

# Doubleday Systems, Inc.

Detailed Valuation Report of  
100,000 Shares of Common Stock  
as of June 30, 2010

SAMPLE REPORT: The names and amounts in this sample report are fictionalized and do not represent any actual individuals or companies. Any similarities to actual individuals or companies are purely coincidental.

Drysdale  Valuation

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July 31, 2010

Doubleday Systems, Inc. Employee Stock Ownership Trust  
Main Street  
Cooperstown, NY 13326

Re: Valuation of Doubleday Systems, Inc.

To the Trustees:

Drysdale Valuation, PLLC has performed a valuation (appraisal) of 100,000 shares of voting common stock of Doubleday Systems, Inc. as of June 30, 2010. The following detailed report is intended to provide our estimate (opinion) of the fair market value on a controlling, non-marketable basis.

This valuation was performed solely to comply with regulatory requirements as defined by the U.S. Department of Labor related to the annual valuation of shares held by Doubleday Systems, Inc. Employee Stock Ownership Trust for the Doubleday Systems, Inc. Employee Stock Ownership Plan. The resulting estimate of value should not be used for any other purpose or by any other party.


Based on our analysis, as described in the following detailed valuation report, we have concluded that the fair market value of 100,000 shares of voting common stock as of June 30, 2010, on a non-controlling, non-marketable basis is:

**Twenty-Seven Million Five Hundred Thousand Dollars**  
**\$27,500,000**  
which equates to  
**Two Hundred Seventy-Five Dollars Per Share**  
**\$275/shr**

This estimate and opinion of value is subject to the Statement of Assumptions and Limited Conditions found in the appendices to the report. This letter, and the following report, are a single document and are not to be considered separately.

U.S. Treasury Department Circular 230 Disclosure: This opinion is limited to the Federal tax issues previously stated. Additional issues may exist that could affect the Federal tax treatment of the transaction or matter that is the subject of this opinion and this opinion does not consider or provide a conclusion with respect to any additional issues. With respect to any significant Federal tax issues outside the scope of this opinion, this opinion was not written, and cannot be used by the taxpayer, for the purpose of avoiding penalties that may be imposed on the taxpayer.

Respectfully,  
DRYSDALE VALUATION, PLLC



Don M. Drysdale, CPA/ABV, ASA



William B. Hamilton, III

SAMPLE REPORT: Not representative of any actual individuals or companies.

**Drysdale Valuation, PLLC**

5055 East Broadway Boulevard, Suite A-200 Tucson, Arizona 85711 520.512.5410 866.489.4041 fax	500 North Market Place Drive, Suite 200 Centerville, Utah 84014 801.466.5410 866.489.4041 fax
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# Introduction

## Subject of the Valuation

### Subject Entity

Doubleday Systems, Inc. (Doubleday or Company) is a corporation organized under the laws of the State of New York, and has elected S-corporation status with the Internal Revenue Service (IRS). It produces water treatment equipment and systems for municipalities and industrial users worldwide. It is headquartered in Cooperstown, NY.

### Background

A group of engineers founded the Company in Cooperstown, NY in 1975. The company focused on market opportunities that arose from strict new EPA standards based on the United States' Clean Water Act. Over the past twenty years, the company has grown steadily as focus has shifted from only supplying equipment to providing full process solutions. The company is currently the third largest full line process equipment company in the municipal wastewater treatment field.

### Products

Doubleday designs, manufactures and installs custom water treatment equipment to be used by municipalities and industrial businesses to purify water prior to use, or to clean water after use. These products include equipment that screens, filters or otherwise separates solids from liquids.

### Subject Ownership

**Ownership.** All of Doubleday's outstanding shares are held by either employees or the Doubleday Systems, Inc. Employee Stock Ownership Trust (ESOT). The ESOT is the largest shareholder with 100,000 shares, representing 80 percent of the Company's outstanding equity ownership. The largest shareholders, along with the number of shares they hold and their percentage ownership is presented in the accompanying table (see Exhibit 1). Doubleday has purchased life insurance policies on the four individuals holding the largest number of shares, specifically to fund the re-purchase of shares upon the death of these shareholders.

**Historical Transactions.** On an annual basis, Doubleday issues shares as stock bonuses based on performance,

## Exhibit 1: Ownership

Name	Number of Shares	Percentage Ownership
Doubleday ESOT	100,000	80.00%
Yogi Berra	6,548	5.24%
Ted Williams	4,920	3.94%
Ty Cobb	4,457	3.57%
Joe DiMaggio	2,520	2.02%
32 Other Shareholders	6,555	5.24%
<b>Total</b>	<b>125,000</b>	<b>100.00%</b>

and redeems shares of employees who retire or otherwise terminate employment. These transactions have historically been based on annual valuations of Doubleday's shares.

On occasion Doubleday has received unsolicited inquiries from others looking to purchase the Company. In each case, management has stated they were not interested.

**Subject Interest.** Doubleday Systems, Inc. Employee Stock Ownership Trust engaged Drysdale Valuation, PLLC to value 100,000 shares of voting common stock representing a 80 percent ownership interest (Subject Interest) of Doubleday as of June 30, 2010 (Valuation Date).

## Purpose of the Valuation

This valuation engagement is to determine an estimate of value in order to comply with regulatory requirements defined by the U.S. Department of Labor related to the annual valuation of shares held by the Doubleday Systems, Inc. Employee Stock Ownership Trust (Trust or ESOT) for the Doubleday Systems, Inc. Employee Stock Ownership Plan (ESOP). The report and valuation are restricted for this purpose only, and are not to be used for any other purpose or by any other party.

This report is not designed nor intended to be used for selling this business to outside individuals or other entities. It may not contain sufficient descriptive information to

satisfy an uninformed prospective buyer of the Subject Interest. It is also not designed to adequately portray desirable qualities of the business, which may be informative to a potential buyer. Such information should be addressed in an offering document designed for a that purpose.

### **Standard of Value**

The standard of value is “fair market value.” The U.S. Department of Labor Proposed Regulation 29 CFR Part 2510 and IRS Revenue Ruling 59-60, 1959-1, C.B. 237 define fair market value as:

*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.*

Rev. Rul. 59-60 also states that “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 the market for such property.”

### **Premise of Value**

Drysdale Valuation, PLLC has assumed that the Company will continue in its current form, operating its current line(s) of business. Drysdale Valuation, PLLC has also assumed that there is no planned or contemplated discontinuance of any line of business nor any liquidation of the Company.

### **Basis of Value**

The Subject Interest is a controlling interest. As discussed later in this report, a controlling interest has the ability to direct administration, management and operations of the Company. This may increase the value of the Subject Interest relative to an equivalent ownership interest that lacks control.

The Subject Interest also lacks marketability. As discussed later in this report, marketability (also referred to as liquidity) is the ability to sell and liquidate an ownership interest within a short period of time. This lack of marketability may cause the ownership interest to be less

valuable than an equivalent ownership interest that is marketable.

### **Valuation Report**

#### **American Society of Appraisers**

This engagement was conducted in accordance with the Business Valuation Standards (BVS) of the American Society of Appraisers (ASA) and is intended to be an appraisal, which is described by the BVS as follows:

*An Appraisal is the act or process of determining the value of a business, business ownership interest, security or intangible asset.*

*The objective of an appraisal is to express an unambiguous opinion as to the value of a business, business ownership interest, or security, which opinion is supported by all procedures that the appraiser deems to be relevant to the valuation.<sup>1</sup>*

This report is intended to be a “comprehensive report.” The BVS calls for comprehensive reports to comply with the minimum content requirements of Standard 10.2 of the Uniform Standards of Professional Appraisal Practice (USPAP).<sup>2</sup>

#### **American Institute of CPAs**

This valuation engagement was conducted in accordance with the Statement on Standards for Valuation Services (SSVS) No. 1 of the American Institute of Certified Public Accountants (AICPA), which describes a valuation engagement as follows:

*Valuation engagement—A valuation analyst performs a valuation engagement when (1) the engagement calls for the valuation analyst to estimate the value of a subject interest and (2) the valuation analyst estimates the value (as outlined in paragraphs 23-45) and is free to apply the valuation approaches and methods he or she deems appropriate in the circumstances. The valuation analyst expresses the results of the valuation as a conclusion of value; the conclusion may be either a single amount or a range.<sup>3</sup>*

1. American Society of Appraisers, Business Valuation Standards, *BVS-I General Requirements for Developing a Business Valuation*, II(C)(1)(a), (b).
2. Ibid., BVS-VII Comprehensive Written Business Valuation Report, I(B).

This report is intended to be a detailed report, estimating<sup>4</sup> a conclusion of value. SSVS describes a detailed report as follows:

*The detailed report is structured to provide sufficient information to permit intended users to understand the data, reasoning, and analysis underlying the valuation analyst's conclusion of value.<sup>5</sup>*

Differences exist in the terminology of the SBVS and the SSVS. We have generally used the terminology of the SSVS in this report.

This valuation was performed as of June 30, 2010 and this report was issued on July 31, 2010. We have neither obligation nor responsibility to update this report for events, circumstances or information that comes to our attention subsequent to the date of this report.

### Valuator Independence

Drysdale Valuation, PLLC is an independent valuation firm. No owner, officer or employee of Drysdale Valuation, PLLC has any existing or contemplated financial interest in the Company. Drysdale Valuation, PLLC is not, nor has it acted as an advocate for the Company. The fee for this analysis was not based on the opinion of value provided.

### Valuation Process

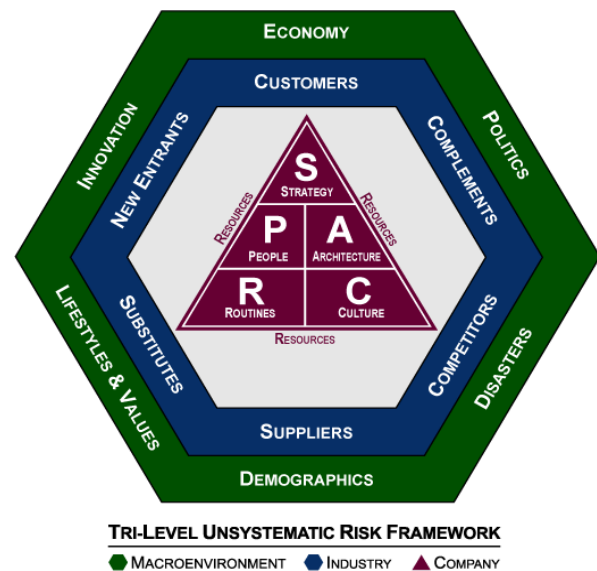
In performing this analysis, we have viewed the Company from the standpoint of an independent, outside investor. We have considered factors a reasonable and prudent outside investor would consider, for the purpose of estimating a fair and reasonable rate of return such an investor would expect to receive.

The value of a business enterprise, at its most basic level, is the function of the following:

- ◆ Expected cash flows to the owner;

3. American Institute of Certified Public Accountants, SSVS No. 1, *Valuation of a Business, Business Ownership Interest, Security, or Intangible Asset*, ¶ 21a.
4. The American Society of Appraisers uses the term “estimate” in connection with a Limited Appraisal, which is lower in scope than an “opinion.” It uses the term, “opinion,” in connection with an Appraisal, its highest scope of work. On the other hand, the AICPA uses the term, “estimate” in connection with its highest scope of work. For this report, the terms opinion and estimate are considered synonymous.
5. *Ibid.*, SSVS 1, ¶ 51.
6. The term, unsystematic risk will be explained in greater detail later in this report.

### Exhibit 2: Tri-Level Risk Framework



Source: Beckmill Research. Used with permission.

- ◆ Expected future growth in those cash flows; and
- ◆ Perceived risks associated with the investment.

Each of these items is addressed in this report.

One of the tenets of valuation is that investors are risk averse. This means that investors will either avoid risk or expect to earn a higher rate of return on investments that carry higher risk. One of the objectives of this analysis is to develop a risk profile, and use it to develop an appropriate expected rate of return on investment in the Company.

To develop the risk profile, we have used the tri-level risk framework developed by Warren Miller at Beckmill Research. It breaks unsystematic<sup>6</sup> risk into three broad categories: macroenvironmental risk, industry risk, and company risk (see Exhibit 2). The first of these categories, macroenvironmental risk, focuses on risks external to the Company, and over which it has no control. The second,

industry risk, represents items over which the Company may have some control. The last, company risk, includes items within the control of the Company. Each of these categories is addressed in this report, and summarized in the Risk Profile Chapter.

We have considered the factors stated in IRS Revenue Ruling 59-60 in developing the risk profile. They include both internal and external influences that can impact the value of the Subject Interest. These factors are as follows:

- ◆ The nature of the business and the history of the enterprise from its inception.
- ◆ The economic outlook in general and the condition and outlook of the specific industry in particular.
- ◆ The book value of the stock and financial condition of the business.
- ◆ The earnings capacity of the company.
- ◆ The dividend-paying capacity.
- ◆ Whether or not the enterprise has goodwill or other intangible value.
- ◆ Sales of the stock and size of the block of stock to be valued.
- ◆ The market price of stocks of corporations engaged in the same or similar line of business, having their stock actively traded in a free and open market, either on an exchange or over-the-counter.<sup>7</sup>

The procedures employed in valuing the Subject Interest included such steps as we considered necessary, including but not limited to following:

- ◆ Discussions with management regarding the past and future operations of the business;
- ◆ An analysis of the historical and estimated future financial condition of the Company;

- ◆ An analysis of the industry in which the Company operates;
- ◆ An analysis of the macroenvironmental conditions, including economic conditions, as of the valuation date;
- ◆ A comparative analysis where possible of guideline companies; and,
- ◆ An analysis of other pertinent facts and data resulting in the conclusion of value.

### **Sources of Information**

We have read, studied, considered, and relied on various information sources for this valuation. These included both internal and external information sources. A detailed listing of information we relied upon is in the appendices to this report.

The approaches and methodologies used in this valuation did not comprise an examination in accordance with generally accepted auditing standards (GAAS). The objective of a GAAS examination is to express an opinion regarding the fair presentation of historical or prospective financial statements or other financial information in accordance with generally accepted accounting principles (GAAP). Because we did not perform an examination in accordance with GAAS, we express no opinion and accept no responsibility for the accuracy and completeness of the financial information or other data provided to us by others. We do assume that the financial and other information provided to us is accurate and complete, and we have relied upon it in performing this valuation.

### **Limiting Conditions**

We include a Statement of Assumptions and Limiting Conditions as an appendix to this report. This Statement of Assumptions and Limiting Conditions describes important conditions, restrictions, and assumptions used in this analysis. We have further referenced additional assumptions and restrictions throughout this report. Users of this report should read and study the entire report in order to understand the conclusion of value.

7. Rev. Rul. 5-60, §4.01.

# External Risks

*We believe there is an increased risk to an investment in the Company due to weakness in the national economy, the industry's use of the competitive bidding process, and the existence of several large, well-capitalized competitors in the industry and low barriers to entry.*

The tri-level risk framework separates external risks into two broad categories, known as macroenvironmental risks and industry risks. These risks, both macroenvironmental and industry, are common to all participants in a domain.

### Subject Domain

A domain is a subset of an industry and is defined as, “the group of firms in the valuation entity’s competitive arena.”<sup>8</sup> In order to effectively analyze external risks, we must first define the domain in which the Company operates.

For this report we define Doubleday’s domain as the approximately one dozen firms that design, build and install water treatment systems worldwide. Doubleday’s domain is an oligopoly—a small group of competitors who control a market.

### Macroenvironmental Risks

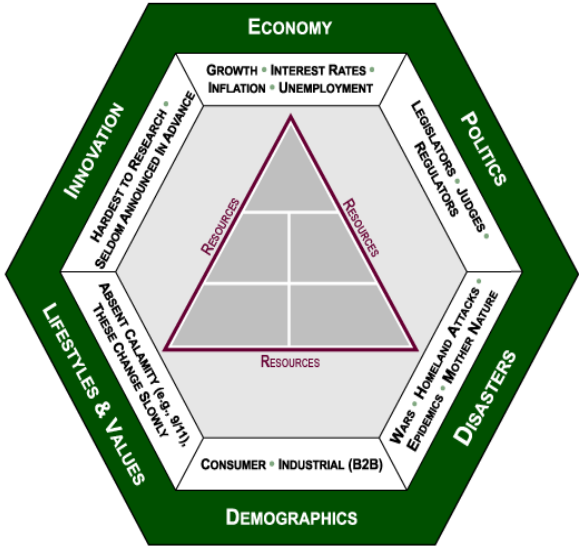
Macroenvironmental risks are items of risk that are shared among all members of an industry/domain. By definition, macroenvironmental factors are outside the influence or control of the domain they affect. The tri-level risk framework identifies six broad categories of macroenvironmental factors as potential sources of business risk (see Exhibit 3).

We have analyzed each of these factors to assess the risks each may represent to an investment in the Company. In this chapter we only discuss those macroenvironmental risk factors that we believe have a material impact (either positive or negative) on the risk of investing in the Subject Interest

### Economy

Economic factors impact most businesses, but the manner in which they are impacted can vary significantly. For

**Exhibit 3: Macroenvironment Risk Framework**



Source Beckmill Research. Used with permission.

example, increasing oil prices can negatively impact transportation companies while increasing profits for oil companies at the same time.

**General Economic Conditions.** The economy had recently experienced a severe contraction as of the valuation date. The expansion of credit from 2000-2007 allowed asset bubbles to develop in real estate and commodities. The bursting of the housing bubble led to the insolvency of several investment banks which were highly leveraged investors in sub-prime mortgage-backed securities. The failure of Lehman Brothers in mid-September 2008 caused a freeze in portions of the financial markets, and the U.S. stock market lost over 50% of its value from peak to trough. Since the economy is highly dependant on access to credit, it is no surprise that

8. Miller, Warren D., *Value Maps: Valuation Tools That Unlock Business Wealth*, p. 8.

the U.S. economy experienced a severe contraction as a result of a much tighter credit environment.

However, there is evidence of economic recovery as of June 30, 2010, though recent declines in the stock market and leading indicators have placed the strength of the recovery into question. The Conference Board's leading economic index decreased 0.2 percent in June, after rising 0.5 percent in May and declining 0.1 percent in April. This was preceded by 12 straight months of increases dating back to April 2009 after falling for twenty consecutive months beginning in July 2007. In addition to the general up trend in the leading index, the coincident index appears to have stopped falling, which may indicate that the recession bottomed out several months ago.<sup>9</sup> Despite the positives, another round of substantial mortgage defaults and foreclosures could cause another steep decline in housing prices, which could then bring the economy down further.

**Stock Markets.** The S&P 500 has recovered much of the ground lost after decreasing significantly from its highs in late 2007. The SPDR Trust, an exchange traded fund that tracks the S&P 500, has decreased from above \$150 per share in September of 2007 to below \$70 per share in March of 2009. The SPDR Trust has since recovered to over \$120 in March 2010 before falling to \$103 as of June 30, 2010.<sup>10</sup>

**Gross Domestic Product.** GDP increased at an annualized rate of 2.4 percent in the second quarter of 2010, marking the fourth quarter of growth in a row following four straight quarters of negative growth. Primary contributors to the increase were imports and exports of goods and services and private domestic investment including residential and nonresidential structures and equipment and software. Federal non-defense spending also increased substantially.<sup>11</sup> Forecasters indicate that economic growth will occur at an annualized rate of 3.3 percent in the second half of 2010.<sup>12</sup>

**Inflation.** Inflation, as measured by the consumer price index (CPI), increased 1.1 percent for the twelve months ended June 2010 primarily due to increases in the price of transportation, energy, and medical care. However, the CPI has decreased in each of the last three months, after increasing or remaining flat in each of the previous ten months.<sup>13</sup> Forecasters indicate that prices will increase by 1.7 percent in 2011.<sup>14</sup>

**Unemployment.** The unemployment rate was 9.5 percent in June 2010. The unemployment rate was also 9.5 percent the previous June. The rate appears to have peaked at 10.1 percent in October 2009. Job losses have been highest in the construction, manufacturing, and business services sectors, while job growth occurred in education and health services.<sup>15</sup> Forecasters indicate that unemployment will decrease to 9.1 percent by June 2011.<sup>16</sup>

**Interest Rates.** The Federal Reserve decreased interest rates significantly in 2008 in order to combat fears of recession. The Federal Funds rate decreased from 4.01 percent as of December 28, 2007 to 0.14 as of December 31, 2008, and to 0.09 percent as of June 30, 2010.<sup>17</sup> However, long term rates have showed signs of recovery, as the 20 year treasury bond decreased from 4.56 to 3.05 from December 31, 2007 to 2008, before increasing to 4.58 as of December 31, 2009. As of June 30, 2010, however, long-term rates had fallen to 3.74 percent. This steepening of the yield curve may indicate that economic recovery is anticipated, but recent flattening in the curve may indicate otherwise.

**Construction and Housing.** Total construction spending decreased 8.0 percent between May 2009 and May 2010 primarily due to decreases in nonresidential construction. Residential construction increased 11.9 percent during the same period.<sup>18</sup> Housing prices increased as well as the sales prices of existing homes was 9.8 percent higher in June 2010 than it was in June 2009.<sup>19</sup> The increase was particularly large in the Northeast.

9. The Conference Board

10. Yahoo! Finance

11. Bureau of Economic Analysis

12. Livingston Survey

13. Department of Labor

14. Livingston Survey

15. Department of Labor

16. Livingston Survey

17. Federal Reserve

18. Census Bureau

**American Recovery and Reinvestment Act of 2009.** In response to the significant economic downturn during 2008, the federal government passed a massive stimulus package to revive the economy. The total stimulus bill cost was \$819 billion dollars in spending and tax cuts, with \$637 billion going to spending.<sup>20</sup>

**National Summary.** The recession in the U.S. appears to be improving, as stock markets and several other leading indicators are pointing up, and the coincident indicators appear to be turning slightly positive as well. Housing prices have slowed or stopped their decline, however, it is unclear whether this is temporary or permanent, as the massive amount of stimulus funds injected into the economy may mask continued weakness. Additionally, another round of substantial mortgage defaults and foreclosures could cause another steep decline in housing prices, which could then bring the economy down further.

### **Innovation**

Industry innovations, technical or otherwise, influence the risks of investing in a business enterprise. Innovations can be a threat by causing an existing product to become obsolete or provide an opportunity to incorporate the innovation to improve products or services.

Global Water Intelligence magazine produced a list of the top new water technologies. We have listed those that appear to be most relevant to this analysis as follows.<sup>21</sup>

**Aquaporins.** Natural aquaporins are proteins that only allow solute-free water molecules to pass through cell membranes. This process performs desalination in plants, such as in mangroves, and animals, such as in the kidneys. Some companies are trying to mimic this process in water purification membranes that have the potential to increase throughput by 5 to 10 times traditional desalination methods and may also allow for gravity powered systems.<sup>22</sup>

**Nano-engineered membranes.** Nano-technology may increase the efficiency of reverse-osmosis systems by increasing permeability, resisting fouling and reducing bacterial adhesion.<sup>23</sup> This is accomplished by using Nano-

composite membranes and carbon nano-tubes, and can reduce the amount of energy required in desalination and other reverse-osmosis systems.

**Vapor transfer irrigation.** Low cost plastic tubes that allow water vapor to pass, but not liquid water or solutes, may provide for irrigation of crops with any type of water, such as wastewater, seawater or other type of otherwise unusable water.

**Phosphorus recovery.** Phosphorus appears to be a dwindling fertilizer resource, with some estimates that the world's supply of phosphorus rock becoming exhausted within the next 100 years. Several companies are working on methods to extract phosphorus from sewage, which will reduce effluent phosphate levels and result in a needed fertilizer.

**Ultrasonic sludge pre-treatment.** Ultrasound is a low energy method of breaking down cellular matter in sewage sludge, making it easier to reclaim biogases, water and other materials.

**Forward osmosis.** Osmosis is the physical movement of a solvent from a low solute concentration across a semipermeable membrane to a high solute concentration. The process does not require energy input, and actually releases energy. This process can be used as a low energy desalination process and to generate power.

In addition to the innovations highlighted in the Global Water Intelligence report, there are other innovations to be considered.

**Bacterial treatments.** Engineers at the University of Utah have developed a low cost sewage treatment system using beneficial bacteria to clean wastewater. The system they call PooGloos, provides a large surface area for the bacteria to grow, plenty of oxygen and a dark environment. The bacteria eat and reproduce, and in the process, clean the wastewater.<sup>24</sup> Engineers and environmental scientists in the United Kingdom have discovered that adding acetic acid (vinegar) to sites contaminated with chromium compounds, promote the growth of bacteria which then

19. National Association of Realtors

20. Washington Post

21. Global Water Intelligence, "Top 10 New Water Technologies to Save the World," from [www.waterandwastewater.com](http://www.waterandwastewater.com).

