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Prepared By
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## Smith's Building Supply, Inc.

12345 ABC Street Sacramento, CA 95642

## Business Valuation 8.86\% Minority Interest

December 10, 2011



EXECUTIVE Summary
The appraisal assignment called for determining the fair market value of a $8.86 \%$ interest in Smith's Building Supply as of June 30, 2011. The Subject has elected a C-Corporation status for federal tax purposes. The valuation of the $8.86 \%$ interest in the Subject Company is on a non-controlling, non-marketable basis.

Smith's Building Supply is a window and door retailer and installer. The company has been in existence since 1976 and has been solely owned by Mr. and Mrs. John Smith since 1983. The Company primarily serves the retrofit market for doors and windows (replacements for existing residences), with new construction accounting for less than $23 \%$ of total sales in 2011. The substantial decline in new construction in the Sacramento region from 2006 to 2009 caused Smith's sales to new construction projects to decline by $65 \%$. However, the overall impact of the recession and high unemployment in the Sacramento area also caused retrofit sales to decline by $38 \%$ during the same period

The Company has been a dealer of Anderson windows and door products for twenty-five years. In 1999 it entered into a contractual agreement to be the exclusive distributor and installer for Anderson's retrofit line of windows within a 190 ZIP Code area. Sales immediately increased from $\$ 6.5$ million in 1999 to $\$ 10$ million a year later. A summary of sales and net profits before taxes for the last five years is as follows:

|  | 2011 |  | $\underline{2010}$ | $\underline{2009}$ | $\underline{2008}$ |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Revenues | $\$ 7,739,598$ | $\$ 8,160,692$ | $\$ 7,458,134$ | $\$ 9,795,934$ | $\$ 13,052,021$ |
| Net Profits before $\operatorname{Tax}$ | 133,949 | 110,237 | $(174,718)$ | 179,532 | $(426,981)$ |

A number of different methodologies were employed to estimate the Subject's fair market value. Each of the methods used developed different values for the Subject. This is a normal occurrence since each procedure focuses on different aspects of the Company's operations. Internal Revenue Ruling 59-60 notes that earnings of companies that sell products or services to the public should be accorded the primary consideration in determining its value. ${ }^{1}$ Thus those methods that focus on the Company's cash flow were given the greatest weight in arriving at the final conclusion of value.

In my opinion using accepted methodologies of valuation and subject to the assumptions and limiting conditions set forth in this report, the Fair Market Value of a non-controlling 8.86\% interest in Smith's Building Supply on a non-marketable basis as of June 30, 2011 is:

## \$30,000

Thirty Thousand Dollars

## The number of shares transacted will be 443 at cost of $\$ 67.720$ per share

[^0]
## Appraiser's Certificate

1) The statements of fact contained in this report are true and correct to the best of my knowledge and belief, subject to the assumptions and conditions stated.
2) The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions and are my personal, unbiased and professional analyses, opinions, and conclusions.
3) I have no present or prospective interest in the property that is the subject of this report, nor is my compensation dependent upon the value of this report or contingent upon producing a value that is favorable to the client.
4) I have no personal bias with respect to the parties involved nor have I made a full disclosure of any such bias.
5) This appraisal has been conducted and the report was written in conformity with the Business Appraisal Standards of the Institute of Business Appraisers.
6) No person except the undersigned participated materially in the preparation of this report.

Sincerely,

C. Fred Hall, III, MBA, CBA, AVA

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### 1.1 Report Date: December 10, 2011

1.2 Date of Valuation: June 30, 2011

### 1.3 SUBJECT OF APPRAISAL

The subject of this business appraisal is Smith's Building Supply located at 12345 ABC Street, Sacramento, CA 95742. The company, which is presently $86.40 \%$ owned by John Smith, is a California corporation that has elected a C-Corporation status for federal tax purposes. The Company was incorporated on January 3, 2003. The Company has not issued any other class of stock, nor have any dividends been paid on the existing common stock. There are presently 5,000 shares outstanding, all of which have voting powers. The current distribution of ownership as of the Date of Valuation is as follows:

|  | \% Shares | \# Shares |
| :--- | ---: | ---: |
| Mr. and Mrs. Smith | $86.40 \%$ | 4,320 |
| Bill Smith | $3.4 \%$ | 170 |
| Jim Smith | $3.4 \%$ | 170 |
| John Smith Jr. | $3.4 \%$ | 170 |
| Angela Smith | $3.4 \%$ | 170 |

The proposed sale of the business will result in a distribution of shares as follows:

| Bill Johnson | $50.96 \%$ | 2,548 |
| :--- | ---: | ---: |
| Bill Smith | $12.26 \%$ | 613 |
| Jim Smith | $12.26 \%$ | 613 |
| John Smith Jr. | $12.26 \%$ | 613 |
| Angela Smith | $12.26 \%$ | 613 |

The value of the additional $8.86 \%$ ownership or 443 shares ( 612 - 170) to be gifted to each of the four Smith children is the Subject of this report.

Mr. John Smith, the managing owner, was interviewed by the Appraiser on December 7, 2011. A site inspection was performed by the Appraiser on December 7, 2011.

### 1.4 Purpose and Use

The purpose of the appraisal is to determine the fair market value of a $8.86 \%$ ownership interest in the common shares of Smith's Building Supply on a non-controlling, nonmarketable basis as of the Date of Valuation. "Marketability is defined as the ability to convert the investment to cash very quickly at minimum costs and with a high degree of certainty of realizing the anticipated amount of proceeds." ${ }^{2}$ The investment under

[^1]consideration here are the shares of common stock in Smith's Building Supply. Since stock ownership in small, privately held companies generally cannot be converted into cash quickly, such investments are referred to as non-marketable. In other words, the Subject interest is non-marketable and, therefore, will be valued on a non-marketable basis.

It is the intention of Mr. Smith and his wife to gift a block of their shares equal to $8.86 \%$ of the total outstanding shares of the Company to each of their four children. The remaining $51 \%$ portion of their shares will be sold to the Company's general manager. The proposed total percentage owned by each of the four children will be $12.25 \%$.

Mr. and Mrs. Smith (who jointly engaged the Appraiser) their immediate family, and the general manager of the Company and their respective consultants are the sole intended users of this report

### 1.5 STANDARD OF VALUE

The Standard of Fair Market Value, as defined in IRS Revenue Ruling 59-60, is "the price at which the property would change hands between a willing buyer and a willing seller when the former is not under any compulsion to buy and the latter is not under any compulsion to sell, both parties having reasonable knowledge of relevant facts. Court decisions frequently state in addition that the hypothetical buyer and seller are assumed to be able, as well as willing to trade and to be well informed about the property and concerning the market for such property." ${ }^{3}$

Revenue Ruling 59-60 also gives us guidance as to what factors should be considered. These are summarized below: ${ }^{4}$

1) The nature of the business and the history of the enterprise from its inception;
2) The economic outlook in general and the condition and outlook of the specific industry in particular;
3) The book value of the stock and the financial condition of the business;
4) The earning capacity of the company;
5) The dividend-paying capacity;
6) Whether or not the enterprise has goodwill or other intangible value;
7) The market price of stocks of corporations engaged in the same or a similar line of business having their stocks actively traded in a free and open market, either on an exchange or over-the-counter;
8) The marketability, or lack thereof, should be considered when valuing controlling interests and non-controlling interests.

As such, we will give consideration to the following:

[^2]1) Under the premise of a going concern, the business will continue to operate in the future rather than be liquidated;
2) The transaction is at "arms-length" between a hypothetical buyer and seller and the buyer has an expectation of earning a fair return on his investment;
3) The hypothetical purchaser is assumed to be a financial buyer rather than a strategic buyer. Under the standard of Investment Value (as opposed to the standard of Fair Market Value), a strategic buyer is a known individual or company that has unique opportunities to gain from the acquisition. For example, by acquiring the target company the strategic buyer would be able to eliminate the competition in his market. Strategic buyers often are willing to pay a premium over the Fair Market Value because of such one-of-a-kind opportunities. As of the valuation date, there were no known strategic buyers who made any offers for the Subject Company, and as such, no potential premium under the standard of Investment Value can be determined;
4) The seller is also assumed to be hypothetical and is one who is informed about the market for such investments and the effects of the unattractive characteristics of the Subject due to its lack of control and lack of marketability;
5) The subject will be sold for cash or a cash equivalent; and,
6) The business will be held on the open market for a reasonable length of time.

### 1.6 Premise of Value

## Going Concern

The underlying premise assumed here is that the business will continue to operate in the future as it has in the past which, therefore, gives rise to an intangible value for its name, reputation, location, or unique manner of doing business. The earning power of the enterprise and its ability to continue generating cash flow in the future are indicators of Fair Market Value.

### 1.7 Assumptions and Limiting Conditions

When valuing a business the appraiser must make certain assumptions. These assumptions and various limiting conditions will have a significant impact on the conclusion of value of the company being appraised. The following are assumptions and conditions affecting this valuation.
1.7.1 The valuation process is not specifically a fact-finding mission. The appraiser's opinion is supported by research and analysis, but the valuation conclusion ultimately reflects his informed and unbiased judgment.
1.7.2 Interviews with principals of the Subject were conducted by the Appraiser using the Appraiser's questionnaires. The Appraiser has relied on the representations of management without independent investigation. The information was obtained in good faith but no opinion or warranty is implied or expressed by the Appraiser.
1.7.3 This report cannot be relied upon to disclose any fraud, misrepresentation, or deviation from Generally Accepted Accounting Principles.
1.7.4 This report is to be used for the expressed purpose stated above. Any other use is prohibited and invalidates the conclusions of this appraisal.
1.7.5 The appraiser assumes no responsibility for any legal or tax matters that are relative to the findings of this report.

### 2.0 Economic Analysis and Industry Factors

### 2.1 How the Economy Affects Value

The economy has a direct effect on all businesses. The GDP (Gross Domestic Product), which is a measure of growth of the economy, is made up of three components: 1) Personal Disposable Income and the resulting Consumption); 2) Business Investments (plant and equipment and inventory); and, 3) Government Spending. Smith's primary source of revenue is from the private sector. Therefore, its primary customer base is the consumer and other businesses engaged in construction. Thus, business investment activity and personal disposable income and consumption are of the utmost importance. By tracking the movement of the GDP, business investment, personal income and consumption, as well as developing projections for their growth in the future, we should be able to gain insight into Smith's growth potential.

Changes in the levels of interest rates and employment rates are key factors in determining the level of personal disposable income and consumption. Low levels of interest rates reduce financing costs for business investments in plant and equipment and inventory. Low interest rates are also a primary driver to the housing market. Consumers are also more willing to buy new homes when rates are low. New housing construction represents nearly $25 \%$ of Smith's revenues.

The following is an assessment of these and other economic factors and their influence on the Subject Company's operations.

### 2.2 Current U.S. Economic Outlook ${ }^{5,6}$

The U.S. economy grew at its fastest pace in over a year in the third quarter of 2011, as consumers and businesses stepped up spending. On October 27 the U.S. Commerce Department announced that overall U.S. gross domestic product (GDP) expanded at a $2.5 \%$ real annual rate ( $4.5 \%$ nominal), Previously, during the first quarter of 2011, the economy's

[^3]growth rate-pulled down by rising food and gasoline prices and unusually harsh winter weather-had slipped to only $0.4 \%$ ( $3.1 \%$ nominal). The rate for the second quarter, after downward revisions, had come in at $1.0 \%$ ( $3.9 \%$ nominal). Despite this uptick most analysts, including the U.S. Federal Reserve, have lowered their growth forecasts for 2012. The U.S. unemployment picture improved as well. After generating no net new jobs in August-the first time since 1945 that the government had reported a net job change of zero-the U.S. economy added 103,000 jobs in September and 80,000 in October. The unemployment rate fell to $9.0 \%$ in October-a six-month low-after holding at $9.1 \%$ for three months. Nevertheless, the underemployment rate, including discouraged workers, remains near historic highs.

Other serious problems also remain. The U.S. national debt climbed above $\$ 15$ trillion in November as the efforts of the Congressional Super Committee, charged by the August debtreduction agreement to come up with $\$ 1.2$ trillion in additional cuts over 10 years, appeared to be near collapse. This failure came in the wake of a Congressional Budget Office report that the FY 2011 deficit had reached a near-record $\$ 1.3$ billion. Retaking the political offensive, President Obama and Senate Democrats began strenuously calling for more than $\$ 1$ trillion in new taxes, mostly on the wealthy, which Republicans argued would destroy rather than create jobs. Republicans, however, conceded that some revenue increases would be needed, though preferring they come from tax reform and loophole-closings rather than rate hikes. Elsewhere, industrial production, auto sales, consumer spending, and retail sales were up, but the housing market and consumer confidence still struggled. Both consumer and energy prices were down.

Exhibit I Nominal Gross Domestic Product 1990-2011


### 2.2.1 UnEMPLOYMENT

After remaining stuck at $9.1 \%$ for three months, the U.S. unemployment rate fell to $9.0 \%$ in October-a six-month low. Previously, the unemployment rate had tumbled from $9.8 \%$ last November to $8.8 \%$ in March.

While the number of unemployed workers has held steady at around 14 million in recent months, the number of underemployed individuals rose for a third consecutive month in September, by almost half a million people. Altogether, nearly 9.3 million Americans are now considered to be underemployed, defined by the U.S. Bureau of Labor Statistics as people who are working part-time although they want to be working full-time. That is down from a peak of about 9.5 million people in September 2010, but still up sharply from just above 8 million people in July.

On October 7 a report by Reuters paints a particularly grim portrait of the future of unemployment in the United States. "Insofar as employers are hiring new people," the report notes, "they're hiring new entrants into the labor force, rather than people making up the ranks of the unemployed. Maybe it's recent graduates, maybe it is former stay-at-home moms who were never claiming unemployment but who are now getting jobs. Maybe it is immigrants. But the big picture is that employment growth is more or less keeping track with population growth, leaving no new jobs for the 14 million unemployed Americans." The report therefore does not "see much hope that the unemployment rate will come down to a remotely acceptable level any time soon. Realistically, America's unemployed are here to stay. And we are only just beginning to understand how that is going to affect the political economy of the nation.

The current economy is so troubled that $77 \%$ of small business owners do not plan to hire any new workers for the foreseeable future, according to a November 7 survey by US News \& World Report.

In its most recent formal assessment, the U.S. Federal Reserve raised its estimates for the unemployment rate in the coming years. For 2011, the Fed forecast a rate between $8.5 \%$ to $8.7 \%$ versus an earlier forecast of $7.8 \%$ to $8.2 \%$ envisioned in July. For 2012, it projected a rate of between $7.1 \%$ and $7.5 \%$ (versus an earlier forecast of $6.6 \%$ to $7.1 \%$ ). Even by 2014, the Fed sees the unemployment rate at no lower than $6.8 \%$ to $7.7 \%$.

### 2.2.2 Personal Income and Consumer Spending

In a grim sign of the enduring nature of the U.S. economic slump, American household incomes have declined more during the two years after the U.S. recession ended than they did during the recession itself. According to new data from the U.S. Census Bureau, between June 2009 (when the recession officially ended, and June 2011) inflation-adjusted median household income tumbled by $6.7 \%$, dropping to $\$ 49,909$. During the recession-from December 2007 to June 2009-household incomes fell by $3.2 \%$. Overall, the median U.S. household income level is now $7.1 \%$ below its 1999 peak.

According to a report in the October 19 Christian Science Monitor, the average American now has $\$ 1,315$ less in annual disposable income than he or she did at the onset of the Great Recession, even though that recession ended, technically speaking, in mid-2009.

After increasing in July and August, U.S. consumer spending grew in September as well. Purchases rose by $0.6 \%$, according to U.S. Commerce Department figures released on October 28, helping the U.S. economy to keep from falling back into recession.

Led by discretionary purchases, October U.S. retail sales registered growth across the board-an encouraging sign as the holiday season gets underway. According to the National Retail Federation, retail sales increased by $0.7 \%$ from September and by $4.7 \%$ over levels of one year earlier. "October retail sales support the assertion that consumers have a distinct desire to spend, bolstering hopes for solid sales growth in November and December," said Jack Kleinhenz, Chief Economist of the retail federation. "This momentum bodes well for this holiday season."

Exhibit II Personal Consumption - 1991 to 2011


On a seasonally adjusted basis, the Consumer Price Index (CPI) for all goods declined by $0.1 \%$ in October after rising by $0.3 \%$ in September. The index for all items less food and energy rose by $0.1 \%$ in October, the same increase as in September.

### 2.2.3 Housing Sector

The American dream of owning a home has experienced its biggest drop since the Great Depression, according to new U.S. Census Bureau figures released on October 6. Overall, the home ownership rate fell to $65.1 \%$. Moreover, the Bureau warned, the rate may never return to its mid-decade peak of nearly $70 \%$ due to tighter credit, job losses, and reduced government support.

Sales of new U.S. single-family homes fell for the fourth straight month in August, plummeting by $2.3 \%$ and reaching a 6 -month low after tumbling by $0.7 \%$ in July. Sales rebounded in September, however, climbing by $5.7 \%$ above the revised August estimate.

In contrast to tumbling new home sales, the number of previously owned U.S. homes under contract rose by $7.7 \%$ in August as compared with July, climbing to a seasonally adjusted rate of 5.03 million, the National Association of Realtors (NAR) reported on September 21.

However, these trends were reversed in September, with sales declining by $2.2 \%$ to a 4.8 million annual rate.

After a brief, four-month rebound, U.S. home prices in 20 cities dropped more than forecast in August, according to an October 25 report. The S\&P/Case-Shiller index of property values in these 20 major cities declined by $3.8 \%$ from August 2010 levels. The index had been expected to fall by $3.5 \%$. Home prices nationwide were unchanged in August. Subsequently, on October 31, Fiserv, a financial analytics company, forecast that home prices would fall another $3.6 \%$ by next June, pushing them to a new low of $25 \%$ below their early-2006 peak.

Foreclosure filings were up by $7 \%$ in October on a month-over-month basis, although they were down by $31 \%$ from October 2010 levels, according to foreclosure analyst RealtyTrac. Previously, for the third quarter as a whole, foreclosure filings were up by only $1 \%$ on a quarter-over-quarter basis, and were down by $34 \%$ from the third quarter of 2010.

### 2.2.4 Interest Rates

Long-term interest rates have been at historic lows for nearly ten years. The primary reason has been foreign demand for U.S. debt. U.S. trade deficits continually put billions of U.S. dollars in foreign hands. Those dollars are then used to purchase U.S. bonds. Over the last several years China has been a major investor in U.S. debt obligations. ${ }^{7}$ The high demand for bonds drives up their price which results in lower interest rates.

## Exhibit III Interest Rates - 30 Year Treasury Bonds



[^4]During the last two years the Fed, through its Open Market operations, has also aggressively forced long-term rates even lower. The Fed's Quantitative Easing program initiated in 2010 and then modified in 2011 involved buying long-term treasury bonds which would cause rates to decline.

The real estate market is very dependent on a stable supply of low, long-term interest rates. Low home mortgage rates and declining housing costs have pushed the cost of owning a house to levels not seen in years. Unfortunately even though the present cost of ownership is very attractive, the real estate market is still very anemic, which is acting as a drag on the overall economy.

### 2.2.5 Economic Trends and Their Effect on Smith’s Building Supply

High unemployment and its depressing effect on household income have put the consumer on the sidelines throughout the recession. As we saw in Exhibit II above, the overall consumption rose an anemic $3.8 \%$ in 2010, but shows signs of slight improvement in 2011.

Exhibit IV Gross Private Investment-Residential


A more specific sector of the economy that relates to Smith's operations is that of consumer outlays for residential purposes such as home improvements, furniture etc. Exhibit IV shows a tremendous increase in consumer expenditures from 2002 to 2005 followed by a crash from 2007 through 2009. The pattern tracks Smith's revenue growth during the last five years.

Drilling down a little farther into residential private investment, we can look at spending on remodeling projects.

Exhibit V Remodeling Index - 2004 to 2011


Smith's retrofit business is directly affected by remodeling activity. The Buildfax ${ }^{8}$ Remodeling index shows a nation-wide declining trend of expenditures for all forms of remodeling projects beginning in 2006 and continuing through the end of 2009. Buildfax reports that expenditures for home improvement projects began to show year-over-year monthly gains for the last 23 consecutive months through October 2011. Those gains accelerated considerably during the last seven months. The index rose $34 \%$ year-over-year in September 2011 to 141.4, a new high for the index. Buildfax indicated that home improvement outlays in the western region of the U.S. increased at a faster rate with the western index rising to 146.5 .
"Mortgage rates continue to be near record lows, and as homeowners from coast to coast refinance, they are continuing to update their current home and invest in their properties," said Joe Emison, Vice President of research and development at BuildFax. "The data from BuildFax shows that homeowners are not only doing important 'maintenance' projects, such as fixing their roof, but also taking on projects that add to the 'livability' of their homes by adding decks, remodeling their bathrooms and updating their kitchens. These are immediate fixes they will enjoy and that potential buyers look for."9

IBISWorld projects private spending on home improvements to increase at a $4.4 \%$ annual rate through 2016. ${ }^{10}$ Glazing and window contractors may expect to see their revenues increase at a $7 \%$ annual rate during this period. ${ }^{11}$ Since new construction contributed roughly $23 \%$ of Smith's revenues in 2011, new housing starts are of particular importance to it. IBISWorld projects that new housing starts will increase at an average of $13.3 \%$ annual rate through 2016.

[^5]The Income Approach takes into account a company's future growth potential. The five-year revenue projection for the Subject Company (to be discussed below) will take into account the anticipated rebound in the industry. As the economic rebound continues, it will translate into revenue growth for the Company which will directly affect its value.

### 2.2.6 REGIONAL AND LOCAL ECONOMY

The primary customer base of Smith's Building Supply which is spread out over a fifty-mile radius encompasses five central valley counties: Sacramento, San Joaquin, Placer, Yolo, and El Dorado. California's economy has mirrored the nation's through the recession into the recovery. However, California remains one of the hardest hit states primarily due to the protracted collapse of its housing market. The central valley region has fared no better. The five-county market in which Smith's operates has some bright spots, but the major weakness in Sacramento and San Joaquin Counties persist. Sacramento and San Joaquin Counties, the two largest counties in the region, are still plagued with crippling unemployment. Sacramento at $11.9 \%$ and San Joaquin at $15.4 \%$ are moderately above the state average of $11.2 \%$ and well above the nation at $9.0 \%$. The high unemployment has pulled down household income as well. Sacramento's household income declined 3.9\% a year from 2007 to 2009 and Yolo's declined by $1.5 \%$ compared to the state at $-0.9 \%$ and the nation at $-0.5 \%$. The overall region reported a decline in Household Income of $1.6 \%$.

From Exhibit VI ${ }^{12}$ below, we can see that the population growth in the State of California averaged $1.4 \%$ annually from 1990 to 2000, approximately the U.S. average. The State growth rate, however, slowed somewhat to $1.1 \%$ annually from 2000 to 2007, as did the U.S. average. U.S. population growth slowed further from 2007 to 2009 to $0.5 \%$ annually. However, California's population growth only slowed to $0.8 \%$. Placer County continued its rapid growth since the 1990's at $2.4 \%$ per year from 2007 to 2009 . However, growth in the other four counties slumped, most notably Sacramento at $0.5 \%$ and San Joaquin at $0.3 \%$. The entire region only averaged $0.7 \%$ growth.

One troublesome statistic is the collapsing housing market. From 2007 to 2009 the decline in housing prices in California was far worse than the U.S. (-27.8\% vs. $-4.7 \%$ ). Two of the Subject's largest local markets are moderately worse than California overall - Sacramento at $-30.4 \%$ and San Joaquin at $-44.5 \%$. The huge loss of personal wealth resulting from the collapse of housing prices has caused homeowners to spend less which, in turn, has pulled the economy down farther.

[^6]
## Exhibit VI Demographics



Analysis: Projections for the California market are for slow income and job growth through 2012 and a return to normal growth in 2013. ${ }^{13}$ At present the Subject's local market appears somewhat weaker than the overall California market. The housing market and unemployment pictures in this region are showing only slight improvements which will continue to impact the local economy.

### 2.2.7 INDUSTRY ChARACTERISTICS. ${ }^{14}$

Although Smith's supplies the construction industry, its activities essentially straddle two distinctly different business classifications. Through its installation work Smith's functions as a specialty contractor and through its retail sales of windows and doors it functions as a retail/wholesale distributor of building materials. The distinction is important because, as a

[^7]retailer, the Company must maintain a large storefront with showrooms and sales clerks and, as an installer, the Company must employ tradesmen and have extensive investments in trucks and equipment. Throughout this analysis the data from these two classifications of businesses will be blended to present a composite picture of Smith's operations.

The industries which Smith's serves are defined under the Standard Industrial Classification (SIC) code \#17, 5031, and 5211, Specialty/Glazing Contractors and Distributors of Building Materials, Doors, and Windows.

### 2.2.7.1 GLAZING AND GLASS CONTRACTOR InduStry

The Glazing and Glass Contractor industry is a mature industry that is very fragmented with over 16,900 firms as of 2011 which represents a decline of $1.8 \%$ per year since 2006. Most of the companies in this group employ less than five workers although there are a few large companies that employ hundreds of people. The collapse of the real estate market caused this sector to post declines in revenues of $15.0 \%$ in 2009 and $11.9 \%$ in 2010. According to Glass Magazine, a survey of the top 50 glazing contractors showed that 32 lost money in 2010, 18 saw a decline in revenues of at least $30 \%$, and four posted declines in excess of $50 \%$.

IBISWorld noted that the industry will see growth again in 2011, primarily in the area of renovation work which is Smith's primary area of focus. However, the $73 \%$ decline in housing starts from 2005 to 2009 caused many contractors to shift from new construction to renovation work. Thus, the economic rebound in this area will be spread out over a larger contractor base. Regardless, the housing construction market which represents $20 \%$ of this industry's revenue is expected to increase at an $11.0 \%$ clip through 2016. Due to declining unemployment and increasing household income, overall revenue for the industry is expected to grow at $7 \%$ per year through 2016. One area of particular strength which affects Smith's directly is in the area of "green" construction from the use of energy efficient construction materials. Anderson windows, of course, is a major participant in this area with its line of energy efficient wood-frame, dual-glazed windows.

### 2.2.7.2 Home Improvement Industry

The home improvement industry can be characterized as a mature industry. As such, one can expect that it would grow at a lower rate than the overall economy. Most of the viable homeimprovement markets are presently fairly saturated; however, the barriers to entry into most markets are fairly significant. Due to outside storage requirements, home improvement stores have a very large footprint compared to most retail stores. Thus, the cost of land and buildings necessary to develop outlets in those few remaining underserved markets is very high or, available land is just non-existent.

The home improvement industry is comprised of two different segments. The retail hardware/home center sector, which is comprised of 23,000 home centers and hardware stores, is highly concentrated. Two enterprises, Home Depot and Lowe's, represent $73 \%$ of the industry's $\$ 145$ billion in revenues. When adding the industry's three largest franchises, Ace Hardware, Do It Best, and True Value, approximately $90 \%$ of the industry revenues are
from these five sources. Approximately $85 \%$ of the industry's revenues are generated by just over 4,000 home centers and only $15 \%$ comes from the 19,000 hardware stores.

Most of the smaller hardware stores and home centers do not sell doors and windows. However, the largest enterprises in this sector, such as Home Depot and Lowes, account for a significant percentage of door and window sales in the country. According to Mr. Smith, Anderson Windows, the industry's largest window and door manufacturer, sells $20 \%$ of its products through Home Depot alone. The industry's revenues have declined nearly $20 \%$ from its peak of $\$ 183$ billion in 2007 to $\$ 149$ billion in 2009 . However, the industry consolidation over the last decade coupled with the current recession has also reduced the number of home improvement enterprises from 5,219 in 2007 to 4,116 in 2009. Thus, the average revenue decline for existing enterprises that have survived the recession is not quite so dramatic.

The building material dealer sector of this industry is differentiated from home centers and hardware stores in that on the average $76 \%$ of its sales come from building materials such as lumber, plywood, roofing, flooring, and doors and windows, whereas hardware represents only $24 \%$. Unlike the home center sector, this sector is highly fragmented. There are no major players in this category and most outlets are small privately owned businesses with one location. The number of firms has decreased from roughly 43,800 in 2006 to 41,068 in 2011. This industry sector produced $\$ 91.2$ billion in revenues in 2011 with doors and windows accounting for just over $\$ 4$ billion. Probuild Holdings, a privately held company with 550 locations in 40 states, controls just $4 \%$ of the total market. 84 Lumber, the second largest building material dealer with 281 lumberyards in 35 states, accounts for just $1.4 \%$ of the industry revenues.

Companies in this sector generally rely on local demand. Therefore they compete on the basis of location. However, price competition is also particularly intense. Most of the customers of these outlets are professional tradesmen who tend to be fairly loyal. However, builders typically shop their larger building material orders with more than one store to get the cheapest price.

### 2.2.7.3 ECONOMIC DRIVERS

Several economic drivers affect growth in the home improvement industry. Disposable per capita income is one of the main determinants of growth. As disposable income increases, the consumer's ability to buy new houses or fix up existing ones also increases. The drivers for growth in disposable income are the unemployment rate and general economic growth. As unemployment declines and economic growth improves, household incomes increase.

Interest rates are also a primary determinant to industry growth. As we saw in the previous section, 30-year mortgage rates have declined to historic lows over the last few years. This has enabled consumers to leverage their home improvement purchases by tapping their homes for low-cost mortgage loans. In August 2011 the Federal Reserve went on record that
it intended to keep mortgage rates low until mid-2013. ${ }^{15}$ Thus, with disposable income projected to gradually increase over the next five years and with interest rates remaining low, spending on home improvements is expected to increase moderately.

### 2.2.8 FORECASTS

Real GDP is expected to grow at a $2.7 \%$ annual rate (an estimated nominal rate of $5.1 \%$ ) over the next ten years. ${ }^{16}$ Thus, overall economic activity is expected to be moderately below the $6.9 \%$ nominal rate seen over the last 50 years, but roughly in line with the $4.7 \%$ rate experienced since 1991. ${ }^{17}$

The housing sector of the economy is expected to remain lackluster for the near term as it slowly recovers from the collapse of 2007-2009. Nominal growth (including inflation) in the Residential Private Investment sector of GNP averaged 2.9\% per year from 1991 to 2010 below GDP's $4.7 \%$ average. However, as can be seen from Exhibit IV, that growth comes with considerable volatility. IBISWorld forecasts that private spending on home improvements will increase an average of $4.4 \%$ over the next five years and revenues for the building materials industry is expected to increase by $3.9 \%$ per year. ${ }^{18}$ The drivers for this increase are disposable income which IBISWorld expects to increase at a $1.6 \%$ rate over the next five years, and housing starts, which are forecast to increase by $22.4 \%$ per year.

It is reasonable to assume that with GDP and industry growth projections being moderately below long-term historical averages, and local demographics indicating high unemployment and slower growth, that Smith's will also endure a below average growth rate for the next five years. Sales for the Company's first six months of fiscal year 2012 are down $10 \%$. Mr. Smith anticipates a modest improvement in the second half of the year followed by a stronger 2013.

Management has projected revenues for the next five years to increase an average of:
Exhibit VII Five Year Revenue Growth Forecast

| 2012 | 2013 | 2014 | 2015 | 2016 |
| :---: | :---: | :---: | :---: | :---: |
| $-6.0 \%$ | $6.0 \%$ | $4.0 \%$ | $4.0 \%$ | $4.0 \%$ |

[^8]
### 3.0 Company History and Organization

### 3.1 COMPANY OPERATIONS

Smith's Building Supply was founded in 1976 by John Jones. Since Mr. Jones was essentially an installation contractor he was able to operate the business from his home. Within a few years the Company moved to a commercial location in West Sacramento, ten miles west of Sacramento. In 1981 Mr . Smith was hired as a general manager. He subsequently purchased the Company in 1980. The Company continued to grow rapidly resulting in the need to move to a larger facility at Howe and Arden Street in Sacramento in 1988.

By 1989 the insulation business began to slow as various government and utility subsidy programs expired. As a result Smith's began diversifying into door and window installations. The Company selected the Pella Corporation as its primary supplier of doors and windows. Pella is one of the largest manufacturers of windows in the country. The company specializes in several wood-frame dual-glazed windows product lines ranging from a medium-high end quality to a very high-end custom quality. Taking on these new product lines required additional warehouse space and so Mr. Smith purchased a new location for the business in Folsom in 1990 where it operated until 2000.

In 1999 the Company entered into an exclusive supplier arrangement with the Pella Renovation Corporation, a subsidiary of the Pella Corporation. The agreement made Smith's the exclusive supplier of Pella Renovation replacement windows in a 190 ZIP code market covering much of the central valley region in Northern California. The effect of this program was instantaneous growth for Smith's. Revenues increased from $\$ 6.5$ million in 1999 to $\$ 10$ million the following year.

The new relationship with Pella forced the Company to relocate again to larger facilities in 2002. The Folsom location was sold and a larger facility on Highway 80 and Watt in Sacramento 10 miles east of downtown Sacramento was rented. This location had a 6,000 square foot showroom and a 25,000 square foot warehouse. The building strategically fronted on Highway 80 and the Smith's Window signs could be clearly seen from the highway where nearly 175,000 cars passed daily ${ }^{19}$. Shortly thereafter Smith's opened an additional showroom in Folsom near the Highway 50.

The collapse of the real estate market in the Sacramento area in 2007 to 2009 precipitated a $40 \%$ decline in Smith's revenues. The large facility on Highway 80 and the Folsom showroom could no longer be supported. The Folsom showroom was shuttered in January 2010 and in December the Company moved for the fifth time in its history. The new location is four miles south of Highway 50 and Sunrise Boulevard on ABC Street. Although the strategic Highway 80 exposure was lost, the new premises are virtually across the street from the main entrance of Walmart. Mr. Smith reports that immediately following their relocation

[^9]they enjoyed a steady flow of walk-in customer traffic that originated in the Walmart parking lot.

The new location, which was bank REO property acquired out of foreclosure, was purchased for $\$ 1,250,000$, less than half its replacement cost. It has a moderately smaller warehouse than the Highway 80 location - 11,000 square feet as opposed to 25,000 . However, the showroom is much larger - 11,000 square feet verses 6,000 . Much of the contiguous property to the rear was not being utilized by its owner. As a result, Smith's rented approximately a quarter acre for parking its trucks and trailers for only $\$ 350$ per month. The relocation and closure of the Showroom enabled Smith's to reduce its occupancy costs from just under \$400,000 a year to less than $\$ 100,000$.

There are two major factors contributing to Smith's success. The first is its exclusive dealership with Pella Renovation which is a subsidiary of the Pella Corporation. This product can only be used for installations in existing structures. It is a made of a wood-vinyl composite material which produces very thermally-efficient windows. The high cost of heating and the various subsidies offered by federal and state governments and local utilities presently make retrofitting one's house fairly attractive. Approximately $70 \%$ of Smith's revenues come from this source. Most of this segment of its business is for residential renovations. However, in 2009 and 2010 the Company was successful in winning bids to two major commercial projects in the Sacramento area. Mr. Smith indicated that Smith's is aggressively promoting this new source of business and anticipates rapid growth in this market.

Smith's also has a 25 -year relationship with the Pella Corporation as its primary source of windows and doors for new construction. This product line generates just under $25 \%$ of the Company's total revenues. Over the last two years Smith's has also begun promoting the outright sale of window products with no installation. This market appeals to the contractor and do-it-yourself homeowner who wish to save money on installation costs. This retail sales sector generated roughly $17 \%$ of the Company's revenues in 2011 and, according to Mr . Smith, is a rapidly growing sector of its business.

The second factor that contributes to the Company's success is its extraordinarily aggressive marketing efforts. Before the collapse of the housing market, Smith's spent approximately $10 \%$ of its revenues on advertising and marketing. This is ten to fifteen times higher than the industry average. Smith's attended nearly every significant public gathering sponsored by civic organizations or service clubs. In 2007 alone it attended nearly 100 events and home shows. Since it was one of the few businesses to focus on this marketing approach, it received a considerable amount of attention. The Company spent approximately $25 \%$ of its advertising budget on radio and newspaper advertising and $30 \%$ of its budget on direct mail. In addition Smith's has a strong presence in regional magazines as well as a commanding website on the internet which almost always receives a top-of-first-page ranking from a variety of key words that one might use in the search engines. For example if you do an internet search for "Brothers Windows," you will find a link to Smith's Windows right next to it.

The result of this marketing effort is that customers from as far away as 50 miles in any direction regularly shop at Smith's.

### 3.2 COMPETITION

Home Depot - There are twelve Home Depot outlets in the Sacramento region within a 25mile radius of the Smith's. The nearest one to Smith's is less than one mile north on Sunrise Boulevard. Home Depot sells several brands of windows and also distributes Anderson Windows and Door products. Nationally it accounts for $20 \%$ of Anderson's sales. Thus, it is the most dominant of Smith's competitors. Mr. Smith speculated that Home Depot's pricing of comparable products is about 6 to $7 \%$ below Smith's. Another advantage that Home Depot has over Smith's is that it is frequently willing to take back windows that customers ordered in error. Home Depot is often allowed to return those widows to Pella, whereas, Smith's is not.

Smith's advantage over Home Depot is that it installs what it sells, whereas Home Depot subs the work out to independent contractors. Thus, scheduling and quality are potentially big issues. Smith's also has its own in-house service department and, as such, offers its customers a 10-year workmanship warrantee along with Pella's 10 year warrantee on defects and 20 years on the glass seals.

The window department is also one of Home Depot's weaker departments for sales and service. It is very difficult to find staff at any of its locations that are knowledgeable about windows in general and Pella in specific. This Appraiser recently attempted to buy Pella windows for a whole house from a Home Depot near Smith's. After spending four hours with the sales representative there were so many questions that he could not answer that he said he would have to get back to me the next day. It was 10 days before he produced a quote for my order. By then I had placed the order with another company.

Lowes - There are five Lowes outlets within a 25 miles radius of Smith's. The company distributes several brands of windows including the Pella brand which is a high-end woodframe dual glazed window similar to Pella's. Pella is the third largest window manufacturer in the country. Lowes has similar strengths and weaknesses as Home Depot. However, when this Appraiser became frustrated with Home Depot's window department, he went to Lowes where a 19 year-old sales representative, using Pella window software, wrote up an error-free window price quote for a whole house in less than 45 minutes.

Brothers Home Improvement - The company which has been in business for 17 years has nine locations in California and Nevada. Its nearest location to Smith's is in Roseville, ten miles north. Brothers specializes in vinyl windows which are generally inferior to woodframe; however, they are also considerably cheaper. They offer a line of replacement windows which many dealers do not. Since Brothers also manufactures its own line of windows, one would assume that it is very price competitive.

A-1 Door and Building Solutions - A-1 which has been in business for over 60 years, has one outlet in North Highlands approximately 10 miles north of Smith's. The company claims to be the largest Anderson Window dealer in the region. Mr. Smith pointed out that
the company is not part of the Pella Renovation program of replacement doors or windows; however, its website indicates that it does offer replacement windows in the main Pella product lines. The company also carries multiple brands of windows, including lower-priced vinyls, which Smith's does not, and offers installation.

### 3.3 StRENGTHS AND Weaknesses

Smith's primary strength is also its major weakness. In 1999 the Company entered into an exclusive agreement with the Pella Renovation Corporation, a subsidiary of the Pella Corporation, giving it the sole right to distribute Pella retrofit products within a 190 ZIP code area in the central valley area of Northern California. The relationship immediately produced more than $\$ 3$ million in revenues for the Subject. The relationship, however, requires that Smith's only sell and install Pella Renewal products. Smith's is also allowed to sell products from the Pella Corporation's window and door product lines which it can sell wholesale or retail with or without installation.

All of Smith's competitors carry several brands of windows ranging from low-end to highend. Thus, they can more effectively attract all levels of customer demand. During the current slowdown in construction, home sizes and quality have decreased significantly. As such, homeowners have downgraded the quality of windows they select making Pella windows unaffordable. By 2011 the high-end new construction market had nearly disappeared. In the retrofit market, which represents $70 \%$ of Smith's business, declining incomes have decreased the size of the typical renovation projects as well. Mr. Smith noted that in 2006 the average size of retrofit orders was $\$ 13,000$ whereas today it is $\$ 6,500$. Mr. Smith also points out that the Smith's business model is so geared to a high volume of largesized, high-end orders as characterized by the Pella Renovation program, that it could not profitably sell a cheap line of windows. Its overhead per order is too great.

### 3.4 MANAGEMENT

Smith's presently has approximately 40 full time employees. Following the proposed transition of ownership, Mr. Smith and his wife will depart from the Company. Mr. Smith presently functions as the general manager and sales manager for Smith's. All department heads report to him and all major decisions are made by him. He works full time at the business. Mrs. Smith also works full time at the business. She primarily acts as an administrative assistant to Mr. Smith.

Key employees who will be retained following the proposed sale are:
Bill Johnson - Mr. Johnson, the proposed buyer for Smith's Building Supply, joined the Company in November 2010 and assumed general manager duties in March 2011. He presently earns $\$ 75,000$ per year. In 1984 Mr . Johnson began working for the Wes-Cut Corporation, a small, local moulding and millwork manufacturer in Diamonds Springs. Two years later he assumed the duties of general manager. From 1989 to 2000 Mr. Johnson founded and managed Construction Services, which sold doors and custom mouldings to companies that exported manufactured housing to Russia, China, Japan, and Korea. In 2000

Mr. Johnson became the manager of Precision Door, Inc. in Roseville, California. The company sold doors and mouldings to custom builders throughout Northern California.

Bill Smith - aged 42, is the chief financial officer for Smith's. He has worked at Smith's since 1986 and presently earns $\$ 66,803$. Over the years, Bill developed the administrative systems and procedures for the Company. He is responsible for monitoring the financial health of the Company, including forecasting, budgeting, accounts receivable, accounts payable, and insurance. The administrative staff reports to Bill including Ann Tiefenbach, office manager, who has been with the Company since 1991 and Debbie Rasmussen, administrative assistant, who has been with Smith's since 2002. Following the sale of the business, Bill will be a $12.25 \%$ owner of the company.

Jim Smith - aged 38, is the production manager. He joined the Company in 1990 and presently earns $\$ 80,000$. He began as an installer of doors and windows and gradually worked his way up to production manager in 2000 . He is responsible for maintaining the inventory levels, managing installation crews, and coordinating the subcontractors that are used. Following the sale of the business Jim will be a $12.25 \%$ owner of the company.

John Smith Jr. - aged 32, is the marketing manager. He joined the Company in the mid 1990's in a staff-level capacity and presently earns $\$ 82,139$. From 1999 to 2007 his primary responsibility was as a sales representative in the showroom. In 2007 he assumed the duties of marketing manager and oversees the implementation of all the advertising campaigns with the various media used by the Company.

### 3.5 Primary Vendor

The Pella Corporation, founded in 1935, is a privately held company headquartered in Portland, Oregon. It is one of the top four window manufactures in the country along with Jeld-Wen, Andersen (both of which are also privately held), and Masonite International. Since Pella is privately held, it does not report its financials; however, Forbes estimated sales in 2011 to be $\$ 2.1$ billion (a $2.9 \%$ increase over the previous year) and a combined workforce of 14,000 employees in all its related companies. ${ }^{20}$ The company manufactures wood framed windows and patio doors under its Pella name, replacement wood-resin composite windows under its Pella Renovation name, and various vinyl windows and doors, patio doors under the trade names of Aaron, Goldline Window, ABC Doors, and Standard Windows.

Pella Renovation Corporation is a wholly owned subsidiary of the Pella Corporation founded in 1995. This company produces a product line of replacement windows that are made of a unique wood-resin composite material. The marketing thrust of the products is to serve the "Do-it-for me" homeowners who wish to replace their old windows with thermally efficient ones. Pella Renovation has developed a nation-wide network of local retailers who exclusively sell, install, and service the Pella Renovation windows.
${ }^{20}$ Forbes Lists-2011, "Largest Private Companies," http://www.forbes.com/lists/2011/21/private-companies11_rank.html
Error! Hyperlink reference not valid.

The Retailer Agreement contract entered into by Smith's Building Supply grants it the exclusive distributor rights to the Pella Renovation product lines through July 31, 2014. Pella may terminate the agreement for cause and Smith's may terminate it with a 180-day's written notice.

### 4.0 Financial Analysis of the Company

### 4.1 FinAncial Statements

Tax returns are the primary source of information used in the analysis. John Smith supplied tax returns for fiscal years ending 2007 through 2011. P\&Ls and Balance Sheets for years ending 2006 through 2011 were also supplied. The statements are prepared on a "compilation basis" using management's information without any verification by the CPA firm. No opinion as to the accuracy of the financials is offered by the Appraiser. Mr. Smith also provided the Appraiser with data to assist in developing a five-year projection of revenues and expenses. Mr. John Smith, the managing owner, was interviewed by the Appraiser on December 7, 2011

### 4.1.1 Summary of Historical Balance Sheets

| Accrual Basis | Jun 30, 2011 | Jun 30, 2010 | Jun 30, 2009 | Jun 30, 2008 | Jun 30, 2007 | Jun 30, 2006 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cash | 350,118 | 302,451 | 110,293 | 180,534 | 9,117 | 86,038 |
| Accounts Receivable | 32,873 | 223,095 | 231,187 | 235,856 | 457,519 | 648,408 |
| Inventory | 1,491 | 10,390 | 17,260 | 28,665 | 57,610 | 47,067 |
| Work In Progress | 178,457 | 147,139 | 181,220 | 221,375 | 356,661 | 358,840 |
| Shareholder Loans | 25,000 |  |  |  | 77,907 | 2,717 |
| Prepaid Expenses, Deposits | 8,499 | 11,442 | 15,766 | 43,781 | 88,797 | 246,175 |
| Total Current Assets | 596,438 | 694,517 | 555,726 | 710,211 | 1,047,611 | 1,389,245 |
| Fixtures \& Equipment | 159,858 | 257,244 | 280,993 | 309,260 | 342,042 | 385,100 |
| Tenant Improvements | 41,565 |  |  |  |  |  |
| Goodwill | 28,641 | 28,641 | 28,641 | 28,641 | 28,641 | 28,641 |
| Other |  |  |  | 11,750 | 400 |  |
| Total Assets | $\underline{\underline{826,502}}$ | $\underline{980,402}$ | $\underline{\underline{865,360}}$ | $\underline{\text { 1,059,862 }}$ | $\underline{\text { 1,418,694 }}$ | $\underline{\text { 1,802,986 }}$ |
| Accruals, Other Liabilities | 25,285 | 15,765 |  | 16,198 | -850 |  |
| Accounts Payable | 161,741 | 251,675 | 340,766 | 168,766 | 285,818 | 284,135 |
| Unrealized Income | 243,081 | 214,910 | 234,471 | 206,642 | 267,933 | 175,235 |
| t-Term IB Debt/ Lease Payable | 30,927 |  | 95,272 | 292,843 | 250,000 | 175,000 |
| Total Current Liabilities | 461,034 | 482,350 | 670,509 | 684,449 | 802,901 | 634,370 |
| Lease Payable | 34,042 | 42,582 | 83,338 |  | 234,062 | 255,049 |
| Long Term IB Debt | 368,451 | 321,492 | 108,818 |  | 225,284 |  |
| Contingent Liabilities | 47,000 |  |  |  |  |  |
| Total Liabilities | 910,527 | 846,424 | 862,665 | 684,449 | 1,262,247 | 889,419 |
| Net Worth | -84,025 | 133,978 | 2,695 | 375,413 | 156,447 | 913,367 |
| Total Liabilities + Net Worth | 826,502 | $\underline{\underline{980,402}}$ | $\underline{\underline{865,360}}$ | $\underline{\underline{1,059,862}}$ | $\underline{\underline{1,418,694}}$ | $\underline{\underline{1,802,786}}$ |
| IB Debt $=$ Interest Bearing Debt |  |  |  |  |  |  |

The following are the balance sheets for Smith's Building Supply for the last six years.

