 Net Liability Spread            | 982      | 1.33 %   | 397      | 1.32 %   | 171      | 1.27 %   | 147             | 1.29 %   | 62       | 1.31 %   | 205      | 1.42 %   |
| 16 Total Interest Spread           | 1,387    | 1.87 %   | 593      | 1.97 %   | 241      | 1.79 %   | 196             | 1.71 %   | 93       | 1.97 %   | 264      | 1.83 %   |
| 17 Provision for Credit Loss       | 24       | 0.03 %   | 10       | 0.03 %   | 8        | 0.06 %   | 2               | 0.02 %   | -        | 0.00 %   | 4        | 0.03 %   |
| 18 Marginal Inc (Loss) After Prov. | 1,363    | 1.84 %   | 583      | 1.94 %   | 233      | 1.74 %   | 194             | 1.70 %   | 93       | 1.97 %   | 260      | 1.80 %   |
| 19 Non-Interest Income             | 234      | 0.32 %   | 101      | 0.34 %   | 44       | 0.33 %   | 32              | 0.28 %   | 25       | 0.53 %   | 32       | 0.22 %   |
| 20 Total Income                    | 1,597    | 2.16 %   | 684      | 2.27 %   | 277      | 2.06 %   | 226             | 1.98 %   | 118      | 2.50 %   | 292      | 2.02 %   |
| 21 Direct Expense                  | 672      | 0.89 %   | 182      | 0.60 %   | 110      | 0.81 %   | 115             | 0.99 %   | 90       | 1.88 %   | 175      | 1.20 %   |
| 22 Indirect Support &              |          |          |          |          |          |          |                 |          |          |          |          |          |
| 23 Allocated Overhead              | 721      | 0.97 %   | 293      | 0.96 %   | 131      | 0.96 %   | 111             | 0.96 %   | 46       | 0.96 %   | 140      | 0.96 %   |
| 24 Total Non-Interest Expense      | 1,393    | 1.87 %   | 475      | 1.56 %   | 241      | 1.77 %   | 226             | 1.95 %   | 136      | 2.84 %   | 315      | 2.16 %   |
| 25 Pretax Profit (Loss)            | 204      | 0.29 %   | 209      | 0.72 %   | 36       | 0.29 %   | (0)             | 0.02 %   | (18)     | (0.34)%  | (23)     | (0.13)%  |
| D. A. D. CA HILLINGTON             | (220)    | (0.22)2/ | <i></i>  | 0.10.0   | (42)     | (0.21)2/ | (01)            | (0.71)2/ | (42)     | (0,00)2/ | (121)    | (0.01)0/ |
| 26 Pretax Profit <u>"ILLUSION"</u> | (239)    | (0.32)%  | 57       | 0.19 %   | (42)     | (0.31)%  | (81)            | (0.71)%  | (42)     | (0.89)%  | (131)    | (0.91)%  |
| 27 Difference                      | 443      | 0.60 %   | 152      | 0.51 %   | 78       | 0.58 %   | 81              | 0.71 %   | 24       | 0.51 %   | 108      | 0.75 %   |



#### **Earning Asset Spreads - Trends**

|                |         |         |         | _ |         |         |         |         |         |         |         |
|----------------|---------|---------|---------|---|---------|---------|---------|---------|---------|---------|---------|
|                | Q4 2006 | Q4 2007 | Q4 2008 |   | Q4 2014 | Q4 2015 | Q4 2016 | Q4 2017 | Q4 2018 | Q4 2019 | Q2 2020 |
| Fed Funds Rate | 5.25%   | 4.25%   | 0.25%   |   | 0.25%   | 0.50%   | 0.75%   | 1.50%   | 2.50%   | 1.75%   | 0.25%   |
|                | -       |         |         | _ |         |         |         |         |         |         |         |

|   | Earning Asse  | Earning Assets - PEER |         |                                                   |         |         |         |             |               |         |
|---|---------------|-----------------------|---------|---------------------------------------------------|---------|---------|---------|-------------|---------------|---------|
|   |               | Q4 2006               | Q4 2008 | Q4 2010                                           | Q4 2012 | Q4 2014 | Q4 2016 | Q4 2018     | Q4 2019       | Q2 2020 |
| 2 | Yield         | 6.37%                 | 5.73%   | 4.81%                                             | 4.29%   | 4.10%   | 3.82%   | 4.17%       | 4.18%         | 3.80%   |
| 3 | Cost of Funds | 4.72%                 | 3.86%   | 2.52%                                             | 1.85%   | 1.60%   | 1.63%   | 2.32%       | 2.26%         | 1.83%   |
| 4 | Net Spread    | 1.65%                 | 1.87%   | 2.29%                                             | 2.44%   | 2.50%   | 2.19%   | 1.85%       | 1.92%         | 1.97%   |
|   | _             |                       |         | $\longrightarrow \hspace{-0.5cm} \longrightarrow$ |         |         |         | <del></del> | $\rightarrow$ |         |

- Fed decreased Fed Funds Rate 500 basis points in 15 months (2006-2008)!
- The decrease in Fed Funds Rates increased the spread on earning assets.
- It took the Fed 2 years to increase the Fed Funds Rate 225 basis points (starting in 2017).
- The increase in Fed Funds Rates lowered the spread on earning assets back to 2006 levels in 2018.
- But the recent 225 bp drop in rates has once again begun to increase the spread on earning asset.



#### **Commercial Mortgage Spreads - Trends**

|   | Commercial    | Mortgag | es-PEER |         |         |               |         |               |         |                   |
|---|---------------|---------|---------|---------|---------|---------------|---------|---------------|---------|-------------------|
|   |               | Q4 2006 | Q4 2008 | Q4 2010 | Q4 2012 | Q4 2014       | Q4 2016 | Q4 2018       | Q4 2019 | Q2 2020           |
| 1 | Yield         | 7.13%   | 6.31%   | 5.96%   | 5.50%   | 5.02%         | 4.42%   | 4.77%         | 4.78%   | 4.60%             |
| 2 | Cost of Funds | 4.69%   | 3.74%   | 2.81%   | 2.14%   | 1.58%         | 1.68%   | 2.32%         | 2.29%   | 2.02%             |
| 3 | Net Spread    | 2.44%   | 2.57%   | 3.15%   | 3.36%   | 3.44%         | 2.74%   | 2.45%         | 2.49%   | 2.58%             |
|   |               |         |         |         |         | $\rightarrow$ |         | $\rightarrow$ |         | $\longrightarrow$ |

|    | Commercial M  | ortgages | - PEER |        |
|----|---------------|----------|--------|--------|
|    |               | Change   |        |        |
| 11 | Yield         | 7.13%    | 5.02%  | -2.11% |
| 12 | Cost of Funds | 4.69%    | 1.58%  | -3.11% |
| 13 | Net Spread    | 2.44%    | 3.44%  | 1.00%  |

- The Fed decreased the Fed Funds Rate 500 basis points (2006-2008), but institutions did not lower loan rates 500 bp. This resulted in institutions increasing their spread on commercial mortgages.
- Commercial mortgages benefited from the 500-point decrease in the Fed Funds Rate by increasing net spread by 100 basis points at Q4 2014.
- But even though the Fed Funds Rate has increased by 225 basis points through 2018, the spread on Commercial Mortgages was already back to the 2006 level when the Fed Funds Rate was 5.25%? Why? The answer is "COMPETITION".
- The recent 225 drop in the Fed Funds Rate has once again helped the spread on Commercial Mortgages to increase.



