

Solar Energy: Balancing Interests in Real Property

By Michael J. Amen

(Editor's note: The following is a condensed version of an article that is available in its complete form at www.shenehon.com, under the "Articles" tab.)

At a time when climate change is having a widespread impact on the world's ecosystem, the need to expedite development of renewable energy sources is vital. A rising source of renewable energy is solar or photovoltaic cells, the fastest growing source of renewable energy in America, according to a report from the American Petroleum Institute (API). While solar energy currently accounts for less than one percent of the total electricity generation in the United States, it is gradually becoming more affordable and consequently, more popular. The number of new installations has skyrocketed. Almost 30 percent of the electric-generating capacity brought on-line in the United States in 2015 was solar.

To encourage installation of solar panels, more than 30 states have adopted legislation providing solar protections. While it is imperative that state and local governments be proactive in developing land planning policies that foster growth in renewable energy, it is equally important to maintain the rights of individual property owners.

Hypothetical Case Studies: Solar Panels Versus Trees

To help visualize this, let's look at two hypothetical situations involving two property owners, Sunny Savings and Debbie Developer. Sunny is an eco-conscious consumer who rides his bike everywhere, composts his organic waste in his garden, and has recently taken an interest in renewable energy, spe-

continued on page 5

Market Trends and Indicators

Office Buildings—Downtown	↑	3.0%
Office Buildings—Suburban	↑	1.0%
Retail Centers	↑	2.0%
Industrial Buildings	↑	2.0%
Apartments	↑	3.0%
New Housing Starts—Midwest	↑	12.5%
Productivity	↓	-0.6%
US Unemployment	↓	4.9%
Consumer Confidence Index	→	101.1

Statistics reflect year over year change through August 2016.

In This Issue ...



Impact of Solar Initiatives on Value

page 1

Measuring a Company's Risk of Bankruptcy

page 2

The Complexity of Valuation Standards: Making Sense of the Acronyms

page 3

Market Trends and Indicators

page 4

Real Estate Transaction

page 10

Market Transaction: Land O'Lakes Acquires Ceres

page 11



Measuring a Company's Risk of Bankruptcy

by Mark T. Jude

In the world of finance there are many different types of risk and even more ways that attempt to measure or estimate that risk. There are a numerous models and methods to estimate the risk of a company's equity or debt, which are important in determining value. But what about estimating a company's risk of bankruptcy?

When Shenehon Company values a business, it calculates the business's Altman Z-Score, which looks at a company's risk of bankruptcy. The Altman Z-Score model measures a company's probability of bankruptcy within two years using financial ratios. Instead of looking at financial ratios independently, this model uses multiple ratios to get a complete view of the company as a whole. Ratios in the model look at liquidity, profitability, leverage and operational activity. Each ratio on its own reveals important infor-

mation and may highlight points of risk for the company, but the Z-Score measures the overall risk of the company.

The Altman Z-Score model measures a company's probability of bankruptcy within two years.

This model was created in 1968 by Edward Altman, who is still a Professor of Finance in the Stern School of Business at New York University. The original model was created for

public companies and Altman later created two additional Z-Score models: one for private manufacturing companies and another for private non-manufacturing companies. For private business valuation we look at the latter two models.

Z-Score Model for Private Manufacturing Companies

The model for private manufacturing companies consists of five weighted factors:

1. Working Capital to Total Assets Ratio
2. Retained Earnings to Total Assets Ratio
3. EBIT (earnings before interest and tax) to Total Assets Ratio
4. Book Value of Equity to Book Value of Total Liabilities Ratio
5. Sales to Total Assets Ratio