22. [danfoss-aquaz.com](http://danfoss-aquaz.com)

23. [nanoh2o.com](http://nanoh2o.com)

24. [Waterandwastewater.com](http://Waterandwastewater.com)

change the chemical composition of the chromium compounds, making them non-soluble and preventing them from being leached into groundwater.<sup>25</sup>

**Ion Exchange.** Doubleday has developed an ion exchange system similar to household water softeners, to extract contaminants from water.

While Doubleday may not be using all of the innovations discussed, management does look at various technologies and the potential for application in Doubleday's chosen markets. Management also indicated that the outside sales representatives will identify products not provided by the Company that they could sell, prompting management to consider potential new products and innovations.

### **Lifestyles and Values**

Lifestyles and values can influence risks associated with an investment in a business enterprise through the importance society places on the products and/or services provided by the enterprise.

Most people in developed countries expect readily available clean water by simply turning a faucet.

Experian Consumer Research conducted a study about the 2008 presidential elections and found that voters are becoming more "green" in attitude and behaviors, regardless of political affiliation.<sup>26</sup> Also, recent years have seen growing political and corporate environmental consciousness.<sup>27</sup> Some corporations see the move as necessary because of the potential for governmental mandated limits on greenhouse gas emissions and increasing consumer demand environmentally friendly products.<sup>28</sup>

Millions of Americans are developing more eco-sensitive lifestyles as well. Some of this is the result of a genuine concern for the earth, while some of it is because it appears that it has become fashionable to be "green." As a

result, 35 million Americans regularly purchase products that claim to be earth-friendly.<sup>29</sup>

Lifestyles and values trends that promote environmental causes appear to favor businesses that provide products and systems like Doubleday, which are primarily used to clean environmental contaminants. We believe this decreases the risks associated with an investment in the Company.

### **Demographics**

Demographic conditions and trends, as they relate to a business enterprise, also impact the risks of investing in that enterprise.

Although water covers 70 percent of the Earth's surface, less than one percent is accessible fresh water. Access to clean fresh water is a vital resource for the world's population. The global population is projected to grow 1.1 billion by 2015. Eighty-eight percent of the population growth will occur in cities, almost all of it in developing countries.<sup>30</sup> This will only increase the worldwide demand for clean water.

In the U.S., the population growth is expected to be the highest where demand for existing water resources is at or near capacity, and the aging infrastructure is already strained. The Centers for Disease Control credit treatment of drinking water in the United States since 1900 for increasing the life expectancy in the U.S. by thirty years by eliminating water borne diseases such as cholera, hepatitis A, and typhoid. However, the EPA concludes that water pollution levels may increase to those in the 1970's by 2016 if significant investments in infrastructure are not made.<sup>31</sup>

The World Bank estimates that 88 percent of all diseases worldwide are caused by unsafe drinking water, inadequate sanitation and poor hygiene. It also says that more people today have access to safe drinking water than 10 years ago.<sup>32</sup>

25. Ibid.

26. Reuters

27. www.treehugger.com

28. www.environmentalleader.com

29. The New York Times, 'Buying into the Green Movement'

30. World bank

31. WaterIsLife.net, 'Fact Sheet'

32. Oliver, Rachel, CNN, "All About: Water and Health," <http://edition.cnn.com/2007/WORLD/asiapcf/12/17/eco.about.water>, retrieved Aug. 11, 2009.

The EPA estimates that the United States needs to invest \$202.5 billion in wastewater infrastructure because of rising water quality standards, population growth, and aging infrastructure. Lux Research estimates that worldwide spending on water treatment products and infrastructure will rise from \$522 billion in 2007 to nearly \$1 trillion by 2020, and that worldwide water usage will increase by 40 percent by 2030.<sup>33</sup>

## Disasters

The industry does not appear to be more vulnerable to any specific disasters than most other industries.

## Politics

Political issues, and the sensitivity of a business' products and/or services to the political environment can influence the risks of investing in that business enterprise.

**Clean Water Act of 1972 (CWA).** The CWA established the basic structure for regulating discharges of pollutants into the water. Quality standards for surface waters are also regulated by this act. The Federal Water Pollution Control Act was enacted in 1948 and served as the basis for the CWA with significant reorganization and expansion in the CWA of 1972. The Environmental Protection Agency (EPA) implemented pollution control programs, such as setting wastewater standards for industry and water quality standards for all contaminants in surface waters. It is illegal to discharge any pollutant from a point source into navigable waters unless a permit is obtained.<sup>34</sup>

**Safe Drinking Water Act (SDWA).** The SDWA has been very effective in protecting the public health of the citizens of the United States during the last thirty years. It has also evolved to respond to new and emerging threats to safe drinking water. One of the major public health advances was disinfection of the drinking water. Only a hundred years ago, typhoid and cholera epidemics were common in American cities. Disinfecting the drinking water was a major factor in reducing those epidemics.

The disinfectants themselves can react with naturally occurring materials in the water that form by-products that create risks to the public health. During the last ten years, scientists have learned that there are specific microbial pathogens, like *Cryptosporidium*, which can cause illness. Some of these microbial pathogens are highly resistant to conventional disinfection practices.

**Homeland Security.** The Public Health Security and Bioterrorism Preparedness and Response Act was enacted in 2002. It directs drinking water systems serving more than 3,300 persons to perform vulnerability assessments, and the EPA to conduct research into the means to prevent, detect, and respond to chemical, biological, and radiological agents.<sup>35</sup>

**State Revolving Funds.** An amendment to the CWA created the Clean Water State Revolving Fund (CWSRF), which is administered by the EPA. An amendment to the SDWA created the Drinking Water State Revolving Fund (DWSRF), which is administered by the USDA. These funds are self-perpetuating loan assistance programs that help the States to finance projects to construct or improve water treatment facilities and to protect water sources.<sup>36</sup>

**Economic Stimulus.** On February 17, 2009, President Obama signed the American Recovery and Reinvestment Act (ARRA). This law provides more than \$7 billion for drinking water and wastewater infrastructure, including approximately \$4 billion for the CWSRF and approximately \$2 billion for the DWSRF. The ARRA also provides the USDA Rural Water and Waste Disposal program with approximately \$1.38 billion more for other loans and grants.<sup>37</sup>

The ARRA also allocated a minimum of \$126 million to Title XVI of the Reclamation Projects Authorization and Adjustment Act (Title XVI). Title XVI authorizes the Secretary of the Interior to conduct research and construct demonstration facilities for water recycling opportunities in 17 Western States.<sup>38</sup>

33. Glasner, Joanna, Reuters, "Clean Water Drives Oasys Funding," <http://www.reuters.com/articlePrint?articleID=USTRE51M5VC20090224>, retrieved Aug. 8, 2009.

34. Environmental Protection Agency

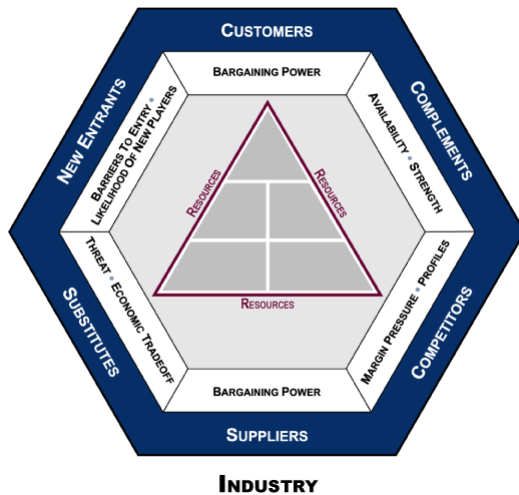
35. Ibid.

36. Wikipedia.com, "Clean Water State Revolving Fund," and "Safe Drinking Water Act."

37. Harrison, Lori, Industry News, "WEF Advises Officials on Stimulus Funding," (Mar. 4, 2009), [waterandwastewater.com](http://waterandwastewater.com), retrieved Aug. 10, 2009.

38. Industry News, "Title XVI Stimulus Funds for Water Reuse Projects," (Jul. 9, 2009), [waterandwastewater.com](http://waterandwastewater.com), retrieved Aug. 10, 2009.

## Exhibit 4: Industry Risk Framework



Source Beckmill Research. Used with permission.

Provisions of the ARRA require recipients of grants and loans under the CWSRF and DWSRF use U.S. produced iron, steel, and manufactured goods.<sup>39</sup>

### Industry/Domain Risks

In this section, we considered the condition and outlook of the industry/domain in which the entity operates. Like macroenvironmental risks, industry/domain risks impact all participants in the domain equally. Economist Michael Porter identified five forces that shape every industry. Other researchers, borrowing from Porter, have expanded this to six factors. The tri-level risk framework identifies these six factors as potential sources of business risk (see Exhibit 4).

We have analyzed each of these factors to assess the risks each may represent to an investment in the Company. In this chapter we only discuss those domain risk factors that we believe have a material impact (either positive or negative) on the risk of investing in the Subject Interest.

### Customers

A number of factors can increase or decrease the power of customers over those in the domain. We considered the power of customers from the following factors:

- ◆ Customer concentration;
- ◆ Ability to purchase in volume;

- ◆ Ability to easily switch;
- ◆ Amount of information available;
- ◆ Level of returns among the customers; and,
- ◆ Ability to forward integrate.

We believe the customers of the domain derive power from the competitive bidding process. This process not only drive down price, but also grants the customers access to information and makes it relatively easy to switch to another competitor prior to signing a contract. After the contract is signed, switching becomes difficult. Offsetting some of these risks is the fact that the domain's products represent a significant capital expenditure which may motivate some customers to seek quality rather than price.

### Suppliers

A number of factors can increase or decrease the power of the suppliers over the domain. We considered the power of suppliers from the following factors:

- ◆ Concentration of suppliers;
- ◆ lack of substitutes;
- ◆ Volume of product purchased;
- ◆ Product differentiation among suppliers;
- ◆ Switching costs; and,
- ◆ Ability to forward integrate.

One risk related to suppliers is the price of steel, which can fluctuate during the course of a project, either to the advantage or disadvantage of the domain participant. This risk can be somewhat mitigated by price escalation clauses in contracts.

### Competitors

#### Competitive Landscape

There are currently around twenty-five companies that compete in the industry, and there has been significant consolidation among the competitors in the recent past. This consolidation has resulted in some small, specialized

39. First Research, Municipal Governments.

stand alone entities becoming units of much larger businesses.

### **Head-to-Head Competitors**

There are several companies that have products that compete with Doubleday's, but the three main ones appear to be Siemens Water Technologies, WesTech Engineering and Eimco Water.

**Siemens Water Technologies.** Formerly known as U.S. Filter, this company has purchased Envirex, one of Doubleday's primary competitors. The company offers everything from emergency water supply and conventional water treatment processes to wastewater reuse systems, membrane bioreactors, UV disinfection systems and RO cleaning contracts. They serve both the industrial and municipal markets, claiming to serve more than 90 percent of the Fortune 500 manufacturing companies, and a total of approximately 100,000 industrial customers.

**WesTech Engineering.** WesTech is also one of Doubleday's primary competitors. WesTech focuses on municipal and industrial filtration, sedimentation and liquid/solid separation equipment. They serve both the industrial and municipal markets, and customers include municipalities, industrial businesses, construction contractors and consulting engineers.

**Eimco Water Technologies.** This company is owned by Groupo Laperriere & Verrault in Canada. They currently compete with Doubleday in the municipal market with their Enviroquip subsidiary, and are looking to get back in the industrial market. The company's primary business is to design and build all the equipment needed to soften raw water for both household consumption and industrial process use, and to remove solids, color, odor, dissolved chemicals and minerals, microbes and other pathogens.

**Other Competitors.** Other competitors include FLSmidth Minerals, Envirodyne, Walker Process Equipment, Pall Corporation, Smith & Loveless, and GE Water & Process Technologies. The competitive factors among these companies are primarily quality, service, and price.

### **New Entrants**

The threat of new entrants into a domain or industry relates closely to existing or perceived barriers to entry. These barriers take several forms, and can increase or decrease

the risks related to an investment in an enterprise. In assessing the threats of new entrants, we considered factors such as

- ◆ Economies of scale;
- ◆ Differentiation of product and/or services;
- ◆ Cost disadvantages to newcomers; and,
- ◆ Government policies.

Because the domain relies on competitive bidding, it can be easy for new entrants to secure jobs from customers. However, some of the technologies employed by domain participants are patented which limits the threats from new entrants in those areas.

### **Substitutes**

Substitutes are other products, usually using different technologies, which perform the same function as the product offered by the domain. The availability of a substitute can create increased risk, if the substitute is superior, or decrease risk if the subject's product is superior. Management indicated that filtration and membrane technology is becoming more popular than historical method of mechanical water treatment, representing a substitute for traditional treatments.

### **Complements**

A complementary product or service is one that will create additional demand for the subject's product as demand for the complementary product increases. There are several complements in the industry, including reverse osmosis and membrane systems that need pre-treatment to take out larger impurities and smokestack scrubbers that use water requiring treatment after usage. These and other processes requiring water help to drive demand for the domain's products.

### **Summary**

We believe there is an increased risk to an investment in the Company due to weakness in the national economy, the industry's use of the competitive bidding process, and the existence of several large, well-capitalized competitors in its industry and low barriers to entry. We will reflect these risks in the Risk Profile section of this report.

# Internal Risks and Resources

*We believe there is an increased risk to an investment in the Company from an increasing receivables collection period, increasing warranty expenses, and increasing debt loads.*

In this section we considered the resources employed and internal risks associated with the Company. In assessing these risks, we consider their potential sources as described by SPARC<sup>40</sup> analysis in Beckmill Research’s tri-level risk framework (see Exhibit 5). The SPARC factors are interconnected, and therefore our discussion will focus on the resources that feed into the SPARC factors.

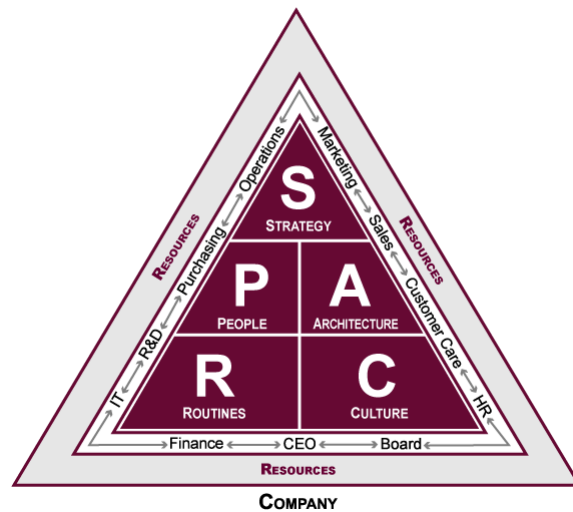
## Strategy

Strategy is the bridge between external risks and internal risks and resources. A proper strategy will be aligned to harmonize with business enterprise’s domain structure. As previously presented, Doubleday’s domain structure is an oligopoly. To determine Doubleday’s strategy we must first analyze its strategic emphasis and strategic scope.

**Strategic Emphasis.** A business enterprise can either emphasize low cost or the uniqueness of its products and/or services. In this case, Doubleday emphasizes uniqueness by focusing on superior service and quality. Where possible, Doubleday attempts to have end users to identify Doubleday, or a Doubleday product, in the specifications of a project. This helps to minimize the impact of competitive bidding. If Doubleday cannot get itself or its products specifically named (which is more often than not), then they rely on their reputation for high quality products and superior service to win projects. The economic logic behind these strategy elements is to allow Doubleday to charge premium pricing, where possible, in an attempt to achieve above industry profit margins.

**Strategic Scope.** A business enterprise can use a broad target scope (usually industry wide) or a narrow target scope. (usually focused on a small segment of an industry). In this case, Doubleday’s scope is broad based as it markets its products and services to municipalities and industrial users of all types, sizes and industries.

**Exhibit 5: Company Risk Framework**



Source Beckmill Research. Used with permission.

Management has identified its arena as municipal and industrial filtration, sedimentation and liquid/solid separation equipment to a worldwide market. Management has implemented a “lean” operational philosophy in an attempt to achieve superior profit margins.

Doubleday’s strategic emphasis and strategic scope appear aligned with the structure of its domain.

## Sales and Marketing

### Sales Function

Doubleday almost exclusively uses outside sales representatives to sell its products to contractors, consulting engineers, municipalities and industrial businesses. These sales representatives cover a preestablished geographical area and sell Doubleday’s products within that area. These representatives are paid commissions for their services. Management believes its

40. SPARC is an acronym for Strategy, People, Architecture, Routines and Culture, which represent potential sources of risks directly from a business enterprise.

reputation has allowed Doubleday to attract some the higher quality sales representatives.

### Marketing

In addition to its outside sales representatives, Doubleday's marketing efforts includes some print advertising in industry publications and attendance at industry trade shows.

### Pricing

Doubleday secures projects primarily through a competitive bidding process. Management indicated that in many cases Doubleday is not the lowest bidder, but is still selected because of its reputation. Management estimates that 90 to 95 percent of all projects are competitively bid, while 5 to 10 percent are "sole source" projects, when Doubleday has specifically been named as the supplier.

Pricing is determined based on estimated costs plus predetermined mark-ups. The engineering performed by Doubleday results in plans required to fabricate the product, complete with a list of parts required for fabrication. The estimated costs are based on the parts list and the cost of those parts, the cost of fabricators and installers, as well as other costs. A contingency amount is also added to each bid.

### Revenues

Doubleday's revenue comes from the sale of water treatment equipment and systems for municipalities and industrial users worldwide.

Doubleday's overall revenue trend has been upward (see Exhibit 6). Doubleday's year-to-year rates of growth in revenues have been 33 percent, 25 percent, and 9 percent for the years ended 2006 through 2009, respectively, and negative 8 percent for the year ended June 30, 2010. The compounded annual rate of growth since fiscal 2006 was approximately 13.6 percent. Management attributes the decrease in revenue during the most recent fiscal year to an unusually large project that was completed during fiscal 2009 and the lack of a comparable project in fiscal 2010.

Economic conditions may also be having an impact. In past economic downturns management has found that its broad based customer diversity helped to mitigate against revenue declines. However, the depth of the current economic decline may be contributing to the current decrease in revenues.

Exhibit 6: Revenue Trends

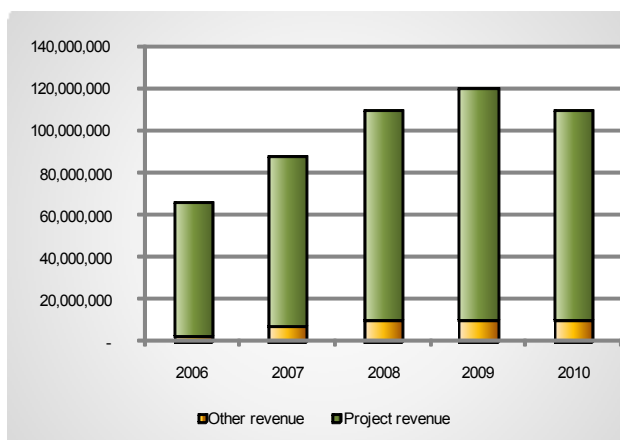
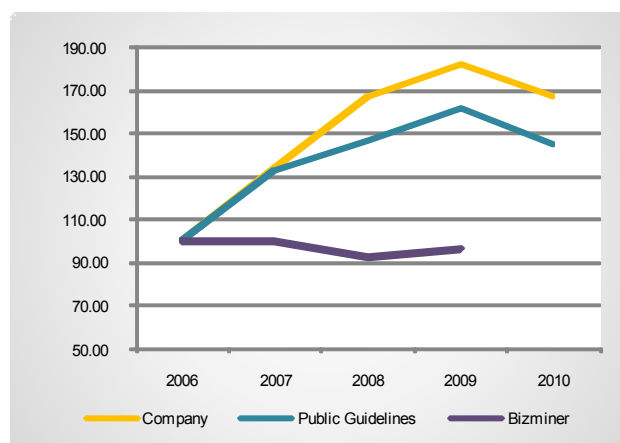


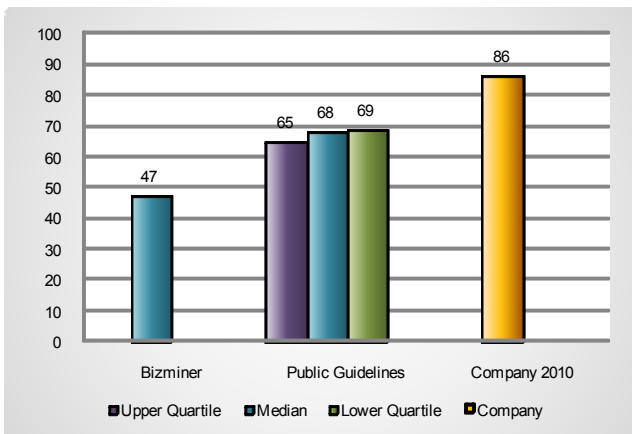
Exhibit 7: Revenue Index



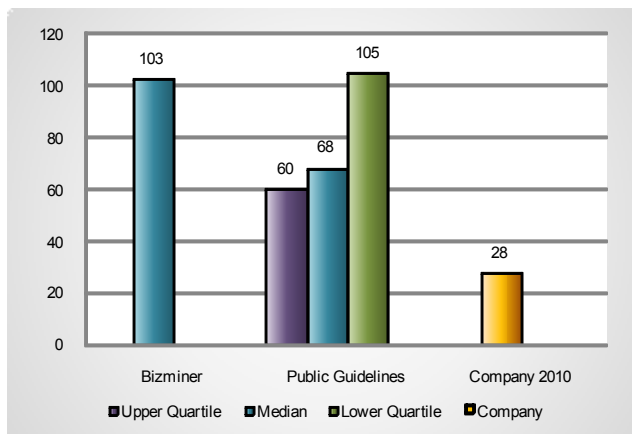
It is difficult to compare actual sales amounts between companies and benchmark data. In order to compare revenues in a meaningful manner, we computed a revenue index (current period revenue divided by base period revenue multiplied by 100). This index shows that Doubleday's revenues have historically increased at a faster rate than the industry peers. The public guideline peers have demonstrated a similar decline revenue, further suggesting economic conditions have impacted revenue (see Exhibit 7).

Based on Doubleday's current backlog of work, management expects revenue growth to return in the next fiscal year.

### Exhibit 8: Days Receivable



### Exhibit 9: Days' Inventory



### Customers

Doubleday's customers include municipalities, industrial businesses, construction contractors and consulting engineers. Municipalities primarily use Doubleday's products to treat water for water supply systems and for waste water treatment. Doubleday's large municipal customers include the City of New York and the City of Philadelphia. Municipalities are currently responsible for approximately 90 percent of wastewater infrastructure costs.<sup>41</sup>

Industrial businesses use Doubleday's products to treat water prior to it being used in industrial processes, and/or

to clean water after it has been used in industrial processes. Doubleday's large industrial customers include Chevron, Exxon Mobil Corp., Proctor & Gamble, Phelps Dodge, and Sony.

Construction contractors and consulting engineers use Doubleday as a supplier of components needed to build facilities for municipalities and industrial businesses. Doubleday's large construction and engineering customers include Bechtel Group, Inc. and Fluor Corporation.

Doubleday's customers are primarily located in the U.S., but the Company also maintains offices in China, Brazil, and South Africa.

### Accounts Receivable

"Receivables turnover" and quality are factors in evaluating operating efficiency and management. One measure of receivables turnover, "past days' sales in receivables," is calculated by dividing total year-end receivables (or average receivables) by total annual sales revenue, with the result multiplied by 365 days. This measures the average number of days that accounts receivable are outstanding.

Doubleday's receivables were outstanding, on average, 86 days while the industry peers ranged from 47 days for the Bizminer Peers to 68 days for the public guidelines (see Exhibit 8). Management reports that collections of accounts receivables have been taking longer, which they believe relates to economic conditions. To counter this they have assigned an employee to track the receivable and to file liens in appropriate jurisdictions on all late receivables.

### Purchasing

Doubleday's purchasing function is decentralized by production unit. Each production unit has two purchasing agents who are responsible for purchasing items needed for the production of their unit.

### Inventories

"Inventory turnover" is indicative of management's ability to efficiently use inventory in meeting the needs of customers. Generally, the faster an entity turns its inventory, the more efficient it is in utilizing its investment in inventory to create

41. Water Environment Federation, "Stimulus Funding Resources," [wef.org/GovernmentAffairs/StimulusFunding](http://wef.org/GovernmentAffairs/StimulusFunding), retrieved Aug. 11, 2009.

sales. Slower turnover can be indicative of less efficient inventory utilization or may be indicative of obsolete inventory. One measure of inventory turnover is “past days cost of sales in inventory.” This measure is expressed in terms of days and is computed by dividing year end inventory (or average) by the daily average cost of sales (goods sold) with the result multiplied by 365 days.