#### **Funding Spreads - Trends**

|                   | Q4 2006 C     | Q4 2007 Q4 | 2008     | Q4 2014 | Q4 2015 | Q4 2016 | Q4 2017 Q4 | 2018 Q4 201 | 9 Q2 2020 |
|-------------------|---------------|------------|----------|---------|---------|---------|------------|-------------|-----------|
| Fed Funds Rate    | 5.25%         | 4.25% 0.2  | 25%      | 0.25%   | 0.50%   | 0.75%   | 1.50% 2.   | .50% 1.75%  | 0.25%     |
|                   |               |            | <u>-</u> |         |         |         |            |             |           |
| Deposits & E      | Borrowin      | gs-PEER    |          |         |         |         |            |             |           |
|                   | Q4 2006       | Q4 2008    | Q4 2010  | Q4 2012 | Q4 2014 | Q4 201  | 6 Q4 2018  | Q4 2019     | Q2 2020   |
| 2 Credit For Fund | 5.04%         | 3.60%      | 2.35%    | 1.79%   | 1.52%   | 1.59%   | 2.43%      | 2.36%       | 1.91%     |
| Interest Expens   | <b>3</b> .14% | 2.55%      | 1.27%    | 0.76%   | 0.54%   | 0.52%   | 0.95%      | 1.09%       | 0.80%     |
| 4 Net Spread      | 1.90%         | 1.05%      | 1.08%    | 1.03%   | 0.98%   | 1.07%   | 1.48%      | 1.27%       | 1.11%     |
|                   |               |            |          |         |         |         |            |             |           |

- Fed decreased Fed Funds Rate 500 basis points in 15 months (2006-2008)!
- The decrease in Fed Funds Rates <u>decreased</u> the spread on deposits & borrowings. The spread on deposits & borrowings was reduced by half as of Q4 2014.
- It took the Fed 2 years to increase the Fed Funds Rate 225 basis points (2016-2018).
- The 225 rise in Fed Funds Rates beginning in 2016 increased the spread on deposits & borrowings, but not back to "normal" spreads.
- Intense competition for deposits and lower rates decreased the deposit spread trend in 2019.
- The 150 bp decrease in rates in 2020 has once again decreased the spread on deposits & borrowings.



#### **Money Market Spreads - Trends**

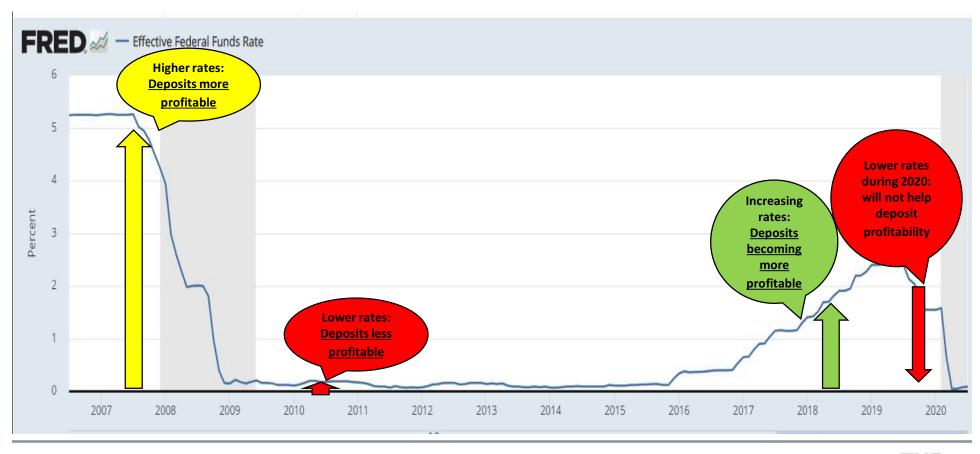
|   | Money M          | Money Market - PEER |         |         |         |         |         |         |         |         |  |
|---|------------------|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|--|
|   |                  | Q4 2006             | Q4 2008 | Q4 2010 | Q4 2012 | Q4 2014 | Q4 2016 | Q4 2018 | Q4 2019 | Q2 2020 |  |
| 1 | Credit For Funds | 5.01%               | 3.73%   | 1.83%   | 1.08%   | 0.88%   | 1.29%   | 2.32%   | 2.29%   | 1.88%   |  |
| 2 | Interest Expense | 3.20%               | 2.00%   | 0.78%   | 0.39%   | 0.29%   | 0.36%   | 1.06%   | 1.14%   | 0.62%   |  |
| 3 | Net Spread       | 1.81%               | 1.73%   | 1.05%   | 0.69%   | 0.59%   | 0.93%   | 1.26%   | 1.15%   | 1.26%   |  |
|   |                  |                     |         |         |         |         |         |         |         |         |  |

|   | Money Ma         | EER     |         |          |
|---|------------------|---------|---------|----------|
|   |                  | Q4 2006 | Q4 2014 | Change   |
| 4 | Credit For Funds | 5.01%   | 0.88%   | -4.13%   |
| 5 | Interest Expense | 3.20%   | 0.29%   | -2.91% < |
| 6 | Net Spread       | 1.81%   | 0.59%   | -1.22%   |

While the Fed decreased the Fed Funds Rate 500 basis points, <u>banks were limited</u> <u>in how far they could lower deposit rates.</u>

- Money Market spreads were hurt by the 500 decrease in the Fed Funds Rate since banks could not lower rate less than 0.00%.
- But even though the Fed Funds Rate has increased by 225 points, the spread on Money Market accounts did not fully benefit due to the increase in MM rates related to competition for deposits in 2019.
- As a result of the 150 bp decrease in Fed Fund Rates in 2020, banks aggressively reduced rates during Q2 2020. The projected spread on money markets should fall as rates should remain low for the foreseeable future.

