

## **Jackson Masonry loan relationship: A case in commercial bank lending**

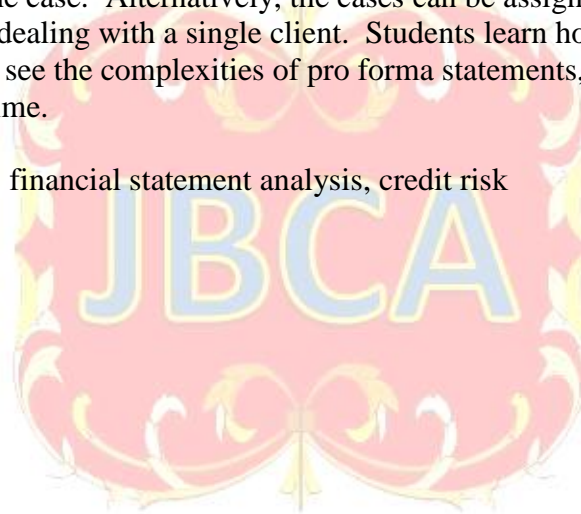
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### **ABSTRACT**

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, they see the complexities of pro forma statements, and they experience how credit risk changes over time.

Keywords: bank lending, financial statement analysis, credit risk



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## **PART 1: ANNUAL LOAN REVIEW**

**Current Date: Early January 2010**

Jackson Masonry Incorporated is a producer of masonry products. 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 \$400 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. 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 each 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 120 production workers, and a management and sales team of around 15, 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 a high quality product, and offers employees a generous pay and benefits package compared to other area manufacturers. William also notes that the company has not had to lay off a worker at any point since the company began operations.

Assume you a newly hired junior loan officer and will be assisting Mr. Berry with this client. 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 \$15,000. 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 2007 to 2009 are listed in the Appendix.

## Assignment 1

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 economic factors may impact sales and profits of Jackson Masonry?
3. What are the main concerns (if any) that you and 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 PNB renew the line of credit? Justify your position.

## PART 2: NEW LOAN REQUEST

**Current date: Late January 2010**

During a recent visit to Jackson Masonry, both you and Joseph Berry met with William and Billy Jackson. The Jacksons 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 fully supports this new structure.

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 PNB 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 \$750,000 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 \$60,000. On the balance sheet, fixed assets will increase by \$1.2 million for the new kilns, there is no change expected 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 in its portfolio.

## **Assignment 2**

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 Discuss**

1. What are the strengths and weaknesses of this credit request?
2. What are the main concerns (if any) that you and Mr. Berry may have at this point? Will the new kilns address these concerns?
3. What is your confidence level with the projections?
4. Does converting the kilns appear to be a value-adding project for Jackson Masonry? How would you analyze this?
5. Are you comfortable with the collateral offered for the loan?
6. What other issues should be addressed; what questions do you have for Jackson Masonry?
7. 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 2010. 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 was the original loan officer for this credit, but he has since retired and you are responsible for managing the loan. You have 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 you 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 expected. 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 ups and downs, 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 sell). In order to finance the resulting increase in working capital, Jackson Masonry has requested a temporary increase in their line of credit to \$300,000. 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.

You also discussed projections for 2011. Billy believes that sales will rebound to 2009 levels, while COGS will fall to \$800,000. 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 \$60,000. 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 2009 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 3**

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 Discuss**

1. What are the strengths and weaknesses of this credit request?
2. What are the main concerns (if any) that you 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?
4. What would happen if the line of credit increase is not granted?
5. What is your comfort level with company projections? What are the main sources of cash for 2011?
6. Is cash flow a concern for this company?
7. Based on the analysis, should PNB grant the loan? Justify your position.

**APPENDIX: FINANCIAL STATEMENTS****Statements through 2009 for Parts 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	2,275,250
Cost of Goods Sold	1,183,600	1,259,000	1,028,000
Gross Profit	1,266,400	1,301,000	1,247,250
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	105,700	115,400	119,520
Sales and Admin Expense	269,000	278,000	296,000
Operating Income (EBIT)	323,700	297,600	179,730
Interest Expense	7,540	9,160	13,850
Interest Income	6,185	6,842	4,868
Income Before Tax	322,345	295,282	170,748
Income Tax	96,704	88,585	51,224
Net Income	225,642	206,697	119,524
Dividends	60,000	60,000	60,000

Jackson Masonry  
Balance Sheet

Period Ending	12/31/2007	12/31/2008	12/31/2009
<b>Current Assets</b>			
Cash and Equivalents	125,000	173,897	203,951
Short Term Investments	326,100	426,100	371,250
Net Receivables	157,200	226,500	272,800
Inventory	378,300	396,800	446,840
Other Current Assets	65,800	56,600	70,000
<b>Total Current Assets</b>	<b>1,052,400</b>	<b>1,279,897</b>	<b>1,364,841</b>
<b>Gross Plant and Equipment</b>			
Less: Depreciation	4,907,300	4,962,500	5,113,400
<b>Net Property Plant and Equipment</b>	<b>2,380,300</b>	<b>2,320,100</b>	<b>2,351,480</b>
<b>Other Long Term Assets</b>	<b>55,000</b>	<b>67,400</b>	<b>75,600</b>
<b>Total Long Term Assets</b>	<b>2,435,300</b>	<b>2,387,500</b>	<b>2,427,080</b>
<b>Total Assets</b>	<b>3,487,700</b>	<b>3,667,397</b>	<b>3,791,921</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
Other Current Liabilities	0	0	0
<b>Total Current Liabilities</b>	<b>127,000</b>	<b>160,000</b>	<b>225,000</b>
<b>Long Term Debt</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Liabilities</b>	<b>127,000</b>	<b>160,000</b>	<b>225,000</b>
<b>Common Stock</b>	<b>100,000</b>	<b>100,000</b>	<b>100,000</b>
<b>Retained Earnings</b>	<b>3,260,700</b>	<b>3,407,397</b>	<b>3,466,921</b>
<b>Total Stockholder Equity</b>	<b>3,360,700</b>	<b>3,507,397</b>	<b>3,566,921</b>
<b>Total Liabilities and Stockholders Equity</b>	<b>3,487,700</b>	<b>3,667,397</b>	<b>3,791,921</b>