For comparison purposes each balance sheet entry above is recalculated and expressed in terms of its percentage of total assets. This format, referred to as a "common-size" presentation, makes it easier to compare the Subject Company with its industry peers. The The industry data was taken from Bizminer ${ }^{21}$ under SIC code \#17, 5031, and 5211, Window Contractors and Retailers and Building Material Dealers. The financial data for each of these three SIC classifications was averaged together to obtain a composite profile that more accurately reflects the various characteristics of Smith's. There were 10,122 companies in these groups with sales ranging from $\$ 5$ million to $\$ 9.9$ million. It should be noted that Bizminer data for the year 2011 is not available yet. As a result, direct comparisons can only be made for the years 2007 to 2010.

Exhibit IX Common Size Balance Sheet

| COMMON SIZED <br> BALANCE SHEET | Smith Building Supply |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2011 |  | 2010 |  | 2009 |  | 2008 |  | 2007 |  | 2006 |  |
|  | Industry | Subject | Industry | Subject | Industry | Subject | Industry | Subject | Industry | Subject | Industry | Subject |
| Assets <br> @ Cash/Securities |  | 42.4\% | 16.8\% | 30.8\% | 18.3\% | 12.7\% | 13.6\% | 17.0\% | 12.3\% | 0.6\% | 12.0\% | 4.8\% |
| \% Accounts Receivable |  | 4.0\% | 24.7\% | 22.8\% | 26.9\% | 26.7\% | 29.3\% | 22.3\% | 31.2\% | 32.2\% | 31.7\% | 36.0\% |
| \$ Inventory/WIP |  | 21.8\% | 25.8\% | 16.1\% | 23.2\% | 22.9\% | 23.6\% | 23.6\% | 26.3\% | 29.2\% | 27.5\% | 22.5\% |
| * Other Curr Assets |  | 4.1\% | 5.6\% | 1.2\% | 6.3\% | 1.8\% | 6.1\% | 4.1\% | 6.4\% | 11.8\% | 4.9\% | 13.8\% |
| Total Current Assets |  | 72.2\% | 72.9\% | 70.8\% | 74.8\% | 64.2\% | 72.5\% | 67.0\% | 76.3\% | 73.8\% | 76.1\% | 77.1\% |
| + Prop, Plant, Equip - NET |  | 24.4\% | 14.9\% | 26.2\% | 19.0\% | 32.5\% | 20.5\% | 29.2\% | 17.1\% | 24.1\% | 17.6\% | 21.4\% |
| $\wedge$ Other Assets |  | 3.5\% | 12.1\% | 2.9\% | 6.3\% | 3.3\% | 7.0\% | 3.8\% | 6.6\% | 2.0\% | 6.3\% | 1.6\% |
| Total Assets |  | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% |
| Liabilities |  |  |  |  |  |  |  |  |  |  |  |  |
| \& Accounts Payables |  | 19.6\% | 14.1\% | 25.7\% | 23.1\% | 39.4\% | 14.8\% | 15.9\% | 18.4\% | 20.1\% | 18.0\% | 15.8\% |
| ? Short Term IB Debt |  | 3.7\% | 17.7\% | 0.0\% | 5.2\% | 11.0\% | 9.8\% | 27.6\% | 9.2\% | 17.6\% | 9.7\% | 9.7\% |
| \# Other Current Liabilities |  | 32.5\% | 7.3\% | 23.5\% | 10.5\% | 27.1\% | 10.2\% | 21.0\% | 10.1\% | 18.8\% | 9.2\% | 9.7\% |
| Total Current Liab |  | 55.8\% | 39.1\% | 49.2\% | 38.8\% | 77.5\% | 34.7\% | 64.6\% | 37.6\% | 56.6\% | 36.9\% | 35.2\% |
| - Other Liabilities |  | 0.0\% |  | 0.0\% |  | 0.0\% |  | 0.0\% |  | 0.0\% |  | 0.0\% |
| < Long Term IB Debt |  | 54.4\% | 15.1\% | 37.1\% | 22.2\% | 22.2\% | 21.3\% | 0.0\% | 20.4\% | 32.4\% | 20.5\% | 14.1\% |
| Total Liabilities |  | 110.2\% | 54.2\% | 86.3\% | 61.0\% | 99.7\% | 56.0\% | 64.6\% | 58.0\% | 89.0\% | 57.4\% | 49.3\% |
| Total Net Worth |  | -10.2\% | 45.8\% | 13.7\% | 39.0\% | 0.3\% | 44.0\% | 35.4\% | 42.0\% | 11.0\% | 42.6\% | 50.7\% |
| Total Liab \& Net Worth |  | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% | 100.0\% |
| Balance Sheet Key: @ Cash \% Accounts Receivable \$ Inventory * Other Current Assets ^ Other Long-Term Assets + Fixed Assets \& Accounts Payable \# Current Liabilities ? Short Term IB |  |  |  |  |  |  |  |  |  |  |  |  |

### 4.1.1.1 CASH AND ACCOUNTS RECEIVABLE Position

From 2006 to 2010 cash balances for the Company averaged $13.2 \%$ of total assets which was in line with the industry at $14.6 \%$. However, cash increased substantially from $12.7 \%$ of total assets in 2009 to $42.4 \%$ in 2011. Actual cash balances increased from $\$ 110,000$ in 2009 to $\$ 302,000$ in 2010 and $\$ 350,000$ in 2011. However, the increase in the percentage of assets held in cash in 2011 was only partially due to the actual increase in cash. The percentage increase in 2011 was also due to the reduction in total assets from 2010 to 2011. The reduction in total assets was the result of a significant decline in accounts receivable balances in 2011.

Regardless, the Company is presently carrying cash balances in excess of what is necessary to run the business. Mr. Smith indicated that the cash balances fluctuate radically from day to day, but felt that an end-of-month balance of $\$ 150,000$ or more was reasonable. The sixyear average balance for the Company was approximately $\$ 175,000$. Thus, if $\$ 175,000$ is

[^10]considered normal, then, that would indicate that the Company carried an excess cash balance of $\$ 175,000$ in 2011.

Part of the increased cash balances was also due to larger than normal collections of accounts receivable in the days just prior to the close of the accounting period. From 2006 to 2010 the Company's accounts receivable averaged $28.0 \%$ of total assets which was in line with the industry at $28.8 \%$. However, the Company began aggressively managing outstanding receivables during the recent year and has reduced balances to just $4.0 \%$ of total assets. Prior year's receivable balances were generally higher because they often included customer holdbacks. Holdbacks occur on jobs that are substantially completed but require follow-up service to finish. The customer typically paid a portion of the final billing and held back the rest until they were satisfied with the job. The Smith's billing department has recently begun to pursue collections more aggressively and has reduced the amount of holdbacks significantly.

Mr. Smith indicated that receivable balances fluctuate radically from day to day; however, current balances typically average $\$ 75,000$ or more. Therefore, as receivable balances increase from their year-end lows to the normal level of $\$ 75,000$ or more, one would expect that the $\$ 45,000$ increase in receivables would result in a corresponding decrease in cash. Accordingly, the surplus cash balances identified above would normally be $\$ 45,000$ less or, $\$ 130,000$.

The $\mathbf{\$ 1 3 0 , 0 0 0}$ Surplus Cash balance is considered a "non-operating asset" (i.e. not essential to the continued profitable operations of the Company) that will be removed from the normalized balance sheet. However, it will be added back to the final conclusion of value that is calculated under the Income Approach.

### 4.1.1.2 INVENTORY

From 2006 to 2010 Smith's inventory levels averaged $22.9 \%$ of total assets which was in line with the industry level of $25.3 \%$. Inventory in 2010 declined moderately below industry levels to $16.1 \%$; however, 2011 saw a rebound to $21.8 \%$. Thus, inventory levels appear to be adequate to support current sales.

### 4.1.1.3 LIABILITIES

On the liability side of the balance sheet Smith's current liabilities more than doubled from $35.2 \%$ of total liabilities and worth in 2006 to $77.5 \%$ in 2009 . The industry was fairly stable during this period averaging just $37.4 \%$. Most of the increase in current liabilities was due to a short-term bank loan that was used to finance tenant improvements at the new showroom that was opened in Roseville in the early 2000's. The showroom was closed in 2010 and the loan was paid off; however, Smith's merely shifted most of the short-term debt to its accounts payable in 2009. Thus, current liabilities remained high until 2010 when the Company obtained a long-term SBA loan and reduced its accounts payable to normal levels. As a result, current liabilities fell to $49.2 \%$ of total debt and equity in 2010 which was still modestly higher than the industry at $39.1 \%$.

Smith's high level of current liabilities is entirely the result of the deposits it collects on customer orders. By law the Company can demand a $10 \%$ or $\$ 1,000$ up-front deposit on orders for replacement windows. It can also request up to a $50 \%$ deposit on new construction orders. It is fairly common for window retailers to request some level of deposits, but not all do. Smith's deposit balances averaged $20.0 \%$ of total debt and equity from 2006 to 2010 (reflected in Other Current Liabilities), whereas the industry only averaged $9.5 \%$. For the most part this is an excellent source of no-cost funds which Smith's uses to its advantage. It does not appear to pose any short-term liquidity problems for the Company.

Long-term debt of the Company, however, is at a troublesome level. Smith's long-term interest-bearing debt tripled from $14.1 \%$ of total debt and equity in 2006 to $54.4 \%$ in 2011. The industry long-term debt averaged just $19.9 \%$ of total debt and equity during the same period.

Total liabilities in 2006 was $49.3 \%$ of total debt and equity which was comfortably lower than the industry level of $57.4 \%$. However, the recession created significant operating losses for the company resulting in rapid declines in retained earnings whereas debt levels remained high. Smith's total debt currently is $110.2 \%$ of total debt and equity which is much higher than the industry average of $57.3 \%$ from 2006 to 2010.

Balance Sheet Analysis: Smith's highly leveraged balance sheet compared to the industry will pose significant problems for it in the future. It will have great difficulty in obtaining any new financing which will eliminate the ability to take advantage of major growth opportunities that may present themselves in the future.

### 4.1.2 Summary of Historical Income Statement

Smith's Building Supply's revenue and net profit growth for the last six years declined moderately during the recession but has shown a slight improvement since 2009. The bar charts below give a visual presentation of its recent history.

Exhibit X Revenue Bar Chart - 2006 to 2011


Exhibit XI Net Income before Taxes - 2006 to 2011


The Income Statements for Smith's Building Supply for the last six years are as follows:
Exhibit XII Income Statement - 2006 to 2011

| INCOME | $\begin{array}{\|c\|} \hline \text { Jun 30, } 2011 \\ 12 \text { Mos. } \\ \hline \end{array}$ | $\begin{array}{\|c} \hline \text { Jun 30, } 2010 \\ 12 \text { Mos. } \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline \text { Jun 30, } 2009 \\ 12 \text { Mos. } \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline \text { Jun 30, } 2008 \\ 12 \text { Mos. } \\ \hline \end{array}$ | $\begin{array}{\|c} \hline \text { Jun 30, } 2007 \\ 12 \text { Mos. } \\ \hline \end{array}$ | $\begin{gathered} \text { Jun 30, } 2006 \\ 12 \text { Mos. } \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| New Construction-Installed | 480,696 | 1,381,372 | 1,103,377 | 1,323,326 | 2,325,987 | 3,037,197 |
| Product Only | 1,504,408 | - | - |  | - | - |
| Retrofit (Residential) | 6,189,790 | 6,914,490 | 6,494,734 | 8,725,589 | 10,976,952 | 10,000,780 |
| Retrofit (Commercial) | 50,572 |  |  |  |  |  |
| Window Coverings | 397,856 | 403,980 | 419,198 | 183,756 | - | - |
| Other, Supplies, Service, Renewal | 291,440 | 779,555 | 661,346 | 238,848 | 396,187 | 268,793 |
| Marketing Discounts rinance Cnarges, sales Uiscounts | $\begin{gathered} (1,179,077) \\ 3,913 \end{gathered}$ | $\begin{array}{r} (1,304,363) \\ (14,34) \end{array}$ | $(729,568)$ <br> (490,453) | $(547,371)$ <br> (128,214) | $\begin{array}{r} (556,703) \\ (90,402) \end{array}$ | $(437,604)$ |
| TOTAL INCOME | 7,739,598 | 8,160,692 | 7,458,134 | 9,795,934 | 13,052,021 | 12,869,166 |
| COST OF GOODS SOLD |  |  |  |  |  |  |
| Beginning Inventory | 10,390 | 17,260 | 29,244 | 57,610 | 47,067 | - |
| Purchases | 3,537,147 | 3,695,402 | 3,368,311 | 4,093,292 | 5,820,553 | 5,560,889 |
| Labor | 592,089 | 720,829 | 683,710 | 915,938 | 1,022,736 | 1,195,264 |
| Commissions | 602,505 | 605,258 | 570,820 | 821,069 | 1,090,658 | 1,165,728 |
| Workman's Compensation | 22,756 | 36,851 | 48,569 | 55,870 | 91,641 | 183,396 |
| Other Costs | 427,455 | 488,228 | 514,673 | 770,208 | 1,449,826 | 985,500 |
| Ending Inventory | $(1,491)$ | $(10,390)$ | $(17,260)$ | $(28,665)$ | $(57,610)$ |  |
| TOTAL COST OF GOODS SOLD | 5,199,499 | 5,596,811 | 5,233,431 | 6,730,381 | 9,526,010 | 9,159,976 |
| GROSS PROFIT | 2,540,099 | 2,563,881 | 2,224,703 | 3,065,553 | 3,526,011 | 3,709,190 |
| OTHER INCOME | 32.8\% | 31.4\% | 29.8\% | 31.3\% | 27.0\% | 28.8\% |
| Interest Income | 857 | 488 | 1,453 | 8,283 | 11,919 | 3,238 |
| Mfr Service Reimbursements | 42,465 | 56,418 | 81,678 | 52,081 | 93,526 | 106,466 |
| Discounts Earned | 46,378 | 40,961 | 38,148 | 59,297 | 107,493 | 107,472 |
| Gain(loss) on Sale of Assets |  |  | - | - | - | 6,032 |
| Other | 28,356 | 64,790 | 89,596 | 6,021 | 89,229 | 15,305 |
| TOTAL OTHER INCOME | 118,056 | 162,657 | 210,875 | 125,682 | 302,167 | 238,513 |
| EXPENSES |  |  |  |  |  |  |
| Compensation to Officers | 116,400 | 168,000 | 70,000 | 132,942 | 345,384 | 345,384 |
| Salaries and Wages | 595,398 | 497,168 | 561,416 | 658,636 | 824,143 | 531,254 |
| Repairs and Maintenance | 40,731 | 48,426 | 40,656 | 29,203 | 39,944 | 14,188 |
| Bad Debts | 1,925 | 8,523 | 28,321 | 2,284 | 2,637 | 39,778 |
| Rents | 188,472 | 387,091 | 366,738 | 368,672 | 463,807 | 355,806 |
| Taxes-Payroll | 122,169 | 133,583 | 122,602 | 146,057 | 225,905 | 184,209 |
| Taxes-Property | 19,208 | 1,869 | 1,155 | 947 | 164 | 255 |
| Taxes and Licenses | 2,236 | 92,236 | 14,301 | 7,222 | 47,927 | 23,757 |
| Interest, Service Charges | 70,819 | 12,561 | 10,311 | 33,052 | 42,409 | 10,712 |
| Depreciation | 72,395 | 66,055 | 28,267 | 32,782 | 32,099 | - |
| Advertising | 552,460 | 596,375 | 704,965 | 904,977 | 1,197,904 | 1,035,863 |
| Homeshows, Events, Living Expenses | 43,335 | 16,940 | 37,404 | 37,162 | 48,735 | 45,030 |
| Pension and Profit Sharing | - | - | - | - | 41,464 | 60,633 |
| Employee Benefits | 55,492 | 56,271 | 101,029 | 64,947 | 97,707 | 97,713 |
| Accounting | 9,033 | 3,200 | 3,200 | 3,700 | 3,500 | 2,925 |
| Auto and Truck, Parking | 117,371 | 181,225 | 90,068 | 83,115 | 114,576 | 112,491 |
| Bank Charges | 25,643 | 32,159 | 49,902 | 59,335 | 85,569 | 75,395 |
| Misc., Barter, Dues, Other, Training, Safe | 69,191 | 97,770 | 97,318 | 138,167 | 159,952 | 168,954 |
| Computer Software, IT, Supplies | 68,540 | 74,469 | 58,077 | 69,788 | 81,704 | 88,539 |
| Damaged Goods | 52,495 | 7,923 | 45,253 | 11,499 | 61,877 | 66,012 |
| Delivery and Freight | 6,098 | 5,424 | 8,153 | 7,942 | 16,337 | 19,970 |
| Design Work | 11,117 | 5,490 | 9,124 | 5,389 | 16,558 | 2,433 |
| Governmental | $(11,146)$ | - | - | - | - | 910 |
| Insurance | 57,566 | - | - | 78,788 | 90,015 | 75,941 |
| Legal and Professional | 15,706 | 23,648 | 54,659 | 29,026 | 35,637 | 10,968 |
| Meals and Entertainment, Travel | 5,459 | 2,384 | 2,778 | 5,500 | 14,370 | 9,553 |
| Office Expense, Postage, Printing | 16,219 | 22,020 | 8,421 | 11,280 | 29,948 | 102,524 |
| Outside Services | - | 3,048 | - | - | - | - |
| Supplies, Uniforms | 124,170 | 3,511 | 30,399 | 11,105 | 47,510 | 19,950 |
| Tools | 9,460 | 17,790 | 4,063 | 13,415 | 17,694 | 84,473 |
| Donations | - | - | - | 1,062 | - | 9,884 |
| Telephone and Utilities, Internet | 66,244 | 51,142 | 61,716 | 63,709 | 69,683 | 59,981 |
| TOTAL EXPENSES | 2,524,206 | 2,616,301 | 2,610,296 | 3,011,703 | 4,255,159 | 3,655,485 |
| Net Profit Before Taxes | 133,949 | 110,237 | $(174,718)$ | 179,532 | $(426,981)$ | 292,218 |

Detailed information on the above P\&Ls can be found on Exhibit XLIII on Page 119. For comparison purposes each of the above income statement accounts is converted to "commonsize" and compared to the Subject Company's industry peers The industry data was taken from Bizminer ${ }^{22}$ under SIC codes \#17, 5031, and 5211, Window Contractors and Retailers and Building Material Dealers. The financial data for each of these three SIC classifications was averaged together to obtain a composite profile that more accurately reflects the various characteristics of Smith's. There were 10,122 companies in these groups with sales ranging from $\$ 5$ million to $\$ 9.9$ million. It should be noted that Bizminer data for the year 2011 is not available yet. As a result, direct comparisons can only be made for the years 2007 to 2010.

Exhibit XIII Common Size Income Statement


### 4.1.2.1 SALES GROWTH

Revenues of the composite profile of Bizminer companies representing the peer group declined by a $2.4 \%$ Compounded Annual Growth Rate (CAGR) from 2006 to 2010. The best year was 2007 with a gain of $4.2 \%$ over the prior year and 2008, the worst year, showed a decline of $11.9 \%$. $^{23}$

| Industry Growth | $\underline{2006}$ | $\underline{2007}$ | $\underline{2008}$ | $\underline{2009}$ | $\underline{2010}$ |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Industry - Revenue | $\$ 307 \mathrm{Bn}$ | $\$ 320 \mathrm{Bn}$ | $\$ 282 \mathrm{Bn}$ | $\$ 252 \mathrm{Bn}$ | $\$ 246 \mathrm{Bn}$ |
| $\%$ Change | $\mathbf{3 . 0 \%}$ | $\mathbf{4 . 2 \%}$ | $\mathbf{- 1 1 . 9 \%}$ | $\mathbf{- 1 0 . 6 \%}$ | $\mathbf{- 2 . 4 \%}$ |

[^11]The Subject Company's revenues decreased at an annual rate of $12.7 \%$ from 2006 to 2010 . Revenues for 2010 showed a gain of $9.4 \%$ over 2009 which was superior to the industry's $2.4 \%$ decline. Although industry data for 2011 is not available, Smith's revenues showed a loss of $5.2 \%$ in 2011 which is expected to be worse than the industry. Thus its overall revenue growth appears to be inferior to its peers.

### 4.1.2.2 Gross Profits

Industry Gross Profit Margins have ranged between $28.2 \%$ and $31.8 \%$ and averaged $29.4 \%$ from x2006 to 2010. Smith's Gross Profit Margin ranged between $27.0 \%$ and $32.8 \%$ and averaged $29.7 \%$ during the same period.

A reason for the some of the difference in gross margins between the Subject and the BizMiner database is that it is common for some of the BizMiner companies to exclude labor in Cost of Goods Sold. As such, gross margins are not always directly comparable between the Subject and the industry.

| Smith's | $\underline{2011}$ | $\underline{2010}$ | 2009 | $\underline{2008}$ | $\underline{2007}$ | $\underline{2006}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Gross Margin | 32.8\% | 31.4\% | 29.8\% | 31.3\% | 27.0\% | 28.8\% |
| Labor Costs | 7.7\% | 6.1\% | 7.5\% | 6.7\% | 6.3\% | 4.1\% |
| Net Margin after Labor | 25.1\% | 25.3\% | 22.3\% | 24.6\% | 20.7\% | 24.7\% |
| Industry | 2011 | $\underline{2010}$ | 2009 | $\underline{2008}$ | $\underline{2007}$ | $\underline{2006}$ |
| Gross Margin | 0.0\% | 31.8\% | 28.8\% | 29.1\% | 28.2\% | 29.0\% |
| Labor Costs | 0.0\% | 7.9\% | 8.0\% | 8.1\% | 7.9\% | 8.4\% |
| Net Margin after Labor | 0.0\% | 23.9\% | 20.8\% | 21.0\% | 20.3\% | 20.7\% |

A more accurate comparison of operations would be to look at the gross profit margin after all labor costs. The result is a Net Margin after Labor regardless of whether labor was expensed or included in Cost of Goods Sold.

Smith's enjoyed a slight Net-Margin-after-Labor premium over the industry from 2006 to 2010. Smith's' Net Margin after Labor averaged $23.5 \%$ during this period compared to the industry's $21.3 \%$. The gap closed somewhat in 2010 with the Subject's margin rising to $25.3 \%$ and the industry rising to $23.9 \%$. Regardless, Smith's still significantly outperforms the industry in its ability to generate cash flow.

### 4.1.2.3 Rent Expense

Rent Expense is often a potential threat to a company's future cash flow. From 2006 to 2010 the guideline companies' average rent as a percentage of revenues was $2.1 \%$ which was considerably lower than the Subject's $3.9 \%$ average. However, Smith's had multiple locations in the early 2000's. In 2010 the Company closed its Roseville showroom and relocated the main operations to White Rock Road. In terms of its percentage of revenues, the proposed rent at the new location will be somewhat less than the five-year average of the old locations $-3.4 \%$ vs. $3.9 \%$ which is still moderately higher than the industry. However, it
should be noted that this comparison may not be too relevant. Many of the Bizminer companies in the composite profile that was created for this analysis are contractors who typically do not have retail storefronts such as the Subject. Their rents are usually for small warehouse space used primarily for storage.

### 4.1.2.4 ADVERTISING

From 2006 to 2010 the industry spent an average of $0.6 \%$ of its revenues on advertising. The Subject spent an average of $9.0 \%$, nearly 15 times as much.

The contract that Smith's has with Pella Renovation gives it the exclusive rights to nearly 200 ZIP codes in the central valley area of Northern California. As a result the Subject markets heavily in all these area using newspapers, radio, direct mail, home shows, and events. As a result the Company regularly draws its customers from as far away as 50 miles.

Advertising outlays have been cut back in the last two years due to the slowdown in business and also due to lack of cash flow. Total advertising declined to $7.5 \%$ in 2010 and $7.7 \%$ in 2011. It is reasonable to assume that a permanent reduction in advertising may impair future sales. Mr. Smith indicated that the company is presently analyzing its sales budget closely to determine the need to increase it to pre-recession levels in order to regain lost sales.

Income Statement Analysis: The Subject's five-year average growth has lagged behind the industry; however, it appeared to be closing the gap in 2010. The new store relocation in 2011 coupled with a reduced advertising budget may be having a greater impact on sales in 2011 than anticipated, as revenues posted a loss of $5.2 \%$ in spite of the fact that consumer remodeling outlays increased significantly this year.

The Bizminer companies produced a five-year average cash flow (as measured by Earnings before Interest Taxes and Depreciation [EBITDA] plus Owner's Compensation) of $9.5 \%$ of gross revenues. Smith's cash flow averaged $2.5 \%$ of revenues, significantly lower than its peers. The Subject has reduced this gap in the last two years. However, the $5.1 \%$ cash flow margin in 2011 is still well behind its peers.

All factors considered, the Subject's income statement history is moderately inferior to the industry.

### 4.2 Industry Ratios

The Bizminer data provides industry comparisons of key financial ratios. These ratios tie the income statement data to the balance sheet data and provide us with a means to critically analyze the strengths and weaknesses of a company's operations compared to its peers. The industry data was taken from Bizminer ${ }^{24}$ under SIC codes \#17, 5031, and 5211, Window Contractors and Retailers and Building Material Dealers. The financial data for each of these three SIC classifications was averaged together to obtain a composite profile that more

[^12]accurately reflects the various characteristics of Smith's. There were 10,122 companies in these groups with sales ranging from $\$ 5$ million to $\$ 9.9$ million. It should be noted that Bizminer data for the year 2011 is not available yet. As a result, direct comparisons can only be made for the years 2006 to 2010.

Exhibit XIV Peer Group Ratio Analysis

| Smith Building Supply |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Industry | Subject | Industry | Subject | Industry | Subject | Industry | Subject | Industry | Subject | Industry | Subject |
| Receivables Turnover (Times) | 235.4 x | 9.0 x | 36.6 x | 9.0 x | 32.3 x | 8.5 x | 41.5 x | 7.9 x | 28.5 x | 7.6 x | 19.8 x |
| (Days) | 2 days | 41 Days | 10 days | 41 Days | 11 days | 43 Days | 9 days | 46 Days | 13 days | 48 days | 18 days |
| Inventory Turnover (Times) | 28.9 x | 5.9 x | 35.5 x | 7.4 x | 26.4 x | 7.5 x | 26.9 x | 6.7 x | 23.0 x | 6.2 x | 22.6 x |
| (Days) | 13 days | 62 days | 10 days | 49 days | 14 days | 49 days | 14 days | 54 days | 16 days | 58 days | 16 days |
| Payables Turnover (Times | 21.9 x | 10.7 x | 14.7 x | 7.5 x | 9.9 x | 11.9 x | 24.3 x | 9.7 x | 20.4 x | 9.6 x | 19.6 x |
| (Days) | 17 days | 34 days | 25 days | 49 days | 37 days | 31 days | 15 days | 38 days | 18 days | 38 days | 19 days |
| Revenue $\div$ Fixed Asset-Net | 38.4 x | 14.8 x | 31.7 x | 12.8 x | 26.5 x | 12.1 x | 31.7 x | 14.4 x | 38.2 x | 13.8 x | 33.4 x |
| Revenue $\div$ Fixed Asset-Gross | 11.0 x | 5.4 x | 7.8 x | 4.8 x | 7.5 x | 4.9 x | 9.8 x | 5.4 x | 13.1 x | 5.2 x | 14.5 x |
| Working Capital Turnover | 57.2 x | 6.5 x | 38.5 x | 6.7 x | -65.0 x | 6.6 x | 380.2 x | $6.4 \times$ | 53.3 x | 6.2 x | $17.0 \times$ |
| Working Capital to Assets | 16.4\% | 33.8\% | 21.6\% | 35.9\% | -13.3\% | 37.8\% | 2.4\% | 38.7\% | 17.2\% | 39.2\% | 41.9\% |
| Total Asset Turnover | 9.4 x | 2.2 | 8.3 x | 2.4 | 8.6 x | 2.5 | 9.2 x | 2.5 | 9.2 x | 2.4 | 7.1 x |
| Working Capital to Sales | 1.7\% | 15.3\% | 2.6\% | 14.8\% | -1.5\% | 15.2\% | 0.3\% | 15.6\% | 1.9\% | 16.2\% | 5.9\% |
| Total Int Bearing Debt to Revenues | 6.21\% | 14.8\% | 4.46\% | 11.3\% | 3.85\% | 12.5\% | 2.99\% | 12.0\% | 5.43\% | 12.4\% | 3.34\% |
| TOTAL INVESTED CAPITAL STRUCTURE |  |  |  |  |  |  |  |  |  |  |  |
| Total Int Bearing Debt to Total Invested Capital | 121.2\% | 41.7\% | 73.1\% | 41.3\% | 99.1\% | 41.4\% | 43.8\% | 41.3\% | 81.9\% | 41.4\% | 32.0\% |
| Net worth to Total Invested Capital | -21.2\% | 58.3\% | 26.9\% | 58.7\% | 0.9\% | 58.6\% | 56.2\% | 58.7\% | 18.1\% | 58.6\% | 68.0\% |
| Total Invested Capital to Total Assets | 48.0\% | 78.6\% | 50.8\% | 66.4\% | 33.5\% | 75.0\% | 63.1\% | 71.6\% | 61.0\% | 72.8\% | 74.5\% |

### 4.2.1 Accounts Receivable Turnover (Revenues $\div$ Accounts Receivable)

The Bizminer companies turned their accounts receivables an average of 8.4 times per year (which equals every 44 days) from 2006 to 2010. Smith's turned its receivables an average of 31.7 times ( 12 days) during the same period. Both the guideline companies and the Subject have been fairly consistent at these rates over the last five years, trending slightly lower. However, the Subject's turnover declined significantly in 2011. Smith's aggressively pursued collections and also regularly requested payment immediately upon completion. That, coupled with the fact that a significant portion of the sales are prepaid by customer deposits has generally kept receivables low. Mr. Smith indicated that receivables were lower than normal at year-end 2011 and that $\$ 75,000$ or more was the average level over much of the year.

Analysis: Smith's low level of accounts receivable will give it a modest cash flow advantage over its peers.

### 4.2.2 InVENTORY TURNOVER (Cost of Goods Sold $\div$ Inventory)

The Subject's inventory turnover averaged 14 days ( 26.9 times per year) over the last five years compared to the industry's 55 days ( 6.7 times per year). The bulk of Smith's inventory is work-in-progress. These are windows and doors that the Company has just purchased to fill customer prepaid orders. As soon as installation crews are available, the windows are installed and the sale is invoiced. The Company does not carry any door and window inventory that is held for sale to the general public. Thus, there is no risk of obsolescence or
overstocking. However, included in work-in-progress are trim mouldings and supplies such as nails, caulk, and flashing that are used to install the windows. Mr. Smith estimated that there is typically carries $\$ 75,000$ in this type of inventory.

Analysis: The inventory risk for Smith's is considerably below industry levels. Thus the cash flow burden typically associated with maintaining extensive inventory levels is kept to a minimum.

### 4.2.3 Accounts Payable Turnover

The Bizminer company's accounts payable turned over an average of 38 days from 2006 to 2010. Smith's averaged just 23 days during the same period. Both the guideline companies and the Subject have been fairly stable at this level for the last three years.

Analysis: The Subject Company is superior to its peers in this area.

### 4.2.4 Fixed Asset Turnover (Revenues $\div$ Gross Fixed Assets before Depreciation)

The Company's ratio of revenues to gross furniture, fixtures, and equipment (FF\&E) averaged 10.5 times from 2006 to 2010 compared with the guideline companies 5.2 times during the same period. A high turnover ratio for FF\&E means that for the same level of fixtures the Subject Company is trying to generate a much higher level of sales than the peer group. More than likely the high turnover rate suggests that the Company does not maintain an adequate level of fixtures, equipment, and computers necessary to sustain its current level of revenues. However, the Subject's fixed asset turnover has steadily improved in recent years, declining to 7.8 times in 2010.

The relocation in 2011 necessitated the purchase of new fixtures and furniture which increased fixtures investments and would have improved the turnover ratio. However, there were a number of vehicles on the fixtures ledger from the tax returns that had been traded in for new vehicles in recent years but had not been removed from the fixtures ledger. The cost of these vehicles and their related depreciation were removed from the balance sheet in 2011 to more accurately reflect asset values. The adjustments left the fixed asset turnover at 11.0 times revenues for 2011, still moderately higher than the industry. Regardless, Mr. Smith indicated that the computer equipment and software was up to date and there was no deferred investment in fixtures.

Analysis: At present the Company may be inferior to its peers in this category. Although this shortcoming is readily fixable, it can pose a short-term risk to future profitability.

### 4.2.5 Interest Bearing Term Debt-To-EQuity

From 2006 to 2010 the Bizminer companies averaged an interest-bearing term debt-to-equity mix of $41.4 \%$ debt to $58.6 \%$ equity. Smith's maintained an average debt-to-equity mix of $66.0 \%$ interest-bearing debt to $34.0 \%$ equity. The Company's leverage picture declined moderately in 2011 to $121.2 \%$ debt and $-21.2 \%$ equity.

Analysis: This ratio signifies a vastly inferior leverage position compared to its peers.
In summary, the ratio analysis comparing the guideline companies with the Subject found several areas of minor strengths and weakness. The area of weakness that has the biggest impact on the Company is in its financial leverage. Companies with high debt levels find it difficult to obtain additional financing. Lack of access to credit markets means that computer and equipment investments are postponed and growth opportunities are missed which gives us further proof of the Subject's inferior position with respect to its peers.

### 5.0 Valuation of the Subject Business

The methodologies considered for use in the valuation of the Subject are as follows:
AsSEt Approach is Rejected. The Asset Approach is most frequently used for companies that are asset-intensive or are holding companies. These are companies that typically have low cash flow with respect to their level of assets. In addition, this approach is usually inappropriate when appraising businesses with few tangible assets and a large amount of intangible assets such as found in many professional practices and service companies. The Adjusted Book Value Method is commonly used in the Asset Approach to value the tangible assets of the Subject Company.

Excess Earnings Method is Rejected. This approach is a sub-category to the Asset Approach. It is also referred to as the Formula Approach. The method is used to calculate the intangible value of a company which is then added to the Adjusted Book Value to obtain the total value of the business. It requires a fairly high-integrity balance sheet in order to calculate the return on investment attributed to the company's assets. Most small, privately held companies do not have accurate inventories on their balance sheets. In addition, much of their FF\&E are fully depreciated or have been expensed rather than capitalized. As such the accountant typically does not include them on the company's balance sheet. As a result an unknown portion of the company's fixtures are unaccounted for and much of the rest has questionable value. Any estimate would likely be inaccurate. In addition, this method is typically not used when there are other more reliable approaches that can be used.

Revenue Ruling 68-609 states that "The Formula Approach should not be used if there is better evidence available from which the value of intangibles can be determined." ${ }^{25}$ The Appraiser believes that the Market and Income Approaches provide better evidence of the appraisal value.

Liquidation Value is Rejected. The Uniform Standards of Professional Appraisal Practice (USPAP) requires that the Appraiser consider the liquidation value of a business. ${ }^{26}$

[^13]The Subject has been in existence for 35 years and is currently profitable. As such, the ongoing concern value of the business will be clearly higher than the liquidation value. Thus, this approach will not be used.

Income Approach is Selected. The Income Approach bases the value of the operating assets of a company on its ability to generate cash. Implicit in the approach is that a buyer will look at the cash flow a company generates, apply a desired rate of return, and thereby determine an appropriate amount to invest in the company.

The ability to generate cash for distribution to an investor is commonly referred to as the "dividend paying capacity" of a company. It is the level of cash flow after all expenses, taxes, and balance sheet demands have been met that can be distributed to an investor without impairing future operations. The dividend paying capacity of a company represents the "take-home" dollars that can be distributed to an investor. It is not necessary that these funds be distributed to the owner; they merely have to be available to him.

The dividend paying capacity of a company, while not a valuation method in itself; is a factor the appraiser is directed to consider by Revenue Ruling 59-60. ${ }^{27}$ To that end the net free cash flow that we will develop in the Multi-Period Discount Method to be used with the Ibbotson model is the net profit after working capital requirements, capital expenditures and after all entity taxes (section 6.2). Thus the dividend paying capacity is effectively covered by that method.

Market Approach is Selected. The Market Approach employs the Principal of Substitution. Simply stated, a buyer will not pay more for a business if an equally desirable substitute is available at a lesser price. Thus in the Market Approach we search for what are considered equally desirable companies and use their selling prices to estimate the value of the Subject Company.

### 6.0 Income Approach

One of two different methods is typically used in the Income Approach. The first is referred to as the Single Period Capitalization Method. The basic assumption underlying this method is that a single year's projected cash flow can serve as a proxy for all future cash flow. There are no expectations of unusual events or non-recurring income or expenses. These criteria do not fit the Subject Company; therefore, this method is rejected.

The second choice of methods used in the Income Approach is referred to as the MultiPeriod Discount Method. This method is used when revenue and cash flow projected for the first few years have a number of anomalies that will not occur beyond that period. This second method is a more appropriate fit for the characteristics of the Subject Company. In this instance the Company is expected to sustain below-average growth for the next five years followed by a normal growth pattern.

[^14]The Multi-Period Discount Method will be broken down into the following five steps:

1) The Company's current P\&Ls and balance sheet will be recast to reflect a "normalized" level of current operations (Paragraph 6.1).
2) This normalized level of operations will serve as a proxy for current earnings which will be used to project the company's Net Free Cash Flow to Equity (NFCFe) for the next five years (referred to as the Discrete Years) followed by the development an estimate of future cash flow from year six into perpetuity. This single-year forecast (referred to as the Terminal Year) will serve as a proxy for all future cash flow from year six into perpetuity. (Paragraph 6.2)
3) An appropriate Discount Rate and Capitalization Rate (Cap Rate) for the appraisal subject will be developed. (Paragraph 6.3)
4) The Terminal Year estimate of Net Free Cash Flow will then be capitalized by (that is, divided by) the selected Cap Rate (Paragraph 6.4-6.5). The resulting value will represent the total present value of all future Net Free Cash Flow as of the beginning of year six.
5) The final step in the process is to apply the Discount Rate (Paragraph 6.5 below) to Net free Cash Flow for each of the five Discrete Years and to the Terminal Year value to derive the present value for the total future cash flow stream. The total of the present values of the Terminal Year plus the five Discrete Years will equal the value of the investment in the Subject Company. (Paragraph 6.5)

### 6.1 Normalized Historical Data

### 6.1.1 Normalized Income Statement

The first step in the formulation of the Discount Rate is the selection of the data source to be used in estimating an investor's desired rate of return. The database used in this analysis is taken from The Ibbotson Studies which employs the buildup method of risk assessment.

The normalizing process takes into account two primary considerations. First, we must follow the same methodology in developing our Subject Company's income stream as was used to estimate the Discount Rate.

Exhibit XV Normalized Income Statement

| INCOME | $\begin{gathered} \hline \text { Jun 30, } 2011 \\ 12 \text { Mos. } \\ \hline \end{gathered}$ | Normalized Adjustments | See Para. |
| :---: | :---: | :---: | :---: |
| New Construction-Installed | 480,696 | - |  |
| Product Only | 1,504,408 | - |  |
| Retrofit (Residential) | 6,189,790 | - |  |
| Retrofit (Commercial) | 50,572 | - |  |
| Window Coverings | 397,856 | - |  |
| Other, Supplies, Service, Renewal | 291,440 | - |  |
| Marketing Discounts | $(1,179,077)$ | - |  |
| Finance Charges, Sales Discounts | 3,913 | - |  |
| TOTAL INCOME | 7,739,598 | - | 6.1.1.1 |
|  |  | 7,739,598 |  |
| COST OF GOODS SOLD |  |  |  |
| Beginning Inventory | 10,390 | - |  |
| Purchases | 3,537,147 | - |  |
| Labor | 592,089 | - |  |
| Commissions | 602,505 | - |  |
| Royalty-Dean Hall | 8,648 | 8,648 | 6.1.1.2 |
| Workman's Compensation | 22,756 | - |  |
| Other Costs | 427,455 | - |  |
| Ending Inventory | $(1,491)$ | - |  |
| TOTAL COST OF GOODS SOLD | 5,199,499 | 8,648 |  |
| Adjusted Cost of Goods Sold |  | 5,190,851 |  |
| GROSS PROFIT | 2,540,099 | 2,548,747 |  |
|  | 32.8\% | 32.9\% |  |
| OTHER INCOME |  |  |  |
| Interest Income | 857 | - |  |
| Mfr Service Reimbursements | 42,465 | - |  |
| Discounts Earned | 46,378 | - |  |
| Other | 28,356 | - |  |
| TOTAL OTHER INCOME | 118,056 | - |  |
| EXPENSES |  |  |  |
| Compensation to Officers | 116,400 | 31,400 | 6.1.1.3 |
| Salaries and Wages | 595,398 | $(40,000)$ | 6.1.1.4 |
| Repairs and Maintenance | 40,731 | - |  |
| Bad Debts | 1,925 | - |  |
| Rents | 188,472 | $(75,528)$ | 6.1.1.5 |
| Taxes-Payroll | 122,169 | (774) | 6.1.1.4 |
| Taxes-Property | 19,208 | $(2,348)$ | 6.1.1.5 |
| Taxes and Licenses | 2,236 | 800 |  |
| Interest, Service Charges | 70,819 | - |  |
| Depreciation | 72,395 | - |  |
| Advertising | 552,460 | $(85,290)$ | 6.1.1.6 |
| Homeshows, Events, Living Expenses | 43,335 | - |  |
| Employee Benefits | 55,492 | - |  |
| Accounting | 9,033 | - |  |
| Auto and Truck, Parking | 117,371 | - | 6.1.1.4 |
| Bank Charges | 25,643 | - |  |
| Misc., Barter, Dues, Other, Training, Safety | 69,191 | - |  |
| Computer Software, IT, Supplies | 68,540 | 20,000 | 6.1.1.2 |
| Damaged Goods | 52,495 | 21,537 | 6.1.1.6 |
| Delivery and Freight | 6,098 | - |  |
| Design Work | 11,117 | - |  |
| Governmental | $(11,146)$ | $(11,146)$ | 6.1.1.2 |
| Insurance | 57,566 | 5,000 | 6.1.1.2 |
| Legal and Professional | 15,706 | $(12,568)$ | 6.1.1.6 |
| Meals and Entertainment, Travel | 5,459 | - |  |
| Office Expense, Postage, Printing | 16,219 | - |  |
| Supplies, Uniforms | 124,170 | 91,770 | 6.1.1.2 |
| Tools | 9,460 | - |  |
| Telephone and Utilities, Internet | 66,244 | - |  |
| TOTAL EXPENSES / Total Add-Backs | 2,524,206 | $(57,147)$ |  |
| Net Income Before Tax (per Returns) | 133,949 |  |  |
| Total Normalized Adjustments |  | $(48,499)$ |  |
| Normalized Income Before Taxes |  | 85,450 |  |
| Less Entity Taxes @ 22.5\% |  | 19,226 | 6.1.1.7 |
| Normalized Income After Entity Taxes |  | 66,224 |  |

In this instance the Ibbotson Studies methodology was employed to develop the Discount Rate. ${ }^{28}$ (This will be discussed further in Paragraph 6.3.) The normalized income statement will produce a net cash flow after working capital requirements, capital expenditures and after all entity taxes. Second, in order to forecast the future income stream for the Company, we have to consider its historical profit and loss statements. These historical statements must be "recast" to be free of various distortions, non-recurring events, and other anomalies to provide us with a solid basis from which to build the projections.
[It should be noted that each of the various Approaches used throughout this report will reconstruct the Income Statement in a different manner to arrive at some form of cash flow. The reason is that the various databases that we use to draw comparisons to the Subject have chosen to reconstruct the income statements in different manners. In each case we are merely reconstructing the Subject's income statement to be directly comparable with the database presentation.]

Exhibit XV on the left shows the normalizing adjustments to Smith's Building Supply's current P\&Ls. Discussions of these normalizing adjustments can be found in the paragraphs that are noted to the right of the item.

### 6.1.1.1 TOTAL InCOME

The valuation of the subject is as of June 30, 2011.

As noted earlier the Company is in a highly volatile industry where annual revenue gains or losses can be significant. It is essential that the base year of operations reflects the
${ }^{28} 2011$ Ibbotson Stocks, Bonds, Bills, and Inflation Valuation Yearbook, Morning Star, Inc., New York, Ch. 3
probability of those fluctuations in the future. The Subject's revenues for the last three years has experienced minor fluctuations with the current year being less than $4 \%$ higher than 2009. The toll of the recession appears to have stabilized during this period. In addition it appears that Smith's revenue pattern over the years has tracked that of the industry. Thus, the normalized $\mathrm{P} \& \mathrm{~L}$ for 2011 should serve as a reasonable proxy for the current earnings capacity of the Subject Company.

From the resulting normalized basis the estimated growth rates provided by management will be used to project the future revenue and income stream from which the Subject's valuation will be calculated.

### 6.1.1.2 NON-RECURRING INCOME AND EXPENSES

The previous owner was paid $\$ 8,648$ for a $1 / 2 \%$ royalty on all revenues. That fee ended in mid-2011 and is non-recurring. It is added back to normalized cash flow.

The Company relocated in 2011 to White Rock Road. It cost $\$ 20,000$ to move the Company computers and $\$ 91,770$ in supplies and miscellaneous costs to prepare the new location. These are non-recurring expenses that are added back to normalized cash flow.

The Company received a refund of $\$ 11,146$ from the State Board of Equalization for overpayment of taxes in 2001. This is non-recurring income that is deducted from normalized cash flow.

The Company sustained an insured loss in 2010. The insurance policy had a $\$ 5,000$ deductible which Halls' had to pay. This is a non-recurring expense and is added back to normalized cash flow.

### 6.1.1.3 HYPOTHETICAL MANAGER'S SALARY

The normalizing process calls for adjusting an owner's actual compensation to reflect a reasonable compensation level of a salaried manager who would replace the owner in the business. The intent here is to restructure the Subject Company P\&L's that would reflect our hypothetical owner's position as a passive investor just like investors on the stock market.

Mr. Smith indicated that in 2005 he hired a general manager to run Smith's in his absence. At the time the company was generating $\$ 13$ million in revenues and had nearly 100 employees. The manager was paid $\$ 150,000$ per year. Mr. Smith speculated that the much smaller Smith's in 2011 could be run with an $\$ 85,000$ manager. At present, the highest paid individual in the company is earning $\$ 82,000$ and is a minority owner. Thus, the present two principal owners' salaries of $\$ 116,400$ will be reduced to $\$ 85,000$ for the cost of a hypothetical manager and $\$ 31,400$ is added back to normalized cash flow.

### 6.1.1.4 SALARIES AND WAGES

The Company presently has four minority owners three of whom still work full time in the business and earn above market-level salaries. Angela Smith, one of the minority owners,
terminated employment in June 2011. Since the valuation of the Subject is for a noncontrolling interest, only the controlling shareholder has the right to replace any employees and set wage levels. A minority owner does not have the authority to replace other shareholders or staff, nor does he have the authority to set wage levels for anyone including himself. Thus, under a non-controlling basis, no adjustments for these salaries can be made.

Mr. Smith's wife also works full time in the company as an administrative assistant. Under the proposed sale of the business, she would have to be replaced at a prevailing wage which Mr. Smith estimated would cost $\$ 40,000$ per year. The $\$ 40,000$ cost of her salary and the related payroll taxes are deducted from normalized cash flow.

The reduced payroll for the above manager's salary and the replacement of Mr. Smith's wife will cost a net $\$ 774$ in payroll taxes. This amount is deducted from normalized cash flow.

All owners receive company-paid auto benefits totaling $\$ 54,000$. This benefit is offered by the controlling owner of a company and thus, is not an expense a minority owner has control over. As such, none of these benefits are added back to normalized cash flow.

### 6.1.1.5 Proposed Rent

Smith's moved to a new location in 2011 which is owned by Mr. Smith. The proposed ownership of the Company has agreed to pay a rent of $\$ 264,000$ which is $\$ 75,528$ more than the was expensed in 2011. This increase in rent is deducted from normalized cash flow. In addition property taxes will be reassessed to reflect Mr. Smith's acquisition cost. New taxes are expected to increase by $\$ 2,348$. This amount is also deducted from normalized cash flow.

