

## **Jackson Masonry Loan Relationship: A Case in Commercial Bank Lending**

Steve A. Nenninger  
Sam Houston State University

### **Abstract**

This case describes a series of loan renewals and credit requests of a manufacturing firm and a community bank. The case is designed to be used in 3 parts, with new issues presented in each which demonstrate how a loan relationship can change over time. Part 1 can be used as a stand-alone introductory lending case, or it can be easily incorporated into part 2 for a slightly more advanced stand alone case. Alternatively, the cases can be assigned in order to provide students a progression in dealing with a single client. Students learn how to present and analyze financial statements, the complexities of pro forma statements, and how credit risk changes over time.

Keywords: bank lending, financial statement analysis, credit risk

### **Part 1: Annual Loan Review**

*Current Date: early January 2010*

Jackson Masonry Incorporated is a producer of masonry products, and the company supplies building materials including brick, pavers, and stone throughout a multi-county area of east Texas. Its plant is located in Smithton, Texas. The company is well respected in the community and is a major supplier of jobs for the area.

Pineywoods National Bank (PNB) is a successful community bank also located in Smithton, with two other branches in neighboring counties. The bank has total assets of just over \$300 million and focuses on serving all the banking needs of its customers. Its products include both personal and business loans, a wide range of deposit accounts, and trust and investment services.

Jackson Masonry has been a customer of PNB for over 50 years, and uses PNB exclusively for all deposit accounts as well as a \$200,000 unsecured line of credit. They have never been more than 30 days late with a payment. The loan officer for the account is Joseph Berry, who has been in the banking profession for 25 years and has been with PNB for the past 15 years. He is the lead commercial lender at the Smithton branch and is well respected both in the bank and throughout the community.

Jackson Masonry was founded by William Jackson in 1962. It is incorporated and privately owned by William (now 72) and his three children, Billy, Andrew, and Michelle. William is the president and CEO and owns 40% of the company's shares. Each sibling owns 20% and also

works in the company. Billy is the Chief Operating Officer, Andrew is Vice President of Sales, and Michelle (who has an engineering degree) is the Vice President of Manufacturing. The other officer of the company is Mark Johnson, a CPA who is the Controller.

William started the company as a manufacturer of decorative clay pots used in gardening. The company expanded into brick production in the 1970's, and that has been the driving force of company growth since then. The company now employs about 160 production workers, and a management and sales team of around 20, including the Jackson family. Producing the bricks is difficult work, and there is a high turnover rate for new employees. However, once an employee stays past the first year, the average tenure is nearly 15 years. William believes the longevity of so many of the workers is one of the keys to producing high quality product, and offers employees a generous benefit package. William also notes that the company has not had to lay off a worker at any point since the company began operations.

It is now time for the annual review of the company's line of credit. A loan of \$200,000 is a significant credit to PNB, so the loan is presented to the full loan committee for review. Over the past year, the line has reached a high of \$150,000 and a low of \$65,000. Interest is due quarterly and is always paid on time. The loan is used to fund purchases of inventory and other short-term credit needs. It was initiated when the company first began brick production, and has grown from a \$50,000 line to its current limit of \$200,000.

Jackson Masonry's financial statements for financial years 2005 to 2007 are listed in the Appendix.

### **Assignment**

Construct balance sheets and income statements for 2007 to 2009. Use raw numbers (given), common size, and year over year growth.

Construct cash flow statements for 2008 and 2009.

Perform a ratio analysis of the company for 2007 to 2009. Include comments concerning the trends/comparisons for the ratios and financial statements.

### **Questions to Discuss**

1. What are the strengths and weaknesses of this credit renewal?
2. What economics factors may impact sales and profits of Jackson Masonry?
3. What are the main concerns (if any) that Mr. Berry may have at this point?
4. What other issues should be addressed; what questions do you have for Jackson Masonry?
5. Based on the analysis, should BNB renew the line of credit? Justify your position.

