

BUSINESS RATIOS

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SIGNIFICANT RATIOS FOR BUSINESSES

Ratio analysis allows the reader of a company’s financial statements to compare and contrast the balance sheet and income statement relationships. Ratio analysis can reveal unusual fluctuations that may not be readily apparent by reading a balance sheet or an income statement by itself. **The more significant ratios for businesses are liquidity ratios, turnover ratios, leverage ratios and profitability ratios.**

A. Liquidity Ratios

Liquidity ratios measure the short-term ability of a company to pay its maturing obligations and to meet unexpected needs for cash. Short-term creditors such as bankers and suppliers are particularly interested in assessing liquidity.

- **Current ratio = Current assets / Current liabilities**

This liquidity ratio is a rough measure of the entity’s ability to pay off its current debts as they come due. It is the simplest and most popular measure of short term solvency. A current ratio of 2-to-1 is generally considered adequate. This means that for each \$1 of current liabilities, there are \$2 in current assets.

A “high” current ratio indicates there is a cushion to pay down debts. It means that current assets will mature in time to allow timely payment of current liabilities. A “low” current ratio signals inability to pay on time and may be a “red flag” for possible going concern problems.

An unusual fluctuation in the ratio may signal obsolete or overvalued inventories; changes in accounts receivable balances; for example, older receivables or larger allowance for doubtful accounts; increases in short-term debt, improper classifications of current assets and/or liabilities.

Generally, companies that have a small inventory and accounts receivable that are quickly collectible can operate safely with a lower current ratio than companies having a greater proportion of their current assets in inventory and that sell their products on extended credit items.

- **Acid test ratio (or quick ratio) = Quick assets / Current liabilities**

(Quick assets = Cash, Marketable Securities and Net Receivables)

Quick assets are assets available to cover a sudden emergency - assets that could be taken to the bank right away, if necessary. They are the current assets that can be quickly convertible to cash. Like the current ratio, this ratio measures the entity's ability to pay off its current liabilities without relying on inventory liquidation. It is a more pure and strict liquidity ratio than the current ratio. This ratio is a very conservative measure of liquidity and demonstrates the company's ability to meet sudden, unplanned, unexpected calls against current assets.

A high quick ratio is favorable since it would indicate that current liabilities are comfortably covered by the liquid assets. A 1 to 1 ratio is adequate. However, sometimes bank compensating balance requirements or pledged receivables can make the ratio misleading. Additionally, a high ratio may be a red flag to an "accumulated earnings" problem. A ratio of less than 1 to 1 is an indication that the company has to rely on inventory and other current assets to pay down short term debts.

Unusual fluctuations in the ratio could be the result of changes in the accounts receivable balance, changes in short-term debt, or improper current/non-current asset classifications.

The trend in liquidity ratios should be analyzed along with the trend in turnover ratios. An increasing current ratio accompanied by decreasing quick and inventory turnover ratio may indicate that inventory has built-up and/or inflated year-end inventories are on hand.

- **Working capital ratio = (Current assets - current liabilities) / Total assets**

Working capital is the difference between total current assets and total current liabilities. Current liabilities are debts due within one year of the balance sheet date. These debts are paid from current assets. Working capital represents the amount of current assets remaining after all current debts are paid.

This liquidity ratio measures the liquidity of total assets. It shows what percentage of the total assets are current. The comparison of this ratio over time can indicate changes in the components of the company's asset structure. The ratio will differ significantly from capital intensive companies to labor intensive companies.

A high ratio indicates that a good deal of assets are invested in current assets. High ratios are associated with service type companies. A low ratio indicates a greater investment in non-current assets like buildings and equipment. Low ratios are associated with capital intensive companies. This trend should be watched. The ratio is particularly helpful in pinpointing changes in company behavior with respect to investments in property, plant and equipment (PP&E). Sudden reductions in asset replacements or other investments in PP&E are often immediately pinpointed by this sensitive ratio.

B. Turnover (Activity) Ratios

Turnover ratios are activity ratios. They show the length of time it takes to convert from one account in the operating cycle to another. (For example, how long it takes between the sale of inventory and actual collection of cash). Turnover ratios measure the efficiency with which the business uses its short term economic resources. The higher the turnover, the quicker the cycle is completed (i.e. fast collection of cash). **Turnover ratios should be viewed in relationship to liquidity ratios.** They give insight about the quality of working capital. For example, a “good” (high) current ratio might include inventory that is slow moving. The high current ratio leads one to believe there is good liquidity, but the truth is it will take time to realize the cash when the inventory is sold.

- **Receivables turnover = Credit sales / Average net receivables**

This ratio indicates how fast the company collects its credit sales. It shows how fast the debit to accounts receivable becomes cash. It highlights the efficiency of cash collection activities and the effectiveness of the credit policies. **Unusual fluctuations may indicate changes in credit policies or poor cash collection techniques. A low turnover means collections of cash is slow.** This might be the result of questionable receivables and is an indicator that the allowance for uncollectibles should be further scrutinized.