Doubleday’s inventory turnover was 28 days compared to industry peer medians of 103 days and 68 days (see Exhibit 9). This is an indication that Doubleday carried significantly less inventory because it contracts out for the manufacture of the majority of the equipment it designs and installs.

### Accounts Payable

“Accounts payable turnover” is an indicator of managements efficiency and effectiveness at managing accounts payable. Generally, the slower an entity turns its payable, the better cash flows will be. However, this must be balanced with the need to maintain positive relations and credit standing with suppliers. A measure of accounts payable turnover is “past day payable.” This measure is expressed in terms of days and is computed by dividing year end payables (or average payables) by total annual cost of sales with the result multiplied by 365 days.

Doubleday’s payable turnover was 39 days compared to industry peer medians of 54 days and 58 days (see Exhibit 10). Its lower payment period indicates that it maintains its cash for a shorter period of time than its peers prior to settling its accounts payable. This could be related to its lower inventory holding requirements.

### Information Technology

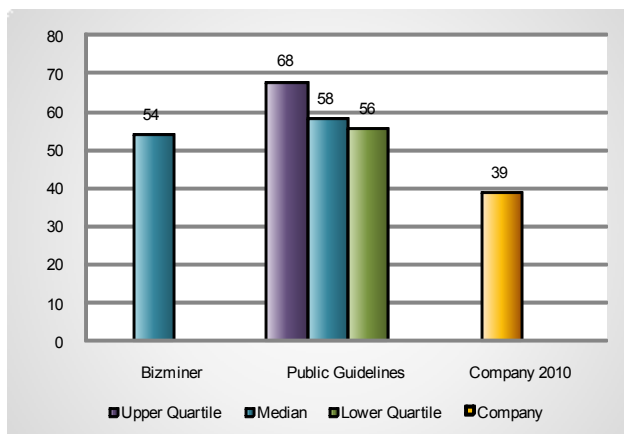
Computers are some of the most important assets held by Doubleday, both in numbers and function. It maintains an internal information technology staff, but outsources network monitoring to an external vendor.

Its computers are subject to a replacement schedule where servers are replaced on an as needed basis, high end computers needed for 3D design functions are replaced every three years, and other computers are replaced on a four to five year schedule.

### Research and Development

Doubleday’s research and development efforts have resulted in several product innovations, including various

Exhibit 10: Days’ Payable



patents. Recent research and development efforts have resulted in an ion exchange product as discussed previously. The Board of Directors also sees the need for Doubleday to develop new products and to provide for continued innovations of existing products. This has resulted in an increase in R&D expenditures during fiscal 2010.

### Human Resources

Doubleday employs approximately 350 people. A significant majority of these employees are salaried, and many of these are engineers. In addition to salaries and wages, all employees are eligible for annual cash bonuses. These bonuses are based on the Company achieving its budget goals.

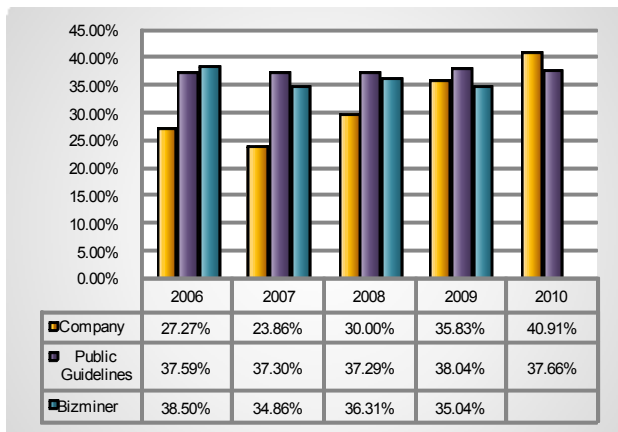
The Company provides a generous benefits package for employees and strictly adheres to a hiring from within policy. It provides for flexible work schedules where employee can choose traditional work hours, or an extended work day with extended weekends. Our interviews and interaction with employees during our site visit revealed general satisfaction with the work environment.

### Operations

#### Policies and Procedures

Each position within the company has written procedures to guide employees in their duties and responsibilities. These procedures are maintained on the computer network server where access is readily available.

### Exhibit 11: Gross Profit Margins



### Exhibit 12: Board of Directors

Name	Description
Yogi Berra	Chairman, Outside Director
Ted Williams	Chief Executive Officer
Ty Cobb	President
Joe Dimaggio	Director
Bob Gibson	Outside Director
Lefty Grove	Outside Director
Duke Snider	Outside Director

#### ISO 2001 Certification

Doubleday has received ISO 9001 certification. ISO (International Organization for Standardization) has established standards for quality management systems. Companies receiving this certification have been independently audited and certified to be in conformity with ISO standards. These standards require continual and planned improvement of quality management, control over documents and records, as well as corrective and preventative action related to quality.

#### Organizational Structure

Doubleday uses a profit center based organizational structure. The overall Company is divided into four units. Three of the units separately serve one of the Company's market segments, namely the municipal water, municipal waste water, and industrial segments. A fourth unit provides supporting services such as accounting, information technology and other services to the other three units. Each of these segments is further divided into

groups, with each group focusing on a particular process or product. Each group operates as a profit center and have responsibility for their own quality and profitability, answering to management and the rest of the Company for their success. Each group operates relatively autonomously, having a group leader and its own estimator (see Exhibit 13).

#### Gross Profit Margin

Gross profit is the result of subtracting the cost of sales from sales (revenues minus cost of those revenues). A gross profit margin is the ratio of the gross profits to the revenues. The gross profit margin is computed by dividing gross profit by net sales, with the result expressed as a percentage. It is a key measure of the profitability of the company. It measures the amount of profit generated before general and administrative expenses, sales and marketing, and other overhead items are subtracted.

Doubleday's gross profit margins have fluctuated between 24 percent and 41 percent between 2006 and 2010 (see Exhibit 11). Because Doubleday uses percentage-of-completion accounting, the gross profit margins are directly related to managements' estimates.

The general trend is that margins have been improving significantly. In the two most recent years, Doubleday's margins have been similar to the public guidelines peers. This compares to margins that have historically been well below both sets of peers.

#### Other Operating Factors

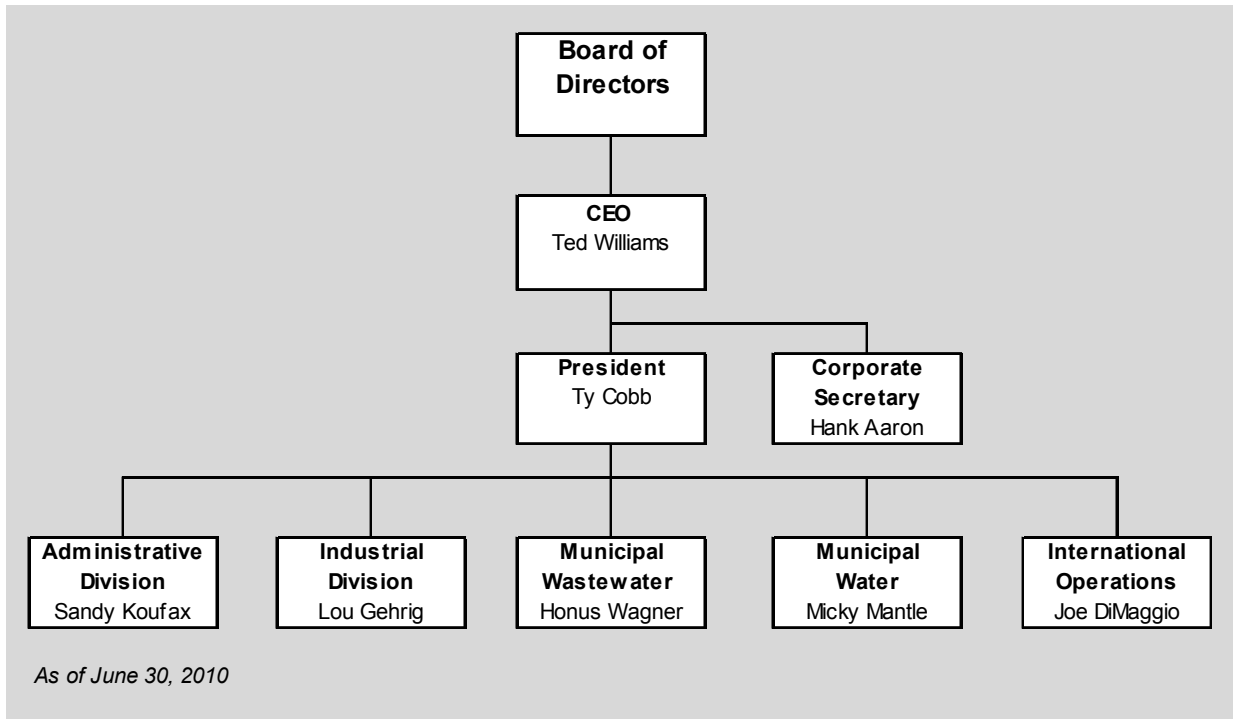
Doubleday outsources nearly all of its manufacturing to metal fabrication shops. The electrical work for its products, which includes electrical supplies to pumps and motors, as well as wiring of electrical controls, is done in-house. Doubleday also outsources nearly all of its installation. On occasion, it will outsource engineering for projects whose scope is beyond Doubleday's internal capabilities. However, management indicated that this is the exception rather than the rule.

#### Management

##### ESOP Trustees and Cabinet

The trustees of the ESOP are Ty Cobb, Ted Williams and Joe Dimaggio. The ESOP also maintains an ESOP Committee, whose members are elected by ESOP participants. A committee chairperson is elected by the participants at large, and other members by ESOP

**Exhibit 13: Organization Chart**



participants in the various groups specifically to represent the group from which they were elected. The purpose of the ESOP cabinet is to communicate with and educate ESOP participants.

**Board of Directors**

Doubleday’s by-laws require the board of directors to have seven members, with a requirement to have directors from outside the Company. The president and CEO hold automatic seats on the board of directors without election. The accompanying chart list the members of the board of directors (see Exhibit 12).

Doubleday pays board members \$500 per board meeting. The outside board members have specific experience that the board believes is useful and relevant. Yogi Berra was formerly the CEO of Doubleday, having significant industry experience. Bob Gibson is a professor of finance at the University of New York, Lefty Grove is an insurance broker with the Buchner Company, and Duke Snider is the superintendent of the Cooperstown Sewer District in Cooperstown, NY.

**Management**

Doubleday’s key members of management are as follows:

**Ted Williams.** Mr. Williams, the current CEO, graduated with a Civil Engineering degree in 1983 and a Master’s of Business Administration in 2006 from Tom Emanski’s Hitting School. He began as a Student Engineer at Doubleday while in college, before beginning full-time as a Project Manager immediately afterwards. In 1987 he was promoted to Group Leader, and then to General Manager and Chief Engineer in the mid-1990’s. He was named President in 2002, and CEO in 2008.

**Ty Cobb.** Mr. Cobb, the current President, graduated with a Mining Engineering degree from Tom Emanski’s Hitting School, where he also earned Master’s degrees in both Mining Engineering and Business Administration. He joined Doubleday in 1986 as a Project Engineer, and was promoted to Vice President, Municipal Marketing in 1992. He was named President in 2008 after serving as General Manager of both the Industrial & Water Market and the Municipal Water Market.

**Joe Dimaggio.** Mr. Dimaggio graduated from Tom Emanski’s Hitting School with a degree in Civil Engineering. He began at Doubleday in 1982 as a Student Engineer, and was promoted to Group Leader in 1987. In

1994 he became the V.P. of Industrial Marketing, and has served as Unit Leader of Industrial Products since 2004.

### **Culture**

Culture is a system of shared values (what is important) and beliefs (how things work) that combined to produce behavioral norms.

Doubleday has produced a document entitled, Doubleday Corporate Culture, which is posted on its website. It identifies Doubleday's vision, values and ideals.

**Corporate Vision.** Doubleday's Corporate Culture document states its Corporate Vision as follows:

*Doubleday's goal is to build a world-class company that is dedicated to customer satisfaction, generates a fair profit, and treats employee-owners right.*

*Purpose - Improve the lives of people by providing solutions for a better environment.*

*Mission - To satisfy customers' needs with the best solutions to their water treatment problems.*

*Vision - Be the first choice of owners, consultants, contractors, and agents needing water treatment solutions through highest quality products. Be a top innovator of new industry-leading products. Improve profitability through unique competencies. Serve customers better than all of our competitors. Provide productive and satisfying workplace environment.*

*Our primary focus is to help our customers solve their process problems through applying our engineered equipment and process expertise. We want to provide working solutions, not just equipment. Through long-term relationships which enhance the value of our equipment and services, we will endeavor to provide our customers substantial economic value when we install equipment, and continuing throughout its working life.<sup>42</sup>*

**Values and Ideals.** Doubleday's Corporate Culture document states its core values as:

- ◆ Show honesty and integrity by always willing to do what is right.
- ◆ Recognise the potential and value our employee-owners.
- ◆ Take pride in our products.
- ◆ Achieve productivity through hard work.
- ◆ Provide superior service.

Its ideals are stated as follows:

- ◆ Preserve Employee Ownership.
- ◆ Foster Learning and Continuous Improvement.
- ◆ Promote Employee Involvement.
- ◆ Grow at a Sustainable Rate.
- ◆ Ensure Financial Stability.

Doubleday's stated core purpose is as follows:

*To pursue our passion for problem solving by advancing and applying water technologies to benefit humanity.*

During interviews with Company personnel, several people commented that these stated core values are adhered to and actually provide guidance in decision making.

**Culture of Ownership.** Doubleday's Corporate Vision and Ideals, refer to its employee ownership. Its corporate by-laws formalize this by requiring that shareholders also be employees, as follows:

*No person shall be a shareholder of this Corporation unless such person meets the*

42. Doubleday Engineering, Inc., Doubleday Corporate Culture, [www.doubledayengineering.com/images/user/File/Corporate\\_Culture.pdf](http://www.doubledayengineering.com/images/user/File/Corporate_Culture.pdf), retrieved Aug. 12, 2009

following qualifications and are subject to the terms of the Shareholder Agreement. A shareholder shall be:

- a. An employee of Doubleday Engineering Inc., or
- b. An employee member of the Trust of the Doubleday Engineering, Inc. Employee Stock Ownership Plan, or
- c. A de minimis exception outlined in the Shareholder Agreement.<sup>43</sup>

One of the main tenets of Doubleday’s culture is its Employee Stock Ownership Plan. The plan provides an opportunity for employees to share in the success of the company and promotes employee owner communication and participation in company issues. The ESOP Cabinet comprises owner representatives from different operating groups who are charged with providing education related to shareholder issues. The cabinet members also work to create a corporate culture that allows every employee to progress and accept responsibility.

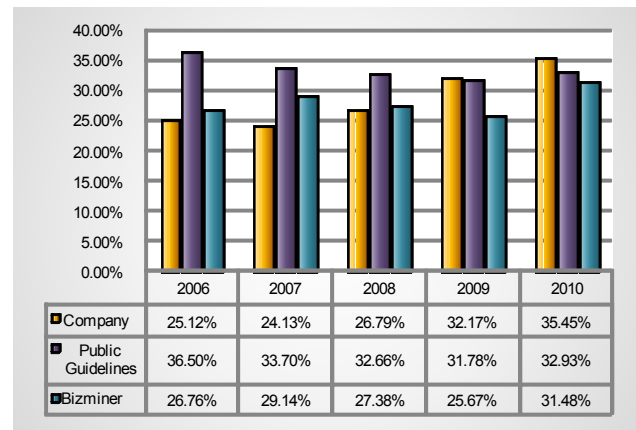
Most employees are owners through the ESOP, but many managerial employees own shares outside the ESOP. Management presents, explains and educates employees on the financial statements on a monthly basis. Our interviews with employees suggest that such openness, and employees’ understanding that their personal compensation (including annual bonuses and appreciation in the value of the Company) is directly tied to profitability, motivates employee to be mindful of expenses.

A common theme in our interviews with employees was the high level of openness and transparency throughout the Company. This was further confirmed with management, who expressed their belief that employee/owners have the right to all information that is not confidential. We believe this openness and transparency is a result of the culture of ownership developed within Doubleday.

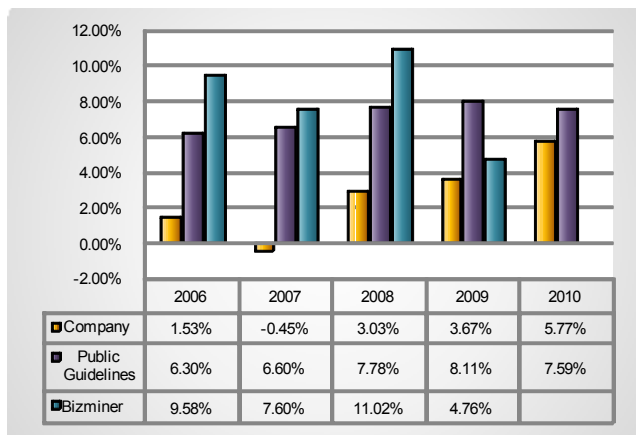
**Profitability**

**Operating Expenses.** The operating expense margin is the total of operating expenses divided by revenues, with the result expressed as a percentage. Control over operating expenses can mean the difference between profitability and losses. Management’s ability to control expenses can be assessed by comparing the operating expense margin to those of industry peers. Doubleday’s operating

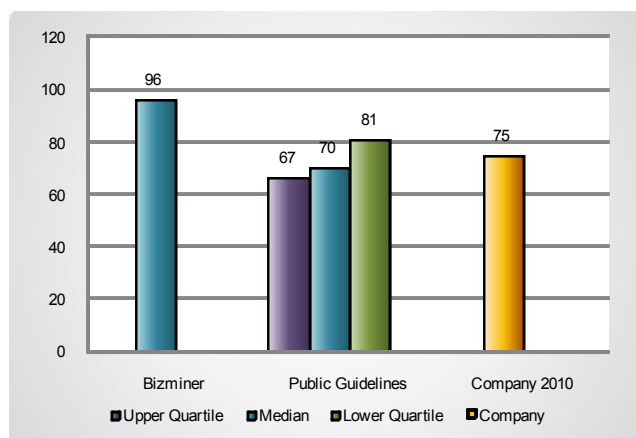
**Exhibit 14: Operating Expenses**



**Exhibit 15: Pre-Tax Earnings**

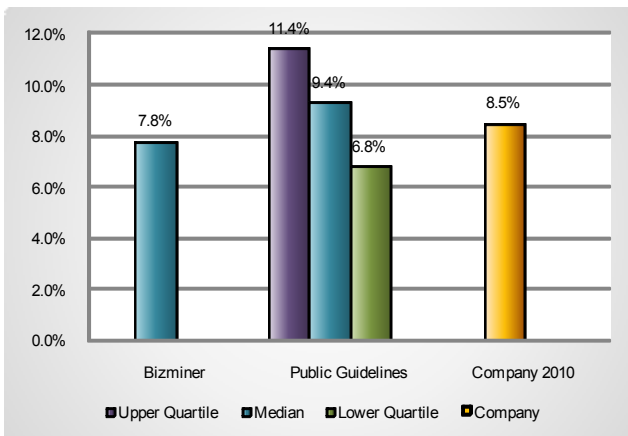


**Exhibit 16: Cash Conversion Cycle**

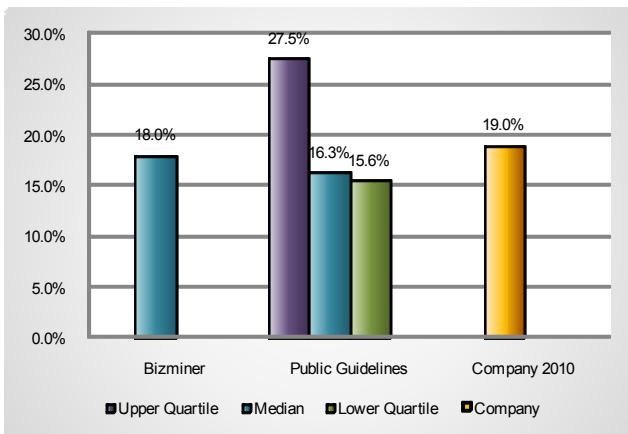


43. By-laws of Doubleday Engineering, Inc., fully amended as of September, 2004.

**Exhibit 17: Pre-Tax Return on Assets**



**Exhibit 18: Pre-Tax Return on Equity**



expenses as a percentage of sales have fluctuated between approximately 24 percent and 35 percent. The general trend is upward. Doubleday's operating expenses are slightly higher than the industry peers (see Exhibit 14).

It is difficult to say exactly why operating expenses are higher because none of the guideline companies are "pure-play" participants in Doubleday's domain. However, we do know that Doubleday has additional expenses for ESOP contributions. Further, it is likely the more customized nature of Doubleday's products also increase expenses.

Nevertheless, management does recognise the need to control expenses, and to that end have implemented "lean" initiatives aimed at keeping costs down.

**Pre-Tax Earnings.** Pre-tax profits are the result of revenues less expenses (not including taxes). The pre-tax profit margin is computed by dividing pre-tax profits by revenues with the result expressed as a percentage. An entity must generate profits in order to grow, succeed and survive over the long-term.

Doubleday's pre-tax earnings as a percentage of sales have fluctuated between approximately 1.5 and 5.8 percent. As compared to the industry peers, Doubleday's pre-tax profit margins were generally inferior (see Exhibit 15). Management attributes the lower pre-tax profit margins to its higher costs as previously presented.

#### **Utilization of Assets and Capital**

**Cash Conversion Cycle.** The cash conversion cycle measures the average length of time from purchase of a product for sale, to conversion of that product to cash. It is computed by adding the days' receivable to the days' inventory and subtracting the days' payable.

Doubleday's cash conversion cycle was 75 days compared to industry peer medians of 70 days and 96 days (see Exhibit 16). Despite Doubleday having a higher accounts receivable turnover, its cash conversion cycle is similar rate to the public guidelines.

**Pre-Tax Return on Assets.** Asset utilization can be measured by "pre-tax return on assets." This ratio is an indicator of a company's effectiveness in using its asset base to generate profits. Pre-tax return on assets is calculated by dividing pre-tax earnings by the total amount of assets.

Doubleday's pre-tax return on assets was similar to the industry peers (see Exhibit 17). This is especially notable in light of the significant increase in assets, particularly non-operating assets, that occurred during fiscal 2010.

While Doubleday's return on assets is below its weighted average cost of capital, it funds some of its assets with non-interest bearing liabilities like accounts payable, accrued liabilities, and billings in excess of costs. If adjustments are made for these items, its ROA is higher than its WACC, suggesting ongoing creation of wealth for the shareholders.

**Pre-Tax Return on Equity.** Pre-tax income divided by total shareholders' equity, or "return on equity," is a measure of an entity's investment performance. A high return is often

## Exhibit 19: DuPont Analysis

June 30,	Pre-Tax Profit Margin <sup>1</sup>	Times: Asset Turnover <sup>2</sup>	Equals: Pre-Tax Return On Assets	Times: Leverage <sup>3</sup>	Equals: Return On Equity <sup>4</sup>
2010	5.77%	1.47	8.48%	2.25	19.08%
2009	3.67%	2.09	7.67%	2.71	20.79%
2008	3.03%	2.06	6.24%	3.48	21.72%
2007	-0.45%	1.97	-0.89%	4.06	-3.60%
2006	1.53%	1.91	2.92%	3.42	9.99%

<sup>1</sup> Pre-tax profit divided by net sales.

<sup>2</sup> Net sales divided by total assets.

<sup>3</sup> Total assets divided by total shareholders' equity.

<sup>4</sup> Also computed as pre-tax profit divided by total shareholders' equity.

associated with effective management, although such a return could be the result of under capitalization. Therefore, return on equity must be viewed in conjunction with an entity's leverage and its balance sheet.

Doubleday's pre-tax return on equity was superior to the medians of the industry peers (see Exhibit 18), and was higher than its cost of equity, further suggesting the ongoing creation of wealth for the shareholders.

### DuPont Analysis

The return on assets and return on equity can be further analyzed using the DuPont analysis. This analysis looks at the separate components that make up the return on assets and return on equity to gain additional insight.