Factor 1 measures the liquidity (current assets minus current liabilities) of the company compared to its assets, in this case net current assets as a percentage of the total asset base. Factor 2 measures the financial leverage of the company, with the difference between the two metrics implying debt or other liabilities. Factor 3 measures the profitability of the company relative to its assets. Factor 4 is another measure of the company's financial leverage, looking at total capital. Factor 5 measures the company's ability to generate sales with its current level of assets. After the ratios are calculated they are entered into the Z-Score formula shown below:

$$\text{Z-Score} = 0.717(F1) + 0.847(F2) + 3.107(F3) + 0.42(F4) + 0.998(F5)$$

To interpret the Z-Score one must compare it to three scoring ranges. A score above 2.9 indicates that bankruptcy is not likely. A score between 2.9 and 1.23 is known as the "grey" zone where bankruptcy may occur but is not imminent. A score below 1.23 indicates the company is distressed and is likely to file for bankruptcy within two years.

Z-Score Model for Private Non-Manufacturing Companies

The model for private non-manufacturing companies is altered slightly. This model omits Factor 5 and has different weighting and scoring ranges. The model for private non-manufacturing companies is shown on page 8.

continued on page 8



The Complexity of Valuation Standards: Making Sense of the Acronyms

by Joseph M. Mau

The various business valuation organizations rely on different valuation standards. What are they and how do they impact you?

- The American Society of Appraisers Business Valuation (ASA) business valuation standards are to be used with the Uniform Standards of Professional Appraisal Practice (USPAP), developed by the Appraisal Foundation.
- The American Institute of CPAs (AICPA) valuation standards are the Statement on Standards for Valuation Services (SSVS).
- The International Society of Business Appraisers (ISBA) valuation standards are three sections of USPAP (Standard 3: Appraisal Review, Development and Reporting, Standard 9: Business Appraisal, Development, and Standard 10: Business Appraisal, Reporting).
- The Institute of Business Appraisers (IBA) has developed its own valuation standards.
- The National Association of Certified Valuators and Analysts (NACVA) has developed its own standards.

Although some of these organizations have identified their own valuation standards, the one standard that is relied on above all else is USPAP. USPAP is the only standard mentioned by the IRS in its definitions of qualified appraiser and qualified appraisal and is the standard followed in Shenhon Company valuations. That does not discredit the other standards as they are still able to meet IRS requirements for a qualified appraisal; they just are not mentioned by the IRS.

The biggest difference between all of the organizations listed above is the difference in their engagements and reporting. There are two different types of engagements: valuation engagements and calculation engagements. For a valuation engagement, two different reports can be prepared. There is an

appraisal, also known as a detailed report, which is a comprehensive report that provides sufficient information to permit intended users to understand the data, reasoning, and analyses of the valuation analyst's conclusion of value. There is also a restricted appraisal (USPAP and ISBA) also known as a limited appraisal or summary report. A restricted appraisal is structured to provide an abridged version of the information that would be provided in a full appraisal, and therefore, it does not require the same level of detail as a full appraisal.

USPAP is the only standard mentioned by the IRS in its definitions of qualified appraiser and qualified appraisal.

A calculation engagement results in a calculation report. A calculation report is in some regards similar to a summary report but the valuation analyst and client agree in advance on the approaches and methods that will be used as well as the extent of procedures that will be used to calculate the value of a business or interest, and the valuation analyst must follow that arrangement. Calculation engagements are also required to include the following statement: "This Calculation Engagement did not include all the procedures required for a Conclusion of Value. Had a Conclusion of Value been determined, the results may have been different." This statement shows that a calculation engagement is not a conclusion of value and would not hold up in court. On page 9 is a chart of the all the organizations and the reports they perform.

