

an initiative of WeArePeopleHere! (a 501C3 organization)

# A Five-Year Model Supporting a Public Bank for Santa Fe

A Debt Reduction, Budget Easing, Income Generating Strategy for the City of Santa Fe, New Mexico

December 2, 2015

## Prepared for the People of Santa Fe

by the Brass Tacks Team of *Banking on New Mexico*– an initiative of *WeArePeopleHere!* 

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#### **Abstract**

The Brass Tacks Team (BTT) of the **Banking on New Mexico** initiative of **WeArePeopleHere!** evaluated the potential of a Public Bank for Santa Fe (The Bank) being part of the solution to the debt burden confronting our City.

An exercise was completed to determine whether The Bank could create a loan portfolio that could be the basis for a successful five-year start-up plan for The Bank. With the help of the City Finance Department, the Brass Tacks Team was able to determine loans and bonds that would become available for refinancing over a five-year period beginning in 2017, the year we propose opening a Public Bank for Santa Fe in the City of Santa Fe, New Mexico. A small amount of community partnership lending was also included. Though financial experts might prefer to work with a variety of interest rates, we chose a fixed 4% interest rate in our example. BTT restructured existing debt with two goals in mind: 1) lower the City's Debt Service (principal, interest and fees associated with the loans and bonds) and 2) lower the City's projected debt.

BTT restructured four existing loans and six bonds and then set out to create five-year projections for a new loan portfolio. Then BTT created "books" for the first year of operation.

#### **Major findings:**

By a careful restructuring of the four loans and six bonds available for refinancing into "New Loans", the City would be able to reduce annual debt service costs by \$1,336,976 and reduce total City debt by \$4,848,694 over a five-year period.

With six of those "New Loans" being available for refinancing in 2017, the Public Bank for Santa Fe could "open for business" on July 1, 2017 with a portfolio of City refinanced loans amounting to \$45,519,398 and save the City \$1,055,586 in debt service costs in its first year of operation.

For its first year of operation, BTT created a Journal for the income and expenses and generated an Income Statement and Balance Sheet for the The Bank's first year of operation. The Team found that a Public Bank for Santa Fe made a profit of \$513,899 in the first year, and made \$10,435,207 in profit over the five-year period.

The results demonstrate that The Bank is a sound economic resource for our community. Our research indicates that The Bank will continue to have a positive cash flow and loan growth. The City of Santa Fe will have a responsible banking partner and the community will begin to see opportunities to start and grow their businesses, or buy affordable homes.

Brass Tacks Team | Banking on New Mexico Elizabeth Dwyer, Dan Metzger, Nichoe Lichen, Mary Schruben

A Public Bank for Santa Fe - Keep our community's money safe. Invest it locally.

Grow our community's potential.

### **The Public Bank Operations**

Interest in a publicly funded bank for Santa Fe (The Bank) blossoms from the quaint notion that a public bank could serve the people. The Bank would be profitable and the profits would go back to the local community. Borrowing by the City -- the people's government -- would be more effective by reducing City debt along with returning profits to the City. Eventually The Bank might assist economic development and participate with private banks in community development efforts.

This is a preliminary look at the financial feasibility of establishing The Bank. It would be owned by the City of Santa Fe, but operated independently by professional bankers. The Bank's only customer would be the City as represented by its various departments.

A rule of thumb suggests that a bank must operate for three years before becoming profitable. The Bank is in the enviable position of existing in a City with adequate assets and liabilities to found a public bank that can be profitable in its first year.

#### What is a bank anyway?

In the business world a bank is a distinctive financial entity. It is a depository institution holding a bank charter, which means that it can legally receive deposits and it can borrow from the Federal Reserve Bank (the Fed). Depository institutions include savings and loan associations, savings banks and credit unions.

A bank differs from non-depository financial institutions, which act as intermediaries between savers and borrowers and may not accept deposits. Non-depository institutions include insurance companies, pension funds, securities firms, government-sponsored enterprises, and finance companies.

The Fed is a bank's bank. Banks have deposits at the Fed called reserve accounts. A bank's balance in its account at the Fed and cash on hand make up the bank's total "federal reserves." These should not be confused with loan loss allowances and loan loss expenses, which are held in "reserve" against losses.

The Fed provides check clearing services to depository institutions. The reserve accounts of the collecting institutions are credited for the value of the checks deposited, and the reserve accounts of the paying banks are debited for the value of checks presented for payment.

Like other businesses the financial position of a bank is largely revealed by its balance sheet and income statement.

### Approach

Our approach is to look at hypothetical balance sheets and income statements in a way that can be understood by those unfamiliar with such documents. For those well acquainted with the subject we invite helpful suggestions.

The first balance sheet is a beginning balance sheet - Start 7/1/2017 (Table 3 page 9) - for The Bank after assets have been invested, funds deposited and a loan made. The second balance sheet is an ending balance sheet after the first year of operation - End 6/30/2018 (Table 4 below). For simplicity this hypothetical model approximates a loan portfolio with a single multiyear loan.