#### **HISTORICAL FEDERAL FUNDS RATE**

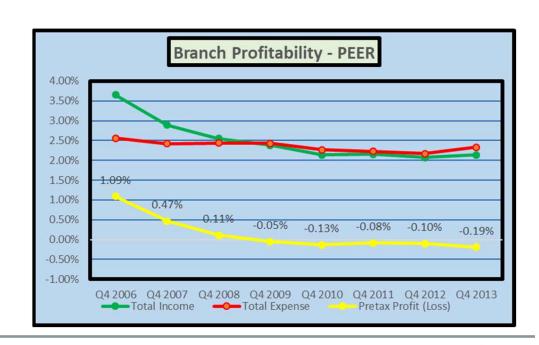




#### **Branch Organizational Profitability - Trend**

|   | Branch Organi        | zation - | PEER    |         |         |         |         |         |        |
|---|----------------------|----------|---------|---------|---------|---------|---------|---------|--------|
|   |                      | Q4 2007  | Q4 2008 | Q4 2009 | Q4 2010 | Q4 2011 | Q4 2012 | Q4 2013 |        |
| 1 | Total Income         | 3.65%    | 2.89%   | 2.55%   | 2.38%   | 2.14%   | 2.15%   | 2.07%   | 2.14%  |
| 2 | Total Expense        | 2.56%    | 2.42%   | 2.44%   | 2.43%   | 2.27%   | 2.23%   | 2.17%   | 2.33%  |
| 3 | Pretax Profit (Loss) | 1.09%    | 0.47%   | 0.11%   | -0.05%  | -0.13%  | -0.08%  | -0.10%  | -0.19% |

- As a result of the reduction in Deposit Spreads, branches began to realize losses beginning in 2009.
- Institutions began reducing costs within their branch networks, primarily by "right sizing" them.
- But they could not reduce costs fast enough and branches hit their low earnings point in 2013.

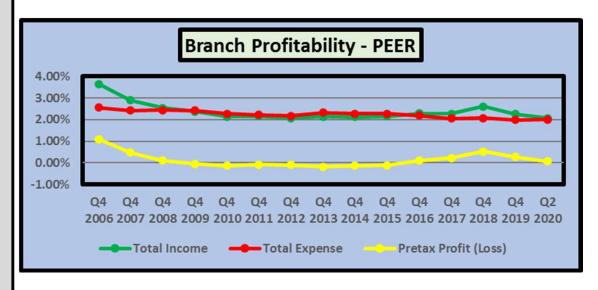




#### **Branch Organizational Profitability - Trend(cont.)**

| Ві              | Branch Organization - PEER |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
|-----------------|----------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|                 |                            | Q4 2006 | Q4 2007 | Q4 2008 | Q4 2009 | Q4 2010 | Q4 2011 | Q4 2012 | Q4 2013 | Q4 2014 | Q4 2015 | Q4 2016 | Q4 2017 | Q4 2018 | Q4 2019 | Q2 2020 |
| 1 Total In      | ncome                      | 3.65%   | 2.89%   | 2.55%   | 2.38%   | 2.14%   | 2.15%   | 2.07%   | 2.14%   | 2.13%   | 2.16%   | 2.29%   | 2.27%   | 2.61%   | 2.25%   | 2.07%   |
| 2 Total Ex      | xpense                     | 2.56%   | 2.42%   | 2.44%   | 2.43%   | 2.27%   | 2.23%   | 2.17%   | 2.33%   | 2.27%   | 2.27%   | 2.19%   | 2.05%   | 2.08%   | 1.98%   | 2.00%   |
| 3 <b>Pretax</b> | Profit (Loss)              | 1.09%   | 0.47%   | 0.11%   | -0.05%  | -0.13%  | -0.08%  | -0.10%  | -0.19%  | -0.14%  | -0.11%  | 0.10%   | 0.22%   | 0.53%   | 0.27%   | 0.07%   |

- As a result of the rise in Deposit Spreads and the continued reduction in branch expenses, branches began to recover beginning in 2014.
- Branches reached profitability in 2016 through the increase in deposit spreads and cost controls.
- The impact of the lower Fed Funds Rates decreased deposit spreads in 2019 and branch expenses hit a wall resulting in lower branch profits. Will the decrease in branch Pretax Profits be the beginning of another significant "right sizing" of branch networks?





## Branch Organizational Profitability - Trend (cont.)

- The total branch reduction in income was due to the fact the Total Income as a % of deposits decreased by 111 basis points. This reduction was primarily due to the decrease in the spread on deposits.
- While financial institutions decreased expenses by \$0.55 per \$100 of branch deposits, it was not enough to offset the reduction in deposit spread.
- Pre-Tax Profit decreased \$92,000, or 19% from 2006 to 2018. During this period, "Deposits per Branch" increased \$30.4 million, or 67%

|   | Branch Pr               | e-Tax Profit  | Comparison    |               |
|---|-------------------------|---------------|---------------|---------------|
|   |                         | Q4 2018       | Q4 2006       | Change        |
| 1 | Total Income            | 2.54%         | 3.65%         | -1.11%        |
| 2 | Total Expense           | 2.01%         | 2.56%         | -0.55%        |
| 3 | Pre-Tax Profit          | 0.53%         | 1.09%         | -0.56%        |
|   |                         |               |               |               |
| 4 | Average Branch Deposits | \$ 75,640,000 | \$ 45,246,000 | \$ 30,394,000 |
|   |                         |               |               |               |
| 5 | Pre-Tax Profit          | \$ 400,892    | \$ 493,181    | \$ (92,289)   |



### Branch Organizational Profitability - Trend (cont.)

- Since Q4 2018, the total branch reduction in income was primarily due to the 41- basis point reduction in net interest spread. This was the result of the decrease in the Credit for Funds rate, partially offset by the reduction in rates paid to depositors.
- Note the \$349,000 reduction in -Branch Pre-Tax Income in only 18 months!
- What strategies do you have to reduce branch costs in 2021 & in future years? It may be a long time until we see an improvement in deposit spreads.