### 6.1.1.6 NORMALIZED EXPENSES

Advertising outlays have been cut back in the last two years due to the slowdown in business and also due to lack of necessary cash flow. In the past six years the Company's advertising budget averaged approximately $8.8 \%$ of revenues. Total advertising declined to $7.7 \%$ in 2011 and $7.5 \%$ in 2010. It is reasonable to assume that a permanent reduction in advertising will impair future sales. As such, the short-term reduction in this expense probably should not continue. Thus, if advertising expenses are normalized at $8.8 \%$ of revenues, the resulting $\$ 681,085$ cost would represent an increase of $\$ 85,290$ over the actual amount spent in 2011. This additional expense is deducted from normalized cash flow.

The Company frequently damages the windows that it purchased. Over the last six years the cost of damaged windows averaged $0.4 \%$ of total revenues. However, losses fluctuated greatly from year to year. By normalizing this expense at $0.4 \%$ of revenues, one would expect a loss of $\$ 30,958$ in 2011. The actual loss was $\$ 52,495$. Thus the excess loss of $\$ 21,537$ is added back to normalized cash flow.

Legal Expenses fluctuate moderately from year to year. The six-year average expense was $0.29 \%$ of total revenues. By normalizing this expense at $0.29 \%$ of revenues, one would
expect a loss of $\$ 28,274$ in 2011. This represents an increase of $\$ 12,568$ over the actual expense for 2011 which is deducted from normalized cash flow.

### 6.1.1.7 Income Tax Rate

Academicians and the courts have wrestled with the concept of tax affecting the projected pre-tax income stream of a corporation when applying the Discounted Cash Flow (DCF) approach to valuing a business. Appraisal practitioners have long been trained by organizations such as the Institute of Business Appraisers to use an after-tax income stream when applying rates of return developed from publicly traded investment data. ${ }^{29}$ However, the courts and the IRS have been slow to adopt the practice.

Gross v. Commissioner ${ }^{30}$ became a benchmark case in 1999 when the trial judge found in favor of the IRS appraisal expert who did not tax (i.e. applied a $0 \%$ tax rate) the projected income stream of an S-corporation, citing that S-corporations pay no entity taxes. The taxpayer's expert applied a $40 \%$ C-corp tax rate citing, among other things, that it was a generally accepted practice in the valuation community and that it had been "approved" in Hall v. Commissioner and Maris v. Commissioner. The $6^{\text {th }}$ circuit court of appeals affirmed the $0 \%$ tax rate; however, the dissenting judge opined that applying a $0 \%$ tax rate did not accurately reflect the fair market value of the stock as determined under the willing buyer/willing seller standard. ${ }^{31}$ The inference was that a $0 \%$ tax rate would overvalue the corporation and a $40 \%$ tax rate would undervalue it. Thus the appraisal community and future courts were challenged to find a solution.

In 2000 a lower court decision in the Bernier v. Bernier divorce ${ }^{32}$ held that a hypothetical $35 \%$ C-corporation tax rate on the subject S-corporation's projected earnings submitted by the husband's appraiser was appropriate and threw out the valuation by the wife's appraiser which used a $0 \%$ tax rate. The subsequent appeals court decision in September 2007 upheld the tax-affected valuation but noted that the court case of Delaware Open MRI Radiology Assocs. v. Kessler ${ }^{33}$ that was recently handed down mentioned that applying the C-corporate tax rate to an S-corporation severely understated its value and a $0 \%$ tax rate severely overstated its value.

The Ibbotson SBBI 2010 Valuation Yearbook noted that the companies making up the Ibbotson Study database, which is used in this analysis, are all publicly traded C-corporations that pay taxes at the corporate level. Since the Ibbotson database is derived from the public market companies, the data includes the effects of those taxes. Thus for proper comparison purposes, tax affecting a company's earnings is appropriate in this circumstance.

[^15]The normalized level of net income this company developed in Exhibit XV would put an equivalent C-corporation tax rate at $22.5 \%$ for state and federal taxes combined. [Note: total federal taxes on the above net income would average $15.0 \%$. California state taxes would average $8.8 \%$. However, since state taxes are a deduction on federal taxes, they reduce the federal tax burden. Therefore, the actual cost of the state tax after the federal tax deduction is equal to ( $1-15.0 \%$ ) x $8.8 \%$ or $7.5 \%$, which yields a combined $22.5 \%$ tax rate.]

### 6.1.2 Normalized Historical Balance Sheet

Balance sheet adjustments are intended to re-state entries from book value to fair market value on the date of valuation and identify non-operating items. The adjustments for the Subject Company balance sheet are illustrated in the following exhibit, with explanations given in the paragraphs indicated.

## Exhibit XVI Normalized Balance Sheet

| Smith Building Supply June 30, 2011 |  |  |  | See <br> Para. |
| :---: | :---: | :---: | :---: | :---: |
| Assets | 6/30/2011 | Adjustments | Normalized |  |
| Cash | 350,000 | $(175,000)$ | 175,000 | 6.1.2.1 |
| Accounts Receivable | 33,000 | 45,000 | 78,000 | 6.1.2.1 |
| Inventory | 1,000 |  | 1,000 |  |
| Work In Progress | 178,000 |  | 178,000 |  |
| Shareholder Loans | 25,000 | $(25,000)$ |  | 6.1.2.2 |
| Prepaid Expenses, Deposits | 8,000 |  | 8,000 |  |
| Total Current Assets | 595,000 |  | 440,000 |  |
| Fixtures \& Equipment | 663,000 | $(379,000)$ | 284,000 | 6.1.2.3 |
| Tenant Improvements | 43,000 |  | 43,000 |  |
| Depreciation | $(504,000)$ | 504,000 |  | 6.1.2.3 |
| Goodwill | 29,000 | $(29,000)$ |  |  |
| Other |  |  |  |  |
| Total Assets | 827,000 |  | 767,000 |  |
| Accruals, Other Liabilities | 25,000 |  | 25,000 |  |
| Accounts Payable | 162,000 |  | 162,000 |  |
| Unrealized Income | 243,000 |  | 243,000 |  |
| Short-Term IB Debt/ Lease Pay | 31,000 |  | $\underline{31,000}$ | 6.1.2.4 |
| Total Current Liabilities | 461,000 |  | 461,000 |  |
| Lease Payable | 34,000 |  | 34,000 | 6.1.2.4 |
| Long Term IB Debt | 368,000 |  | 368,000 | 6.1.2.4 |
| Contingent Liabilities | 47,000 |  | 47,000 | 6.1.2.5 |
| Total Liabilities | 911,000 |  | 910,000 |  |
| Net Worth | (84,000) | $(59,000)$ | (143,000) |  |
| Total Liabilities + Net Worth | 827,000 |  | 767,000 |  |


| 6.1.2.1 | CASH AND |
| :--- | :--- |
| RECEIVABLES |  |

As was noted in the balance sheet analysis, the Company is presently carrying cash balances in excess of what is necessary to run the business. Mr. Smith indicated that the cash balances fluctuate radically from day to day, but felt that an end-of-month balance of $\$ 150,000$ or more was reasonable. The six-year average balance for the Company was approximately $\$ 175,000$. Thus if $\$ 175,000$ is considered normal, then, that would indicate that the Company carried an excess cash balance of $\$ 175,000$ in 2011.

Part of the increased cash balances was also due to larger than normal collections of accounts receivable in the days just prior to the close of the accounting period. Mr. Smith indicated that receivable balances fluctuate radically from day to day; however, current balances typically average $\$ 75,000$ to $\$ 80,000$. Therefore, as receivable balances increase from their year-end lows to a normal level of say, $\$ 78,000$, one would expect that the $\$ 45,000$ increase in receivables would result in a corresponding decrease in cash.

Accordingly, the surplus cash balances identified above would normally be $\$ 45,000$ less or, $\$ 130,000$. Therefore, normalized receivables will be adjusted to $\$ 78,000$ and normalized cash will be adjusted to $\$ 175,000$.

These two adjustments will effectively remove $\$ 130,000$ surplus cash from the normalized balance sheet. Surplus cash is considered a non-operating asset that is non-essential to the current level of operations of the Subject. This excess amount of cash is deducted from the normalized balance sheet in order to estimate a more realistic working capital requirement for the Company. However, the surplus cash will then be added to the final value calculated by the Income Approach.

### 6.1.2.2 DUE FROM SHAREHOLDER

Loans due the Company from its shareholder in the amount of $\$ 25,000$ will be paid before the transfer of ownership. Therefore, this amount is removed from the normalized balance sheet.

### 6.1.2.3 Furniture Fixtures and EQUipment

The Company's fixtures and equipment list for 2011 has been adjusted by removing a number of vehicles that have been traded in but were still on the list. Most of the fixed asset items used by the Subject have been fully depreciated and have a higher market value than their book value. The fixed assets and tenant improvements were restated to fair market value under the premise that the Company is an on-going concern and its fixed assets are in place, in use, and generating profits. In other words, the fixed assets have a far greater value to the Subject than if they were, say, sold piecemeal on eBay.

For example, a used computer probably would bring less than two hundred dollars if sold on eBay. However, to the Subject, that computer represents many hours of tech labor to install all the software, network to the rest of the office computers, debug, and customize. More importantly, it may have taken hundreds of hours to input all the data that is contained in its memory. That computer is worth thousands of dollars to the Subject.

The replacement cost of each asset on the Company's depreciation ledger was calculated by adjusting its original cost by inflation to equal a current dollar value and then, that value was prorated by its remaining life. Computer equipment was assumed to have a four year life, Fixtures and equipment a ten year life, building improvements a twenty-five year life, and vehicles a ten year life. Accumulated Depreciation was then removed from the Balance Sheet.

The table below shows the replacement cost adjustment factors used to prorate the remaining value of an asset adjusted by inflation. For example, a $\$ 100$ desk purchased in 2005 would have an expected life of ten years. The equivalent replacement cost today adjusted for inflation would be $\$ 114.60$ ( $\$ 100 \mathrm{x}(1+14.6 \%)$. However, its prorated life remaining (using mid-year convention) is $45.0 \%$. The adjusted replacement cost value is $\$ 51.57$ ( $\$ 114.60 \mathrm{x}$ 45.0\%)

The actual cost of the assets on the Company's fixtures and equipment ledger adjusted by the above factors yields the replacement cost value as follows:

The total current estimated market value for the fixtures and equipment and tenant improvements on an On-Going Concern basis is $\$ 326,477$. The normalized balance sheet in Exhibit XVI above is adjusted to reflect this estimate.

| Replacement Cost Factors |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Cumulative Inflation | Computer Equipment |  | Computer Software |  | Furniture and Equipment |  | Tenant Improve. |  | Vehicles |  |
| 2011 |  | 4 Year Life | Factor | 10 Year Life | Factor | 10 Year Life | Factor | 25 Year Life | Factor | 10 Year Life | Factor |
| 2010 | 1.6\% | 87.5\% | 88.9\% | 95.0\% | 96.5\% | 95.0\% | 96.5\% | 98.0\% | 99.6\% | 95.0\% | 96.5\% |
| 2009 | 1.3\% | 62.5\% | 63.3\% | 85.0\% | 86.1\% | 85.0\% | 86.1\% | 94.0\% | 95.2\% | 85.0\% | 86.1\% |
| 2008 | 5.1\% | 37.5\% | 39.4\% | 75.0\% | 78.8\% | 75.0\% | 78.8\% | 90.0\% | 94.6\% | 75.0\% | 78.8\% |
| 2007 | 8.0\% | 12.5\% | 13.5\% | 65.0\% | 70.2\% | 65.0\% | 70.2\% | 86.0\% | 92.9\% | 65.0\% | 70.2\% |
| 2006 | 11.2\% | 0.0\% | 0.0\% | 55.0\% | 61.2\% | 55.0\% | 61.2\% | 82.0\% | 91.2\% | 55.0\% | 61.2\% |
| 2005 | 14.6\% | 0.0\% | 0.0\% | 45.0\% | 51.6\% | 45.0\% | 51.6\% | 78.0\% | 89.4\% | 45.0\% | 51.6\% |
| 2004 | 17.3\% | 0.0\% | 0.0\% | 35.0\% | 41.1\% | 35.0\% | 41.1\% | 74.0\% | 86.8\% | 35.0\% | 41.1\% |
| 2003 | 19.5\% | 0.0\% | 0.0\% | 25.0\% | 29.9\% | 25.0\% | 29.9\% | 70.0\% | 83.7\% | 25.0\% | 29.9\% |
| 2002 | 21.1\% | 0.0\% | 0.0\% | 15.0\% | 18.2\% | 15.0\% | 18.2\% | 66.0\% | 79.9\% | 15.0\% | 18.2\% |
| 2001 | 24.0\% | 0.0\% | 0.0\% | 5.0\% | 6.2\% | 10.0\% | 12.4\% | 62.0\% | 76.9\% | 10.0\% | 12.4\% |
| 2000 | 27.3\% | 0.0\% | 0.0\% | 10.0\% | 12.7\% | 10.0\% | 12.7\% | 58.0\% | 73.8\% | 10.0\% | 12.7\% |
| 1999 | 29.5\% | 0.0\% | 0.0\% | 10.0\% | 13.0\% | 10.0\% | 13.0\% | 54.0\% | 69.9\% | 10.0\% | 13.0\% |
| 1998 | 31.1\% | 0.0\% | 0.0\% | 10.0\% | 13.1\% | 10.0\% | 13.1\% | 50.0\% | 65.5\% | 10.0\% | 13.1\% |
| 1997 | 33.4\% | 0.0\% | 0.0\% | 10.0\% | 13.3\% | 10.0\% | 13.3\% | 46.0\% | 61.4\% | 10.0\% | 13.3\% |
| 1996 | 36.3\% | 0.0\% | 0.0\% | 10.0\% | 13.6\% | 10.0\% | 13.6\% | 42.0\% | 57.2\% | 10.0\% | 13.6\% |
| 1995 | 39.1\% | 0.0\% | 0.0\% | 10.0\% | 13.9\% | 10.0\% | 13.9\% | 38.0\% | 52.9\% | 10.0\% | 13.9\% |
| 1994 | 41.8\% | 0.0\% | 0.0\% | 10.0\% | 14.2\% | 10.0\% | 14.2\% | 34.0\% | 48.2\% | 10.0\% | 14.2\% |
| 1993 | 44.7\% | 0.0\% | 0.0\% | 10.0\% | 14.5\% | 10.0\% | 14.5\% | 30.0\% | 43.4\% | 10.0\% | 14.5\% |
| 1992 | 47.7\% | 0.0\% | 0.0\% | 10.0\% | 14.8\% | 10.0\% | 14.8\% | 26.0\% | 38.4\% | 10.0\% | 14.8\% |
| pre-1991 | 52.0\% | 0.0\% | 0.0\% | 10.0\% | 15.2\% | 10.0\% | 15.2\% | 22.0\% | 33.4\% | 10.0\% | 15.2\% |


|  | Grand Totals |  | Computer Equipment |  | Computer Software |  | Furniture and Equipment |  | Tenant Improve. |  | Vehicles |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Ledger Totals | Adjusted Totals | Ledger Totals | Adjusted Totals | Ledger Totals | Adjusted Totals | Ledger <br> Totals | $\begin{gathered} \hline \text { Adjusted } \\ \text { Totals } \\ \hline \end{gathered}$ | Ledger Totals | Adjusted Totals | Ledger Totals | Adjusted Totals |
| Totals | 679,819 | 326,477 | 25,628 | 16,226 | 0 | 0 | 185,166 | 63,016 | 42,755 | 42,570 | 426,270 | 204,664 |
| 2010 | 94,141 | 92,168 |  | 0 |  | 0 | 30,720 | 29,651 | 42,755 | 42,570 | 20,666 | 19,947 |
| 2009 | 43,306 | 31,447 | 25,628 | 16,226 |  | 0 | 17,678 | 15,222 |  | 0 |  | 0 |
| 2008 | 0 | 0 |  | 0 |  | 0 |  | 0 |  | 0 |  | 0 |
| 2007 | 27,631 | 19,397 |  | 0 |  | 0 |  | 0 |  | 0 | 27,631 | 19,397 |
| 2006 | 64,911 | 39,700 |  | 0 |  | 0 |  | 0 |  | 0 | 64,911 | 39,700 |
| 2005 | 122,496 | 63,171 |  | 0 |  | 0 |  | 0 |  | 0 | 122,496 | 63,171 |
| 2004 | 135,472 | 55,618 |  | 0 |  | 0 |  | 0 |  | 0 | 135,472 | 55,618 |
| 2003 | 0 | 0 |  | 0 |  | 0 |  | 0 |  | 0 |  | 0 |
| 2002 | 0 | 0 |  | 0 |  | 0 |  | 0 |  | 0 |  | 0 |
| 2001 | 107,673 | 13,351 |  | 0 |  | 0 | 52,579 | 6,520 |  | 0 | 55,094 | 6,832 |
| 2000 | 39,737 | 5,059 |  | 0 |  | 0 | 39,737 | 5,059 |  | 0 |  | 0 |
| 1999 | 0 | 0 |  | 0 |  | 0 |  | 0 |  | 0 |  | 0 |
| 1998 | 0 | 0 |  | 0 |  | 0 |  | 0 |  | 0 |  | 0 |
| 1997 | 0 | 0 |  | 0 |  | 0 |  | 0 |  | 0 |  | 0 |
| 1996 | 0 | 0 |  | 0 |  | 0 |  | 0 |  | 0 |  | 0 |
| 1995 | 0 | 0 |  | 0 |  | 0 |  | 0 |  | 0 |  | 0 |
| 1994 | 0 | 0 |  | 0 |  | 0 |  | 0 |  | 0 |  | 0 |
| 1993 | 0 | 0 |  | 0 |  | 0 |  | 0 |  | 0 |  | 0 |
| 1992 | 44,452 | 6,566 |  | 0 |  | 0 | 44,452 | 6,566 |  | 0 |  | 0 |
| pre-1991 | 0 | 0 |  | 0 |  | 0 |  | 0 |  | 0 |  | 0 |

### 6.1.2.4 Interest Bearing Debt

The Company recently obtained a long-term SBA loan from Five Star Bank which has a balance at year-end 2011 of $\$ 368,451$. The interest rate is currently at $6 \%$ or prime plus $2.75 \%$. Five Star Bank has also extended the Company a short-term line of credit for $\$ 30,927$ at year-end. The interest rate on this loan is $8 \%$. Various equipment leases totaling $\$ 34,000$ have an estimated implied interest rate of approximately $8 \%$ and the Tax Lien described below has an estimated interest rate of $4 \%$

The Company's average cost of debt capital for the above debt is approximately $6.10 \%$. This rate will be used in the Cash Flow projection below to calculate the Company's future interest expense.

### 6.1.2.5 OfF-Balance Sheet Liability

The Federal Government levied a $\$ 47,000$ charge for non-payment of employer taxes on employees who were improperly classified as contract labor in the years prior to 2001. This liability was created when Smith's was a proprietorship. As such, the liability may have to be paid by Mr. Smith personally. However, since Smith's Building Supply is the successor in interest to the proprietorship, this liability will most likely fall against the corporation.

This liability bears interest and penalties and is therefore classified as interest bearing debt.

### 6.2 Projection of Net Free Cash Flow

The following exhibit is a five-year projection of the Subject Company's revenues and cash flow. Management provided an annual revenue forecast to the Appraiser who suggested guidelines for revenue and expense growth for the next five years based on the analysis of the economy discussed in Section 2.0. The guidelines for expense growth are footnoted by (2), (3), (4), and (5) below.

Exhibit XVII Cash Flow Projection

| INCOME\|TOTAL INCOME |  | (1) | Discrete Years |  |  |  |  | Terminal Yr |  | See <br> Para <br> 6.2.1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Normalized <br> $7,739,598$ |  | 2012 | 2013 | 2014 | 2015 | 2016 |  |  |  |
|  |  |  | 7,275,222 | 7,711,735 | 8,020,205 | 8,341,013 | 8,674,654 | (6) | 9,082,362 |  |
| COST OF GOODS SOLD TOTAL COST OF GOODS SOLD | 5,190,851 |  | 4,879,400 | 5,172,164 | 5,379,050 | 5,594,213 | 5,817,981 | (6) | 6,091,426 |  |
| GROSS PROFIT | $\begin{array}{r} 2,548,747 \\ 32.9 \% \end{array}$ | 1) | $\begin{array}{r} 2,395,822 \\ 32.9 \% \end{array}$ | $\begin{array}{r} 2,539,572 \\ 32.9 \% \end{array}$ | $\begin{array}{r} 2,641,154 \\ 32.9 \% \end{array}$ | $\begin{array}{r} 2,746,801 \\ 32.9 \% \end{array}$ | $\begin{array}{r} 2,856,673 \\ 32.9 \% \end{array}$ |  | $\begin{array}{r} 2,990,936 \\ 32.9 \% \end{array}$ |  |
| OTHER INCOME (EXPENSE) |  |  |  |  |  |  |  |  |  |  |
| Interest Income | $\begin{array}{r}857 \\ 42,465 \\ 46,378 \\ - \\ 28,356 \\ \hline 118,056 \\ \hline\end{array}$ | (1)(2) | $\begin{array}{r} 806 \\ 39,917 \\ 43,595 \\ - \\ \frac{26,655}{110,973} \\ \hline \end{array}$ | $\begin{array}{r} \hline 757 \\ 37,522 \\ 40,980 \\ - \\ \frac{25,055}{104,314} \\ \hline \end{array}$ | 35,271 <br> 38,521 <br> 23,552 <br> 98,055 | 36,210 <br> 22,139 <br> 92,172 | $\begin{array}{r} \hline 629 \\ 31,165 \\ 34,037 \\ - \\ \frac{20,811}{86,642} \\ \hline \end{array}$ | (6) | 659 |  |
| Mfr Service Reimbursements |  |  |  |  |  |  |  |  | 32,630 |  |
| Discounts Earned |  |  |  |  |  |  |  |  | 35,637 |  |
| Gain(loss) on Sale of Assets Other |  |  |  |  |  |  |  |  | 21,789 |  |
| TOT AL OTHER INCOME (Expense) |  |  |  |  |  |  |  |  | 90,714 |  |
| EXPENSES |  |  |  |  |  |  | (6) |  | 99,747 6.2.2 |  |
| Compensation to Officers | 85,000 | (2) | 79,900 | 84,694 | 88,082 | 91,605 |  |  |  |  |  |  |
| Salaries and Wages | 635,398 | (2) | 597,274 | 633,111 | 658,435 | 684,772 | 712,163 | (6) | 745,635 |  |
| Repairs and Maintenance | 40,731 | (4) | 41,749 | 44,254 | 46,024 | 47,865 | 49,780 | (6) | 52,120 |  |
| Bad Debts | 1,925 | (2) | 1,810 | 1,918 | 1,995 | 2,075 | 2,158 | (6) | 2,259 |  |
| Rents | 264,000 | (3) | 270,600 | 277,365 | 285,686 | 294,257 | 303,084 | (6) | 317,329 |  |
| Taxes-Payroll | 122,943 | (2) | 115,566 | 122,500 | 127,400 | 132,496 | 137,796 | (6) | 144,273 |  |
| Taxes-Property | 21,556 | (3) | 22,095 | 22,647 | 23,327 | 24,026 | 24,747 | (6) | 25,910 |  |
| Taxes and Licenses | 1,436 | (2) | 1,350 | 1,431 | 1,488 | 1,548 | 1,609 | (6) | 1,685 |  |
| Interest, Service Charges | 70,819 | (5) | 28,702 | 29,879 | 32,640 | 35,471 | 38,371 | (6) | 38,843 | 6.2.7 |
| Depreciation | 72,395 | (5) | 101,616 | 128,187 | 110,835 | 105,857 | 110,091 | (6) | 120,364 |  |
| Advertising | 637,750 | (3) | 653,693 | 670,036 | 690,137 | 710,841 | 732,166 | (6) | 766,578 |  |
| Homeshows, Events, Living Expen | 43,335 | (3) | 44,418 | 45,529 | 46,895 | 48,302 | 49,751 | (6) | 52,089 |  |
| Employee Benefits | 55,492 | (2) | 52,162 | 55,292 | 57,504 | 59,804 | 62,196 | (6) | 65,119 |  |
| Accounting | 9,033 | (4) | 9,259 | 9,814 | 10,207 | 10,615 | 11,040 | (6) | 11,559 |  |
| Auto and Truck, Parking | 117,371 | (4) | 120,305 | 127,524 | 132,625 | 137,930 | 143,447 | (6) | 150,189 |  |
| Bank Charges | 25,643 | (4) | 26,284 | 27,861 | 28,976 | 30,135 | 31,340 | (6) | 32,813 |  |
| Misc., Barter, Dues, Other | 69,191 | (2) | 65,040 | 68,942 | 71,700 | 74,568 | 77,550 | (6) | 81,195 |  |
| Computer Software, IT, Supplies | 48,540 | (2) | 45,628 | 48,365 | 50,300 | 52,312 | 54,404 | (6) | 56,961 |  |
| Damaged Goods | 30,958 | (2) | 29,101 | 30,847 | 32,081 | 33,364 | 34,699 | (6) | 36,329 |  |
| Delivery and Freight | 6,098 | (2) | 5,732 | 6,076 | 6,319 | 6,572 | 6,835 | (6) | 7,156 |  |
| Design Work | 11,117 | (2) | 10,450 | 11,077 | 11,520 | 11,981 | 12,460 | (6) | 13,046 |  |
| Insurance | 52,566 | (2) | 49,412 | 52,377 | 54,472 | 56,651 | 58,917 | (6) | 61,686 |  |
| Legal and Professional | 28,274 | (4) | 28,981 | 30,720 | 31,948 | 33,226 | 34,555 | (6) | 36,180 |  |
| Meals and Entertainment, Travel | 5,459 | (2) | 5,131 | 5,439 | 5,657 | 5,883 | 6,119 | (6) | 6,406 |  |
| Office Expense, Postage, Printing | 16,219 | (2) | 15,246 | 16,161 | 16,807 | 17,479 | 18,178 | (6) | 19,033 |  |
| Supplies, Uniforms | 32,400 | (2) | 30,456 | 32,283 | 33,575 | 34,918 | 36,314 | (6) | 38,021 |  |
| Tools | 9,460 | (2) | 8,892 | 9,426 | 9,803 | 10,195 | 10,603 | (6) | 11,101 |  |
| Telephone and Utilities, Internet | 66,244 | (2) | 62,269 | 66,006 | 68,646 | 71,392 | 74,247 | (6) | 77,737 |  |
| TOTAL EXPENSES | 2,581,353 |  | 2,523,123 | 2,659,760 | 2,735,081 | 2,826,138 | 2,929,890 | (6) | 3,071,363 |  |
| Net Profit before Taxes | 85,450 |  | $(16,328)$ | $(15,874)$ | 4,129 | 12,835 | 13,424 |  | 10,288 |  |
| Less Entity Taxes @ 22.5\% | 19,226 |  | - | - | - | 245 | 3,020 |  | 2,315 | 6.2.3 |
| Income after Taxes | 66,224 |  | $(16,328)$ | $(15,874)$ | 4,129 | 12,590 | 10,404 |  | 7,973 |  |
| Plus Depreciation | 72,395 |  | 101,616 | 128,187 | 110,835 | 105,857 | 110,091 |  | 120,364 | 6.2.4 |
| Cash Flow from Operations | 138,619 |  | 85,288 | 112,313 | 114,963 | 118,446 | 120,495 |  | 128,337 |  |
| Less: Capital. Expenditures | $(95,536)$ |  | $(65,419)$ | $(110,088)$ | $(101,785)$ | $(105,857)$ | $(110,091)$ |  | $(120,364)$ | 6.2.5 |
| Working Capital: (Growth) Decline | 76,763 |  | $(1,260)$ | 1,184 | 837 | 870 | 905 |  | $\underline{0}$ | 6.2.6 |
| Long-term Debt: (Decline) Increase | 116,346 |  | $(9,474)$ | 19,287 | 45,270 | 46,403 | 47,540 |  | $\underline{24,161}$ | 6.2.7 |
| Net Free Cash Flow to Equity | $\underline{\underline{119,846}}$ |  | $\underline{\underline{9,136}}$ | $\underline{\underline{22,696}}$ | $\underline{\underline{59,285}}$ | $\underline{\underline{59,864}}$ | 588,849 |  | 32,134 | 6.2.8 |
|  | Assumptions: |  | $\underline{2012}$ | $\underline{2013}$ | $\underline{2014}$ | $\underline{2015}$ | $\underline{2016}$ |  | Perpetual |  |
| Annual Revenu | Growth Rate | (1) | -6.0\% | 6.0\% | 4.0\% | 4.0\% | 4.0\% | (6) | 4.70\% |  |
| Growth of Revenue Sensi | ive Expenses | (2) | -6.0\% | 6.0\% | 4.0\% | 4.0\% | 4.0\% |  |  |  |
| Growth of Inflation Sensi | ive Expenses | (3) | 2.5\% | 2.5\% | 3.0\% | 3.0\% | 3.0\% |  |  |  |
| Growth at the greater of Inflati | on or Revenue | (4) | 2.5\% | 6.0\% | 4.0\% | 4.0\% | 4.0\% | (6) | 4.70\% |  |
| * Actual Figures for the Year Fix | ixed Expenses | (5) | 0 | 0 | 0 | 0 | 0 |  |  |  |

### 6.2.1 ReVEnUE Growth

The projected annual revenue growth rate for each of the five Discrete Years for the Company (as discussed in Paragraph 2.2.6) is shown in footnote (1). The Terminal Year revenues and cash flow are increased at the Perpetual Growth rate which is shown in footnote (6) (as per the discussion in Paragraph 6.3.6).

### 6.2.2 EXPENSES

Management identified various company expenses which fluctuated with the growth of its revenues. These items are flagged with footnote (2). Items flagged with footnote (3) typically grew at the rate of inflation. There were also a few expenses that typically fluctuated with revenues except in years of declining revenues when they increased by the rate of inflation. For example, insurance expense typically increases as a company's revenues and assets increase. However, in years where revenues decline, insurance still seems to increase. Those expenses were flagged with footnote (4). All expenses and revenues in the Terminal Year increased by the Perpetual Growth rate are marked with (6).

### 6.2.3 TAXES

As discussed in Paragraph 6.1.1.7 the projected profits will be taxed as if the Company were a C-corporation. The combined state and federal tax rate for the Subject is estimated at $22.5 \%$.

### 6.2.4 DEPRECIATION

Net Free Cash Flow to Equity ( NFCFe ) is calculated by taking net profit after entity tax, adding back depreciation, and adjusting for changes in working capital, capital expenditures, and interest-bearing term debt. It is the cash flow available to the shareholder only after all expenses and balance sheet obligations have been paid. Since depreciation is a non-cash charge, $100 \%$ of this expense flows to the shareholder.

Since depreciation is a non-cash expense that saves tax dollars, it is assumed that an owner will take the maximum deduction allowed. Recent tax code changes permit business owners to write off up to $\$ 500,000$ of capital expenditures each year. Therefore, it is assumed that all capital expenditure outlays will be immediately expensed as depreciation in the year acquired. During the first five Discrete Years all capital expenditures will be fully depreciated. Since portions of the assets acquired on or before the current year (June 30, 2011) will continue being depreciated in the first few projected years, an estimate of $50 \%$ of the current year's depreciation will be added to the first Discrete Year's depreciation; 25\% of the current year's depreciation will be added to the second Discrete Year's depreciation; and, $12.5 \%$ of the current year's depreciation will be added to the third Discrete Year's depreciation. The Terminal Year's depreciation expense will equal just the capital expenditures for that year.

### 6.2.5 CAPITAL EXPENDITURES

In completing the NFCFe it is necessary to calculate the burden that increased working capital and capital expenditures will place on cash flow. We must also consider debt repayment which uses available cash, or new loans which increase cash. As a company grows it will need increasingly larger amounts of working capital and plant and equipment to support the higher level of output. It will also have to replace a portion of its existing plant and equipment every year.

Thus, if we expect a company to grow at $5 \%$ per year, we would also expect that the company would have to increase its investment in fixtures at a similar rate. In addition, the company must regularly replace its old worn out equipment as well. Thus, if the Company's furniture fixtures and equipment ( $\mathrm{FF} \& \mathrm{E}$ ) has an estimated life of 15 years, then on the average, $1 / 15$ th of its existing equipment must be replaced each year. Companies typically purchase capital assets with a combination of retained earnings and borrowed funds.

We will assume here that the Subject will borrow a portion of its capital expenditures. Only a majority owner can affect changes in the capital structure of a company. As such it is assumed that he will borrow at the same level as the industry as a whole. Minority owners do not have the authority to change the company's capital structure. Therefore, minority valuations will use the historical capital structure of the company. From 2006 to 2011 the Subject had an average debt-equity ratio of $75.2 \%$ debt and $24.8 \%$ equity. The equity portion of the FF\&E purchases, therefore, comes directly out of the Company's cash flow. The remaining portion of the purchase will be financed with additional loans which will be discussed further with in Paragraph 6.2.7 below.

The following is an example of the math: Assume the current year's FF\&E are $\$ 100,000$; projected growth is $5 \%$; average life of the fixtures is ten years; and, the Company borrows $75 \%$ of its capital expenditures. The cash flow requirement for capital expenditures next year is: $(\$ 100,000 \times 5 \%+\$ 100,000 / 10)=\$ 15,000$. The company borrowed $75 \%$ of that and drew against its cash flow for the remaining $25 \%$ or $\$ 3,750$.

The table below estimates the cash flow requirements for the Subject's capital expenditures. These values are applied to the Cash Flow Projection shown in Exhibit XVII above.

| Growth Rate Total Fixtures \& Equipment New FF\&E | Capital Expenditures Analysis |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Current Year | Forecast Years |  |  |  |  |  |
|  | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | Terminal Yr |
|  |  | -6.0\% | 6.0\% | 4.0\% | 4.0\% | 4.0\% | 4.7\% |
|  | 662,787 | 662,787 | 702,554 | 730,656 | 759,883 | 790,278 | 827,421 |
|  |  |  | 39,767 | 28,102 | 29,226 | 30,395 | 37,143 |
| Annual replenish - 10 years |  | 66,279 | 66,279 | 70,255 | 73,066 | 75,988 | 79,028 |
| Total Cap Exp for Fixtures |  | 66,279 | 106,046 | 98,358 | 102,292 | 106,384 | 116,171 |
| Total Tenant Improvements |  | 40,420 | 42,845 | 44,559 | 46,341 | 48,195 | 50,460 |
| New Tenant Imp. |  | $(2,580)$ | 2,425 | 1,714 | 1,782 | 1,854 | 2,265 |
| Annual replenish - 25 years |  | 1,720 | 1,617 | 1,714 | 1,782 | 1,854 | 1,928 |
| Total Cap Exp for Ten Imp. |  | (860) | 4,042 | 3,428 | 3,565 | 3,707 | 4,193 |
| Total Capital Expenditures | 95,536 | 65,419 | 110,088 | 101,785 | 105,857 | 110,091 | 120,364 |
| Cap Exp Financed with | bt @ 75.2\% | 49,187 | 82,774 | 76,531 | 79,592 | 82,776 | 90,500 |
| Cap Ex financed from Cash | w @ 24.8\% | 16,231 | $\underline{\underline{27,314}}$ | 25,254 | $\underline{\underline{26,264}}$ | $\underline{\underline{27,315}}$ | $\underline{\underline{29,864}}$ |

### 6.2.6 WORKING CAPITAL

The growth in sales of Smith's will also necessitate various other balance sheet investments. As sales increase, cash balances, accounts receivable, and inventory (i.e. short-term assets) will also increase. These necessary investments will be partially offset by (that is, financed by) increases in accruals, accounts payable, and other short-term indebtedness. Short-term assets less short-term liabilities are referred to as working capital.

If a company currently has a negative working capital, that means as the company grows current liabilities will grow faster than current liabilities. This decline in working capital will create cash for the company. It should also be noted that in years of a revenue decline, working capital investment will also decline in direct proportion which, in turn, creates a cash flow windfall.

|  | Working Capital Analysis |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Current Year | Forecast Years |  |  |  |  |  |
|  | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | Terminal Yr |
| Actual Working Capital |  | -6.0\% | 6.0\% | 4.0\% | 4.0\% | 4.0\% | 4.7\% |
| Normalized Working Capital | $(21,000)$ | $(19,740)$ | $(20,924)$ | $(21,761)$ | $(22,632)$ | $(23,537)$ | $(24,643)$ |
| Working Capital Increase / (Decline) | $(76,763)$ | 1,260 | $(1,184)$ | (837) | (870) | (905) |  |

If the formulas call for negative working capital growth in the Terminal Year it will be assumed that current assets and current liabilities will grow at the same rate as revenues in perpetuity, and as such, there will be no change in working capital into the future. In other words, a negative working capital position in the Terminal Year suggests that the company's working capital will decline forever, which, of course, is not possible. Therefore zero growth is the reasonable alternative. The following is an estimate of the changes in working capital for the projection years and their effect on cash flow.

### 6.2.7 Changes in Long Term Interest-Bearing Debt and Interest Expense

Changes in long-term debt occur as the result of new borrowings as well as the repayment of existing loans. The Company's management indicated that for the next five years it does not plan any unusual changes in its debt structure other than borrowing to finance fixtures acquisitions. As we noted in the capital expenditures section above, the acquisition of new FF\&E will be accomplished with a combination of new debt and company cash (equity). New debt represents an increase in cash to the equity owners, which is then used it to purchase the fixtures. Thus, as capital equipment is acquired, the Company's debt will increase as will its annual interest expense.

The increase in debt for the terminal year represents the normalized increase that the Company would expect into perpetuity. It therefore represents new debt that is used for capital expenditures, working capital, and other purposes as a result of its long-term growth. Since the Subject of the valuation is a minority interest, we have determined that a minority owner does not have control over the capital structure of the Company. As such the Company's existing policy for debt acquisition is solely at the discretion of the majority owner. Therefore, in calculating the long-term increase in debt for the terminal year we will
use the Company's actual Debt/Equity ratio exhibited over the last six years as a guideline. During this period the company's capital structure averaged $75.2 \%$ debt and $24.8 \%$ equity. From the Cash Flow Projection in Exhibit XVII we find that the Terminal Year net income after taxes is $\$ 7,973$. Past history then suggests that if the Company retained $\$ 7,973$ in new earnings it would also take on $\$ 24,161$ in new debt ( $\$ 7,973 \div 24.8 \% \times 75.2 \%=\$ 24,161$ ). These changes in debt and the resulting change in interest expense are applied to the Cash Flow Projection shown above in Exhibit XVII.

| Capital Exp Financed with New Debt | Long-Term Debt Analysis |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Current Year 2011 | Forecast Years |  |  |  |  |  |
|  |  | 2012 | 2013 | 2014 | 2015 | 2016 | Terminal Yr |
|  |  | 49,187 | 82,774 | 76,531 | 79,592 | 82,776 |  |
| Reduction of Existing S-T Debt |  | $(30,927)$ | $(34,042)$ |  |  |  |  |
| Reduction of Existing L-T Debt |  | (27,734) | (29,445) | (31,261) | $(33,189)$ | (35,236) | - |
| Increase (Decrease) in Debt | 116,346 | $(9,474)$ | 19,287 | 45,270 | 46,403 | 47,540 | 24,161 |
| Mormalized Interest Bearing Debt | 480,000 | 470,526 | 489,813 | 535,083 | 581,487 | 629,026 | 653,187 |
| Average Interest Rate | 6.1\% | 6.1\% | 6.1\% | 6.1\% | 6.1\% | 6.1\% | 6.1\% |
| Interest Expense | 71,676 | 28,702 | 29,879 | 32,640 | 35,471 | 38,371 | 39,844 |

### 6.2.8 Net Free Cash Flow for Discrete and Terminal Years

The above adjustments are applied to the normalized P\&L for June 30, 2011 from which a projection for Net Free Cash Flow to Equity (NFCFe) for the five Discrete Years is made (see Exhibit XVII above):

$$
\begin{array}{cccccc} 
& \underline{2012} & \underline{2013} & \underline{2014} & \underline{2015} & \underline{2016} \\
\text { NFCFe } & \$(9,474) & \$ 19,287 & \$ 45,270 & \$ 46,403 & \$ 47,540
\end{array}
$$

We also developed a Terminal Year value that serves as a proxy for annual NFCFe from year 2014 into perpetuity. This value was $\$ 24,161$.

### 6.3 Discount Rate and Capitalization Rate

The third step in the Multi-Period Discount Method calls for determining the appropriate rate of return, or Discount Rate, that a hypothetical investor might seek in acquiring the Subject. It is the estimate of the reasonable rate of return needed to attract the capital of a willing buyer in the marketplace given the level of risk inherent in the Subject Company. From that Discount Rate we can then calculate the Capitalization Rate.

The first step in the formulation of the Discount Rate is the selection of the data source to be used in estimating an investor's desired rate of return. As mentioned earlier, the database used in this analysis is taken from the Ibbotson Studies which employs the buildup method of risk assessment. The buildup method is an additive model in which the appropriate return on an equity investment is estimated by summing up the risk-free investment rate (we used the yield on U.S. Treasury 20-year bonds suggested by Ibbotson) and any premiums for the additional risks that the investor is willing to absorb. ${ }^{34}$

[^16]The following table lists the components of the appropriate Rate of Return on the equity investment in the Subject. An explanation of each follows the table.

Exhibit XVIII Buildup Method

| Risk Free Rate (6.3.1) | $4.09 \%$ |
| :--- | ---: |
| Equity Risk Premium (6.3.2) | $6.00 \%$ |
| Small Company Risk Premium (6.3.3) | $12.06 \%$ |
| Industry Risk Premium (6.3.4) | $1.92 \%$ |
| Specific Company Risk Premium (6.3.5) | $\underline{5.00 \%}$ |
| Total Discount Rate (rounded) | $29.1 \%$ |

### 6.3.1 RISK FREE RATE - 4.09\%

The Risk Free Rate is the rate one could receive for an investment that is free of capital risk. In other words, not only is the rate of return guaranteed, but also the return of the original investment is guaranteed. Ibbotson has used the 20-year United States Treasury Bond rate as the proxy for this component in the buildup method. ${ }^{35}$ The yield to be used will be the 20 year bond rate as of June 30, 2011, the date of this valuation.

Implicit in the Risk Free Rate is that the investor is also being compensated for the effects of inflation on the return of his capital. Investors will demand higher rates of return on U.S. bonds as they perceive that inflation is increasing. As will be discussed further below, the fact that the return on equity takes into account inflation, our forecast for the Subject's future income stream must also be matched in current dollars (i.e. including inflation) as will be the Subject's Perpetual Growth Rate.

Taken from: http://research.stlouisfed.org/fred2/data/DGS20.txt

### 6.3.2 EQUITY RISK PREMIUM - 6.00\%

This represents the next level of risk typically associated with investing in a portfolio of large, freely traded common stocks. From 1926 to 2007 the average yield in excess of the Risk Free Rate for stock market equities is $6.7 \%$ (rounded). This rate is reduced by $0.7 \%$ to $6.00 \%$ (rounded) to account for what is known as the "Supply Side" effect. Supply Side theory states that during the last 20 years a portion of stock market gains can be attributed to rising price-earnings ratios (P-E). ${ }^{36}$ Basically, investors have been increasingly bidding up prices during this period in expectation of future earnings growth. It is unlikely that businesses can continue to supply the increasing expected earnings growth, thus causing P-E ratios to level out. The portion of gains on equities attributed to P-E growth will, therefore, disappear, which will in turn reduce the future long-term rate of return on equities.
Ibbotson Assoc. 2011 Stocks, Bonds, Bills and Inflation (SBBI) 2011 Valuation Yearbook, © 2011, Morningstar, p. 66

[^17]
### 6.3.3 Small Company Risk Premium - $12.06 \%$

We have now established the return on a risk-free investment in U.S. Treasury bonds (i.e. guaranteed return with zero volatility). We have also calculated the average return and level of risk (i.e. the level of volatility of that return) for the stock market as a whole. If we create a graph with the measure of volatility on the $x$-axis and rate of return on the $y$-axis, we can plot a line between the describing risk free investments and investments in risk-bearing equities of the stock market. This line (referred to as the Security Market Line) depicts the systemic risk or beta that affects all assets. Systemic risk is unavoidable and generally springs from external, macroeconomic factors that affect all companies in a particular fashion, albeit with different magnitudes. ${ }^{37}$ In theory, all properly priced assets will fall on this line. Thus for a given level of risk the investor assumes, we can determine the appropriate rate of return.
"The relationship [between a firm's size and its return] cuts across the entire size spectrum, but is most evident among the smaller companies which have higher returns on average than larger ones." ${ }^{38}$ However, if we plot a small company's return and volatility (beta) on the chart below, we would find that small-cap stocks earn a higher level of return than would be suggested by the Security Market Line. That is, they fall above that line. This additional return that is not explained by the Security Market Line is referred to as the Small Company
 Risk Premium. This premium is the portion of the rate of return that cannot be explained by the overall market beta and, therefore, is attributable to the small size of the company.

The entire universe of securities listed on the New York Stock Exchange (NYSE), American Stock Exchange (AMEX), and the Nasdaq National Market (NASDAQ) was filtered for just U.S. common stock equities and was sorted by the size of the company's capitalization. The smallest decile (smallest $10 \%$ ) of these companies were further broken down into an upper and lower half. ${ }^{39}$ Companies in the smaller half (referred to as Decile 10b, representing the smallest $5 \%$ of the stock market), earned the above premium in excess of the overall beta-adjusted market return. Beginning in 2010 Ibbotson's began dividing the companies in Decile 10b into the upper $50 \%$ in terms of size and the lower $50 \%$ - referred to as 10 y and 10 z , with 10 z representing the smallest $2.5 \%$ of the stock market.

[^18]Ibbotson Assoc. 2011 Stocks, Bonds, Bills and Inflation (SBBI) 2011 Valuation Yearbook, © 2011, p. 196

### 6.3.4 InduStry Risk Premium - 1.92\%

When estimating the return on a small-cap stock, the above Small Company Risk Premium identifies the additional return that is attributable to just the company's size. At this point the assumption is that all the companies in this particular small-cap grouping bear the same level of systemic risk or beta as the overall market does (as depicted in the Equity Risk Premium section). This ignores the fact that regardless of size, companies in different industries bear different levels of systemic risk compared to the overall market as a whole.

For example we can look at two companies within the same industry, one a multi-billion dollar company which owns 10,000 gas stations and the second a single-station family owned operation. Regardless of size, both of these companies are exposed to the industry's unique risk. Thus an interruption in gasoline supplies would affect both companies. As such, it is not only appropriate to adjust the small company to reflect a size premium, but also adjust both companies to reflect specific industry risk.

Ibbotson has calculated the betas for hundreds of industries from which an Industry Risk Premium can be calculated. If the premium is positive, the industry bears a greater level of risk than the overall market beta would suggest and warrants a higher rate of return. If it is negative, the industry is at a lower level of risk than suggested by the overall market beta and would earn a lower rate of return. Companies classified under SIC code \#17, 5031, and 5211 (Specialty/Glazing Contractors and Distributors of Building Materials, Doors, and Windows) are shown to possess a higher risk level than the market as a whole and therefore a premium is added to its expected rate of return.
Ibbotson Assoc. 2011 Stocks, Bonds, Bills and Inflation (SBBI) 2011 Valuation Yearbook, © 2011, Morningstar, p.32-38, average of SIC Code 17**, 5031, 521*

### 6.3.5 Specific Company Risk Premium - 5.00\%

This is the last component of risk associated with equity investments. These risks are specific to the Appraisal Subject.