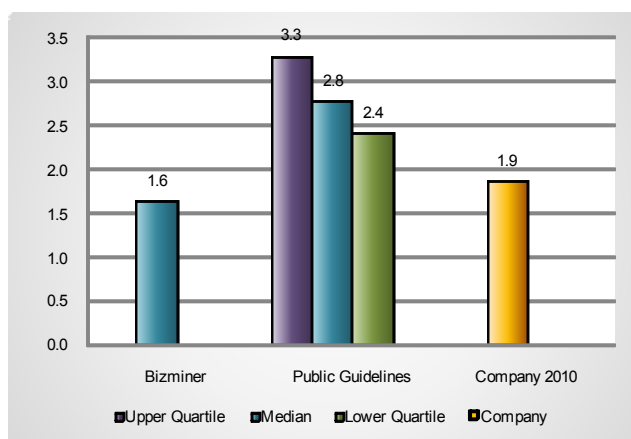
Based on the DuPont analysis, Doubleday's pre-tax return on assets have increased steadily. The increases were due to steadily improving profit margins, despite the recent decrease in asset turnover, which was due to a higher asset base, most of which is due to increased non-operating real estate. Returns on equity have generally fluctuated along with returns on assets, despite declines in financial leverage (see Exhibit 19).

## Finance

### Financial Liquidity

An entity's financial liquidity measures its ability to meet obligations at a specific point in time. The two primary financial liquidity ratios are the current ratio and the quick ratio.

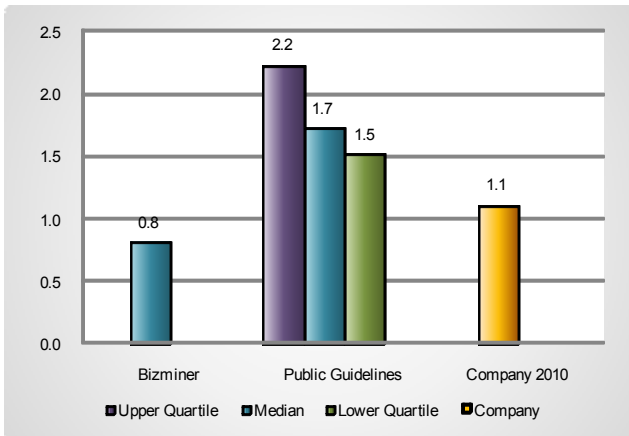
## Exhibit 20: Current Ratios



**Current Ratio.** The current ratio is computed by dividing total current assets by total current liabilities. It is one measure of an entity's ability to meet short-term obligations using its current assets. It is also a measure of an entity's working capital (current assets less current liabilities). A current ratio above one (1) indicates that an entity has more current assets than current liabilities. A current ratio below one (1) indicates that an entity has more current liabilities than current assets. For example, a current ratio of 1.5 would indicate that a company has \$1.50 of current assets for every \$1.00 of current liabilities.

Doubleday's current ratio was similar to the Bizminer peers and inferior to the public guidelines at the time of the analysis (see Exhibit 20). This suggests that Doubleday's

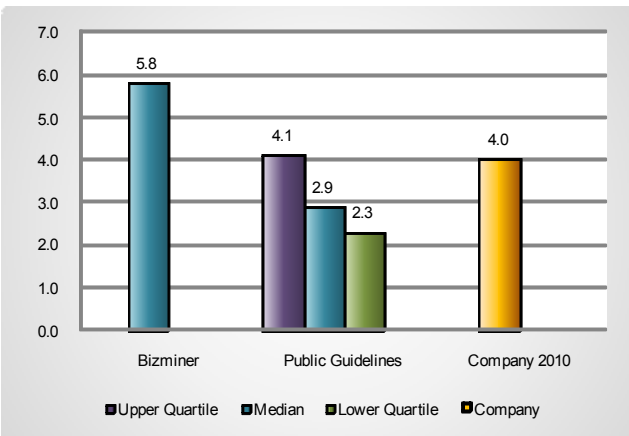
**Exhibit 21: Quick Ratios**



Doubleday’s liquidity, as measured by the quick ratio (see Exhibit 21), was inferior to the public guidelines, but superior to the Bizminer peers. Adjusting for liabilities associated with uncompleted projects, however, results in a quick ratio that is higher than both sets of guidelines. This suggests that Doubleday’s ability to meet its current obligations may actually be superior to its industry peers.

**Sales to Working Capital.** The “sales to working capital” ratio can measure how efficiently an entity employs its working capital. However, this ratio must be analyzed in conjunction with other liquidity ratios to uncover its true meaning. If working capital is average relative to peers, then the sales to working capital ratio can indicate the efficiency of generating revenue from working capital. A low ratio may indicate an inefficient use of working capital. If working capital is high relative to peers, then the sales to working capital ratio will tend to be lower. If working capital is low, the sales to working capital ratio will tend to be higher.

**Exhibit 22: Sales to Working Capital**



Doubleday’s current ratio appears to be inferior to the industry peers. The sales to working capital ratio tends to be enhanced by the lower current ratio and quick ratio. The sales to working capital ratio was between the medians of the industry peers (see Exhibit 22). However, making adjustments for percentage-of-completion accounting increases the current ratio so that it is more in line with its peers, but has little effect on the sales to working capital ratio. This suggests that Doubleday utilizes its working capital more effectively than the public guideline peers but less effectively than the Bizminer peers.

ability to meet its current obligations is inferior to the ability of its industry peers. However, the low ratio is due, in part, to percentage of completion accounting, which the guidelines do not utilize. Adjusting for the assets and liabilities associated with uncompleted projects results in a current ratio of over two, which is more in line with the guidelines.

**Quick Ratio.** Another measure of liquidity is the quick ratio. This ratio is computed by dividing the sum of cash, near cash and trade accounts receivable by total current liabilities. This ratio excludes less liquid assets such as inventory, in order to measure how much of the current liabilities could be quickly eliminated by liquidating current assets.

**Financial Leverage**

**Debt to Equity.** Leverage, as measured by total liabilities divided by total net worth (shareholders’ equity), is a measure of the extent to which an entity is dependent on external borrowing (debt capital) relative to equity capital. A business with a high “debt to worth” is generally considered less able to cope with unexpected cash flow problems, sudden economic changes and similar factors.

Doubleday’s debt to equity ratio was on the high end of the industry peers’ (see Exhibit 23). This suggests that Doubleday ability to incur additional debt or endure unexpected financial difficulties is not as strong as it could be. This is not entirely unexpected due to additional debt incurred to purchase real estate and construct its new headquarters building. However, Doubleday appears to hold a higher percentage of non-interest bearing liabilities

than the peers, which may reduce the impact of its higher liabilities.

**Interest Coverage.** An entity’s ability to support its financial leverage with cash flows and earnings must also be evaluated. One way to do this is analyzing its “times interest earned” ratio. This ratio is computed by dividing earnings before interest and taxes (EBIT) by interest expense. A ratio of 6, for example, indicates that a company has \$6.00 in earnings to cover every \$1.00 in interest charges—the greater the ratio, the greater the buffer.

Doubleday’s coverage of interest expense was superior to the Bizminer peers and inferior to the public guideline peers (see Exhibit 24). This means that Doubleday’s ability to meet its interest obligations appears to be similar to its industry peers. This is of particular interest in light of the debt to equity ratio, and suggests that Doubleday’s overall debt load is reasonable.

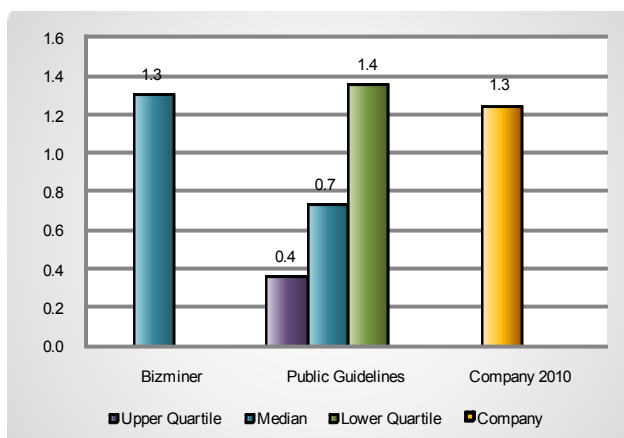
**Capital Structure**

**Book Value.** Book value is a company’s total assets less its total liabilities (as recorded in its accounting system). Doubleday’s book value at June 30, 2010 was \$33.4 million (see Exhibit 25). Net income and additional equity investments are the primary reasons for increases in a company’s book value. Conversely, net losses and equity withdrawals are the primary reasons for decreases in book value. The book value at June 30, 2010 represents an increase from the previous fiscal year end as a result of positive net income.

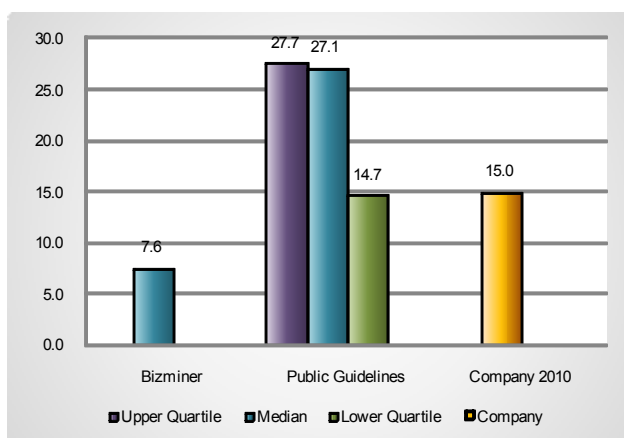
**Equity Classes.** Doubleday is authorized to issue up to 200,000 shares of Class A common stock at a par value of \$1.00 per share. No other classes of stock appear to be authorized. At June 30, 2010, 130,000 shares were issued and 125,000 shares were outstanding, with the difference being held as treasury shares.

**Ownership Rights and Restrictions.** As previously stated, only employees hold shares of stock. The shares are also subject to a right of first refusal whereby the Company, the ESOT, and the individual shareholders have the right to purchase shares offered to any outside parties. This, however, creates a paradox for any potential outside shareholders, in that only employees are permitted to be shareholders. Management indicated that they intend to exercise this right of first refusal in any case where a shareholder attempts to sell shares.

**Exhibit 23: Debt to Equity**



**Exhibit 24: Interest Coverage**



**Exhibit 25: Book Value**

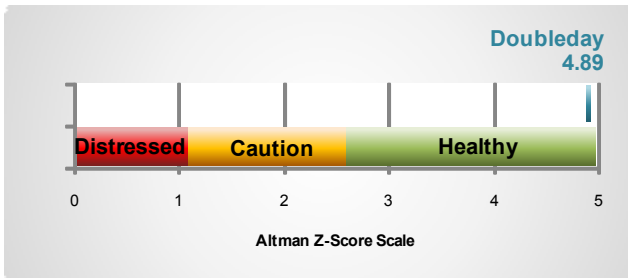
Total Assets <sup>1</sup>	\$ 75,000,000
Less Total Liabilities <sup>1</sup>	(41,600,000)
<b>Total Book Value</b>	<b>\$ 33,400,000</b>

<sup>1</sup> From Appendix B.

**Financial Health**

**Altman Z-Score.** The Altman Z-Score for services companies is a model that combines four different financial ratios to predict the likelihood of bankruptcy. Real world application of the Altman Z-Score successfully predicted more than 70 percent of corporate bankruptcies two year

## Exhibit 26: Altman Z-Score



prior. Scores above 2.5 indicate a healthy business which is unlikely to enter bankruptcy. Scores below 1.1 indicate that the chance of bankruptcy is likely.

We computed Doubleday's Altman Z-Score at 4.89. Doubleday's score indicates its financial health in the healthy zone (see Exhibit 26). Additionally, Doubleday's use of percentage of completion accounting results in lower working capital ratios and a higher asset base than it would otherwise have. As a result, the Altman Z-score for service companies may underestimate Doubleday's financial strength.

**Dividend Paying Capacity.** The dividend paying capacity of an entity is measured by its ability to distribute cash to the owners without having a negative impact on its ability to operate profitably in the future. Dividends are accounted for as a direct reduction of equity (book value) and are not charged against earnings. As a result, an entity's earnings incorporates its dividend paying capacity. However, an entity's cash flows must also be considered.

Doubleday's policy is to pay distributions in amounts sufficient to cover the income burden that accrues to the shareholders from Doubleday being an S-corporation. As a result of this policy, Doubleday should always have the capacity to pay such distributions because it represents only a portion of its earnings.

Doubleday's dividend paying capacity is inherent in its earnings and cash flow. As a result, we have not attempted to separately value Doubleday's dividend paying capacity.

## Asset Holdings

**Facilities and Equipment.** Doubleday's corporate headquarters are located on Main Street in Cooperstown, NY, where it owns and occupies 45,000 square feet of office space and 6,000 square feet of warehouse space. In addition to this real estate, Doubleday also holds the real estate immediately south of its headquarters on which it is constructing a new headquarters. The Company also maintains leased offices in San Antonio, Tokyo, and Sapporo, Japan, Santo Domingo, Dominican Republic, and Caracas, Venezuela, as well as an additional 5,000 square feet of leased office space adjacent to its Cooperstown location.

Management indicated that its most important operating equipment are computers and software. These were discussed previously in this report.

## Goodwill and Other Intangible Assets

Intangible assets are defined as:

*non-physical assets such as franchises, trademarks, patents, copyrights, goodwill, equities, mineral rights, securities and contracts (as distinguished from physical assets) that grant rights and privileges, and have value for the owner.*<sup>44</sup>

**Goodwill.** By the above definition, goodwill is a subset of intangible assets. Goodwill is defined as:

*that intangible asset arising as a result of name, reputation, customer loyalty, location, products, and similar factors not separately identified.*<sup>45</sup>

According to GAAP, goodwill is not recorded on an entity's books unless it is purchased in an acquisition of another entity. The fact that goodwill is not recorded does not mean it does not exist. This is also true of other types of intangible assets that may not be recorded on the books.

Most methods of valuing intangible assets rely on measuring the cash flow contributed to a company as a result of having the intangible asset. Rev. Rul. 59-60 states this differently:

44. International Glossary of Business Valuation Terms.

45. Ibid.

## Exhibit 27: Patents

Patent #	Grant Date	Description
xxxxxxx	June 5, 2007	Clarifier feedwell for trickling filters
xxxxxxx	May 19, 2004	Rotation control system for media filters
xxxxxxx	April 2, 1999	Underdrain structure for energy dissipating inlet
xxxxxxx	December 27, 1997	Flocculation control system and method

## Exhibit 28: Non-Operating Real Estate

Two office buildings and one warehouse Main Street, Cooperstown, NY	\$ 6,500,000
Manufacturing/office/warehouse building Main Street, Cooperstown, NY	3,250,000
Land and building under construction Main Street, Cooperstown, NY	5,000,000
DD Manufacturing, Inc. recently acquired building	500,000
Marine Building	<u>1,000,000</u>
Total Real Estate Value	15,250,000
Less Mortgages	<u>(10,110,000)</u>
<b>Net Asset Value of Non-Operating Real Estate</b>	<b><u><u>\$ 5,140,000</u></u></b>
<b>Rounded</b>	<b><u><u>\$ 5,140,000</u></u></b>

*In the final analysis, goodwill is based upon earning capacity. The presence of goodwill and its value, therefore, rests upon the net earnings over and above a fair return on the net tangible assets.<sup>46</sup>*

With this, the value of the goodwill and other intangible assets of Doubleday are captured in the value of the cash flow it generates. As a result, we will not attempt to separately value Doubleday's goodwill and other intangible assets.

**Patents.** Doubleday holds several active patents on components of different products. These patents are summarized in the accompanying chart (see Exhibit 27).

Management indicated that they have several registered trademarks including BioTel, HydroTel, and DOL, and while they use several tradenames, including the Company name as well as several product names, they have not registered any trade names. These names likely have value, especially the Company name, as Doubleday appears to have built a positive reputation within its industry.

### **Non-Operating Assets**

At times, privately held companies will hold assets unrelated to the operations of the business, or assets in excess of operating needs. When valuing a company, non-operating assets, along with any income or expenses associated with such assets, are segregated from the

46. Internal Revenue Service, Revenue Ruling 59-60, §4.01(f).

operations, valued separately from the operations, and added to the value of the operations to arrive at an overall value. In our analysis and inquiries of management, we determined that Doubleday holds non-operating assets in the form of real estate.

#### ***Non-Operating Real Estate***

Doubleday holds investments in real estate that are not required for the operation of the Company. Although Doubleday uses the real estate to house its corporate headquarters, to provide for future expansion and other operations, this real estate could be leased from outside parties. As such, we have treated these assets as non-operating. These properties are held in the wholly owned subsidiaries, DD Properties, LLC, DD Development, LLC, and DD Manufacturing, Inc. DD Properties holds the two office buildings located on Main Street and the land on which the new office building is being constructed located immediately to the west of Doubleday's current headquarters. Babe Ruth, MAI of Babe Ruth Real Estate Appraisal Services appraised the value of these properties as of May 16, 2010. The appraised values are listed in the accompanying table. These properties are subject to mortgage totaling \$10,110,000. The accompanying table summarizes the descriptions and estimated values of the non-operating real estate (see Exhibit 28).

#### ***Other Items***

##### ***Litigation***

Management indicated that the only items of litigation are collection efforts against several competitors.

##### ***Future Expectations***

In response to growth, management is expanding its Cooperstown facility by constructing a new building on land recently purchased. Management estimates the new building is 50 percent complete.

##### ***Summary***

We have summarized the risks associated with the Company as identified through our analysis and observations of the SPARC factors.

The only items of increased risk that we identified from internal factors are Doubleday's slower accounts receivable collection period, its increased warranty expense, and its increased financial leverage. Management has taken steps to correct the collection period and the warranty expansibility until corrected represent additional risk.

# Risk Profile

*Based on the risks identified, we believe an appropriate discount rate for an investment in the Company is appropriately larger than a rate of return expected for an investment in a small publicly traded stock, but less than the return expected for an investment in a late-stage venture capital investment.*

In previous sections of this report we analyzed the risks associated with investing or continuing to hold an investment in the Company. In this section, we summarize the risks previously identified, and develop an overall risk profile.

### Types of Risk

Whenever money is invested, an investor risks losing his or her money. As the risk of loss increases, an investor is willing to pay less for the investment. When the price an investor is willing to pay decreases, the potential return on the investment increases. Thus, the value of an investment relates inversely to the risks associated with it. Financial theory identifies three broad categories of risk: maturity risk, systematic risk, and unsystematic risk.

#### Maturity Risk

Maturity risk is the risk that the value of an investment will change over time as a result of overall changes in interest rates. This risk increases as the expected holding period of an investment increases.

#### Systematic Risk

Systematic risk is the risk inherent to an entire market or market segment. It is also called market risk or un-diversifiable risk and includes such things as recessions, wars, political instability and other factors that affect a broad range of investments. Systematic risk cannot be mitigated by diversification.

#### Unsystematic Risk

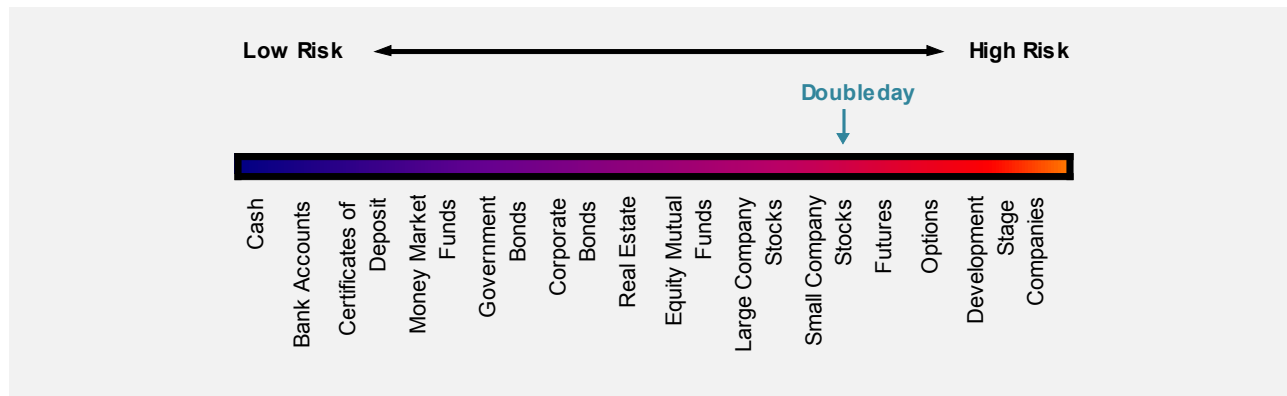
Unsystematic risk is the risk inherent in and unique to a specific entity. Investors can mitigate this risk through investment diversification. There are four primary sources of unsystematic risk:

### Exhibit 29: Entity Specific Risks

Factor	Risk Impact
<b>Size</b>	↑
<b>Macroeconomy</b>	
Economy	↑
Innovation	○
Lifestyles and Values	↓
Demographics	↓
Disasters	○
Politics	↓
<b>Industry</b>	
Customers	↑
Suppliers	○
Competitors	↑
New Entrants	↑
Substitutes	○
Complements	○
<b>Entity Specific Risks</b>	
Strategy	↓
People	↓
Architecture	○
Routines	○
Culture	↓
Other	○
<b>Financial Analysis</b>	↑

↑ indicates the factor poses an increased level of risk to an investment in the entity.  
 ○ indicates the factor poses a neutral level of risk to an investment in the entity.  
 ↓ indicates the factor poses a decreased level of risk to an investment in the entity.

### Exhibit 30: Risk Spectrum



- ◆ the size of the subject entity;
- ◆ the macroenvironment;
- ◆ the industry, and
- ◆ company specific risks.

These factors, except for size, have been discussed at length previously in this report. The impact of size will be addressed later in this report.

#### Identified Risk of the Subject Entity

The maturity risk and systematic risk associated with an investment in Doubleday are inherent in the data used to develop an appropriate cost of capital (discount rate and/or valuation multiple), as described later in this report. We have listed various unsystematic risk factors, what we believe their impact would be on the perceived risks of an investment in Doubleday, (see Exhibit 29), and summarized them as follows:

**Size.** As stated previously, investments in small companies are typically considered more risky and carry a greater expected rate of return. This has been demonstrated by several studies. Doubleday is a small entity. An investment in Doubleday is therefore considered more risky than alternative investments in large corporations.

**Macroenvironment.** As discussed previously, increased risks appear to be associated with macroenvironmental factors, especially current economic conditions.

**Industry.** As discussed previously, the competitive bidding process as well as the size and capital resources of many competitors present some risks to an investment in the Company.

**Entity Specific Risks.** We did not identify any significant entity specific risks and do not believe an outside investor would assess additional risk to an investment in the Company based on these factors.

**Financial Analysis.** We believe an outside investor may assess additional risk to an investment in the Company based on its lower profitability relative to the industry peers.

#### Risk Spectrum

As the risk of an investment increases, the potential return also increases. This expected return is intended to compensate the investor for taking on additional risk as increased risk also brings with it a greater potential for incurring a loss. As a result, low-risk investments, like U.S. Government bonds, cash and cash equivalents, have low rates of return. High-risk investments, such as options, futures contracts, and speculative start-up enterprises, have high rates of return. In this sense, risk can be thought of as a spectrum ranging from low risk with corresponding low rates of return, to high risk with corresponding high rates of return. Based on previous assessments of risk related to Doubleday, we believe an investment in the Company is appropriately considered to be [slightly more risky/much more risky/less risky] than an investment in small publicly traded stocks, but further, Doubleday is not publicly traded, which increases investors' perception or risk (see Exhibit 30).

