

Financial Statement Analysis

A Two Minute Drill

••This article first appeared in the November 1983 issue of *The Journal of Commercial Bank Lending*, forerunner of *The RMA Journal*. The original introduction promised "a two-minute drill which allows a loan officer to get a clear picture of the company's financial strengths and weaknesses...."

BY WILLIAM L. STONE

COMMERCIAL LOAN OFFICERS often find themselves in situations calling for a quick appraisal of a financial statement. Some loan requests can be declined in short order because the financial statements reflect an applicant's weak condition. But in less obvious cases, loan officers must have the skill to focus on factors that would reveal the fruitlessness of further discussions. More important, they should be able to develop pertinent questions that zero in on the problem areas of a company's operation as revealed by a brief analysis of the financial statements.

It is not uncommon for a loan applicant to present a loan officer with two or three years of financial statements in support of an application being presented verbally. The loan officer does not have the luxury of analyzing the statements thoroughly while the applicant patiently sits in silence. The applicant, of course, is anxious and apprehensive about laying out the company's financial history to the banker.

Most applicants can tolerate a minute or two of idleness while the loan officer reviews the statements. The limit, however, is about two minutes.

Within that two-minute period, the loan officer should be able to make an analysis that is thorough enough to reveal the company's problem areas, on which the subsequent questioning should focus. This article will explain how those two minutes can be spent most efficiently so that the loan officer will have a clear picture of the company's financial strengths and weaknesses.

Cautions

Several cautions, while obvious, require emphasis. First, the two-minute drill presented here should not be taken as a substitute for a thorough analysis of the credit once the applicant has left the bank. Loan officers should not permit themselves to fall into the trap of thinking that they

have completely analyzed the financial statements once they have completed the two-minute drill.

Second, the analysis suggested here does not concern itself with nonfinancial factors such as management quality, market, products, prospects, the economy, and other factors crucial to the success of every business. This system of

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analysis relates only to relationships of figures on the financial statements.

Third, since speed is of the essence in this analysis, rough rounding-off is recommended. For example, \$93,439 may be appropriately rounded off to

\$90,000 or even \$100,000. Further, it is not important to scrutinize the classification of assets and liabilities as current or noncurrent. If, for instance, the statement shows prepaid assets of \$18,713 as a current asset and it is your bank's practice to treat prepaid assets as noncurrent, it is not important to adjust the current assets as shown on the statement unless the amount is unusually large. One could argue that accuracy will suffer at the expense of speed—but, as will be seen, we will work with estimates as indications of problem areas.

And finally, in this writer's experience, there appear to be some differences throughout the country about standards of liquidity, leverage, and profitability. Readers should establish their own standards if those suggested here are significantly different from their own. Keep in mind, however, that the standards presented here lend themselves to the computations.

Six Standards for Comparison

Three ratios—current, debt to worth, and net profit margin—and three turnovers—receivables, inventory, and payables—form the basis of the two-minute drill. These six relationships (turnovers are often referred to as ratios, but in the strictest sense they are not) were selected for several reasons:

1. They are important indicators of a company's financial condition.
2. Taken together, they indicate three important areas for credit purposes: liquidity, leverage, and profitability.
3. They establish a standard that is easy to compute and against which a company's performance can be measured.

The third factor is essential to this system of analysis. Loan officers often hedge on the subject of an acceptable or unsatisfactory figure for a given ratio with the comment that "every business is different." While it is true that every