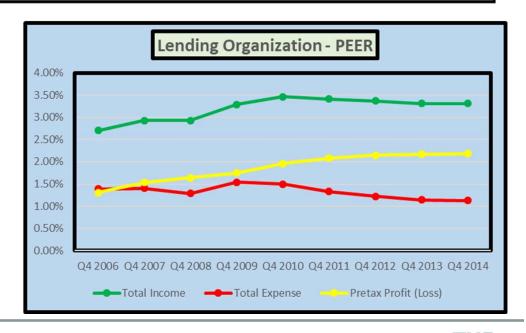
|   | Branch Total Income Comparison |               |               |                |  |  |  |  |  |  |  |  |  |
|---|--------------------------------|---------------|---------------|----------------|--|--|--|--|--|--|--|--|--|
|   |                                | Q2 2020       | Q4 2018       | Change         |  |  |  |  |  |  |  |  |  |
| 1 | Net Interest Spread            | 1.79%         | 2.20%         | -0.41%         |  |  |  |  |  |  |  |  |  |
| 2 | Non-Interest Income            | 0.28%         | 0.34%         | -0.06%         |  |  |  |  |  |  |  |  |  |
| 3 | Total Income                   | 2.07%         | 2.54%         | -0.47%         |  |  |  |  |  |  |  |  |  |
| 4 | Total Expense                  | 2.00%         | 2.01%         | -0.01%         |  |  |  |  |  |  |  |  |  |
| 5 | Branch Pre-Tax Income          | 0.07%         | 0.53%         | -0.46%         |  |  |  |  |  |  |  |  |  |
|   |                                |               |               |                |  |  |  |  |  |  |  |  |  |
| 6 | Average Branch Deposits        | \$ 73,529,000 | \$ 75,640,000 | \$ (2,111,000) |  |  |  |  |  |  |  |  |  |
|   |                                |               |               |                |  |  |  |  |  |  |  |  |  |
| 7 | Branch Pre-Tax Income          | \$ 51,470     | \$ 400,892    | \$ (349,422)   |  |  |  |  |  |  |  |  |  |



#### **Lending Organizational Profitability - Trend**

|   | Lending Organ        |         |         |         |         |         |         |         |         |         |
|---|----------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|   |                      | Q4 2006 | Q4 2007 | Q4 2008 | Q4 2009 | Q4 2010 | Q4 2011 | Q4 2012 | Q4 2013 | Q4 2014 |
| 1 | Total Income         | 2.70%   | 2.93%   | 2.93%   | 3.29%   | 3.46%   | 3.41%   | 3.37%   | 3.31%   | 3.31%   |
| 2 | Total Expense        | 1.39%   | 1.40%   | 1.29%   | 1.54%   | 1.50%   | 1.33%   | 1.22%   | 1.14%   | 1.13%   |
| 3 | Pretax Profit (Loss) | 1.31%   | 1.53%   | 1.64%   | 1.75%   | 1.96%   | 2.08%   | 2.15%   | 2.17%   | 2.18%   |
|   |                      |         |         |         |         |         |         |         |         |         |

- As a result of the increase in Loan Spreads, the Lending Organization realized stronger earnings through 2014.
- Institutions also began to lower costs within the Lending Organization to provide additional earnings.
- Between 2006 & 2014 Banks added <u>87</u>
   <u>basis points</u> of pre-tax profits to their Lending Organization.

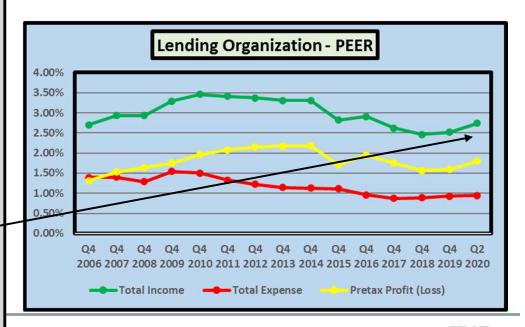




#### **Lending Organizational Profitability - Trend (cont.)**

|   | Lending Organization - PEER |         |         |         |         |         |         |         |         |         |         |         |         |         |         |              |
|---|-----------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------------|
|   |                             | Q4 2006 | Q4 2007 | Q4 2008 | Q4 2009 | Q4 2010 | Q4 2011 | Q4 2012 | Q4 2013 | Q4 2014 | Q4 2015 | Q4 2016 | Q4 2017 | Q4 2018 | Q4 2019 | Q2 2020      |
| 1 | Total Income                | 2.70%   | 2.93%   | 2.93%   | 3.29%   | 3.46%   | 3.41%   | 3.37%   | 3.31%   | 3.31%   | 2.82%   | 2.91%   | 2.62%   | 2.46%   | 2.52%   | 2.74%        |
| 2 | Total Expense               | 1.39%   | 1.40%   | 1.29%   | 1.54%   | 1.50%   | 1.33%   | 1.22%   | 1.14%   | 1.13%   | 1.11%   | 0.96%   | 0.87%   | 0.89%   | 0.93%   | 0.94%        |
| 3 | Pretax Profit (Loss)        | 1.31%   | 1.53%   | 1.64%   | 1.75%   | 1.96%   | 2.08%   | 2.15%   | 2.17%   | 2.18%   | 1.71%   | 1.95%   | 1.75%   | 1.57%   | 1.59%   | 1.80%        |
|   |                             |         |         |         |         |         |         |         |         |         |         |         |         |         |         | $\leftarrow$ |

- As a result of the decrease in Loan Spreads related to the rise in fed funds rates, the profit of Lending Organizations began to decrease in 2015.
- Earnings would have fallen more steeply if organizations did not continue to become more efficient.
- The decrease in the Fed Funds Rate during the last 18 months helped increase the net spread of the lending organizations.

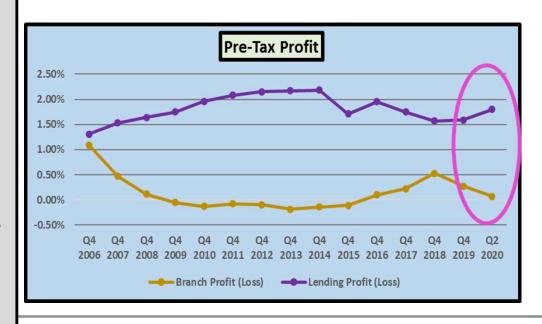




#### **Trend Summary - Branches vs. Lending**

- Branch Organization are negatively impacted by lower interest rates.
- Lending Organizations benefit from lower interest rates.
- The increased profit in lending organizations could not make up for the decrease in profits within Branch Organizations.
- The large reduction in branch profits during this period has impacted the overall profitability of commercial banks. The 5-year average ROA for commercial banks ending in 2006 was 1.33%, well ahead of the 1.20% in 2019 and the projected ROA in 2020 of well under 1.00%.

|   | Pre-Tax P            | rofit Con | nparison |        |  |
|---|----------------------|-----------|----------|--------|--|
|   |                      | Q2 2020   | Q4 2006  | Change |  |
| L | Branch Organization  | 0.07%     | 1.09%    | -1.02% |  |
| 2 | Lending Organization | 1.80%     | 1.31%    | 0.49%  |  |





To provide a true picture of the profitability of your deposit products, you must include the following items to the calculation of profit:

- Funds Transfer Pricing
- Allocate Indirect and Overhead from support centers throughout the institution

| SAMPLE INSTITUTION      |
|-------------------------|
| <b>DEPOSIT PRODUCTS</b> |
| Q2 2020                 |

|            |                              | Non-<br>Interest<br>Checking | % of<br>Product | NOW<br>Accounts | % of<br>Product | Money<br>Market | % of<br>Product | Savings   | % of<br>Product | CDs       | % of<br>Product |  |  |  |
|------------|------------------------------|------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------|-----------------|-----------|-----------------|--|--|--|
| 1 l        | Deposit Balance              | \$ 58,000                    |                 | \$ 77,000       |                 | \$ 56,000       |                 | \$ 70,000 |                 | \$ 37,000 |                 |  |  |  |
| •          |                              | , ,                          |                 | . ,             |                 | , ,             |                 | , ,       |                 | . ,       |                 |  |  |  |
| П          | T 0                          |                              |                 |                 |                 |                 |                 |           |                 |           |                 |  |  |  |
| L          | Income Statement             |                              |                 |                 |                 |                 |                 |           |                 |           |                 |  |  |  |
| 2          | Credit for Funds             | ?                            | 0.00 %          | ?               | 0.00 %          | ?               | 0.00 %          | ?         | 0.00 %          | ?         | 0.00 %          |  |  |  |
| 3 1        | Interest Expense             | -                            | 0.00 %          | 143             | 0.75 %          | 125             | 0.90 %          | 45        | 0.26 %          | 167       | 1.81 %          |  |  |  |
| 4          | <b>Total Interest Spread</b> | -                            | 0.00 %          | (143)           | (0.73)%         | (125)           | (0.89)%         | (45)      | (0.26)%         | (167)     | (1.79)%         |  |  |  |
| <b>5</b> I | Non-Interest Income          | 61                           | 0.42 %          | 42              | 0.22 %          | 1               | 0.01 %          | 9         | 0.05 %          | 1         | 0.01 %          |  |  |  |
| 6          | <b>Total Income</b>          | 61                           | 0.41 %          | (101)           | (0.52)%         | (124)           | (0.88)%         | (37)      | (0.21)%         | (166)     | (1.78)%         |  |  |  |
| 7 1        | Non-Interest Expense         | ?                            | 0.00 %          | ?               | 0.00 %          | ?               | 0.00 %          | ?         | 0.00 %          | ?         | 0.00 %          |  |  |  |
| 8 I        | Pretax Profit (Loss)         | 61                           | 0.41 %          | (101)           | (0.52)%         | (124)           | (0.88)%         | (37)      | (0.21)%         | (166)     | (1.78)%         |  |  |  |
|            |                              |                              |                 |                 |                 |                 |                 |           |                 |           |                 |  |  |  |



# SAMPLE INSTITUTION Branch Deposit "Credit for Funds" Calculation Q2 2020

|   |                           |                       | Credit | Credit for   |
|---|---------------------------|-----------------------|--------|--------------|
|   |                           |                       | for    | Funds        |
|   | Average Quarterly Balance | <b>Total Branches</b> | Funds  | \$           |
| 1 | Checking (Non-Int)        | \$ 58,000,000         | 1.88%  | \$ 271,000   |
| 2 | Interest Checking         | 77,000,000            | 2.00%  | 383,000      |
| 3 | Money Market              | 56,000,000            | 1.79%  | 249,000      |
| 4 | Savings                   | 70,000,000            | 2.12%  | 369,000      |
| 5 | Certificates of Deposit   | 37,000,000            | 1.85%  | 190,000      |
| 6 | Total Branch Deposits     | \$ 298,000,000        |        | \$ 1,462,000 |

#### **Funds Transfer Pricing**

Provides a <u>"Credit for Funds"</u> for providing funding at a lower rate than if the bank had to fund only through the FHLB.

#### SAMPLE INSTITUTION DEPOSIT PRODUCT'S Q2 2020

|   |                              | Non-<br>Interest<br>Checking | % of<br>Product | NOW<br>Accounts | % of<br>Product | Money<br>Market | % of<br>Product | Savings   | % of<br>Product | CDs       | % of<br>Product |
|---|------------------------------|------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------|-----------------|-----------|-----------------|
| 1 | Deposit Balance              | \$ 58,000                    |                 | \$ 77,000       |                 | \$ 56,000       |                 | \$ 70,000 |                 | \$ 37,000 |                 |
|   | Income Statement             |                              |                 |                 |                 | <b>+</b>        |                 |           |                 |           |                 |
| 2 | Credit for Funds             | 271                          | 1.88 %          | 383             | 2.00 %          | 249             | 1.79 %          | 369       | 2.12 %          | 190       | 1.85 %          |
| 3 | Interest Expense             | -                            | 0.00 %          | 143             | 0.75 %          | 125             | 0.90 %          | 45        | 0.26 %          | 167       | 1.81 %          |
| 4 | <b>Total Interest Spread</b> | 271                          | 1.88 %          | 240             | 1.26 %          | 124             | 0.89 %          | 324       | 1.86 %          | 24        | 0.04 %          |
| 5 | Non-Interest Income          | 61                           | 0.42 %          | 42              | 0.22 %          | 1               | 0.01 %          | 9         | 0.05 %          | 1         | 0.01 %          |
| 6 | <b>Total Income</b>          | 332                          | 2.30 %          | 282             | 1.48 %          | 125             | 0.90 %          | 332       | 1.91 %          | 25        | 0.05 %          |
| 7 | Non-Interest Expense         | ?                            | 0.00 %          | ?               | 0.00 %          | ?               | 0.00 %          | ?         | 0.00 %          | ?         | 0.00 %          |
| 8 | Pretax Profit (Loss)         | 332                          | 2.30 %          | 282             | 1.48 %          | 125             | 0.90 %          | 332       | 1.91 %          | 25        | 0.05 %          |