## Exhibit 31: Returns by Asset Class

Rate	Asset Class
0.17% <sup>1</sup>	U.S. Treasury constant maturities - 1 month
3.74% <sup>1</sup>	U.S. Treasury constant maturities - 20 year
4.66% <sup>1</sup>	Corporate bonds - Moody's Aaa
6.05% <sup>1</sup>	Corporate bonds - Moody's Baa
3.25% <sup>1</sup>	Bank prime loan rate
12.05% <sup>2</sup>	Estimated 20-year total returns for commercial real estate
10.90% <sup>3</sup>	Large publicly traded company stocks
13.70% <sup>3</sup>	Mid-cap publicly traded company stocks
18.20% <sup>3</sup>	Micro-cap publicly traded company stocks
20%-35% <sup>4</sup>	Venture capital expected returns for bridge financing
30%-50% <sup>4</sup>	Venture capital expected returns for late stage development
40%-60% <sup>4</sup>	Venture capital expected returns for early stage development
50%-70% <sup>4</sup>	Venture capital expected returns for seed-stage financing

<sup>1</sup> *Federal Reserve Statistical Release, "H.15(519) Selected Interest Rates," (Board of Governors of the Federal Reserve System, July 6, 2010).*

<sup>2</sup> *Average annual total return on Real Estate Investment Trusts over the 20-year period ended 2009. Computed from data published by the National Association of Real Estate Investment Trusts.*

<sup>3</sup> *Ibbotson SBBi 2010 Valuation Yearbook, Table 7-4 "Size-Decile Portfolios of the NYSE/AMEX/NASDAQ Summary Statistics of Annual Returns," (Morningstar, Inc.), p.89.*

<sup>4</sup> *Scherlis, Daniel R. and William A. Sahlman, "A Method for Valuing High-Risk, Long Term, Investments: The Venture Capital Method," Harvard Business School Teaching Note 9-288-006, Boston: Harvard Business School Publishing, 1989.*

The inverse relationship between expected rates of return and value is connected to risk. As the risk (and expected rate of return) of an investment increases, the value of an investment decreases. Put another way, the value of a risky cash flow stream is less valuable than a less risky equivalent cash flow stream.

### Quantifying Risks

For valuation purposes, these risks need to be quantified. To do so, we looked to the rates of return expected on

various types of investments ranging from low-risk, short-term government securities to venture capital financing (see Exhibit 31). In this context an investment in Doubleday, being describe previously as slightly higher than the risk of investing in small publicly traded stocks, suggests that an appropriate rate of return (discount rate) for Doubleday should be above an investment in micro-cap companies, but below venture capital investments.

# Valuation Approaches and Adjustments

*We have considered using each of the valuation approaches in our analysis. We have also made certain adjustments to the financial information to account for non-operating and non-recurring items.*

## Valuation Approach Overview

The various approaches to valuing an ownership interest in a business or intangible asset are based in the economic principles of “future benefits” and “substitution.”

The principle of future benefits specifies that an investor will not pay more than today’s value of economic benefits to be received in the future. The principle of substitution specifies that an investor will not pay more for an asset than the cost of another asset that performs the same function. These principles are applied in the various approaches to value, namely the income approach, the market approach and the asset approach. Each of these approaches have corresponding methods that can be used to develop a value.

## Asset Approach

The asset approach (or cost approach) is based on the economic principle of substitution. In terms of an investment, the principle of substitution is that an investor will not pay more for an investment than the cost to purchase or create the same investment.

The underlying concept of the asset approach is simple. The value of the investment is the sum of its assets less its liabilities. When properly applied, asset approach methods can be highly complex. This approach not only considers physical assets, but also intangible assets such as trademarks, patents, customer relationships, and reputation, to name a few. This approach also considers actual liabilities as well as contingent liabilities that may exist. The asset approach recognizes that all economic value can be associated with the productive assets of the business, tangible and intangible.

## Income Approach

The income approach is based on the economic principle of future benefits. It uses the concept of the “time value of money” to determine value. The time value of money

concept is that an amount of money available now is worth more than the same amount in the future. The reason has to do with uncertainty and investment potential.

The receipt of an amount of money in the future is not completely certain. Events and circumstances may prevent the amount from being paid. Investors seek to be compensated for such risks. An amount available today can be invested and earn interest. The investor will have a greater amount of money in the future because of the interest earned. The sooner the money is available for investing, the more interest it can earn. Therefore, an amount of money is more valuable now than the same amount received in the future.

Under the income approach, value is computed as today’s value (present value) of expected future economic benefits to be received. The computation of the present value considers the risks associated with the investment. The risks are expressed in the rate of return that the investors seeks to achieve. This rate of return is often called the “cost of capital.”

The methods used in the income approach primarily include the discounted future cash flows (DCF) method and the capitalized earnings method.

## Market Approach

The market approach is based on the economic principle of substitution, but can also incorporate some elements of the principle of future benefits. It uses the concept of “efficient markets.” The efficient market hypothesis is that the market price of an investment will reflect and incorporate all relevant information related to the assets. It means that the trading price will always be equivalent to the fair market value of the investment.

This approach compares the subject entity to transactions involving reasonably similar companies whose values are known. The comparisons are used to develop a cost of

## Exhibit 32: Adjustments to Earnings

	Book <sup>1</sup>	Normalizing Adjustments	Adjusted Book	Non-Operating Adjustments	Adjusted Book	
Revenue	\$ 110,000,000	\$ -	\$ 110,000,000	\$ -	\$ 110,000,000	100.0%
Direct costs	65,000,000	-	65,000,000	-	65,000,000	59.1%
Gross profit	45,000,000	-	45,000,000	-	45,000,000	40.9%
Commissions	6,000,000	-	6,000,000	-	6,000,000	5.5%
Salary and wages	19,000,000	(925,000)	18,075,000	-	18,075,000	16.4%
Replacement rent	-	-	-	1,000,000	1,000,000	0.9%
Warranty	6,000,000	(1,000,000)	5,000,000	-	5,000,000	4.5%
Other G&A	7,000,000	-	7,000,000	(225,000)	6,775,000	6.2%
Depreciation	1,000,000	-	1,000,000	(140,000)	860,000	0.8%
Operating expenses	39,000,000	(1,925,000)	37,075,000	635,000	37,710,000	34.3%
Income from operations	6,000,000	1,925,000	7,925,000	(635,000)	7,290,000	6.6%
Interest income	150,000	-	150,000	-	150,000	0.1%
Interest expense	(400,000)	-	(400,000)	360,000	(40,000)	0.0%
Other income (expense)	600,000	-	600,000	-	600,000	0.5%
Earnings before minority int. & taxes	6,350,000	1,925,000	8,275,000	(275,000)	8,000,000	7.3%
Minority interest	10,000	-	10,000	-	10,000	0.0%
Earnings Before Taxes	<b>\$ 6,340,000</b>	<b>\$ 1,925,000</b>	<b>\$ 8,265,000</b>	<b>\$ (275,000)</b>	<b>\$ 7,990,000</b>	7.3%
EBITDA					\$ 8,150,000	7.4%

<sup>1</sup> From Appendix B.

capital based on the known values of the comparable companies. The cost of capital is usually expressed as a valuation multiple. The multiple is then applied to an appropriate measure of economic benefit to arrive at a value.

The methods used in the market approach include actual transactions involving the subject investment, the private company transaction method and the publicly traded guideline company method.

Our selection of an appropriate approach and underlying method of valuation depends on the facts and circumstances of the case. The items that will impact the selection of the most appropriate method of valuation may include, but are not limited to, the following:

- ◆ The purpose of the valuation;
- ◆ The premise of value (i.e., liquidation versus going concern);
- ◆ The availability of adequate information on publicly traded comparable companies or transactions involving comparable private companies;
- ◆ The relative stability or irregularity of historical earnings; and,
- ◆ Growth expectations for the future.

We considered using valuation methods that relate to the income, asset, and market approaches as detailed in the following sections of this report.

## ***Normalization of Earnings and Adjustments***

We adjust and normalize the financial statements of the Company as an integral part of the valuation process. Such normalizing adjustments are intended to eliminate nonrecurring and unusual items and account for any non-operating assets, revenues, and expenses that exist. When developing an opinion of value for a controlling interest in a company, we optimize discretionary expenses, capital structure, and similar items. The controlling interest holder has the ability to change each of these financial items in order to maximize value. On the other hand, when performing a valuation for a non-controlling interest in a company, we do not make these additional adjustments, because the non-controlling interest holder is unable to change any of these financial items.

In this case we made the following adjustments (see Exhibit 32):

### ***Normalization Adjustments***

**ESOP Contribution.** Cash contributions made by Doubleday to the ESOP represents a discretionary expense that benefits the participants of the ESOP. Also, a non-ESOP buyer would not incur such expense. For valuation purposes, we have added back the amount of the contribution to the employee benefit share expense. This adjustment resulted in the decrease of employee benefit share by \$925,000.

**Warranty Expense.** Over the last few years, warranty expense has been higher than management would like. They have taken steps to reduce this expense, and as a result, future warranty expense is expected to decline. We have added back \$1 million of warranty expense to normalize warranty expense.

### ***Non-Operating Adjustments***

**Replacement Rent.** Doubleday's real estate holdings and the expenses related to the real estate represent non-operating items. As part of the adjustment for the non-operating real estate, we added a replacement rent amount

as if the real estate were being leased. We estimated this amount at 10 percent of the total estimated value of the real estate held, assuming a triple-net lease. This adjustment increased rent expense by \$1 million.

**Non-Operating Expenses.** Our reading of the financial statements of Doubleday's subsidiaries indicate that \$225,000 of expenses related to the ownership of the real estate were incurred during the fiscal year ended June 30, 2010, not including depreciation and expenses that would be required under a triple net lease. We eliminated this amount as a non-operating expense, which impacted other general and administrative expenses.

**Depreciation.** As part of the adjustment for the non-operating real estate, we decrease depreciation expense by \$140,000, representing the amount of depreciation on the real estate.

**Interest Expense.** As part of the adjustment for the non-operating real estate, we decreased interest expense by \$360,000, representing the amount of interest expense on the mortgages on the real estate.

**Income Taxes.** Although not presented in the accompanying chart, we made an adjustment for income taxes. The Company has elected S-corporation status with the IRS. As an S-corporation, the Company does not pay income taxes. However, the individual shareholders pay income taxes on their pro-rata share of the corporate income. The Company, like most S-corporations, makes cash distributions to its shareholders in amounts sufficient to cover the shareholders' tax responsibilities, and in this case, management has indicated that it does not make such distributions in excess of this amount. It is similar, therefore, to a C-corporation in that it has cash flow requirements related to income taxes. In the normal course of valuing S-corporations, we impute income tax expense to account for such cash flow requirements. This adjustment will be applied later in the Income Approach and Market Approach chapters of this report.

# Asset Approach

*We did not use the asset approach to develop our estimate of the fair market value of the Subject Interest. We did, however, use the adjusted net asset value of the non-operating assets to determine their fair market value.*

The asset approach is defined as:

*a general way of determining a value indication of a business, business ownership interest, or security using one or more methods based on the value of the assets net of liabilities.<sup>47</sup>*

Because GAAP recognizes assets at their historical costs, and generally will not recognize intangible assets unless they are purchased, the asset approach involves adjusting a company's individual assets and liabilities up or down from historical cost to reflect their current values. This includes tangible and intangible assets, as well as contingent liabilities.

Usually tangible assets can be easily identified and an appraisal can be performed to determine their values. The subject entity's balance sheet can be adjusted to reflect these values. Identifying and valuing intangible assets can be much more difficult. Such assets include trade names, trademarks, patents, reputation, trained workforce, and others. Valuation techniques used to value intangible assets typically rely on the earnings or cash flows generated by such assets. As such, the income and market approaches inherently capture the value of these assets. For this reason, the asset approach is generally less preferred when valuing a profitable operating entity.

IRS Revenue Ruling 59-60 expresses this as follows:

*Earnings may be the most important criterion of value in some cases whereas asset value will receive primary consideration in others. In general, the appraiser will accord primary consideration to earnings when valuing stocks of companies which sell products or services to the public; conversely, in the investment or holding*

*type of company, the appraiser may accord the greatest weight to the assets underlying the security to be valued.<sup>48</sup>*

In addition to holding companies, the asset approach is frequently used for non-operating assets held by entities.

## Methods Considered

### Adjusted Net Assets

The adjusted net assets method estimates value as the sum of the subject entity's assets (including intangible assets) less its liabilities (including contingent liabilities). The value of the assets and liabilities is determined as if the entity will continue as an ongoing concern. As stated in Rev. Rul. 59-60, this method is most appropriate for investment companies and holding companies. This method may also be appropriate for operating companies that are marginally profitable or when a significant portion of a company's assets are composed of liquid assets or other investments (such as real estate or marketable securities).

Based on the issues addressed above, we believe the value of Doubleday is better represented by other methods, and as such we did not use the asset approach to develop a value of the operations of Doubleday.

### Liquidation Value

The liquidation value method is similar to the adjusted net assets method. Value is estimated as the sum of the subject entity's assets less its liabilities. The difference is the assets and liabilities are valued as if being liquidated as opposed to in place with a going concern. According to USPAP Standards Rule 9-3, this method should be considered. This rule states:

47. International Glossary of Business Valuation Terms.

48. Internal Revenue Service, Revenue Ruling 59-60, 5(a).

### Exhibit 33: Adjusted Net Assets

	Book Balance <sup>1</sup>	Normalizing Adjustments	Adjusted Balance	Non-Operating Adjustments	Adjusted Balance
<b>ASSETS</b>					
Current Assets					
Cash	\$ 9,000,000	\$ -	\$ 9,000,000	\$ -	\$ 9,000,000
Accounts Receivable	26,000,000	-	26,000,000	-	26,000,000
Inventory	5,000,000	-	5,000,000	-	5,000,000
Other current assets	11,000,000	-	11,000,000	-	11,000,000
Underbillings	8,000,000	-	8,000,000	-	8,000,000
<b>Total Current Assets</b>	<b>59,000,000</b>	<b>-</b>	<b>59,000,000</b>	<b>-</b>	<b>59,000,000</b>
Fixed Assets					
Fixed assets, cost	19,500,000	-	19,500,000	(12,000,000)	7,500,000
Accumulated Depreciation	(4,500,000)	-	(4,500,000)	1,250,000	(3,250,000)
<b>Total Fixed Assets</b>	<b>15,000,000</b>	<b>-</b>	<b>15,000,000</b>	<b>(10,750,000)</b>	<b>4,250,000</b>
Other Assets					
Other	1,000,000	-	1,000,000	-	1,000,000
<b>Total Other Assets</b>	<b>1,000,000</b>	<b>-</b>	<b>1,000,000</b>	<b>-</b>	<b>1,000,000</b>
<b>TOTAL ASSETS</b>	<b>\$ 75,000,000</b>	<b>\$ -</b>	<b>\$ 75,000,000</b>	<b>\$ (10,750,000)</b>	<b>\$ 64,250,000</b>
<b>LIABILITIES AND EQUITY</b>					
Current Liabilities					
Accounts Payable	\$ 7,000,000	\$ -	\$ 7,000,000	\$ -	\$ 7,000,000
Accrued Expenses	10,000,000	(1,925,000)	8,075,000	-	8,075,000
Current Portion of Long-Term Debt	600,000	-	600,000	(360,000)	240,000
Overbillings	14,000,000	-	14,000,000	-	14,000,000
<b>Total Current Liabilities</b>	<b>31,600,000</b>	<b>(1,925,000)</b>	<b>29,675,000</b>	<b>(360,000)</b>	<b>29,315,000</b>
Long-Term Liabilities					
Long-term debt net of current portion	10,000,000	-	10,000,000	(9,750,000)	250,000
<b>Total Long-Term Liabilities</b>	<b>10,000,000</b>	<b>-</b>	<b>10,000,000</b>	<b>(9,750,000)</b>	<b>250,000</b>
Equity	33,400,000	1,925,000	35,325,000	(640,000)	34,685,000
<b>TOTAL LIABILITIES AND EQUITY</b>	<b>\$ 75,000,000</b>	<b>\$ -</b>	<b>\$ 75,000,000</b>	<b>\$ (10,750,000)</b>	<b>\$ 64,250,000</b>

<sup>1</sup> From Appendix B.

*In developing an appraisal of an equity interest in a business enterprise with the ability to cause liquidation, an appraiser must investigate the possibility that the business enterprise may have a higher value by liquidation of all or part of the enterprise than by continued operation as is. If liquidation of all or part of the enterprise is the indicated premise of value, an appraisal of any real property or personal property to be liquidated may be appropriate.*

*Comment: This Standards Rule requires the appraiser to recognize that continued operation of*

*a business is not always the best premise of value because liquidation of all or part of the enterprise may result in a higher value. However, this typically applies only when the business equity being appraised is in a position to cause liquidation. If liquidation of all or part of the enterprise is the appropriate premise of value, the scope of work may include an appraisal of real property or tangible personal property. If so, competency in real property appraisal (STANDARD 1) or tangible personal property appraisal (STANDARD 7) is required.<sup>49</sup>*

Management did not indicate that there was any intention on pursuing a course of liquidation. As a result, we did not use the liquidation value method.

## **Balance Sheet Adjustments**

### **Normalization Adjustments**

Management made significant accruals for contributions to the ESOP and for warranty expense during the fiscal year ended June 30, 2010. Since we have made adjustments to Doubleday's earnings for these items, we have also made corresponding adjustments to accrued expenses. We made a downward adjustment to accrued expenses of \$1 million for accrued warranty expenses not expected in future periods and \$925,000 for accrued ESOP contributions. The total of these are \$1,925,000.

### **Non-Operating Assets**

As previously discussed, Doubleday holds non-operating assets. We segregate these assets from the operations of the Company, value them separately using an asset approach, and add the value of these assets to the value of the operations to arrive at a total value. Our computation of these amounts were presented previously in the Internal Risks and Resources chapter of this report.

To separate these assets from the balance sheet, we decrease property and equipment by \$12 million, representing the recorded cost of the real estate, and increased accumulated depreciation by \$1.25 million to eliminate net real estate from the balance sheet. We also decreased current portion of long-term debt by \$360,000, and long-term notes payable by \$9.75 million to eliminate mortgages payable from the balance sheet. These adjustments and their impact on the balance sheet are presented in the accompanying table (see Exhibit 33).

49. The Appraisal Foundation, *Uniform Standards of Professional Appraisal Practice and Advisory Opinions: 2006 Edition*, Standards Rule 9-3.

# Income Approach

*We used the discounted future cash flows method to estimate the fair market value of the Subject Interest. We used this method because future long-term growth is expected to vary from near-term rates of growth.*

We have detailed the principal methods of the income approach in this section, including methods considered and methods used.

The first procedure we performed was to estimate the future earnings or cash flows. We then estimated the cost of capital applicable to the Subject Interest. We then applied the cost of capital estimate to the estimated future earnings or cash flows to develop a value.

## Capitalization Methods

Capitalization methods compute value based on an entity's estimated future income by applying an appropriate capitalization rate to a single period estimate of future income. This capitalization rate takes into account the required rate of return an investor would expect based on the perceived investment risk, and expected growth in earnings. Capitalization methods are most useful when economic income is stable and growing at an even rate. Capitalization methods are based on the Gordon-Shapiro dividend discount valuation model and use a single period of earnings to develop a value.

Capitalization methods are calculated by dividing the estimate of future earnings or cash flows by an applicable capitalization rate. The capitalization rate is computed by subtracting the long-term sustainable rate of growth from the applicable discount rate (see Exhibit 34).

We did not use this method to compute a value of the Company because its short-term growth is expected to differ from the long-term sustainable growth.

## Discounted Future Cash Flow Methods

Discounted future cash flow methods involve projecting estimated future income streams and discounting those income streams by an appropriate discount rate to arrive at today's value of the estimated future earnings. The future income streams are usually estimated on an annual basis and can include either net income or cash flows. Earnings

### Exhibit 34: Formula for Capitalized Cash Flows Method

$$PV = \frac{CF}{k-g}$$

Where:

*PV* = Present Value

*CF* = Expected ongoing cash flow or economic Benefit

*k* = Discount rate (required yield rate or total rate of return)

*g* = Expected ongoing future growth in cash flows or economic benefits

are forecasted for a number of future periods until such earnings reach a stable level of growth. Once the stable growth is achieved, a "residual value" is determined. The residual value is the value of all future income streams after the point in time when a stable rate of growth has been estimated.

The appropriate discount rate is the rate of return an investor would expect to earn based on the risks of investing in a given entity. The sum of present values of projected income streams and the residual value results in a value estimate for the entity itself (see Exhibit 35).

If an entity's earnings or cash flows are growing at a constant rate into perpetuity, the discounted cash flow formula is mathematically equivalent to the capitalization method. However, when an entity's near-term rate of growth is different from the long-term trend, or when near-term factors are influencing results (in a way that can be reasonably predicted), a discounted future earnings method can capture the valuation impacts of such differences more reliably than a capitalization method.

We have used the discounted cash flows method as detailed later in this section of the report.

### Adjusted Present Value Method

The adjusted present value (APV) method computes a value by separating the value of an enterprise into two parts. It first computes the value of un-leveraged cash flows at an equity rate of return. Next, it computes the value of benefits from the tax deductibility of interest expenses (referred to as the “tax shield”) at a rate reflecting the risk of achieving such benefits. These two parts are then summed to arrive at the value of an enterprise.

Traditional DCF and CCF methods assume a static capital structure. The APV method is especially useful when a company expects to change its interest-bearing debt from current levels.

### Excess Earnings Method

The excess earnings method was originally set forth in IRS Appeals and Review Memorandum 34 in 1920. It was updated by Revenue Ruling 68-609. The excess earnings method is based on the theory that earnings over and above a reasonable return on tangible assets represents a return on intangible assets. This method involves estimating the value of tangible assets and a reasonable return on those assets, and then determining a value of intangible assets based on any earnings that exceed the return on tangible assets. This method is a hybrid of the asset and income approaches, using elements of both.

This method involves the following steps:

- ◆ Determine the value of the entity's net tangible assets.
- ◆ Normalize the cash flow of the entity.
- ◆ Determine an appropriate rate of return for the tangible assets.
- ◆ Determine the cash flows attributable to the net tangible assets by multiplying the net tangible assets by the appropriate rate of return for such tangible assets.
- ◆ Deduct the cash flows attributable to the net tangible assets from the normalized cash flow of the entity.
- ◆ Determine an appropriate rate of return for the intangible assets.

### Exhibit 35: Formula for DCF Method

$$PV = \frac{E_1}{(1+k)} + \frac{E_2}{(1+k)^2} + \dots + \frac{E_n}{(1+k)^n} + \frac{E_n(1+g)}{(1+k)^n \frac{k-g}{k}}$$

Where:

- $E_1, \dots, E_n$  = Expected amounts of economic income in each period  $E_1$  through  $E_n$
- $k$  = Discount Rate
- $n$  = Number of periods in the discrete projection period
- $g$  = Annually compounded growth rate in perpetuity for the prospective economic income, beyond the discrete projection period

- ◆ Divide the earnings attributable to intangible assets by a capitalization rate appropriate for intangibles, to estimate the total value attributable to the intangibles assets.
- ◆ Add the value of the net tangible assets to the value of the intangible assets to estimate an overall value.

IRS Revenue Ruling 68-609 states that the excess earnings method is appropriate when no better method exists. We did not use this method because we believe better methods were available.

### Estimate of Future Cash Flows – Discounted Future Cash Flows Method

The following sections detail the estimated future cash flows used in the discounted future cash flows method.

#### Estimated Future Cash Flow to Invested Capital

Cash flows can be evaluated on a “cash flow to equity” basis or a “cash flow to invested capital” basis. Cash flow to equity looks at the cash flow that is available to the equity owners. Cash flow to invested capital includes the cash paid to debt holders (interest expense). It is often called “debt free” cash flow because it represents the cash flows as if the entity had no interest bearing debt. It allows for the analysis to be performed on a debt neutral basis. The impact of the debt is then considered separately. Cash flow to invested capital was used because the capital structure is expected to remain relatively constant.

## Exhibit 36: Future Pre-Tax Earnings

\$(000)		Year 1	Year 2	Year 3	Year 4	Year 5
Revenue	\$ 110,000	\$ 126,500	\$ 139,150	\$ 151,674	\$ 159,258	\$ 164,036
<i>growth</i>		15.0%	10.0%	9.0%	5.0%	3.0%
Gross Profit	36.0%	45,540	50,094	54,603	57,333	59,053
Commissions	5.5%	6,958	7,653	8,342	8,759	9,022
Salaries and wages <sup>1</sup>		18,437	19,451	20,472	21,342	22,142
Warranty and quality control	4.0%	5,060	5,566	6,067	6,370	6,561
Replacement rent		1,030	1,061	1,093	1,126	1,160
Depreciation <sup>2</sup>		1,000	1,200	1,100	1,000	900
Other general and administrative expenses	4.0%	5,060	5,566	6,067	6,370	6,561
Operating expenses		<u>37,545</u>	<u>40,497</u>	<u>43,141</u>	<u>44,967</u>	<u>46,346</u>
Operating earnings		7,995	9,597	11,462	12,366	12,707
Interest income		94	105	112	118	132
Interest expense		(19)	(6)	-	-	-
Other income (expense)		690	759	827	868	894
Profit before employee bonuses and retirement		8,760	10,455	12,401	13,352	13,733
Profit sharing/cash bonuses	10.0%	876	1,046	1,240	1,335	1,373
401k contributions	10.0%	876	1,046	1,240	1,335	1,373
ESOP contribution	15.0%	1,314	1,568	1,860	2,003	2,060
Forecasted Earnings Before Taxes		5,694	6,795	8,061	8,679	8,927
Income taxes		50	50	50	50	50
<b>Forecasted Net Income</b>		<b>\$ 5,644</b>	<b>\$ 6,745</b>	<b>\$ 8,011</b>	<b>\$ 8,629</b>	<b>\$ 8,877</b>

<sup>1</sup> Year 1 is based on a 2 percent growth over the base year (June 30, 2010). Subsequent years are based on a 3 percent growth to account for existing employees plus 25 percent of the growth in revenue to account for new hires.