When it comes to the valuation societies, each organization has preference on which engagements are used. For USPAP and ISBA, only valuations are performed and calculation engagements are not

continued on page 9



Market Trends and Indicators

Economic Indicator

	2009	2010	2011	2012	2013	2014	2015	JULY 2016
New Housing Starts—Midwest Yearly Totals	97,100	97,900	100,900	127,900	149,600	165,200	170,600	105,700

P/E Ratios in Select Industries

Industry (by year)	2010	2011	2012	2013	2014	2015
Basic Materials	15.0	16.0	10.7	10.4	11.8	*
Construction	5.3	5.8	6.5	7.1	6.0	5.2
Manufacturing	8.5	10.4	10.2	9.4	9.8	16.4
Wholesale Trade	6.6	8.3	7.4	9.6	8.5	7.1
Retail Trade	5.1	4.9	5.1	6.2	6.3	5.0
Transportation & Warehousing	6.7	5.9	5.6	5.6	5.8	5.2
Information	10.2	11.5	11.3	6.8	15.2	6.1
Finance & Insurance	9.3	7.2	6.4	7.1	8.1	5.2
Professional Services	7.8	10.2	7.3	7.9	9.9	5.9
Healthcare	5.8	9.3	5.2	6.9	6.6	7.1

* Insufficient data

Economic Indicators

Indicator	2005	2010	2011	2012	2013	2014	2015	2016
Inflation	3.4%	1.6%	3.1%	2.1%	1.5%	1.6%	1.4%	0.8% (July)
Productivity	1.8%	1.5%	0.8%	0.9%	0.0%	0.7%	2.1%	−0.6% (June)
GDP	3.1%	3.0%	1.7%	2.2%	1.9%	2.4%	2.4%	1.1% (June)
Consumer Confidence	107.2	62.0	70.8	72.2	78.1	92.6	115.3	101.1 (August)

Unemployment

	2000	2005	2010	2011	2012	2013	2014	2015	JULY 2016
US	4.0%	5.3%	9.4%	8.5%	7.8%	6.7%	5.6%	5.0%	4.9%
Northeast	4.0%	4.9%	8.4%	8.0%	8.1%	7.3%	5.6%	4.9%	4.8%
Midwest	3.5%	5.7%	8.7%	7.9%	7.2%	6.9%	5.6%	4.7%	4.5%
South	4.0%	5.2%	9.3%	8.4%	7.3%	6.7%	5.2%	5.2%	4.7%
West	4.6%	5.5%	11.0%	8.5%	8.6%	7.6%	6.3%	5.4%	5.3%
Minnesota	2.9%	4.5%	7.0%	5.7%	5.4%	4.6%	3.6%	3.5%	3.9%

Rates of Return and Risk Hierarchy

Investment

30 Year Treasury	2.23%
Aaa Bond	3.37%
Bbb Bond	4.22%
Commercial Mortgage	3.75–5.0%
Institutional Real Estate	5.75–7.0%
Non-Institutional Real Estate	8.0–10.0%

Investment

S & P Equity (Duff & Phelps)	8.83%
Equipment Finance Rates	10.0–12.0%
Speculative Real Estate	11.0–16.0%
NYSE/OTC Equity (Duff & Phelps)	12.57%
Land Development	12.0–25.0%
NYSE Sm Cap. Equity (Duff & Phelps)	17.77%

Sources: Appraisal Institute, Business Week, Value Line, U.S. Chamber of Commerce, Standard & Poors, Investment Dealers Digest, U.S. Government Census, Bureau of Labor Statistics, Duff & Phelps, PwC Real Estate Investor Survey, The Conference Board, Pratt's Stats®. Shenehon Company makes every effort to ensure the accuracy of the information published in *Valuation Viewpoint*. Shenehon Company uses only those sources it determines are accurate and reliable, but makes no guarantee with regard to the information presented.



Solar Energy *continued from page 1*

cifically solar panels. Debbie is a real estate mogul who has made her fortune building and selling luxury hotels, resorts, and golf courses and believes real

estate development is an essential part of the economy that should not be restricted.

Land planning regulations have begun to, and will likely continue to, promote the installation of solar systems, but at what cost?

Scenario One: Sunny wants to construct a \$30,000 solar panel system on his home and anticipates that it will take 10 to 12 years to recoup his initial cost. Debbie recently purchased the property to the west of Sunny's property and would like to plant

a grove of trees along the border between her property and Sunny's. These trees will cast shadows onto Sunny's property and will hinder the solar access of his system, at times blocking nearly all of the sunlight from reaching his panels. In this scenario, Sunny's solar system will produce far less electricity than a system with unobstructed access to the sunlight, which results in a diminished opportunity to save money on his utility bills and will impact his return on investment.