Turnover trends usually have a direct relationship with overall economic conditions. If the economy is “soft”, turnover normally declines. If there are turnover problems, the accountant should prepare an aging of Accounts Receivable to identify specific delinquent customers.

- **Days sales in accounts receivable = 360 / Receivables turnover**

This ratio, also known as Days' sales outstanding or average collection period, shows the average number of days receivables are on the books. At any point in time, it reflects the average age of the credit receivables. Obviously, current or new receivables are better than non-current or old receivables. Thus, a smaller number here is favorable. It reflects the effectiveness of the company's collection and also the credit risks taken. **If the company's credit policy is 30 days and it takes 80 days to collect its accounts receivable, this would indicate a problem.**

- **Inventory turnover = Cost of sales / Average inventory**

This ratio shows how fast a company can sell its inventory. **It is also a measure of the company's inventory management skills.** A “low” ratio is an indication of problems. It could indicate that cash is being tied up in excessive inventory levels or inventory quality is poor. A “high” ratio indicates that the company sells its average level of inventory very often during the year.

It is indicative of a company that it is efficiently using its purchasing, receiving and selling functions. With a “high” ratio, the risk of having too much inventory is minimal.

How much inventory should a company have on hand? That depends on a combination of many factors including the type of business and the time of the year.

A high ratio, however, might be an indicator of inventory shortages. These ratios vary by industry. Wendy’s or McDonald’s should have a high inventory turnover while a retail jewelry store would have a low inventory turnover.

If information on inventory turnover is not readily available in some published statements, you should look for sales related to inventory.

‘Inventory as a percentage of current assets’ is another comparison that can be made.

- **Days inventory = 360 / Inventory turnover**

This gives an approximation of how long inventory is on hand. **It is especially important in industries where fashion and changing tastes is a concern.** A high number indicates the inventory is old. A low number indicates it is relatively new and capable of being sold.

- **Accounts payable turnover = Cost of Goods Sold / Average accounts payable**

This ratio shows how quickly the company pays its bills. It provides an indication on how the company manages extended vendor credit. It shows the time between purchases on account and cash payment. **A low turnover may indicate that the company is having financial problems. A high turnover may indicate that bills are being paid too rapidly.** This ratio is important to watch because sudden cash squeezes are quickly reflected in the ratio.

The accounts payable turnover is sensitive to cash flows. It must be analyzed in conjunction with the accounts receivable turnover ratio. **An increase in the accounts receivable turnover generally causes a decrease in the accounts payable turnover and vice versa.** The accounts payable turnover is useful in designing the search for unrecorded liabilities test. If the turnover has not changed, you may be able to shorten the length of the search. On the other hand, a high turnover that is unexpected may require a lengthening of the search.

- **Average number of days vendor credit is provided = 360 / Accounts payable turnover**

This ratio provides an indication about vendor credit terms, payments of vendor invoices, cash flow problems, changes in purchase discount terms, and changes in purchase returns. It shows the average age of vendor credit. A high number means the outstanding vendor credit is old. This is not favorable. A low number shows that vendor credit is being paid currently.

C. Leverage Ratios

Leverage ratios measure the ability of the company to survive over a long period of time. Long-term creditors and stockholders are particularly interested in a company's ability to pay interest as it comes due and to repay the face value of debt at maturity.

If leverage is used correctly, it can greatly enhance the return to stockholders.

- **Debt to equity = Total debt ÷ Total equity**

This is a leverage ratio that indicates the extent to which the entity is financed by borrowings or equity. It is a good indicator of credit worthiness. A high ratio is an indication that a great deal of the financing is coming from lenders, not owners. The higher the ratio, the greater the risk assumed by creditors. This means debt service (interest) could become a problem.

A debt to equity ratio of .95 means the company is using 95 cents of liabilities for every dollar of shareholders' equity in the business. Normally, industrial companies try to remain below a maximum of a 1-to-1 ratio, to keep debt at a level that is less than the investment level of the owners of the business. Utilities, service, and financial companies operate with much higher ratios.

A ratio greater than 1, indicates a negative equity position. A greater proportion of equity is less risky. **If there is more debt, then the company has more fixed interest charges. If there is an economic downturn and earnings slow, the company may have a serious problem meeting its principal and interest payments.**

- **Debt-Service Coverage Ratio (DSCR) = Net Operating Income / Total Debt Service**

DSCR is the amount of cash flow available to meet annual interest and principal payments of debt. A DSCR of less than 1 would mean a negative cash flow. A DSCR of 0.95 would mean that there is only enough net operating income to cover 95% of annual debt payments.

- **Cash flow to total debt = Net cash flow from operations / Total debt**

This ratio measures the length of time it will take the company to pay its total debt using only its cash flow. This assumes all the cash flow would be used to pay off the debt, which is not realistically possible for a company to devote all of its cash flow in this way. This ratio is used as a "what-if" scenario as a basis to compare company results.