## Part 2: Loan Request

*Current date: late January 2010*

This case describes a loan request from Jackson Masonry and builds upon case 1, with the assumption that the line of credit was renewed.

During a recent visit to Jackson Masonry, Joseph Berry met with both William and Billy Jackson. They explained a few changes that will be implemented over the next year. First, William is retiring as CEO and will no longer be involved in the day to day management of the firm, although he will retain his position as Chairman of the Board. Billy will assume the role of CEO while Andrew and Michelle will retain their current positions. Each family member agrees that this new structure is the best alternative.

Also during the meeting, William and Billy expressed how significant the impact of energy cost is in the production of brick. In order to improve the efficiency of its operations, Jackson Masonry is planning to convert its three coal-fired kilns to natural gas kilns, which are less expensive to operate. The new equipment and conversion will cost \$1.2 million. The company has requested a \$1.2 million loan from BNB and has offered to secure the loan with all fixed assets.

Jackson Masonry has formulated operating projections for 2010. Management projects sales of \$2.5 million which they consider conservative considering the long term trend of sales growth. They believe COGS will fall to \$850,000 with the more efficient kilns. The kilns are expected last over 30 years, but they will be depreciated on a 10 year straight line basis with 0 salvage value.

For the projected income statement, rental expense will remain at \$12,000. Expenses other than COGS and rent are expected to be the same *percentage of sales* for 2010 as they were in 2009, but adjustments are needed for additional interest expense and depreciation. The income tax rate is 30%, and dividends will remain at \$40,000. On the balance sheet, fixed assets will increase by \$1.2 million for the new kilns, no change in other long term assets, all current assets other than cash will increase by 5% over 2009, and accounts payable and the operating line of credit will also increase by 10%. The first payment on the loan would be due in January of 2011.

The company would like the loan set up on a 20 year amortization. If approved, the loan rate would be set at 2% over prime (prime is currently 3.25%) fixed for one year at a time. The loan would be reviewed annually. This would be one of the largest single loans that PNB has made.

### Assignment

Using the balance sheet, income statement and cash flow statement from part 1, add the projections to each statement for 2010.

Perform a ratio analysis for the 2010 projections.

**Questions to address:**

1. What are the strengths and weaknesses of this credit request?
2. What are the main concerns (if any) that Mr. Berry may have at this point? What is your confidence level with the projections?
3. What other issues should be addressed; what questions do you have for Jackson Masonry?
4. Based on the analysis, should PNB grant the loan? Justify your position.

### **Part 3: Line of Credit Increase**

*Current date: January 2011*

Early in 2010, Jackson Masonry began the conversion of its coal-fired kilns to natural gas kilns in order to increase efficiency. To finance these conversions, the company borrowed \$1.2 million from PNB in 2008. The loan is on a 20 year payment plan with an interest rate set a 2% over prime (prime is currently 3.25%) and the rate is reset each year during their annual loan review. Joseph Berry is the loan officer on the account and recently met with company management in order to prepare their annual loan review. During this meeting, the company presented financial statements for 2010.

Billy Jackson is now the company CEO, having taking over from his father last year. He discussed with Mr. Berry the fact that the improved efficiency from the natural gas kilns was not fully recognized in 2010 since the equipment was phased in throughout the year and the process took longer than estimated. He also talked about how brick sales are very sensitive to activity in the building industry, especially new housing starts. Construction was down considerably 2010, and sales decreased as a result. The industry often follows a pattern of boom and bust, with sales and earnings responding to changes in the demand for building products. While the firm is scaling down production, inventory did increase substantially in 2010 (primarily finished bricks in the yard ready to sale). In order to finance the resulting increase in working capital, Jackson Masonry has requested a temporary increase in their line of credit to \$750,000. The firm believes it may need the short term increase to finance its inventory until their receivables are collected. In the past, Jackson Masonry has been granted similar loans (although in smaller amounts) and has always repaid when the economic circumstances improved.