If the government wants to promote renewable energy sources, shouldn't it protect Sunny and his investment in a photovoltaic system? Land planning regulations have begun to, and will likely continue to, promote the installation of solar/photovoltaic systems, but at what cost?

Scenario Two: Sunny has once again installed a photovoltaic system on his property. Before the installation, Debbie purchased the vacant lot to the west of Sunny's property and is looking to escape the rush of a life in real estate development in a charming cottage that she plans to construct on the property. Their properties are located on a hill that slopes downward towards the east, such that even though Debbie is only proposing a small, single-story home, it will still block sunlight from reaching Sunny's solar

panels. Debbie is aware of this, but she is also familiar with the famous "spite fence" case, *Fontainebleau Hotel Corp. v. Forty-Five Twenty-Five, Inc.* (1959) in which the courts ruled that "there being, then, no legal right to the free flow of light and air from the adjoining land, it is universally held that where a structure serves a useful and beneficial purpose, it does not give rise to a cause of action, either for damages or for an injunction."

Based on the *Fontainebleau* decision, no property owner in America has the right to the free flow of light so Debbie should be in the clear, right? What she is not aware of is that the *Fontainebleau* decision has not always held true when solar energy is involved. In *Prah v. Maretti*, a homeowner that installed a solar panel system on his roof sued an adjacent property owner, who had proposed the development of a residential building on his property. The plaintiff claimed that the residence would block sunlight to his solar panels and constituted a private nuisance. The Wisconsin Supreme Court ruled in favor of the plaintiff because he was using the sunlight not just for aesthetic purposes, but as a source of energy. The Wisconsin Supreme Court concluded that the law of private nuisance protects the plaintiff from obstruction of access to sunlight, claiming that "access to sunlight as an energy source is of significance both to the landowner who invests in solar collectors and to a society which has an interest in developing alternative sources of energy."

The Wisconsin Supreme Court concluded that the law of private nuisance protects a solar panel owner from obstruction of access to sunlight.

The bottom line is that there are two interests in real property at stake here and both must be considered to arrive at a conclusion that is fair for each

continued on page 6



IMPACT OF SOLAR INITIATIVES ON PROPERTY VALUE

The rising popularity of solar panels and community solar gardens (see adjoining article) is prompting research to determine the impact of solar initiatives on property value. A potential negative effect on the value of adjoining property is the primary reason for neighborhood opposition to solar panels and gardens. So what is the research saying?

Solar panels

A 2015 study sponsored by the U.S. Department of Energy looked at home sales data in eight states from 2002 to 2013 found that buyers are willing to pay more for homes with rooftop solar panels. The research concluded that homes with an average size solar system sold for \$15,000 more than a similar home without solar panels. The study analyzed 23,000 sales transactions, including 4,000 transactions of homes with solar panels. The premium paid by purchasers was for solar systems owned by the homeowner, not leased systems.

Solar gardens

The most commonly cited research on the value impact of nearby solar gardens is a 2014 North Carolina study by Kirkland Appraisals, LLC. This study conducted a matched pair analysis of residential and agricultural properties adjoining three existing or proposed North Carolina solar gardens and found “no impact” on the sale price of these properties.

Fixed-panel solar garden operations that were part of the study produced no byproducts that generally detract from value. With solar panels reaching just 10 feet in height, there were no appearance/visual issues with the solar farms and the panels were significantly shorter than a two-story residence. There was no audible noise, no odor, no hazardous materials, and inconsequential traffic resulting from the gardens. The report concluded that fixed-panel solar gardens with adequate setback and screening should “maintain or enhance the value of contiguous properties.”