#### Deposit Product Profitability - No longer an illusion!

#### SAMPLE INSTITUTION DEPOSIT PRODUCTS Q2 2020

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|           | Interest<br>Checking<br>\$ 48,000<br>271<br>-<br>271<br>61<br>332<br>388<br>(56)<br>3,058<br>\$15,695 | Interest Checking Product \$ 48,000  271    1.88 % | Interest Checking         % of Product         NOW Accounts           \$ 48,000         \$ 28,000           271         1.88 %         383           -         0.00 %         143           271         1.88 %         240           61         0.42 %         42           332         2.30 %         282           388         3.25 %         86           (56)         (0.95)%         196           \$3,058         878           \$15,695         \$31,901 | Interest Checking         % of Product         NOW Accounts         % of Product           \$ 48,000         \$ 28,000         \$ 28,000           271         1.88 %         383         2.00 %           -         0.00 %         143         0.75 %           271         1.88 %         240         1.26 %           61         0.42 %         42         0.22 %           332         2.30 %         282         1.48 %           388         3.25 %         86         1.24 %           (56)         (0.95)%         196         0.24 %           3,058         878           \$15,695         \$31,901 | Interest Checking         % of Product         NOW Accounts         % of Product         Money Market           \$ 48,000         \$ 28,000         \$ 66,000           271         1.88 %         383         2.00 %         249           -         0.00 %         143         0.75 %         125           271         1.88 %         240         1.26 %         124           61         0.42 %         42         0.22 %         1           332         2.30 %         282         1.48 %         125           388         3.25 %         86         1.24 %         61           (56)         (0.95)%         196         0.24 %         64           3,058         878         502           \$15,695         \$31,901         \$131,500 | Interest Checking         % of Product         NOW Accounts         % of Product         Money Market         % of Product           \$ 48,000         \$ 28,000         \$ 66,000         \$ 66,000         \$ 1.79 %         \$ 66,000           271         1.88 %         383         2.00 %         249         1.79 %         \$ 240         1.26 %         125         0.90 %         \$ 240         1.26 %         124         0.89 %         \$ 240         1.26 %         124         0.89 %         \$ 240         1.26 %         124         0.89 %         \$ 222 %         1         0.01 %         \$ 332         2.30 %         282         1.48 %         125         0.90 %         \$ 282         1.48 %         125         0.90 %         \$ 282         1.48 %         125         0.90 %         \$ 282         1.48 %         125         0.90 %         \$ 282         1.48 %         125         0.90 %         \$ 282         1.48 %         125         0.90 %         \$ 282         1.48 %         125         0.90 %         \$ 282         1.48 %         61         0.37 %         \$ 282         1.48 %         61         0.53 %         \$ 282         \$ 3,058         \$ 31,500         \$ 33,058         \$ 31,500         \$ 32,500         \$ 32,500         \$ 32,500 <t< td=""><td>Interest Checking         % of Product         NOW Accounts         % of Product         Money Market         % of Product         Savings           \$ 48,000         \$ 28,000         \$ 66,000         \$ 60,000           271         1.88 %         383         2.00 %         249         1.79 %         369           -         0.00 %         143         0.75 %         125         0.90 %         45           271         1.88 %         240         1.26 %         124         0.89 %         324           61         0.42 %         42         0.22 %         1         0.01 %         9           332         2.30 %         282         1.48 %         125         0.90 %         332           388         3.25 %         86         1.24 %         61         0.37 %         223           (56)         (0.95)%         196         0.24 %         64         0.53 %         110           3,058         878         502         4,512           \$15,695         \$31,901         \$131,500         \$13,299           \$510.17         \$394.78         \$489.04         \$198.51</td><td>  Interest   % of Checking   Product   Accounts   Product   Market   Product   Savings   Product    </td><td>  Interest</td></t<> | Interest Checking         % of Product         NOW Accounts         % of Product         Money Market         % of Product         Savings           \$ 48,000         \$ 28,000         \$ 66,000         \$ 60,000           271         1.88 %         383         2.00 %         249         1.79 %         369           -         0.00 %         143         0.75 %         125         0.90 %         45           271         1.88 %         240         1.26 %         124         0.89 %         324           61         0.42 %         42         0.22 %         1         0.01 %         9           332         2.30 %         282         1.48 %         125         0.90 %         332           388         3.25 %         86         1.24 %         61         0.37 %         223           (56)         (0.95)%         196         0.24 %         64         0.53 %         110           3,058         878         502         4,512           \$15,695         \$31,901         \$131,500         \$13,299           \$510.17         \$394.78         \$489.04         \$198.51 | Interest   % of Checking   Product   Accounts   Product   Market   Product   Savings   Product | Interest |



To provide a true picture of the profitability of your loan products, you must include the following items to the calculation of profit:

- Funds Transfer Pricing
- Allocate Indirect and Overhead from support centers throughout the institution

#### SAMPLE INSTITUTION LOAN PRODUCTS Q2 2020

|           |                                        |             |         | <del></del> |         |              |         |             |         |
|-----------|----------------------------------------|-------------|---------|-------------|---------|--------------|---------|-------------|---------|
|           |                                        |             |         | Home        |         | Home         |         |             |         |
|           |                                        | Residential | % of    | Equity      | % of    | Equtity      | % of    | Commercial  | % of    |
|           |                                        | Mortgage    | Product | Loans       | Product | Lines of Cr. | Product | Real Estate | Product |
| 1         | Loan Balance                           | \$ 63,000   |         | \$ 27,000   |         | \$ 15,000    |         | \$ 114,000  |         |
|           | Income Statement                       |             |         |             |         |              |         |             |         |
| 2         | Interest Income                        | 617         | 3.94 %  | 297         | 4.43 %  | 145          | 3.89 %  | 1,307       | 4.61 %  |
| 3         | Cost of Funds                          | ?           | 0.00 %  | ?           | 0.00 %  | ?            | 0.00 %  | ?           | 0.00 %  |
| 4         | Total Interest Spread - FTE            | 617         | 3.94 %  | 297         | 4.43 %  | 145          | 3.89 %  | 1,307       | 4.61 %  |
| 5         | Provision for Credit Loss              | 31          | 0.20 %  | 17          | 0.26 %  | 11           | 0.29 %  | 252         | 0.89 %  |
| 6         | Marginal Inc (Loss) After Prov.        | 586         | 3.74 %  | 280         | 4.17 %  | 134          | 0.06 %  | 1,054       | 3.72 %  |
| 7         | Non-Interest Income                    | 22          | 0.14 %  | 5           | 0.07 %  | 2            | 0.06 %  | 26          | 0.09 %  |
| 8         | Total Income                           | 608         | 3.88 %  | 285         | 4.24 %  | 137          | 0.12 %  | 1,080       | 3.81 %  |
| 9         | Non-Interest Expense                   | ?           | 0.00 %  | ?           | 0.00 %  | ?            | 0.00 %  | ?           | 0.00 %  |
| <b>10</b> | Pretax Profit (Loss)                   | 608         | 3.88 %  | 285         | 4.24 %  | 137          | 0.12 %  | 1,080       | 3.81 %  |
|           | Duotov Duofit (Logg)                   |             |         |             |         |              |         |             |         |
| 11        | Pretax Profit (Loss) without Provision | 639         | 4.08 %  | 302         | 4.50 %  | 147          | 0.41 %  | 1,332       | 4.70 %  |
|           |                                        |             |         |             |         |              |         | •           |         |



# Sample Institution Branch Loan "Cost of Funds" Calculation Q2 2020

|   | Average Quarterly Balance   |                       | Cost<br>of | Cost of Funds |
|---|-----------------------------|-----------------------|------------|---------------|
|   |                             | <b>Total Branches</b> | Funds      | \$            |
| 1 | Residential Mortgage        | \$ 63,000,000         | 2.17%      | \$ 340,000    |
| 2 | Home Equity Loans           | 27,000,000            | 2.19%      | 147,000       |
| 3 | Home Equity Lines of Credit | 15,000,000            | 0.64%      | 24,000        |
| 4 | Commercial Loans            | 114,000,000           | 2.00%      | 567,000       |

#### **Funds Transfer Pricing**

Provides a <u>"Cost of Funds"</u> to match the actual maturity & interest rate characteristics of a loan using FHLB borrowing rates.