A high ratio is usually a positive sign, showing the company is in a less risky financial position and better able to pay its debt load.

- **Times interest earned or Interest coverage ratio = Earnings before interest and taxes (EBIT) / Interest Expense**

This leverage ratio measures the company's ability to meet its borrowing costs (i.e. the company's ability to pay interest expense). It indicates the extent to which earnings can drop without default on obligations due to the company's inability to meet interest charges.

The lower the ratio, the more the company is burdened by debt expense. **When a company's interest coverage ratio is 1.5 or lower, its ability to meet interest expenses may be questionable.** An interest coverage ratio below 1 indicates the company is not generating sufficient revenues to satisfy interest expenses.

- **Fixed coverage ratio = (EBIT + Lease obligations) / (Interest + Lease obligations)**

This leverage ratio shows whether earnings are sufficient enough to cover fixed costs (interest and leasing costs). A "low" ratio indicates possible problems if additional interest or leasing costs would be incurred.

- **PP&E to Net worth = Net property, plant and equipment / Total net worth**

This leverage ratio indicates the proportion of net property, plant and equipment to equity. It shows how much of the property, plant and equipment are financed by owner's contributions and earnings. It is similar to the working capital ratio. It shows how much of the owners' equity is in PP&E.

**ABC Company
Leverage and ROE**

	<u>Alternative Financial Structures</u>			
	<u>Present</u>	<u>1</u>	<u>2</u>	<u>3</u>
Total Assets	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000
Total Liabilities (10% annual cost)	-	200,000	500,000	800,000
Stockholders' Equity	<u>\$ 1,000,000</u>	<u>\$ 800,000</u>	<u>\$ 500,000</u>	<u>\$ 200,000</u>
Earnings Before Interest Costs	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000
Interest Cost	-	20,000	50,000	80,000
Earnings	<u>\$ 150,000</u>	<u>\$ 130,000</u>	<u>\$ 100,000</u>	<u>\$ 70,000</u>
Return on Stockholders' Equity	<u>15%</u>	<u>16.25%</u>	<u>20%</u>	<u>35%</u>

**The Fairly Accurate Construction Company
Debt vs. Equity Financing for Expansion**

	<u>Present</u>	<u>Equity Financing</u>	<u>Debt Financing</u>
Total Assets	\$ 1,000,000	\$ 1,500,000	\$ 1,500,000
Total Liabilities	500,000	500,000	1,000,000
Stockholders' Equity	<u>\$ 500,000</u>	<u>\$ 1,000,000</u>	<u>\$ 500,000</u>
Earnings before Interest (15% of average investment in assets)	\$ 150,000	\$ 225,000	\$ 225,000
Less: Interest Expense	(50,000)	(50,000)	(100,000)
Net Earnings	<u>\$ 100,000</u>	<u>\$ 175,000</u>	<u>\$ 125,000</u>
Return on Equity	<u>20%</u>	<u>17.5%</u>	<u>25%</u>

D. Profitability Ratios

Profitability ratios are overall company indicators and are common tools used by company management to keep a “handle” on operations. Unusual changes in the ratios can be attributed to changes in accounting policies, credit policies, marketing policies, collection policies, purchasing policies, etc.

Ratios fluctuate based on the age and maturity of the company.

- **Return on total assets (ROA) = Net income / Total assets**

This ratio measures the overall operating performance of the company. It shows the company's success in using its assets to earn profit. When analyzing ROA, you should look at whether the company is earning a rate of return comparable to other investments with comparable risks. A high ROA is best because it indicates high profitability.

- **Return on sales or Profit margin = Net income / Net sales**

This ratio is an overall measure of the company's effectiveness in making profits from sales. It reflects management's ability to control selling, general, administrative and other costs. Profit margin is very useful when comparing companies in similar industries. **A higher profit margin indicates a more profitable company that has better control over its costs compared to its competitors.**

- **Gross profit percentage = Gross profit / Net sales**

This ratio indicates the company's mark-up between sales price and cost of goods sold. It measures the “top line”. If this ratio falls, it is an indication that the company is unable to pass on cost increases, but rather is absorbing them through reduced profits. A high ratio is most favorable.

- **Return on Equity = Net income / Shareholder's Equity**

This ratio measures the company's ability to earn a satisfactory return for stockholders. In evaluating this ratio, you should determine if stockholders will be getting a “decent” return on their money, in comparison to comparable risky investments. The ROE is useful for comparing the profitability of a company to that of other firms in the same industry.