Solar Energy *continued from page 5*

party. State and local governments need to take proactive steps to ensure that solar energy is encouraged while simultaneously balancing the rights of surrounding property owners. Many states have already taken such steps, enacting solar access laws to protect property owner access to sunlight. These can generally be grouped into four categories: prohibition of covenants, conditions, and restrictions; solar easements; solar shading laws; and solar access regulations by local zoning authorities.

Prohibition of Covenants, Conditions, and Restrictions

Over 20 states have passed legislation that prevents homeowners associations and other common interest developments from restricting the installation of solar energy. This legislation will limit “NIMBY” (not in my back-yard) fights and is certainly a step in the right direction. Furthermore, developers and homeowners associations could work in tandem with solar energy companies to bring large-scale, wholesale solar panel systems to residential communities. This idea is already being implemented around the country with “green” common interest communities that have Covenants, Conditions, and Restrictions that require homes to be environmentally friendly and sustainable. Overall, prohibiting covenants, conditions, and restrictions that ban solar panels works well to prevent common interest communities from holding back photovoltaic development with unwarranted regulations.

Solar Easements

More than 30 states have enacted solar easement legislation. Solar easements can restrict surrounding landowners from developing their land in any way that would interfere with the rights of a landowner to receive sunlight to their solar panels. Typical solar easements include height restrictions placed on structures and vegetation that could impair the passage of sunlight onto the dominant estate (the land that benefits from the easement). These easements are negotiated between the two parties and



often involve compensation for the servient estate (the land that is burdened by the easement). Given the already heavy price tag of photovoltaic systems, an added cost for a solar easement could render the investment economically unfeasible. However, the easement protects the solar panel owner from the risk of obstruction of sunlight to their system and provides a mechanism to reach an agreement without resorting to litigation.

Solar Shading Regulations

Only two states have enacted the third form of solar access protections, California and Wisconsin. Under California's Solar Shade Control Act, a tree or shrub placed after the installation of a solar collector cannot cast a shadow greater than ten percent of a solar collector's absorption surface between 10 a.m. and 2 p.m. local standard time. All trees and shrubs that have been or will be planted prior to the installation of a solar panel system are exempt from the restrictions of the Solar Shade Control Act.

Local Zoning Authority Creates Solar Access Regulations

The final type of solar access legislation is permitting local zoning authorities to include solar access regulations in their zoning ordinances and comprehensive plans. Zoning ordinances include area, height, and placement regulations including minimum lot sizes, maximum height, and required setbacks from the front, rear, and sides of each lot. These regulations are useful for balancing the rights of each property owner. Property owners that have photovoltaic systems have protections for these systems with "solar setbacks" that account for the height of neighboring structures, the angle of the light, and the slope of the lot. Moreover, the impact of these systems on surrounding property owners can be mitigated by regulations controlling aesthetic effects, such as glare, with setback and screening requirements. Proper zoning and land planning regulations can prevent many disputes between property owners from

continued on page 8



Risk of Bankruptcy *continued from page 2*

$$\text{Z-Score} = 6.56(F1) + 3.26(F2) + 6.72(F3) + 1.05(F4)$$

For this model a score above 2.6 indicates that bankruptcy is unlikely and a score under 1.1 indicates that bankruptcy is likely, while a score between 2.6 and 1.1 is the “grey” zone and is not a clear indicator. According to *Predicting Financial Distress of Companies: Revisiting the Z-Score and ZETA Models* by Professor Altman, multiple tests performed from 1968 to 1999 have demonstrated that “the accuracy of the Z-Score model on samples of distressed firms has been in the vicinity of 80-90%, based on data from one financial reporting period prior to bankruptcy.” The model predicted that a company would be bankrupt within the next two years and was incorrect 15% to 20% of the time in these studies.

This model can point to weak areas in a company's financials and show where efforts of improvement would make the largest impact, thereby minimizing the probability of bankruptcy. For manufactur-

ing companies or asset-intensive companies, it is common that the sales to total asset ratio has the largest impact on the Z-Score. The model for non-manufacturing companies does not have a clear key factor and will vary on a case by case basis.