#### SAMPLE INSTITUTION LOAN PRODUCTS Q2 2020

|    |                                  |    |         |              |    | Home   |         |         | Home       |         |             |         |
|----|----------------------------------|----|---------|--------------|----|--------|---------|---------|------------|---------|-------------|---------|
|    |                                  |    | dential | dential % of |    | Equity | % of    | Equtity |            | % of    | Commercial  | % of    |
|    |                                  | M  | rtgage  | Product      |    | Loans  | Product | Liı     | nes of Cr. | Product | Real Estate | Product |
| 1  | Loan Balance                     | \$ | 63,000  |              | \$ | 27,000 |         | \$      | 15,000     |         | \$ 114,000  |         |
|    | Income Statement                 |    |         |              |    |        |         |         |            |         |             |         |
| 2  | Interest Income                  |    | 617     | 3.94 %       |    | 297    | 4.43 %  |         | 145        | 3.89 %  | 1,307       | 4.61 %  |
| 3  | Cost of Funds                    |    | 340     | 2.17 %       |    | 147    | 2.19 %  |         | 24         | 0.64 %  | 567         | 2.00 %  |
| 4  | Total Interest Spread - FTE      |    | 277     | 1.77 %       |    | 150    | 2.24 %  |         | 121        | 3.25 %  | 740         | 2.61 %  |
| 5  | <b>Provision for Credit Loss</b> |    | 31      | 0.20 %       |    | 17     | 0.26 %  |         | 11         | 0.29 %  | 252         | 0.89 %  |
| 6  | Marginal Inc (Loss) After Prov.  |    | 246     | 1.57 %       |    | 133    | 1.98 %  |         | 110        | 2.96 %  | 488         | 1.72 %  |
| 7  | Non-Interest Income              |    | 22      | 0.14 %       |    | 5      | 0.07 %  |         | 2          | 0.06 %  | 26          | 0.09 %  |
| 8  | <b>Total Income</b>              |    | 268     | 1.71 %       |    | 138    | 2.05 %  |         | 113        | 3.02 %  | 513         | 1.81 %  |
| 9  | Non-Interest Expense             |    | ?       | 0.00 %       |    | ?      | 0.00 %  |         | ?          | 0.00 %  | ?           | 0.00 %  |
| 10 | Pretax Profit (Loss)             |    | 268     | 1.71 %       |    | 138    | 2.05 %  |         | 113        | 3.02 %  | 513         | 1.81 %  |
|    | Pretax Profit (Loss)             |    |         |              |    |        |         |         |            |         |             |         |
| 11 | without Provision                |    | 299     | 1.91 %       |    | 155    | 2.31 %  |         | 123        | 3.31 %  | 765         | 2.70 %  |



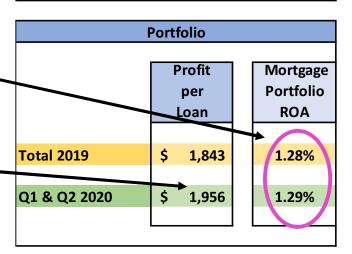
#### Loan Product Profitability - No longer an illusion!

#### SAMPLE INSTITUTION FUND USING PRODUCTS Q2 2020

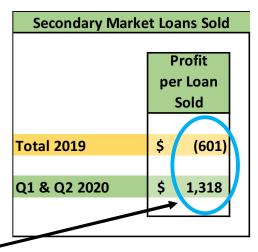
| Q2 2020 |                                    |             |          |            |          |              |           |             |         |  |  |  |
|---------|------------------------------------|-------------|----------|------------|----------|--------------|-----------|-------------|---------|--|--|--|
|         |                                    |             | 0 ( 0    | Home       | 0/ 0     | Home         | 0 ( 0     |             | 0/ 0    |  |  |  |
|         |                                    | Residential | % of     | Equity     | % of     | Equtity      | % of      | Commercial  | % of    |  |  |  |
|         |                                    | Mortgage    | Product  | Loans      | Product  | Lines of Cr. | Product   | Real Estate | Product |  |  |  |
| 1       | Loan Balance                       | \$ 63,000   |          | \$ 27,000  |          | \$ 15,000    |           | \$ 114,000  |         |  |  |  |
|         | Income Statement                   |             |          |            | _        |              | _         |             | l       |  |  |  |
| 2       | Interest Income                    | 617         | 3.94 %   | 297        | 4.43 %   | 145          | 3.89 %    | 1,307       | 4.61 %  |  |  |  |
| 3       | Cost of Funds                      | 340         | 2.17 %   | 147        | 2.19 %   | 24           | 0.64 %    | 567         | 2.00 %  |  |  |  |
| 4       | Total Interest Spread - FTE        | 277         | 1.77 %   | 150        | 2.24 %   | 121          | 3.25 %    | 740         | 2.61 %  |  |  |  |
| 5       | <b>Provision for Credit Loss</b>   | 31          | 0.20 %   | 17         | 0.26 %   | 11           | 0.29 %    | 252         | 0.89 %  |  |  |  |
| 6       | Marginal Inc (Loss) After Prov.    | 246         | 1.57 %   | 133        | 1.98 %   | 110          | 2.96 %    | 488         | 1.72 %  |  |  |  |
| 7       | Non-Interest Income                | 22          | 0.14 %   | 5          | 0.07 %   | 2            | 0.06 %    | 26          | 0.09 %  |  |  |  |
| 8       | <b>Total Income</b>                | 268         | 1.71 %   | 138        | 2.05 %   | 113          | 3.02 %    | 513         | 1.81 %  |  |  |  |
| 9       | Non-Interest Expense               | 132         | 0.83 %   | 164        | 2.41 %   | 103          | 2.71 %    | 152         | 0.53 %  |  |  |  |
| 10      | Pretax Profit (Loss)               | 136         | 0.88 %   | (26)       | (0.36)%  | 10           | 0.31 %    | 361         | 1.28 %  |  |  |  |
|         | Pretax Profit (Loss)               |             |          |            |          |              |           |             |         |  |  |  |
| 11      | without Provision                  | 167         | 1.08 %   | (9)        | (0.10)%  | 21           | 0.60 %    | 613         | 2.17 %  |  |  |  |
|         |                                    |             | 1.00 70  | (9)        | (0.10)70 | 21           | 0.00 70   | 013         | 2.17 70 |  |  |  |
| 12      | Number of Accounts                 | 335         | 546      |            | 282      |              | 163       |             |         |  |  |  |
| 13      | Average Balance per Account        | \$188,185   | \$49,487 |            | \$53,129 |              | \$697,537 |             |         |  |  |  |
| 14      | Non-Interest Income per Account    | \$65.50     |          | \$8.61     |          | \$7.93       |           | \$156.09    |         |  |  |  |
|         | Troit interest income per riceoute | Ψ02.20      |          | φσ.σ1      |          | Ψ,,,,,,      |           | Ψ120.07     |         |  |  |  |
|         |                                    | _           |          |            |          |              |           |             |         |  |  |  |
| 15      | Annualized Cost per Account        | \$1,575.27  |          | \$1,203.01 |          | \$1,452.31   |           | \$3,720.45  |         |  |  |  |
| 16      | Annualized Net Income per Account  | \$1,625.11  |          | (\$194.07) |          | \$143.42     |           | \$8,835.98  |         |  |  |  |
|         | Annualized Net Income per Account  |             |          | (ΨΙΣΤ.07)  |          | Ψ173.72      |           | Ψ0,033.90   |         |  |  |  |
| 18      | -                                  | \$1,999.42  |          | (\$66.11)  |          | \$296.65     |           | \$15,010.13 |         |  |  |  |
| 10      | Without I IOVISION                 | Ψ1,777.44   |          | (φυυ.11)   |          | Ψ270.03      |           | Ψ13,010.13  | TUC     |  |  |  |