When comparing the Appraisal Subject with other potential investment opportunities, it should be noted that several of the specific premium amounts shown below are not, nor can they be, supported by academic research. The values cited should not be considered a precise measure of risk, but rather an indication of the Appraiser's judgment and experience with factors that affect value.
a) Financial Leverage and Barriers to Funds: The Company has a very high level of debt at $121.2 \%$ of its total invested capital. The debt portion of its total capital is well above the $41.4 \%$ average of companies the size of the Subject found in the Bizminer database shown in Paragraph 4.2.6. The risk to future cash flow production from its current debt-service level is well above that of the industry. Because of its high debt
levels, the Company's ability to borrow at low rates to take advantage of future growth opportunities is much lower than that of the industry.
b) Depth of Management: Is deemed adequate. Four owners work full time as department managers.
c) Concentration of Supplier: Approximately $90 \%$ of the Company's purchases are from one vendor, Pella Renovation. The Retailer Agreement restricts the Subject from carrying competing brands which puts it at a competitive disadvantage. If this Agreement were terminated, the Company would have to shift its source of supply to other vendors at a considerable long-term cost.
0.00\%
2.00\%

Total Specific Company Risk Premium
5.00\%

The total rate of return of $29.1 \%$ from the five paragraphs above (see Exhibit XVIII) is that which an investor would demand on his equity portion of an investment in Smith's.

### 6.3.6 Perpetual Growth Rate

A key element in the formation of the Capitalization Rate is the Perpetual Growth Rate or the estimate of the long-term growth rate of the Subject Company in perpetuity. It is a common error to observe a few years' growth of a company and draw conclusions of its long-term growth potential. For example, the subject company may recently have shown annual growth rates in the $15 \%$ per year range. One might conclude that it could continue to grow at that rate. However, in order to maintain that rate in perpetuity means that the company would conceivably grow from $\$ 5$ million to $\$ 330$ million in thirty years and $\$ 5.4$ billion in fifty years. The appraiser's selection of a Perpetual Growth Rate must, therefore, be reasonable given that it is a lifetime growth rate.

Additional considerations were noted in the buildup exercise in Paragraph 6.3.1. The estimate for the rate of return on equity used to develop the Capitalization Rate includes

| Nomimal Growth Rates by Economic Sector |  |  |  |  |
| ---: | ---: | ---: | ---: | :---: |
| Sector | Last 50 <br> Years | Since <br> 1991 | Since <br>  <br> GDP |  |
|  | $4.7 \%$ | $3.9 \%$ |  |  |
| Personal Consumption | $7.1 \%$ | $5.1 \%$ | $4.2 \%$ |  |
| Investment-Residential | $6.2 \%$ | $2.9 \%$ | $-1.5 \%$ |  |
| Windows-BIdg Materials | $1977-1997=6.5 \%$ | $0.7 \%$ |  |  | gains due to inflation. Since these rates will be applied to the Subject's projected income stream to determine the value of the enterprise, we should, therefore, include inflation in the growth projections for our Subject. As such the five-year forecast of earnings for Smith's and the Perpetual Growth Rate will be in current dollars, i.e. the nominal growth rate (real growth plus inflation).

The annual nominal growth of the GDP (Gross Domestic Product) has averaged approximately $6.9 \%$ over the last 50 years. However, since 1991 this annual growth rate has slowed to $4.7 \%$ and from 2001 it slowed further to $3.9 \%$. The residential-investment sector of the economy grew $6.2 \%$ annually during the last 50 years, but slowed to $2.9 \%$ since 1991 and declined $1.5 \%$ since 2001. The construction boom during the early 2000's was almost completely offset by the crash from 2007 to the present ${ }^{40}$. As such, recent economic history is anemic by comparison with the long-term history. As we saw in the forecast section in paragraph 2.2.6, IBISWorld is projecting a slow $4.4 \%$ growth rate in the home improvement industry for the next five year. However, expectations are for normal growth following that.

The long-term growth from year six to perpetuity in our model, however, should reflect normal long-term economic patterns. IBISWorld characterized the home improvement industry as a mature industry meaning that its growth should mirror that of the GNP ${ }^{41}$ GDP growth during the last 20 years included two significant recessions and two bull markets. Even though the $4.7 \%$ growth rate for the last 20 years is well below the 50 -year average, it is highly unlikely that the fifty-year growth rate of $6.9 \%$ can be sustained indefinitely. Therefore, we will use the more conservative growth rate exhibited since 1991 of $4.7 \%$.

Management's five-year growth projections for Smith's that were built into the forecast model plus the growth rate in perpetuity are as follows:

| 2012 | 2013 | 2014 | 2015 | 2016 | Perpetuity |
| ---: | ---: | ---: | ---: | ---: | :---: |
| $-6.0 \%$ | $6.0 \%$ | $4.0 \%$ | $4.0 \%$ | $4.0 \%$ | $4.7 \%$ |

### 6.4 The Discount Rate and Capitalization Rate

Now that we have established the Discount Rate or Rate of Return on Equity and the Perpetual Growth Rate, calculating the Capitalization Rate is simple math:

$$
\begin{array}{rr}
\text { Rate of Return on Equity } & 29.1 \% \\
\text { Less the Perpetual Growth Rate } & \underline{-4.7 \%} \\
\text { Capitalization Rate } & 24.4 \%
\end{array}
$$

We will now apply the Discount Rate and Cap Rate from the above model to the projected income streams calculated in Exhibit XVII to arrive at the present value of the Subject.

[^19]
### 6.5 Present Value of Future Net Free Cash Flow

The concept of present value, the basis for this methodology, needs further explanation. Present value theory takes into account the time value of money. If we can earn $10 \%$ interest on an investment, then a dollar today will be worth $\$ 1.10$ a year from now [1 x $(1+10 \%)$ ]. However, present value is a little like "reverse interest." At a $10 \%$ interest rate, a dollar received a year from now is only worth $90.9 \notin$ today $[1 /(1+10 \%)]$. Using present value jargon we would say a dollar received a year from now discounted at $10 \%$ would be worth $90.9 \not \subset$ today.

The present value of a dollar that will be received two years from now at a $10 \%$ discount requires a little more complex math. The formula is $1 /(1+10 \%)^{n}$, where $\mathrm{n}=$ the number of years in the future. The calculation here is $1 / 1.10^{2}$ which equals $82.6 \not \subset$. Three years equals $1 / 1.10^{3}$ or $75.1 \notin$, and so on.

To complicate things even a little more, present value theory assumes that the dollar will be received exactly one year from now. However, when we look at the income stream of a typical business, those dollars are flowing to the investor throughout the entire year -- some in the beginning, some in the middle, and some toward the end of the year. Thus to discount an entire year's cash flow by using a full year's discount rate would understate that cash flow's present value. Therefore, to make present value theory a little more relevant to what happens to the businessperson, we will use what is referred to as the "mid-year convention." If a full year's discount rate is determined to be $10 \%$, we will use $5 \%$ as the average or midyear discount rate for year one, $15 \%$ for year two, $25 \%$ for year three and so on. The formula is $1 /(1+i)^{\mathrm{n}-5}$ where $i$ is the Discount Rate and $n$ is the number of years into the future that we are discounting.

Putting the above math together, the present value of the projected income streams for Smith's Building Supply is:

Exhibit XIX Present Value of Projected Cash Flow

|  |  | $29.1 \%$ <br> Discount <br> Rate |  |
| ---: | ---: | ---: | ---: |
| Year | Net Free <br> Cash Flow <br> to Capital | Mid-Year <br> Conventio <br> n | Present <br> Value of <br> Cash Flow |
| 1 | 9,136 | 0.880 | 8,040 |
| 2 | 22,696 | 0.682 | 15,472 |
| 3 | 59,285 | 0.528 | 31,306 |
| 4 | 59,864 | 0.409 | 24,486 |
| 5 | 58,849 | 0.317 | 18,645 |
| Terminal Year Value | 131,696 | 0.317 | 41,726 |
| Present Value of Cash Flow |  |  | 139,676 |

(1) The Terminal Year value was calculated by taking the net free cash flow for the Terminal Year shown in Exhibit XVII and dividing it by the Cap Rate. The capitalized value for the Terminal Year shown below, now gives us a single value that represents the sum of the present value of all future cash flow to be generated by the Subject Company from year six into perpetuity. By adding the present value of the Terminal Year plus the present value of the five Discrete years equals the total value of the Subject.
Net Free Cash Flow to Equity - Terminal Year
Divided by the Cap Rate

Present Value of Total Cash Flow from Year 6 into perpetuity $\quad$| $\$ 24,161$ |
| ---: |
| 32,134 |
| $\$ 24.4 \%$ |

## Value of Shareholder Equity (rounded)

\$140,000

### 6.6 MARKETABILITY DISCOUNT AND CONTROL DISCOUNT

The various methodologies available to the appraiser create a value that presumes either a control or a minority ownership position and a marketable or non-marketable characteristic. If the methodology used develops a value that is from a minority owner's perspective and we desire a control value, an increase in that calculated minority value is indicated. Likewise if the value developed by the methodology is on a control basis and we seek a minority ownership value, we should consider a decrease in that calculated control value. The same logic applies to the level of marketability presumed by the methodology.

The following chart illustrates the different levels of value created by different methodologies used and what type of adjustment must be made to move that basis to the desired level exhibited by the subject. The column on the right shows various types of methodologies used in valuations and the column on the left indicates the level of control and marketability that they produce. For example, if one used the Discounted Future Earnings method with control adjustments, the value produced would be on a control/marketable basis.

However, if one used this methodology but wished to achieve a non-controlling basis (the value of a minority interest), a Discount for Lack of Control (DLOC) would be required.

Exhibit XX Basis of Value Adjustments


As we noted in the beginning of this report, the basis of value that we are seeking for the Subject Company is from a non-controlling, non-marketable perspective.

From the table above we see that by using non-control adjustments to calculate net free cash flow in the Income Approach, the resulting basis of value is non-controlling. In addition, the Discount and Capitalization Rates that were used in the Income Approach were calculated from data observed in the stock market. As such the rates presuppose that the investment is in publicly traded companies that have ready access to markets. In other words, the Income Approach method used in this report coupled with the manner in which net free cash flow was calculated implies that the basis for the above value is non-controlling and marketable. Consequently to bring the value that we developed in the Income Approach in-line with the desired basis, we will need to apply a Discount for lack of Marketability.

The table above also indicates that the Market Approach, which will be discussed in Paragraph 7.0 below, produces a basis that is controlling and non-marketable. The Market Approach employs the Direct Market Data Method. This method obtains transactional data from small, closely held companies in which a $100 \%$ controlling interest was sold. Since these businesses have been sold in private placement, typically through business brokers, clearly establishes the level of non-marketability. In order to bring this approach in-line with our desired non-controlling and non-marketable basis, we will need to apply a Discount for lack of Control.

Lastly, the calculated value for shareholder equity above is for a normalized operating company, that is, one that does not have any non-operating assets. As noted earlier, the Subject had surplus cash on its balance sheet. Thus following the application of the various discounts, the Subject's non-operating assets will be added back to obtain the total fair market value of the shareholders' equity (net worth) on a non-controlling, non-marketable basis.

### 6.6.1 CONTROL PREMIUMS AND DISCOUNTS

A control premium is defined as the additional consideration that an investor would pay over a marketable minority equity value (i.e., current, publicly traded stock prices) in order to own a controlling interest in the common stock of a company. ${ }^{42}$ If the subject is a controlling interest, a control premium should be considered. When a control premium is warranted, the size of the premium is often based on the controlling interest holder's ability to:

Decide on levels of compensation for officers, directors, and employees
Decide with whom to do business and enter into binding contracts
Decide whether to pay dividends and, if so, how much
Register the stock with the Securities and Exchange Commission for public offering
Repurchase outstanding stock or issue new shares
Make acquisitions or divest subsidiaries or divisions
Buy, Sell, or hypothecate any or all company assets
Determine capital expenditures
Change capital structure
$\square$ Amend articles of incorporation or by-laws
$\square$ Sell a controlling interest with or without participation by minority shareholder
$\square$ Select directors, officers, and employees
$\square$ Determine policy, including changing the direction of the business
$\square$ Block any (or all) of the above actions. ${ }^{43}$
In this assignment we are valuing a non-controlling interest and therefore, normally a discount for lack of control may be warranted. Although the difference between a $100 \%$ ownership position and a simple majority interest is generally small, the presence of other

[^20]owners does change the picture for the majority shareholder. A threat of a shareholder lawsuit is a real risk and can affect even a $99 \%$ ownership interest. The following table reflects the range of control in a private company: ${ }^{44}$

## Range of Control in a Private Company

- $100 \%$ Equity Owner ship
- Control Interest with Liquidity
- $51 \%$ Operating C ontrol
- Two $50 \%$ Owners
- Minority with largest block of equity interest
- Minority with "swing vote" attributes
- Minority with "cumul ative voting" rights
- Pure minority interest - no control features

As per the terms of the Smith's Building Supply shareholder agreement, signed by all shareholders, each owner receives a vote in accordance with his or her percentage of ownership on all corporate-level decisions listed in the above table. However, since the four minority owners will collectively own just $49 \%$ of the outstanding shares, none of them will be able to make corporate decisions without the concurrence of the $51 \%$ majority owner. As such the level of control exerted by any or all of the minority owners will fall to the bottom of the table above.

Mergerstats Review is considered the definitive data source for determining premiums for control. ${ }^{45}$ Unfortunately there is no data available in the marketplace that observes the discounts investors demand for making non-controlling investments. However, an "implied" DLOC can be calculated from Mergerstat's control data. For example, a stock is currently being offered at $\$ 10$ per share on a public market for minority share purchases. Another company tenders an offer to purchase $100 \%$ of the outstanding shares for $\$ 15$. The acquiring company therefore paid a $50 \%$ premium $(\$ 5 \div \$ 10)$ to gain control of the target company. This factor is referred to as a control premium.

In the reverse situation, an investor who was considering buying $100 \%$ control of a company for $\$ 15$ per share, but is subsequently offered a $20 \%$ stake, might only be willing to pay $\$ 10$ per share for that non-controlling position. The investor demanded a $33 \%$ discount for a noncontrolling position $((\$ 15-\$ 10) \div \$ 15)$. This factor is referred to as a Discount for Lack of Control (DLOC).

These two factors are literally reciprocals of each other in that solving for one of the above control factors, we can then solve for the other. The formulas for each are:
Minority Discount $=1-\left(1+\frac{1}{\text { Control Premium })}\right.$ Control Premium $=\frac{\text { Minority Discount }}{(1-\text { Minority Disc })}$

[^21]The following table shows the results of the Mergerstat study for the years 2001 to 2011. ${ }^{46}$

## Premiums Paid Over Market Price

| Year of <br> Buyout | Median Premium <br> Paid over Market (\%) | Implied <br> Discount |
| :---: | :---: | :---: |
| 2001 | $35.9 \%$ | $26.4 \%$ |
| 2002 | $34.0 \%$ | $25.4 \%$ |
| 2003 | $37.7 \%$ | $27.4 \%$ |
| 2004 | $25.8 \%$ | $20.5 \%$ |
| 2005 | $24.4 \%$ | $19.6 \%$ |
| 2006 | $20.6 \%$ | $17.1 \%$ |
| 2007 | $20.7 \%$ | $17.2 \%$ |
| 2008 | $34.1 \%$ | $25.4 \%$ |
| 2009 | $36.8 \%$ | $26.9 \%$ |
| 2010 | $32.6 \%$ | $24.6 \%$ |
| $\underline{2011}$ | $\underline{30.0 \%}$ | $\underline{23.1 \%}$ |
| Average | $30.2 \%$ | $23.2 \%$ |

The premium paid is the buyout price divided by the seller's stock price five days before the takeover announcement.

The average control premium identified in the Mergerstat Control Premium Study for the eleven-year period ending 2011 was $30.2 \%$ and the implied discount was $23.2 \%$. The range of the median premium from year to year was approximately $21 \%$ to $37 \%$. However, premiums for individual transactions can be found that are negative or as high as $200 \%$ to $300 \%$. Mergerstat does not include transactions with negative premiums in the median premium calculations shown above. As such this may create a significant upward bias in the data. In addition, it should be noted that these premiums paid in the marketplace often include other factors such as the need to gain access to key markets or other synergies resulting from the combination of the companies. ${ }^{47}$ Under our standard of fair market value, we are not considering any premiums that are the result of these synergies (i.e. strategic investments). Since the Mergerstat transactional data identifies those mergers that were motivated by strategic considerations, as per Shannon Pratt's suggestion, we will remove those transactions from our analysis that are identified as strategic. ${ }^{48}$

[^22]A search of the Control Premium Study database found 17 merger transactions for companies in Standard Industrial Classification (SIC) code \#17, 5031, and 5211, Specialty/Glazing Contractors and Distributors of Building Materials, Doors, and Windows. The data is presented in Exhibit XXI.

Exhibit XXI Control Premiums and Discounts

|  | SIC 17**, 5211, and 5031 |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Description | Year | Trans Type | \% of Shares Acquired | $\begin{array}{\|c\|} \hline \text { Implied } \\ \text { Price (\$m) } \\ \hline \end{array}$ | Revenues (\$ million) | $\begin{aligned} & \text { EBITDA } \\ & \text { (\$million) } \\ & \hline \end{aligned}$ | EBITDA / <br> Revenues | Price / Revenues | Price / <br> EBITDA | Control Premium | Implied Discount |
| 1 | Constructs tunnels, bridges, buildings, and roads | 2000 | Horizontal | 65.0\% | 150.51 | \$482.28 | \$34.99 | 7.3\% | 0.31 | 4.3 | 15.4\% | 13.3\% |
| 2 | Designs, builds, and maintains bridges with prestress | 2002 | Horizontal | 100.0\% | 16.52 | \$863.04 | (\$44.14) | -5.1\% | 0.02 | -0.4 | -76.6\% | -327.4\% |
| 3 | Operates an investment company and manages constr | 2008 | Financial | 58.4\% | 61.02 | \$145.91 | \$11.99 | 8.2\% | 0.42 | 5.1 | 0.59 | 0.37 |
|  | Provides investment banking and asset management ${ }^{\text {a }}$ | 2008 | Financial | 44.7\% | 70.39 | \$3,553.71 | \$90.14 | 2.5\% | 0.02 | 0.8 | 47.1\% | 32.0\% |
| 5 | Operates as an investment holding company with inter | 2011 | Strategic | 68.0\% | 353.56 | \$4.27 | (\$0.86) | -20.1\% | 82.80 | -411.1 | 0.00 | 0.00 |
| 6 | Provides and installs fire-rated timber door as well as | 2004 | Financial | 55.0\% | 10.26 | \$3.40 | (\$0.91) | -26.8\% | 3.02 | -11.3 | -0.85 | -5.54 |
| 7 | Private investment company | 2000 | Financial | 100.0\% | 2.54 | \$68.47 | \$2.87 | 4.2\% | 0.04 | 0.9 | 0.54 | 0.35 |
| 8 | Manufactures wood windows and patio doors | 1999 | Horizontal | 100.0\% | 41.45 | \$383.89 | (\$9.02) | -2.3\% | 0.11 | -4.6 | 0.28 | 0.22 |
|  | Distributes construction and building materials | 2000 | Horizontal | 100.0\% | 118.35 | \$144.84 | \$12.08 | 8.3\% | 0.82 | 9.8 | 27.5\% | 21.6\% |
| 10 | Procures equity investments and provides related adv | 2003 | Financial | 100.0\% | 614.12 | \$2,257.04 | \$137.75 | 6.1\% | 0.27 | 4.5 | 0.39 | 0.28 |
| 11 | Manufactures and distributes door locks mainly for bu | 2011 | Strategic | 63.6\% | 1773.04 | \$1,268.63 | \$150.57 | 11.9\% | 1.40 | 11.8 | 48.4\% | 32.6\% |
| 12 | Distributes building materials and supplies | 1999 | Horizontal | 100.0\% | 1203.06 | \$1,030.34 | \$79.87 | 7.8\% | 1.17 | 15.1 | 106.5\% | 51.6\% |
| 13 | Distributes building materials and timber | 1999 | Horizontal | 100.0\% | 383.51 | \$864.36 | \$58.10 | 6.7\% | 0.44 | 6.6 | 14.0\% | 12.3\% |
| 14 | Operates retail supermarkets | 1999 | Conglomerate | 100.0\% | 28.26 | \$73.80 | \$5.04 | 6.8\% | 0.38 | 5.6 | 1.00 | 0.50 |
| 15 | Sells home im provement products | 2000 | Horizontal | 100.0\% | 494.05 | \$925.34 | \$64.76 | 7.0\% | 0.53 | 7.6 | 0.60 | 0.37 |
| 16 | Manufactures flat glass, insulating materials, cement, $¢$ | 2001 | Vertical | 100.0\% | 10.92 | \$29.23 | \$1.82 | 6.2\% | 0.37 | 6.0 | 31.90\% | 24.2\% |
| 17 | Imports drugs, healthcare products, alcohol, food, and | 2009 | Strategic | 86.2\% | 3.93 | \$26.43 | (\$9.44) | -35.7\% | 0.15 | -0.4 | 33.3\% | 25.0\% |
|  | Discounts by Different Filters |  | \# of Observations | Median <br> Control Premium | Median Implied Discount | Lower Quartile Discount | Upper Quartile Premium |  |  |  |  |  |
| a. | All Transactions for 2011 (From CPS database) |  | 480 | 32.1\% | 24.3\% | 14.2\% | 52.0\% |  |  |  |  |  |
| b. | All Transactions in SIC 17**, 5211, and 5031 |  | 17 | 33.3\% | 25.0\% | 13.3\% | 5.0\% |  |  |  |  |  |
| c. | All SIC 17**, 5211, and 5031 Non-Strate gic |  | 14 | 35.5\% | 26.2\% | 18.4\% | 58.0\% |  |  |  |  |  |
| d. | All SIC 17**, 5211, and 5031 Non-Strategic with Sales less | 384m | 7 | 31.9\% | 24.2\% | 21.7\% | 36.1\% |  |  |  |  |  |
| e. | All SIC 17**, 5211, and 5031 Non-strategic with Sales mor | 384m | 7 | 39.0\% | 28.1\% | 12.8\% | 34.7\% |  |  |  |  |  |
| t. | All SIC 17**, 5211, and 5031 Non-strategic occurring prior |  | 8 | 40.9\% | 29.0\% | 19.5\% | 40.6\% |  |  |  |  |  |
| g. | All SIC 17**, 5211, and 5031 Non-strategic occurred in or |  | 6 | 35.5\% | 26.2\% | -239.5\% | 31.0\% |  |  |  |  |  |

We can see from all the transactions in 2012 that the implied discount was $24.3 \%$ (row "a" in Exhibit XXI), which is roughly the same as the $23.2 \%$ indicated by the data from the Mergerstat studies shown on the previous page. Filtering the data by industry SIC code \#17, 5031, and 5211 and eliminating those transactions identified as strategic produced a median implied discount of $26.2 \%$ which is moderately higher than the overall market in 2012 (row "c"). Thus this industry appears to be moderately above the level of implied discounts than the overall market. The largest effect on implied discounts comes from the size of the business. Those companies in the Subject's industry with less than $\$ 384 \mathrm{~m}$ million in sales produced a moderately lower median of $24.2 \%$ (row " $d$ ") compared to $28.1 \%$ for larger businesses (row "e"). Thus, from the list of individual transactions in the Subject's industry, it appears that the smaller the company, the lower the implied discount. In addition, those transactions in SIC code \#17**, 5211, and 5031 also appear to have produced a lower implied discount after 2001 (26.2\%) than transactions prior to 2001 (29.0\%).

Analysis: The Subject's industry data suggests a somewhat higher implied discount than the overall market is warranted. However, Subject's small size compared to the market and the fact that the valuation is for 2011 are two factors that will pull its discount down somewhat. As such, we will select a baseline discount of $24 \%$. From this baseline value we will make further adjustments after considering the specific characteristics of the Subject.

Rand M. Curtiss developed a factor rating system for adjusting a baseline implied discount to arrive at the appropriate DLOC for a subject interest. ${ }^{49}$ This procedure which is used by many business appraisers employs the following table of characteristics $:^{50}$

Exhibit XXII DLOC Factors Rating

| Discount for Lack of Control Factors | Rating of (1) | Rating of (0) | Rating of +1 |
| :---: | :---: | :---: | :---: |
| Power |  |  |  |
| Are voting rights proportionate? | Favor minority | Pro rata to all owners | Favor control |
| Is control ownership concentrated? | No | Uncertain | Yes |
| Is there minority governance representation? | Yes | For major decisions | No |
| Is a change of control likely? | Yes | Uncertain | No |
| Does the interest have swing or some control value? | Yes | Uncertain or N/A | No |
| Are there undue management restrictions? | Yes | Uncertain or N/A | No |
| Can the entity agreement be amended easily? | Yes | Uncertain or N/A | No |
| Can management be changed easily? | Yes | Maybe (majority in interest) | No |
| Is there control over accounting? | Yes | Uncertain or N/A | No |
| Are there special protective laws/provisions? | Yes | Uncertain or N/A | No |
| Are there anti-dilutive/pre-emptive rights? | Yes | Uncertain or N/A | No |
| Is the period of lack of control limited? | Short-term | Medium-term | Long-term |
| Economic |  |  |  |
| Are distributions proportionate? | More to minority | Pro rata to all owners | More to control |
| Can management compensation be controlled? | Yes | Uncertain or N/A | No |
| Is there a probability of cash calls? | No | Uncertain or N/A | Yes |
| Are there discretionary expenses? | No | Uncertain or N/A | Yes |
| Are there non-operating assets? | Yes | Uncertain or N/A | No |
| Is income growing rapidy? | No | Uncertain or N/A | Yes |
| Is the entity stable? | Yes | Uncertain or N/A | No |
| Is it in good financial position? | Yes | Uncertain or N/A | No |
| Are industry conditions favorable? | Yes | Uncertain or N/A | No |
| Are merger/acquisition trends favorable? | Yes | Uncertain or N/A | No |
| Is business risk high? | No | Uncertain or N/A | Yes |
| Is financial risk high? | No | Uncertain or N/A | Yes |
| Are government regulations pervasive? | No | Uncertain or N/A | Yes |
| Is there extraordinary litigation exposure? | No | Uncertain or N/A | Yes |
| Is management of good quality, reputation and integrity? | Yes | Uncertain or N/A | No |
| ... Is it deep? | Yes | Uncertain or N/A | No |
| ... Is it dependent on key people? | No | Uncertain or N/A | Yes |
| Are owners deeply involved? | Yes | Uncertain or N/A | No |
| Are there major uninsured risks? | No | Uncertain or N/A | Yes |

Source: Rand M. Curtiss, Developing and Defending Fractional Interest Valuation Premiums and Discounts, (Plantation: The Institute of Business Appraisers, Inc., 2003), p. 42.

The application of this table of characteristics as it relates to the Subject is as follows:

[^23]| Discounts for Lack of Control Factors | Rating | Reason |
| :---: | :---: | :---: |
| Power |  |  |
| Are voting rights proportionate? | +1 | Yes |
| Is control ownership concentrated? | +1 | Yes, largest ownership block owns 51\% of shares |
| Is there minority governance representation? | -1 | Yes, all shareholders vote on all issues |
| Is a change of control likely? | +1 | No, large block owner managed the company for 20 years |
| Does the interest have swing or some control value? | +1 | Yes, functions as manager |
| Are there undue management restrictions? | 0 | Uncertain |
| Can the entity agreement be amended easily? | -1 | Yes |
| Can management be changed easily? | +1 | Minority cannot fire manager/majority owner |
| Is there control over accounting? | 0 | Uncertain, manager directs accounting function |
| Are there special protective laws/provisions? | 0 | Uncertain |
| Are there anti-dilutive/pre-emptive rights? | +1 | No |
| Is the period of lack of control limited? | +1 | Long term |
| Economic |  |  |
| Are distributions proportionate? | +1 | Prorata to all owners |
| Can management compensation be controlled? | +1 | No |
| Is there a probability of cash calls? | -1 | No |
| Are there discretionary expenses? | 0 | Minor amount |
| Are there non-operating assets? | 0 | Surplus Cash is considered non-operating, but minor |
| Is income growing rapidly? | 0 | Level |
| Is the entity stable? | -1 | Yes, 35 year history |
| Is it in good financial position? | +1 | No, company is highly leveraged |
| Are industry conditions favorable? | +1 | Recession has hurt the industry |
| Are merger/acquisition trends favorable? | 0 | Uncertain |
| Is business risk high? |  | Accounted for in Industry Risk Premium for Discount Rate |
| Is financial risk high? |  | Accounted for in Industry Risk Premium for Discount Rate |
| Are government regulations pervasive? | -1 | No |
| Is there extraordinary litigation exposure? | -1 | No |
| Is management of good quality, reputation and integrity? |  | Accounted for in Specific Company Risk for Discount Rate |
| ... Is it deep? |  | Accounted for in Specific Company Risk for Discount Rate |
| ... Is it dependent on key people? |  | Accounted for in Specific Company Risk for Discount Rate |
| Are owners deeply involved? | -1 | Yes, all but one are active in the company |
| Are there major uninsured risks? | -1 | No |
| Summary |  |  |
| Sum of the Ratings | 3 | Sum of the $-1 / 0 /+1$ ratings above |
| Number of Factors | 26 | Number of factors rated |
| Net Factors | 29 | Sum of preceeding two factors |
| Net Factors/ Factors Rated | 112\% | Quotient of preceeding two numbers |
| Baseline Discount | 24\% |  |
| Subject Discount (rounded) | 27.0\% |  |

Analysis: Based on a review of the above factors, a Discount for Lack of Control of $27.0 \%$ has been selected. This value will be applied to the value initially developed in the Income Approach.

### 6.6.2 DISCOUNT FOR LACK OF MARKETABILITY

"Marketability is defined as the ability to convert the investment to cash very quickly at minimum costs, and with a high degree of certainty of realizing the anticipated amount of
proceeds. ${ }^{51}$ The prime example of perfect marketability can be seen with stocks traded on public stock exchanges. They can be sold within seconds at a reasonably expected price for a transaction fee of as little as $\$ 7.95$. The proceeds can be collected in three days. Investments in closely held companies are a different story. There are no ready markets to trade shares of closely held companies. As such the length of time to consummate a sale can be lengthy with the selling price not known until an offer is tendered. Sales commissions can range from $6 \%$ to $10 \%$ of the selling price and legal, accounting, and escrow costs can range between $1 \%$ and $3 \% .^{52}$ Investors abhor illiquidity and demand fairly large discounts to be induced into making such investments. Interests in small, closely held companies, therefore, are referred to as non-marketable. A non-marketable interest must, therefore, be valued in a manner which will reflect its unattractive investment characteristics.

As in the case of control premiums above, the methodology used to develop a given value drives the need for possible Discounts for Lack of Marketability (DLOM). If the methodology used by the appraiser employs a data source of marketable type securities, the resulting calculated value will also have the presumption of marketability. If, then, we are seeking a non-marketable value for the subject, the marketable value that was initially calculated must be further reduced by an appropriate DLOM.

The appraisal profession generally recognizes two different levels of marketability discounts. Clearly the degree of difficulty of selling a minority interest in a closely held company is far greater than selling a $100 \%$ controlling interest. Any business broker will tell you that there is virtually no market for the sale of minority shares of a company. The primary choice facing such an owner is to sell his shares to his other partners. If the majority partners are oppressing minority partners, the last remaining choice is litigation.

The owner of a controlling interest has far more options in marketing his business. If the company is large enough, the owner can consider taking it public or selling to an ESOP or private equity groups. For smaller companies a majority owner can employ the services of a business broker to sell his company. None of these options are available to a minority owner as a minority owner cannot force the sale of any company assets without majority approval. As such many practitioners argue that there is little, if any, marketability discount for controlling interests.

However, all the options available to a majority owner still have costs involved that are significantly greater than the investor who pays E-Trade $\$ 7.95$ to sell his publically traded shares. The U.S. tax court clearly has recognized such discounts for controlling interests. From the 1982 case of Estate of Bills v. Commissioner: "Even controlling shares in a nonpublic corporation suffer from lack of marketability because of the absence of a ready private placement market and the fact that flotation costs would have to be incurred if the

[^24]corporation were to publically offer its stock." Shannon Pratt concurs in his book, Business Valuation Discounts and Premiums. He notes that whether a buyout or public offering is sought, the owner is faced with: 1) creating accounting records satisfactory to buyers, bankers, or regulatory authorities; 2) utilizing management's time to facilitate the above and cure negative factors; 3) incurring legal expenses; and, 4) finding a buyer [which usually means employing the services of a broker]. ${ }^{53}$

In order to differentiate between the marketability discounts for controlling versus noncontrolling interests, the discount applied to non-controlling interests is referred to as a Discount for Lack of Marketability and the discount applied to controlling interests is referred to as an Illiquidity Discount.

Numerous studies have been conducted which provide evidence of Discounts for Lack of Marketability. They typically fall into two classes:

Restricted stock studies -- The discount on sales of restricted shares of publicly traded securities versus its freely traded counterparts

Pre-IPO studies - The discounts on sales of closely held company shares compared to Initial Public Offering prices of the same company shares.

### 6.6.2.1 Restricted Stock Studies

Shannon Pratt provides us with a list of studies done on restricted stock transaction over the years: ${ }^{54}$

| Time Period | Number of A |  | Average |
| :---: | :---: | :---: | :---: |
|  | Study | Transactions | Discount |
| 1/66-6/69 | SEC Institutional Investor | 398 | 25.8\% ${ }^{1}$ |
| 1/68-12/70 | Milton Gelman | 89 | 33.0\% |
| 1/68-12/72 | Robert Trout | 60 | 33.5\% |
| 1/68-12/72 | Robert Moroney | 148 | 35.6\% |
| 1/69-12/73 | Michael Maher | 33 | 35.4\% |
| 10/78-6/82 | Standard Research Consultants | 28 | 45.0\% ${ }^{2}$ |
| 1/81-12/88 | William Silber | 69 | 33.8\% |
| 1/79-4/92 | FMV Opinions, Inc. | >100 | 23.0\% |
| 1/80-12/96 | Management Planning, Inc. | 53 | 27.1\% |
| 1/91-12/95 | Bruce Johnson | 70 | 20.0\% |
| 1/96-4/97 | Columbia Financial Advisors | 23 | 21.0\% ${ }^{3}$ |
| 5/97-12/98 | Columbia Financial Advisors | 15 | 13.0\% ${ }^{4}$ |
|  | Average through Silber Study |  | 34.6\% |
|  | Average through Mgmt Planning |  | 32.5\% |
|  | Average through Columbia Study |  | 30.3\% |

[^25][^26]SEC Institutional Investor Study - This study (released in 1971) showed the extent of the discount that letter stock traded at compared to its freely traded counterpart. The overall mean and median discount for restricted common stock sold between January 1966 and June 1969 were about $25.8 \%$. In general discounts were lower for companies with high revenues trading on the largest stock exchanges. Those companies that were trading Over the Counter (typically smaller companies resembling closely held companies) produced mean and median discounts of approximately $33 \%$. ${ }^{55}$

Gelman Study - This study looked at the prices paid for restricted stocks by four closed-end investment funds from 1968 to 1970 . Of the 89 transactions observed Gelman found the average and median discount to be $33.0 \% .^{56}$

Trout Study - This study centered on the purchases of restricted shares by six mutual funds from 1968 to 1972. The study found that a majority of the discounts were between $22 \%$ and $45 \%$. The average was $33.5 \%$. ${ }^{57}$

Moroney Study - A review of 12 court cases from 1960 to 1971 in which the discount allowed in those cases is compared to the price obtained by ten different investment houses on 146 purchases of restricted stock. Mr. Moroney observed that the discounts ranged from $90 \%$ to a premium of $30 \%$ with an average of $35.6 \% .^{58}$

Maher Study - Four mutual funds purchases 34 restricted stocks from 1969 to 1973 . Mr. Maher found that the discounts ranged from $2.7 \%$ to $75.7 \%$ with an average of $35.4 \%$. ${ }^{59}$

Standard Research Consultants - Mr. Pittock and Mr. Stryker of the Standard Research division of American Appraisal Associates analyzed 28 restricted common stock transactions from 1978 to 1982. They observed discounts ranging from $7 \%$ to $91 \%$ with a median of $45 \%$. The high discount rate can probably be attributed to the fact that the stock market was quite depressed during much of the period of research. ${ }^{60}$

[^27]Silber Study - Mr. Silber observed 69 transactions that occurred between 1981 and 1988 that yielded an average discount of $33.8 \%$. ${ }^{61}$

FMV Opinions Study - This study examined over 100 transactions that took place between 1979 and 1992. The mean discount was reported as $23 \%$ but there was no indication of the criteria used to select the data. Thus there was no ability to determine why the discount was lower than other studies. ${ }^{62}$ However, the authors did note that 17 of the transactions occurred after 1991 when SEC's trading restrictions under Rule 144A for restricted stock were relaxed. Those discounts were smaller than transactions occurring before 1991.

Management Planning Study - This study initially collected 231 transactions and then filtered the sample to eliminate companies with a share value less than $\$ 2$, sales volume less than $\$ 3$ million, "startups," and companies lacking adequate information. The average discount of the remaining 53 transactions without registration rights and 27 with registration rights was about $27.1 \%$. The median was $25 \%$, and the range was from $3 \%$ to $58 \%$. The average for the entire 231 transactions was high at $29 \%$. ${ }^{63}$

Johnson Study - 72 transactions from 1991 to 1995 were examined. The entire examination period followed the relaxing of Rule 144A by the SEC. The average discount was $20 \%$ and the range was a $10 \%$ premium to a $60 \%$ discount. ${ }^{64}$

Columbia Financial Advisors - This study compared the periods just before and just after SEC's change in Rule 144A in 1997 reducing the holding period of restricted stock from two years to one year. The 23 transactions just before the rule change received an average discount of $21 \%$ whereas the 15 transactions afterwards received an average discount of $13 \%$. The study noted that the discounts received following the 1997 ruling change should not be considered for valuations of privately held stock. Such increased liquidity is not present in privately held securities. ${ }^{65}$

The average discount for all studies noted above is $30 \%$ (rounded). Prior to 1990, the Securities and Exchange Commission (SEC), which governs transactions of restricted stock under Rule 144, required that all restricted stock transactions be registered with them. In 1990, Rule 144a eliminated that requirement allowing qualified institutional investors to trade unregistered securities among themselves without filing registration statements. This improved the marketability of those shares. The improvements in liquidity are illustrated by the reduced discounts noted beginning with the FMV study. In April 1997 the two-year

[^28]holding period for restricted stocks was reduced to one year. This improved liquidity again. The most recent study by Columbia includes only transactions that occurred after the 1 -year holding period change. These declining discounts illustrate how fewer restrictions and shorter holding periods increase the price buyers are willing to pay for restricted shares. In using restricted stock studies data as a benchmark for determining DLOM's for noncontrolling interests in closely held companies, the more recent studies have become less relevant because they track transactions that are more marketable than the earlier ones. The older studies provide a better proxy for closely held interests as those shares had greater restrictions and were therefore less marketable. Studies that do not include any post-1989 transactions (up to and including Silber) show an average DLOM of approximately $35 \%$.

### 6.6.2.2 PRE Initial Public Offering (IPO)

Robert W. Baird \& Company IPO Studies - John Emory, formerly with the Robert W. Baird Company, analyzed the price relationship between private arm's-length stock transactions that occurred within five months of a company going public versus the subsequent IPO price. Studies from 1980 to 2000 concluded that the median marketability discount was $46 \%$ with a range of $6 \%$ to $94 \% .{ }^{66}$ This study has similar structural issues worth noting as the Willamette Management Associates IPO Study below.

Willamette Management Associates IPO Study - This study reviewed IPO transactions from 1975 to 1992 and found an overall average discount to be $41 \%$ with a range of $35 \%$ to $45 \%$. Shannon Pratt reviewed the study and found that many of the private placement transactions occurred up to three years prior to the IPO date (Robert Baird only went back five months). ${ }^{67}$ The large timing differences between the private placement price and the IPO price were accounted for by applying various adjustments derived by comparing the market and financial conditions of the company at the time of the private transactions to the market and financial conditions at the time of the IPO. In addition, Mr. Pratt noted that many of the minority shareholders involved in the transactions also knew about the possibility of future illiquidity following the IPO; that is, their shares may continue to be restricted for a period of time after the IPO. As a result the ratio of the private-placement price to the IPO price may be affected by other considerations that were not present in the restricted stock studies. The results of these two studies may not be directly comparable to the results found in the various restricted stock studies.

### 6.6.2.3 Factors Affecting Marketability Discounts

Those studies that included periods following the changes in SEC's rule 144A reveal that discounts were lower when the perceived liquidity of the stocks increased. As noted in the Columbia Financial Advisors' study such increased liquidity did not occur in privately held securities.

[^29]Analysis: Thus if the average discount found in the 11 pre-rule 144A change in 1997 centered on approximately $30 \%$ for non-controlling interests. We will use this discount for our baseline as we did in the Discount for Lack of Control analysis above, and adjust the value for the Subject's specific characteristics.

Next, facts and circumstances surrounding the subject interest's marketability will be reviewed to decide the appropriate level of DLOM relative to the above baseline figure. In the 1995 tax court case Bernard Mandelbaum et al. v. Commissioner, Judge David Laro provided a list of ten factors he said should be considered in determining a DLOM. Many of these factors were also cited in Revenue Ruling 59-60: ${ }^{68}$

1. Private versus public sales of a similar corporation's stock
2. Analysis of the company's financial statements (analyze its financial strength)
3. The company's dividend policy and actual payment history
4. Nature of the company, its history, industry position and economic outlook
5. Company's management
6. Degree of control in transferred shares
7. Restrictions on transferability of stock
8. Investor's holding period for stock
9. Company's redemption policy
10. Costs associated with making a public offering

It is common to evaluate the provisions of a firm's buy sell agreement (e.g. "put" rights). It is also common to consider its prospects for liquidity (going public or being acquired), the mood of the investing public, and the market of potential buyers. Another common factor to consider is the quality and reliability of information in the firm and the degree to which management provides access to investors.

Rand M. Curtiss has developed a commonly used factor rating system through which the appraiser can evaluate the specific facts and circumstances of a subject's non-controlling interest and adjust a baseline DLOM accordingly. ${ }^{69}$ The procedure is outlined as follows:

1. Select an appropriate baseline DLOM (done above)
2. Develop a list of subjective factors to review in the following categories:

Income: Relates to income capacity and distributions
Appreciation: Relates to future prospects in a broader sense than just financial
Liquidity: Relates to the central question of the degree of the firm's marketability
Power: Relates to the ability/willingness of ownership to make available private information and direct the operation of the Company
3. Analyze each factor for the subject, and assign values:
+1 rating: Supports a higher discount, i.e. making a sale more difficult 0 rating: Supports a similar discount, i.e. no unique insights

[^30]
## - 1 rating: Supports a lower discount, i.e. making a sale easier

4. Based on the sum of the ratings, calculate a multiplier and apply to the baseline discount.

We adapted this method to develop the DLOM from our baseline value of $35 \%$ for the Subject non-controlling interest. Those factors that were taken into consideration earlier in this appraisal are flagged with * and are given no weight in the DLOM adjustment:

Exhibit XXIII DLOM Factors Rating

| Categor! Discount for Lack of Marketability |  | Rating | Reason |
| :---: | :---: | :---: | :---: |
| Income | Are cash distributions material | 1 | Minimal |
|  | ... Certain? | 1 | Not in recent years |
|  | ... Frequent? | 1 | No regular program yet established |
| Appreciati | Is the entity diversified? | 1 | No |
|  | Is the economic risk high? |  | assessed in buildup discount rate |
|  | ... Interest rate risk? |  | assessed in buildup discount rate |
|  | ... Stock market / asset price risk? | -1 | No |
|  | ... Business risk? |  | assessed in buildup discount rate |
|  | ... Financial Risk? |  | assessed in buildup discount rate |
|  | Are growth prospects good? |  | assssed in the cash flow projection |
| Liquidity | Are there rights to liquidation? | 1 | No |
|  | ... Withdrawal / return of capital? | 0 | Only under terms of Buy-Sell Agreement |
|  | ... Assignee Admission | -1 | No |
|  | Have there been sales of interest | 1 | No |
|  | Are there transfer restrictions | 1 | Yes, per terms of Buy-Sell Agreement |
|  | Are there insider-trading restrictions? | 1 | Yes |
|  | It there a right of first refusal? | 1 | Yes |
|  | Is there an active secondary Market? | 1 | No |
|  | Is the holding period long? | 0 | Uncertain |
|  | Is there a clear exit strategy? | 0 | per terms of the Buy-sell Agreement |
|  | Are there many potential buyers present? | 0 | No |
|  | Is there a Buy-Sell Agreement | -1 | Yes |
|  | Is there a put/call protection | -1 | Yes |
|  | Is there a blockage effect? | -1 | Four minority shareholders own 49\%. One majority at $\mathbf{5 1 \%}$ |
| Financial | Is there bankruptcy risk? | 0 | Recent declines in business have stabilized. |
|  | Are current liquid assets material? | -1 | Yes |
|  | Capital calls mandatory \& probable? | -1 | No |
|  | Is there unused debt capacity? | 1 | No |
|  | Are there outside financing sources? |  | High leverage handles in Specific Company Risk Premium |
|  | Is cash flow strong? | 0 | presently adequate |
|  | ... Is it stable | 1 | high level of fluctuation in recent years |
| Power | Is information available / reliable? | -1 | All shareholders have access to independent CPA financials |
|  | Are owners harmonious | 1 | possible conflict between new owner and minority owners |
| Results |  | 5 | Sum of Above Ratings |
|  |  | 27 | Number of Factors Rated |
|  |  | 32 | Net Factors |
|  |  | 119\% | Net Factors/ Factors Rated |
|  |  | 30\% | Baseline Discount |
|  |  | 35.6\% | Subject DLOM rounded to 36\% |

Analysis: All factors considered, the Discount For Lack of Marketability selected for Smith's is $37.0 \%$.

### 6.7 DISCOUNTS APPLIED TO Income Approach Valuation

The DLOC and DLOM are applied sequentially to the calculated net worth value of the Subject. Following that, the values for the non-operating assets that were removed from the normalized balance sheet in Exhibit XVI are added back.

| Value of Shareholder Equity (Net Worth) <br> (Controlling and Marketable) | $\$ 140,000$ |  |
| :--- | ---: | :--- |
| Less Discount for Lack of Control | $\underline{\mathrm{x}} \quad 100 \%$ | $(1-0 \%)$ |
| Net Value Adjusted for Control | 140,000 |  |
| Less Discount for Lack of Marketability | $\underline{\mathrm{X} \quad 64 \%}$ | $(1-36.0 \%)$ |
| Operating Value of Net Worth on a <br> Non-controlling Non-marketable Basis | $\$ 89,600$ |  |
| Non-Operating Assets: Surplus Cash | $\underline{\$ 130,000}$ |  |

## Total Value of $\mathbf{1 0 0 \%}$ Interest in Subject <br> \$ 219,600 Non-marketable, Non-controlling Basis

The above value will be further adjusted to reflect the desired $8.86 \%$ ownership interest in the final reconciliation of values.

### 7.0 Market Approach

As discussed in the Revenue Ruling 59-60, the valuation process should be a "forward looking" process. ${ }^{70}$ That is, we are trying to look into the future potential of a company to determine its value today. The Market Approach, however, looks at actual transactions that are often years old and the financial data associated with the transaction obviously predates the sale. On the surface then, the Market Approach would appear to be looking backward in time. The Market Approach, however, is a buyer-driven analysis. We are literally stepping back in time to the precise moment when a buyer and seller agreed to the terms of a sale. The buyer clearly made his decision to buy based on his assessment of the recent financial statements of the business, but just as importantly, the price he offered was based on his expectations of the future potential of the business. For example, a "dot.com" company in 2002 probably produced strong financials for 2001. However, the buyer's expectations for the long-term future of this type of business would be very negative. The price he was willing to pay in 2002 would certainly reflect that expectation. Therefore, by comparing the selling price of the guideline business to its historical data, the resulting financial ratios describing that event clearly reflect the future long-term expectations of the buyer based on his knowledge of the current financial condition of the company. Thus in theory, by applying those same financial ratios to our Subject Company's recent financial data, we

[^31]would be calculating a price that a buyer would pay today that is based on the current financial condition of the company and a buyer's future expectations.