#### **Assumptions:**

We assume that initial core capital (stockholder's equity) for The Bank will be funded by the City at \$9 million. In addition, approximately \$1 million will be needed for consultants, equipment and staff training prior to start-up and for expenses during the first year prior to receipt of income.

Guided by the City of Santa Fe, New Mexico 2014 CAFR (Comprehensive Annual Financial Report) the City has debt in the form of bank loans and bonds of about \$300 million. We assume that The Bank can refinance enough of the City's debt to be profitable in the first year of operation.

The Bank will focus on lending primarily to the City during the first five years of operation because reducing the debt burden of the City clearly will benefit the community as a whole. Additionally, lending to municipalities is a relatively low risk compared to other kinds of lending, an important concern with a newly established bank. First The Bank will do only a very small percentage of partnership lending with local financial institutions. Gradually as The Bank gains more experience it can increase that percentage when its professional banking staff is confident that doing so makes sound financial sense.

City deposits of about \$100 million will be transferred to The Bank. All revenue collected by the City will be deposited in The Bank and City checks will be drawn from accounts there.

The Bank will be chartered and operated as a regular bank with a bank charter from the State of New Mexico. It will be a member of the Federal Reserve and have access to the Federal Payments System. Also, The Bank will abide by all capital ratios demanded by the Fed based on the Basel III rules. After a few years, a substantial fraction of profits will be distributed back to the city unless proscribed by bank regulators.

Currently, public deposits are collateralized at 102%. A small public bank cannot operate under this constraint, as it would interfere with pledging collateral for loans or repurchase agreements likely necessary for bank operations. We assume this constraint will be lifted, because the City will be using its own bank.

For this exercise The Bank will loan the City \$50 million that will be deposited in its checking account. Immediately after the deposit is made, the City will withdraw all loaned funds to make payments.

A \$50 million loan at 4% for 8 years would generate semiannual payments to The Bank in excess of \$5 million total. Each payment will reduce the outstanding loan balance and contribute to interest income. We assume that deposits of at least that amount are made to the bank, so that deposit levels are back up to \$100 million by the end of the year.

#### **Hypothetical Bank Balance Sheet Details**

Below we describe details of the hypothetical balance sheets and income statements. The first begins on July 1, 2017, and the second ends on June 30, 2018. These future balance sheets use current interest rates. By 2017, it is very likely that the Fed will have raised interest rates. However, that will not have a large effect on our result, because both The Bank's income and expense interest rates will increase accordingly.

The main concern will be the decreased value of our interest-bearing assets. For that reason we maintain these as short-term assets.

#### **Operating Expenses**

Bank expenses are shown in Tables 3 and 4 below and were estimated as discussed here.

Salaries and benefits are included for two managers, the President and Compliance Officer, and two capable assistants. Including benefits we expect a \$500,000 estimate to be conservative. Also, we provide for a half-time IT (Internet Technology) contractor at \$30,000. Rental for office space and equipment is estimated at \$500,000.

We estimate Loan loss expense as a necessary element. This accounts for cash-flow losses from underperforming or restructured loans. For example, we need to make salary payments even if the loan portfolio fails to perform as expected. This amount is determined by bank management and reviewed by bank examiners.

We expect to pay about 1% on City deposits at The Bank.

We include a space for debt service for any mid- to long-term borrowing by The Bank.

Profit is the difference between expenses and income, which is primarily interest income. Non-interest income from fees and ancillary services will add to income, but are ignored in this exercise.

We estimate taxes at 15% of profit to obtain Total Profit, which can be divided between retained earnings and return of profit to the City.

#### **Income on Assets**

The Bank's financial assets comprise its capital and the reserves that accompanied City deposits. The Bank's loans are also assets invested in notes from the City.

The primary source of income for The Bank is interest on its loans. We have set this at 4%, because it is at the lower end of the range of interest rates the City now pays on its loans. Also, it gives us a reasonable 3% spread relative to the interest we pay to the City.

In addition, the Fed pays only 0.25% on our demand deposits at the Fed. So, we keep that balance low. The remaining assets are invested at about 1% in 2- to 5-year treasuries, which have no risk and can be readily converted to demand deposits when needed.

In Tables 3 and 4 there are a beginning balance sheet for the first year of operation beginning July 1, 2017 and the ending balance sheet for June 30, 2018 after a year of operation, alongside an income and expense statement. Although this format makes the page more complicated, this display shows where income is generated and where it goes. A line-by-line guide is located in the Resource Section. Bank balance sheets for years 2 through 5 are also located in this section.

#### The Loan Process

BTT undertook an exercise to determine whether current loans and bonds available for refinancing in 2017 by the City of Santa Fe, New Mexico (the year we propose opening a Public Bank for Santa Fe), could be restructured by The Bank to lower the City's debt service (principal, interest and fees associated with the loans), and also lower the City's total projected debt.