Z-Score Advantages

An advantage of the Z-Score Model is that all of the inputs are readily available on financial statements, making it simple to gather the required inputs. There is no regression, calibration or complex statistical model needed to implement this model. There are no assumptions made and the model does not rely on market data. Another benefit is that the model is easy to interpret. The score falls into one of the three categories, likely of bankruptcy, not likely of bankruptcy or in the “grey” zone of no indication. Overall, this model is a good way for an investor, credit analyst, auditor, appraiser or business owner to estimate the company's risk of bankruptcy. **vv**

Solar Energy *continued from page 7*

ever arising. More cities will begin to adopt proactive zoning regulations and as they do, the policies will be continue to be updated and improved, creating stronger solar access protections while maintaining private property rights for all landowners.

Conclusion

Balancing the rights of the Sunnys and the Debbies of the world is a complicated task with a variety of potential solutions. Although methods vary, a proactive model to handling solar access conflicts is always ideal. Local zoning and land planning authorities are best suited to establish such a proactive model that accounts for the rights of adjacent property owners. Solar ease-

ments, solar shading regulations, and the prohibition of covenants, conditions, and restrictions offer additional protections for solar system owners. With

photovoltaic technology becoming more affordable every year, more and more of these potential disputes will transpire around the county. Thus, it is vital to have regulations in place that will promote solar energy and protect the development rights of the surrounding property owners for years to come. **vv**

(Sources for this article: American Petroleum Institute, Institute for Energy Research, Solar Energy Industries Association, *The Journal of Sustainable Real Estate*, and National Renewable Energy Laboratory.)

It is vital to have regulations in place that will promote solar energy and protect the development rights of surrounding property owners.



Valuation Standards *continued from page 3*

Organization						
	USPAP	ISBA	ASA	AICPA	IBA	NACVA
Valuation Engagement						
Full Report	Appraisal	Appraisal	Appraisal	Detailed Report	Detailed Report	Detailed Report
Reduced Report	Restricted Appraisal	Restricted Appraisal	Limited Appraisal	Summary Report	Summary Report	Summary Report
Calculation Engagement						
Other Report	None	None	Calculation	Calculation Report	Calculation Report	Calculation Report

used. ASA does a calculation but does not have a full calculation report. AICPA, IBA, and NACVA perform calculation engagements and valuation engagements.

A key part of a valuation report is its ability to comply with IRS Revenue Ruling 59-60. Revenue Ruling 59-60 is structured as a list of eight factors-to-consider in valuations, followed by a discussion of each factor. USPAP is the best example of including Ruling 59-60 in its standards as USPAP Standard Rule 9-4 is almost verbatim to the IRS definition. The eight factors from Revenue Ruling 59-60 appear in all of the organizations' standards for a comprehensive or full report although not for a calculation or calculation report.

Some people believe that a valuation based on more than one standard is not valid. Actually that is not the case. Standards of the AICPA, ASA, IBA, NACVA, ISBA and USPAP are quite complementary. USPAP has more specific require-

ments than the other sets of standards but they are generally very similar. Additionally, to try and remain consistent across the industry, some of the organizations have adopted a uniform set of definitions and terms that appear in their glossary/appendix; organizations following this practice are: AICPA, ASA, NACVA and IBA.

Valuation standards are tricky to understand, but once you understand the basis of each engagement and type of report you can identify which report you need. If you are doing retirement planning or just inquiring about how much your business might be worth, a full appraisal or detailed report is not needed, a restricted appraisal, limited appraisal, or summary report is sufficient. However, if you are involved in estate planning or shareholder dissolution, a more thorough report such as an appraisal or detailed report is required to hold up in court. **vv**

A calculation engagement is not a conclusion of value and would not hold up in court.