Summary of Income and Expenses
For years ended December 31,

	2018		2017	
	Amount	%	Amount	%
Sales	\$ 4,814,728	100.00%	\$ 4,433,871	100.00%
Cost of Sales	3,627,537	75.34%	3,509,396	79.15%
Gross Profit	\$ 1,187,191	24.66%	\$ 924,475	20.85%
Selling Expenses:				
Sales Salaries	\$ 336,612	6.99%	\$ 277,557	6.26%
Payroll Taxes	35,100	0.73%	26,635	0.60%
Showroom Rent	71,181	1.48%	42,772	0.96%
Advertising	51,529	1.07%	52,945	1.19%
Marketing	25,014	0.52%	15,058	0.34%
Travel	61,668	1.28%	11,236	0.25%
Entertainment	37,470	0.78%	45,305	1.02%
Total Selling Expenses	\$ 618,574	12.85%	\$ 471,508	10.63%
General & Administrative Expenses:				
Officer Salary	\$ 65,520	1.36%	\$ 68,040	1.53%
Office Salaries	113,175	2.35%	97,965	2.21%
Payroll Taxes	18,630	0.39%	15,315	0.35%
Insurance	141,949	2.95%	49,049	1.11%
Repairs and Maintenance	27,105	0.56%	25,381	0.57%
Telephone	11,463	0.24%	13,238	0.30%
Utilities	41,072	0.85%	38,152	0.86%
Professional Fees	49,862	1.04%	37,321	0.84%
Loan Termination Fees	13,462	0.28%	-	0.00%
Office Expenses	59,701	1.24%	51,992	1.17%
Interest	6,852	0.14%	4,614	0.10%
Payroll Service Fees	2,916	0.06%	2,881	0.06%
Credit Card Charges	32,730	0.68%	23,598	0.53%
Depreciation & Amortization	3,247	0.07%	3,108	0.07%
Contributions	606	0.01%	2,750	0.06%
Miscellaneous	-	0.00%	-	0.00%
Total General & Administrative Expenses	\$ 588,290	12.22%	\$ 433,404	9.77%
Total Expenses	\$ 1,206,864	25.07%	\$ 904,912	20.41%
Income (loss) from operations	(19,673)	-0.41%	19,563	0.44%
Other Income (expenses)	541	0.01%	3,202	0.07%
Income (loss) before taxes	(19,132)	-0.40%	22,765	0.51%
Provision for Federal & State corporate taxes	570	0.01%	10,661	0.24%
Net Income (Loss)	<u>\$ (19,702)</u>	<u>-0.41%</u>	<u>\$ 12,104</u>	<u>0.27%</u>

**Analytical Review Spreadsheet
For years ended December 31,**

<u>Description</u>	<u>Symbol</u>	<u>2018 Input</u>	<u>2017 Input</u>
Current Assets	CA	\$ 1,270,866	\$ 745,701
Current Liabilities	CL	768,029	779,173
Cash	CASH	626,308	127,927
Accounts Receivable	A/R	23,258	35,143
Beginning Accounts Receivable	BEG A/R	35,143	179,110
Marketable Securities	MKT SEC	-	-
Total Assets	TA	1,907,102	1,132,539
Beginning Total Assets	BEG TA	1,132,539	1,306,512
Cost of Goods Sold	CGS	3,627,537	3,509,396
Beginning Inventory	BI	549,931	543,431
Inventory	I	599,500	549,931
Net Sales	NS	4,814,728	4,433,871
Accounts Payable	A/P	77,404	315,388
Beginning Accounts Payable	BEG A/P	315,388	336,765
Total Liabilities	TL	1,594,346	800,082
Stockholders' Equity	SE	312,756	332,457
Beginning Stockholders' Equity	BEG SE	332,457	344,940
Net Property, Plant, & Equipment	NET PPE	467,199	221,838
Net Income	NI	(19,701)	12,104
Interest Expense	INT	6,852	4,614
Income Tax Expense	IT	570	10,661
Lease Obligations	LO	-	-
Sales	S	4,814,728	4,433,871
Earnings before Interest and Taxes	EBIT	(12,820)	24,177

<u>Ratios</u>	<u>Description</u>	<u>Output</u>	<u>Output</u>
Current	CA/CL	1.65	0.96
Quick	(CASH + A/R + MKT SEC)/CL	0.85	0.21
Working Capital	(CA - CL)/TA	0.26	-0.03
A/R Turnover	NS/((BEG A/R + A/R)/2)	164.89	41.39
# Days A/R	360/A/R T.O.	2.18	8.70
Inventory Turnover	CGS/((BI + I)/2)	6.31	6.42
# Days Inventory	360/INV T.O.	57.04	56.08
A/P Turnover	CGS/((BEG A/P + A/P)/2)	18.47	10.76
# Days A/P	360/A/P T.O.	19.49	33.45
Debt/Equity	TL/SE	5.10	2.41
Interest Coverage	EBIT/INT	-1.87	5.24
Fixed Coverage	(EBIT + LO)/(INT + LO)	-1.87	5.24
PPE/Equity	PPE/SE	1.49	0.67
Return on Total Assets	NI/((BEG TA + TA)/2)	-0.01	0.01
Profit Margin	NI/S	0.00	0.00
Gross Profit	(NS - CGS)/S	0.25	0.21
Return on Equity	NI/((BEG SE + SE)/2)	-0.06	0.04

Cash Resource Management

Cash resource analysis focuses on the changes that occur in a firm's financial structure between two time periods. When accounts are properly categorized, the changes between the two time periods represent the source and disposition of the net cash capability gained by the business. There are several steps in the cash resource management analysis.