<sup>2</sup> Based on managements expectations taking into account capital expenditures for furniture and equipment needed for the new building.

### Earnings Forecast Assumptions

In order to forecast future cash flows, we must first forecast future earnings and future account balances. These forecasts require many assumptions, which are derived from Doubleday's management. We have listed and detailed them as follows:

**Base Period.** The base period from which these forecasts are built includes the adjusted financial statements as of and for the fiscal year ended June 30, 2010, as presented previously in this report.

**Revenues.** Management forecasted future revenues to increase by 15 percent in 2011, followed by increases of 10 percent, 9 percent, 5 percent, and 3 percent.

**Gross Profit.** Management forecasted future gross profits by applying gross margins of 36 percent. This is lower than the most recent fiscal years, but similar to profit margins from previous years.

**Operating Expenses.** Management forecasted future operating expenses by itemizing several of the items. Commissions are expected to continue at 5.5 percent. Salaries are expected to grow at the rate of inflation plus 25 percent of the sales growth rate. Warranty and quality control expenses are expected to continue at 5 percent of

sales. Replacement rent was grown by 3 percent annually. Depreciation was estimated based on future expectation of capital expenditures, especially in light of items needed for the furniture and equipment in the new building. Other general and administrative expenses (not including employee bonuses and retirement benefits) are expected to be approximately 4 percentage of sales.

**Other income and expenses.** Interest income was forecasted at 1 percent of the average yearly cash balance. Interest expense was forecasted at 5 percent of the average year balance of interest bearing debt. Other income (expenses) was grown at the same rate as the growth in revenue.

**Employee Bonuses and Retirement Benefits.** The target that management sets for profit sharing contributions and cash bonuses, 401k plan contributions and ESOP contributions is 10 percent, 10 percent and 15 percent, respectively, of earnings before employee bonuses and retirement benefits.

#### ***Balance Sheet Forecast Assumptions***

Based on these assumptions we computed the future pre-tax earnings (see Exhibit 36).

**Accounts Receivable.** Management estimates that the days revenue outstanding will be approximately 86 days going forward, similar to historical levels.

**Inventory.** Management believes that the days' inventory outstanding will continue at about 28 days, similar to historical levels.

**Other Current Assets.** Management forecasted other current assets based on an expected annual growth similar to the expected growth in revenues.

**Underbillings.** Management believes the future days outstanding of underbillings will be 45 days. This is similar to historical levels.

**Fixed Assets.** We increased fixed assets by amounts equal to management's estimates of capital expenditure requirements.

**Investments in Subsidiaries.** Management expects to invest earnings by acquisition or otherwise in the future.

**Accounts Payable.** Management believes that the days payable outstanding will be approximately 40 days in future periods, which is similar to historical levels.

**Accrued Expenses.** Management believes days accrued expenses outstanding will be approximately 45 days, similar to historical levels.

**Overbillings.** Management estimated future days overbillings (billings in excess of costs and estimated profits) outstanding at 80 days, similar to historical levels.

**Notes Payable.** Future notes payable balances will be impacted by future payments on notes currently outstanding and by future borrowings. Management intends to pay down the notes payable quickly.

Based on these assumptions and the previous forecasted earnings, we computed the forecasted account balances (see Exhibit 37).

**Future Cash Flows.** From the forecasted pre-tax earnings and the forecasted account balances we computed the forecasted cash flows. To estimate the future cash flows, we began with the forecasted pre-tax earnings. We added the forecasted interest expense paid on interest bearing debt to arrive at forecasted earnings before interest and taxes (EBIT). We then subtracted normalized income tax to arrive at forecasted after tax earnings to invested capital. We added forecasted depreciation expense to arrive at gross cash flow to invested capital. We then subtracted the expected incremental working capital needs and the expected ongoing capital expenditure needs to arrive at net future cash flow to invested capital (see Exhibit 38).

**Income Taxes.** As an S-corporation, Doubleday pays little in income taxes. However, the fair market value standard contemplates a sales transaction. In such a transaction, the likely buyer would have a tax obligation either as a c-corporation or its owners as a non-ESOP pass-through entity. Such a buyer would consider future tax obligations in pricing the subject interest. In order to determine the future cash flows we had to estimate future income taxes. We estimated income taxes based on a combined federal and state income tax rate.

We first estimated the state income taxes because state income taxes are deductible for federal income tax purposes. We used a state income tax rate of 7.1 percent,

## Exhibit 37: Future Account Balances

\$(000)	days	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Cash		\$ 9,000	\$ 9,802	\$ 11,256	\$ 11,063	\$ 12,466	\$ 13,890
Accounts receivable	86	26,000	29,805	32,786	35,737	37,524	38,650
Inventory	28	5,000	6,211	6,832	7,447	7,819	8,053
Other current assets		11,000	12,650	13,915	15,167	15,925	16,403
Underbillings	45	8,000	9,981	10,980	11,968	12,566	12,943
<b>Total Current Assets</b>		<b>59,000</b>	<b>68,449</b>	<b>75,769</b>	<b>81,382</b>	<b>86,300</b>	<b>89,939</b>
Fixed Assets		7,500	8,850	9,750	10,650	11,550	12,450
Accumulated Depreciation		(3,250)	(4,250)	(5,450)	(6,550)	(7,550)	(8,450)
<b>Net Fixed Assets</b>		<b>4,250</b>	<b>4,600</b>	<b>4,300</b>	<b>4,100</b>	<b>4,000</b>	<b>4,000</b>
Investments in subsidiaries		-	1,500	1,500	4,000	6,000	8,500
Other Assets		1,000	-	-	-	-	-
<b>Total Other Assets</b>		<b>1,000</b>	<b>1,500</b>	<b>1,500</b>	<b>4,000</b>	<b>6,000</b>	<b>8,500</b>
<b>Total Assets</b>		<b>\$ 64,250</b>	<b>\$ 74,549</b>	<b>\$ 81,569</b>	<b>\$ 89,482</b>	<b>\$ 96,300</b>	<b>\$ 102,439</b>
Accounts Payable	40	\$ 7,000	\$ 8,872	\$ 9,760	\$ 10,638	\$ 11,170	\$ 11,505
Accrued Expenses <sup>1</sup>	45	8,075	9,981	10,980	11,968	12,566	12,943
Current portion of long-term debt		240	250	-	-	-	-
Overbillings	80	14,000	17,745	19,519	21,276	22,340	23,010
<b>Total Current Liabilities</b>		<b>29,315</b>	<b>36,848</b>	<b>40,259</b>	<b>43,882</b>	<b>46,076</b>	<b>47,458</b>
Long-term debt, net of current portion		250	-	-	-	-	-
<b>Total Liabilities</b>		<b>29,565</b>	<b>36,848</b>	<b>40,259</b>	<b>43,882</b>	<b>46,076</b>	<b>47,458</b>
Equity <sup>2</sup>		34,685	37,701	41,310	45,600	50,224	54,981
<b>Total Liabilities and Equity</b>		<b>\$ 64,250</b>	<b>\$ 74,549</b>	<b>\$ 81,569</b>	<b>\$ 89,482</b>	<b>\$ 96,300</b>	<b>\$ 102,439</b>

<sup>1</sup> Grown at the same rate as the estimated growth in revenues.

<sup>2</sup> Includes a reduction for shareholder distributions of 30 percent of the Earnings before employee bonuses and retirement benefits.

which is the income tax rate applicable to corporations in the State of New York.

We then estimated the federal income taxes by subtracting the estimated state income taxes from the adjusted EBIT, and multiplying the result by 34 percent. Federal income tax rates are graduated for different levels of earnings. As taxable earnings increase, the tax rates general increase. The federal income tax rate we used represents the effective federal income tax rate for corporations with taxable earnings similar to the Company.

This resulted in a combined federal and state income tax rate of 38.7 percent.

### Residual Cash Flows

After earnings have been forecasted out to a point in time where future growth is expected to continue at a relatively constant rate, a capitalization method can be used to determine the value of cash flows from that point forward. This part of the forecast is called the residual cash flow.

The residual cash flows are computed by increasing cash flows from the last year of the forecast period by the long-term growth rate. This amount is then divided by residual period capitalization rate to arrive at the residual cash flow amount (see Exhibit 38).

## Exhibit 38: Cash Flows to Invested Capital

\$(000)	Year 1	Year 2	Year 3	Year 4	Year 5	Residual
Earnings (Loss) Before Taxes <sup>1</sup>	\$ 5,694	\$ 6,795	\$ 8,061	\$ 8,679	\$ 8,927	
Add Interest Expense <sup>1</sup>	19	6	-	-	-	
Earnings Before Interest and Taxes	5,713	6,801	8,061	8,679	8,927	
Less Income Taxes <sup>2</sup>	(2,210)	(2,631)	(3,119)	(3,358)	(3,454)	
After Tax Earnings to Invested Capital	3,503	4,170	4,942	5,321	5,473	
Add Depreciation and Amortization <sup>1</sup>	1,000	1,200	1,100	1,000	900	
Less Incremental Working Capital Needs <sup>3</sup>	(1,124)	(2,205)	(2,183)	(1,321)	(833)	
Less Ongoing Capital Expenditures <sup>4</sup>	(1,350)	(900)	(900)	(900)	(900)	
<b>Cash Flows to Invested Capital</b>	<b>\$ 2,029</b>	<b>\$ 2,265</b>	<b>\$ 2,959</b>	<b>\$ 4,100</b>	<b>\$ 4,640</b>	<b>\$ 4,779</b>
						Divided by Residual Capitalization Rate <sup>5</sup> 11.50%
						<b>Terminal Cash Flow to Invested Capital \$ 41,557</b>

<sup>1</sup> From Exhibit 36.  
<sup>2</sup> Computed based on a combined Federal and State tax rate of 38.7%.  
<sup>3</sup> Based on the changes in working capital, exclusive of cash, from Exhibit 37.  
<sup>4</sup> From the capital expenditures contained in the forecasted balance sheets, from Exhibit 37.  
<sup>5</sup> From Exhibit 41.

## Estimated Cost of Capital

We used the Build-up Pricing Model, a derivation of the Capital Asset Pricing Model (CAPM), to determine an appropriate cost of capital (required rate of return). The build-up method is based on the fact that investors expect to earn a greater return on an investment that involves a greater risk. Under the build-up method, an appropriate rate of return is "built up" using empirical data. It begins with a risk-free rate of return. This risk free rate of return represents the "maturity risk" discussed previously in the Risk Profile section of this report.

An additional amount (premium) is added to the risk-free rate to account for additional risk investing in shares of stock of large corporations. This is called the equity risk premium. Another premium is added for the additional risk of investing in shares of small corporations. This is called the size premium. Often the equity risk and size premiums are combined into a single premium. The equity risk premium represents the "systematic risk" discussed previously in the Risk Profile section of this report. The size adjustment is a component of the "unsystematic risk" discussed previously.

Finally a premium (or discount) is taken to account for risk (or lack thereof) specific to the entity being valued. This entity specific risk represents the remaining components of unsystematic risk. The result is a "discount rate," representing the annual investor-required rate of return, a measure of the cost of equity.

### Risk-Free Rate

Rates for U.S. Treasury bills, notes, and bonds are often considered free of risk of default. According to the *Federal Reserve Statistical Release* dated July 6, 2010, the yield on actively traded long-term (20-year) U.S. Government Treasury Securities on June 30, 2010 was 3.74 percent.

### Combined Equity Risk Premium and Size Adjustment

We looked to the *Duff & Phelps, LLC Risk Premium report* (D&P Report), published by Duff & Phelps, LLC and distributed by Morningstar, Inc., to quantify the combined general equity risk and size premium. The D&P Report provides investment return data beginning in 1963 on publicly traded companies ranked by size and includes those companies that appear in both the Center for Research in Security Prices database and the Standard and Poor's *Compustat* database. The D&P Report ranks

## Exhibit 39: Combined Equity Risk Premium and Size Adjustment

Measure of Size	Doubleday	Logarithm <sup>1</sup>	Slope	Constant	Indicated Premium <sup>2</sup>
Total Assets	\$ 75,000,000	1.875061	(0.02230)	0.15804	11.62%
Sales	\$ 110,000,000	2.041393	(0.01965)	0.15218	11.21%
5-Year Average EBITDA	\$ 3,893,000	0.590284	(0.02141)	0.13723	12.46%
Number of Employees	350	2.544068	(0.01933)	0.16048	11.13%
				<b>Average</b>	<b>11.61%</b>
				<b>Median</b>	<b>11.42%</b>
				<b>Selected</b>	<b>11.50%</b>

<sup>1</sup> The Company's amounts were expressed in millions (1,000,000 = 1.0) for computation of the logarithm, with the exception of the number of employees. This was done in order to be consistent with the formulae provided by the D&P Report.

<sup>2</sup> Computed by multiplying the logarithm by the slope and subtracting the result from the constant. The result is an indicated premium over the risk-less rate.

## Exhibit 40: Discount Rate

Risk-less Rate	3.74%
Add Combined Equity Risk Premium and Size Adjustment	11.50%
Add Company Specific Risk Premium	<u>2.00%</u>
<b>Equals the Cost of Equity</b>	<b><u>17.24%</u></b>

the companies into 25 groups based on several different measures of size. The D&P report also provides statistical formulae necessary to extrapolate a combined equity risk premium and size adjustment for the subject entity, based on the same measures of size.

Investors expect an additional return on investment in smaller companies. Based on the D&P data, over the 1963-2009 time frame, investors in a company with similar size characteristics as Doubleday could expect returns above U.S. Treasury Coupon Bonds similar to those computed in the accompanying table (see Exhibit 39).

### Specific Entity Risk Premium

It may be appropriate to include an additional risk premium, or subtract a risk discount, for risks specific to the entity being valued. We analyzed the entity specific risks as part of the unsystematic risk in the Risk Profile section of this

report. In this instance, we determined, based on the Risk Profile section of this report, that an additional entity specific risk premium was appropriate.

### Equity Discount Rate

The risk-less rate and various premiums are summed to develop a discount rate applicable to equity (see Exhibit 40), which represents the cost of the Company's equity.

### Weighted Average Cost of Capital

When cash flow to invested capital (debt free cash flow) is used, the estimate of future earnings is capitalized using a weighted average cost of capital (WACC). The WACC is a rate of return that incorporates both the costs of debt and equity. It is computed by weighting the equity discount rate by the portion of equity held in the entity, and by weighting a company's borrowing costs by the portion of debt held by the entity. The weighted cost of equity is added to the weighted cost of debt to arrive at a weighted cost of capital (see Exhibit 41).

### Residual Period Capitalization Rate

The residual period capitalization rate is based on the previously determined WACC, less a long-term sustainable annual growth rate of 3 percent (see Exhibit 41). We believe this long-term growth estimate is reasonable based on the Company's historic growth rates and management's expectations of future growth. This long-term growth rate of the industry is closely tied to the overall macro-economic

## Exhibit 41: Weighted Average Cost of Capital

Cost of Debt - Tax Effectuated	3.07%	<sup>1</sup> Multiply by Weight	20%	<sup>2</sup> Equals	0.61%
Cost of Equity	17.24%	<sup>3</sup> Multiply by Weight	80%	Equals	13.79%
<b>Weighted Average Cost of Capital Discount Rate</b>			<b>100%</b>		<b>14.40%</b>
<b>Rounded</b>					<b>14.50%</b>
Less the Long-Term Sustainable Annual Growth Rate					<u>-3.00%</u>
<b>Residual Period Capitalization Rate</b>					<b><u>11.50%</u></b>

<sup>1</sup> Based on a 5% effective borrowing rate and a 0.3869 tax rate.

<sup>2</sup> Weightings based on industry average capital structure. We assume that the controlling owner could work towards the "optimal" capital structure, i.e., the industry average.

<sup>3</sup> From Exhibit 40.

## Exhibit 42: Discounted Future Cash Flows

Future Periods Ending	Future Cash Flows <sup>1</sup> \$(000)	Mid-Period Convention	Discount Factor at 14.50%	Present Value
Year 1	\$ 2,029	0.5	0.934539	\$ 1,896
Year 2	2,265	1.5	0.816191	1,849
Year 3	2,959	2.5	0.712831	2,109
Year 4	4,100	3.5	0.622559	2,552
Year 5	4,640	4.5	0.543720	2,523
Terminal Amount	41,557	4.5	0.543720	<u>22,595</u>
Indication of the Operating Enterprise Value				33,524
Less Interest Bearing Debt				<u>(490)</u>
<b>Indication of the Value of Operations</b>				<b><u>\$ 33,034</u></b>

<sup>1</sup> From Exhibits 38.

growth rate of the economy. In the near term, growth in earnings may continue to be enhanced at a faster rate.

### Indication of Value – Discounted Future Cash Flows

To compute a preliminary indication of value, we multiplied the previously determined estimate of future cash flows by the applicable discount factors to arrive at a present value for each forecasted period. We computed the discount factors based on the previously listed formula for the discounted cash flow method. We applied a mid-year

convention in determining the discount factors because Doubleday cash flows are received evenly throughout the year.

We summed the present values to arrive at a preliminary indication of value. This represents the value of the total capitalization of the Company, including debt and equity. The value of interest bearing debt is subtracted from this value, resulting in the value of the Company's equity (see Exhibit 42).

# Market Approach

*We did not use the market approach to estimate the fair market value of the Subject Interest. However, we did use the publicly traded guideline company method as a reasonableness check of our conclusion.*

We have detailed the principal methods of the market approach in this section, including the methods considered and methods used.

## Actual Transactions

With regard to actual transactions, Rev. Rul. 59-60 states:

*Forced or distress sales do not ordinarily reflect fair market value nor do isolated sales in small amounts necessarily control as the measure of value.<sup>50</sup>*

We inquired of management about any actual transactions involving ownership interests in the Company. They indicated that there are several transactions each year of Doubleday common stock, and that each of these transactions involve employees or the ESOT and are priced based on Doubleday's annual valuation. Although these transactions may have occurred at or near fair market value, as quoted above they do not necessarily control the measure of value. As a result, we have not used actual Company transactions to develop a value.

## Private Company Transaction Method

The private company transaction method estimates value by comparing the subject entity to private companies that have been bought and sold. Information about the transactions is used to develop a valuation multiple that can then be applied to the subject entity to develop a value. Information on such transactions is available from several transaction databases. We searched the private transaction databases for similar companies in the same or related industries to find comparable closely held companies that have been sold in the private market. These databases included the following:

**Bizcomps.** This database provides information on over 12,500 small business sales transactions since 1990.

Nearly 70 percent of the transactions in this database occurred at sales prices below \$250,000.

**Pratt's Stats.** Published by Business Valuation Resources, LLC, this database includes transaction information on more than 15,000 private and closely held companies from 1990 to the present. Approximately one-third of the transactions in this database has sales prices below \$250,000.

The transactions in the various databases generally involve privately held businesses where a controlling interest (usually 100 percent) has been transacted. One difficulty with using the information is that we do not know the motivations of either the buyer or the seller. We do not know if the buyer had synergies or economies of scale to gain from the transaction, nor do we know if the seller was in distress or in a "fire" sale situation. In some instances, the data comes from transactions involving much smaller companies than Doubleday.

A Bizcomps search did not return any transactions, while Pratt's Stats returned two. However, one transaction was over ten years old, and Doubleday is 100 times larger by revenue than the other. As a result, we did not use this method.

## Guideline Public Company Method

The publicly traded guideline company method estimates value by comparing the subject entity to publicly traded companies that have their shares bought and sold on a stock exchange or over-the-counter. To repeat what was expressed previously in this report, IRS Revenue Ruling 59-60 states that consideration should be given to:

*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*

50. Internal Revenue Service, Revenue Ruling 59-60, §4.02(g).

### Exhibit 43: General Information on Public Guideline Companies

Company	Ticker	Exchange	SIC Code	Employees	Fiscal Year End	Price at Valuation Date			Shares Outstanding
						Low	High	Avg.	
Gorman Rupp Co	GRC	Nasdaq	SIC:3561	957	12/31/2010	25.05	26.07	25.56	16,710,535
IDEX Corp	IEX	NYSE	SIC:3561	1,093	12/31/2010	28.49	29.29	28.89	81,463,661
Met Pro Corp	MPR	NYSE	SIC:3564	373	1/31/2011	10.72	11.20	10.96	14,619,992
Nalco Holdings	NLC	NYSE	SIC:2890	11,770	12/31/2010	20.39	20.95	20.67	138,284,584
Pall Corp	PLL	NYSE	SIC:3569	10,600	7/31/2010	34.33	35.41	34.87	116,665,051

open market, either on an exchange or over-the-counter.<sup>51</sup>

Financial information for publicly traded companies is a matter of public record, and their financial statements are available through the Securities and Exchange Commission (SEC). The trading prices for shares of publicly traded companies are available at any given time throughout a trading day. Historical daily low, high, and closing prices are published by various sources. This financial and other available information can be used to determine comparability of a publicly traded company and the subject entity. Further, such financial information, along with trading price data can be used to develop valuation multiples that can then be used to value the subject entity.

#### Search for Public Company (“Guideline”) Comparables

There are fundamental differences between closely held entities and publicly traded companies. The shareholders of closely held entities often manage the companies themselves. Publicly traded companies usually hire professional management. Shareholders of closely held entities are frequently motivated to minimize taxable income. A primary goal of publicly traded companies is to maximize income. When closely held entities need additional capital investments, they have to provide it themselves, apply for loans, or get it from the profits of the Company. Publicly traded companies have access to the public equity markets.

The purpose of the publicly traded guideline company method is not to find companies that are exactly the same as the subject entity. Publicly traded guideline companies are used to develop an appropriate rate of return that an

investor in the subject entity would expect to receive. In other words, they are used to develop an appropriate cost of capital. Given this fact, we searched for public companies that would have similar valuation factors. These factors include, but are not limited to the following:

- ◆ the same or similar line of business;
- ◆ similar product lines;
- ◆ similar procurement and distributions channels;
- ◆ similar competitive positions within the industry;
- ◆ similar expected rates of growth;
- ◆ similar historical and potential profitability;
- ◆ similar capital structures; and
- ◆ similar size, relative to sales volume and total assets.

Such factors are not universal and can vary based on products, industry and other factors.

To find appropriately comparable public guideline companies we searched various databases specifically looking for companies performing similar activities and having similar characteristics as Doubleday. These databases include the SEC’s Electronic Data Gathering Analysis and Retrieval (EDGAR) database and other online data providers such as Yahoo! Finance and iMetrix.

51. Ibid., §4.01(h).

These preliminary search criteria resulted in a number of companies. We more closely analyzed these companies by obtaining the most recent Forms 10Q and 10K as filed with the SEC. From these filing, we performed a financial analysis and read excerpts of their SEC filings to determine the applicability of the companies as guidelines. This financial analysis is detailed later in this section. We narrowed the selection to several guideline companies as being comparable for valuation purposes (see Exhibit 43). The guideline companies are all involved in a similar line of business and affected by many of the same market forces.

### **Selected Guideline Companies**

Following is a brief summary of the public companies identified as appropriate guidelines:

**Gorman-Rupp Co.** The Gorman-Rupp Company engages in the design, manufacture, and sale of pumps and related fluid control equipment worldwide. The company's larger pumps are sold principally for use in the construction, industrial, sewage, and waste handling fields; for boosting low residential water pressure; for pumping refined petroleum products, including the ground refueling of aircraft; for heating and cooling in heating, ventilating, and air conditioning (HVAC) applications; for dewatering and flood control purposes; and for various agricultural uses. It markets its products through a network of distributors, through manufacturers' representatives and third-party distributor catalogs, and by direct sales. Shares of Gorman Rupp stock are publicly traded on AMEX under the ticker symbol GRP.

This company was selected as a guideline because it operates in both the industrial and municipal markets, a large percentage of its sales come from liquid related products, and it has similar size. The differences are that the company appears to manufacture its own products and does very little custom engineering.

**Idex Corp.** IDEX Corporation manufactures and markets a range of engineered industrial products in the United States and internationally. The company operates in four segments: Fluid and Metering Technologies, Health and Science Technologies, Dispensing Equipment, and Fire and Safety/Diversified Products. Shares of Idex stock are publicly traded on the NYSE under the ticker symbol IEX.