With the help of City staff we obtained information on four loans and six bonds that are available for refinancing and refunding in 2017. We used the loan and bond payment schedules to determine the amount of the payoff. Bond payoffs were calculated as instructed under the "Prior Redemption" Sections based upon the review of the Series 2010B and 2012B Bond Ordinances.

The first concern for the "New Loan" was to reduce debt service. The second was to reduce total City debt. The final goal was to find a rate and term that provided both, whenever possible. If that was not possible, the "New Loan" was created in favor of reducing debt service.

As a result of our exercise, we learned that, generally, extending term had a greater positive effect to meet the debt service reductions we were seeking. Therefore, we decided to keep all of the loans at 4%, which we believed would provide The Bank with the revenue required to cover costs, and in time, create a profit, i.e. revenue returned to the City.

As you will see, the results of our work show that by a careful restructuring of the loans and bonds into "New Loans", we were able to reduce annual debt service costs by \$1,336,976 and reduce total City debt by \$4,848,694 over a five-year period. Once we determined available loans and bonds could successfully be restructured, we created profitable portfolios for The Bank's first five years of operation.

#### **Conclusions:**

In the first year, the Public Bank will create a \$50,000,000 Loan Portfolio based on \$9,000,000 of core capital and \$100,000,000 of City Deposits.

In that year, more than \$45,000,000 of the new public bank loan portfolio will consist of loans made to the City with carefully restructured existing loans and bonds that were available to be called. We wanted a \$50,000,000 loan portfolio for the first year, but recognized that because of the City's existing debt burden that it might not have the financial capacity to borrow more money that year.

The Bank seizes its first opportunity to partner with local financial institutions by adding \$5,000,000 to lend into the community through local banks or credit unions to increase access to credit for Santa Feans for things like affordable housing, renewable energy and other small businesses.

In years three, four and five, because of positive cash flow and lower debt, the City will be able to once again borrow for needed projects at low interest rates and continue to restructure its existing debt with The Bank as existing debt becomes available for restructuring. We anticipate that A Public Bank for Santa Fe can make a modest profit that increases during each of its first five years of business based on our Hypothetical Balance Sheets and Income Statements.

## **Public Bank Five-Year Profit or Loss? Beginning and Ending Balances**

Our study indicates that The Bank can make a small profit right from the first year. Over time The Bank's net profits will increase:

 Year 1
 \$ 513,889

 Year 2
 \$ 838,934

 Year 3
 \$1,427,926

 Year 4
 \$2,993,419

Year 5 \$4,669,039

#### TABLE 1 5-Year Bank Profit Calculations

|                   | Income   | Expense   | Profit before tax | Tax @ 15% | Net profit |
|-------------------|--|-----------|-------------------|-----------|------------|
| Year 1            | 2,479,575  | 1,875,000 | 604,575           | 90,686    | 513,889    |
| Year 2            | 2,875,069  | 1,897,500 | 977,569           | 146,635   | 830,934    |
| Year 3            | 3,601,363  | 1,921,450 | 1,679,913         | 251,987   | 1,427,926  |
| Year 4            | 5,468,648  | 1,946,979 | 3,521,669         | 528,250   | 2,993,419  |
| Year 5            | 7,472,522  | 1,979,535 | 5,492,987         | 823,948   | 4,669,039  |
|                   | 1  | 2         | 3                 | 4         | 5          |
| Payroll           | 500  | 510       | 520.2             | 530.604   | 546.522    |
| IT                | 30   | 30        | 30                | 30        | 30         |
| Equip             | In hypothetical we bought year-one equipment out of assets |           |                   |           |            |
| Rent              | 500  | 500       | 500               | 500       | 500        |
| Loan Loss expense | 125  | 137.5     | 151.25            | 166.375   | 183.013    |
| Interest          | 720  | 720       | 720               | 720       | 720        |
| Expense           | 1,875,000  | 1,897,500 | 1,921,450         | 1,946,979 | 1,979,535  |