1. Prepare a balance sheet and record the increases or decreases for each balance sheet account from one year to the next. (See Comparative Calendar Year End Balance Sheets for ABC Company.)
2. The increases and decreases for each balance sheet account are shown in the "Changes" column. Each change is classified as either a source or a use of cash in the business.

Sources of cash include: 1) a decrease in assets (other than cash); 2) an increase in liabilities; and 3) an increase in stockholders' equity. Uses of cash include: 1) an increase in assets; 2) a decrease in liabilities; and 3) a decrease in stockholders' equity.

3. Prepare the cash resource analysis by beginning with the prior year ending cash reserves amount at 12/31/17. List the sources of cash and the uses of cash. Subtract the total uses of cash amount from the total sources of cash amount. The end result is the ending cash reserves amount at 12/31/18. (See Cash Resource Analysis for ABC Company.)
4. Complete the analysis with a critical assessment of the relationship between the sources and uses of cash represented by the changes in the financial structure.

There are two principles to remember: 1) the cash needed to purchase fixed assets should come from stockholders' equity or long-term debt and 2) the cash needed to increase current assets should come from an increase in accounts payable or other short-term liabilities.

The business must recognize the ultimate effect of the interrelationships on its cash reserves. A positive cash flow management properly matches the sources and uses of cash in a business.

**Comparative Calendar Year End Balance Sheets
ABC Company**

	<u>12/31/2018</u>	<u>12/31/2017</u>	<u>Changes</u>
Cash	\$ 75,000	\$ 100,000	\$ (25,000)
Accounts Receivable	170,000	110,000	60,000
Inventory	195,000	160,000	35,000
Fixed Assets (net)	250,000	60,000	190,000
Prepaid expenses	<u>10,000</u>	<u>20,000</u>	(10,000)
Total Assets	<u>\$ 700,000</u>	<u>\$ 450,000</u>	
Accounts Payable	\$ 220,000	\$ 100,000	120,000
Other Liabilities	20,000	30,000	(10,000)
Long-Term Debt	<u>200,000</u>	<u>100,000</u>	100,000
Total Liabilities	\$ 440,000	\$ 230,000	
Stockholders' Equity	<u>260,000</u>	<u>220,000</u>	40,000
Liabilities and Equity	<u>\$ 700,000</u>	<u>\$ 450,000</u>	

A business gains an increase in its cash from:

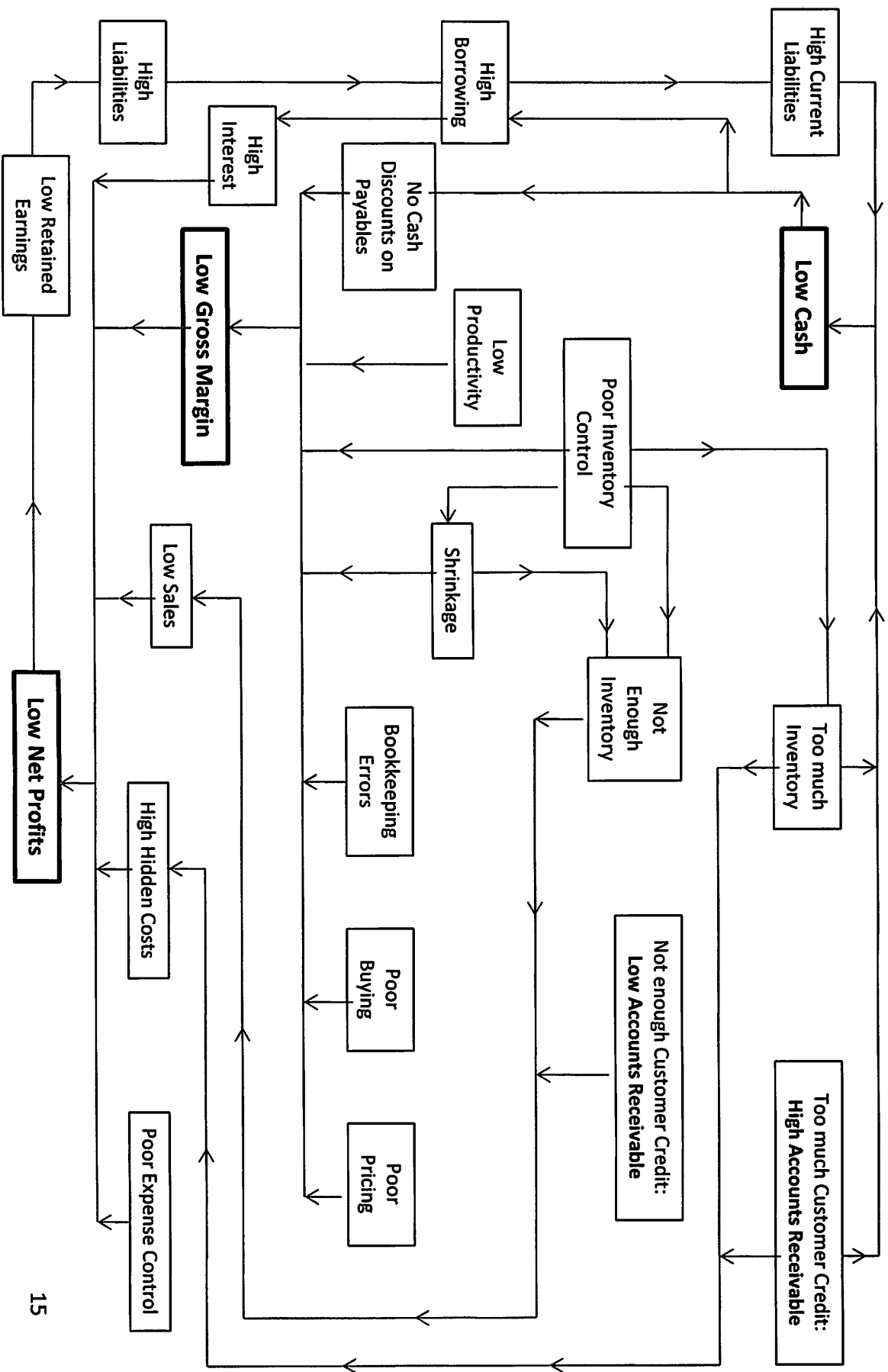
1. A decrease in assets (other than cash)
2. An increase in liabilities
3. An increase in stockholders' equity