Table 1

Wobbly Widgets, Inc.
Balance Sheet, December 31, 2010

Assets	
Cash	\$18.3
Accounts Receivable	248.6
Inventory	77.4
Prepaid Assets	<u>10.0</u>
Current Assets	354.3
Fixed Assets (net)	<u>210.0</u>
Total Assets	<u>\$564.3</u>
Liabilities and Net Worth	
Accounts Payable	\$87.8
Notes Payable	32.0
Current Portion Term Debt	22.6
Accrued Liabilities	<u>13.7</u>
Current Liabilities	156.1
Term Debt	<u>110.0</u>
Total Liabilities	266.1
Net Worth	<u>298.2</u>
Total Liabilities & Net Worth	<u>\$564.3</u>
Profit and Loss Statement	
For the 12-Month Period Ended December 31, 2010	
Sales	\$1,314.6
Cost of Goods Sold	<u>739.2</u>
Gross Profit	575.4
Operating Expenses	<u>448.1</u>
Operating Profit	127.3
Income Taxes	<u>53.6</u>
Net Income	<u>\$73.7</u>

business is different, it is also true that the performance of a wide range of companies can be compared to a series of standards in an effort to establish a line of inquiry for the loan officer. The point, of course, is that management may have an entirely reasonable explanation for the company's performance being substantially different from the standard. If, however, the loan officer did not have the standard as a means of comparison, the difference in the company's operation might not have been revealed.

By comparing the company's three ratios and three turnovers to the standards explained here, we can quickly determine which areas of the company's operation require further inquiry. The advantage of this system is that after studying the statements for less than two minutes, loan officers will be able to ask some pertinent questions about the business in the initial interview, even if they have never seen the applicant or the statements before.

Table 1 shows a summary balance sheet and profit and loss statement for Wobbly Widgets, Inc., which we will

use as the statement to be analyzed. Each of the ratios and turnovers will be discussed, the standard for each will be established, and the fastest method for mentally computing the ratio or turnover will be explained. Since the use of even a small hand calculator might intimidate the applicant, it is recommended that the loan officer develop the skill to make the computations mentally. After some practice, it becomes easier to make the calculations mentally than with a calculator.

Current Ratio

The generally accepted standard for the current ratio—current assets divided by current liabilities—is 2.0. In practice, a current ratio of 2.0 appears to be more of a goal, or comfort figure, than a minimally accepted standard, but it does serve as a good figure to use as a standard.

To compute the current ratio mentally, it is best to look first at the figure for current liabilities, round it off, and double that amount. For Wobbly Widgets, current liabilities rounded off is 160. Twice 160 is 320. If current assets were 320, the current ratio would be 2.0. Current assets, though, total 354.3. An estimate of the current ratio is therefore 2.1. If current assets were between 160.0 and 320.0, the current ratio would be between 1.0 and 2.0.

The lending officer must estimate the current ratio, but it is important to recognize that the precise calculation is simply irrelevant. Rather, we wish to estimate the current ratio (and all of the other ratios presented here) as an indication of whether there is a problem in the company's financial health. Once you have estimated the current ratio, jot it down (see Table 2) and go on to the next ratio, keeping in mind that a current ratio of 2.1 indicates a satisfactory position.

Notice that we looked at current liabilities before current assets. The rationale for this approach is that it is easier to double a number than it is to divide it by two. If we looked at current assets first, we would have to divide it by two, mentally, to establish a point of reference. Certainly, we could use that approach, but since our overriding objective is to make the analysis quickly, we should pick the easiest type of computation. In this case, multiplying is easier than dividing.

Debt-to-Worth Ratio

As with the current ratio, the standard for the debt-to-worth ratio is 2.0. However, of the six relationships we will study, this one generates the greatest disagreement about the standard. Some banks will probably not entertain the application of a company whose ratio is as high as 2.0, whereas other banks consider 4.0 an acceptable figure.

First, look at total liabilities. On most CPA-prepared statements, a total liabilities figure is not shown, so the first step is to add up current liabilities and noncurrent

Table 2

Sample Worksheet		
	2008	2009
CR		2.1
D/W		0.9
NPM		5%
ART/O		70
INVT/O		40
APT/O		45

liabilities. Second, is the figure for total liabilities greater or less than net worth? (Compute and use tangible net worth if there is a significant amount of intangible assets.) If total liabilities and net worth are approximately the same, determine whether the ratio should be 0.9 or 1.1, jot it down, and go on to the next ratio. If total liabilities are significantly more than net worth, round off the net worth figure and double it. What, then, is the relationship between total liabilities and two times net worth? The process is one of narrowing down total liabilities to an approximate multiple of net worth.