## TABLE 2 Hypothetical Balance Sheets -- Start 7/1/2017 Pubic Bank for Santa Fe per 2014 CAFR

| Line | Assets                              | Amount        | Interest Rate       | Income + | Expense -   |
|------|-------------------------------------|---------------|---------------------|----------|-------------|
| 1    | Cash and due from other banks       | \$2,000,000   | 0%                  |          |             |
| 2    | Federal funds sold & reverse repo   |               |                     |          |             |
| 3    | Securities                          | \$57,800,000  | 1%                  |          |             |
| 4    | Loans                               | \$50,000,000  | 4%                  |          |             |
| 5    | Loan loss allowance                 | (\$125,000)   |                     |          |             |
| 6    | Net loans                           | \$49,875,000  |                     |          |             |
| 7    | Trading account assets              |               |                     |          |             |
| 8    | Bank premises, equipment & software | \$200,000     |                     |          |             |
| 9    | Other Assets                        |               |                     |          |             |
| 10   | Total Assets                        | \$109,875,000 |                     |          |             |
|      | Liabilities and Equity              |               |                     |          |             |
| 11   | Liabilities                         |               |                     |          |             |
| 12   | Demand deposits                     | \$10,000,000  |                     |          |             |
| 13   | Time deposits                       | \$90,000,000  | 1%                  |          |             |
| 14   | Federal funds purchased & repo      |               |                     |          |             |
| 15   | Trading liabilities                 |               |                     |          |             |
| 16   | Other borrowed funds                |               |                     |          |             |
| 17   | Other liabilities                   |               |                     |          |             |
| 18   |                                     |               | Interest Income     |          | \$0         |
| 19   | Equity                              |               | Non-int. Income     |          |             |
| 20   | Stock (Tier 1 Capital)              | \$9,000,000   | Operating           |          |             |
|      |                                     |               | Expenses            |          |             |
| 21   | Surplus (Tier 1)                    |               | Salaries & benefits |          | \$500,000   |
| 22   | Retained earnings (Tier 1)          |               | IT support          |          | \$30,000    |
| 23   | Undistributed income                |               | Rents               |          | \$500,000   |
| 24   | AOCI                                |               | Interest on         |          | \$450,000   |
|      |                                     |               | deposits            |          |             |
| 25   | Start-up capital                    | \$1,000,000   | Loan loss expense   |          | \$0         |
| 26   | Other                               | (\$125,000)   | Debt service        |          |             |
| 27   | Total Liabilities and Equity        | \$109,875,000 | Total operating     |          | \$1,480,000 |
| 28   |                                     |               | Profit              |          |             |
| 29   |                                     |               | Taxes @ 15%         |          |             |
| 30   |                                     |               | Net Profit          |          |             |
| 31   |                                     |               | Retained earnings   |          |             |
| 32   |                                     |               | To City             |          |             |

TABLE 3 Hypothetical Balance and Income Sheets -- End 6/30/2018
Public Bank for Santa Fe per 2014 CAFR

|    | Assets  | Amount        | Interest Rate       | Income + Expense -              |
|----|---|---------------|---------------------|---------------------------------|
| 1  | Cash and due from other banks                         | \$2,000,000   | .25%                | \$5,000                         |
| 2  | Federal funds sold & reverse repo                     |               |                     |                                 |
| 3  | Securities  | \$64,551,463  | 1%                  | \$575,000                       |
| 4  | Loans   | \$44,482,426  | 4%                  | \$1,899,575                     |
| 5  | Loan loss allowance                                   | (\$125,000)   |                     |                                 |
| 6  | Net loans   | \$44,357,426  |                     |                                 |
| 7  | Trading account assets                                |               |                     |                                 |
| 8  | Bank premises, equipment & software                   | \$200,000     |                     |                                 |
| 9  | Other Assets  |               |                     |                                 |
| 10 | Total Assets  | \$111,108,889 |                     |                                 |
|    | Liabilities and Equity                                |               |                     |                                 |
| 11 | Liabilities   |               |                     |                                 |
| 12 | Demand deposits                                       | \$10,000,000  |                     |                                 |
| 13 | Time deposits   | \$90,720,000  | 1%                  | See Interest on deposits below. |
| 14 | Federal funds purchased & repo                        |               |                     |                                 |
| 15 | Trading liabilities                                   |               |                     |                                 |
| 16 | Other borrowed funds                                  |               |                     |                                 |
| 17 | Other liabilities                                     |               |                     |                                 |
| 18 |   |               | Interest Income     | \$2,479,575                     |
| 19 | Equity  |               | Non-Int. Income     |                                 |
| 20 | Stock (Tier 1 Capital)                                | \$9,000,000   | Operating Expenses  |                                 |
| 21 | Surplus (Tier 1)                                      |               | Salaries & benefits | \$500,000                       |
| 22 | Retained earnings (Tier 1)                            | \$513,889     | IT support          | \$30,000                        |
| 23 | Undistributed income                                  |               | Rents               | \$500,000                       |
| 24 | AOCI  |               | Interest on         | \$720,000                       |
|    |   |               | deposits            |                                 |
| 25 | Start-up capital                                      | \$1,000,000   | Loan loss expense   | \$125,000                       |
| 26 | Other   | (\$125,000)   | Debt service        |                                 |
| 27 | Total Liabilities and Equity                          | \$111,108,889 | Total operating     | \$1,875,000                     |
| 28 | Regulatory Metrics                                    |               | Profit              | \$604,575                       |
| 29 | Common equity (Tier 1) / Risk-weighted assets > 10.5% | 23.4%         | Taxes @ 15%         | \$90,686                        |
| 30 | Common Equity (Tier 1) / Total assets > 4%            | 9.4%          | Total Profit        | \$513,889                       |
| 31 | Debt to Equity = (Assets – Liability/Equity)          | 1.0           | Retained earnings   | \$513,889                       |
|    |   |               | To City             | ?                               |

Cash flow is the lifeblood of all businesses, especially start-ups and small enterprises. For example, it is anticipated that the City will make semiannual payments to The Bank; however, the staff must be paid every month. Therefore, it is essential that management predict what is going to happen to cash flow so the cash is available when needed.