A business employs cash to:

1. Increase assets
2. Decrease liabilities
3. Decrease stockholders' equity

The "Road Map"

Cause – and – Effect Relationships Leading to Financial Distress



**We are what we repeatedly do.
Excellence then, is not an act, but a habit.**

Aristotle

**I conceive that the great part of human miseries
of mankind are brought upon them by
false estimates they have made of the
value of things.**

Benjamin Franklin

Basics of Accounting Are Vital to Survival for Entrepreneurs

By DARREN DAHL AUG 3, 2011

Few people start a business because they are good with numbers. In fact, the terms “accounting” and “financial analysis” tend to put business owners to sleep or send them screaming from the room. But to run a business effectively, most owners need to have some understanding of their finances.

It is, for example, entirely possible for a company to be profitable but fail anyway because it does not have enough cash coming in to pay its bills.

“It’s like a racecar that goes too fast and runs out of gas,” said Doug Tatum, a serial entrepreneur who is a visiting professor of entrepreneurship at Middle Tennessee State University in Murfreesboro. Business owners do not necessarily need to know how to prepare a balance sheet, but they do have to know which gauges to watch.

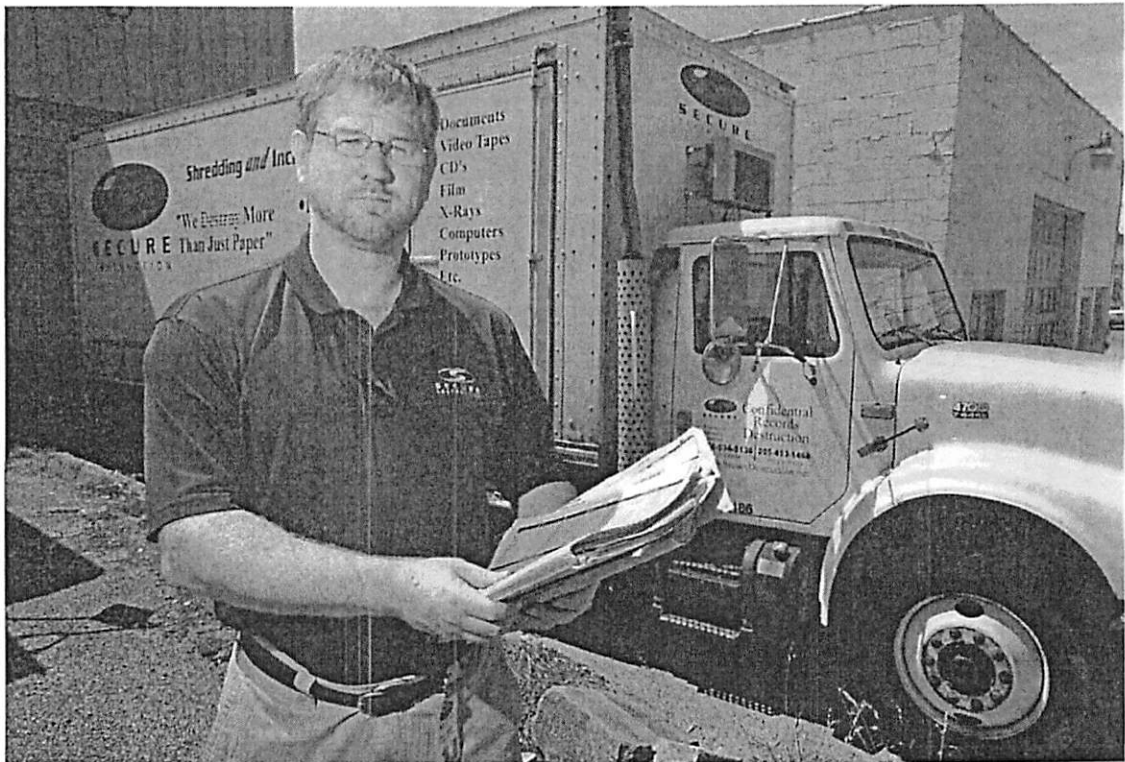
One obvious step is to work with a bookkeeper or accountant, someone who can help navigate arcane accounting and tax rules and organize your affairs. But owners should understand that accounting is not just about paying taxes or reporting results.