This company was selected as a guideline because it operates in both the industrial and municipal markets, a large percentage of its sales come from liquid related

products, and it seems to focus on highly engineered systems. The differences are that IDEX is much larger, it appears to manufacture its own products, and it does a lot of its business in markets that are dissimilar to Doubleday's.

**Met-Pro Corp.** Met-Pro Corporation engages in the manufacture and sale of product recovery and pollution control equipment, fluid handling equipment, and filtration and purification products worldwide. It offers industrial and municipal air, and water quality control system as well as fiberglass reinforced plastic centrifugal pumps that handle corrosive, abrasive, and high temperature liquids. In addition, the company produces filtration products for industrial air and liquid applications. It serves industrial markets through its personnel, distributors, representatives, and agents. Shares of Met-Pro stock are publicly traded on the NYSE under the ticker symbol MPR.

This company was selected as a guideline because a large percentage of its sales come from liquid related products, it offers heavily engineered products, and it has similar size. The differences are that the company appears to manufacture its own products, and many of its products are not custom engineered.

**Nalco Holding Co.** Nalco Holding Company provides water treatment and process improvement products and services to industrial and institutional customers worldwide. Its products and services are used in water treatment applications to prevent corrosion, contamination, and the buildup of harmful deposits in production processes to enhance process efficiency, extend asset life, and improve customer's end products. The company provides water treatment programs, process-focused programs, and emissions reduction services, as well as on-site, technology driven solutions to the natural gas, petroleum, and petrochemical industries in upstream and downstream applications, including a range of water treatment services to refineries and petrochemical plants. Shares of Nalco stock are publicly traded on the NYSE under the ticker symbol NLC.

This company was selected as a guideline because it operates in both the industrial and municipal markets and a large percentage of its sales come from the exact same markets as Doubleday. The main difference is that the company seems to focus more on chemical products that are utilized in these markets, while Doubleday designs the equipment.

#### Exhibit 44: Publicly Traded Guideline Profitability Comparison

	GRC	IEX	MPR	NLC	PLL	Doubleday
Revenues	\$ 264,465,000	\$ 1,400,717,000	\$ 82,768,562	\$ 4,008,500,000	\$ 2,375,279,000	\$ 110,000,000
Cost of goods sold	203,292,000	830,264,000	54,493,666	2,172,800,000	1,206,544,000	65,000,000
Gross Profit	61,173,000	570,453,000	28,274,896	1,835,700,000	1,168,735,000	45,000,000
Operating Expenses	34,736,000	350,822,000	21,201,637	1,314,600,000	845,367,000	39,000,000
Operating Income	26,437,000	219,631,000	7,073,259	521,100,000	323,368,000	6,000,000
Depreciation	9,924,000	58,614,000	48,887,000	215,300,000	129,832,000	1,000,000
Interest Expense	-	-	(252,830)	(243,400,000)	(11,923,000)	(400,000)
Pre-tax earnings	28,395,000	206,901,000	7,254,336	274,900,000	336,736,000	6,350,000
Normalized Tax Rate	38.7%	38.7%	38.7%	38.7%	38.7%	38.7%
Adjusted Net income	17,408,975	126,851,003	4,447,633	168,541,190	206,452,842	3,893,185
EBIT	28,637,000	229,107,000	7,143,486	547,700,000	323,368,000	6,000,000
EBITDA	38,561,000	287,721,000	9,039,578	763,000,000	453,200,000	7,000,000

**Pall Corp.** Pall Corporation engages in the manufacture and marketing of filtration, purification, and separation products and integrated systems solutions worldwide. It operates in five segments: Medical, BioPharmaceuticals, General Industrial, Aerospace, and Microelectronics. The General Industrial segment markets filters, coalescers, and separation systems for hydraulic, fuel, and lubrication systems on mechanical equipment, as well as to producers of oil, gas, electricity, chemicals, food and beverages, and municipal and industrial water. The Microelectronics segment sells filtration and purification technologies for the semiconductor, data storage, fiber optic, display, and materials markets. Shares of Pall stock are publicly traded on the NYSE under the ticker symbol PLL.

This company was selected as a guideline because it operates in both the industrial and municipal markets and a large percentage of its sales come from the same market as Doubleday. The differences are that the company is much larger, it appears to manufacture its own products, and it does a lot of its business in markets that are dissimilar to Doubleday's.

#### Comparisons of Guideline Companies With the Subject Entity— Overview

We compared each of the guideline companies to the subject entity on a variety of criteria for the purpose of drawing conclusions as to appropriate valuation multiples.

Comparison criteria included profitability, financial position, size, growth, business opportunities and diversification. We used adjusted amounts in these comparisons, including adjusting the inventory methods and normalizing income taxes. We adjusted the guideline companies for non-recurring items. Our adjustments to Doubleday were discussed previously. The following section highlights some of the key issues identified.

#### Specific Comparisons

**Profitability** (see Exhibit 45). Doubleday generates less revenue than all but one of the five public guidelines, and is less profitable than all of the public guidelines. A more complete comparison is made later in our analysis of the financial ratios.

**Financial Position** (see Exhibit 44). Doubleday is smaller than the public companies in terms of total assets. The Company holds a much higher percentage of its assets in receivables than all of the public guidelines. A more complete comparison is made later in our analysis of the financial ratios.

**Ratio Analysis** (see Exhibit 46). In terms of financial liquidity, all of the guideline companies except NLC have current ratios above two and quick ratios above 1.5. Doubleday has the lowest current ratio and the second lowest quick ratio. Among the guidelines, GRC and MPR,

## Exhibit 45: Publicly Traded Guideline Financial Position Comparison

	GRC	IEX	MPR	NLC	PLL	Doubleday
<b>Selected Asset Items:</b>						
Cash equivalents	\$ 38,729,000	\$ 159,138,000.0	\$ 32,456,543	\$ 149,200,000	\$ 483,884,000	\$ 9,000,000
Accounts receivable	49,315,000	200,430,000	15,592,477	712,300,000	517,558,000	26,000,000
Inventory	85,311,000	87,202,077	17,313,335	363,900,000	356,159,981	5,000,000
Total current assets	130,293,000	577,450,000	65,147,736	1,396,400,000	1,616,471,000	59,000,000
Total assets	248,490,000	2,211,527,000	106,177,588	4,996,700,000	2,889,282,000	75,000,000
<b>Selected Liability Items:</b>						
Accounts payable	30,688,000	83,204,000	5,263,975	344,300,000	414,129,000	7,000,000
Short term notes payable	-	10,559,000	-	185,200,000	-	-
Current portion of l-t debt	-	-	528,761	-	1,999,000	600,000
Total current liabilities	39,435,000	237,535,000	11,287,262	872,000,000	578,358,000	31,600,000
Notes payable, net	-	459,832,000	3,375,093	2,732,700,000	685,975,000	10,000,000
Minority interest	657,000	-	-	27,000,000	-	-
Total liabilities	65,926,000	939,392,000	24,667,717	4,530,700,000	1,666,319,000	41,600,000
<b>Selected Equity Items:</b>						
Preferred equity	-	-	-	-	-	-
Common equity	181,907,000	1,272,135,000	81,509,871	466,000,000	1,222,963,000	33,400,000
Total equity	181,907,000	1,272,135,000	81,509,871	466,000,000	1,222,963,000	33,400,000
<b>Other Balance Sheet Items:</b>						
Working capital	90,858,000	339,915,000	53,860,474	524,400,000	1,038,113,000	\$ 27,400,000
Common shares outstanding	16,685,535	81,463,661	14,619,992	138,284,584	116,665,051	107,905
Inventory method	LIFO	FIFO	LIFO	LIFO	FIFO	FIFO

two of the smallest companies, have the most financial liquidity as measured by the current and quick ratios, while NLC has the least financial liquidity. When Doubleday's use of percentage-of-completion accounting is taken into account, these ratios become similar to each other.

Doubleday takes longer to collect its accounts receivable than all the public guidelines, while at the same time maintains much less inventory than all of the public guidelines. We believe Doubleday's low inventory level is the result of selling custom products that are manufactured by contract manufacturers. Doubleday pays its accounts payable somewhat quicker than the public guidelines, which combined with the receivables and inventory turnovers to produce a cash conversion cycle of 71 days which was quite similar to a median of 70 days for the public guidelines.

The smaller guideline companies generally have lower leverage ratios, as both GRC and MPR have very little debt, while the two largest companies, NLC and PLL have the most financial leverage. Doubleday's leverage as

measured by the debt to equity ratio is significantly higher than the median of the public guidelines, while its interest coverage ratio was below the median but above the 25th percentile. We believe this relates to Doubleday recent real estate acquisitions.

As for profitability, Doubleday's gross margin is the third smallest among the guidelines, while its operating expenses as a percentage of revenue are the third highest.

As a result, Doubleday has the lowest EBITDA and pre-tax profit margins. We believe the reason for the lower profitability relates to ESOP related expenses, which the guidelines do not have, and the large warranty expense, which management has taken steps to control.

**DuPont Analysis** (see Exhibit 47). Dupont Analysis is commonly used to analyze the various components of a company's return on equity. By looking at the components of return on equity, an investor can gain insight into which financial aspects of an entity is contributing to the return. The public guidelines in general have pre-tax profit margins

## Exhibit 46: Publicly Traded Guideline Financial Ratio Comparison

	GRC	IEX	MPR	NLC	PLL	Avg.	25th Pct.	Med.	75th Pct.	Doubleday
<b>Liquidity Ratios:</b>										
Current ratio	3.30	2.43	5.77	1.60	2.79	3.18	2.43	2.79	3.30	<b>1.87</b>
Quick ratio	2.23	1.51	4.26	0.99	1.73	2.14	1.51	1.73	2.23	<b>1.11</b>
Sales to working capital	2.91	4.12	1.54	7.64	2.29	3.70	2.29	2.91	4.12	<b>4.01</b>
<b>Activity Ratios:</b>										
A/R turnover	5.36	6.99	5.31	5.63	4.59	5.58	5.31	5.36	5.63	<b>4.23</b>
A/R turnover, days	68	52	69	65	80	67	65	68	69	<b>86</b>
Inventory turnover	2.38	9.52	3.15	5.97	3.39	4.78	3.47	5.33	6.08	<b>13.00</b>
Inventory turnover, days	153	38	116	61	108	84	60	68	105	<b>28</b>
A/P turnover	6.62	9.98	10.35	6.31	2.91	6.29	5.36	6.25	6.55	<b>9.29</b>
A/P turnover, days	55	37	35	58	125	68	56	58	68	<b>39</b>
Cash conversion cycle, days	166	53	150	68	63	83	67	70	81	<b>75</b>
Revenues to total assets	1.06	0.63	0.78	0.80	0.82	0.82	0.78	0.80	0.82	<b>1.47</b>
<b>Debt Ratios:</b>										
Debt to equity	0.36	0.74	0.30	9.72	1.36	2.50	0.36	0.74	1.36	<b>1.25</b>
Assets to equity	1.37	1.74	1.30	10.72	2.36	3.50	1.37	1.74	2.36	<b>2.25</b>
EBIT to Interest	n/a	n/a	28.25	2.25	27.12	19.21	14.69	27.12	27.69	<b>15.00</b>
<b>Pofitability Ratios:</b>										
Gross Margin (%of sales)	23.1%	40.7%	34.2%	45.8%	49.2%	38.7%	24.0%	34.2%	46.3%	<b>40.9%</b>
Pre-Tax Profit Margin	10.7%	14.8%	8.8%	6.9%	14.2%	11.1%	8.8%	10.7%	14.2%	<b>5.8%</b>
Operating Expense Margin	13.1%	25.0%	25.6%	32.8%	35.6%	26.4%	25.0%	25.6%	32.8%	<b>35.5%</b>
EBITDA Margin	14.6%	20.5%	10.9%	19.0%	19.1%	16.8%	14.6%	19.0%	19.1%	<b>6.4%</b>
Pre-tax return on total assets	11.4%	9.4%	6.8%	5.5%	11.7%	9.0%	6.8%	9.4%	11.4%	<b>8.5%</b>
Pre-tax return on equity	15.6%	16.3%	8.9%	59.0%	27.5%	25.5%	15.6%	16.3%	27.5%	<b>19.0%</b>

## Exhibit 47: DuPont Analysis

	Pre-Tax Profit Margin <sup>1</sup>	Times: Asset Turnover <sup>2</sup>	Equals: Pre-Tax Return On Assets	Times: Leverage <sup>3</sup>	Equals: Return On Equity <sup>4</sup>
Gorman Rupp Co	10.70%	1.06	11.34%	1.37	15.54%
IDEX Corp	14.80%	0.63	9.32%	1.74	16.22%
Met Pro Corp	8.80%	0.78	6.86%	1.30	8.92%
Nalco Holdings	6.90%	0.80	5.52%	10.72	59.17%
Pall Corp	14.20%	0.82	11.64%	2.36	27.47%
<b>Doubleday</b>	<b>5.80%</b>	<b>1.47</b>	<b>8.53%</b>	<b>2.25</b>	<b>19.19%</b>

<sup>1</sup> Pre-tax profit divided by net sales.  
<sup>2</sup> Net sales divided by total assets.  
<sup>3</sup> Total assets divided by total shareholders' equity.  
<sup>4</sup> Also computed as pre-tax profit divided by total shareholders' equity.

#### Exhibit 48: Size Comparison

Name	Annual Revenues	Times Larger
Gorman Rupp Co	\$ 264,465,000	2.4
IDEX Corp	1,400,717,000	12.7
Met Pro Corp	82,768,562	0.8
Nalco Holdings	4,008,500,000	36.4
Pall Corp	2,375,279,000	21.6
<b>Doubleday</b>	<b>110,000,000</b>	

#### Exhibit 49: Growth Comparison

Ticker	Revenue Growth		Earnings Growth	
	1 yr	3 yr	1 yr	3 yr
GRC	-13.3%	-3.0%	-11.5%	-2.7%
IEX	1.2%	3.3%	50.6%	-4.4%
MPR	-17.5%	-4.5%	-44.9%	-19.6%
NLC	2.1%	2.3%	135.2%	4.5%
PLL	-1.1%	2.6%	30.5%	47.2%
<b>Doubleday</b>	<b>-8.3%</b>	<b>7.7%</b>	<b>45.1%</b>	<b>-338.9%</b>

in the 8-14 percent range, and asset turnover in the 0.7 to 1.0 range. Doubleday's pre-tax profit margin was lower than all of the public guidelines, but its substantially higher asset turnover lead to a pre-tax return on assets that was just slightly below the median of the public guidelines. Doubleday's leverage ratio was higher than all but one of the public guidelines, resulting in a pre-tax return on equity that was better than all but two of the public guidelines

**Size** (see Exhibit 48). The size comparison of Doubleday to the public guidelines shows that the public guidelines are much larger than Doubleday based on revenues. Studies and empirical data show that larger public companies (on average) have higher price to earnings multiples than smaller companies. Since Doubleday is smaller than the guideline companies, an investor would generally expect a lower rate of return, other things being equal. In "Adjusting Price/Earnings Ratios For Differences In Company Size-An Update," *Business Valuation Review* (September, 1995) by Jerry O. Peters, AM, the price/earnings multiple of public companies with market values of \$25 million or less traded at an average 25.8 percent

discount to those with market values of \$50.1 million to \$99.9 million. Similar findings can be found in annual data published by Ibbotson Associates.

Investors perceive the risks associated with investments in smaller companies to be greater than larger companies. This perception may be attributable to factors such as market share, name recognition, management depth, and other factors. Although the size of the entity is an important factor, certain procedures can measure and adjust for the differences in size. In the article "Adjusting Valuation Multiples for Size," published in *Valuation Strategies* (September/October 2001), the authors, Michael Mattson, Don Shannon and Don M. Drysdale, outline a procedure for adjusting for size differences. The procedure uses empirical data from stock markets to determine the effect of size on valuation multiples and then adjusts guideline company multiples for those effects. The procedure results in market derived valuation multiples that are appropriate for the subject company.

The applicability of such adjustments depends on the nature of the products offered, the operational structure, and other industry factors.

**Growth Rates** (see Exhibit 49). An entity with a higher expected rate of growth will be more valuable than those with lower expected growth, all other things being equal. Greater growth provides the potential for greater future benefits to the shareholder. Expected growth can be based on many factors including historical growth, new products, price inflation, market conditions, and others.

Although the estimated future growth of the entity is an important factor, certain procedures can measure and adjust for the differences in growth. In the article, "Adjusting Pricing Multiples for Expected Growth," published in *Business Appraisal Practice* (Spring 2000), the authors, Stephen J. Bravo and Michael Mattson, outline a procedure for adjusting for growth differences between guideline companies and subject entities. The procedure uses established financial analysis to determine the effect of growth on valuation multiples and then adjusts guideline company multiples for those effects. The procedure results in market derived valuation multiples that are more applicable to the subject entity. When appropriate, we have adjusted the valuation multiples for differences in expected growth.

### Business Opportunities, Diversification & Other Factors.

The public guideline companies have greater industry diversification and access to public capital markets. Many publicly traded companies have management teams with significant past experience, especially in the public arena where management scrutiny is more intense, and organizational structures that are needed for a publicly traded entity. They are also subject to listing requirements and governmental oversight. These factors help to decrease the risks associated with publicly traded companies relative to privately held companies. As with differences in size and expected rates of growth, adjustments can be made to public guideline valuation multiples for these unsystematic risk factors.

### Adjustments to Guideline Multiples

As presented, there can be differences between the public guideline companies and the valuation subject. Mathematical techniques exist that can help to mitigate the impact of these differences. The premise of these mathematical techniques is to substitute a cost of capital variable of a public guideline company for the valuation subject's variable. In other words, in the case of expected growth, the guideline company's expected growth is replaced with the subject company's expected growth when computing a valuation multiple. The same can be done for factors related to size and unsystematic risk.

The steps to perform these adjustments are as follows:

- ◆ Compute a valuation multiple for the guideline company.
- ◆ Convert the valuation multiple to a capitalization rate by taking the mathematical inverse.
- ◆ Convert the capitalization rate to a discount rate by adding the guideline company's expected long-term growth.
- ◆ Break the discount rate into its individual components as described by the Capital Asset Pricing Model.
- ◆ Substitute different variables as they relate to the valuation subject for the same variable that relate to the guideline companies.

### Exhibit 50: Adjustments to Public Guideline Multiples

$$M_a = \frac{1}{\frac{1}{M_g} + \alpha\varepsilon(\theta+\mu)+\lambda}$$

Where:

$M_a$  = Adjusted valuation multiple

$M_g$  = Unadjusted valuation multiple of the public guideline company

$\alpha$  = The ratio of revenue to after-tax EBITDA. This variable is set to one (1) if the valuation multiple is not a revenue multiple.

$\varepsilon$  = The ratio of the public guideline company's market value of equity to market value of invested capital. This variable is set to one (1) if the valuation multiple is based on equity.

$\theta$  = The size premium of the valuation subject less the size premium of the public guideline

$\mu$  = The unsystematic risk premium of the valuation subject less the unsystematic risk premium of the public guideline

$\lambda$  = The expected long-term growth of the public guideline less the expected long-term growth of the valuation subject

- ◆ Convert the adjusted discount rate back into a capitalization rate by subtracting the expected long-term growth of the valuation subject.
- ◆ Convert the adjusted capitalization rate back into a valuation multiple by taking the mathematical inverse.

This procedure is expressed by the accompanying mathematical formula (see Exhibit 50). We applied this to the public guideline companies in order to arrive at valuation multiples that are more applicable to the valuation subject. We have presented the variable used and the computations of the adjusted valuation multiples in Appendix B to this report.

### Resulting Conclusions

We did not use the publicly traded guideline multiples to directly value the Company because of the difficulty in finding public guidelines whose primary business is the same as Doubleday. Further, Doubleday operates differently than most of the public guidelines in that it uses

## Exhibit 51: Guideline Multiples

	GRC	IEX	MPR	NLC	PLL	25th Pct.	Med.	75th Pct.	Avg.	Std. Dev.	Coef. Of Var.
MVIC-to-EBIT	7.27	6.68	7.72	5.29	7.59	6.68	7.27	7.59	6.91	0.99	0.143
MVIC-to-EBITDA	6.29	5.83	7.13	4.10	6.28	5.83	6.28	6.29	5.93	1.12	0.19

*Med.=Median*  
*Avg.=Average*  
*Coef. of Var.= Coefficient of Variation, Standard Deviation divided by the Average.*

contract manufacturers and outside sales representatives almost exclusively. This creates differences in Doubleday's operations relative to the public guideline companies. One example of these differences can be seen in Doubleday's level of inventory which is significantly lower than the public guidelines. We did, however, use the public guidelines as a reasonableness test of our results using other methods. To test the reasonableness, we computed valuation multiples of the public guidelines and compared them to Doubleday's implied valuation multiples from the conclusion of this report.

Using the information obtained on each public guideline company, we computed valuation multiples relevant for Doubleday. These multiples include market value of invested capital (MVIC) to earnings before interest and taxes (EBIT), and MVIC to earnings before interest, taxes, depreciation and amortization (EBITDA). As part of this analysis, we adjusted the guideline multiples for extraordinary and non-recurring items, as could be determined from the available financial information. As mentioned previously, we also adjusted the multiples for differences in size, expected growth, and company specific issues. These adjustments are presented in Appendix B.

For comparison, we computed Doubleday's valuation multiples as presented in the accompanying table (see Exhibit 52). This computation shows that Doubleday's

## Exhibit 52: Doubleday Multiples

Determined Value of Operations <sup>1</sup>	\$ 33,034,000
Add Value of Non-Operating Assets <sup>2</sup>	15,250,000
Add Long-Term Debt <sup>3</sup>	490,000
<hr/>	
Determined Value of Invested Capital	\$ 48,774,000
<hr/>	
Adjusted EBIT <sup>4</sup>	\$ 7,290,000
MVIC to EBIT	6.69
<hr/>	
Adjusted EBITDA <sup>4</sup>	\$ 8,150,000
MVIC to EBITDA	5.98

<sup>1</sup> From Exhibit 42.  
<sup>2</sup> From Exhibit 28.  
<sup>3</sup> Sum of current and long-term portions of long-term debt from Exhibit 33.  
<sup>4</sup> From Exhibit 32.

MVIC to EBIT and MVIC to EBITDA multiples were similar to the average of the adjusted public guideline multiples and slightly below the medians. We believe this result is reasonable in light of the greater diversification and access to capital of the public guidelines. From this, we believe the results of the market approach support our conclusions from the income approach.

# Effects of Control on Value

*We did not make an adjustment for the Subject Interest's ability or inability to exercise control. The method used to estimate the fair market value of the Subject Interest inherently captures the impact of control.*

It is commonly recognized and well documented that an ownership interest lacking control will sell at a lower price than an equivalent controlling ownership interest. When control is not conveyed with the sale of an ownership interest, a downward adjustment to the preliminary indication of value may apply. This is commonly referred to as a “discount for lack of control” (a.k.a. minority discount). In some instances a premium (as opposed to a discount) for control may be applied when valuing a controlling ownership interest.

A controlling position in a business enterprise is typically worth more on a pro-rata basis than a non-controlling minority position for many reasons, including the rights of controlling owners to do any or all of the following:

- ◆ elect management/directors;
- ◆ select and/or remove management;
- ◆ set dividend/distribution policies;
- ◆ establish compensation and benefits;
- ◆ set business strategies and goals;
- ◆ acquire and liquidate assets;
- ◆ self-dissolve, or recapitalize the entity;
- ◆ revise organizational documents;
- ◆ establish or change buy-sell agreements or clauses; and
- ◆ cause the entity to become publicly traded.

A non-controlling interest holder cannot cause these actions to occur.

Other factors such as the rights of non-controlling owners and the distribution of ownership can also impact the value of an ownership interest. When assessing the value of an ownership interest it is important to consider the following factors:

**Relative Ownership Distribution.** The size of the ownership block being valued in relation to other blocks is important in establishing the degree of control. In a business enterprise that has hundreds of owners, a 20 percent interest can have a tremendous amount of control while in a business enterprise with only two owners, the owner of a 20 percent interest may have no control. If there are two owners, each holding 50 percent, neither has absolute control, but both have the ability to block any decision requiring a majority vote.