The Market Approach includes a collection of methods which use actual transactional data from the marketplace. The following are various methods commonly used under this approach.

### 7.0.1 The Guideline Public Company Method

The Guideline Public Company Method uses a database of publicly traded companies whose shares are freely traded. The method involves observing the stock prices and various ratios such as the Price/Earnings ratio or Price/Book Value ratio of smaller publicly held companies in the same industry as the subject to determine appropriate pricing of the subject.

To apply this method properly the selected guideline companies should be in the same industry and of similar size and relevancy to the subject. Relevancy is an important consideration; otherwise we might consider comparing the local hardware store to Home Depot. Raymond Miles, past director of the Institute of Business Appraisers, suggests that public companies are just not relevant at all when compared to privately held companies due to the significant differences in the size of the investors' investment, the liquidity and overall risk of the investment, and the involvement of the investor in managing the company.
"Indeed it is possible to make detailed comparisons of each potential guideline company's financial characteristics with the business being appraised. However, public companies in general fall short in meeting the relevance requirement for guidelines to value small closely held businesses.,"11

As we have seen throughout this report the size of a guideline company is an important factor in valuation. The appropriate parameters for the selection process in the Guideline Public Company Method have been advanced by Mr. Paul Hyde. ${ }^{72}$

| Subject Company Revenue | Hyde's Recommendation |
| :--- | :--- |
| Under $\$ 5$ million | GPC method not applicable |
| $\$ 5$ to $\$ 20$ million | Comparables limited to 5 times revenue |
| $\$ 20$ to $\$ 50$ million | Comparables limited to 10 times revenue |
| Over $\$ 50$ million | Comparables limited to 25 times revenue |

A search of SIC Code \#17, 5031, and 5211 (Specialty/Glazing Contractors and Distributors of Building Materials, Doors, and Windows), the Subject's primary classification, using Business Valuation Market Data's Public Stats ${ }^{T M}$ database $^{73}$ found 12 companies.

[^32]Using the rule-of-thumb of accepting only guideline companies within five times the Subject's revenue level would set the threshold at $\$ 39$ million.


There were two comparables within that range and neither was similar enough to the Subject to be useful. Thus the Guideline Public Company Method is rejected.

### 7.0.2 The Mergers and Acquisitions Transactions Method

The Mergers and Acquisitions Transactions Method involves the acquisition of businesses by other companies that are often public companies. The desired analysis of this database is to observe the prices of smaller companies that are acquired by large public companies. Buyers in this arena are often what we refer to as "strategic or investment buyers." The synergies that exist between the acquiring and target companies are such that the acquiring company has far more to gain than just a return on investment. Acquiring companies are often trying to dominate specific markets by buying up competitors or are trying to gain access to a specific market that fits with the markets they already control.

Since these transactions involve public companies, Mr. Miles' observation of their relevance is probably applicable here.

A search using Business Valuations Market Data Mergerstats Database ${ }^{74}$ found seven companies within the acceptable $\$ 39$ million size range. Three of them were classified as strategic and therefore, not acceptable. Of the remaining four only one, a building materials distributor, was considered similar enough to the subject. Therefore, the Mergers and Acquisitions Transaction Method is rejected.

[^33]Factset Mergerstat® / BVR Control Premium Study ${ }^{\text {TM }}$ Advanced Search Results Prepared: 12182011 6:07:18 AM (PST)

| Search Criteria |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total transactions found meeting criteria: 7 Your search results are based upon this criteria: |  |  |  |  |  |  |  |  |  |  |
| 1. Target SIC Code ('1711', '1731', '1751', '1752', '1761', '1771', '1781', '1791', '1794; ' 1796 ', '1799', '5031', '5211') <br> 2. Net Sales LTM (Last 12 Months) ( $0-39$ ) |  |  |  |  |  |  |  |  |  |  |
| Transaction Summary |  |  |  |  |  |  |  |  |  |  |
|  |  | Statistic | Count |  |  | Mean | Median | $\frac{\text { Harmonic }}{\text { Mean }}$ |  | Coefficient Variation |
| Effec | tive Da |  | 7 | 9/18/2001 | 7/5/2011 | N/A | N/A | N/A |  | N/A |
| Net | Sales LT | M (USD) | 7 |  |  | \$20 | \$26 | N/A |  | N/A |
| EBIT | DA Cas | hFlow LTM (USD) | 7 | (\$9) |  | \$0 | \$1 | N/A |  | N/A |
| Deal | Value | \$mil-US) | 7 |  |  | \$15 | \$6 | N/A |  | N/A |
| Merg | erStat | Control Premium | 7 | -0.84 | 1.40 | 0.423 | 0.333 | N/A |  | N/A |
| Impl | ied Min | ority Discount | 7 | -5.555 | 0.58 | -0.491 | 0.250 | N/A |  | N/A |
| Price | /Sales |  | 7 | 0.14 | 3.02 | 0.96 | 0.37 | 0.31 |  | 1.14 |
| Price | /Incom |  | 4 | 4.35 | 7.28 | 15.06 | 14.31 | 9.37 |  | 0.68 |
| Price | /Book V | Value | 7 | 0.14 | 3.90 | 2.01 | 1.05 | 0.54 |  | 1.53 |
| Targ | et Inves | ted Capital/EBIT | 5 | 3.81 | 3.24 | 12.09 | 10.03 | 8.18 |  | 0.65 |
| Target Invested Capital/EBITDA |  |  | 5 | 3.00 | 2.68 | 7.36 | 7.38 | 5.94 |  | 0.47 |
| Transactions |  |  |  |  |  |  |  |  |  |  |
|  | $\frac{\text { Target }}{\text { SIC }}$ | Target Business Description |  |  | Date Effective | Shares Acquired | $\begin{aligned} & \frac{\text { Net }}{\text { Sales }} \\ & \frac{\text { LTM }}{} \end{aligned}$ | EBITDA Cash Flow LTM | $\begin{aligned} & \text { Deal } \\ & \text { Value } \end{aligned}$ | $\frac{\text { MergerStat }}{\frac{\text { Control }}{\text { Premium }}}$ |
|  | 1731 | Designs, constructs and installs electrical control and telecommunications products |  |  | 7/5/2011 | 100 | . 0 \$32 | 2.418 | \$30.713 | - 0.744 |
|  | 1731 | Provides Internet and information technology integration services |  |  | 11/13/2001 | 100 | . 0 \$13 | 0.360 | \$1.820 | -1.399 |
|  | 1751 | Acquisition vehicle led by Yeung Tony Ming Kwong and Liu Ching Hua |  |  | 4/15/2004 |  | . 0 3 | -0.910 | \$5.641 | -0.847 |
|  | 1752 | Manufactures and distributes industrial and institutional floor coatings |  |  | 5/13/2005 |  | . 0 \$6 | 0.598 | \$1.332 | - 0.825 |
| 5 | 1781 | Provides oil and gas well drilling services |  |  | 11/21/2005 |  | . 0 \$27 | 8.114 | \$49.648 | - 0.191 |
| 6 | 5211 | Operates a chain of home centers and retails food |  |  | 3/18/2009 |  | .2 \$26 | -9.439 | \$3.390 | 0.333 |
|  | 5211 | Distributes building materials |  |  | 9/18/2001 |  | . 0 \$29 | 1.820 \$ | \$10.920 | 0.319 |

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### 7.0.3 The Direct Market Data Method

The Direct Market Data Method uses databases of smaller, closely held companies in which the controlling interest was sold. These transactions can typically be sorted by Standard Industry Classification (SIC), thus creating a statistically measurable "re-creation of the market." The transactions in these databases, for the most part, were traded as asset sales or sales that could easily be adjusted to reflect an asset sale. The characteristics of this method closely parallel that of the Subject Company. Therefore, the Direct Market Data Method will be the selected method used in the Market Approach.

The method has two basic components. First the subject company's financials must be recast to be directly comparable to the financial data presented in the various databases (discussed in Paragraph 7.1). The second step involves a process of selecting a sample of appropriate guideline companies (discussed in Paragraph 7.2). From this sample we will develop the Market Value Multipliers that will be applied to the Subject's revenues and discretionary earnings to determine its fair market value (Paragraph 7.3).

### 7.1 SELLER'S DISCRETIONARY EARNINGS

### 7.1.1 Selecting the Base Year of Operations

The Income Approach analyzes in depth the subject's recent financial condition, makes detailed financial ratio comparisons to the guideline companies, and then, applies various assumptions and forecasts for the industry and economy to arrive at a projection of future earnings for the company. That earnings projection, then, forms the basis for the estimate of the subject's value. The Market Approach, however, basically compares the guideline company financial ratios that were available at the time of its sale to the subject's current financial ratios. However, if we focus just on the subject's current financial statements, we are implying that it is a reasonable representation or proxy for the subject's long-term financial potential. This may not always be the case. The subject company may have just enjoyed a record-breaking year or suffered unusual non-recurring expenses. Thus it might be inappropriate, then, to compare the subject's current year with the average operating results of our selected sample of guideline companies.

To circumvent this possible distortion, it is not uncommon to see Market Value Multipliers ${ }^{75}$ applied to the earnings of the subject's current year or an average, even a weighted average of the last several years' earnings. Raymond Miles even suggests that the Market Value Multipliers should be applied to projected cash flow. ${ }^{76}$ The Appraiser rejects this approach. The Market Value Multipliers obtained from Guideline Company data were based on the selling price and the financial information that was available at the time of the sale. The guideline multipliers were not calculated on future earnings. However, as was noted earlier, the buyer tendered his price for a particular guideline company based on its recent financial data and his expectations of the future. Thus the multipliers calculated from transactional data have an implied projected cash flow already built into the equation.

Gary Trugman provides us with various factors for determining the basis of Subject Company earnings to be used in the Market Approach ${ }^{77}$.

1. If the company has cyclical earnings, the appraiser may want to use an arithmetic average of earnings.
2. If the company is experiencing modest growth, the appraiser should consider a weighted average earnings, the latest 12 months earnings, or proforma earnings.
3. Since the result of the valuation methodology is a "prophecy of the future," caution must be exercised when using a weighted average, particularly when the company is growing. The results of the weighted average will rarely, if ever, reflect "probable future earnings."

[^34]4. If the company's earnings are static, it does not matter what earnings base is used as long as it is representative of the assignment at hand.
5. If the company's earnings are declining, the appraiser may want to consider a weighted average earnings, the latest 12 months earnings, or proforma earnings.

The use of arithmetic averaging should only be used when overwhelming circumstances call for its use, such as in the case of item \#1 above. The fact that a company's revenues have been in decline for one or two years is, by itself, not a reason to use an average. It has been the Appraiser's experience as a business broker that buyers will vehemently object to valuations based on higher revenues from previous years. They will clearly see it as an attempt to artificially increase the price of the business. Buyers absolutely refuse to pay for value that may have been present two or three years ago.

The valuation is as of June 30, 2011.
Analysis: It is essential that the base year of operations reflects a reasonable level of operations from which future revenues should evolve. The Subject's revenues for the last three years has experienced minor fluctuations with the current year being less than $4 \%$ higher than 2009. The toll of the recession appears to have stabilized during this period. In addition it appears that Smith's revenue pattern over the years has tracked that of the industry. Thus, the normalized P\&L for 2011 should serve as a reasonable proxy for the current earnings capacity of the Subject Company.

Spreadsheets for the last six periods can be found on Page 120.

### 7.1.2 RECASting SELLER’s DISCRETIONARY EARNINGS

[As was noted earlier in the Income Approach, each of the various approaches used throughout this report will reconstruct the income statement in a different manner to arrive at some measure of cash flow. The reason for this is that the various databases that we use to draw comparisons with the Subject have chosen to reconstruct the income statements in different manners. In each case we are merely reconstructing the Subject's income statement to be directly comparable with the database presentation.]

Once the base year (or years) of earnings has been selected, the next step is to "recast" the financial statement. The "recasting" of a company's earnings serves two purposes. First since the databases we use for comparables are a collection of all forms of business entities, we need to strip away the differences in accounting methods used by those different entity types. For example, sole proprietorships (SP) report earnings on the Schedule C of the owner's personal tax return. There is no owner's salary expense in an SP; the "bottom line" represents his total income and payroll taxes for that income appears on his 1040. However, corporations and partnerships include a deduction for an owner's salary expense including payroll taxes. Thus the bottom line for these entities is net of the owner's salary and payroll taxes. Health benefits are a deduction in corporations but not in SP's (benefits appear on the owner's 1040). Donations are a deduction in C-corporations but not in S-corporations (donations appear on the owner's K-1). Accelerated depreciation (IRC Section 179) and gains or losses from the sale of assets do not appear on an S-corporation tax return (they are
on the owner's K-1) but do on a C-corporation and an SP. State income taxes do not appear on an SP but do on a Corporation. SPs by definition have one owner whereas corporations and partnerships may have multiple owners all with salaries that are expensed, thereby reducing the bottom line. Finally, since interest expense can vary greatly between similar companies, making direct comparisons of earnings can be difficult. Thus, it is also common practice to remove interest expense from the recast financials.

In order to develop some measure of earnings for all these different entities that is directly comparable to each other, the databases have removed all those accounting differences from their income statements. Accordingly, each entity's reported "earnings" is net of taxes, depreciation, health benefits, donations, capital gains, interest expense, but most importantly, net of just one owner's salary.

If a company has multiple owners (including working spouses of owners), the salary of the one owner who would most likely be replaced by a hypothetical buyer is added back to discretionary earnings (SDE). It is also assumed that the hypothetical buyer would have to replace all the other owners with hired employees. As a result, if the replacement cost for those hired employees is less than the compensation paid to those other owners, the difference is also added back to SDE. Conversely, if the replacement cost for those hired employees is more than the compensation paid to those other owners, the difference is deducted from SDE.

After applying the all the appropriate adjustments, then, we can now directly compare the recast discretionary earnings of corporations to sole proprietorships etc. The resulting Seller's Discretionary Earnings (SDE) is the total cash flow a hypothetical owner has at his disposal for his salary and perquisites, his loan payments, and his capital expenditures. (The terms "Seller's Discretionary Earnings" and "Cash Flow" are used interchangeably in the following Market Approach discussion.)

The second purpose for recasting a company's earnings is to attempt to present a normalized view of the subject company's operations. The recast financials should serve as a proxy for the current level of operations from which we may reasonably expect future revenues to evolve. Thus we select an earnings period that best represents the current level of operations (which may not be the current year's P\&Ls) and then we remove any non-operating income or expenses and any non-recurring income or expenses. The result should be an income stream for the subject company that we can reasonably expect under normal circumstances. The normalized $\mathrm{P} \& \mathrm{~L}$ of the subject has now been properly recast and can be compared to the database guideline companies.

### 7.1.3 AdJustments to the Income Statement

### 7.1.3.1 Year of ObSERVATION

The spreadsheet in Exhibit XXIV shows the P\&Ls for twelve months ending June 30, 2011 for Smith's Building Supply. (See Exhibit XLIII, Page 120 for more detail.) Just to the right of the P\&L data are the add backs that represent the normalizing adjustments necessary to reconcile earnings to Seller's Discretionary Earnings.

Exhibit XXIV Discretionary Cash Flow Analysis

| INCOME Current Year | $\begin{gathered} \text { Jun 30, } 2011 \\ 12 \text { Mos. } \end{gathered}$ | Add Backs | See Para. |
| :---: | :---: | :---: | :---: |
| New Construction-Installed | 480,696 | - |  |
| Product Only | 1,504,408 | - |  |
| Retrofit (Residential) | 6,189,790 | - |  |
| Retrofit (Commercial) | 50,572 | - |  |
| Window Coverings | 397,856 | - |  |
| Other, Supplies, Service, Renewal | 291,440 | - |  |
| Marketing Discounts | $(1,179,077)$ |  |  |
| Finance Charges, Sales Discounts | 3,913 | - |  |
| TOTAL INCOME | 7,739,598 | - | 7.1.3.1 |
|  |  | 7,739,598 |  |
| COST OF GOODS SOLD |  |  |  |
| Beginning Inventory | 10,390 | - |  |
| Purchases | 3,537,147 | - |  |
| Labor | 592,089 | - |  |
| Commissions | 602,505 | - |  |
| Royalty-Dean Hall | 8,648 | 8,648 | 7.1.3.2 |
| Workman's Compensation | 22,756 | - |  |
| Other Costs | 427,455 |  |  |
| Ending Inventory | $(1,491)$ | - |  |
| TOTAL COST OF GOODS SOLD | 5,199,499 | 8,648 |  |
| Adjusted Cost of Goods Sold |  | 5,190,851 |  |
| GROSS PROFIT | 2,540,099 | 2,548,747 |  |
|  | 32.8\% | 32.9\% |  |
| OTHER INCOME |  |  |  |
| Interest Income | 857 | - |  |
| Mfr Service Reimbursements | 42,465 | - |  |
| Discounts Earned | 46,378 | - |  |
| Other | 28,356 | - |  |
| TOTAL OTHER INCOME | 118,056 | - |  |
| EXPENSES |  |  |  |
| Compensation to Officers | 116,400 | 76,400 | 7.1.3.3 |
| Salaries and Wages | 595,398 | 60,000 | 7.1.3.3 |
| Repairs and Maintenance | 40,731 | - |  |
| Bad Debts | 1,925 | - |  |
| Rents | 188,472 | $(75,528)$ | 7.1.3.4 |
| Taxes-Payroll | 122,169 | 12,276 | 7.1.3.3 |
| Taxes-Property | 19,208 | $(2,348)$ | 7.1.3.4 |
| Taxes and Licenses | 2,236 | 800 | 7.1.3.5 |
| Interest, Service Charges | 70,819 | 70,819 | 7.1.3.5 |
| Depreciation | 72,395 | 72,395 | 7.1.3.5 |
| Advertising | 552,460 | $(85,290)$ | 7.1.3.6 |
| Homeshows, Events, Living Expe | 43,335 | - |  |
| Employee Benefits | 55,492 | 5,400 | 7.1.3.3 |
| Accounting | 9,033 | - |  |
| Auto and Truck, Parking | 117,371 | 54,000 | 7.1.3.3 |
| Bank Charges | 25,643 | - |  |
| Misc., Barter, Dues, Other, Tr | 69,191 | - |  |
| Computer Software, IT, Supplie | 68,540 | 20,000 | 7.1.3.2 |
| Damaged Goods | 52,495 | 21,537 | 7.1.3.6 |
| Delivery and Freight | 6,098 | - |  |
| Design Work | 11,117 | - |  |
| Governmental | $(11,146)$ | $(11,146)$ | 7.1.3.2 |
| Insurance | 57,566 | 5,000 | 7.1.3.2 |
| Legal and Professional Meals and Entertainment, Trave | 15,706 5,459 | $(12,568)$ | 7.1.3.6 |
| Office Expense, Postage, Print | 16,219 | - |  |
| Supplies, Uniforms | 124,170 | 91,770 | 7.1.3.2 |
| Tools | 9,460 | - |  |
| Telephone and Utilities, Inter | 66,244 | - |  |
| TOTAL EXPENSES / Total Add-Backs | 2,524,206 | 303,517 |  |
| TOTAL NET INCOME PER TAXES | 133,949 | - |  |
|  | Total Add Backs = | 312,165 | 7.1.3.7 |
| SELLER'S DISCRETIONARY EARNINGS (SDE) = |  | 446,114 | 5.8\% |

The valuation of the Subject is as of June 30, 2011. As noted above, the Twelve Month P\&Ls for June 30, 2011 will serve as the base year of operations.

### 7.1.3.2 NON-RECURRING EXPENSES AND REVENUES

The previous owner was paid a $1 / 2 \%$ royalty on all revenues. That fee ended in mid-2011 and is non-recurring. The $\$ 8,648$ is added back to normalized cash flow.

The Company received a refund of $\$ 11,146$ from the State Board of Equalization for overpayment of taxes in 2001. This is nonrecurring income that is deducted from normalized cash flow.

The Company relocated in 2011 to White Rock Road. It cost $\$ 20,000$ to move the Company computers and $\$ 91,770$ in supplies and miscellaneous costs to prepare the new location. These are non-recurring expenses that are added back to normalized cash flow.

The Company sustained an insured loss in 2010. The insurance policy had a $\$ 5,000$ deductible which Halls' had to pay. This is a non-recurring expense and is added back to normalized cash flow.

### 7.1.3.3 COMPENSATION TO Owners

The Company presently has five owners who manage the company. John Smith is the general manager who oversees all the day-today operations. Thus the Owner/Manager's salary and the payroll taxes associated with it are added back to SDE. Mr. Smith's wife also works full time in the business. He estimated that she could be replaced with a salaried employee for $\$ 40,000$ per year. The combined net salary for Mr. and Mrs. Smith of $\$ 76,400$ is added back to normalized cash flow.

Four of the Smith children receive salaries. A daughter was paid $\$ 57,500$; however she terminated employment in June 2011. Mr. Smith felt her salary was at a fair market price. Mr. Smith estimated that the remaining three sons each received $\$ 20,000$ in excess of what their replacement costs would be. The total adjustment of $\$ 60,000$ plus the associated payroll taxes are added back to normalized cash flow.

Mr. and Mrs. Smith receive company paid health benefits as does the daughter who no longer works at the Company. A total of $\$ 5,400$ in health benefits is added back to normalized cash flow.

All family members receive a paid personal auto as an owners' benefit. This benefit would not be extended to salaried replacement employees. Thus, the entire $\$ 54,000$ in auto expenses is added back to normalized cash flow.

### 7.1.3.4 RENTS

Mr. Smith owns the property on which the Company operates. He will rent the premises back to the new proposed ownership for $\$ 264,000$ per year which is $\$ 75,528$ in excess of what was actually paid in 2011. This additional rent cost is deducted from normalized cash flow.

### 7.1.3.5 DEPRECIATION, INTEREST, AND TAXES

Seller's Discretionary Earnings (SDE) is calculated before income taxes, depreciation, interest expense, and donations.

### 7.1.3.6 Normalized Expenses

Advertising outlays have been cut back in the last two years due to the slowdown in business and also due to lack of necessary cash flow. In the past six years the Company's advertising budget averaged approximately $8.8 \%$ of revenues. Total advertising declined to $7.7 \%$ in 2011 and $7.5 \%$ in 2010. It is reasonable to assume that a permanent reduction in advertising will impair future sales. As such, the short-term reduction in this expense probably should not continue. Thus, if advertising expenses are normalized at $8.8 \%$ of revenues, the resulting $\$ 681,085$ cost would represent an increase of $\$ 85,290$ over the actual amount spent in 2011. This additional expense is deducted from normalized cash flow.

The Company frequently damages the windows that it purchases. Over the last six years the cost of damaged windows averaged $0.4 \%$ of total revenues. However, losses fluctuated greatly from year to year. By normalizing this expense at $0.4 \%$ of revenues, one would expect a loss of $\$ 30,958$ in 2011. The actual loss for 2011 was $\$ 52,495$. Thus the excess loss of $\$ 21,537$ is added back to normalized cash flow.

Legal Expenses fluctuate moderately from year to year. The six-year average expense was $0.29 \%$ of total revenues. By normalizing this expense at $0.29 \%$ of revenues, one would
expect a loss of $\$ 28,274$ in 2011. This represents an increase of $\$ 12,568$ over the actual expense for 2011 which is deducted from normalized cash flow.

### 7.1.3.7 Cash Flow Profit Margin

The Subject Company's Discretionary Earnings Profit Margin (SDE\%) for the normalized year is $5.8 \%$. This margin of profitability is at the lower range earned by the guideline companies of $5.8 \%$ (the average of $10 \%$ less the standard deviation of $4.2 \%$, see Exhibit XXXVI). As we shall see in the discussion below on Market Value Multipliers, a company's Discretionary Earnings Profit Margin (SDE\%) is a major driver in determining its fair market value.

### 7.2 Selection of Appropriate Guideline Companies

Once the recasting of the Subject's P\&Ls is complete, we can then define our Subject in terms of its discretionary earnings (SDE), gross revenues, inventory, and furniture, fixtures, and equipment (FF\&E). These four variables can now be directly compared to a sample of selected comparables.

The various sources of transactional data contain businesses whose revenues range from a few thousand dollars to over one billion dollars. The transactions involved businesses located all around the country and were consummated as recently as a few months ago to as long as twenty years ago. In addition, when searching a specific SIC group for transactions of companies similar to the subject, we often find that these companies do not appear to be similar at all.

The selection of appropriate comparables (also referred to as "guideline or peer group companies") from these databases will be made after careful consideration of the following:

### 7.2.1 Databases Selected

The most commonly used databases in the Direct Market Data Method are Pratt's Stats, BIZCOMPS, and the Institute of Business Appraisers (IBA). For the most part, the data from these sources is obtained from business brokers who represented the buyer or the seller in the transaction. BIZCOMPS reports the selling prices of a business excluding inventory. This database, however, does report the level of inventory separately, and therefore, we simply add inventory to the BIZCOMPS' reported selling price in order to be comparable to the other two databases. BIZCOMPS reports 17 data points for each transaction and claims to carefully review the input to its database.

BIZCOMPS and IBA state that they calculate Seller's Discretionary Earnings slightly differently. (For example, IBA does not mention adding back depreciation into SDE.) However, this Appraiser has completed over 250 market approach analyses and has made a point to carefully read the complete transaction reports of over ten thousand comparables from all three databases. In instances where both databases reported the same transaction, the Appraiser has found that in a high percentage of the cases the selling price, gross revenues, and discretionary earnings were identical. One can attribute this to the fact that the
same broker will report a transaction to all three databases, and will submit only one calculation for Seller's Discretionary Earnings (SDE). Brokers will typically follow the convention recommended by the IBBA (International Business Brokers Association) for calculating SDE, a convention that BIZCOMPS expressly follows and one that IBA appears to accept by default. Therefore, all three databases will be considered similar enough in their respective construction to be grouped together. Shannon Pratt draws the same conclusion in The Market Approach to Valuing Businesses.
"One may combine the data from the three databases into a single table. [However,] the analyst must be aware of and make certain adjustments to reflect that the three databases do not define the underlying financial variables in exactly the same way." ${ }^{78}$

Pratt's Stats has over 65 data points for each transaction including a summary of the P\&L and balance sheet, a description of the terms of the deal, the type of consideration tendered, and whether it is a stock sale or an asset sale. Because of the extensive information available, reconciling Seller's Discretionary Earnings or reconciling the actual selling price of the transaction is more reliable. Pratt's Stats calculates SDE the same way as BIZCOMPS and IBA; however, it is not uncommon to find discrepancies among all three. Careful analysis of all three databases will help avoid selecting incorrect transactional data. The greater detail offered by the Pratt's Stats database can help reduce errors in selecting the transactional data. Therefore, if there are any discrepancies arising among duplicate transactions reported by the three databases, the Pratt's Stats data will generally be used in the analysis.

For an in depth discussion on how the above three databases are constructed and a listing of all the comparables used in this analysis, please go to the Appendix beginning on Page 136.

### 7.2.2 Timing of the Sale

The transactions used for business valuations are often several years old. Most of us exposed to real estate appraisals on private residences have been told that proximity to the subject house and timing of the comparable's sale are critical to the valuation. Business valuations, however, are not calculated by looking at the actual selling price of the comparables. Instead, the subject company's financial ratios are compared with the ratios of the comparable businesses. As noted below, such financial ratios have a tendency to be fairly consistent over time.

Secondly, small-business investors base their investment decisions primarily on a long-term view of the market. Unlike purchasing stock, where the holding period may be weeks or months, buyers of small businesses are often looking for career-length opportunities. Therefore, when comparing businesses that sold several years ago, the effects of recessions or bull markets on the earnings multiples of the business are somewhat minimalized. Again, by using financial-ratio comparisons, the relationship between selling price and gross sales or

[^35]selling price and discretionary earnings tends to be fairly stable over time. The time element that is so critical in real estate appraisals is not nearly as significant a factor in business appraisals.

The following research was discussed in the book by Gary Trugman, Understanding Business Valuation: ${ }^{79}$
"Raymond C. Miles, C.B.A., A.S.A., executive director of the Institute of Business Appraisers, published a paper entitled, "In Defense of Stale Comparables," in which Miles examined the almost 10,000 entries in the database, and demonstrated that most industries are unaffected by the date of the transaction when smaller businesses are involved. Miles performed a study that examined the multiples across various industries and time periods to see if, in fact, the multiples changed. The conclusion reached was that the multiples do not appear time-sensitive, since inflation affects not only the sales prices, but also the gross and net earnings of the business. Therefore, this information can be used to provide actual market data."

More recently, similar results were cited by Jack Sanders, the creator of BIZCOMPS database. ${ }^{80}$
"Recently, the author [Jack Sanders] compared current study data with the data over ten years old. First the Gross Sales to Selling Price ratio was compared. In the current National Database that ratio was available in 6.748 out of 6,851 transactions. The arithmetic mean of this ratio was .46 , while the median was .38 . A similar analysis of 879 transactions out of 954 transactions older than ten years was made. The arithmetic mean was .44 and the median was .37 . The same analysis was made of the Seller's Discretionary Earnings (SDE) to Selling Price ratio. The arithmetic mean for the current study was 1.95 while the median was 1.8 . In the over 10 year-old data, the arithmetic mean was 2.0 and the median was 1.8."

Analysis: The search criteria used by the Appraiser when selecting guideline companies from the various databases, therefore, will not exclude transactions based on the timing of the sale.

### 7.2.3 LOCATION

The location of a business can certainly have a significant impact on its value. For example, we often hear comments from business owners such as, "my restaurant has the best location in town and, therefore, deserves a much higher valuation." That observation would be true if that business were more profitable than its competitors. When applying the same discretionary earnings multiplier to the different locations, the restaurant with the greater profits (and superior location) would earn a higher calculated value than the others. The superior location undoubtedly contributed to the company's higher profitability, and hence,

[^36]its higher value. If the company at the supposed superior location generated the same level of profits as its competitors, one would have to seriously question the contention that the location is superior.

Selecting guideline companies from different states for comparison with the subject frequently raises challenges. The Appraiser researched the BIZCOMPS database to determine if there were compelling differences in the Market Value Multiples earned by companies from different states. The exhibit below shows the profit margins (SDE\%) and Revenue and SDE Multipliers of companies sold in the major states throughout the country.

Tests were performed on the database to determine if various economic factors influenced the level of Market Value Multipliers earned by companies throughout the country. A regression analysis was performed comparing the population growth rate of a given state with the Gross Revenue Multipliers earned by companies within that state. The hypothesis here is that high-growth areas must assuredly attract business buyers who are willing to pay a premium for access to that market. The regression produced an R-Squared of 0.30 . The value, although not compelling, does suggests that there is a modest tendency for highgrowth areas to produce higher Gross Revenues Multiples than low-growth areas. (An RSquared of 1.0 means a perfect correlation between variables, whereas 0.0 means no correlation at all.) The table below was sorted by states with the lowest population growth on top and the highest population growth on the bottom. We can visually see that states with the lowest population growth typically have lower median Revenue Multipliers.

A second test was run comparing the growth rate of household income within a state with the Gross Revenue Multipliers earned by companies sold in that state. The percentage change in median household income from 2000 to 2007 for each state was regressed against the median Gross Revenue Multipliers earned by companies sold in that state. The hypothesis here is that communities enjoying surging income levels will attract buyers of businesses who perceive investment opportunities. The regression only produced an R-Squared of 0.0006 ; i.e., there was virtually no correlation between rising incomes and the Gross Revenue Multipliers earned in a given region. Therefore, that hypothesis is rejected.

However, a multiple regression analysis was performed combining the population growth rate and the income growth rate of a region and comparing them to the Gross Revenue Multiples. The combination produced an R-Squared of 0.35 . The value suggests that communities enjoying higher population growth and a higher growth in household income may produce transactions with higher Market Value Multipliers.

Given that population growth may have a positive effect on the Gross Revenue Multiples at the state level, we can draw the conclusion that regions that are widely recognized as highgrowth communities within the state should also enjoy higher multiples than low-growth communities. Therefore, this report will research the growth rates of the community or market area that the Subject serves and compare it to the growth rate of the entire state or country.

From Exhibit XXV we can see that the population growth and growth in household income for California are about at the median level of other states. The research would then suggest that California businesses should also sell at Gross Revenue and SDE Multipliers that are near the median values found in other states. In fact, the data bears this out. Both the Gross Revenue Multiples and SDE Multiples of companies sold in California were exactly equal to the median values found in all major states.

Exhibit XXV Market Value Multiples by Different States

| State | Median <br> Revenue | Median <br> Cash Flow <br> Margin | Median <br> SDE <br> Multiplier | Median <br> Revenue <br> Multiplier | Population <br> Growth | Income <br> Growth | \# of <br> Sales |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| OH | 703,000 | $13.6 \%$ | 2.22 | 0.31 | $1.0 \%$ | $17.3 \%$ | 58 |
| PA | 497,000 | $18.8 \%$ | 2.31 | 0.42 | $1.2 \%$ | $25.3 \%$ | 44 |
| MA | 650,000 | $17.4 \%$ | 2.33 | 0.37 | $1.5 \%$ | $28.1 \%$ | 139 |
| WA | 465,000 | $14.1 \%$ | 2.49 | 0.36 | $1.7 \%$ | $25.0 \%$ | 58 |
| IA | 538,000 | $17.2 \%$ | 2.25 | 0.33 | $2.0 \%$ | $23.1 \%$ | 43 |
| NC | 695,000 | $15.8 \%$ | 2.46 | 0.36 | $3.3 \%$ | $20.2 \%$ | 81 |
| UT | 354,000 | $21.0 \%$ | 2.17 | 0.49 | $4.0 \%$ | $23.5 \%$ | 95 |
| MN | 500,000 | $12.6 \%$ | 3.57 | 0.49 | $5.7 \%$ | $22.7 \%$ | 124 |
| CA | 600,000 | $18.2 \%$ | 2.33 | 0.40 | $7.9 \%$ | $28.8 \%$ | 911 |
| ID | 577,000 | $16.0 \%$ | 2.57 | 0.39 | $9.8 \%$ | $26.0 \%$ | 150 |
| CO | 703,000 | $18.0 \%$ | 2.42 | 0.43 | $13.0 \%$ | $19.9 \%$ | 472 |
| FL | 586,000 | $21.7 \%$ | 2.01 | 0.42 | $14.2 \%$ | $17.2 \%$ | 2617 |
| TX | 580,000 | $19.9 \%$ | 2.08 | 0.40 | $14.6 \%$ | $22.9 \%$ | 335 |
| GA | 742,000 | $18.8 \%$ | 2.34 | 0.43 | $16.7 \%$ | $19.1 \%$ | 424 |
| AZ | 535,000 | $22.2 \%$ | 2.34 | 0.50 | $23.5 \%$ | $26.1 \%$ | 436 |

Analysis: The search criteria used for selecting comparables from the various databases, therefore, will include all transactions regardless of their location. However, an adjustment to the Gross Revenue Multiplier will be made if the community or region that the subject serves has a population growth rate and income growth that is significantly above or below the median for the whole state.

### 7.2.4 Similarity of Comparables: the Principle of Substitution

"The theory of the Market Approach to valuation is the economic principle of substitution: One would not pay more than one would have to pay for an equally desirable alternative., ${ }^{81}$ The operative words "equally desirable or similar" often create debate. A business owner is

[^37]quick to point out the many unique characteristics of his company that make it distinctive in the marketplace and, therefore, should add to its value. The owner's customers will make those same distinctions, which is why they patronize the owner's business. A buyer, however, typically does not make those distinctions. For the most part, a buyer of a small business is buying a job, a job that must support the lifestyle to which he is accustomed. We have actually seen a buyer submit an offer on a grocery store, but then subsequently buy an X-ray equipment servicing business instead. The reason he did not buy the grocery store was not because it did not have eight-foot high gondolas, or was not affiliated with the right franchisor, but rather, the X-ray equipment company simply just made more money. Clearly, a buyer's search criteria are just not detail oriented.

As we previously mentioned, the Market Approach is a buyer-driven analysis. Thus in searching for comparable sales, it is not essential that the comparable be an exact match to the subject company. The ease with which buyers choose between different types of businesses means that fairly broad classifications of businesses tend to exhibit similar value characteristics. The buyer will simply not pay more for a business when there is an equally desirable substitute offered at a lower price.

Analysis: The search for comparables will begin by searching for transactions by Standard Industrial Classification (SIC) groupings. This is a table of business classifications produced by the U.S. Department of Labor's OSHA division in which all similar businesses are grouped into one of more than 2,000 separate categories. ${ }^{82}$

### 7.2.5 SIZE OF THE COMPANY

The size of a company, in terms of its gross revenues, has a direct bearing on its value.
The Pratt's Stats database of over 11,500 transactions was sorted by company size. The results below show that, with few exceptions, smaller companies earn lower Cash Flow Multipliers (also referred to as SDE Multipliers in the report) and Gross Revenue Multiples than larger ones. For example, all companies in the table below generated a median SDE Multiplier of 2.50 , whereas, those companies with revenues under $\$ 500,000$ earned only 2.11. Thus the smallest companies earned multiples of $2.11 \div 2.50$ or $84.4 \%$ of what the average sized companies earned when sold. Similarly, companies with revenues between $\$ 1,000,000$ and $\$ 2,000,000$ exhibited a median SDE Multiplier of 2.77 which was $10.8 \%$ higher than the average sized company.

[^38]Exhibit XXVI Cash Flow Multipliers by Size of Company

|  | Total Sales |  | SDE Multiplier |  |  | Gross Revenue Multiplier |  |  | SDE Profit Margin (SDE\%) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Transactions | Sales Range | Sales | Quartile | Median | Quartile | Quartile | Median | Quartile | Quartile | Median | Quartile |
| 3,595 | \$0-\$500,000 | 241,197 | 1.38 | 2.11 | 3.33 | 0.34 | 0.50 | 0.74 | 15.4\% | 24.7\% | 38.5\% |
| 1,387 | \$500,000-\$1,000,000 | 693,701 | 1.63 | 2.51 | 3.61 | 0.29 | 0.44 | 0.65 | 11.4\% | 18.4\% | 27.5\% |
| 897 | \$1,000,001-\$2,000,000 | 1,375,624 | 1.86 | 2.77 | 4.07 | 0.26 | 0.44 | 0.67 | 9.3\% | 15.6\% | 25.6\% |
| 545 | \$2,000,001-\$5,000,000 | 3,097,922 | 1.84 | 2.96 | 4.55 | 0.22 | 0.45 | 0.69 | 7.8\% | 14.7\% | 26.9\% |
| 143 | \$5,000,001-\$8,000,000 | 6,305,046 | 2.70 | 3.95 | 5.94 | 0.26 | 0.53 | 0.99 | 7.3\% | 13.3\% | 23.8\% |
| 242 | \$8,000,001-\$25,000,000 | 13,856,490 | 3.33 | 4.87 | 6.92 | 0.37 | 0.66 | 1.17 | 8.5\% | 14.6\% | 24.2\% |
| 284 | \$25,000,001+ | 65,588,925 | 4.06 | 6.28 | 8.11 | 0.34 | 0.64 | 1.13 | 6.5\% | 11.4\% | 18.5\% |
| Overall Totals |  |  |  |  |  |  |  |  |  |  |  |
| 7,144 | All Transactions | 772,200 | 1.58 | 2.50 | 3.99 | 0.31 | 0.48 | 0.73 | 11.9\% | 20.2\% | 32.7\% |
| Coefficient of Variation of Whole Database = 67.7\% |  |  |  |  | $\square$ <br> Pratts Stats Database contained a total of 13,991 transactions on 8-10-09 |  |  |  |  |  |  |
| * $25 \%$ of all Transaction w ill fall BELOW the Low er Quartile values. <br> $50 \%$ of all transactions w ill fall BETWEEN the Upper and Low er Quartile values. |  |  |  |  | Pratts Stats <br> The follow ing <br> 1) Corpor <br> 2) Assets | abase contai ansactions w Stock Sales ales where lia | d a total of 13 e eliminated <br> ities were as | 3,991 transa <br> from the abo <br> 3) Compan <br> 4) Compan | ions on 8 -10 <br> analysis to <br> w ith negativ <br> s with Cash | id potential cash flow w Multipliers | distortions: <br> 10.0 |

The Subject Company generated gross revenues during the five years observed ranged from $\$ 7,458,134$ to $\$ 13,052,021$.

Analysis: The size criteria used to select guideline companies were those businesses whose revenues fell roughly in the $\$ 4,000,000$ to $\$ 15,000,000$ range. Often it is difficult to find enough comparables within a given revenue range similar to the Subject. Therefore, in order to get a sample of reasonable size, it may be necessary to select somewhat larger or smaller guideline companies. In this case it is important that the average revenue size of the whole sample be fairly close to the subject's revenue history.

### 7.2.6 Other Filtering Criteria

The last filter criteria applied to the remaining database was to eliminate any transaction with negative or near zero earnings. Companies with earnings that are negative or near zero will produce SDE Multipliers that are negative or extraordinarily high, causing averages and standard deviations to be skewed inappropriately. By way of example: selling price $=$ $\$ 400,000$, revenues $=\$ 1,000,000$, and $\mathrm{SDE}=\$ 25,000$. The resulting SDE Multiplier $=16$ ( $\$ 400,000 \div \$ 25,000$ ). One would normally draw the conclusion from a SDE Multiplier of 16 that the company sold for an extraordinarily high price. In this case, it was just the result of a very small denominator - Cash Flow.

Of the 6,279 transactions matching the initial search criteria in the Pratt's Stats database, 843 were found to have SDE Multipliers that were greater than 10.0 or less than zero. The median Discretionary Earnings Profit Margin (SDE\%) (SDE $\div$ Total Revenue) for this group was only $4.4 \%$, whereas, the median for the entire Pratt's Stats database was $19.3 \%$. Thus companies with SDE Multipliers greater than ten are more than likely unprofitable companies. Since discretionary earnings is the denominator in the SDE Multipliers equation, the high multiples earned for this group are clearly a function of a very low earnings level rather than a high price level. In addition, this group also yielded a very high Coefficient of Variation of $127.2 \%$. The 843 transactions in this group are, therefore, loaded with outliers with distorted multiples.

Analysis: Companies with SDE Multipliers that are negative or greater than ten will be rejected from the analysis.

### 7.2.7 Selection of Appropriate Comparable Data

The above six sections have set up the filtering process that will be applied when selecting comparable transactional data. These selected guideline companies are considered to possess a higher degree of similarity to the Subject's characteristics and, therefore, are directly comparable.

The Subject Company is classified under SIC Code \#17, 5031, and 5211, Specialty/Glazing Contractors and Distributors of Building Materials, Doors, and Windows. Companies listed under these classifications may not be identical to the subject; however, they may possess many similar characteristics. From a buyer's perspective, then, most of the companies within this group would be equally desirable choices.

The search criteria used for selecting comparables from the three databases, therefore, began by searching SIC Codes \#17, 5031, and 5211. A total of 625 comparables were found in the Pratt's Stats database, 625 were found in the BIZCOMPS database, 211 were found in the IBA database, and 20 were found in the BizBuySell database. The selection was further filtered to include just those companies whose revenues were between $\$ 4,000,000$ to $\$ 15,000,000$, with the transactions occurring after 1999 and whose description of operations was similar to the Subject (i.e. Specialty/Glazing Contractors and Distributors of Building Materials, Doors, and Windows). A total of seven comparables were found in the Pratt's Stats database, nine were found in the BizComps database, one was found in the IBA database, and seven were found in the BizBuySell database.

Specific details on all of these companies can be found in Appendix A beginning on Page 136.

### 7.2.8 IdENTIFYING OUTLIERS IN THE SELECTED SAMPLE OF COMPARABLES

### 7.2.8.1 Coefficient of Variation

After taking into consideration the filters described in the above six paragraphs, we may find that the sample of comparables that we have selected may be as few as ten to twenty-five transactions. The risk in using a smaller sample of comparables is that one or more "outlying" comparables can significantly distort the ratio analysis of the entire sample. By "outlying" we mean that the Market Value Multipliers produced by the single guideline company are so far above or below the other observations that it caused the group's overall averages to be skewed. Thus when trying to measure where the market is, it is accepted practice to use the median of a sample rather than its average. The average of a sample will be affected more by a single outlier than the median. Regardless, both measures are at risk of sampling error due to small sample size. For that reason, standard deviation and coefficient of variation tests will be run on the sample which will then be compared to the entire Pratt's Stats database of 11,500 companies.

Standard deviation is a statistical tool that measures the spread between the multipliers of each individual comparable and the corresponding average for the entire sample of comparables. In other words, the standard deviation measures the degree of variability or dispersion within a sample. However, when comparing our small selection of comparables to the entire Pratt's Stats database, the standard deviations of the two samples, by itself, does not tell us which sample is more accurate. For that determination we use the coefficient of variation (CV). CV equals the standard deviation of the sample divided by its average. The degree of dispersion within the sample is measured as a percentage of that sample's average. For example, if a sample's average Cash Flow Multiplier was 5.0 and its standard deviation was 1.5 , statistically speaking, approximately $16 \%$ of all comparables would have a multiplier above $6.5(5.0+1.5)$, and $16 \%$ would have a multiplier below 3.5 ( $5.0-1.5$ ). The CV would indicate that the remaining $68 \%$ of the observations has a multiplier that is within plus or minus $30 \%$ of the average ( $1.5 \div 5.0$ ). Thus the coefficient gives us a tool that measures how tightly packed around the average that the majority of (i.e. $68 \%$ ) the comparables in a sample are. A sample where the majority of the comparables are within plus or minus $20 \%$ of the average is a much more meaningful sample that one in which the majority is within plus or minus $40 \%$ of the average. If one sample has a much lower CV than the second, we can assume that the second sample has one or two outlying observations that may be distorting its overall average and, thereby, giving us a false read of the market.

Exhibit XXVII Example Coefficient of Variation


The best way of defining CV is through an example. Sample \#1 in Exhibit XXVII contains the Cash Flow Multipliers of six sales transactions. The sample's median is 4.5 and its average is 4.6. Sample \#2 also contains the Cash Flow Multipliers of six transactions. This sample has an average of 4.6, the same that was found in Sample \#1. However, the median was a moderately lower 4.0. In choosing which sample is a more accurate measure of the market, we could simply look at the six observations in Sample \#1, and intuitively we know that 4.5 is a good guess of where that market is. When looking at Sample \#2, we have no clue as to what a good guess would be. Sample \#2's observations appear to be randomly scattered and any guess may be way off the mark. The CVs for these two samples statistically tell us what we already detected from visual inspection. The CV for Sample \#1 was only 14\%, whereas \#2 was $63 \%$. Given the choice between the two samples, Sample \#1 produces, by far, a better indication of where the market is as evidenced by its much lower CV value.

As noted by Shannon Pratt, "All else being equal, multiples [derived from a sample database] exhibiting low Coefficients of Variation tend to more accurately reflect market consensus
with respect to value." ${ }^{83}$ Mr. Pratt also notes, "When Market Value Multiples among companies are tightly clustered, this suggests that these are the multiples that the market pays most attention to in pricing companies ... in that industry." ${ }^{84}$

Three different Market Value Multipliers will be used in this report. Standard deviations and CV's will be calculated for each sample which will then be compared to the entire Pratt's Stats database of 11,501 transactions. If either sample produces significantly higher coefficients, we will reduce its weighting, or eliminate it altogether when reconciling all the calculated values to obtain a single value conclusion.

### 7.2.8.2 Regression Analysis

The next phase in the process of selecting a suitable sample of comparables is to attempt to identify individual observations within that sample that might be so far out of alignment with the rest of the sample that it is distorting our view of where the market is.

## Exhibit XXVIII Outliers Identified by Standard Error Regression analysis is a statistical tool

 that we will use that compares various key characteristics of each guideline company (gross revenues, SDE, inventory, FF\&E, and SDE\%) with its selling price. If each of these key characteristics are plotted on a graph, the regression calculation produces a line that will be the "best fit" between those points versus the selling prices. The regression line, referred to as the Market Line, therefore, is the measurement representing the closest relationship between these key variables and the selling prices of all the observed companies in the sample.Those guideline companies whose actual selling price is radically different from the price indicated by the Market Line (i.e. they are significantly out of alignment with the rest of the market) can now be easily identified. The regression analysis not only plots a line that best represents where the market is, but also calculates what is referred to as standard error lines. The standard error is a statistical measurement similar to standard deviation in that it calculates the upper and lower boundaries between which most of the comparables should theoretically fall. Those comparables that fall outside these boundaries are companies whose selling prices were so far above or below the rest of the

[^39]market that their transactional data must be considered flawed. These "outliers," as they are referred to, will be removed from our sample of comparables.