Mr. Berry discussed projections for 2011 with company management. Management believes that sales will rebound to 2009 levels, while COGS will fall to \$900,000. Expenses other than COGS are expected to be very similar to 2009, while depreciation and interest expense should be about the same as 2010. The income tax rate is 30%, and dividends will remain at \$40,000. On the balance sheet, no fixed asset purchases are planned, and there are no expected changes in other long term assets. Management will attempt to restore all current asset amounts (other than cash) to 2007 levels. The accounts payable estimate for 2011 is \$150,000, and the company plans to reduce the operating line of credit to \$100,000 by year end. They will not replace any production workers who leave, but they remain committed to their long standing policy of not laying off any employees.

**Assignment:**

Using prior year financial statements already completed, construct updated financials with 2010 actual data and 2011 projections.

Perform a ratio analysis of the company for 2010 actual and 2011 projections. Include comments concerning the trends/comparisons for the ratios, balance sheet, and income statement.

**Questions to address:**

1. What are the strengths and weaknesses of this credit request?
2. What are the main concerns (if any) that Mr. Berry may have at this point? How would he convey these to Jackson Masonry?
3. What other issues should be addressed; what questions do you have for Jackson Masonry? What would happen if the line of credit increase is not granted?
4. Is cash flow a concern for this company?
5. Based on the analysis, should FBET grant the loan? Justify your position.

## Appendix: Financial Statements

### Statements 2009 for Cases 1 and 2

## Jackson Masonry

### Income Statement

| Period Ending           | 12/31/2007 | 12/31/2008 | 12/31/2009 |
|-------------------------|------------|------------|------------|
| Sales                   | 2,450,000  | 2,560,000  | 2,480,000  |
| Cost of Goods Sold      | 1,183,600  | 1,259,000  | 1,028,000  |
| Gross Profit            | 1,266,400  | 1,301,000  | 1,452,000  |
|                         |            |            |            |
| Operating Expenses      |            |            |            |
| Officers Compensation   | 550,000    | 590,000    | 630,000    |
| Rent Expense            | 12,000     | 12,000     | 12,000     |
| Bad Debt Expense        | 6,000      | 8,000      | 10,000     |
| Depreciation            | 185,700    | 195,400    | 212,000    |
| Sales and Admin Exp     | 269,000    | 278,000    | 296,000    |
| Operating Income (EBIT) | 243,700    | 217,600    | 292,000    |
|                         |            |            |            |
| Interest Expense        | 15,000     | 17,500     | 26,000     |
|                         |            |            |            |
| Interest Income         | 2,300      | 2,800      | 3,200      |
|                         |            |            |            |
| Income Before Tax       | 231,000    | 202,900    | 269,200    |
|                         |            |            |            |
| Income Tax              | 69,300     | 60,870     | 80,760     |
|                         |            |            |            |
| Net Income              | 161,700    | 142,030    | 188,440    |
|                         |            |            |            |
| Dividends               | 40,000     | 40,000     | 40,000     |