Shenehon Appraiser John Schmick noted in the *Appraisal Journal*

Several articles by Shenehon appraiser John Schmick were identified in the Spring 2016 issue of the *Appraisal Journal* as important resources for appraisers. The *Journal* is the official publication of the Appraisal Institute and is the industry's leading publication. An article by Schmick and Jeffrey K. Jones published in the Fall 2014 *Appraisal Journal* was called "one of the very important articles for appraisers involved in corridor valuations." This article was titled, "Is Across the Fence Methodology Consistent with Professional Standards?" Four articles by Schmick that have appeared in *Right of Way* magazine are also listed as "Noteworthy Corridor Valuation-Related Articles." Schmick's expertise in corridor valuation was included in Resource Center, an Appraisal Journal column by Dan L. Swango, PhD, MAI, SRA. Swango is one of the most well-respected valuation experts in the United States.



Market Transaction: Real Estate

Ameriprise Tower

Property:	Ameriprise Financial Headquarters 707 Second Avenue South Minneapolis, Minnesota 55402		
Sale date:	August 31, 2016		
Zoning:	B-42 Downtown Business District		
Sellers:	AEO, L.L.C, Minnetonka, Minnesota Byte Investment Partnership 1, L.L.P., Minnetonka, Minnesota (Sellers have ties to Best Buy founder Richard M. Schulze and Opus founder Gerald Rauenhorst)		
Buyer:	BAM 701 LLC, West Palm Beach, Florida		
Sources:	Certificate of Real Estate Value, Seller		
Sale price:	Total price	\$200 million	
	Price per square foot (based on above ground square footage)	\$235.94	
Building size:	847,667 square feet above grade 182,384 square feet below grade		
Remarks:	<i>Lease expiration</i> This 30-story Class A office tower has a single tenant, Ameriprise Financial, who uses the building as a headquarters location. The tenant's 20-year lease expires in October 2020. Prior to the sale, the tenant offered no assurances that it would renew its lease so the buyer runs the risk of having to find a new tenant or tenants for 2020. Shenehon believes it is highly likely the tenant will renew its lease; we estimate the probability for nonrenewal is 10 percent.		

A photograph of the Ameriprise Financial headquarters building in Minneapolis. The building is a modern skyscraper with a glass facade and a prominent circular logo in the foreground. The logo features a stylized star and the text "Ameriprise Financial". A person is visible walking on the sidewalk in front of the building.





Market Transaction: Business Valuation

Land O'Lakes Completes Its Acquisition of Ceres, Inc.

by Mark T. Jude

Land O'Lakes completed the purchase of Ceres, Inc. on August 1, 2016. Prior to the transaction, Ceres was a publicly traded agricultural biotechnology company, located in Thousand Oaks, California. The purchase is expected to bring complementary strengths together by accelerating Land O'Lakes' efforts to bring new products to markets. Land O'Lakes announced a tender offer on June 17, 2016 of \$0.40 per share of common stock. This is an 81% premium to the closing price of \$0.22 per share on June 16, 2016. According to the Tender Offer Statement filed with the SEC, the transaction totalled approximately \$18.3 million, after accounting for outstanding options and warrants. In the May 2016 trailing 12 months Ceres generated \$3.56 million in revenue and had earnings before interest, taxes, depreciation and amortization (EBITDA) of negative \$17.1 million. This translates to a price to revenue multiple of 5.2x. It is common for biotechnology research and development firms to operate at a loss while still selling for a considerable price. Biotech R&D firms generally sell for a median and average of 2.9 to 3.9 times revenue, according to comparable transactions on Pratt's Stats®. Ceres, Inc.'s market price at \$0.22 per share translates to a price to revenue multiple of 2.9x, proximate to the industry median price. The average and median multiples give us a price range of approximately \$10.3 million to \$13.8 million, much lower than the actual transaction price.