The example in Exhibit XXVIII graphed the points of 17 comparables on a chart (13 green and 4 red). The regression analysis calculated a Market Line (in green) that is the closest fit to all those points. The regression also calculated a standard error which indicates theoretical boundaries (in red) in which approximately $16 \%$ of all companies should fall above the upper boundary line and $16 \%$ should fall below the lower boundary line. Four observations (in red) fell outside these boundaries and, therefore, are not considered representative of the market. The observations that fall outside the standard error boundaries will be considered outliers.

After the outliers have been removed from our initial sample of comparables, we end up with a sample that is even smaller. As noted above, smaller samples carry a greater risk that one or two observations may still skew the results and present a false read of the market. Therefore, we will apply the CV test described in Paragraph 7.2.8.1 above to the second, smaller sample. If the new smaller sample produces CV ratios that are lower than those observed in the original sample, we will conclude that the smaller sample is a more accurate read of the market.

### 7.3 Procedures Used in the Direct Market Data Method

Once a sample of comparables that statistically represents the market has been selected, we can now apply various procedures to it that will ultimately determine the value of our Subject.
The following are the four procedures that will be used in the Market Approach:

### 7.3.1 Gross Revenue Multiplier - (Selling Price $\div$ Gross Revenues)

This method is a simple ratio of a company's selling price divided by its gross revenues. Companies within a specific industry classification have a tendency to exhibit similar relationships between their revenues and selling price. Selling price and gross revenues of a company are readily obtainable, making this method easy to apply. However, it does not consider the company's profitability or asset valuation in the equation. Therefore, this method, if used by itself, may produce a misread of a company's potential value.

### 7.3.2 CASH FLOw MULTIPLIER - (Selling Price $\div$ Discretionary Earnings)

This method is the ratio of a company's selling price divided by its Discretionary Earnings (SDE). It should be noted that the database sources used in the Direct Market Data Method calculate earnings differently than the way we calculated Net Cash Flow in the Income Approach. SDE is calculated by removing all owner's salaries and perquisites (such as health benefits, personal autos, etc.) from expenses. Interest, depreciation, income taxes, any one-time expense or income, and any non-operating expense or income are also removed from the income statement. The resulting Seller's Discretionary Earnings is that cash flow which the owner has at his disposal for his salary and perquisites, his loan payments, and his capital expenditures. (The terms "Seller's Discretionary Earnings" and "Cash Flow" are used interchangeably in the following Market Approach discussion.)

However, the same problem with the Gross Revenue Multiplier exists with the Cash Flow Multiplier. That is, the ratio only focuses on one aspect of the company's operations, its discretionary earnings. Therefore, if used by itself, this ratio may produce a misread of the company's value. For that reason the Market Approach typically includes both ratios to estimate the value of a business.

### 7.3.3 ENTERPRISE VALUE + InvENTORY - (Selling Price - Inventory $\div$ Cash Flow)

Under certain circumstances, however, using the above two methodologies can still produce inaccurate results when valuing businesses that derive the bulk of their revenues from the sale of inventory. For example: it was determined that the average hardware store sells for .45 times its gross revenue and 3.30 times its SDE. In our search, we find two guideline companies, each doing $\$ 900,000$ in gross revenues and $\$ 125,000$ in SDE; yet one sold for $\$ 400,000$ and the second for $\$ 600,000$. The anomaly can probably be explained by the fact that the first store had $\$ 200,000$ in inventory while the second had $\$ 400,000$.

The Enterprise Value + Inventory methodology deducts the volatile inventory component from the selling price of the business. The difference is then divided by the company's SDE. The resulting ratio can be used to determine what is referred to as the Enterprise Value of the business; that is, the value of a business excluding its inventory. By using this methodology in the two above examples, we find that Enterprise Value for both businesses was 1.60 [Store $\# 1=(\$ 400,000-200,000) \div \$ 125,000 ; \quad$ Store $\# 2=(\$ 600,000-400,000) \div \$ 125,000] . \mathrm{We}$ can then use this ratio to estimate the value of a third hardware store which generated, say, $\$ 1,450,000$ in gross revenues, $\$ 200,000$ in SDE and had $\$ 375,000$ in inventory. Store \#3's Enterprise Value is $\$ 320,000(\$ 200,000 \times 1.60)$; its total value including inventory is, therefore, $\$ 320,000+\$ 375,000$, or $\$ 695,000$. The Cash Flow Multiplier by itself would have predicted only $\$ 660,000(3.30 \times \$ 200,000)$ and the Gross Revenue Multiplier would have predicted $\$ 652,500(.45 \times \$ 1,450,000)$. When reconciling these three Market Value Multipliers to estimate the value of this third hardware store, we might consider giving additional weighting to the Enterprise Value because this store primarily generates its revenue from the sale of Inventory.

### 7.3.4 Four Regression Calculations to Be Used

We have discussed above how regression analysis helped us identify outliers within our initial sample of comparables. The resulting smaller sample has now been statistically cleaned up and, therefore, should give us a more accurate read of the market. As was also noted, the regression analysis calculates a formula from which a line can be graphed that best represents that specific market. By plotting our Subject's actual variables on the chart, the Market Line will then enable us to determine the probable value of the Subject Company.

Exhibit XXIX Example Regression Analysis


Our Market Approach will employ four different regression calculations. The first is referred to as a Multiple Variable Regression Analysis. This statistical tool simultaneously compares four key variables of each comparable (gross revenues, SDE, inventory, and FF\&E) with its respective selling price. The regression produces a formula, then, in which we can input our subject's four actual variables and calculate its probable selling price. For demonstration purposes a simplified regression analysis is graphed in Exhibit XXIX on the left. The values for the selling price and the gross revenues of 17 comparables were plotted on the chart and a regression line was then calculated. The subject company's gross revenues of $\$ 700,000$ is then located on the horizontal X-axis. By moving vertically from that point to the regression Market Line we can then identify the probable selling price of $\$ 300,000$ from the vertical Y -axis on the left side of the chart.

The remaining three regression calculations to be used in this report will compare the discretionary earnings profit margin (SDE\%) of the comparables against their respective Cash Flow Multipliers, Revenue Multipliers, and Enterprise Multipliers. These three tests are discussed in greater detail below.

Each of the four regression tests to be used in the analysis will produce an R-Squared factor which measures how closely all the comparables fit to their respective Market Lines. An RSquared of 0.0 means that the calculated Market Line had no predictive value whatsoever. An R-Squared of 1.0 means that the Market Line exactly predicted the selling price for each of the comparables. Thus R-Squared gives us a means to compare how good each regression was at predicting the Subject's value in much the same manner as the CV ratio did in the sampling tests done earlier in the report. Thus in the final reconciliation at the end of this report, the predicted selling prices calculated by each of the four regression tests will be weighted using their respective R-Squared factors as guidelines.

### 7.3.5 Discretionary Earnings Profit Margin (SDE\%) - (SDE $\div$ Revenues)

IRS Ruling 59-60 instructs business appraisers to give considerable weighting to a company's profitability when determining its value. ${ }^{85}$ As such we observe the subject's cash

[^40]flow growth over the previous several years and identify all the drivers that created that growth. We also look at the subject's local market and how it will affect its operations and consider the prospects for its continued growth in the future. We then compared the subject's balance sheet and P\&L ratios to a database of thousands of similar companies to determine the subject's relative strength compared to its peer group. The question is, then, once we have determined that our subject is better than its peer group, what is the market willing to pay for that?

When trying to make a direct comparison of the subject to companies that have recently sold, the available databases of sold comparables do not provide us with much financial information. The only effective tool available is to compare each company's discretionary earnings profit margins (SDE\%). This simple ratio, discretionary earnings divided by gross revenues, gives us the means to directly compare the relative performance of companies in terms of their profitability and how it affects the selling price of the business. Generally speaking, when comparing companies of similar size and SIC classification, those which have higher SDE\% tend to be the more dominant players within their markets. They can command higher prices for their products and services, and they control expenses more efficiently than their competition.

Since this one measure of a company's profitability will be used extensively in the following Market Approach, it is important to understand all the subtleties behind it.

### 7.3.5.1 Size Of Company vs. its Discretionary Earnings Profit Margin (SDE\%)

Exhibit XXX | Discretionary Earnings Profit Margin |
| :---: |
| by Size of Company |

| Total <br> Transactions | Sales Range | Median Cash <br> Fow Profit <br> Margin (SDE\%) |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 5,002 | $\$ 0-\$ 500,000$ | $24.7 \%$ |  |  |
| 897 | $\$ 500,000-\$ 1,000,000$ | $18.4 \%$ |  |  |
| 309 | $\$ 1,000,001-\$ 2,000,000$ | $15.6 \%$ |  |  |
| 231 | $\$ 2,000,001-\$ 5,000,000$ | $14.7 \%$ |  |  |
| 143 | $\$ 5,000,001-\$ 8,000,000$ | $13.3 \%$ |  |  |
| 242 | $\$ 8,000,001-\$ 25,000,000$ | $14.6 \%$ |  |  |
| 284 | $\$ 25,000,001+$ |  |  | $11.4 \%$ |
| Overall Totals |  |  |  |  |
| 7144 | All Transactions | $20.2 \%$ |  |  |

The follow ing transactions w ere eliminated from the above analysis to avoid potential distortions:

1) Corporate Stock Sales
2) Asset Sales where liabilities were assumed
3) Companies w ith negative cash flow
4) Companies with Cash Flow Multipliers over 10.0

Pratt's Stats Database of 13998 transactions, 8/10/09

First, from Exhibit XXX we can see that the larger the company is, the lower its SDE\%. This appears to be a direct contradiction to what we observed in the previous section above, i.e., the larger the company the higher its Cash Flow Multiplier. This apparent anomaly can be explained as follows:

In smaller companies under $\$ 500,000$ in revenue, the owner typically manages all facets of the entire business by himself. He is the salesman, marketing manager, HR manager, and bookkeeper. All the profits flow to the owner to compensate him for all these jobs. As we see from Exhibit XXX, companies that size generate cash flow at an average of $24.7 \%$ of every dollar of revenue. For a $\$ 500,000$ company, then, that would translate to $\$ 123,500$ in Discretionary Earnings. From Exhibit XXVI we saw that a $\$ 500,000$ company would sell for 2.11 times its earnings, which in our example would be \$260,585.

Exhibit XXXI Predicting Multipliers Using SDE\%


For this company to grow to $\$ 2$ million, however, the owner must now hire a bookkeeper, an HR manager, and possibly a CFO. The company is now too big for the owner to do everything himself. A $\$ 2$ million company typically earns $\$ 312,000$ in discretionary earnings ( $\$ 2$ million x 15.6\% [from Exhibit XXX]). Thus when a company grows from $\$ 500,000$ to $\$ 2$ million, the additional $\$ 1.5$ million in sales added $\$ 188,500$ in earnings which only yields an SDE\% of $12.6 \%$ (\$188,500 $\div \$ 1,500,000$ ).

Thus the $\$ 2$ million company in the above example produced higher levels of gross revenues and discretionary earnings yet earned a lower SDE\%. The importance of this peculiarity is that in using SDE\% to predict the value of a business, it becomes increasingly essential to select a sample of comparables that are as close in revenue size to the subject as possible, and that are from similar SIC classifications. Otherwise, we might look at the $24.7 \%$ SDE\% of a \$500,000 company and draw the false conclusion that it deserves better Market Value Multipliers than the \$2 million which only produced an SDE \% of $15.6 \%$.
7.3.5.2 THE LEVEL OF A COMPANY's SDE\% vs. ITS CASH Flow Multiplier

A second oddity that one must be aware of when comparing the companies of similar size and SIC classification is that: the higher their SDE\%, the lower their Cash Flow Multipliers tend to be. This seemingly contradicts everything we know
about Market Approach science. We just presumed that highly profitable companies that enjoyed higher profit margins would also earn higher Cash Flow Multipliers than their underperforming counter-parts. This is not the case!

From Exhibit XXVI we observed that larger companies generally earned higher Cash Flow Multipliers and Revenue Multipliers. Clearly, the size of a company is a major driver to the size of its Cash Flow Multiplier. However, if we look at companies within a narrow range of revenues we can see that there is a considerable range in their respective multipliers. For example, companies with revenues in the $\$ 1$ million to $\$ 2$ million range earned a median 2.77 Cash Flow Multiplier which, on the average, was considerably higher than the 2.11 multiplier earned by $\$ 500,000$ companies. Yet, when we look at the range of multipliers for the $\$ 1$ to $\$ 2$ million group we find that the lower quartile only earned a 1.86 multiplier whereas, the upper quartile earned 4.07. This range of multipliers within a specific size grouping can largely be explained by the level of a company's SDE\%.

A statistical analysis of the Pratt's Stats database clearly shows this relationship.
A regression analysis was initially performed on the entire Pratt's Stats database of 11,500 sold transactions comparing a company's $\mathrm{SDE} \%$ with its corresponding Cash Flow Multiplier. ${ }^{86}$ The R-Squared of the regression was only .18. Since this factor is low ( 0 means no correlation and 1.0 means perfect correlation), one could not conclude that SDE\% is a good indicator of a company's Cash Flow Multiplier. However, when we filter the Pratt's Stats database further by including only companies near the same revenue level as the subject and that are in a similar SIC Code, the resulting regression produces an R-Squared significantly higher, usually from .40 to .70 or more. In other words, when we select a small sample of companies that have a similar revenue level and SIC Code as the subject, the subject's SDE\% becomes a reasonably good predictor of its potential Cash Flow Multiplier.

However, from the upper graph in Exhibit XXXI we note that the regression Market Line is in a downward slope. This means that as a company's SDE\% increases, we move to the right on the horizontal X-axis. However, the regression Market Line shows that we will also be moving downward on the vertical Y-axis, indicating a decreasing Cash Flow Multiplier. Thus for a given level of revenue, those companies that are more profitable and therefore, have a higher SDE\%, will generally earn a lower Cash Flow Multiplier.

This oddity is easily explained by the example diagrammed in the upper half of Exhibit XXXI. Company A (diagrammed in red lines), with revenues of $\$ 500,000$ and discretionary earnings of $\$ 24,000$, sold for $\$ 110,000$. Therefore, its $\mathrm{SDE} \%$ is $\$ 24,000 \div \$ 500,000=4.8 \%$, and, its Cash Flow Multiplier is $\$ 110,000 \div \$ 24,000=4.6$. (Observe where the red lines cross the horizontal axis at $4.8 \%$ and vertical axis at 4.6.) Company B (diagrammed in blue), also with $\$ 500,000$ in revenues, but with $\$ 125,000$ in discretionary earnings, sold for $\$ 300,000$. As we would expect, Company B sold for more money because it had higher earnings (in absolute dollar terms). However, Company B only produced a Cash Flow Multiplier of $2.4(\$ 300,000 \div 125,000)$, but had a high $\mathrm{SDE} \%$ of $25 \% ~(\$ 125,000 \div$

[^41]$\$ 500,000$ ). (Observe where the blue lines cross the horizontal axis at $25 \%$ and vertical axis at 2.4.) Company A's high Cash Flow Multiplier was not a function of a high selling price, but rather the function of a very low level of discretionary earnings, the denominator of the equation.

Appraisers often use the median Cash Flow Multiplier for the whole sample of comparables to value a business. In the above example, the median was 3.5 . If we merely used the median Cash Flow Multiplier to estimate Company A and B's probable selling prices, we would have priced A at $\$ 84,000(3.5 \times \$ 24,000)$ and $B$ at $\$ 437,500(3.5 \times \$ 125,000)$. We would have been way low on the first valuation and way high on the second. However, by using the regression formula and subject's SDE\% to calculate its Cash Flow Multiplier, we would have determined that the company with a low SDE\% would have earned a high Cash Flow Multiplier (4.6), which yielded a lower price of $\$ 110,000$, and the company with the high SDE\% would have earned a low Cash Flow Multiplier (2.4), which still yielded a higher price of $\$ 300,000$. Thus by using regression analysis the resulting predicted values of the two companies would be much more accurate.

When regressing the SDE\% against the Revenue Multipliers of a sample of comparables, the resulting R-Squared factor is even more compelling than we found above when regressing SDE\% against the Cash Flow Multipliers. The R-Squared factor typically rises as high as .80 or more, indicating that there is a very strong correlation between a company's SDE\% and its Revenue Multiplier. In addition, Revenue Multipliers follow a more logical pattern. From the graph at the bottom half of Exhibit XXXI we can see that companies with a higher SDE\% also earn higher Revenue Multipliers, just the opposite of what we saw with the Cash Flow Multipliers.

By applying the data from the example above to the graph in the bottom half of Exhibit XXXI, we see that Company A only had a $\mathrm{SDE} \%$ of $4.8 \%$ and, as a result, the regression equation predicted a weak Revenue Multiplier of .22. Company B, however, had a strong SDE\% of $25 \%$ and, accordingly, earned an equally strong Revenue Multiplier of . 60 .

Again, if we only decided to use the sample's median Revenue Multiplier of 0.40 , the calculated value for both companies would have been the same - $\$ 200,000(.40 \times \$ 500,000)$. Simple logic would tell us that both companies are not worth the same; even thought they both generated $\$ 500,000$ in revenues, the second company earned five times as much cash flow! The Regression properly accounts for the difference in a company's profitability when calculating the Gross Revenue Multiplier, whereas, the median of the sample does not.

From all the above statistical testing we can conclude that comparables within narrow revenue range and in the same SIC classification behave in similar and predictable ways, a point appraisers have always contended. By using Regression Analysis we employ that similarity by using a company's SDE\% to predict its Revenue Multiplier, Cash Flow Multiplier, and Enterprise Multiplier.

### 8.0 Reconciliation of Market Approach Multipliers

### 8.1 Building the Sample to be Used in the Analysis

The Pratt's Stats, BIZCOMPS, and IBA databases were searched for transactions in Standard Industry Classification code \#17, 5031, and 5211. The Comparables Analysis Table in Exhibit XXXII below shows the operating ratios of 24 businesses that were selected by using the filtering criteria discussed in Section 7.2 above.

All the transactions in the databases are presumed to be asset sales or transactions that can be reconciled to asset sale pricing. That is, their selling prices are comprised of inventory, FF\&E, and intangibles only. Those companies exhibiting very high Revenue Multiples often have either real estate, accounts receivable, or other non-operating assets included in their reported selling price and the transactional data neglected to disclose this fact. Many of the comparables with low Revenue Multiples may have reported their selling prices net of inventory, or the buyer assumed some of the liabilities of the company thereby reducing the price. Again, the transactional data may not have disclosed this fact. It only takes one or two comparables in a small sample with improper sales data to distort the Market Value Multiples.

In order to test the predictive value of a small sample, we can compare the variability of the observations in the sample with that of the entire database. The relative variability is

| $\begin{aligned} & n \\ & \stackrel{0}{0} \\ & \stackrel{0}{0} \\ & \stackrel{\rightharpoonup}{0} \\ & \text { O. } \end{aligned}$ | Exhibit XXXII |  |  |  | Comparables Analysis |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Listing Price | Selling Price | Gross Revenues | Revenue Multiplier | Cash <br> Flow | SDE\% | Cash Flow Multiplier | Inventory | Enterprise Multiplier | Fixtures \& Equip |
| 1 | 1,950,000 | 908,000 | 7,730,000 | 0.12 | 273,000 | 3.5\% | 3.33 | 604,000 | 1.12 | 204,000 |
| 2 | 1,750,000 | 1,750,000 | 7,500,000 | 0.23 | 400,000 | 5.3\% | 4.38 | 800,000 | 2.38 | 250,000 |
| 3 | 2,000,000 | 1,055,000 | 8,420,000 | 0.13 | 492,000 | 5.8\% | 2.14 | 5,000 | 2.13 | 942,000 |
| 4 | 4,000,000 | 1,450,000 | 10,531,000 | 0.14 | 617,000 | 5.9\% | 2.35 |  | 2.35 | 250,000 |
| 5 | 650,000 | 906,000 | 4,302,000 | 0.21 | 274,000 | 6.4\% | 3.31 | 85,000 | 3.00 | 300,000 |
| 6 | 950,000 | 950,000 | 5,194,000 | 0.18 | 357,000 | 6.9\% | 2.66 | 20,000 | 2.60 | 500,000 |
| 7 | 1,100,000 | 750,000 | 5,991,000 | 0.13 | 419,000 | 7.0\% | 1.79 | 200,000 | 1.31 | 850,000 |
| 8 | 1,500,000 | 1,270,000 | 4,404,000 | 0.29 | 332,000 | 7.5\% | 3.83 | 30,000 | 3.74 | 121,000 |
| 9 | 2,000,000 | 1,450,000 | 5,367,000 | 0.27 | 412,000 | 7.7\% | 3.52 | 500,000 | 2.31 | 225,000 |
| 10 | 1,398,000 | 1,398,000 | 4,683,000 | 0.30 | 388,000 | 8.3\% | 3.61 | 148,000 | 3.23 | 7,500,000 |
| 11 | 1,000,000 | 750,000 | 4,663,000 | 0.16 | 396,000 | 8.5\% | 1.89 | 463,000 | 0.72 | 175,000 |
| 12 | 3,500,000 | 3,125,000 | 10,801,000 | 0.29 | 1,083,000 | 10.0\% | 2.89 | 460,000 | 2.46 | 110,000 |
| 13 | 1,850,000 | 1,749,000 | 4,005,000 | 0.44 | 407,000 | 10.2\% | 4.30 | 700,000 | 2.58 | 304,000 |
| 14 | 1,850,000 | 2,029,000 | 4,665,000 | 0.43 | 478,000 | 10.3\% | 4.24 | 761,000 | 2.65 | 394,000 |
| 15 | 1,500,000 | 1,185,000 | 4,404,000 | 0.27 | 460,000 | 10.4\% | 2.58 | 30,000 | 2.51 | 10,000 |
| 16 | 3,800,000 | 2,484,000 | 8,234,000 | 0.30 | 1,044,000 | 12.7\% | 2.38 | 1,376,000 | 1.06 |  |
| 17 | 2,750,000 | 2,525,000 | 4,900,000 | 0.52 | 647,000 | 13.2\% | 3.90 | 725,000 | 2.78 | 250,000 |
| 18 | 4,000,000 | 2,100,000 | 4,525,000 | 0.46 | 637,000 | 14.1\% | 3.30 | 725,000 | 2.16 | 250,000 |
| 19 | 2,750,000 | 3,207,000 | 4,412,000 | 0.73 | 636,000 | 14.4\% | 5.04 | 384,000 | 4.44 | 473,000 |
| 20 | 1,900,000 | 2,110,000 | 6,531,000 | 0.32 | 1,053,000 | 16.1\% | 2.00 | 122,000 | 1.89 | 108,000 |
| 21 | 2,900,000 | 2,800,000 | 4,402,000 | 0.64 | 734,000 | 16.7\% | 3.81 | 400,000 | 3.27 | 930,000 |
| 22 | 2,850,000 | 2,750,000 | 4,401,000 | 0.62 | 734,000 | 16.7\% | 3.75 | 400,000 | 3.20 | 80,000 |
| 23 | 3,200,000 | 3,000,000 | 4,556,000 | 0.66 | 782,000 | 17.2\% | 3.84 | 526,000 | 3.17 | 192,000 |
| $24$ <br> Avg: | 2,200,000 | 2,100,000 | 4,627,000 | 0.45 | 993,000 | 21.5\% | 2.11 | 200,000 | 1.91 | 410,000 |
|  | 2,223,000 | 1,825,000 | 5,802,000 |  | 585,000 |  |  | 403,000 | $\checkmark$ | 618,000 |
|  | $\frac{\text { Selling Price }}{\text { Listing Price }}=86.1 \%$ |  |  | Gross Rev |  | CF Margin Range | Cash Flow Range |  | $\begin{gathered} \text { Enterprise } \\ \text { Range } \\ \hline \end{gathered}$ |  |
| Median $=$ |  |  |  | 0.29 |  | 10.1\% | 3.32* |  | 2.49* |  |
|  |  |  | Average $=$ | 0.35 |  | 10.7\% | 3.21* |  | 2.46* |  |
|  |  | Standard Deviation $=$ |  | 0.18 |  | 4.66\% | 0.91* |  | 0.87* |  |
|  |  | Coefficient of Variation $=$ |  | 53.4\% |  | 43.6\% | 28.3\% |  | 35.3\% |  |

* Companies with Cash Flow Multiples that are negative or greater than 10 are ignored in this calculation.
measured by the Coefficient of Variation (CV) -- the lower the coefficient, the higher the predictive value of the sample. The findings are as follows:

Exhibit XXXIII Coefficients of Variation of Sample vs. Total Database

| (24 Observations) |  |  |  |
| :--- | :---: | :---: | :---: |
| Database Exhibit XXVI <br> \& Exhibit XXXII | Gross Income <br> Multiplier | Cash Flow <br> Multiplier | Enterprise <br> Value <br> Multiplier |
| Sample -24 Observations | $53.4 \%$ | $28.3 \%$ | $35.3 \%$ |
| Total Database -7,144 Obs. <br> Pratt's Stats-Any State | $67.7 \%$ | $87.4 \%$ | $108.9 \%$ |

The two of the three procedures applied to the 24 observations in the sample yielded significantly lower degrees of variability than the entire Pratt's Stats database. Therefore, we can assume that this sample is a reasonably good measure of the identified market and should have good predictive abilities. To further test the predictive abilities of this sample of guideline companies, a regression analysis was done.

### 8.2 REGRESSION TEST

The regression test takes the four main variables describing each guideline company's operations (inventory, SDE, FF\&E, and gross revenues) and plots them against the company's selling price. From this test we can statistically identify those comparables that are "outliers," that is, those companies whose selling prices are well above or below what the rest of the market earned.

The 24 comparables from Exhibit XXXII above were regressed at a $95 \%$ confidence level, and the results are shown in the Exhibit XXXIV below.

|  | Exhibit XXXIV |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Values For Comparables |  |  |  |  |  | Calculated Values |  |  |
|  | Gross Revenues | Cash Flow | Inventory | Fixtures | Actual Sold Price |  | Predicted Price | \$ Difference | \% Difference |
| 1 | 7,729,938 | 272,628 | 604,000 | 204,000 | 1 | 1 1 908,000 | 1,242,291 | $(334,291)$ | 36.8\% |
| 2 | 7,500,000 | 400,000 | 800,000 | 250,000 |  |  | 1,590,788 | 159,212 | -9.1\% |
| 3 | 8,420,000 | 492,000 | 5,000 | 942,000 |  | 1,055,000 | 1,554,557 | $(499,557)$ | 47.4\% |
| 4 | 10,531,026 | 617,298 |  | 250,000 | 4 | 1,450,000 | 1,826,419 | 1,273,581 | -87.8\% |
| 5 | 4,302,000 | 274,000 | 85,000 | 300,000 | 5 | 906,000 | 1,097,036 | $(191,036)$ | 21.1\% |
| 6 | 5,194,417 | 357,443 | 20,000 | 500,000 |  | 950,000 | 1,263,513 | $(313,513)$ | 33.0\% |
| 7 | 5,990,956 | 418,791 | 200,000 | 850,000 | 7 | 750,000 | 1,456,230 | $(706,230)$ | 94.2\% |
| 8 | 4,403,901 | 331,695 | 29,559 | 120,730 | 8 | 1,270,000 | 1,209,165 | 60,835 | -4.8\% |
| 9 | 5,367,000 | 412,000 | 500,000 | 225,000 | 9 | 1,450,000 | 1,532,244 | $(82,244)$ | 5.7\% |
| 10 | 4,682,639 | 387,572 | 148,000 | 7,500,000 | 10 | 1,398,000 | 1,401,792 | $(3,792)$ | 0.3\% |
| 11 | 4,663,000 | 396,000 | 463,000 | 175,000 | 11 | 750,000 | 1,486,727 | $(736,727)$ | 98.2\% |
| 12 | 10,801,171 | 1,082,744 | 460,000 | 110,000 | 12 | 3,125,000 | 3,016,583 | 108,417 | -3.5\% |
| 13 | 4,005,000 | 407,000 | 700,000 | 304,000 |  | 1,749,000 | 1,586,836 | 162,164 | -9.3\% |
| 14 | 4,665,041 | 478,272 | 761,469 | 394,093 | 14 | 2,029,000 | 1,764,902 | 264,098 | -13.0\% |
| 15 | 4,404,000 | 460,000 | 30,000 | 10,000 | 15 | 1,185,000 | 1,498,395 | $(313,395)$ | 26.4\% |
| 16 | 8,233,511 | 1,044,146 | 1,375,665 |  | 16 | 2,483,662 | 3,217,855 | $(734,193)$ | 29.6\% |
| 17 | 4,900,000 | 647,000 | 725,000 | 250,000 | 17 | 2,525,000 | 2,133,174 | 391,826 | -15.5\% |
| 18 | 4,525,000 | 637,000 | 725,000 | 250,000 | 18 | 2,100,000 | 2,111,755 | $(11,755)$ | 0.6\% |
| 19 | 4,411,769 | 635,836 | 384,087 | 472,886 | 19 | $\begin{aligned} & 3,206,911 \\ & 2,110,000 \end{aligned}$ | 2,005,801 | 1,201,110 | -37.5\% |
| 20 | 6,531,000 | 1,053,000 | 122,000 | 108,000 |  |  | 2,858,814 | $(748,814)$ | 35.5\% |
| 21 | 4,402,000 | 734,000 | 400,000 | 930,000 | 21 | 1 2,800,000 | 2,234,174 | 565,826 | -20.2\% |
| 22 | 4,401,000 | 734,000 | 400,000 | 80,000 | 22 | 2,750,000 | 2,230,603 | 519,397 | -18.9\% |
| 23 | 4,556,242 | 781,507 | 526,000 | 192,000 | $\begin{array}{\|l\|} \hline 23 \\ 24 \end{array}$ | $\begin{aligned} & 3,000,000 \\ & \hline 2,100,000 \end{aligned}$ | 2,376,477 | 623,523 | -20.8\% |
| 24 | 4,627,000 | 993,000 | 200,000 | 410,000 |  |  | 2,754,443 | $(654,443)$ | 31.2\% |
|  | = Outliers |  |  |  |  |  |  |  |  |


| Actual Data <br> Hall's Window Center, Inc. |  | Regression <br> Coefficients | Calculated <br> Price |
| :--- | ---: | :---: | :---: |
| Total Sales | $\$ 7,739,598$ | $\times(0.0031)=$ | $-23,713$ |
| Total Cash Flow | $\$ 446,114$ | $\times 2.2568=$ | $1,006,798$ |
| Total Inventory | $\$ 179,948$ | $\times 0.3069=$ | 55,218 |
| Total Fix. \& Ten. Imp. | $\$ 705,542$ | $\times 0.0042=$ | 2,967 |
| Regression Intercept Value $=$ |  |  | 464,504 |
| Price Predicted by Regression Market Line $=$ |  | $\mathbf{1 , 5 0 5 , 7 7 4}$ |  |
| Upper 16\% (one Std Error) $=$ |  | $+\$ 628,472$ | $2,134,247$ |
| Lower 16\% (one Std Error) $=$ |  | $-\$ 628,472$ | 877,302 |

R Square $=0.53$
Standard Error $=\$ 628,472$
$\mathrm{CV}=33.2 \%$
An R Square value of 0.0 means the above sample had no predictive value. An R Square of 1.0 means the sample had perfect predictive values. A value over . 50 means the above sample had a reasonably good predictive value.

## Regression Formula:

Sales x - 0.0031 + Cash Flow x 2.2568 + Inventory x 0.3069 + Fixtures x 0.0042 + \$464,504 = Calculated Price

The test yielded an R-Squared factor of 0.53 . A factor of zero ( 0.0 ) means that the sample had no predictive characteristics at all, whereas a 1.0 indicates perfect predictability. A . 50 factor suggests modest predictability. The test also produces a standard error which is a statistical measurement similar to the standard deviation. That is, $16 \%$ of the predicted
values will exceed the actual selling price of the company by the standard error and $16 \%$ will be less.

In the sample of comparables shown above, seven such comparables were found to have calculated values that deviated from the actual selling price by more than or less than the Standard Error. These guideline companies are considered 'outliers' and were removed from the sample. One company sold for $\$ 1,450,000$, whereas the regression predicted a much higher $\$ 1,826,419$. A second company sold for $\$ 750,000$ with the regression predicting a much higher $\$ 1,456,230$. A third sold for $\$ 750,000$ with a prediction of $\$ 1,486,727$. A fourth sold for $\$ 2,483,662$ with a prediction of $\$ 3,217,855$. The fifth company sold for $\$ 3,206,911$ with a prediction of $\$ 2,005,801$. A sixth sold for $\$ 2,110,000$ with a prediction of $\$ 2,858,814$. The seventh company sold for $\$ 2,100,000$ with a prediction of $\$ 2,754,443$.

These seven outlying comparables were removed from the sample and the remaining sample of seventeen comparables was regressed a second time. The results are shown in the two tables below.

The refined Regression Analysis produced an R-Squared of 0.95 which is a significant improvement over the original sample of 24 indicating that it is a superior measure of the market. The regression equation that was calculated is shown at the bottom of the table. The actual values for the Subject's four variables of inventory, FF\&E, SDE, and revenues were input into this equation to solve for the Subject's estimated selling price. The mid-range predicted value was $\$ 1,180,304$; the upper range was $\$ 1,377,024$; and, the lower range was \$983,583.
The last point of analysis for the sample of 17 observations is the comparison of the Coefficients of Variation for each of the calculated Market Value Multiples with the CV's for the original sample of 24 as well as the entire Pratt's Stats database. Those statistics are compiled in Exhibit XXXVII below. The three Market Value Multipliers in the second more narrowly defined sample of 17 observations all produced lower (superior) coefficients of variation. The smaller sample also produced a lower CV and a higher (superior) R-Squared factor for the Multiple Regression Analysis. Thus the smaller sample appears to be a better indicator of the market than the sample with 24 observations. The Market Value Multipliers and the regression value calculated from this sample will, therefore, be used in the analysis, and the results from the larger database will be rejected.

|  | Exhibit XXXV Refined Regression Analysis |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual Values For Comparables |  |  |  |  |  | Calculated Values |  |  |
|  | Gross Revenues | Cash Flow | Inventory | Fixtures |  | ual Sold Price | Predicted Price | $\$$ <br> Difference | \% <br> Difference |
| 1 | 7,729,938 | 272,628 | 604,000 | 204,000 | 1 | 908,000 | 919,516 | $(11,516)$ | 1.3\% |
| 2 | 7,500,000 | 400,000 | 800,000 | 250,000 | 2 | 1,750,000 | 1,507,834 | 242,166 | -13.8\% |
| 3 | 8,420,000 | 492,000 | 5,000 | 942,000 | 3 | 1,055,000 | 1,137,092 | $(82,092)$ | 7.8\% |
| 4 | 4,302,000 | 274,000 | 85,000 | 300,000 | 4 | 906,000 | 877,601 | 28,399 | -3.1\% |
| 5 | 5,194,417 | 357,443 | 20,000 | 500,000 | 5 | 950,000 | 1,018,131 | $(68,131)$ | 7.2\% |
| 6 | 4,403,901 | 331,695 | 29,559 | 120,730 | 6 | 1,270,000 | 1,011,651 | 258,349 | -20.3\% |
| 7 | 5,367,000 | 412,000 | 500,000 | 225,000 | 7 | 1,450,000 | 1,533,791 | $(83,791)$ | 5.8\% |
| 8 | 4,682,639 | 387,572 | 148,000 | 7,500,000 | 8 | 1,398,000 | 1,404,229 | $(6,229)$ | 0.4\% |
| 9 | 10,801,171 | 1,082,744 | 460,000 | 110,000 | 9 | 3,125,000 | 3,162,629 | $(37,629)$ | 1.2\% |
| 10 | 4,005,000 | 407,000 | 700,000 | 304,000 | 10 | 1,749,000 | 1,803,864 | $(54,864)$ | 3.1\% |
| 11 | 4,665,041 | 478,272 | 761,469 | 394,093 | 11 | 2,029,000 | 2,019,997 | 9,003 | -0.4\% |
| 12 | 4,404,000 | 460,000 | 30,000 | 10,000 | 12 | 1,185,000 | 1,430,652 | $(245,652)$ | 20.7\% |
| 13 | 4,900,000 | 647,000 | 725,000 | 250,000 | 13 | 2,525,000 | 2,519,997 | 5,003 | -0.2\% |
| 14 | 4,525,000 | 637,000 | 725,000 | 250,000 | 14 | 2,100,000 | 2,524,406 | $(424,406)$ | 20.2\% |
| 15 | 4,402,000 | 734,000 | 400,000 | 930,000 | 15 | 2,800,000 | 2,625,184 | 174,816 | -6.2\% |
| 16 | 4,401,000 | 734,000 | 400,000 | 80,000 | 16 | 2,750,000 | 2,608,205 | 141,795 | -5.2\% |
| 17 | 4,556,242 | 781,507 | 526,000 | 192,000 | 17 | 3,000,000 | 2,845,222 | 154,778 | -5.2\% |


| Applied Regression Coefficients |  |  |  |
| :---: | :---: | :---: | :---: |
| Actual Data <br> Hall's Window Center, Inc. |  | Regression <br> Coefficients | Calculated Price |
| Total Sales | \$7,739,598 | $\times(0.0992)=$ | -768,077 |
| Total Cash Flow | \$446,114 | $\times 3.2805=$ | 1,463,480 |
| Total Inventory | \$179,948 | $\times 0.7486=$ | 134,712 |
| Total Fix. \& Ten. Imp. | \$705,542 | $\times 0.0201=$ | 14,176 |
| Regression Intercept Value = |  |  | 336,012 |
| Price Predicted by Regression Market Line = |  |  | 1,180,304 |
| Upper 16\% (one Std Error) = + \$196,721 |  |  | 1,377,024 |
| Lower 16\% (one Std Error) = - \$196,721 |  |  | 983,583 |

R Square $=0.95$
Standard Error = \$196,721
$C V=\quad 10.8 \%$
An R Square value of 0.0 means the above sample had no predictive value. An R Square of 1.0 means the sample had perfect predictive values. A value over . 50 means the above sample had a reasonably good predictive value.

Regression Formula:
Sales x -0.0992 + Cash Flow x 3.2805 + Inventory x 0.7486 + Fixtures x 0.0201 + \$336,012 = Calculated Price

|  | Exhibit XXXVI |  |  |  | Refined Comparables Analysis |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Listing Price | Selling Price | Gross Revenues | Revenue Multiplier | Cash Flow | SDE\% | Cash Flow Multiplier | Inventory | Enterprise Multiplier | Fixtures |
| 1 | 1,950,000 | 908,000 | 7,730,000 | 0.12 | 273,000 | 3.5\% | 3.33 | 604,000 | 1.12 | 204,000 |
| 2 | 1,750,000 | 1,750,000 | 7,500,000 | 0.23 | 400,000 | 5.3\% | 4.38 | 800,000 | 2.38 | 250,000 |
| 3 | 2,000,000 | 1,055,000 | 8,420,000 | 0.13 | 492,000 | 5.8\% | 2.14 | 5,000 | 2.13 | 942,000 |
| 4 | 650,000 | 906,000 | 4,302,000 | 0.21 | 274,000 | 6.4\% | 3.31 | 85,000 | 3.00 | 300,000 |
| 5 | 950,000 | 950,000 | 5,194,000 | 0.18 | 357,000 | 6.9\% | 2.66 | 20,000 | 2.60 | 500,000 |
| 6 | 1,500,000 | 1,270,000 | 4,404,000 | 0.29 | 332,000 | 7.5\% | 3.83 | 30,000 | 3.74 | 121,000 |
| 7 | 2,000,000 | 1,450,000 | 5,367,000 | 0.27 | 412,000 | 7.7\% | 3.52 | 500,000 | 2.31 | 225,000 |
| 8 | 1,398,000 | 1,398,000 | 4,683,000 | 0.30 | 388,000 | 8.3\% | 3.61 | 148,000 | 3.23 | 7,500,000 |
| 9 | 3,500,000 | 3,125,000 | 10,801,000 | 0.29 | 1,083,000 | 10.0\% | 2.89 | 460,000 | 2.46 | 110,000 |
| 10 | 1,850,000 | 1,749,000 | 4,005,000 | 0.44 | 407,000 | 10.2\% | 4.30 | 700,000 | 2.58 | 304,000 |
| 11 | 1,850,000 | 2,029,000 | 4,665,000 | 0.43 | 478,000 | 10.3\% | 4.24 | 761,000 | 2.65 | 394,000 |
| 12 | 1,500,000 | 1,185,000 | 4,404,000 | 0.27 | 460,000 | 10.4\% | 2.58 | 30,000 | 2.51 | 10,000 |
| 13 | 2,750,000 | 2,525,000 | 4,900,000 | 0.52 | 647,000 | 13.2\% | 3.90 | 725,000 | 2.78 | 250,000 |
| 14 | 4,000,000 | 2,100,000 | 4,525,000 | 0.46 | 637,000 | 14.1\% | 3.30 | 725,000 | 2.16 | 250,000 |
| 15 | 2,900,000 | 2,800,000 | 4,402,000 | 0.64 | 734,000 | 16.7\% | 3.81 | 400,000 | 3.27 | 930,000 |
| 16 | 2,850,000 | 2,750,000 | 4,401,000 | 0.62 | 734,000 | 16.7\% | 3.75 | 400,000 | 3.20 | 80,000 |
| 17 | 3,200,000 | 3,000,000 | 4,556,000 | 0.66 | 782,000 | 17.2\% | 3.84 | 526,000 | 3.17 | 192,000 |
| Avg: | 2,153,000 | 1,821,000 | 5,545,000 |  | 523,000 |  |  | 407,000 | $\checkmark$ | 739,000 |
|  | $\frac{\text { Selling Price }}{\text { Listing Price }}=88.2 \%$ |  |  | Gross <br> Rev |  | CF Margin Range | Cash Flow Range |  | Enterprise Range |  |
| Lower Quartile = |  |  |  | 0.23 |  | 6.9\% | 3.30 |  | 2.38 |  |
|  |  |  | Median $=$ | 0.29 |  | 10.0\% | 3.61 |  | 2.60 |  |
|  |  | Upper Quartile = |  | 0.46 |  | 13.2\% | 3.84 |  | 3.17 |  |
|  |  | Lower 16\% = |  | 0.18 |  | 5.8\% | 2.86 |  | 2.06 |  |
|  |  | Average = |  | 0.36 |  | 10.0\% | 3.49 |  | 2.66 |  |
|  |  | Upper 16\% = |  | 0.53 |  | 14.2\% | 4.12 |  | 3.26 |  |
|  |  | Coefficient of Variation $=$ |  | 49.4\% |  | 42.2\% | 18.1\% |  | 22.5\% |  |

* Companies with Cash Flow Multiples that are negative or greater than 10 are ignored in this calculation.

Rejected Comparables - Value calculated by the Regression was well above or below actual selling price:

|  | Value | Selling Price | Sales | Multiplier | Cash Flow | Margin | Multiple | Inventory | Inv Mult. | FF\&E |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1,826,000 | 1,450,000 | 10,531,000 | 0.14 | 617,000 | 5.9\% | 2.35 |  | 2.35 | 250,000 |
| 2 | 1,456,000 | 750,000 | 5,991,000 | 0.13 | 419,000 | 7.0\% | 1.79 | 200,000 | 1.31 | 850,000 |
| 3 | 1,487,000 | 750,000 | 4,663,000 | 0.16 | 396,000 | 8.5\% | 1.89 | 463,000 | 0.72 | 175,000 |
| 4 | 3,218,000 | 2,484,000 | 8,234,000 | 0.30 | 1,044,000 | 12.7\% | 2.38 | 1,376,000 | 1.06 |  |
| 5 | 2,006,000 | 3,207,000 | 4,412,000 | 0.73 | 636,000 | 14.4\% | 5.04 | 384,000 | 4.44 | 473,000 |
| 6 | 2,859,000 | 2,110,000 | 6,531,000 | 0.32 | 1,053,000 | 16.1\% | 2.00 | 122,000 | 1.89 | 108,000 |
| 7 | 2,754,000 | 2,100,000 | 4,627,000 | 0.45 | 993,000 | 21.5\% | 2.11 | 200,000 | 1.91 | 410,000 |

## Exhibit XXXVII Coefficients of Variation of Samples vs. Total Database

(24 Observations vs. 17 Observations)

| Database Exhibit <br> XXVIII, Exhibit XXXII, <br> \& Exhibit XXXVI | Gross <br> Income <br> Multiplier | Cash Flow <br> Multiplier | Enterprise <br> Value <br> Multiplier | Multiple <br> Regression <br> Analysis |
| :--- | :---: | :---: | :---: | :---: |
| Sample -17 observations | $53.2 \%$ | $28.3 \%$ | $35.3 \%$ | $43.6 \%$ |
| Sample-24 Observations | $53.4 \%$ | $412.5 \%$ | $326.1 \%$ | $14.2 \%$ |
| Total <br> Obs. Pratt's Stats | $67.7 \%$ | $87.4 \%$ | $108.9 \%$ |  |

### 8.3 Calculating the Three Market Multipliers

From the above analysis, we have arrived at a range of values for our Subject by means of the Multiple Variable Regression Analysis, which is the first of the four procedures that we are using in the Market Approach. The remaining three procedures will calculate the values for the Revenue Multiplier, Cash Flow Multiplier, and Enterprise Multiplier. As noted earlier we will perform a regression analysis on each of the comparables' three Market Value Multipliers against its SDE\% (discretionary earnings profit margin). From each regression, then, we will obtain an equation that calculates the Market Line for the Subject's Revenue Multiplier, Cash Flow Multiplier, and Enterprise Multiplier. By inserting our Subject's SDE\% into the regression equations, we will solve for the Subject's three Market Value Multipliers. The resulting values, then, are the multipliers that the market expects given the level of the Subject Company's discretionary earnings profit margin.

Below are the details of that analysis:

## Exhibit XXXVIII Calculation of the Three Market Value Multipliers



The regression formulas and the predicted multipliers from above are summarized as follows:
Revenue Multiplier:
Subject's SDE \% x 3.998 + - 0.06 = $\mathbf{0 . 1 7}$
Cash Flow Multiplier:
Subject's SDE\% x 4.848 + 2.762 = $\mathbf{3 . 0 4 1}$
Enterprise Multiplier:
Subject's SDE\% x 3.09 + 2.298 = $\mathbf{2 . 4 7 6}$

### 8.4 Applying the Market Value Multipliers

We have now calculated the Market Value Multipliers based on the three procedures above plus the regression formula from the multiple regression analysis in Exhibit XXXV. These four methods will produce values that represent the market's expectations given the level of the Subject's SDE\%. However, the calculated values represent the "closest fit" of the observations found in the market place at the Subject's current level of profitability.

According to Shannon Pratt, "Simply applying the chosen measure of central tendency of a group of guideline company multiples more often than not fails to capture differences in the characteristics between our subject company and the guideline companies as a group. ... a company with an above average return on sales [a reference to SDE\% or similar profit margin measure] would usually be accorded an above average price/sales or MVIC/sales multiples. ...Keep in mind that the two factors that influence the selection of multiples of operating variables the most are the growth prospects of the subject company relative to the guideline companies and the risk of the subject company relative to the guideline companies." To that end Mr. Pratt suggests, one might adjust an observed multiple upward or downward by a percentage, or, even place it in the upper or lower quartile of the sample's range. ${ }^{87}$

Thus, if we have reason to believe that the Subject's profitability will change at a greater rate than its peer group in the future, we should consider adjusting the calculated multipliers up or down before we apply them to our Subject. For example, if we believe the Subject might double its $\mathrm{SDE} \%$ in the coming years, while the rest of its peers only increase by $50 \%$, we have justification for increasing the calculated multipliers. However, if we expect the Subject to improve its profitability at a similar rate as its peers, then even though the Subject's profitability is higher, it is still at the same level of profitability relative to its peers and its position on the calculated Market Line will be the same. If such is the case, no adjustment to the multipliers is warranted.