TABLE 4 Pubic Bank for Santa Fe 2017 – 2021 Cash Flow Forecast

|  | 7/1/2017 -<br>6/30/2018 | 7/1/2018 -<br>6/30/2019 | 7/1/2019 -<br>6/30/2020 | 7/1/2020 -<br>6/30/2021 | 7/1/2021 -<br>6/30/2022 |
|--|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Opening Balance                            | -                       | 404,575                 | 977,569                 | 1,699,913               | 3,542,569               |
| Money In                                   |                         |                         |                         |                         |                         |
| Core Capital                               | 9,000,000               |                         |                         |                         |                         |
| Subtotal - Capital                         | 9,000,000               |                         |                         |                         |                         |
| Shareholder Loan - Startup costs           | 1,000,000               |                         |                         |                         |                         |
| Interest - Loans                           | 1,899,575               | 1,890,494               | 2,043,794               | 3,189,635               | 3,348,623               |
| Interest - Reserves                        | -                       | -                       | -                       | -                       | -                       |
| Interest - Securities                      | 580,000                 | 580,000                 | 580,000                 | 580,000                 | 580,000                 |
| Total Money In                             | 3,479,575               | 2,875,069               | 3,601,363               | 5,469,548               | 7,471,192               |
| Total Money In plus Capital                | 12,479,575              |                         |                         |                         |                         |
| Money Out                                  |                         |                         |                         |                         |                         |
| Salaries and Benefits                      | 500,000                 | 510,000                 | 520,200                 | 530,604                 | 546,522                 |
| IT Support                                 | 30,000                  | 30,000                  | 30,000                  | 30,000                  | 30,000                  |
| Equipment and Software                     | 200,000                 |                         |                         |                         |                         |
| Rent                                       | 500,000                 | 500,000                 | 500,000                 | 500,000                 | 500,000                 |
| Loan Losses                                | 125,000                 | 137,500                 | 151,250                 | 166,375                 | 183,013                 |
| Interest on Time Deposits                  | 720,000                 | 720,000                 | 700,000                 | 700,000                 | 700,000                 |
| Total Money Out                            | 2,075,000               | 1,897,500               | 1,901,450               | 1,926,979               | 1,959,535               |
| Total Money In<br>minus<br>Total Money Out | 1,404,575               | 977,569                 | 1,699,913               | 3,542,569               | 5,511,657               |
| Shareholder Loan Repaid                    | 1,000,000               |                         |                         |                         |                         |
| Closing Balance                            | 404,575                 | 977,569                 | 1,699,913               | 3,542,569               | 5,511,657               |

Below are the projected five-year loan portfolio beginning and ending balances. As prior loans are paid off the earlier portfolio is reduced, but the total loan portfolio may increase due to new loans issued. A copy of the worksheet that created these annual portfolios, based upon the bonds and loans available for refinancing as shown in Table 5, can be obtained electronically by contacting <u>TeamBrassTacks@gmail.com</u>.

**TABLE 5** Five-Year Loan Portfolio Beginning and Ending Balance

|      | Beginning<br>Loan<br>Portfolio | New Loans  | New Loan<br>Portfolio | Principal Paid | Interest Earned | Ending Balance<br>- Loan Portfolio |
|------|--------------------------------|------------|-----------------------|----------------|-----------------|------------------------------------|
| 2017 | 50,000,000                     |            |                       | 5,517,574      | 1,899,575       | 44,482,426                         |
| 2018 |                                |            |                       | , , , ,        | ,,-             | , - , -                            |
|      | 44,482,426                     | 5,517,574  | 50,000,000            | 6,016,406      | 1,890,494       | 43,983,594                         |
| 2019 | 43,983,594                     | 16,350,251 | 60,333,845            | 9,068,935      | 2,043,794       | 51,264,910                         |
| 2020 | 51,264,910                     | 33,876,200 | 85,141,110            | 11,858,031     | 3,189,635       | 73,283,079                         |
| 2021 | 73,283,079                     | 16,716,921 | 90,000,000            | 13,811,131     | 3,348,623       | 76,188,869                         |

## **RESOURCE Section**

Page 14 Guide to line itemization of beginning and year-end bank balances

Page 17 Bonds and loans available for refinancing

Available upon request from <a href="mailto:TeamBrassTacks@gmail.com">TeamBrassTacks@gmail.com</a>

2017-2022 loan portfolios calculations

## Line-by-Line GUIDE: The Public Bank First Year Beginning and Ending Balance Sheets

(Table 2 & 3 pages 9 & 10)

#### Line-by-Line GUIDE Beginning Balance Sheet Table 3 -- Start 7/1/2017

We will briefly describe the important lines of the balance sheet. Generically, balance sheets are very similar for any business. We will point out below how banks differ from ordinary businesses. In all cases, the general accounting formula must hold.