In the case of Wobbly Widgets, net worth is slightly more than total liabilities, so the approximate ratio is 0.9. If total liabilities were 512.0, for example, we would estimate debt to worth at 1.7 ($500 \div 300$), indicating that total liabilities were somewhat less than twice net worth. Again, jot down the estimated debt-to-worth figure and go on to the next ratio.

Net Profit Margin

The generally accepted average for net profit margin—net profit divided by net sales—is 5%, which will serve as a good standard for our purposes. The computation of the net profit margin is the most difficult relationship to compute mentally. The first step is to round off net sales. In the case of Wobbly Widgets, we should use 1,300 as the sales figure. The next step is to move the decimal point

two places to the left, or 13 in this case. If net profit were 13, then the net profit margin would be 1%. In our case, net profit is significantly more than 13.

Two approaches are possible at this point. The first one is to move the decimal point on the sales figure one place to the left, or 130, which represents 10% net profit, and compare it to the actual figure. A second approach is to divide 13 into 70. In Wobbly's case, 13 cannot be easily divided into 70 mentally, so we should return to the first approach. We observe that the actual figure, 70, is well below the 10%

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figure of 130. Half of 130, or 10% of sales, is 65, which would represent 5% of sales. Since our net profit figure is 70, net profit is approximately 6% of sales. The actual net profit margin ($73.7 \div 1,314.6$) is 5.61%, which makes our 6% estimate correct for our purposes.

Again, the mental computation of the net profit margin is the most difficult of the six relationships discussed here.

Without going through an exercise such as the two-minute drill, loan officers will have difficulty knowing which line of inquiry to pursue.

In this writer's experience, the computation is often intimidating to many people, particularly those who do not feel proficient in math. In this case, however, the concept is not difficult; it is the mechanics that cause the difficulty.

Once the concept is understood, practice is all it takes to make a reasonably accurate and quick estimate of the net profit margin.

Accounts Receivable Turnover

The accounts receivable turnover compares accounts receivable to sales. Generally, it is assumed that all sales are on a credit basis. If loan officers have information to the contrary, they should adjust the sales figure accordingly to reflect only credit sales.

There are several ways to compute the accounts receivable turnover. The computation used here will be accounts receivable divided by sales times the number of days in the period covered by the profit and loss statement. For annual statements, 360 days is used as the number of days in a year. The other turnovers are computed in the same manner. The resulting answer is expressed in days and is intended to represent the average amount of time that each dollar of receivables (and inventory and payables) stays on the books.

From time to time, significant variances occur in these accounts in a given company and within industries. Furthermore, the figure shown on the balance sheet may or may not be representative of the average level of receivables (or inventory or payables) during the year. These possible distortions notwithstanding, we can establish our standard for all three turnovers as 36 days. As a practical matter, 36 days would generally indicate a very favorable turnover, which should be considered when comparing the actual figures to our standard.

Since the computation of the turnovers is a two-step process, mental computation would be very difficult. But we can simplify the process. First, round off the sales figure and move the decimal one place to the left. The resulting number, 130 in Wobbly's case, represents 10% of sales. Since annual sales, 1,300 for Wobbly, represent

360 days of sales, receivables of 130 would represent 36 days of sales.

Second, compare the 10% of sales figure (130) to accounts receivable. Wobbly's accounts receivable are 248.6, or almost twice as much as the 10% figure. Therefore, accounts receivable are remaining on the books for an average of slightly less than the 72 days. This writer recommends rounding off turnovers to multiples of five days. In this case, if Wobbly's accounts receivable were 125.0, then 35 days would be a reasonable estimate. If they were 300.0, then 80 days—slightly more than twice 36 days—would be a reasonable estimate.