## Jackson Masonry

### Balance Sheet

| Period Ending                                    | 12/31/2007       | 12/31/2008       | 12/31/2009       |
|--|------------------|------------------|------------------|
| <b>Current Assets</b>                            |                  |                  |                  |
| Cash and Equivalents                             | 325,000          | 359,230          | 238,330          |
| Short Term Investments                           | 326,100          | 396,100          | 384,200          |
| Net Receivables                                  | 257,200          | 296,500          | 412,800          |
| Inventory  | 578,300          | 596,800          | 816,840          |
| Other Current Assets                             | 65,800           | 56,600           | 70,000           |
| <b>Total Current Assets</b>                      | <b>1,552,400</b> | <b>1,705,230</b> | <b>1,922,170</b> |
| <b>Gross Fixed Assets</b>                        |                  |                  |                  |
| Gross Fixed Assets                               | 7,807,300        | 7,962,500        | 8,163,400        |
| Less: Depreciation                               | 3,527,000        | 3,722,400        | 3,934,400        |
| <b>Net Property Plant and Equipment</b>          | <b>4,280,300</b> | <b>4,240,100</b> | <b>4,229,000</b> |
| Other Long Term Assets                           | 55,000           | 77,400           | 85,000           |
| <b>Total Long Term Assets</b>                    | <b>4,335,300</b> | <b>4,317,500</b> | <b>4,314,000</b> |
| <b>Total Assets</b>                              | <b>5,887,700</b> | <b>6,022,730</b> | <b>6,236,170</b> |
| <b>Current Liabilities</b>                       |                  |                  |                  |
| Accounts Payable                                 | 55,000           | 62,000           | 78,000           |
| Current Due of Long Term Debt                    | 0                | 0                | 0                |
| Operating Line of Credit                         | 72,000           | 98,000           | 147,000          |
| <b>Total Current Liabilities</b>                 | <b>127,000</b>   | <b>160,000</b>   | <b>225,000</b>   |
| Long Term Debt                                   | 0                | 0                | 0                |
| <b>Total Liabilities</b>                         | <b>127,000</b>   | <b>160,000</b>   | <b>225,000</b>   |
| Common Stock                                     | 100,000          | 100,000          | 100,000          |
| Retained Earnings                                | 5,660,700        | 5,762,730        | 5,911,170        |
| <b>Total Stockholder Equity</b>                  | <b>5,760,700</b> | <b>5,862,730</b> | <b>6,011,170</b> |
| <b>Total Liabilities and Stockholders Equity</b> | <b>5,887,700</b> | <b>6,022,730</b> | <b>6,236,170</b> |

# Jackson Masonry

## Ratio Analysis

|                       |  | <u>industry average</u> |
|-----------------------|--|-------------------------|
| <b>Liquidity</b>      |  |                         |
| Current               | <u>CA</u><br>CL                                | 1.5                     |
| Quick                 | <u>cash + securities + AR</u><br>CL            | 1                       |
| Working Cap           | CA - CL  | na                      |
| <b>Leverage</b>       |  |                         |
| Debt to Assets        | <u>Total Debt</u><br>Total Assets              | 0.5                     |
| CL to Equity          | <u>CL</u><br>Equity                            | 0.25                    |
| <b>Coverage</b>       |  |                         |
| Debt Service Coverage | <u>income + depr</u><br>Current mat of LT debt | 0.33                    |
| TIE                   | <u>income + interest</u><br>interest exp       | 6                       |
| <b>Activity</b>       |  |                         |
| Days AR ratio         | <u>AR</u><br>Avg sales per day                 | 50                      |
| Days Inventory        | <u>Inv</u><br>Avg COGS per day                 | 125                     |
| Days Payable          | <u>AP</u><br>Avg purchases per day             | 40                      |
| <b>Profitability</b>  |  |                         |
| return on sales       | <u>net profit before tax</u><br>sales          | 0.25                    |
| return on assets      | <u>net profit before tax</u><br>assets         | 0.1                     |
| return on equity      | <u>net profit before tax</u><br>equity         | 0.15                    |



## Statements 2010 for Case 3

**Jackson Masonry****Income Statement**

| <b>Period Ending</b>    | <b>12/31/2007</b> | <b>12/31/2008</b> | <b>12/31/2009</b> | <b>2010 actual</b> |
|-------------------------|-------------------|-------------------|-------------------|--------------------|
| Sales                   | 2,450,000         | 2,560,000         | 2,480,000         | 2,059,856          |
| Cost of Goods Sold      | 1,183,600         | 1,259,000         | 1,028,000         | 938,500            |
| Gross Profit            | 1,266,400         | 1,301,000         | 1,452,000         | 1,121,356          |
| Operating Expenses      |                   |                   |                   |                    |
| Officers Compensation   | 550,000           | 590,000           | 630,000           | 630,000            |
| Rent Expense            | 12,000            | 12,000            | 12,000            | 12,000             |
| Bad Debt Expense        | 6,000             | 8,000             | 10,000            | 14,500             |
| Depreciation            | 185,700           | 195,400           | 212,000           | 333,710            |
| Sales and Admin Exp     | 269,000           | 278,000           | 296,000           | 302,185            |
| Operating Income (EBIT) | 243,700           | 217,600           | 292,000           | -171,039           |
| Interest Expense        | 15,000            | 17,500            | 26,000            | 133,508            |
| Interest Income         | 2,300             | 2,800             | 3,200             | 3,354              |
| Income Before Tax       | 231,000           | 202,900           | 269,200           | -301,193           |
| Income Tax              | 69,300            | 60,870            | 80,760            | 0                  |
| Net Income              | 161,700           | 142,030           | 188,440           | -301,193           |
| Dividends               | 40,000            | 40,000            | 40,000            | 40,000             |