One item impacting price is the growth potential of Ceres. Buyers tend to pay higher prices for companies with significant growth potential. For the three

Target: Ceres, Inc. (Thousand Oaks, CA)
Buyer: Land O'Lakes, Inc. (Arden Hills, MN)
Transaction Date: August 1, 2016
Transaction Price: \$18,300,000 (All Cash)

	Target	
May 2016 TTM Revenues*	\$3,560	
May 2016 TTM EBITDA*	-\$17,089	
Revenue Multiple	5.2x	
Industry Median*	2.9x	\$10,324
Industry Average*	3.9x	\$13,884

*In Thousands

quarters of the 2016 fiscal year, revenue was 45% over the first three quarters of 2015 and EBITDA losses shrunk by over 50%. Due to its strong recent growth and future growth potential, a multiple of 4.5 would not be out of the question, resulting in a value of \$16 million. The remaining \$2.3 million may be attributed to synergies and other factors. One factor that may have contributed to the high price paid is the advantage of privatizing Ceres, making the research and seeds produced exclusive to Land O'Lakes, which strengthens its brand.

In conclusion, we believe Land O'Lakes paid well above fair market value for Ceres. However there are likely synergies and competitive advantages to the purchase that we have not quantified, which represent the 14% or \$2.3 million premium. This indicates that Land O'Lakes expects significant benefits to owning Ceres, and was willing to pay investment value.



Land O'Lakes, Inc. is a member-owned cooperative with operations that span the spectrum from agricultural production to consumer foods. With 2015 annual sales of \$13 billion, Land O'Lakes is one of the nation's largest cooperatives, ranking 203 on the Fortune 500.



Ceres, Inc. is an agricultural biotechnology company that develops and markets seeds and traits to produce crops for animal feed, sugar and other markets. The company's advanced plant breeding and biotechnology platforms can increase crop productivity, improve quality, reduce crop inputs and improve cultivation on marginal land.



SHENEHON
BUSINESS & REAL ESTATE VALUATIONS

88 South Tenth Street, Suite 400
Minneapolis, Minnesota 55403
612.333.6533
Fax: 612.344.1635
www.shenehon.com

RETURN SERVICE REQUESTED

VALUATION VIEWPOINT NEWSLETTER INSIDE

Follow Shenehon Company on [**LinkedIn**](#)

SHENEHON COMPANY IS A REAL ESTATE AND BUSINESS VALUATION FIRM, serving both the private and public sectors throughout the United States. Our unique combination of real estate and business valuation expertise allows us to provide a wide range of services and to offer innovative solutions to difficult valuation issues. Shenehon Company is dedicated to equipping its clients with the tools necessary to make informed and knowledgeable decisions regarding their capital investments.

Areas of Expertise:

- Allocation of purchase price
- Asset depreciation studies
- Bankruptcy proceedings
- Charitable donations
- Commercial properties
- Condemnation
- Contamination impact studies
- ESOP/ESOT
- Estate planning
- Feasibility analyses
- General and limited partnership interests
- Gift tax evaluations
- Going public or private
- Highest and best use studies
- Industrial properties
- Insurance indemnification
- Intangible asset valuation
- Internal management decisions
- Investment counseling
- Land development cost studies
- Lease and rental analyses
- Lost profit analyses
- Marriage dissolution
- Mortgage financing
- Multi-family residential properties
- Municipal redevelopment studies
- Potential sales and purchases
- Railroad right-of-ways
- Special assessment appeals
- Special purpose real estate
- Tax abatement proceedings
- Tax increment financing
- Utility and communication easements



Contributors:
Michael Amen, Ellis Beck, Wendy Cell,
William Herber, Cathy Hickman, Mark Jude,
Joseph Mau, and Robert Strachota

© Copyright 2016. Valuation Viewpoint is prepared and published by Shenehon Company. Opinions regarding business and real estate valuation issues have been carefully researched and considered by the authors. While we hope you find the information relevant and useful, it is important to consult your own advisors before making business decisions. Additional copies are available upon request at: 612.333.6533 or value@shenehon.com.