“Small-business owners tend to hate accounting because it’s boring,” said Brian Hamilton, chief executive of Sageworks, a company in Raleigh, N.C., that tracks financial data for privately held businesses. “The mistake they make is not thinking about how they can use certain numbers as tools to better manage where their business is headed tomorrow.”

What follows is a guide to better understanding the numbers that drive a business. As the examples make clear, even smart people with advanced degrees can become confused by accounting issues. **DON’T MISTAKE DEBT FOR PROFIT** After earning a master’s degree in industrial engineering, Bart Justice figured he would get a job doing computer simulations or technical sales. Then in 2004, he learned about the paper-shredding industry, which was booming because of a rash of new security laws. Mr. Justice obtained a loan from a local bank to buy a mobile shredding truck, hired a truck driver and opened shop in Huntsville, Ala., as Secure Destruction Service.

The company hit \$70,000 in sales its first year. Within four years, Secure Destruction had annual revenue of \$500,000 and employed six people across two offices, one in Huntsville, the other in Birmingham, Ala.

To finance his growth — adding a shredding truck, for example — Mr. Justice kept borrowing money from the bank, not realizing that the more he grew, the more he needed to borrow because his revenue was not covering his expenses. The loans meant he had money in his accounts — but it was borrowed money.



Bart Justice, owner of a paper-shredding operation, credits his business's survival with his decision to hire an accountant. CreditEric Schultz for The New York Times

"I knew how to print a financial statement from QuickBooks, but I couldn't tell you what it meant," he said.

It was not until early 2008 when he joined a peer group for Christian business owners called C12, that Mr. Justice was forced to confront the truth. "They would ask me questions about my numbers, and I didn't know how to answer them," he said. "They told me my business was going to fail unless I got a handle on paying down my debt."

He hired an accountant and began analyzing how aspects of his business were performing, which led him to sell several pieces of equipment and to stop serving clients if he was losing money on them.

The advice proved timely. As the recession set in, the market for shredding collapsed. But with a leaner and smarter operation, Secure Destruction survived.

MANAGE RECEIVABLES Two years ago, Paul Burns brought on Eric Edelson as a partner to help run Fireclay Tile, which is based in San Jose, Calif., and manufactures ceramic tile using recycled materials. Mr. Edelson, who had left a career as an investment banker in New York to get an M.B.A. at Stanford, knew the business had been struggling, but he was hopeful that he could help.

One number that looked impressive to him was the company's accounts receivable balance, which was more than \$100,000. That was money owed to Fireclay by its wholesale clients. "At first, I thought it was kind of neat since we could count on all that cash coming in," Mr. Edelson said. "But after I started digging into it, I noticed a lot of stale accounts that were more than six months overdue."

Mr. Edelson hired a third-party company to help Fireclay collect its receivables, but many of the companies had gone out of business. Sensing a lost cause, he changed tactics. After writing off most of the balance, he stopped sending new shipments to customers who had a balance due and started getting more upfront payments and staying on top of customers.

By making sure customers could not buy more tile until they paid for what they had already bought, Mr. Edelson gave his customers an incentive to pay up. That has helped cut Fireclay's receivables balance to less than \$30,000.

UNDERSTAND YOUR EXPENSES After he graduated from law school five years ago, Daniel Gershburg, then 24, decided to open a bankruptcy and real estate law practice in Brooklyn. "I literally didn't know anything about accounting," Mr. Gershburg said. The only number he paid attention to was the gross sales he was pulling in through retainers.

He said he believed that to build his fledgling legal business, he needed to spend money on advertising. In fact, even though his revenue was only \$5,000 a month, he started spending as much as \$4,000 a month on television commercials, Internet ads and search engine optimization.

The result was a vicious cycle: the more revenue he took in, the more compelled he felt to buy more ads to land additional clients. His expenses were increasing faster than his revenue.