## Jackson Masonry

### Balance Sheet

| Period Ending                                    | 12/31/2007       | 12/31/2008       | 12/31/2009       | 2010 actual      |
|--|------------------|------------------|------------------|------------------|
| <b>Current Assets</b>                            |                  |                  |                  |                  |
| Cash and Equivalents                             | 325,000          | 359,230          | 238,330          | 46,016           |
| Short Term Investments                           | 326,100          | 396,100          | 384,200          | 52,140           |
| Net Receivables                                  | 257,200          | 296,500          | 412,800          | 502,841          |
| Inventory  | 578,300          | 596,800          | 816,840          | 1,145,620        |
| Other Current Assets                             | 65,800           | 56,600           | 70,000           | 73,500           |
| <b>Total Current Assets</b>                      | <b>1,552,400</b> | <b>1,705,230</b> | <b>1,922,170</b> | <b>1,820,117</b> |
| <b>Gross Fixed Assets</b>                        |                  |                  |                  |                  |
| Less: Depreciation                               | 7,807,300        | 7,962,500        | 8,163,400        | 9,513,200        |
| <b>Net Property Plant and Equipment</b>          | <b>3,527,000</b> | <b>3,722,400</b> | <b>3,934,400</b> | <b>4,268,110</b> |
| <b>Other Long Term Assets</b>                    | <b>4,280,300</b> | <b>4,240,100</b> | <b>4,229,000</b> | <b>5,245,090</b> |
| <b>Total Long Term Assets</b>                    | <b>55,000</b>    | <b>77,400</b>    | <b>85,000</b>    | <b>86,540</b>    |
| <b>Total Assets</b>                              | <b>4,335,300</b> | <b>4,317,500</b> | <b>4,314,000</b> | <b>5,331,630</b> |
| <b>Current Liabilities</b>                       |                  |                  |                  |                  |
| Accounts Payable                                 | 55,000           | 62,000           | 78,000           | 94,210           |
| Current Due of Long Term Debt                    | 0                | 0                | 0                | 35,343           |
| Operating Line of Credit                         | 72,000           | 98,000           | 147,000          | 187,560          |
| <b>Total Current Liabilities</b>                 | <b>127,000</b>   | <b>160,000</b>   | <b>225,000</b>   | <b>317,113</b>   |
| <b>Long Term Debt</b>                            | <b>0</b>         | <b>0</b>         | <b>0</b>         | <b>1,164,657</b> |
| <b>Total Liabilities</b>                         | <b>127,000</b>   | <b>160,000</b>   | <b>225,000</b>   | <b>1,481,770</b> |
| <b>Common Stock</b>                              | <b>100,000</b>   | <b>100,000</b>   | <b>100,000</b>   | <b>100,000</b>   |
| <b>Retained Earnings</b>                         | <b>5,660,700</b> | <b>5,762,730</b> | <b>5,911,170</b> | <b>5,569,977</b> |
| <b>Total Stockholder Equity</b>                  | <b>5,760,700</b> | <b>5,862,730</b> | <b>6,011,170</b> | <b>5,669,977</b> |
| <b>Total Liabilities and Stockholders Equity</b> | <b>5,887,700</b> | <b>6,022,730</b> | <b>6,236,170</b> | <b>7,151,747</b> |