Assets = Liabilities + Equity

**Line 1. Cash and due from other banks:** Accounts for cash on hand and deposits at the Fed. In addition, The Bank can have accounts at other banks.

**Line 3. Securities:** These assets are invested federal reserves that were obtained when the City deposited its money in The Bank. Also included is the invested capital Lines 20 and 25.

Note: When the City withdrew the loan, \$50 million of reserves transferred from The Bank to another bank or banks through the Fed payments system.

Rather than borrow some of the \$50 million, we elected on behalf of the manager, to take the \$50 million from existing assets, which left \$58 million (Line 3) plus the \$2 million (Line 1) to cover withdrawals from demand deposits. Should the City decide to draw down its time deposits, the manager will have time to consider the matter and borrow (Line 16 or Line 14) if needed. Finally, we cashed out \$200,000 to buy equipment (Line 8) leaving \$57.8 million.

Line 4. Loans: Outstanding loan balance is the main income-generating asset.

**Line 5: Loan loss allowance:** Required by both prudence and bank examiners, this is an estimate of losses due to underperforming loans or defaults. This amount reduces our expected return on loans. Fortunately, loans to the City are considered very safe and we can keep this amount small.

The amount here is determined by bank management upon review of the total loan portfolio. As shown in Line 26, this amount has a direct impact on equity.

Line 6. Loans net of allowance: This is the amount management actually expects to turn to cash.

Line 8. Bank premises, equipment & software: Accounts for investment in tangible assets.

**Lines 12. Demand deposits:** This (checking account) liability is the account against which federal reserves are held. For this small amount, no reserves are required. The Bank pays little or no interest on this balance.

**Line 13. Time deposits:** The depositor must give notice before withdrawing these deposits and is rewarded with interest payments. This gives the manager time to rearrange assets to accommodate the withdrawal.

#### <u>Line-by-Line GUIDE Ending Balance Sheet -- End 6/30/2018</u>

This page shows the results of allocating The Bank's assets and liabilities during the first year of operation. Making these allocations is where a clever compliance manager earns her salary as this operation affects bank profitability. In contrast to an annual, static balance sheet, every day offers problems and opportunities to the manager.

Because we are working the case for the worst-case scenario of immediate withdrawal of funds from the City's account, our manager has an immediate and significant challenge. She must decide how much of The Bank's assets to invest and which securities to buy. The balance between income and risk is always on her mind.

**Line 1. Cash and due from other banks:** On behalf of our manager we retained \$2 million of the original \$110 million on this line. Currently, the Fed pays 0.25% interest on reserves held at the Fed. Cash on hand earns no interest, but we anticipate that The Bank will have little use for cash.

**Line 2. Federal funds sold & reverse repo:** When The Bank has end-of-day excess reserves, on occasion it can lend them to other banks in the overnight federal funds market. At the end of the year there might be an entry on this line. It is the opposite of Line 14.

**Line 14. Federal funds purchased & repo:** When a bank needs more reserves it can borrow on the overnight Fed funds market at low rates from banks that have excess reserves. These loans are not collateralized and are short term, usually less than a week, most often for one day.

If time deposits are drawn down significantly, The Bank will need to sell securities or borrow to meet the need for reserves.

Note: A repurchase agreement (repo) is a manner of borrowing in which a bank sells a security with the agreement that the buyer will sell it back for the same price plus interest at a later date, which is within a few days and usually the next day.

Repos and reverse repos are collateralized and are used primarily by big banks involving large sums. Reserves can also be borrowed from the Fed's discount window at a much higher interest rate. Such borrowing also requires collateral and is short term.

**Line 3. Securities:** We assumed a mixture of 2-Year and 5-Year Treasuries with an average yield of 1%. That income is shown to the right.

There are other safe, higher yielding securities that the manager might have chosen.

**Line 4. Loans:** This amount has been reduced as principal payments have been collected over the year. The value has been taken from the amortization schedule for the loan.

**Line 5. Loan loss allowance:** This is based on the loan amount going into the next year. In this exercise we have not assumed additional loans at year end. Hopefully, there will be more tomorrow - July 1.

**Line 6. Loans net of allowance:** This is the amount we consider to be our net loan asset. Unless new loans are made, The Bank's income will be considerably less in the following year.

**Line 12. Demand deposits:** We assume that the City restored this amount back to \$10 million by the end of the year.

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**Line 13. Time deposits:** Semiannual loan payments are made from this account. But, increased deposits make up the difference.

**Line 7. Trading account assets:** and **Line 15. Trading liabilities:** These entries account for gains and losses respectively in security trading. For private banks, this is where risks are taken with the bank's own money. However, The Bank's money is the people's money, so these entries may well remain blank.

Line 22. Retained earnings: This is The Bank's share of profits retained.

#### **Regulatory Metrics**

After the financial crisis of 2008, the Bank of International Settlements (BIS) in Basel, Switzerland set out more restrictive regulations for banks, which our Fed has adopted. The BIS is a bank for national central banks and is given authority for such regulatory pronouncements.