Eventually, Mr. Gershburg decided to cut his advertising budget. With fewer clients coming in the door, he raised his prices on current clients because he could now spend more time on their cases. As the quality of his work improved, he began landing more referrals, which did not cost him a dime in advertising.

“By shrinking my practice,” Mr. Gershburg said, “I was able to double my profit in a single year.”

TRACK YOUR BREAK-EVEN In 2003, when Todd Campbell decided to start E.B. Capital Markets, which provides research on the stock market to portfolio managers, he focused on building and marketing his product. “The last thing I wanted to figure out was the nuts and bolts of keeping track of receivables and payables,” he said. “I hated accounting.”

He hired a bookkeeper, but he paid attention only at tax time. Then the recession hit, and Mr. Campbell, whose company is based in Durham, N.H., recognized that he needed to get a better handle on how his company was performing, including whether he would be able to make payroll.

That is when he seized upon the notion of tracking his break-even number, the point at which revenue for a given period equals expenses. To do the calculation requires knowing total expenses and gross profit percentage, which is determined by dividing gross profit by sales.

Here’s how to do the math: If Mr. Campbell’s monthly expenses were \$20,000 and if his gross profit percentage was 50 percent, he would divide \$20,000 by 50 percent to get a break-even number of \$40,000 — the amount he had to sell to break even.

“It is the single best indicator because it helps you see if the canary in the coal mine is getting woozy,” Mr. Campbell said. “Now I know what decisions I have to make today so that I don’t have to panic a few months from now.”

Printing Money at Work

Hospital Worker Accused of Stealing Up to \$3.8 Million in Toner to Live Large

By TAMER EL-GHOBASHY

It was almost like printing money.

An office worker at Memorial Sloan-Kettering Cancer Center is accused of stealing as much as \$3.8 million from the hospital by ordering toner-ink cartridges in bulk, diverting their delivery and then selling them elsewhere, authorities said Wednesday.

The scam is alleged to have afforded the worker—who earned \$37,000 a year at the hospital—a luxury lifestyle, complete with an apartment at a Trump high-rise, a BMW vehicle and a checking account padded with tens of thousands of dollars, authorities said. It went on for six years, they said.

Marque Gumbs, 32 years old, who also went by the first name Marquis, was arraigned Wednesday in Manhattan Criminal Court on a charge of grand larceny in excess of \$1 million and was ordered held on \$100,000 bail.

According to a criminal complaint, Mr. Gumbs was employed by Memorial Sloan-Kettering at

its main outpatient campus on East 53rd Street as a receiving clerk who was responsible for ordering, receiving and stocking ink cartridges for the printers at the facility. In that role, he had password-protected access to the computer used to order the material from an Office Depot, the complaint stated.

'He kept a fairly low profile, but the way he dressed was a little flashy,' a neighbor said.

From October 2009 through August 2010 alone, Mr. Gumbs ordered about \$1.2 million worth of toner that wasn't compatible with any machine at the hospital and far exceeded the toner usage, according to the complaint. A law-enforcement source with knowledge of the case said that since 2004, the orders for toner placed by Mr. Gumbs totaled about \$3.8 million in value.

Once the toner cartridges were ordered, Mr. Gumbs allegedly instructed drivers from Office Depot to call him and he would meet them in the street to accept the delivery, which never made it to the normal receiving area, the complaint stated. Surveillance video obtained by investigators with the New York Police Department showed Mr. Gumbs intercepting the packages and taking the boxes to a garage-bay area, the law-enforcement official said.

He said investigators are still probing how and to whom Mr. Gumbs is alleged to have "fenced" the stolen toner to. What is clear, the official said, is that the suspect's tastes and lifestyle didn't match his income.

Between April 2008 and September 2010, Mr. Gumbs allegedly made cash deposits into his personal Bank of America checking account totaling \$149,048, in addition to his \$1,065 biweekly paycheck, the complaint stated. The official said Mr. Gumbs also made cash payments to buy property in the Bronx and

Westchester, where he owned a one-bedroom apartment in the Trump Plaza in New Rochelle, a luxury high-rise staffed by a doorman. In May, he bought a 2011 BMW X6, dropping \$50,500 in cash as a down payment, according to the complaint.

Bank records also showed Mr. Gumbs spent significant money on airfare and hotels and shopping sprees at retailers such as Gucci and Louis Vuitton, the official said.

A neighbor at Trump Plaza, who declined to give his name, described Mr. Gumbs as "low key." "He kept a fairly low profile, but the way he dressed was a little flashy," the neighbor said. "You could tell he wore fancy clothes but he himself was low key as a person."

Kathy Lewis, a spokeswoman for Memorial Sloan-Kettering, said Mr. Gumbs was an employee since 1999 but has been "terminated." She referred further questions to authorities handling the case. A lawyer representing Mr. Gumbs did not respond to a request for comment.