In that light, we should consider such things as: will the Subject's market grow more rapidly than its peers? Are there any major changes expected in the Subject's current mode of operations that may significantly change its profitability in the future?

[^42]The Subject's SDE\%, which was used to calculate its Market Value Multipliers, was in the lower range exhibited by comparables group. We must then consider whether the Subject's financial condition or market strength might change this level of profitability, thus giving reason to adjust its multipliers up or down.

As noted earlier, the Company is in a highly volatile industry where annual revenue gains or losses can be significant. From Paragraph 4.1.2.1 we learned that the Subject's revenue and cash flow growth during the last five years was below the level exhibited by peers of similar size. Total revenues for the $2011 \mathrm{P} \& L s$ are below the average revenues for the five-year period ending 2011 and Smith's revenue and cash flow growth is expected to continue to be lackluster in the future.

We also learned that the Subject's market encompasses much of Central California, a market where population growth and household income growth are somewhat weaker than the state as a whole and unemployment is moderately higher. As such the Subject has a disadvantage compared to its peers in its local market demographics. The fact that the Subject's SDE\% is in the lower range compared to its peers appears to reflect the local market conditions; therefore, no additional adjustment to the calculated Market Value Multipliers is warranted for the growth of the local market.

Since we observed that the Subject's Discretionary Earnings Profit Margin (SDE\%) was in the lower range compared to the guideline data, then, all factors considered, the selection of a lower range of Market Value Multipliers is reasonable and no additional adjustment to the Subject's Market Value Multipliers is warranted. Accordingly, the selected Market Values are as follows:

Exhibit XXXIX Market Value Multiples Applied to Subject

| Range of Market Value Multiples at Different Levels of Profitability |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| SDE\% Range |  | Gross Revenue | Cash Flow | Enterprise Value | Regression |
| Lowest 16\% of Comps have SDE\% of 5.8\% = |  | 0.17 | 3.04 | 2.48 | 1,197,143 |
| Mid Range of Comps have SDE\% of 10\% = |  | 0.34 | 3.25 | 2.61 | 1,393,864 |
| Highest 16\% of Comps have SDE\% of 14.2\% = |  | 0.51 | 3.45 | 2.74 | 1,590,585 |
| Subject's $S D E \%=6.6 \%$ Revenue <br> Multiplier |  | Cash Flow Multiplier | Enterprise Multiplier | MultiVariable Regression | The selected Market Value |
| Subject's Operation = Multiplier at Subject's Level of Profitability = Inventory = Indicated Value = | $\begin{array}{rr} \hline & \$ 7,739,598 \\ \times \quad 0.20 \\ \hline \\ \hline \end{array}$ | 508,789 <br> $\mathrm{x} \quad 3.08$ <br>  <br>  | $\begin{array}{r} 508,789 \\ \mathrm{x} \quad 2.50 \\ \hline 1,272,481 \\ +179,000 \\ \hline 1,451,481 \\ \hline \hline \end{array}$ | $1,234,093$ $1,234,093$ | Multiples are at the lower range of the Regression Market Line |

The above multipliers were derived from databases that report asset sale values for the selling price of a business. The databases also involved transactions that were for the $100 \%$
controlling interest of the business. In addition, since all the transactions involved privately owned companies not traded on stock markets, they are non-marketable by definition. Therefore, the above-indicated values are for an asset sale transaction on a controlling, nonmarketable basis. Asset sales only include inventory, FF\&E, and all intangibles (intangibles can take the form of goodwill, menus, liquor license, covenant not to compete, intellectual properties, to name a few.). The transactions exclude all liabilities (which are paid by the seller of the business) and assets such as cash, accounts receivable, and prepaid expenses (which are retained by the seller).

Further adjustments to the above asset sale value must be made to arrive at the market value of the corporation's equity or net worth. The value of the net worth of Smith's can be reconciled by taking the asset sale values above and adjusting them for the additional assets and liabilities that were not included in a conventional asset sale.

Additional Assets valued as per the "normalized" Balance Sheet for June 30, 2011:

| Cash | $\$ 350,118$ |  |
| :--- | ---: | ---: |
| Accounts Receivable | 32,873 |  |
| Prepaid Expenses | $\underline{8,499}$ | $\$ 391,490$ |
| Total Additional Assets Acquired |  |  |
| (Excludes Non-Operating Assets) |  |  |

Less Liabilities as of the normalized Balance Sheet for June 30, 2011:

| Accounts Payable | $\$ 161,741$ |
| :--- | ---: |
| Accruals | 25,285 |
| Unrealized Income | 243,081 |
| Short-Term Debt | 30,927 |
| Leases Payable | 34,042 |
| Long-Term Debt | 368,451 |
| Contingent Liabilities-Tax Lien | $\underline{47,000}$ |
| Total Additional Liabilities Assumed |  |

Total Adjustments to Asset Sale Value $(910,527)$ (\$519,000)

By adding the above adjustment to the asset sale prices calculated using the three Market Value Multipliers and the Regression Analysis, we will arrive at the indicated values for a $100 \%$ interest in the Common Shares (the market value of the net worth) of Smith's Building Supply on a controlling, non-marketable (illiquid) basis:

Exhibit XL Adjustments to Asset Sale Values
Indicated Values of Net Worth

| Procedure | Gross Revenue <br> Multiplier | Cash Flow <br> Multiplier | Enterprise <br> Multiplier | Regression <br> Analysis |
| :--- | :---: | :---: | :---: | :---: |
| Asset Sale Value | $1,315,732$ | $1,356,633$ | $1,284,526$ | $\$ 982,841$ |
| Adjustment | $\frac{(\$ 519,000)}{}$ | $\frac{(\$ 519,000)}{}$ | $\frac{(\$ 519,000)}{756,732}$ | $\underline{(\$ 519,000)}$ |
| Total Equity Value | 7963,633 |  | 463,841 |  |

### 8.5 APPLYING DISCOUNTS FOR LACK OF CONTROL

As we learned in Paragraph 6.6.2, the methodology that produced the Market Approach value presumed that the ownership interest in the company is on a controlling, non-marketable basis. The Subject, however, is on a non-controlling, non-marketable basis. As such, a Discount for Lack of Control (DLOC) is necessary to align the Subject to the desired basis.

| Procedure: | Gross Revenue | Cash Flow | Enterprise | Regression |
| :--- | ---: | ---: | ---: | ---: |
| Equity Value: | $\$ 796,732$ | $\$ 837,633$ | $\$ 765,526$ | $\$ 463,841$ |
| DLOC (1-27.0\%): | $\underline{73 \%}$ | $\underline{73 \%}$ | $\underline{73 \%}$ | $\underline{73 \%}$ |
| Net Equity Value: | 581,614 | 611,472 | 558,834 | 338,604 |
| DLOM $(1-0 \%):$ | $\underline{100 \%}$ | $\underline{100 \%}$ | $\underline{100 \%}$ | $\underline{100 \%}$ |
| Net Value of Equity: | $\underline{\$ 581,614}$ | $\underline{\$ 611,472}$ | $\underline{\$ 558,834}$ | $\underline{\$ 338,604}$ |

The above total market values are for a $100 \%$ interest in Smith's Building Supply on a noncontrolling, non-marketable basis. Further adjustments will be made at the final conclusion of value to arrive at a value for an $8.86 \%$ interest.

### 9.0 Prior Transactions of the Subject Company and Buy-Sell Agreements

The Uniform Standards of Professional Appraisal Practice (USPAP) requires that the business appraiser incorporate data from past sales of the Subject Company's stock into his analysis. ${ }^{88}$ In addition, one must identify any buy-sell agreements or investment letter-stock restrictions. ${ }^{89}$

### 9.1 PRIOR Transactions

The only transactions of shares of common stock in Smith's Building Supply have been those shares that were gifted from Mr. and Mrs. Smith to their children. Thus, no consideration was exchanged making the transactions unacceptable comparisons.

[^43]
### 10.0 Buy-Sell Agreements

A Buy-Sell Agreement was entered into by Mr. and Mrs. Smith (93.2\% owners) and their four children (each $1.7 \%$ owners). The agreement provides that in the event of death, disability, retirement, or termination, the Corporation has the first right to purchase the shareholder's stock; failing that, the remaining shareholders have the right to purchase. Shareholders may sell their shares to outside interests; however, the Corporation or other shareholders shall have the first right of refusal.

In the event of shareholder death or termination, the Corporation or shareholders may purchase the shares based on the current valuation set forth under the Buy-Sell Agreement. As of August 2008 the transaction price per share was set at $\$ 1,400,000$ divided by the number of shares outstanding. However, the Buy-Sell Agreement mandated that the price established in August 2008 be updated annually. If the tender price was not updated within two years prior to the proposed transaction, then, an appraiser must be hired to provide an estimate of value.

Mr. Smith indicated that the tender price stipulated in the Buy-Sell Agreement had not been updated since the execution of the Agreement in August 2008. As such, any sale of shares to the Corporation or Shareholders would be priced at the fair market value determined by an appraiser. In addition, any shares sold to outside interests would also be priced by mutual agreement between buyer and seller, and thus, the presumption of a willing buyer and seller standard of fair market value is applied.

Analysis: As the Buy-Sell Agreement currently stands, no specific price for any transfer of shares is established. The shares, therefore, are subject to fair market value pricing.

### 11.0 Reconciliation of All Methodologies

It is rare that the various approaches used would produce similar values. Each method is looking at different aspects of the company, so it is reasonable to expect that they would produce different values as a result. Internal Revenue Ruling 59-60 notes that for companies that sell products or services to the public, their earnings should be accorded the primary consideration in determining its value. ${ }^{90}$ According to the Uniform Standards of Professional Appraisal Practice (USPAP), "an appraiser must reconcile the indications of value resulting from the various approaches to arrive at the value conclusion. ...A simple average does not satisfy the standard, but rather, the appraiser must evaluate the relative merits of each procedure to form a conclusion. ...The value conclusion is the result of the appraiser's judgment.," ${ }^{1}$

[^44]The various indications of value developed by the different procedures are now weighted and the final Valuation Conclusion is calculated. The discussion of the basis for the weightings follows the exhibit below.

Exhibit XLI Valuation Conclusion<br>100\% Interest in Smith's Building Supply

| Valuation Method | Indicated Value | Confidence Weighting | Weighted Estimate |
| :---: | :---: | :---: | :---: |
| Adjusted Book Value Method | Not Used | -0- | -0- |
| Market Approach |  |  |  |
| Guideline Public Company Method | Not Used |  |  |
| Mergers and Acquisitions Method | Not Used |  |  |
| Prior Transactions Not | Not Applicable | -0- | -0- |
| Buy-Sell Agreement Not | Not Applicable | -0- | -0- |
| Direct Market Data Method |  |  |  |
| 24 Observations Database | Not Used |  |  |
| 17 Observations Database |  |  |  |
| Gross Revenue Multiplier ( $\mathrm{R}^{2}=83.8 \%$ ) | \%) \$581,614 | 20.7\% | \$120,394 |
| Cash Flow Multiplier ( $\mathrm{R}^{2}=14.3 \%$ ) | \$611,472 | 3.5\% | \$21,402 |
| Enterprise Value Multiplier ( $\mathrm{R}^{2}=9.6 \%$ ) | \%) \$558,834 | 2.4\% | \$ 13,412 |
| Regression Analysis ( $\mathrm{R}^{2}=95.2 \%$ ) | \$338,604 | 23.5\% | \$79,572 |
| Income Approach |  |  |  |
| Single Period Capitalization Method | Not Used |  |  |
| Multi-Period Discount Method | \$219,600 | 50\% | \$109,800 |
| $\underline{\text { Value Conclusion (Rounded) }}$ |  |  | \$340,000 |

$100 \%$ Interest in the Common Shares of Smith's Building Supply $=\$ 340,000$
Subject Interest
$\mathrm{x} \quad 8.86 \%$
$\mathbf{8 . 8 6 \%}$ Interest Value (Rounded)
$=\quad \underline{\underline{\mathbf{3 0 , 0 0 0}}}$
(On a non-controlling, non-marketable basis)

## Thirty Thousand Dollars

The above value is for a $8.86 \%$ interest in the common shares of Smith's Building Supply on $a$ non-controlling, non-marketable basis (rounded).

## SUMMARY

The Adjusted Book Value approach is commonly used in divorce valuations because of its simplicity. However, to provide a high level of confidence, the discrete valuation of individual assets requires that the company have a high-integrity balance sheet, thus allowing individual tangible assets to be precisely valued. The process also requires all intangibles to be identified and valued separately. Since the Subject's balance sheet does not meet that high-integrity standard, the collective revaluation version of the Adjusted Book Value method was used. Groups of assets are valued at their depreciated replacement cost and all intangibles are collectively valued using the Excess Earnings Method (the Formula Approach). Revenue Ruling 68-609 states that, "The Formula Approach should not be used if there is better evidence available from which the value of intangibles can be determined.,92 Since the Income and Market Approaches used in this report produced reliable valuations, this methodology is given a zero weighting.

The Guideline Public Company Method uses a database of large publicly traded companies. A search of the database only found four companies in the SIC classification similar to the Subject. However, only two were within an acceptable revenue size range and they were not similar to the Subject.

A similar problem exists with the Mergers and Acquisition Method. Seven potential guideline companies were found in the SIC classifications similar to the Subject. Only one was deemed similar to the subject. As such, the sample was not large enough to produce meaningful data. Hence these methods could not be used.

The prior transaction value was not at arm's length. As such it was felt that this value was not a product of market forces and should be rejected.

The value estimated by the Buy-Sell Agreement had not been updated in three years. As such, by terms of the Agreement, the price of shares tendered must be determined by appraisal. Therefore, the terms of the Buy-Sell Agreement were rejected.

As noted earlier, the IRS Revenue Ruling 59-60 directs the Appraiser to assign high weightings to those methodologies that are based on the Subject's expected cash flow. Unlike the Market Approach, the Income Approach also considers the impact of various balance sheet entries on a company's cash flow and uses projections of the future earnings capacity of the company. Thus the weighting assigned to the Income approach is $50 \%$.

The Direct Market Data Method utilized in the report obtained actual sales transactions from three different databases. The first search of these databases found twenty-four transactions that were reasonably close to the description of the Subject, and, their average revenues were also reasonably close to the Subject. Further filtering of the sample to exclude those companies that the regression analysis identified as "outliers" yielded a sample of seventeen transactions. Coefficient of variation tests were performed on both samples and it was

[^45]determined that the larger sample of twenty-four transactions produced a higher degree of variation, and, therefore, was considered inferior to the smaller sample. As such the Market Value Multiples generated from the smaller sample were used.

The guidelines advanced by IRS Ruling 59-60 set a preference for methodologies that are based on Cash Flow. Since all the Market Approach methodologies were calculated based on the Subject's discretionary earnings profit margin (SDE\%), they all met this test. The weightings will, therefore, be based on the R-Squared factor that each of the four Regressions exhibited. The higher the R-Squared the more highly predictive the method is. Thus the remaining $50 \%$ of weightings will be distributed among the four Market Approach methodologies as follows: The Multiple Variable Regression Analysis generated the highest R Squared Factor of $95 \%$ and, therefore, was given a weighting of $24 \%$. The Revenue Multiplier generated an R Squared Factor of $84 \%$ and, therefore was given a weighting of $21 \%$. The Cash Flow Multiplier generated an R Squared Factor of $14 \%$ and, therefore was given a weighting of $4 \%$. The Enterprise Multiplier generated the lowest R Squared Factor of $10 \%$ and, therefore was only weighted $2 \%$.

### 12.0 Affordability Price Test

The final pricing consideration focuses on a hypothetical buyer's ability to "afford" the Subject business. If the debt service on the loans needed to purchase the business is so great that there is insufficient cash flow to pay for it, we would have to question the indicated value for that business. Exhibit XLII below is a cash flow analysis of a hypothetical transaction at the fair market value calculated above.

Transactions of small privately held companies are frequently funded by SBA bank loans. SBA banks generally determine a company's ability to pay for the debt service on a proposed acquisition loan by calculating its cash flow coverage ratio based on the current level of earnings generated by the company. A ratio of at least 1.25 to 1.50 is considered the minimum acceptable level. ${ }^{93}$ In other words, a company's cash flow before debt service must be at least 1.25 to 1.50 times the proposed debt service.

Therefore, if the buyer seeks an SBA loan for $75.0 \%$ of the selling price, the loan amount of $\$ 255,000$, at $6.0 \%$ interest for 10 years would carry annual payments of $\$ 33,972$. The current level of normalized earnings on a non-control basis for the Subject developed in Exhibit XV has been reworked to show net profits before depreciation and taxes. The Mr. Smith's full salary is deducted rather than just a hypothetical manager's. Thus, $\$ 31,400$ is deducted from normalized earnings. All other salaries are left unchanged as well since a non-controlling owner has not control over them.

[^46]Exhibit XLII Affordability Test

| Stock Sale Price $\quad \$ 340,000$ | Loan to Value Ratio: | 85.0\% |
| :---: | :---: | :---: |
| Interest Rate: 6.0\% | Loan Amount: | \$289,000 |
| Term of Loan: 10 years | Total Debt Service: | \$38,502 |
| Working Capital is Included in a Stock Sale | Working Cap Debt Service: | \$0 |
| Normalized Net Income before Depr | 157,845 |  |
| Owner's Salary, Perks \& Payroll Taxes | $(\$ 33,363)$ |  |
| Interest on New Loans | (\$17,340) |  |
| Adjusted Net Earnings Before Taxes | \$107,142 |  |
| Average State and Federal Taxes at 22.5\% | (\$24,107) |  |
| Net Earnings After Taxes | \$83,035 |  |
| Less Principal on Acquisition Loan | $(\$ 21,162)$ |  |
| Less Capital Exp \& Working Capital Growth | $(\$ 100,162)$ |  |
| Current Year Depreciation | 72,395 |  |
| Net Cash Flow after Debt Service | \$34,105 |  |
|  |  |  |
| Total Cash Flow Before Debt Service | \$72,607 |  |
| Total Acquisition Loan Debt Service | \$38,502 |  |
| Cash Flow Coverage Ratio | 1.89 |  |
| Normalized Working Capital Long Term Annual Growth Rate = | $\begin{array}{r} (\$ 21,000) \\ 4.7 \% \end{array}$ |  |
| Working Capital Increase $=$ |  | (\$987) |
| Fixures \& Equipment for Current Year = Estimated Remaining Life = Annual Replenishment = Long Term Annual Growth Rate = | 662,787 <br> 10 Years  <br> $4.7 \%$ $\$ 66,279$ <br> $\$ 31,151$  | \$97,430 |
| Tenant Improvements = Estimated Life = Annual Replenishment $=$ Long Term Annual Growth Rate $=$ | $\begin{array}{rr} \hline 42,755 & \\ 25 & \$ 1,710 \\ & \$ 2,009 \\ \hline \end{array}$ | \$3,720 |
| Capital Expenditures and Working Capital Growth = | (1) | \$100,162 |

From the exhibit above we can see that the cash flow coverage ratio for the hypothetical transaction was 1.89 which exceeds the minimum of 1.50 . Thus the ratio analysis shows that the calculated value for the Subject Company is indeed financeable and, therefore, passes the affordability test.

Prepared by
C. Fred Hall, III, MBA, CBA, AVA

## Smith's Building Supply

December 10, 2011
Exhibit XLIII Discretionary Cash Flow Analysis

Smith's Building Supply, Inc.
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December 10, 2011



Smith's Building Supply, Inc.
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## Smith's Building Supply, Inc.

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Notes to P\&Ls on Pages 120 to 128 hidden for confidentiality reasons

## Smith's Building Supply, Inc.

12345 ABC Street
Sacramento, CA 95642
DEMOGRAPHICS

Census 1990-2009 Demographic Profile
US Census Fact Finder, 2009
California

| Population | 2007 | California | \% of U.S. Population | United States | Increase from 2007-2009 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | California | United States |
| Total Population |  | 36,400,000 | 12.0\% | 304,059,000 | + $0.8 \%$ per year | + $0.5 \%$ per year |
|  | 2009 | 36,960,000 | 12.0\% | 307,006,000 |  |  |


| Economic Characteristics |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Median Household Income | 2007 | 60,000 | 120.0\% | 50,007 |
|  | 2009 | 58,900 | 117.3\% | 50,200 |
| Housing Characteristics |  |  |  |  |
| Median Value (dollars) | 2007 | 532,300 | 274.0\% | 194,300 |
|  | 2009 | 384,200 | 207.5\% | 185,200 |
| Unemployment Rate | Oct 10 | 12.1\% | 124.7\% | 9.7\% |
|  | Oct 11 | 11.2\% | 124.4\% | 9.0\% |


| California | Population | 2000 | California | \% of U.S. <br> Population | United States | Increase from 2000-2007 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | California | United States |
|  | Total Population |  | 33,900,000 | 12.0\% | 281,421,000 | + 0.9\% per year | + $1.0 \%$ per year |
|  | Economic Characteristics |  |  |  |  |  |  |
|  | Median Household Income | 2000 | 47,500 | 113.1\% | 41,994 |  |  |
| California | Housing Characteristics |  |  |  |  |  |  |
|  | Median Value (dollars) | 2000 | 211,500 | 176.8\% | 119,600 |  |  |
|  | Population |  |  |  |  | Increase from 1990-2007 |  |
|  |  |  | California | \% of U.S. <br> Population | United States | California | United States |
|  | Total Population | 1990 | 29,800,000 | 12.0\% | 248,710,000 | + $1.2 \%$ per year | + $1.2 \%$ per year |
|  | Median Household Income |  | 35,800 |  | 30,000 |  |  |

## Location Hidden for Confidentiality Reasons




| General CharacteristicsTotal Population | El Dorado County |  |  |  | El Dorado2000-2007 | California <br> 2000-2007 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1990 | 2000 | 2007 | 2009 |  |  |
|  | 125,995 | 156,300 | 175,700 | 178,500 | + $1.8 \%$ | 0.9\% |
| Economic Characteristics | El Dorado vs CA CA 2007 |  |  |  |  |  |
| Median Household Income <br> Housing Characteristics <br> Median Value (dollars) | 35,100 | 51,500 | 64,200 | 70,400 | + 7.0\% | 60,000 |
|  |  |  |  |  |  |  |
|  | 155,900 | 194,400 | 506,500 | 399,800 | -4.8\% | 532,300 |
|  | El Dorado Oct 10 |  |  | El Dorado Oct 11 | CA Oct 10 | CA Oct 11 |
| Unemployment Rate | Oct 10 / Oct 11 |  | 11.8\% | 10.9\% | 12.1\% | 11.2\% |



Demographics



General Characteristic
Total Population Economic Characteristics Median Household Income Housing Characteristics Median Value (dollars)
Unemployment Rate

| San Joaquin County |  |  |  | San Joaquin$2000-2007$ | California2000-2007 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1990 | 2000 | 2007 | 2009 |  |  |
| 480,600 | 563,600 | 671,000 | 674,900 | + 2.7\% | 0.9\% |
| San Joaquin vs CA CA 2007 |  |  |  |  |  |
| 30,600 | 41,300 | 52,500 | 52,800 | -12.5\% | 60,000 |
|  |  |  |  |  |  |
| 120,500 | 142,400 | 399,500 | 221,600 | -24.9\% | 532,300 |
| San Joaquin Oct 1c Oct 11 |  |  |  | CA Oct 10 | CA Oct 11 |
| Oct 10 / Oct 11 |  | 16.3\% | 15.4\% | 12.1\% | 11.2\% |


General Characteristics Total Population Economic Characteristics Median Household Income Housing Characteristics Median Value (dollars)
Unemployment Rate


## Comparable Listing Analysis

Please read the Appendix B following this comparables listing for detailed information on how the various databases present their information. In order to make the transactional data from each database directly comparable to each other, the following adjustments were made:

## I. PRATTS STATS DATABASE

Selling Price:

| Sample Stock Sale to Asset Sale Price $^{* *}$ |  |
| ---: | ---: |
| Market Value of Invested Capital* | $\$ 850,000$ |
| Plus Employment Agreement Value | $\$ 50,000$ |
| Less any acquired Cash | $(\$ 30,000)$ |
| Less acquired Accounts Receivable | $(\$ 220,000)$ |
| Less Other Cur, Non-Cur Assets acquired | $(\$ 5,000)$ |
| Less interest-bearing Debt Assumed | $(\$ 50,000)$ |
| Plus Total Liabilities Assumed | $\$ 125,000$ |
| Adjusted Asset Sale Price | $\underline{\$ 720,000}$ |

** Asset Data field must indicate "Asset Data = **Allocation** or NOTES field lists actual allocation breakout.

Sample Asset Sale Price<br>Market Value of Invested Capital*<br>\$850,000<br>Plus Employment Agreement Value<br>\$50,000<br>Adjusted Asset Sale Price $\$ 900,000$<br>* MVIC (Market Value of Invested Capital) equals Total Consideration paid (in the form of cash, notes, or stocks), plus any assumed interest-bearing debt less any value allocated to Earnouts and Employment Agreements

## Seller's Discretionary Earnings (SDE):

Pratt's Stats usually calculates SDE similarly to Bizcomps and IBA databases. However, they typically obtain more data from submitting brokers and therefore their calculated value for SDE may differ. However, in most cases, Pratt's Stats' transactional data when applied to following formula yields the same or nearly the same value as Bizcomps and IBA.

## Sample SDE Calculation

| Owner's Compensation | $\$ 75,000$ |
| ---: | ---: |
| Non-Cash Charges | $\$ 22,000$ |
| Operating Profit | $\$ 57,000$ |
| Cash Flow (SDE) | $\$ 154,000$ |

## II. BIZCOMPS DATABASE

Selling Price:
BIZCOMPS Database separates Inventory value from the Selling Price and Listing Price. To make BIZCOMPS' Selling Price and Listing Prices comparable to Pratt's Stats and IBA adjusted data, inventory must be added to the BIZCOMP selling price.

| Sample Selling Price Calculation |  | Sample Listing Price Calculation |  |
| ---: | ---: | ---: | ---: |
| BIZCOMP Sale Price | $\$ 350,000$ | BIZCOMP Ask Price | $\$ 420,000$ |
|  |  | Inventory | $\$ 175,000$ |

(= Inventory, Fixed Assets, and Goodwill)
(= Inventory, Fixed Assets, and Goodwill)

## III. IBA DATABASE

## Selling Price:

The IBA Database includes the Real Estate Value in the Selling Price of a Transaction. To make IBA's Selling Price comparable to Pratt's Stats and BIZCOMPS databases, any Real Estate Value was subtracted from the Selling Price.

Sample Selling Price Calculation
Sale Price $\quad \$ 950,000$

Real Estate $\quad(\$ 500,000)$
Adjusted Asset Sale Price \$450,000
(= Inventory, Fixed Assets, and Goodwill)




| Transaction Details Comp \# 4 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SIC Code: 1793 Special trade contractors - Glass and Glazing Work |  |  |  |  |  |  |
| Business Description: Window Installation Contractor NOTES: |  |  |  |  |  |  |
| Source: $\quad$ Pratts StatsTransaction Type:Asset SaleLocation: FLNumber of Employees: 38 |  | This transaction was submitted by the Business Brokers of Florida (BBF). |  |  |  |  |
| Transaction Data |  | Adjusted Asset Sale Price: |  |  |  |  |
| Date of Sale | 9/1/2010 |  | Market Value of Invested Capital \$3,100,000 |  |  |  |
| Days on the Market 0 |  |  | Plus Employment Agreement Value |  | N/A |  |
| Asking Price | \$4,000,000 |  | Adjusted Asset Sale Price |  | \$3,100,000 |  |
| Adjusted Asset Sale Price | \$1,450,000 |  |  |  |  |  |
| Percent Down Payment Terms of Deal: | 61\% |  |  |  |  |  |
| Terms of Deal: |  |  |  |  |  |  |
| No Terms were Submitted |  |  |  |  |  |  |
| Income Data |  |  |  | Asset Data is **Allocation** |  | Liability Dat |  |  |
| Annual Gross Sales | \$10,531,026 | Cash | N/A | Assumed Int-Bear | ar Debt | N/A |
| SDE Calculation |  | Accounts Receivable | \$1,650,000 | L-T Liabilities |  | N/A |
| Owner's Compensation | \$287,168 | Other Current \& Non-Current Assets | S N/A | Total Liabilities | ssumed | N/A |
| Non-Cash Charges | \$57,770 | Inventory | \$0 |  |  |  |
| Operating Profit | \$272,360 | Furniture Fixtures, and Equipment | \$250,000 |  |  |  |
| Cash Flow (SDE) | \$617,298 | Intangibles | \$1,200,000 | Value of Real E | tate | N/A |
| Operating Ratios |  | Valuation Multiples |  |  |  |  |
| Cash Flow Margin (SDE\%) | 5.86\% | Revenue Multiplier | 0.14 |  |  |  |
| Rent/Annual Sales | 0.0\% | Cash Flow Multiplier | 2.35 |  |  |  |
|  |  | Enterprise Multiplier | 2.35 |  |  |  |



| Transaction Details Comp \# 6 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| SIC Code: 1799 Special trade contractors - . Paint and Wallpaper Stripping and Wallpaper Business Description: cabinet Dealer NOTES: |  |  |  |  |  |
| Source: BizBuySell <br> Transaction Type: Asset Sale <br> Location:  <br> Number of Employees:  |  | No Additional Comments were Submitted |  |  |  |
| Transaction Data |  |  |  |  |  |
| Date of Sale 12/11/2007 |  |  |  |  |  |
| Days on the Market 0 |  |  |  |  |  |
| Asking Price $\quad \$ 950,000$ |  |  |  |  |  |
| Sale Price \$950,000 |  |  |  |  |  |
| Percent Down Payment 0\%Terms of Deal: |  |  |  |  |  |
| No Terms were Submitted |  |  |  |  |  |
| Income Data  <br> Annual Gross Sales $\$ 5,194,417$ <br> Cash Flow (SDE) $\$ 357,443$ |  | Asset Data |  | Liability Data |  |
|  |  | Cash | \$0 | Assumed Int-Bear Debt | \$0 |
|  |  | Accounts Receivable | \$0 | L-T Liabilities | \$0 |
|  |  | Other Current \& Non-Current Assets | \$0 | Total Liabilities | \$0 |
|  |  | Inventory | \$20,000 |  |  |
|  |  | Furniture Fixtures, and Equipment | \$500,000 |  |  |
|  |  | Intangibles | \$0 | Value of Real Estate | \$0 |
| Operating Ratios Valuation Multiples |  |  |  |  |  |
| Cash Flow Margin (SDE\%): $6.88 \%$ <br> Rent/Annual Sales $0.0 \%$ |  | Revenue Multiplier | 0.18 |  |  |
|  |  | Cash Flow Multiplier | 2.66 |  |  |
|  |  | Enterprise Multiplier | 2.60 |  |  |





| Transaction Details Comp \# 10 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| SIC Code: 1799 Special trade contractors - . Paint and Wallpaper Stripping and Wallpaper Business Description: Custom Cabinet Shop NOTES: |  |  |  |  |  |
| Source: BizBuySell <br> Transaction Type: Asset Sale <br> Location:  <br> Number of Employees:  |  | No Additional Comments were Submitted |  |  |  |
| Transaction Data |  |  |  |  |  |
| Date of Sale 10/27/2009 |  |  |  |  |  |
| Days on the Market 0 |  |  |  |  |  |
| Asking Price $\quad \$ 1,398,000$ |  |  |  |  |  |
| Sale Price \$1,398,000 |  |  |  |  |  |
| Percent Down Payment $0 \%$Terms of Deal: |  |  |  |  |  |
| No Terms were Submitted |  |  |  |  |  |
| Income DataAnnual Gross SalesCash Flow (SDE) | Asset Data |  |  | Liability Data |  |
|  | \$4,682,639 | Cash | \$0 | Assumed Int-Bear Debt | \$0 |
|  | \$387,572 | Accounts Receivable | \$0 | L-T Liabilities | \$0 |
|  |  | Other Current \& Non-Current Assets | \$0 | Total Liabilities | \$0 |
|  |  | Inventory | \$148,000 |  |  |
|  |  | Furniture Fixtures, and Equipment | \$7,500,000 |  |  |
|  |  | Intangibles | \$0 | Value of Real Estate | \$0 |
| Operating Ratios |  | Valuation Multiples |  |  |  |
| Cash Flow Margin (SDE\%): | 8.28\% | Revenue Multiplier | 0.30 |  |  |
| Rent/Annual Sales | 0.0\% | Cash Flow Multiplier | 3.61 |  |  |
|  |  | Enterprise Multiplier | 3.23 |  |  |


| Transaction Details Comp \# |  |  |  |  | Page 141 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| SIC Code: 5211 | Building material | ls, hardware, garden supply, \& mobile home | Home Cent |  |  |
| Business Description: Lumber and Building Materials Store NOTES: |  |  |  |  |  |
| Source: BizBuySell <br> Transaction Type: Asset Sale <br> Location: TX  <br> Number of Employees:  |  | No Additional Comments were Submitted |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| Transaction Data |  |  |  |  |  |
| Date of Sale 1/9/2007 |  |  |  |  |  |
| Days on the Market |  |  |  |  |  |
| Asking Price $\quad \$ 1,000,000$ |  |  |  |  |  |
| Sale Price \$750,000 |  |  |  |  |  |
| Percent Down PaymentTerms of Deal: |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| No Terms were Submitted |  |  |  |  |  |
| Income Data |  |  |  |  | Asset Data |  | Liability Data |  |
| Annual Gross Sales | \$4,663,000 |  |  |  | Cash | \$0 | Assumed Int-Bear Debt | \$0 |
| Cash Flow (SDE) | \$396,000 | Accounts Receivable | \$0 | L-T Liabilities | \$0 |
|  |  | Other Current \& Non-Current Assets | \$0 | Total Liabilities | \$0 |
|  |  | Inventory | \$463,000 |  |  |
|  |  | Furniture Fixtures, and Equipment | \$175,000 |  |  |
|  |  | Intangibles | \$0 | Value of Real Estate | \$0 |
| Operating Ratios |  | Valuation Multiples |  |  |  |
| Cash Flow Margin (SDE\%): | 8.49\% | Revenue Multiplier | 0.16 |  |  |
| Rent/Annual Sales | 0.0\% | Cash Flow Multiplier | 1.89 |  |  |
|  |  | Enterprise Multiplier | 0.72 |  |  |








| Transaction Details Comp \# 18 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| SIC Code: $\quad 5211$ Building materials, hardware, garden supply, \& mobile home - . Home Cente Business Description: Colorado Lumber Yard NOTES: |  |  |  |  |  |
| Source: BizBuySell <br> Transaction Type: Asset Sale <br> Location: CO  <br> Number of Employees:  |  | No Additional Comments were Submitted |  |  |  |
| Transaction Data |  |  |  |  |  |
| Date of Sale 7/23/2009 |  |  |  |  |  |
| Days on the Market 0 |  |  |  |  |  |
| Asking Price $\quad \$ 4,000,000$ |  |  |  |  |  |
| Sale Price $\quad \$ 2,100,000$ |  |  |  |  |  |
| Percent Down Payment $0 \%$Terms of Deal: |  |  |  |  |  |
| No Terms were Submitted |  |  |  |  |  |
| Income Data <br> Annual Gross Sales <br> Cash Flow (SDE) |  | Asset Data |  | Liability Data |  |
|  | \$4,525,000 | Cash | \$0 | Assumed Int-Bear Debt | \$0 |
|  | \$637,000 | Accounts Receivable | \$0 | L-T Liabilities | \$0 |
|  |  | Other Current \& Non-Current Assets | \$0 | Total Liabilities | \$0 |
|  |  | Inventory | \$725,000 |  |  |
|  |  | Furniture Fixtures, and Equipment | \$250,000 |  |  |
|  |  | Intangibles | \$0 | Value of Real Estate | \$0 |
| Operating Ratios |  | Valuation Multiples |  |  |  |
| Cash Flow Margin (SDE\%) Rent/Annual Sales | 14.08\% | Revenue Multiplier | 0.46 |  |  |
|  | 0.0\% | Cash Flow Multiplier | 3.30 |  |  |
|  |  | Enterprise Multiplier | 2.16 |  |  |







| Transaction Details Comp \# 24 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| SIC Code: 1751 Special trade contractors - Carpentry Work |  |  |  |  |  |
| Business Description: Contr-Custom Cabinets NOTES: |  |  |  |  |  |
| Source: <br> Bizcomps <br> Transaction Type: Asset Sale <br> Location: Georgia <br> Number of Employees: 53 |  | No Additional Comments were Submitted |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Transaction Data |  |  | Adjusted Asset Sale Price: |  |  |
| Date of Sale 8/22/2007 |  |  |  | Sale Price \$1,900 |  |
| Days on the Market | 297 |  |  | Inventory \$200 |  |
| Asking Price | \$2,200,000 |  | Adjusted | Asset Sale Price \$2,100 |  |
| Adjusted Asset Sale Price | \$2,100,000 |  |  |  |  |
| Percent Down Payment | 100\% |  |  |  |  |
| Terms of Deal: |  |  |  |  |  |
| No Terms were Submitted |  |  |  |  |  |
| Income Data |  | Asset Data | Liability Data |  |  |
| Annual Gross Sales | \$4,627,000 | Cash | \$0 | Assumed Int-Bear Debt | \$0 |
| Cash Flow (SDE) | \$993,000 | Accounts Receivable | \$0 | L-T Liabilities | \$0 |
|  |  | Other Current \& Non-Current Assets | \$0 | Total Liabilities | \$0 |
|  |  | Inventory | \$200,000 |  |  |
|  |  | Furniture Fixtures, and Equipment | \$410,000 |  |  |
|  |  | Intangibles | \$0 | Value of Real Estate | \$0 |
| Operating Ratios |  | Valuation Multiples |  |  |  |
| Cash Flow Margin (SDE\%): | 21.46\% | Revenue Multiplier | 0.45 |  |  |
| Rent/Annual Sales | 0.0\% | Cash Flow Multiplier | 2.11 |  |  |
|  |  | Enterprise Multiplier | 1.91 |  |  |

## APPENDIX B

## Analysis of Transactional Databases

The Appraiser uses three databases to obtain transactional data: Bizcomps, Pratt's Stats, and the Institute of Business Appraisers (IBA) Database. ${ }^{1}$ Each database assembles transactional data somewhat differently than the others. Therefore, it is necessary to make various adjustments to the data points in each to make them reasonably comparable to each other. The appropriate adjustments were developed from information presented in: ValuSource's and IBA's on-line help screens for the IBA database; the Business Valuation Resources online help screens and procedural manuals for the Pratt's Stats and Bizcomps databases; Nancy Fannon's book on how to use the databases ${ }^{2}$ or, more importantly, from direct observations by the Appraiser.

### 1.0 Selling Price (Asset Sale)

The sales of most small businesses are structured in a manner whereby the buyer acquires the inventory, Fixtures and Equipment (FF\&E), and intangibles and the seller keeps the cash and receivables and pays off the company debt. This structure is commonly referred to an Asset Sale. Since an Asset Sale is the most common form of transaction in the sale of a small business, it is desirable to reconstruct all the transactions that we will use in our analysis to reflect the selling price for just those three assets. As a result, the selling prices of all the selected transactions will be directly comparable to each other.

As we shall see below, all three databases generally report sufficient transactional data in which a selling price can be reconciled for the total value of the inventory, FF\&E, and intangibles that were transferred. In order to calculate a selling price for each database that will align with each other, we will make appropriate adjustments in the reported selling prices to equal the total value of those three assets. It is fairly common to find insufficient data to make an accurate reconciliation in which case, some guesswork may be necessary. However, appraisers must use their best judgment to determine if the lack of data precludes obtaining a good estimate of an Asset Sale selling price. If so, they must reject that comparable.

## Pratt's Stats

As noted in Nancy Fannon's book, ${ }^{3}$ Pratt's Stats indicates that, "Price is generally considered to be the dollar value consideration [note: consideration can be in the form of cash, notes, and/or securities ${ }^{4}$ ] paid for the business sold including interest-bearing debt. Therefore, the only price reported by the Pratt's Stats database is an invested capital price (which the

[^47]database refers to as MVIC or Market Value of Invested Capital)." Ms. Fannon also notes that Pratt's Stats FAQs (Frequently Asked Questions) indicated that an Asset Sale typically does not include assumed interest-bearing liabilities and generally, but not always, does not include cash, receivables, prepaid expenses, or real estate. ${ }^{5}$ In most cases when an Asset Sale also included cash or receivables, it was noted in the Additional Transaction Information in the transaction report. However, if the submitting broker neglected to mention it, the reported selling price may not be correct. The Appraiser has found instances of this error, but they are fairly uncommon.

Thus with the data available, a typical Asset Sale reported in Pratt's Stats can usually be reconstructed to produce the total value allocated to inventory, FF\&E, and intangibles. However, appraisers must read the notes appended to each transaction to confirm what other assets may have been transferred. It is not uncommon that accurate information was not provided by the submitting brokers; thus appraisers must use their judgment as to whether the comparable should or should not be used.

The selling price allocation reported in each transaction may indicate that a portion of the price included covenant-not-to-compete value, consulting agreement value, or earn-out value. ${ }^{6}$ Pratt's Stats deducts the portion of the selling price allocated to consulting agreements and earn-outs in its MVIC calculation. ${ }^{7}$ As we shall see later Bizcomps and IBA only exclude earn-out value from their reported selling prices.

Suggested Adjustment: Thus in order to reconcile Pratt's Stats' MVIC to obtain the value of inventory, FF\&E, and intangibles that will generally align with Bizcomps and IBA values, we must deduct from MVIC any cash, receivables, or non-operating assets that may have been included in the selling price and add back any value allocated to consulting agreements.

Actual observations by the Appraiser find this reconciliation is usually comparable to the other databases' adjusted values. However, one must carefully review that data. If the available information is insufficient to produce a reasonable estimate of the selling price for the three target assets, the comparable should be rejected.

## Bizcomps

"The Bizcomps transactions are all Asset Sales or have been converted to Asset Sales. As such the price includes FF\&E and goodwill or the intangible value. ... Bizcomps maintains that their sales prices exclude inventory ... [and] non-compete and consulting agreements are included. ${ }^{" 8}$

[^48]
#### Abstract

Suggested Adjustment: Thus in order to reconcile Bizcomps' selling price that will generally align with Pratt's Stats and IBA's adjusted selling price for inventory, FF\&E, and intangibles, we must add inventory to Bizcomps' reported selling price.


## IBA

Raymond Miles reports that the IBA database generally excludes cash, accounts receivable, real estate, and "other assets" (such as deposits and prepaids) from the selling price, and generally includes inventory, FF\&E, intangibles and covenant-not-to-compete. ${ }^{9}$ The Market Analysis Tutorial screen on the IBA website also indicates that the selling price includes consulting agreement value. ${ }^{10}$

Although IBA claims that it excludes real estate value from the selling price, the analysis below found that of the 42 transactions in which real estate was also transferred, 27 transactions had the real estate value added to the selling price. In most cases the inclusion of real estate caused the selling price to appear extraordinarily high with respect to the company's revenue, in which case subtracting the real estate value produced a much more reasonable result. Therefore in transactions involving real estate, appraisers must look at the data and adjust the selling price if it appears necessary. If unsure, the transaction should be excluded from the analysis. However, as shown in Paragraph 4.1 below, over $95 \%$ of the time IBA's adjusted selling price and Bizcomp's adjusted selling price were the same.

Suggested Adjustment: Therefore, other than a possible adjustment for real estate, there are no additional adjustments necessary to reconcile IBA's selling price to align with Pratt's Stats and Bizcomps adjusted values for inventory, FF\&E, and intangibles.

### 2.0 Revenue

Suggested Adjustment: As will be demonstrated below, all three databases appear to report revenues in the same manner, so no additional adjustments are needed.

### 3.0 Seller's Discretionary Earnings (SDE)

## Pratt's Stats

"Pratt's Stats calculations of EBIT (Earnings before Interest and Taxes), and EBITDA (Earnings before Interest, Taxes, Depreciation, and Amortization) also exclude other income and expenses and interest income or tax benefits. Discretionary Earnings (SDE), then, is equal to adjusted EBITDA plus Owner's Compensation."11 Owner's Compensation is the

[^49]wage paid to one owner. ${ }^{12}$ Three data fields from the Pratt's Stats transaction report typically will add up to Discretionary Earnings (SDE). Those data fields are Owner's Compensation, Operating Profit (EBIT), and Noncash Charges (Operating Profit plus Noncash Charges equals EBITDA). In nearly $75 \%$ of the transactions in the research discussed below, this calculation matched the SDE calculations of IBA and Bizcomps. Of the remaining 25\% where the SDE's differed, over half were due to errors in processing the data by one or the other databases. Less than $10 \%$ of all the transactions had discrepancies that were due to either minor calculation errors or procedural differences, but it could not be determined from the data which type of discrepancy it was. In other words, the number of differences in SDE found among the databases that were procedural in nature were fairly small. Regardless, in our research below, the discrepancies resulted in the Pratt's Stats SDE value averaging $98.2 \%$ of the IBA and Bizcomps value. In other words, the discrepancies do not appear significant enough or frequent enough to adversely skew the results of our analysis.

A portion of the discrepancies among the databases in SDE calculations probably can be attributed to the fact that Pratt's Stats requires significantly more data input from the reporting brokers than IBA or Bizcomps. As a result, the Pratt's Stats analysts can sometimes spot calculation errors that were made in the submitted data. Thus many of the discrepancies are not from procedural differences, but rather computational errors by the other databases. Since all three databases are exposed to poor data reporting by submitting brokers, it is important that appraisers carefully review each transaction to determine if it is reasonable. However, in the event that a selected sample of comparables has duplicate transactions with different values for selling price, revenues, or SDE, the data from Pratt's Stats will be used in the analysis. If in the appraiser's judgment the transactional data does not appear reliable, it should be excluded from the sample of comparables selected.

Suggested Adjustment: Thus to reconcile Seller's Discretionary Earnings from Pratt's Stats data in a manner that will generally align with IBA and Bizcomps values, we must combine owner's compensation, operating profits, and noncash charges.

## Bizcomps

Bizcomps defines SDE as net Earnings before Interest, Taxes, Depreciation, and Amortization (EBITDA) plus owner's compensation and any non-business or non-recurring expenses. If there is more than one owner, a hypothetical salary for the lowest paid partner will be deducted from cash flow. ${ }^{13}$ Bizcomps points out that this is the convention used by Certified Business Intermediaries (CBI) with the International Business Brokers Association (IBBA). The Bizcomps data is submitted almost exclusively by this group. ${ }^{14}$ The description is fairly similar to the Pratt's Stats construction with the exception that Pratt's Stats cited that other income is also deducted from earnings when calculating SDE. Bizcomps does not have a data field for other income so no adjustment is possible. As

[^50]pointed out in the research below, the procedural differences occur infrequently and are generally small.

Suggested Adjustment: No adjustments to Bizcomps' SDE are needed to make it align with Pratt's Stats' adjusted SDE.

## IBA

If one excludes discrepancies caused by obvious computation errors, Bizcomps and IBA presented the same value for SDE $98 \%$ of the time.

Suggested Adjustment: No further adjustments to SDE are needed to make IBA and Bizcomps values align with Pratt's Stats value.

## 4.0 <br> Stock Sales

IBA
Although all transactions reported in the IBA database are supposed to be assets sales, ${ }^{15}$ there are a few transactions that are listed as Stock Sales. Of the 880 IBA transactions in the research below, only three were listed as Stock Sales. None of those were duplicates of transactions in the other databases so it is not known how IBA presents transactional data on Stock Sales. None of the help screen information on the ValuSource or IBA websites or conversations on the subject with Dave Miles of ValuSource offered any clarification.