In the lower left hand box on the balance sheet we tabulated some regulatory metrics that are contained in recent Basel III regulations. Our scenario appears well within regulations. The regulations are much more complex than these simple ratios would suggest, and compliance with them will be a significant overhead burden for The Bank.

## City of Santa Fe Debt Available for Refinancing in 2017 and 2020 by The Bank

#### TABLE 6 TOTAL BONDS AND LOANS AVAILABLE FOR REFINANCING

| C<br>H<br>A<br>R<br>T | S<br>E<br>R<br>I<br>E<br>S<br>No. | Project                               | Call<br>Date | Current<br>Loan -<br>Years<br>Remain-<br>ing | Current<br>Annual<br>Payment -<br>Principal,<br>Interest &<br>Fees | EXISTING<br>Principal,<br>Interest &<br>Fees to be<br>Refinanced |                                      | Public Bank Loans Public Bank Refinancing Loan Information" |  |   |  |
|-----------------------|-----------------------------------|---------------------------------------|--------------|--|--|--|--------------------------------------|---|--|---|--|
|                       |                                   |                                       |              |  |  |  | R<br>A<br>T<br>E                     | T<br>E<br>R<br>M  | Annual<br>Payment -<br>Principal &<br>Interest | Outstndng<br>Balance-<br>Total<br>Principal &<br>Interest | Reduction<br>(Increase)<br>in Total<br>City Debt |
| 1                     | 2005                              | Muni Rec<br>complex<br>Refund-<br>ing | 2017         | 8  | 1,317,113  | 6,106,100  | 4                                    | 5   | 1,211,497                                      | 6,057,486   | 48,614   |
| 2                     | Loan                              | Railyard I                            | 2017         | 8  | 52,828   | 369,944  | 4                                    | 8   | 45,467   | 363,732   | 6,212  |
| 3                     | 2006B                             | GRT<br>Bond<br>Refund-<br>Ing         | 2017         | 7  | 1,308,060  | 7,844,025  | 4                                    | 7   | 1,120,546                                      | 7,843,824   | 201  |
| 4                     | Loan                              | Railyard II                           | 2017         | 10   | 85,178   | 766,984  | 4                                    | 13  | 58,936   | 766,171   | 813  |
| 5                     | 2006C                             | Waste<br>water                        | 2017         | 5  | 938,250  | 3,756,250  | 4                                    | 5   | 758,383  | 3,791,916   | (35,666)   |
| 6                     | 2006D                             | Water                                 | 2017         | 9  | 4,373,594  | 34,493,625   | 4                                    | 9   | 3,824,609                                      | 34,421,480  | 72,145   |
| 7                     | 2008                              | GO Park<br>Bonds                      | 2020         | 8  | 1,556,408  | 12,436,944   | 4                                    | 8   | 1,567,400                                      | 12,539,200  | (102,256)  |
| 8                     | 2008                              | GRT-CIP                               | 2019         | 4  | 3,369,138  | 15,387,238   | 4                                    | 5   | 3,162,390                                      | 15,811,950  | (424,712)  |
| 9                     | Loan                              | College of<br>SF                      | 2020         | 17   | 2,220,923  | 35,564,985   | 4                                    | 14  | 2,163,225                                      | 30,285,144  | 5,279,841  |
| 10                    | Loan                              | Land<br>Acquisitio<br>n               | 2019         | 10   | 275,868  | 2,482,812  | 4                                    | 10  | 247,931  | 2,479,310   | 3,502  |
| Total                 | s                                 |                                       |              |  |  |  |                                      |   |  |   |  |
|                       | 1                                 |                                       |              |  | 15,497,360   | 119,208,907  |                                      |   | 14,160,384                                     | 114,360,213   | 4,848,694  |
|                       |                                   |                                       |              |  |  |  | Lowers City's Annual<br>Debt Service |   | 1,336,976                                      |   |  |
|                       |                                   |                                       |              |  |  |  | Lowers City's Total<br>Debt          |   |  |   | 4,848,694  |