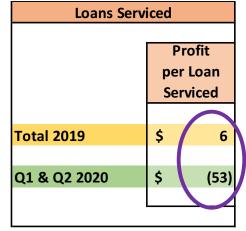
#### **Mortgage Product Performance**

2020 & 2019 ROA's are stable, but the Profit per Loan increased due to the higher average loan balance in 2020.



Improved
earning in 2020
is the result of a
reduction in
origination cost
related to the
increase in new
loan volume.





Decrease in Profit per Loan Serviced is the result of adjustments to Mortgage Servicing Rights related to increase in loans paid off.

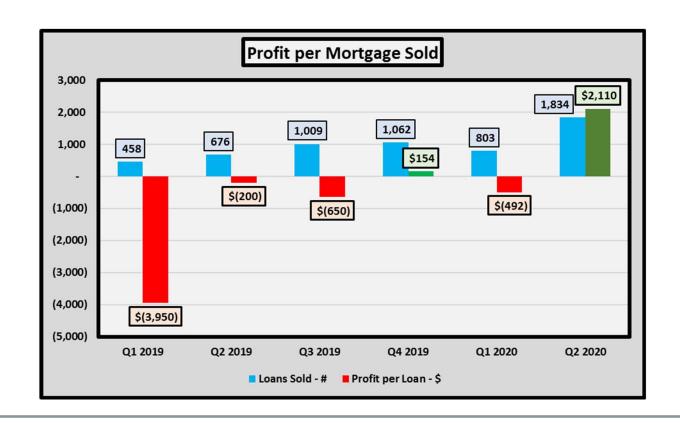


#### **Secondary Market - Mortgage Sold**

|                      | Q1 2019    | Q2 2019  | Q3 2019  | Q4 2019 | Q1 2020  | Q2 2020  |
|----------------------|------------|----------|----------|---------|----------|----------|
| Loans Sold - #       | 458        | 676      | 1,009    | 1,062   | 803      | 1,834    |
| Profit per Loan - \$ | \$ (3,950) | \$ (200) | \$ (650) | \$ 154  | \$ (492) | \$ 2,110 |



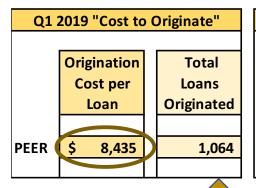


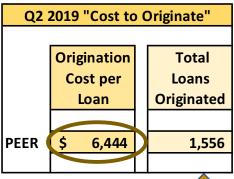


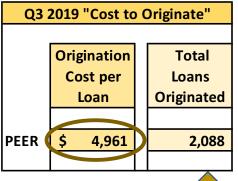


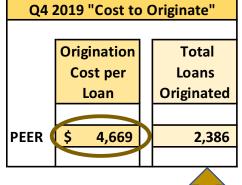
Do you have excess capacity within your Mortgage Department?

#### 2019 Mortgage "COST" Analysis



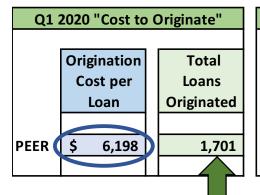


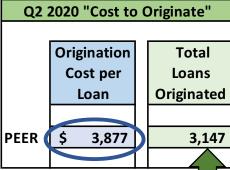






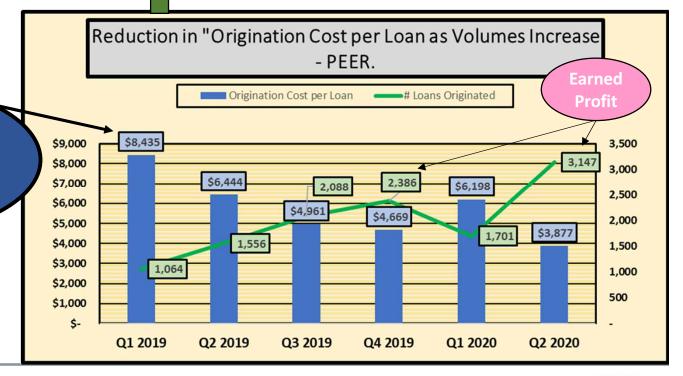
#### 2020 Mortgage "COST" Analysis





Is your Mortgage Department built to originate 100 loans per month or 50 loans? What is your normal # of originations?

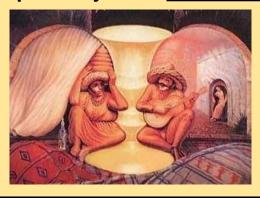
Do you have excess capacity? How do you manage your capacity?





"Harness The Power Of Your Financial Data To Help Your Bank Make Smarter, More Confident Decisions That Drive Performance"

Using only general ledger data to provide data for your management reports is just an <u>ILLUSION!</u>





Adding <u>"Performance"</u>

<u>Measurement" data</u> will help transform your management reports into a "Clear" picture of your performance!

## THE KAFAFIAN GROUP

# Questions???



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