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### Jackson Masonry Ratio Analysis

#### Liquidity Ratios

		<u>industry average</u>
Current	$\frac{\text{current assets}}{\text{current liabilities}}$	1.5
Quick	$\frac{\text{cash} + \text{securities} + \text{AR}}{\text{current liabilities}}$	1
Working Capital	current assets – current liabilities	na

#### Leverage Ratios

Debt to Assets	$\frac{\text{total debt}}{\text{total assets}}$	0.5
Current Liabilities to Equity	$\frac{\text{current liabilities}}{\text{equity}}$	0.25

#### Coverage Ratios

Debt Service Coverage	$\frac{\text{income} + \text{depreciation}}{\text{current maturities of LT debt}}$	0.33
Times Interest Earned	$\frac{\text{income} + \text{interest}}{\text{interest expense}}$	6

#### Activity Ratios

Days Accounts Receivable	$\frac{\text{account receivable}}{\text{average sales per day}}$	25
Days Inventory	$\frac{\text{inventory}}{\text{average COGS per day}}$	125
Days Payable	$\frac{\text{accounts payable}}{\text{average purchases per day}}$	25

#### Profitability Ratios

Return on Sales	$\frac{\text{net profit before tax}}{\text{sales}}$	0.25
Return on Assets	$\frac{\text{net profit before tax}}{\text{assets}}$	0.1
Return on Equity	$\frac{\text{net profit before tax}}{\text{equity}}$	0.20



**2010 STATEMENTS FOR PART 3**

Period Ending	Jackson Masonry Income Statement			
	12/31/2007	12/31/2008	12/31/2009	2010 actual
Sales	2,450,000	2,560,000	2,275,250	2,159,856
Cost of Goods Sold	1,183,600	1,259,000	1,028,000	938,500
Gross Profit	1,266,400	1,301,000	1,247,250	1,221,356
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	105,700	115,400	119,520	333,710
Sales and Admin Exp.	269,000	278,000	296,000	302,185
Operating Income	323,700	297,600	179,730	-71,039
Interest Expense	7,540	9,160	13,850	133,508
Interest Income	6,185	6,842	4,868	3,354
Income Before Tax	322,345	295,282	170,748	-201,193
Income Tax	96,704	88,585	51,224	0
Net Income	225,642	206,697	119,524	-201,193
Dividends	60,000	60,000	60,000	60,000

Jackson Masonry  
Balance Sheet

Period Ending	12/31/2007	12/31/2008	12/31/2009	2010 actual
<b>Current Assets</b>				
Cash and Equivalents	125,000	173,897	203,951	169,087
Short Term Investments	326,100	426,100	371,250	152,140
Net Receivables	157,200	226,500	272,800	502,841
Inventory	378,300	396,800	446,840	585,620
Other Current Assets	65,800	56,600	70,000	73,500
<b>Total Current Assets</b>	<b>1,052,400</b>	<b>1,279,897</b>	<b>1,364,841</b>	<b>1,483,188</b>
<b>Gross Fixed Assets</b>	<b>4,907,300</b>	<b>4,962,500</b>	<b>5,113,400</b>	<b>6,313,400</b>
Less: Depreciation	2,527,000	2,642,400	2,761,920	3,095,630
<b>Net Property Plant and Equipment</b>	<b>2,380,300</b>	<b>2,320,100</b>	<b>2,351,480</b>	<b>3,217,770</b>
Other Long Term Assets	55,000	67,400	75,600	86,540
<b>Total Long Term Assets</b>	<b>2,435,300</b>	<b>2,387,500</b>	<b>2,427,080</b>	<b>3,304,310</b>
<b>Total Assets</b>	<b>3,487,700</b>	<b>3,667,397</b>	<b>3,791,921</b>	<b>4,787,498</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
Other Current Liabilities	0	0	0	0
<b>Total Current Liabilities</b>	<b>127,000</b>	<b>160,000</b>	<b>225,000</b>	<b>317,113</b>
Long Term Debt	0	0	0	1,164,657
<b>Total Liabilities</b>	<b>127,000</b>	<b>160,000</b>	<b>225,000</b>	<b>1,481,770</b>
Common Stock	100,000	100,000	100,000	100,000
Retained Earnings	3,260,700	3,407,397	3,466,921	3,205,728
<b>Total Stockholder Equity</b>	<b>3,360,700</b>	<b>3,507,397</b>	<b>3,566,921</b>	<b>3,305,728</b>
<b>Total Liabilities and Stockholders Equity</b>	<b>3,487,700</b>	<b>3,667,397</b>	<b>3,791,921</b>	<b>4,787,498</b>