#### TABLE 6 TOTAL BONDS AND LOANS AVAILABLE FOR REFINANCING

| C<br>H<br>A<br>R<br>T | S<br>E<br>R<br>I<br>E<br>S<br>No. | Project                          | Call<br>Date | Current<br>Loan<br>Years<br>Remain-<br>ing | Current<br>Annual<br>Payment -<br>Principal,<br>Interest &<br>Fees | Existing<br>Principal,<br>Interest &<br>Fees to be<br>Refinanced | ••               | Public Bank Loans "Public Bank Refinancing Information for 2017 Loans" |  |   |  |  |
|-----------------------|-----------------------------------|----------------------------------|--------------|--|--|--|------------------|--|--|---|--|--|
|                       |                                   |                                  |              |  |  |  | R<br>A<br>T<br>E | T<br>E<br>R<br>M   | Annual<br>Payment -<br>Principal &<br>Interest | Outstndng<br>Balance-<br>Total<br>Principal &<br>Interest | Reduction<br>(Increase)<br>in Total<br>City Debt |  |
| 1                     | 2005                              | Muni Rec<br>complex<br>Refunding | 2017         | 8  | 1,317,113  | 6,106,100  | 4                | 5  | 1,211,497                                      | 6,057,486   | 48,614   |  |
| 2                     | Loan                              | Railyard I                       | 2017         | 8  | 52,828   | 369,944  | 4                | 8  | 45,467   | 363,732   | 6,212  |  |
| 3                     | 2006B                             | GRT<br>Bond<br>Refunding         | 2017         | 7  | 1,308,060  | 7,844,025  | 4                | 7  | 1,120,546                                      | 7,843,824   | 201  |  |
| 4                     | Loan                              | Railyard II                      | 2017         | 10   | 85,179   | 766,984  | 4                | 13   | 58,936   | 766,171   | 813  |  |
| 5                     | 2006C                             | Wastewat<br>er                   | 2017         | 5  | 938,250  | 3,756,250  | 4                | 5  | 758,383  | 3,791,916   | (35,666)   |  |
| 6                     | 2006D                             | Water                            | 2017         | 9  | 4,373,594  | 34,493,625   | 4                | 9  | 3,824,609                                      | 34,421,480  | 72,145   |  |
|                       |                                   |                                  |              | Subtotal                                   | 8,075,024  | 53,336,928   |                  |  | 7,019,438                                      | 53,244,609  | 92,319   |  |
|                       |                                   |                                  |              |  |  |  |                  |  |  |   |  |  |
|                       |                                   |                                  |              |  | For <b>201</b> 7   | 7, Lowers City<br>Debt Service                                   | /'s An           | nual   | 1,055,586                                      |   |  |  |
|                       |                                   |                                  |              |  | Lowers City<br>Deb   |  |                  | otal   |  |   | 92,319   |  |

TABLE 6 TOTAL BONDS AND LOANS AVAILABLE FOR REFINANCING

| C<br>H<br>A<br>R<br>T<br>No. | S<br>E<br>R<br>I<br>E<br>S<br>No. | Project                 | C<br>A<br>L<br>D<br>A<br>T<br>E | Current<br>Loan -<br>Years<br>Remain-<br>ing | Current<br>Annual<br>Payment -<br>Principal,<br>Interest &<br>Fees | EXISTING<br>Principal,<br>Interest &<br>Fees to be<br>Refinanced |         | Public Bank Loans "Public Bank Refinancing Information for 2019 and 2020 Loans" |  |   |  |  |
|------------------------------|-----------------------------------|-------------------------|---------------------------------|--|--|--|---------|---|--|---|--|--|
|                              |                                   |                         |                                 |  |  |  | R A T E | T<br>E<br>R<br>M  | Annual<br>Payment -<br>Principal &<br>Interest | Outstndng<br>Balance-<br>Total<br>Principal &<br>Interest | Reduction<br>(Increase)<br>in Total<br>City Debt |  |
| 8                            | 2008                              | GRT-<br>CIP             | 2019                            | 4  | 3,369,138  | 15,387,238   | 4       | 5   | 3,162,390                                      | 15,811,950  | (424,712)  |  |
| 10                           | Loan                              | Land<br>Acquisiti<br>on | 2019                            | 10   | 275,868  | 2,482,812  | 4       | 10  | 247,931  | 2,479,310   | 3,502  |  |
|                              |                                   |                         |                                 |  | 3,645,006  | 17,870,050   |         |   | 3,410,321                                      | 18,291,260  | (421,210)  |  |
|                              |                                   |                         |                                 |  |  | 1<br>019, Lowers<br>rual Debt Sei                                |         | 's  | 234,685  |   |  |  |
|                              |                                   |                         |                                 |  |  | Increase<br>Total  |         | r's   |  |   | (421,210)  |  |
|                              |                                   |                         |                                 |  |  |  |         |   |  |   |  |  |
| 7                            | 2008                              | GO Park<br>Bonds        | 2020                            | 8  | 1,556,408  | 12,436,944   | 4       | 8   | 1,567,400                                      | 12,539,200  | (102,256)  |  |
| 9                            | Loan                              | College<br>of SF        | 2020                            | 17   | 2,220,923  | 35,564,985   | 4       | 14  | 2,163,225                                      | 30,285,144  | 5,279,841  |  |
|                              |                                   |                         |                                 |  |  |  |         |   |  |   |  |  |
|                              |                                   |                         |                                 |  | 3,777,331  | 48,001,929   |         |   | 3,730,625                                      | 42,824,344  | 5,177,585  |  |
|                              |                                   |                         |                                 |  | For <b>202</b> 0   | ), Lowers City<br>Debt Service                                   |         | nual  | 46,706   |   |  |  |
|                              |                                   |                         |                                 |  | Lowers City's<br>Total Debt  |  |         |   |  |   | <b>5,177,585</b>                                 |  |

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