Suggested Adjustment: Any transaction that is listed as a Stock Sale in the IBA database should usually be excluded from the transactional analysis.

## Bizcomps

As noted above, all Bizcomps transactions that were Stock Sales have been converted to an equivalent Asset Sale value. We are not told which transactions were Stock Sales. However, as noted above, the selling price listed by Bizcomps is always the total value for FF\&E and intangibles only. Thus it is presumed that all Stock Sale prices have been converted to this value.

Suggested Adjustment: By adding inventory to the listed selling price we will be converting any Stock Sale price to the value of the inventory, FF\&E, and intangibles which will generally align with adjusted selling prices from the Pratt's Stats and IBA databases discussed above.

[^51]
## Pratt's Stats

Pratt's Stats reports both Asset Sales and Stock Sales and generally provides a significant amount of data describing each transaction. Pratt's Stats assumes that what is typically transferred in a Stock Sale is the "entire legal entity of the company, [including] all assets and liabilities unless otherwise specified in the purchase agreement [with the exception of] excess or non-operating assets that have been liquidated and/or transferred prior to the sale or at the point of sale. ${ }^{116}$ However, unless a specific allocation of the selling price is noted in the Additional Information section of the Transaction Report, or the Asset Data field is marked "Data is a Purchase Price Allocation," it is generally difficult to determine what assets and liabilities were actually transferred. As such an accurate Asset Sale reconciliation may not be possible. Thus if specific allocation information is not available or the critical data fields for assets and liabilities contain N/A entries, that comparable should probably be rejected.

As noted above, the selling price listed by Pratt's Stats (MVIC) is equal to total consideration paid (cash, notes, and/or securities) plus any interest-bearing debt assumed, less amounts for earn-outs and employment/consulting agreements. To make the Pratt's Stats selling price align with those of IBA and Bizcomps, we added back the consulting agreement value. However, since the entire corporate balance sheet may have been transferred in a sale, a number of adjustments must be made to reconcile MVIC to an equivalent Asset Sale price that we defined in Paragraph 1.0 above.

The first step in the reconciliation process is to determine what, if any, liabilities were assumed in the transaction. If the Debt Assumed field in the Transaction Report is labeled N/A, Pratt's Stats was not able to definitively determine if any interest-bearing debt was assumed. If no other information is available, it may be necessary to reject this comparable. However, if the Debt Assumed field has either a zero or a dollar amount, the information describing the business sale clearly identified the level of interest-bearing debt assumed. ${ }^{17}$ It is also necessary to identify all the non-interest bearing debt that was also assumed. This information is generally only made available when a specific allocation of the purchase agreement is itemized in the Additional Information section. However, if zeros are found in the data fields for Liabilities Assumed, Long-Term Liabilities, and Total Liabilities, then Pratt's Stats determined that no liabilities were assumed in the transaction. In other words, if specific allocation information is not available in the Additional Information section or the Asset Data field is not marked "Data is a Purchase Price Allocation", it will be difficult to make an accurate Asset Sale reconciliation and the comparable should be rejected.

It is necessary to identify all liabilities assumed (both interest bearing and non-interest bearing debt) because total consideration plus total debt assumed equals the total debt and equity used to make the purchase. From basic accounting we know that total debt and equity also equals total assets. Once we have established what the total asset value of the

[^52]transferred business is, it is a simple task to subtract the value of all the assets acquired except for inventory, FF\&E, and intangibles. The resulting value will be an equivalent Asset Sale value (inventory, FF\&E, and intangibles) that will generally align with the selling prices in IBA and Bizcomps.

Suggested Adjustments: The following is the formula that will be used to reconcile a Stock Sale value to an equivalent Asset Sale value. An actual sample transaction from Pratt's Stats follows the formula. Again, this reconciliation generally can only be done accurately when the Transaction Report includes a selling price allocation in the Additional Information section or the Asset Date field is marked "Data is a Purchase Price Allocation."

| MVIC ( Cash, Stock, Notes, IB debt Assumed) | $* 14,021,000$ |
| :--- | ---: |
| Plus Additional Non-Interest Bearing Debt | 625,000 |
| Plus Employment/consulting Agreement | $-0-$ |
| Less Cash | $(0)$ |
| Less Accounts Receivable | $(856,000)$ |
| Less Other Assets (prepaids \& for-sale assets) | $\underline{(1,572,000)}$ |
| Asset Sale Value Equivalent | $\$ 12,218,000$ |

*Note: Pratt's Stats incorrectly added up Total Consideration. It should have been $\$ 13,994,000$. That would have made the Asset Sale Value equal to $\$ 12,191,000$ which is the actual total for inventory, FF\&E, and goodwill.

| Pratt's Stats ${ }^{\circledR}$ Transaction Report Prepared: e/1ei2011 10:58:41 AM (PST) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Seller Details |  |  | Source Data |  |
| Target Name: | Accurel Systems International Corporation Commercial Laboratory the Provides Advanced |  | Public Buyer Name: 8-K Date: | IMPLANT SCIENCES CORP 3/11/2005 |
| Business Description: | Technology Services to Ulsers and Manufacturers of Semiconductors |  | 8-K/A Date: Other Filing Type: | $\begin{aligned} & 4 / 13 / 2005 \\ & \mathrm{~N} / \mathrm{A} \end{aligned}$ |
| SIC: | 8734 Testing Laboratories |  | Other Filing Date: | N/A |
| NAICS: <br> Sale Locaticn: | 54138 D Testing Laboratories Sunnywale, CA, United States |  | cIK Code: | 0001068874 |
| Years in Business: | 16 Numb | er Employees: N/A |  |  |
| Income Data |  | Asset Data |  | Transaction Data |
| Data is 'Latest Full Year' Reported | Yes | Data is Latest Reported |  | Date Sate Initiated: N/A |
| Data is Restated (see Notes for any explanatior) | No | Data is 'Purchase Price Allocation agreed upon by Buyer and Seller' |  | Date of Sale: 3/9/2005 |
| Income statement Date | 12/31/2004 | Balance Sheet Date | 12/31/2004 | N: N/A |
| Net Sales | \$8,151,567 | Cash Equivalents | $12 / 31 / 2004$ $\$ 373,697$ | Asking Price: $\quad$ N/A |
| cogs | \$5,870,011 | Trade Receivables | $\$ 856,637$ | Market Value of Invested Capital?: $\quad \$ 14,021,000$ |
| Gross Pronit | \$2,281,556 | Inventory | $\begin{array}{r} \$ 856,637 \\ \$ 0 \end{array}$ | Assumed: \$2,694,000 |
| Yearly Rent Owner's compensation | N/A | Other Current Assets Iotai Current Assets | $\begin{array}{r} \$ 0 \\ \$ 88.639 \end{array}$ | Employment Agreement Value: N/A |
|  | N/A |  | \$1,518,9/3 | Noncompete value: Amount of Down Payment: |
| Other Operating Expenses | N/A |  | \$4,163,861 | Asset Sale: ${ }^{\text {a }}$ Sock |
| Noncash Charges | \$1,427,287 | Fixed Assets <br> Real Estate | [ $\begin{array}{r}\$ 0 \\ \$ 100,898\end{array}$ | Stock or Asset Sale: Stack |
| Total Operating Expenses | \$1,677,951 | Intangibles |  | Company Type: Was there an Employment/Consuiting ${ }^{\text {a }}$ S Corporation |
| Operating Profit | \$603,605 | Other Noncurrent Assets | \$887.678 | Agreement? |
| Interest Expenses | \$253,015 | Total Assets | 55,761,410 | Was there an Assumed Lease in the sale? Yes |
| EBT | \$502,634 | Long-term Labilities | \$2,062,908 | Was there a Renewal Option with the Lease? |
| Net Income | $\underline{\$ 11,218}$ | Total Labilities | \$3,402,658 | *Includes noncompete value and interest-bearing debt; |
|  |  | Stockholde's Equity | \$2,358,752 | excludes real estate, employment/consulting agreement values, and all contingent payments. |
| Additional Transaction Information |  |  |  |  |
| Was there a Note in the consideration paid? Yes Terms: |  |  | Was there a personal guarantee on the Note? No |  |
| Consideration: 418,194 shares of the Buyer's common stock with a fair value ar $\$ 3,650,000$ based upon a fair value per share of $\$ 8,728, \$ 6,000,000$ in cash, and $\$ 1,650,000$ in shareholder notes. In addition, the Buyer assumed debt and capital leases of $\$ 2,694,000$. The Buyer incurred direct acquisiton costs in the amount or $\$ 1,100,000$; these costs are not included in the Selling Price. |  |  |  |  |
| Assumed Lease (Months): N/A |  |  | Terms of Lease: Future minimum lease payments total \$3,152,000 beyond 12/31/2009 |  |
| Noncompete Length (Months): N/A <br> Employmert/Consulting Agreement Description: <br> Additional Motes: |  |  |  |  |
|  |  |  |  |  |  |  |
| EBT includes Gain on sale of fixed assets of $\$ 125,907$ and Miscellanesus income of $\$ 266,137$. |  |  |  |  |
| Purchase Price Allocation: Accounts receivable $\$ 856,000$, Prepaid expenses and other assets $\$ 172,000$, Property, plant and equipment $\$ 4,719,000$, Goodwill and other intangibles $\$ 8,572,000$. Assets held for sale $\$ 1,400,000$, Other liabilities ( $\$ 625,000$ ), Debt and capital leases ( $\$ 2,694,000$ ), Total $\$ 12,400,000$. |  |  |  |  |
| Accurel is a commercial laboratory specializing in Fallure Analysis Miroscopy, Transmission Electron Microscopy and Foousea Ion Beam Circuit Repair Services. |  |  |  |  |

### 5.0 Applying the Adjustments to Actual Data

To test the accuracy of the above-suggested adjustments, the Appraiser downloaded all the transactions from SIC classifications 7501 through 7599 from all three databases. There were a total of 489 transactions from the Pratt's Stats database, 668 from Bizcomps, and 881 from IBA. The data from each source was then adjusted using the suggested methods above. From the total 2,020 transactions there were 148 duplications between IBA and Bizcomps, 43 between IBA and Pratt's Stats, and 71 between Bizcomps and Pratt's Stats. It is from these duplications that we can see readily see if the suggested adjustments accounted for all differences between their respective presentations of data.

As the Appraiser noted in the Market Approach discussion, business brokers generally submit the same transactional data to all three databases and generally do not change any of the submitted data to conform to any database's procedural differences. Thus even though the manuals or on-line help screens of the respective databases indicate that there are a number of differences in the manner in which they calculate revenues, selling price, and SDE, in actual practice those differences are minimal.

### 5.1 IBA vs. Bizcomps

## Selling Price

Of the 148 duplications, both IBA and Bizcomps reported the same selling price in all but 16 transactions. Of those 16 , four IBA transactions had real estate included in the selling price. It was not obvious from the IBA data that it was. If it were not for the duplication in Bizcomps, we never would have known that real estate was included in those four IBA selling prices.

Four IBA transactions listed the selling price significantly less than SDE which was probably the result of data processing errors. Those four duplicates found in Bizcomps had selling prices considerably higher than SDE. The IBA selling prices, however, were so unrealistically low that we would have rejected those comparables even if we did not have Bizcomps for comparison.

After rejecting eight of the 16 transactions due to obvious errors, the remaining eight differences in reported selling prices were from either minor processing errors or perhaps procedural differences in the way each database calculated revenue. There was no way one could determine from the data which of the two types of discrepancies occurred. Thus after rejecting obvious data collection errors, at least $95 \%$ of the time IBA and Bizcomps calculated the selling price exactly the same way.

As was noted above, the IBA database claims that it deducts real estate value from the selling price. The Appraiser found 42 transactions out of the 148 where real estate was involved. In 27 of those transactions the real estate price was included in the total transaction price. Only 15 transactions deducted the real estate value as suggested in IBA's procedural manual. In almost every situation (except the four described above) the selling prices of those
comparables including real estate were so high with respect to their revenues that one could reasonably conclude that the real estate value should be deducted from the selling price. Again appraisers should use their judgment in reviewing the data and reject any comparable that is subject to doubt.

## Revenue

All 148 revenue calculations were the same between the two databases; therefore, no adjustment is required for revenue.

## SDE

Of 148 duplications there were only eight discrepancies in reported SDE. In three of those transactions IBA had the same value in the revenue and SDE data fields. Two transactions had real estate included which often leads to data processing errors. Thus after rejecting the obvious errors, the remaining three differences in reported selling prices were from either minor data processing errors or possibly procedural differences in the way each database calculated SDE. Regardless, $98 \%$ of the time IBA and Bizcomps reported the same value for SDE.

Even though IBA does not mention adding back depreciation to SDE ${ }^{18}$ whereas Bizcomps does, in practice IBA clearly appears to calculate SDE in the same way Bizcomps does.

### 5.2 IBA vs. Pratt's Stats

## Selling Price

After making the suggested adjustments, all 43 duplications calculated selling prices the same way. Thus there were no other procedural differences in the way each calculated selling price.

## Revenue

There were just three discrepancies in the listed revenue amounts out of 43 duplications between the two databases. All three discrepancies arose because IBA used the most current P\&L data available, whereas Pratt's Stats used the P\&Ls that were available when the sale began. Thus there were no other procedural differences in the way each calculated revenue.

SDE
After making the suggested adjustments for SDE noted in Paragraph 3.0, 21 discrepancies were found in the calculations for SDE out of the 43 duplications. Four differences were due to Pratt's Stats adding owner's compensation to operating profits of a sole proprietorship,

[^53]which consequently double counted SDE (in a sole proprietorship operating profits are the owner's compensation; there is no separate owner's salary). Three errors arose because IBA used the most current P\&L data available, whereas Pratt's Stats used the P\&Ls that were available when the sale began. Seven other discrepancies were very obvious data processing errors. Only three of the discrepancies occurred because of procedural differences. Those were the result of IBA's stated policy of not adding back depreciation to SDE. Even though IBA states that it calculates SDE without adding back depreciation, only three instances in a combined 191 duplications between Pratt's Stats and Bizcomps proved that to be true. Thus IBA appears to calculate SDE the same way as the other two databases in over $98 \%$ of the time.

### 5.3 Bizcomps vs. Pratt's Stats

## Selling Price

There were a total of 71 duplications between the Bizcomps and Pratt's Stats samples. Of that total only seven discrepancies appeared between their respective selling prices. Three of those transactions indicated that real estate was also sold. The selling prices reported by Bizcomps were so high with respect to revenues that one could conclude that real estate value was inadvertently added to the selling price. The cause for the remaining four discrepancies could not be determined by the data. However, those four discrepancies represent only $5 \%$ of the total duplicate transactions with Pratt's Stats' selling prices averaging just 7\% higher than Bizcomps'. Thus the selling prices reported in these two databases appear to be reasonably similar after making the adjustments suggested in Paragraph 1.0.

## Revenue

There were only a total of four discrepancies in the reported revenue of the 71 duplications between Bizcomps and Pratt's Stats. There was insufficient data to determine the cause of the discrepancies, but Pratt's Stats reported revenue averaged only $1 \%$ higher than Bizcomps' revenue. Thus revenues reported in these two databases appear to be reasonably similar after making the suggested adjustments.

## SDE

As was the case in the duplications between IBA and Pratt's Stats above, the greatest number of discrepancies appeared in the SDE calculations. It is believed that most of the discrepancies occur as a result of the different reporting forms used by the databases. Since the wording for the various data points on each form is different, it is easy for brokers to be confused and enter incorrect information. Of the 71 duplications between Bizcomps and Pratt's Stats, there were 33 discrepancies. Of that total 16 were obvious data entry errors, not procedural differences. Typical errors were: 1) double counting owner's income when determining SDE of a sole proprietorship; 2) operating losses were not included in SDE calculations; 3) owner's salary was not added back to SDE; 4) depreciation was not added
back to SDE; 5) different $\mathrm{P} \& \mathrm{~L}$ years were used by the different databases; and 6) real estate was also involved.

Of the remaining 17 discrepancies, one was found to be a procedural difference where Pratt's Stats deducted other income from SDE and Bizcomps did not. Sixteen discrepancies had insufficient data to determine whether the difference was due to simple data processing errors or procedural differences. Regardless, where discrepancies were not explainable Pratt's Stats SDE averaged only $1.4 \%$ less than the SDE reported by Bizcomps.

## Summary

As we have seen above, transactions with real estate have a high percentage of selling price calculation errors. SDE calculations are also frequently done incorrectly. Many brokers do not understand how to properly calculate SDE when an owner of the business also owns the real estate. Brokers often add back the interest expense from the real estate mortgage to arrive at SDE for the business. Thus the calculated SDE will not have any occupancy costs making the company appear far more profitable than a company that pays rent. As a result, appraisers should use their judgment in selecting a transaction from any database that involves real estate. When there is any doubt, the comparable should be rejected.

Appraisers should also consider rejecting any comparable where the selling price or SDE appears to be extraordinarily high or low with respect to its revenue, or where data points are missing. Transactions with missing SDE or inventory (for companies that obviously should have inventory) give appraisers fewer critical data points to evaluate overall credibility of the transactional data. Liquor store sales, for example, are frequently reported with no inventory. Buyers and sellers typically enter into side agreements to pay for the inventory outside of escrow. As a result, even though a moderate level of inventory passed to the buyer, the transaction does not reflect it. The actual selling price of that business will appear very low compared to a similar store that sold with inventory included in the sale price.

Stock transactions are also highly prone to calculation errors by the submitting brokers. For example, corporations are frequently sold with receivables or other assets or liabilities included. The broker may report the selling price with receivables, but neglect to indicate that they were included in the selling price. The selling price may also have been reduced by the amount of liabilities assumed by the buyer. The broker may report the reduced price but neglect to mention that there were assumed liabilities in the transaction. As a result, the selling price of transactions sold as Stock Sales are often misinterpreted by brokers. Thus as mentioned in Paragraph 4.0, unless a specific selling price allocation is provided with the transactional data, appraisers probably should not attempt to reconcile the value to an equivalent Asset Sale price.

## Resume of

C. Frederick Hall, III, MBA, CBA, AVA<br>10300 Argonaut Drive<br>Jackson, CA 95642<br>209-256-1371

Education: B.S. in Business Administration from U.C. Berkeley MBA degree in Business Finance and Computers from San Diego State University

Completed the following course work with the IBA and received the designation of AIBA (Accredited by the Institute of Business Appraisers)

| 8001 A \& B | Appraisal Skills Workshop | 64 Hours |
| :--- | :--- | :--- |
| 1060 | Appraisal Writing | 16 Hours |
|  | Annual CPE Appraisal Workshops | $\underline{65 \text { Hours }}$ |

Completed Requirements for AVA certification (Accredited Valuation Analyst) with the National Association of Certified Valuation Analysts (NACVA)

## Experience:

1971 to 1975 - Business Analyst and Commercial Loan Officer at Union Bank in th San Francisco and Los Angeles headquarters offices. The first year involved a management training program that included nine months (at 40 hours per week) of financial analysis and legal environment of business lending, followed by three months of in-the-field appraisal training.

1975 to 1978 - Purchased and operated a retail hardware company in Portola Valley, California.

1977 to 1981 - Served on the Board of Directors and functioned as the CFO for Bay Cities Wholesale Hardware Company, a dealer-owned co-operative comprised of 350 stores in Northern California. Dealt with many union problems, a warehouse relocation from San Francisco to Manteca, and a complete computerization of operations.

1978 to 2002 - Built a ground up retail hardware and lumber company in Pine Grove, California. The company went through four major expansions during this period. By 2002 the store grew to $\$ 5,000,000$ in annual revenues and 30 employees. From 1987 to 2002 I completely automated the company at all levels and networked together a dozen workstations. I personally wrote scores of computer programs that involved every aspect of the operations, including inventory control, general ledger bookkeeping, accounts receivable, accounts payable control, and a complex payroll program.

2002 to 2005 - Business Broker and Business Analyst for Sunbelt Business Advisors of Sacramento and Reno. During this period successfully completed the course work for business appraisals offered by the IBA (Institute of Business Appraisers) and received the designation of AIBA.

2005 to 2009 - Managing partner of Compass Point Capital, specializing in mergers and acquisitions of smaller midsized companies ranging in revenues from $\$ 5$ to $\$ 25$ million.

2003 to Present - Wrote business valuations for over 250 companies. During this time I regularly presented lectures on business valuation techniques to a number of organizations in Northern California. I was also recently invited to speak on the subject at the Annual Murphy Business and Financial Convention in Florida and the International Business Broker Convention in Loiusville, Kentucky. Attendees included brokers, bankers, and accountants.

I wrote a number of appraisals involving marriage dissolutions and partnership breakups which often required presenting and defending the findings to both parties. Approximately 25 appraisals were done at the request of several SBA Banks for the loan applicants. Those banks include Bank of the West, Plumas Bank, Northern Nevada Bank, Temecula Bank, Comerica, Bridge Bank, River City Bank, and Five Star Bank.

## C. FREDERICK HALL, III, MBA, AIBA <br> 10300 Argonaut Drive Jackson, CA 95642

## Recent Clients:

| Bank of the West | Northern Nevada Bank |
| :---: | :---: |
| Scott VanderLohe | Bryan Wallace |
| Sacramento, CA | Reno, NV |
| ScareCrow Lath \& Plaster | Lake Bar \& Grill |
| Steve Crow | Robert Treanur |
| Reno, NV | Sparks, NV |
| North Valley Athletic Club | Mueller Fitness Center |
| Scott Schofield | Vance Mueller |
| Chico, CA | El Dorado, CA |
| Liquor Cabinet | Lighting Unlimited |
| Manjeet Sandhu | Dean Osborn |
| Corning, CA | El Dorado, CA |
| Holiday Grocery | Golden Years Retirement |
| Jim Lumley | Jace Schmitz, Coldwell Banker |
| Marysville, CA | Port Angeles, WA |
| DEA- Bathroom Machinery | Cal Inc. Environmental Training |
| Tom Scheller | Mike McCalmont |
| Murphys, CA | Vacaville, CA |
| Tom's Ace | Teresa's Place Restaurant |
| Chris Doyle | Phil Giurlani |
| San Leandro, CA | Jackson, CA |
| Oak's Hardware | Dixon Lumber |
| Dave Hill | Bryan Bock |
| Fair Oaks, CA | Dixon, CA |
| Meineke Auto Care | Foothill Ace |
| Dave Sparks | John Norris |
| Gladstone, OR | Oregon House, CA |
| A \& J Paving | Tony Don Michael MD |
| Allen \& Joan Ashby | Bakersfield, CA |
| Reno, NV |  |
| Garden Valley Feed | Great Shape of America |
| Manuel Vieira | Steve Lubarsky |
| Garden Valley, CA | Los Angeles, CA |
| Hayward Ace Hardware | Rossi Building Materials |
| Andrew Lee | Richard Nelepovitz |
| Hayward, CA | Fort Bragg, CA |
| Cameron Ace Hardware | Divide Supply |
| Barry Pino | Jerry Hoyt |
| Cameron Park, CA | Greenwood, CA |
| Mark Bailey Plumbing | Big O Tires |
| Lisa Bailey | Scott Davis |
| Susanville, CA | Sparks, NV |
| Capital Towing | Carpets of America |
| Carson City, NV | Ray Crandell |
|  | Sparks, NV |
| Cypress Systems | Dangermond \& Assoc. Engineerin |
| Robert Crocitto | Peter Dangermond |
| Reno, NV | Sacramento, CA |


| ProSource Sales and Mkt | Wright Outdoor Center |
| :--- | :--- |
| Gail Sievers | Jim Wright |
| Sparks, NV | Sparks, NV |
| Nelson Logistics | Chase Western Cabinets |
| Jeffery Ting | Brett Zunino |
| So.San Francisco, CA | Reno, NV |
| MAACO | Consign-lt |
| Art Alvi | Bonnie Grisel |
| North Highlands, CA | Rancho Cordova, CA |
|  | Kidz Love Soccer <br> LA Pines Building Supply <br> Pat Lawrence |
| Chris Trevisan |  |
| Cupertino, CA |  |

## Appraiser's Certification

## I certify that, to the best of my knowledge and belief:

1. The statements of fact contained in this report are true and correct to the best of my knowledge and belief, subject to the assumptions and conditions stated.
2. The reported analyses, opinions and conclusions are limited only by the reported assumptions and limiting conditions and are my personal, unbiased, and professional analyses, opinions, and conclusions.
3. I have no present or prospective interest in the property that is the subject of this report, nor is my compensation dependent upon the value of this report or contingent upon producing a value that is favorable to the client.
4. I have no personal bias with respect to the parties involved or have made a full disclosure of any such bias.
5. This appraisal has been conducted and the report was written in conformity with the Business Appraisal Standards of the Institute of Business Appraisers.
6. No person except the undersigned participated materially in the preparation of this report.

C. Frederick Hall III, MBA, CBA, AVA

December 10, 2011 Date

By accepting this report, the client agrees to the following terms and conditions:

1. The appraisal report will not be given to any other party without the Appraiser's approval.
2. You agree to indemnify and hold the Appraiser, Amador Appraisals and Acquisitions, and their officers and employees harmless against and from any and all losses, claims, actions, damages, expenses, or liabilities, including reasonable attorney's fees, to which we may become subject in connection with this engagement. You will not be liable for our negligence.
3. You agree that, in the event we are judicially determined to have acted negligently in the execution of this engagement, damages shall be limited to an amount not to exceed the fee received by us for this engagement.
4. Our liability for injury or loss, if any, arising from the services we provide to you shall not exceed $\$ 5,000$ or our fee, whichever is greater. There shall be no punitive damages. Increased liability limits may be negotiated upon your written request, prior to commencement of our services, and your agreement to pay an additional fee.
5. Your obligation for indemnification and reimbursement shall extend to any controlling person of Amador Appraisal and Acquisitions, Inc., including any director, officer, employee, subcontractor, affiliate or agent.
6. If in the future the Appraiser is called upon to testify in court or at deposition regarding the written report, the Appraiser will be paid $\$ 150.00$ per hour to cover professional time, the gathering of materials, reviewing the case, and preparing for testimony along with other expenses incurred.
7. If called upon to defend this report to any other party, the Appraiser's expenses and hourly rate will be billed on a monthly basis or as incurred.
8. The client will shoulder the responsibility of legal costs incurred by the Appraiser when defending this appraisal.
9. Client agrees that the Limiting Conditions as stated in the report will be acceptable with the level of work and detail of work to be performed.
10. In the unlikely event of a dispute, the parties under the terms of this agreement shall be subject to arbitration. Arbitration shall be conducted in Amador County, California.








[^0]:    ${ }^{1}$ U.S. Internal Revenue Service, Revenue Ruling 59-60, (1959), Section 5, p. 5 http://www.hantzmonwiebel.com/live_data/documents/ruling-59-60.pdf,

[^1]:    ${ }^{2}$ Shannon P. Pratt, Robert F. Reilly, and Robert P. Schweihs, Valuing a Business: The Analysis and Appraisal of Closely Held Companies, 4th edition (New York, NY: McGraw-Hill, 2000), p 26

[^2]:    ${ }^{3}$ Internal Revenue Service, Revenue Ruling 59-60, (1959), Section 2, p. 1
    http://www.hantzmonwiebel.com/live_data/documents/ruling-59-60.pdf
    ${ }^{4}$ Ibid., p.2ff

[^3]:    ${ }^{5}$ Part of the contents of the Current Economic Outlook section of this valuation report are quoted from KeyValueData ${ }^{\text {TM }}$ National Economic Report, October 2011, Kevin R. Hopkins, reprinted with permission. The editor and author of the report caution that the information in the report should not be interpreted as advice for the preparation of valuations or other financial counseling. Usage and application are the sole responsibility of the appraiser.
    6 "Economic Update", Pratt's Stats Private Deal Update, (Business Valuation Resources, Portland OR, 3Q 2011) p. 18

[^4]:    ${ }^{7}$ Michael Pakko, "Deficit, Debt, and Looming Disaster," Regional Economist, (St. Louis Federal Reserve Bank, January 2009) p. 7

[^5]:    ${ }^{8}$ Buildfax Remodeling Index, http://www.buildfax.com/public/remodeling/index.html, October 2011. The index is based on building permits filed with local building departments across the country.
    ${ }^{9}$ Ibid., p. 1
    ${ }^{10}$ "IBISWorld Industry Report - Lumber and Building Material Stores in the US-44419," IBISWorld, Inc. October 2011, p. 9
    ${ }^{11}$ "IBISWorld Industry Report - Glass and Glazing Contractors in the US-23815," IBISWorld, Inc. November 2011, p. 4

[^6]:    ${ }^{12}$ U.S. Census Bureau, American Community Survey-1990-2009, searched December 2011, http://factfinder.census.gov/servlet/DatasetMainPageServlet?_program=ACS\&_submenuId=datasets_1\&_lang= en\&_ts=

[^7]:    ${ }^{13}$ "Economic Outlook," Governor's Budget Summary - 2011-2012, p. 35
    ${ }^{14}$ Industry data presented in this section is extracted from "IBISWorld Industry Report-44411, Home Improvement Stores in the US," IBISWorld, Inc., December 2010, p.7ff, and "IBISWorld Industry Report44419, Lumber and Building Material Stores in the US," IBISWorld, Inc., October 2011, p.6ff and "IBISWorld Industry Report-23815, Glass and Glazing Contractors," IBISWorld, Inc., November 2011, p.4ff

[^8]:    ${ }^{15}$ Board of Governors of the Federal Reserve System, "Minutes to the Federal Open Market Committee August 9, 2011," http://www.federalreserve.gov/monetarypolicy/fomcminutes20110809.htm

    16 "Economic Update", Pratt's Stats Private Deal Update, (Business Valuation Resources, Portland OR, 3Q 2011) p. 18
    ${ }^{17}$ U.S. Department of Commerce-Bureau of Economic Analysis, Gross Domestic Product by Industry Accounts-Table 1.5.5 Released November 22, 2011, http://www.bea.gov/industry/gpotables/gpo_action.cfm?anon=979267\&table_id=27017\&format_type=0, Line 1 and 63

    18"IBISWorld Industry Report-44419, "Lumber and Building Material Stores in the US," IBISWorld, Inc. October 2011, p. 10

[^9]:    ${ }^{19}$ California State Department of Transportation, Division of Traffic Operations, "2010 Traffic Volumes on California State Highway System," p. 64

[^10]:    ${ }^{21}$ Bizminer, 5 year report - SIC Code 17, 5031, and 5211, searched at www.bizminer.com, on December 7, 2011

[^11]:    ${ }^{22}$ Bizminer, 5 year report - SIC Code 17, 5031, and 5211, searched at www.bizminer.com, on December 7, 2011
    ${ }^{23}$ Industry revenues were totaled from the Key Statistics sections of the three industry reports: "IBISWorld Industry Report-44411, "Home Improvement Stores in the US," IBISWorld, Inc., December 2010, p.32, and "IBISWorld Industry Report-44419, "Lumber and Building Material Stores in the US," IBISWorld, Inc., October 2011, p. 31 and "IBISWorld Industry Report-23815, "Glass and Glazing Contractors," IBISWorld, Inc., November 2011, p. 33.

[^12]:    ${ }^{24}$ Bizminer, 5 year report - SIC Code 17, 5031, and 5211, searched at www.bizminer.com, on December 7, 2011

[^13]:    ${ }^{25}$ U.S. Internal Revenue Service, Revenue Ruling 68-609, (1968), p. 1 http://www.aticg.com/Documents/Revenue/RevRule68-609.pdf
    ${ }^{26}$ Uniform Standards of Professional Appraisal Practice-USPAP, The Appraisal Foundation, Washington D.C. 2010-2011 Edition, Standards Rule 9-3, http://www.uspap.org/index.htm

[^14]:    ${ }^{27}$ U.S. Internal Revenue Service, Revenue Ruling 59-60. (1959), Section 4, p. 2 http://www.hantzmonwiebel.com/live_data/documents/ruling-59-60.pdf

[^15]:    ${ }^{29}$ Business Appraisal Workshop (R-11/99) \#8001, Institute of Business Appraisers Training manual, 1999, ch.2, p. 12
    30 "Gross v. Commissioner," T.C. Memo 1999-254 (U.S. Tax Ct. July, 29,1999), affirmed 272 F.3d (6 $6^{\text {th }}$ cir. Nov 19,2001), http://www.bvresources.com/FreeDownloads/GrossvCommissioner.pdf Facts p. 4 Para 8
    ${ }^{31}$ IBID, p. 13
    32 "Bernier v Bernier," the Massachusetts Family Court of Law, July 28, 2000, http://www.suffolk.edu/sjc/archive/opinions/SJC_09836, p.3.
    33 "Delaware Open MRI Radiology Assocs. v. Kessler," 898 A. 2d, 327 (Del. Ct. Ch. 2006), http://www.bvresources.com/FreeDownloads/MRI.pdf p.54-55.

[^16]:    ${ }^{34} 2011$ Ibbotson Stocks, Bonds, Bills, and Inflation Valuation Yearbook, Morning Star, Inc., New York. p. 27

[^17]:    ${ }_{36} 2011$ Ibbotson Stocks, Bonds, Bills, and Inflation Valuation Yearbook, Morning Star, Inc., New York. p. 44
    ${ }^{36}$ Ibid., p. 66 Table 5-6.

[^18]:    ${ }^{37}$ Ibid., p. 43
    ${ }^{38}$ Ibid., p. 83
    ${ }^{39}$ Ibid., p. 83

[^19]:    ${ }^{40}$ Windows-Bldg Materials revenues for 2001 to present were totaled from the Key Statistics sections of the three industry reports: "IBISWorld Industry Report-44411, "Home Improvement Stores in the US," IBISWorld, Inc., December 2010, p.32, and "IBISWorld Industry Report-44419, "Lumber and Building Material Stores in the US," IBISWorld, Inc., October 2011, p. 31 and "IBISWorld Industry Report-23815, "Glass and Glazing Contractors," IBISWorld, Inc., November 2011, p. 33.
    Statistics from 1977 to 1997 were compiled from Bureau of Economic Analysis, "GDPbyInd_GO_SIC.xls", sectors: Lumber and Building Materials (line112), Lumber and other Building Materials-Glass stores (line 128), and Hardware Stores (line 129), http://www.bea.gov/industry/iedguide.htm\#gdpia_ad_df
    Statistics on GDP, Consumption, and Investment-Residential are from Bureau of Economic Analysis-table 1.5.5., http://www.bea.gov/iTable/iTable.cfm?ReqID=9\&step=1
    ${ }^{41} 41$ "IBISWorld Industry Report-44411, "Home Improvement Stores in the US," IBISWorld, Inc. December 2010, p. 12

[^20]:    42 "Control Premium Study, $4^{\text {th }}$ Quarter 2008," Factset Mergerstat, LLC./ BVR Control Premium Study (Santa Monica, 2009) , http://www.bvmarketdata.com/pdf/CPS4q08Final.pdf, December 10, 2011, p. ii
    ${ }^{43}$ Shannon P. Pratt, Business Valuation Discounts and Premiums, (New York: John Wiley and Sons, Inc., 2001) p. 20

[^21]:    44 "Current Updates in Valuation, National Association of Certified Valuation Aanalysts, (Salt Lake City, Utah: NACVA, 2007-2009) p. 161 www.nacva.com
    ${ }^{45}$ Shannon P. Pratt. Business Valuation Discounts and Premiums, New York, John Wiley and Sons, Inc., 2001, p. 46

[^22]:    ${ }^{46}$ The data are 12 -month median control premiums for the $4^{\text {th }}$ quarter of each year. Factset Mergerstat, LLC. "Control Premium Study," $4^{\text {th }}$ Quarter 1999-2008, p. 4
    ${ }^{47}$ Shannon P. Pratt. Business Valuation Discounts and Premiums, New York, John Wiley and Sons, Inc., 2001, p. 59 and 60
    ${ }^{48}$ Ibid., p. 49

[^23]:    ${ }^{49}$ Source of Chart: Rand M. Curtiss, "Developing and Defending Fractional Interest Valuation Premiums and Discounts" (Plantation, FL: The Institute of Business Appraisers, Inc., 2003), p 43.
    ${ }^{50}$ The factors table method was presented in the National Association of Certified Valuation Analysts, "Current Update in Valuations," NACA, 2009, p. 164-5

[^24]:    ${ }^{51}$ Shannon P. Pratt, Robert F. Reilly, and Robert P. Schweihs, Valuing a Business: The analysis and appraisal of closely held companies, 4th edition (New York, NY: McGraw-Hill, 2000), p 26.
    ${ }^{52}$ The Appraiser has been a business broker with Murpy Business and Financial and Sunbelt Business Brokers. Typical sales commissions charged by these two institutions were $10 \%$ on the first million dollars, $8 \%$ on the second million dollars, $6 \%$ on the third million on $4 \%$ on four million dollars and above. The Appraiser has also represented numerous sellers whose legal, accounting and escrow costs were as high as $\$ 125,000$ on a four million dollar transaction and as low as $\$ 1,000$ on a $\$ 100,000$ transaction.

[^25]:    ${ }^{53}$ Shannon P. Pratt, Business Valuation Discounts and Premium, (New York: John Wiley \& Sons, Inc. 2001), p. 173
    ${ }^{54}$ Ibid., p. 81

[^26]:    ${ }^{1}$ The average was $32.6 \%$ for OTC companies not required to file reports with the Securities and Exchange Commission.
    ${ }^{2}$ Median
    ${ }^{3}$ Median was $14.0 \%$
    ${ }^{4}$ Median was $9.0 \%$

[^27]:    55 "Discounts Involved in Purchases of Common Stock," Volume 5:2444-2456, Document No. 91-65, Part 5 Institutional Investor Study Report of the Securities and Exchange Commission, U.S. Government Printing Office, March 10, 1971
    ${ }^{56}$ Milton Gelman, "An Economist-Financial Analyst's Approach to Valuing Stock of a Closely Held Company," Journal of Taxation, June 1972, p.353-354
    ${ }^{57}$ Robert R. Trout, "Estimation of the Discount Associated with the Transfer of Restricted Securities," Taxes, June 1977, p. 381-385
    ${ }^{58}$ Robert E. Moroney, "Most Courts Overvalue Closely Held Stocks," Taxes, March 1973, p144-155
    ${ }^{59}$ Michael J. Maher, "Discounts for Lack of Marketability for Closely Held Business Interest," Taxes, September 1976, p.562-571
    ${ }^{60}$ William F. Pittock, and Stryker, Charles H., "Revenue Ruling 77-287 Revisited," SRC Quarterly Reports, vol. 10, no. 1 (Spring 1983) p.1-3

[^28]:    ${ }^{61}$ William L. Silber, "Discounts on Restricted Stock: the Impact of Illiquidity on Stock Prices," Financial Analysts Journal," July-August 1991, p.60-64
    ${ }^{62}$ Lance S. Hall, and Timothy C. Ploacek, "Strategies for Obtaining the Largest Valuation Discounts,"Estate Planning, (January/February 1994), p.38-44
    ${ }^{63}$ Robert P. Oliver and Roy H. Meyers, "Discounts Seen in Private Placemsnts of Restricted Stock: The Management Planning, Inc. Long-Term Study (1980-1996), Ch. 5 in Handbook of Advanced Business Valuation, Robert F. Reilly and Robert P. Schweihs, eds. (New York:Mc Graw-Hill, 2000)
    ${ }^{64}$ Bruce Johnson, "Restricted Stock Discounts, 1991-1995," Shannon Pratt's Business Valuation Update, (March 1999), p.1-3
    ${ }^{65}$ Kathryn F. Aschwald, "Restricted Stock Discounts Decline as a Result of 1-Year Holding Period," Shannon Pratt's Business Valuatin Update, (May 2000), p. 1-5

[^29]:    66 "Discounts for Lack of Marketablity, Emory Pre-IPO Discount Studies 1980-2000" Business Valuation Review, John Emory Sr, FR Dengel III and John Emory Jr., 2002
    ${ }^{67}$ Shannon P. Pratt. Business Valuation Discounts and Premiums, (New York: John Siley \& Sons, Inc., 2001) p.83-4

[^30]:    ${ }^{68}$ U.S. Internal Revenue Service, Revenue Ruling 59-60, (1959), Section 4, p. 2 http://www.hantzmonwiebel.com/live_data/documents/ruling-59-60.pdf
    ${ }^{69}$ Methodology and chart adapted from: Rand M. Curtiss, "Developing and Defending Fractional Interest Valuation Premiums and Discounts" (Plantation, FL: The Institute of Business Appraisers, Inc., 2003), p 43

[^31]:    ${ }^{70}$ U.S. Internal Revenue Service, Revenue Ruling 59-60, (1959), Section 3, p. 2 http://www.hantzmonwiebel.com/live_data/documents/ruling-59-60.pdf

[^32]:    ${ }^{71}$ Raymond C. Miles, "Technical Studies of the IBA Transactional Database", (Plantation, FL: Institute of Business Appraisers, Inc. 2003), part XXXIII, p 1.
    ${ }^{72}$ Paul R. Hyde, "When Should the Public Company Guideline Method be Used?", Business Appraisal Practice (Plantation, FL:Institute of Business Appraisers, Inc., Spring 2004), pp 2-5
    73 "Public Stats- SIC $17^{* *}, 5211$, 5031," Business Valuation Resources, LLC, http://www.bvmarketdata.com, searched 12/18/11

[^33]:    74 "Mergerstats- SIC $17^{* *}$, 5031, 5211," Business Valuation Resources, LLC, http://www.bvmarketdata.com , searched on $12 / 18 / 2011$

[^34]:    ${ }^{75}$ Market Value Multipliers are the factors applied to the revenues or cash flow of the subject to calculate its fair market value. An in depth discussion can be found in Paragraph 7.3.
    ${ }^{76}$ Raymond C. Miles, "Technical Studies of the IBA Transaction Database," (Plantation, FL: The Institute of Business Appraisers, Inc., 2002), from "How to Use the IBA Market Database", p. 4
    ${ }^{77}$ Gary R. Trugman, "Using the Market Approach to Value Small and Medium-Sized Businesses," (Orlando FL: a paper presented at the Institute of Business Appraisers' 1996 National Conference), p. 14

[^35]:    ${ }^{78}$ Shannon Pratt, The Market Approach to Valuing Businesses, (John Wiley and Sons, Inc., 2001), p. 68

[^36]:    ${ }^{79}$ Gary Trugman, Understanding Business Valuations: A Practical Guide to Valuing Small to Medium Sized Businesses. (New York: American Institute of Certified Public Accountants, 1988), p. 150
    ${ }^{80}$ Jack Sanders, "BIZCOMPS User Guide," (Las Vegas, NV, 2004), p. 7

[^37]:    ${ }^{81}$ Shannon P.Pratt, The Market Approach to Valuing Businesses, (New, York, John Wiley \& Sons, Inc.), p.xxxiv

[^38]:    ${ }^{82}$ U.S. Department of Labor- OSHA Division, http://www.osha.gov/pls/imis/sicsearch.html

[^39]:    ${ }^{83}$ Shannon Pratt, The Market Approach to Valuing Businesses, (John Wiley and Sons, Inc., 2001), p. 212
    ${ }^{84}$ Ibid., p. 133

[^40]:    ${ }^{85}$ Internal Revenue Service, Revenue Ruling 59-60, 1959, http://www.hantzmonwiebel.com/live_data/documents/ruling-59-60.pdf, section 5, p. 5

[^41]:    ${ }^{86}$ The database was first filtered by removing all transactions where Cash Flow Multipliers were greater than 10 or less than 0 , and all corporate stock transfers. There were 4,811 transactions in this filtered sample.

[^42]:    ${ }^{87}$ Shannon Pratt, The Market Approach to Valuing Businesses. (New York: John Wiley \& Sons, Inc, 2000), p. 134

[^43]:    ${ }^{88}$ Uniform Standards of Professional Appraisal Practices. The Appraisal Foundation, Washington, D.C., 2000 editions, Standards Rule 9-4(b)(iii), p. 64
    ${ }^{89}$ Ibid., Standards Rule 9-2, p. 63

[^44]:    ${ }^{90}$ U.S. Internal Revenue Service, Revenue Ruling 59-60, 1959, http://www.hantzmonwiebel.com/live_data/documents/ruling-59-60.pdf, section 5, p. 5
    ${ }^{91}$ Uniform Standards of Professional Appraisal Practice. The Appraisal Foundation, Washington, D.C., 2000, p. 65

[^45]:    ${ }^{92}$ U.S. Internal Revenue Service, Revenue Ruling 68-609. 1968, p. 1 http://www.aticg.com/Documents/Revenue/RevRule68-609.pdf

[^46]:    ${ }^{93}$ The Appraiser does SBA loan valuations for several regional banks. The loan officers with Plumas Bank, River City Bank, and Five Star Bank indicated that 1.25 to 1.50 was their minumum cash flow coverage ratio for retail businesses. An $85 \%$ loan-to-value loan less than $\$ 1$ million averaged Prime $+2.75 \%$ for ten years. (Prime is at $3.25 \%$ as of the date of this valuation.)

[^47]:    ${ }^{1}$ Bizcomps ${ }^{\circledR}$ and Pratt's Stats $®$ data are obtained from Business Valuation Resources website www.bvmarketdata.com, and IBA data is obtained from ValuSource website - www.vswebapp.com. or the Institute of Business Appraisers (IBA) website - www.go-iba.org.
    ${ }^{2}$ Nancy Fannon \& Heidi Walker, "The Comprehensive Guide to the Use and Application of the Transaction Databases," 2009 Edition, Business Valuation Resources, LLC
    ${ }^{3}$ Ibid., p.2-3
    ${ }^{4}$ Pratt's Stats FAQs, "Definitions: What is the Legend for Pratt's Stats Income Data," from the Business
    Valuation Resources website, http://www.bvmarketdata.com. p. 3

[^48]:    ${ }^{5}$ Pratt's Stats FAQs, "Definitions: What is the Legend for Pratt's Stats Income Data," from the Business Valuation Resources website, http://www.bvmarketdata.com. p.2-5.
    ${ }^{6}$ Earn-outs are that portion of the selling price of a business that are conditional payments. These are payments that a seller will only receive if the buyer achieves certain sales or profitabilty goals in the future. Since they are amounts that cannot be determined as of the sale date, they are generally excluded from the reported selling price of the business.
    ${ }^{7}$ Ibid., p.2-3f.
    ${ }^{8}$ Ibid., p.3-3f.

[^49]:    ${ }^{9}$ Raymond C. Miles, "How to Use the IBA Market Data Base", Part XXVIII, 1999 p.2. (Excerpt obtained by request from Dave Miles of ValuSource)
    ${ }^{10}$ Market Analysis Tutorial \#3 on IBA website, "IBA Transactional Database Fundamentals," http://go-iba.org/market-data/tutorials/index.html, 2009, p. 1
    ${ }^{11}$ Nancy Fannon \& Heidi Walker, "The Comprehensive Guide to the Use and Application of the Transaction Databases," 2009 Edition, Business Valuation Resources, LLC, p.2-8

[^50]:    ${ }^{12}$ Pratt's Stats FAQs, "Definitions: What is the Legend for Pratt's Stats Income Data," from the Business Valuation Resources website, http://www.bvmarketdata.com. p. 2
    ${ }^{13}$ Jack Sanders, "Bizcomps 2011 User Guide," Business Valuation Resources, 2011. P. 16
    ${ }^{14}$ Ibid., p. 7

[^51]:    ${ }^{15}$ Raymond C. Miles, "How to Use the IBA Market Data Base," Part XXVIII, 1999 p.2. (Excerpt obtained by request from Dave Miles of ValuSource.)

[^52]:    ${ }^{16}$ Pratt's Stats FAQs, "Definitions: What is Typically Assumed to Be Transferred in a Stock Sale," from the Business Valuation Resources website, http://www.bvmarketdata.com. p. 9
    ${ }^{17}$ Nancy Fannon \& Heidi Walker, "The Comprehensive Guide to the Use and Application of the Transaction Databases," 2009 Edition, Business Valuation Resources, LLC, p.2-3

[^53]:    ${ }^{18}$ Market Analysis Tutorial \#3 on IBA website, "IBA Transactional Database Fundamentals," http://go-iba.org/market-data/tutorials/index.html, 2009, p. 1