Inventory Turnover

As noted above, the computation of the inventory turnover is similar to the accounts receivable turnover. The only difference is that inventory is compared to cost of goods sold. The computation is otherwise the same. First, round off cost of sales and move the decimal one place to the left. The resulting number, 74 in Wobbly's case, represents 10% of the cost of sales. If seasonal factors are disregarded, the first 74 of the cost of sales expense should be incurred in the first 10%, or 36 days, of the year. So if Wobbly's inventory were 74, we could conclude that the company had inventory on hand 36 days.

Such a conclusion presumes one additional factor. The inventory (and accounts payable) turnover should compare inventory (and accounts payable) to purchases. In a number of cases, however, the purchases figure is not available. In other cases, it can be found only in a supplemental schedule or in the footnotes. Further, over the period of a year, the difference between purchases and cost of sales does not generally vary significantly. As a result, most analysts use the cost of sales when computing inventory and accounts payable turnovers. For our purpose, the accuracy achieved in using the purchases figure will usually not justify the time required to find that figure.

In the case of Wobbly, inventory is slightly more than 10% of cost of sales, so we can estimate Wobbly's inventory turnover to be 40 days. If inventory were 150, we would estimate the turnover to be 50 days. The key element of the computation is to compare 10% of the annual cost of sales to the actual inventory figure, remembering that 10% of the annual cost of sales represents 36 days.

Accounts Payable Turnover

To estimate the accounts payable turnover, compare the same 10% of the annual cost of sales figure to actual accounts payable and estimate the turnover. If, for example, the accounts payable figure were 74, we would conclude that, on average, accounts payable are paid when they are 36 days old. In Wobbly's case, accounts payable total 88, so we would estimate the turnover to be 45 days.

Analysis

Loan officers can benefit from using a simple worksheet that looks like Table 2.

A quick glance at Table 2 reveals that the company's financial condition for 2010 is pretty much in line except for the accounts receivable. Many loan officers fall into the trap of stopping once such a table, or a spreadsheet, is completed. On the contrary, no analysis has been accomplished at this point. The numbers have no meaning until the loan officer understands what they indicate. What, for instance, do the numbers in Table 2 suggest about the company's liquidity, leverage, and profitability? What problems—and therefore which areas of further inquiry—are indicated by the numbers in Tables 1 and 2?

Without going through an exercise such as the two-minute drill, loan officers will have difficulty knowing which line of inquiry to pursue. The two-minute drill offers the opportunity to focus on areas of apparent weakness. An additional benefit is that the applicant realizes right away that the loan officer "understands" the applicant's business. After only a brief review of the statements, the loan officer can ask the applicant direct, pertinent questions—for example: "What is your difficulty in collecting the money

owed to you? Do you have a lot of obsolete inventory? Are you being pressured by your trade creditors to bring your payables current?"

Conclusion

It is worth reemphasizing the cautions listed at the beginning of this article. Briefly, the two-minute drill is not intended to be a substitute for a thorough analysis of a credit. Rather, it provides quick estimates of several important financial relationships that can serve as a basis for inquiries in the early stages of the application process.

Initially, the shortcuts presented here might appear too complex to be of any value, but indeed they are not. With practice, loan officers should be able to complete the two-minute drill for a single statement in less than two minutes. Having developed that skill, they will be able to conduct more effective and productive initial interviews and have a greater level of self-confidence in dealing with applicants. Try it. It will work. ♦



When this article appeared in 1983, William L. Stone was a vice president at Bank of the West, San Jose, California.



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 Portfolio Full Name: All Loans - All Loan Cuts
 Loan Count: 171
 Outstanding \$: \$1.1B

Weighted Average Interest Rate
 Total Annual Payment
 Total Collateral Value
 Net Income (before taxes)

ATV
 Below 0.7
 From 0.7 to 0.9
 From 0.9 to 1
 From 1 to 1.25
 From 1.25 and above
 N/A

DCSR
 Below 0.7
 From 0.7 to 0.9
 From 0.9 to 1
 From 1 to 1.25
 From 1.25 and above
 N/A

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