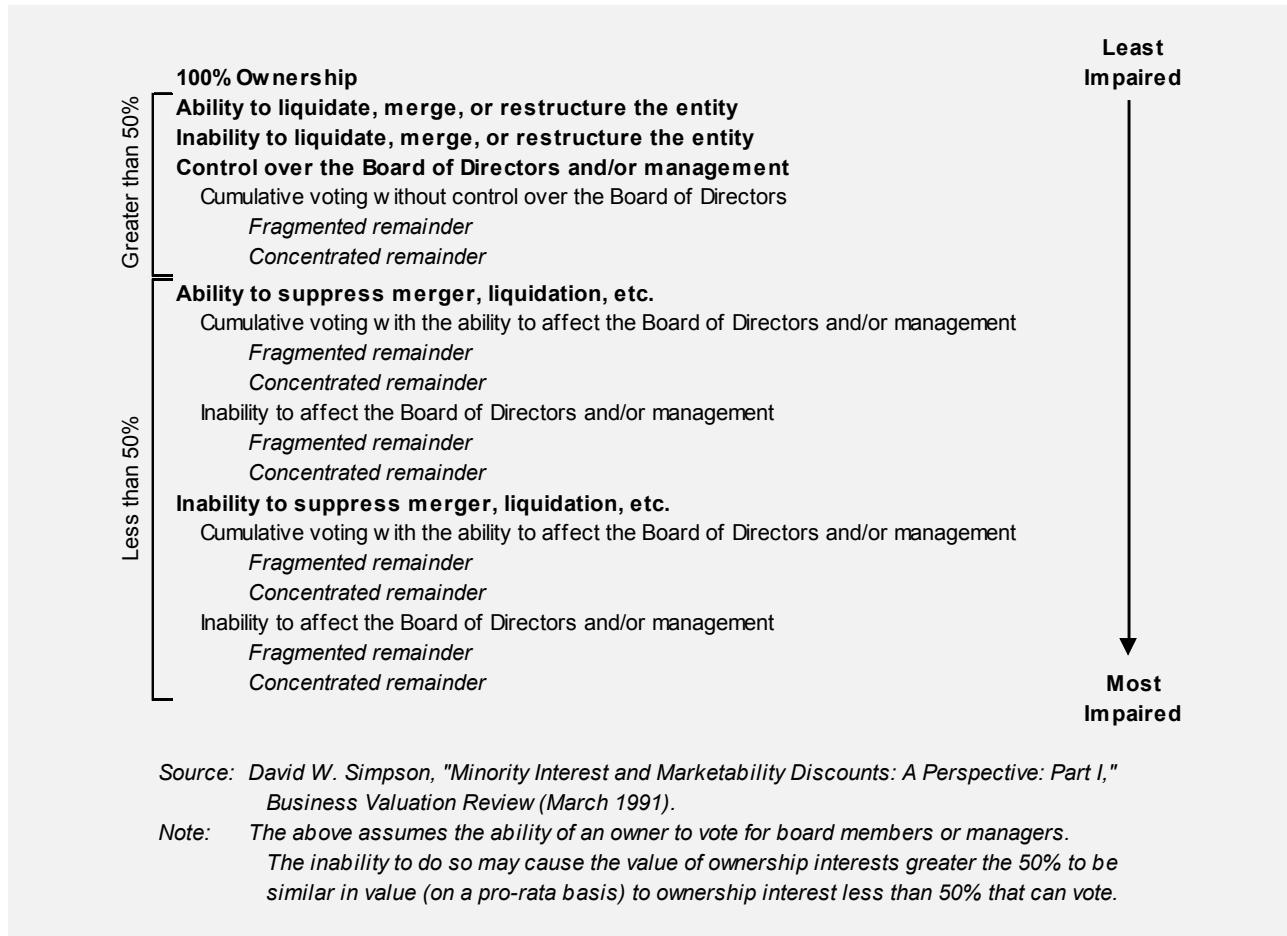
**Swing Vote Characteristics.** The existence of “swing vote” characteristics can significantly impact the value of a particular ownership interest. For instance, in a situation where a business enterprise has only three owners, two of them owning 49 percent each and the third owning 2 percent, the 2 percent owner can effectively exert significant control by casting the “swing vote.”

**Supermajority Statutes.** Many states require a supermajority vote, usually 66 2/3 percent, before certain actions, such as a merger, can take place. In situations requiring a supermajority, a single owner with only a 34 percent interest is able to “block” the actions of the majority owner(s).

**Minority Dissolution Statutes.** Some states permit minority interests to sue for dissolution. The specific applicable circumstances and size of the interest varies by state.

**Organizational Documents.** The rights and restrictions of owners contained in the articles of incorporation, bylaws, and organizational agreements can vary greatly from entity

**Exhibit 53: Control Spectrum**



to entity. Such rights and restrictions can affect the ability to control or influence an entity in innumerable ways. The rights and restrictions that are most commonly addressed in organizational documents involve voting rights such as:

**Nonvoting Interest.** A holder of a nonvoting interest has little influence over the affairs of a business enterprise. If the holder cannot vote for board members or any other matter that requires a vote of the owners, such a holder has no control and little or no influence over the company, even if such owner has 99 percent of the outstanding ownership interest.

**Cumulative Voting.** Cumulative voting is a system whereby owners are allowed votes in proportion to their ownership percentage. The effect of cumulative voting can be illustrated by considering a vote of owners to elect directors. Under cumulative voting, a 20 percent owner

can elect 20 percent of the board members. In situations where cumulative voting is not present, a 51 percent owner can elect all of the board members and deny board representation to all others. In some states, cumulative voting is mandated by statute.

**Contractual Agreements.** Certain contractual arrangements may also restrict control. Ownership agreements may preclude owners from exerting certain rights. Additionally, owners may forfeit, by contract, the right to do certain things, such as obtaining additional debt.

David W. Simpson illustrated the relationship between ownership rights and ownership distribution in an article published in the Business Valuation Review (see Exhibit 53). The table illustrates that influence and control increases by degrees, and that the impact of control or lack thereof must be analyzed in such manner.

## **Adjustment for Control**

*The value of controlling a firm derives from the fact that you believe that you or someone else would operate the firm differently for the way it is operated currently.<sup>52</sup>*

If the value of control is derived from the ability to manage the Company in a more effective and efficient manner, the application of an adjustment for control depends on the method used to arrive at the preliminary indication of value. If the method inherently arrives at a controlling value, then

little, if any, adjustment is needed. However, if the method inherently arrives at a non-controlling value, then an adjustment is needed.

In this case, the Subject Interest is a controlling interest. The method used, the discounted cash flows to invested capital method, arrives at an indication of value that is inherently on a controlling basis because the cash flow stream and WACC used are on a controlling basis. For this reason, we did not make an adjustment for the lack of control.

52. Damodaran, Aswath, "The Value of Control: Implications for Control Premia, Minority Discounts and Voting Share Differentials," White Paper, June, 2005, p.3.

# Effect of Marketability on Value

*We applied an adjustment for lack of marketability of 10 percent in arriving at our estimate of the fair market value of the Subject Interest.*

An ownership interest that can be sold easily and converted to cash is more valuable than an equivalent interest that cannot be sold easily. The ability to sell is called marketability, and the ability to convert to cash is called liquidity.

Marketability is:

*The capability and ease of transfer or salability of an asset, business, business interest, or security.<sup>53</sup>*

Closely related to marketability is liquidity. Liquidity is:

*The ability to readily convert an asset, business, business ownership interest, or security to cash without significant loss of principal.<sup>54</sup>*

In this report we will consider marketability and liquidity in combination, and will refer to them in aggregate as “marketability,” unless otherwise indicated.

When an ownership interest lacks certain elements of marketability an adjustment from the preliminary indication of value may be applicable. This is commonly referred to as a discount for lack of marketability.

The standard for marketability is publicly traded stocks that enjoy significant trading volume on a major stock exchange. Owners of these stocks can know the value of their interests on a minute-by-minute basis, and can buy or sell these stocks at a moment's notice with the proceeds (net of fees) delivered in a matter of days.

A privately held business enterprise does not enjoy such marketability. Liquidating a position in a privately held entity is more costly and time consuming. Fees may need to be paid to a business broker and other marketing costs may be incurred. Time is required to find a buyer,

negotiate a price and draw up the necessary legal documents. In many cases the purchase price is paid over a period of years.

In some cases, more onerous restrictions are placed on the ownership of privately held enterprises through by-laws or shareholder agreements. These can include rights of first refusal, giving existing owners the right to purchase an ownership interest before it is sold to an outside party, and in some cases, an outright ban on the transferability. For these reasons, the marketability of a Subject Interest is important to estimating its value.

## **Factors Impacting Marketability**

The following is a discussion of several factors that can impact the marketability of an equity ownership interest in a business enterprise. Many of these factors were set forth in the Mandelbaum Tax Court decision. In 1995, the Tax Court issued a decision on the Estate of Mandelbaum (T.C. Memo 1995-255, June 12, 1995). The Mandelbaum court considered various studies on the lack of marketability as benchmarks and adjusted the benchmark discounts for several factors affecting marketability. We have presented each of the Mandelbaum factors, as well as other factors, in order to analyze the marketability of the Subject Interest.

**Financial Statement Analysis.** We previously performed a financial statement analysis and used the analysis in our development of an appropriate cost of capital earlier in this report. To avoid double counting we have not considered this factor in determining an appropriate adjustment for lack of marketability.

**Company's Distribution Policy.** Doubleday has a history of paying distributions to shareholders, but only in amounts sufficient to cover the income tax that personally accrues to the shareholders because of Doubleday's S-corporation

53. International Glossary of Business Valuation Terms.

54. *ibid.*

tax status. Management indicates that there is no intention of changing this in the foreseeable future. Since all distributions are required for taxes (at least to taxable individuals) this level of distribution is considered a zero dividend equivalent. This factor would tend to diminish the marketability of the Subject Interest.

**Ability to Transfer Ownership.** An ownership interest in Doubleday is restricted from transfer under Federal and state securities regulations. Transfer is also restricted by the by-laws, which require shareholders to also be employees, and by a rights of first refusal contained in the by-laws and the ESOP agreement. This factor would tend to decrease the marketability of the Subject Interest.

**Amount of Control in Subject Interest.** Control reflects an owner's ability to direct a business enterprise in its daily operations. Control of a closely-held business enterprise represents an element of value that justifies a higher value for a controlling block of stock. A non-controlling owner's interest has less marketability given its inability to control. Benchmark studies on lack of marketability reflect transactions of highly fractionalized non-controlling interests, unlike the interest considered in this report. This factor would tend to increase the marketability of the Subject Interest.

**Nature of the Company, its History, Position in the Industry and the Economic Outlook.** We considered these factors in our previous analysis and reflected the impact of these items in the development of the previously used discount rate. To avoid double counting these items we have not considered these items in the development of an adjustment for lack of marketability.

**Company Management.** We considered this in our previous analysis and reflected the impact in the development of the applicable discount rate. To avoid double counting we have not considered this in the adjustment for lack of marketability.

**Holding Period for Ownership Interest.** An investment is less marketable if an investor must hold it for an extended period of time in order to reap a sufficient profit. Market risk increases and marketability decreases as the required holding period increases. Based on our reading and understanding of the Plan document, ESOP participants who terminate employment would have holding periods that vary depending on circumstances. A maximum

holding period of about two years is required for beneficiaries of plan participants who die. Plan participant who terminates employment may be paid for their vested portion as soon as "administratively feasible" after termination. Either case represents a longer holding period than a publicly traded stock and would tend to decrease the marketability of the Subject Interest.

**Costs Associated with Making a Public Offering.** An above average adjustment may be warranted if the buyer completely bears the cost of registering a private stock. The adjustment is lessened if the buyer can minimize his or her registration cost. Due to the relative size of the Company, IPO costs, relative to the Company's total expenses and overall profitability, would tend to be above average. This factor would tend to decrease the marketability of the Subject Interest.

**Listing Requirements.** Although not specifically mentioned in Mandelbaum, the requirement imposed by stock exchanges can impact marketability. Stock exchanges require minimum capitalization, corporate governance requirements, independent directors, audit committees and other requirements, of the entities listed on such exchanges. These requirements can serve to lower the risk of an investment in entities traded on stock exchanges. Doubleday has no such requirements. This factor would tend to decrease the marketability of the Subject Interest.

**Access to Information.** Although not specifically mentioned in Mandelbaum, investors in restricted stocks of SEC reporting companies can access vast amounts of information about the issuing entity through required SEC filing. An investor in Doubleday does not have the same level of access to information. This factor would tend to decrease the marketability of the Subject Interest.

Based on these facts, we believe the marketability of the Subject Interest is impaired relative to a highly marketable investment such as a publicly traded stock, and that an disinterested, third party investor would require a discount to the purchase price to be enticed to invest in the Subject Interest.

### **Quantifying Adjustments for Marketability**

Diverse methods exist to estimate and quantify the impact of marketability on the value of a privately held business enterprise. These methods include studies of empirical data, market return comparisons, and computational

## Exhibit 54: Restricted Stock Studies

Study	2 Year Holding Period (Rule 144)	2 Year Holding Period (Rule 144A)	1 Year Holding Period (Rule 144A)
Institutional Investor Study	32.60%		
Gelman	33.00%		
Trout	33.45%		
Moroney	35.60%		
Maher	35.40%		
Pitcock & Stryker	45.00%		
Silber	33.80%		
Hall & Polaceck <sup>1</sup>		21.00%	
Oliver Meyers <sup>1</sup>		26.70%	
Johnson <sup>1</sup>		21.00%	
Aschwald			13.00%

<sup>1</sup> As adjusted by Columbia Financial Advisors, Inc.

methods. We will discuss each of these and their applicability to Doubleday.

### Studies of Empirical Data

Studies of empirical data measuring adjustments for marketability include studies of restricted stocks and studies of pre-IPO transactions. Both of these methods of measuring adjustments for marketability have been presented.

#### Restricted Stock Method

The restricted stock approach estimates the discount for lack of marketability by measuring the difference between transactions of a company's restricted shares and their freely traded counterparts. "Restricted shares" (also called "letter stocks" or "restricted stock") are shares of publicly traded companies that are restricted from being sold on the open market. These securities generally possess the same attributes as their freely-traded counterparts, except that they have restrictions imposed by the Securities and Exchange Commission. By measuring the difference between what investors are willing to pay for the restricted shares and what they are willing to pay for the freely traded shares, the effect of marketability, or lack thereof, can be quantified.

Rev. Rul. 77-287 defines a restricted security as follows:

*... these particular securities cannot lawfully be distributed to the general public until a registration statement relating to the corporation underlying the securities has been filed, and has also become effective under the rules promulgated and enforced by the United States Securities and Exchange Commission (SEC) pursuant to the Federal securities laws.<sup>55</sup>*

Such restrictions are imposed by the SEC under Rule 144. Originally this rule required that owners of restricted stocks needed to hold the shares for two years before selling the shares to qualified investors. In 1990, the SEC issued Rule 144A, allowing qualified institutional investors the right to trade unregistered securities among themselves. On April 29, 1997, the SEC revised Rule 144, reducing the two-year holding period to one year.

From the mid-1960's through the late-1990's, various studies were performed that quantified the value differences between freely-traded common shares of certain public companies and their restricted shares. Studies in this category include the SEC Institutional Investor Study and the Moroney Study, among others.

Restricted stock studies can provide compelling evidence about the lack of marketability of an ownership interest.

These studies found average discounts ranging from 32.6 percent to 45 percent under Rule 144, 21 percent to 26.7 percent under Rule 144A with a two year holding period, and 13 percent to 22.5 percent under Rule 144 with a one year holding period (see Exhibit 54). It makes sense that the overall discounts for restricted stocks would decrease as the restriction period decreased. This reduction was demonstrated in the Aschwald Study and FMV Opinions Study, but it probably does not accurately quantify the decline because of the limited number of transactions in the study. In addition, the number of public companies in the various studies was even more limited, as many of the transactions studied involved restricted stocks of the same publicly traded company.

While the averages found in the studies were similar, the actual data in the studies showed large variations in the range of discounts observed, and even found premiums

55. Internal Revenue Service, Revenue Ruling 77-287.

## Exhibit 55: TVA Study Benchmark

	1st Quartile	2nd Quartile	3rd Quartile	4th Quartile
<b>Revenue (000)</b>	\$0 to \$497	\$498 to \$11,989	\$11,990 to \$74,654	\$74,655 and above
Median Discount	24.40%	12.61%	15.78%	11.18%
<b>Doubleday (000)</b>	-	-	-	<b>\$110,000</b>
<b>Total Assets (000)</b>	\$0 to \$14,468	\$14,469 to \$45,608	\$45,609 to \$142,652	\$142,653 and above
Median Discount	27.16%	14.11%	13.59%	8.23%
<b>Doubleday (000)</b>	-	-	<b>\$75,000</b>	-
<b>Book Value (000)</b>	\$0 to \$4,945	\$4,946 to \$18,515	\$18,516 to \$52,331	\$52,332 and above
Median Discount	20.24%	22.45%	10.89%	10.39%
<b>Doubleday (000)</b>	-	-	<b>\$33,400</b>	-
<b>Debt Ratio</b>	below to 24%	25% to 49%	50% to 69%	70% and above
Median Discount	11.22%	12.21%	15.16%	19.97%
<b>Doubleday</b>	-	-	<b>55%</b>	-

paid for restricted stocks in some instances. Overall we believe the restricted stock studies provide compelling evidence that investors generally require a discount to the purchase price for investments that lack marketability. However, the general results of these studies do little to help quantify an adjustment applicable to the Subject Interest.

Several studies provide additional statistical information that can be used to focus in on data that is more applicable to a specific entity. We have specifically looked to the Trugman Valuation Associates, Inc. (TVA) Restricted Stock Study to further refine the wide range found with the various restricted stock studies.

**TVA Study.** The authors of the TVA study analyzed 80 transactions involving restricted shares of companies that also had publicly traded shares. The differential between the publicly traded price and the price of restricted shares ranged from a discount as high as 73.5 percent and a premium of 1.5 percent with a median of 14.4 percent and an average of 18.1 percent. This study stratified the discounts by nine different factors, five of which only related to companies with publicly traded shares (see Exhibit 55).

We have used this additional data as a benchmark in measuring an applicable adjustment for lack of marketability for the Subject Interest. Doubleday's revenue

fell within the 4th quartile of the study, while its total assets, book value, and debt ratio fell within the 3rd quartile. This suggests that an appropriate discount for the Subject Interest ranges from 11 percent to 15 percent assuming a one year holding period.

### **Initial Public Offering Method**

There are several studies that estimate the discount for lack of marketability by comparing transactions involving privately held shares, and the trading price of shares in the same company after they have undergone an IPO (initial public offering). After the IPO, shares in the company became freely traded, and the difference in the trading price and the price paid before the IPO is to represent the value investors place on marketability.

The SEC requires companies undergoing an IPO to disclose the terms of recent insider transactions in the prospectus. This enables a comparison of prices before and after "marketability" being achieved via the IPO. For example, if a shareholder disposes of company stock at \$6.00 per share and the stock is subsequently brought public at \$10.00 per share, it suggests an adjustment for marketability of 40 percent.

**Emory Studies.** John Emory, ASA, examined the transaction values of privately held company stock (not freely traded) prior to its initial public offering and compared

them with prices paid for the shares when the company's stock was taken public.

In Mr. Emory's studies, pre-IPO transactions are limited to the five-month period preceding the IPO, implying that most buyers and sellers are aware of the impending IPO and the potential marketability of the stock. In eight separate studies conducted over 18-month periods since 1980, Mr. Emory examined 310 companies and found a mean average discount of 46 percent between the pre-IPO trades and the actual IPO price.

**Willamette Management Associates Studies.** Willamette Management Associates has performed studies of pre-IPO transactions occurring from 1975 through 2000. They specifically looked at transactions occurring from one to 36 months prior to the IPO, and made adjustments to the data to account for differences in market conditions between the date of the transaction and the date of the IPO. These studies found median implied discounts ranging from a low of 27.7 percent in the 1999 study, to a high of 73.1 percent in the 1984 study. The average of the medians was approximately 48 percent.

**Hitchner Studies.** James R. Hitchner and Katherine E. Morris performed further analysis on the Emory Studies by separating the transactions into those occurring five months, four months and three months prior to the IPO. Generally, their analysis found that discounts decreased for transactions occurring closer to the date of the IPO.

**Valuation Advisors Studies.** Valuation Advisors, LLC has compiled a searchable database of nearly 3,000 pre-IPO transactions occurring from 1999 through 2004. This database separates the data into three-month increments for the year prior to the IPO and then groups together transactions occurring between one and two years prior to the IPO. These studies also found that the closer the IPO date to the transaction, the smaller the discount. The median discounts ranged from 28 percent for transactions occurring between zero and three months prior to the IPO, to 72.2 percent for transactions occurring between one and two years prior to the IPO.

There are several criticisms of the restricted stock and IPO studies. Perhaps the criticism most relevant in this case is that blind reliance on empirical studies may be over simplistic and does not adequately consider the unique facts and circumstances of a specific entity. Despite this criticism, we believe these empirical studies provide

valuable guidance as to the general range of discounts that may be applicable, as well as empirical evidence that as the length of the holding period before a liquidity event increases, the magnitude of the discount should also increase. Further, the more detailed data provided in the PI and FMV studies help target their data to parameters specific to the Subject Interest.

### **Computational Methods**

We have considered three computational methods to estimate an applicable adjustment for lack of marketability, option theory, the Quantitative Marketability Discount Model (QMMD) and the Abbott method.

#### **Option Theory**

A tactic used by investors to protect the value of an appreciated security is to purchase a put option. A put option gives the holder the right to sell a security at a predetermined price. If the market value of the security declines, the put allows the investor to sell it at the higher option price, thus protecting the investor from the decline in value. The holder of a non-marketable security runs the risk of declining value while he/she is waiting for a marketability event. Based on option theory, he/she would require a discount to the price equal to the cost of purchasing a put option. The two primary methods for measuring adjustments for lack of marketability under option theory are the Longstaff study and the Black-Scholes model.

**Longstaff Study.** Francis A. Longstaff, professor of finance at UCLA, argues that a "lookback" option measures the upper bound of adjustments for lack of marketability. A lookback option is a nonexistent, hypothetical option that would allow the holder at the end of the option term, to retroactively look back in time and select the optimal date on which to exercise the option. This would provide the holder of the option the maximum benefit, and thus it is used to measure the upper limit to an adjustment for lack of marketability.

As with most option pricing models, the Longstaff Study measures the value of an option as a function of, among other things, the holding period and the price volatility of the underlying stock. The results of the Longstaff Study are presented in the accompanying table. This table presents a matrix of results from the Longstaff Study for different holding periods and different price volatilities (see Exhibit 56).

To apply this data, we estimated an applicable holding period and the price volatility for the Subject Interest, and look up on the accompanying chart the adjustment that corresponds to the holding period and price volatility. For example, the Longstaff Study tells us that a security with a 10 percent price volatility and a 30 day holding period would have an applicable adjustment for lack of marketability of 2.32 percent.

In order to apply this data, we estimated the holding period and the price volatility of the Subject Interest. We estimated a holding period as being between 60 days and 180 days, based on the put option available to ESOP participants.

We looked to the public guidelines as proxies for price volatility. These guidelines had median forecasted price volatility of 34.7 percent. Since the results of the Longstaff Study only presents price volatilities no higher than 30 percent, we used 30 percent as our estimate of the price volatility for the Subject Interest.

Using results of the Longstaff Study a price volatility of 30 percent and a holding period of two months yields an adjustment for lack of marketability of 10.15 percent. Using the same volatility and a holding period of six months yields an adjustment for lack of marketability of 18.08 percent (see Exhibit 56). We rounded these results to arrive at a range of adjustments for lack of marketability for Doubleday of 10 percent to 18 percent using the Longstaff Study.

**Black-Scholes Model.** Option models for European options provide an appropriate substitute for measuring an adjustment for lack of liquidity. European options can only be exercised (and therefore can only provide liquidity) on the expiration date and while the option holder waits for the expiration date, the price of the underlying stock can change to the benefit or detriment of the option holder. Likewise, the Subject Interest can only be liquidated after a buyer is found, and the value of the interest may change during that time. As previously indicated, the purchase of a put option protects the investor from this downside potential.

The Black-Scholes model estimates the value of a European option. It was developed by Fischer Black and Myron Scholes in 1973, and they received the Nobel Prize for economics for their work. The Black-Scholes model requires the input of several variables that are used to

## Exhibit 56: Longstaff Study Summary

Holding Period	Price Volatility		
	10%	20%	30%
30 days	2.32%	4.69%	7.10%
60 days	3.30%	6.68%	10.15%
90 days	4.05%	8.23%	12.54%
180 days	5.77%	11.79%	18.08%
1 year	8.23%	16.98%	26.28%
2 years	11.79%	24.64%	38.61%
5 years	19.13%	40.98%	65.77%

*The above matrix presents adjustments for lack of marketability, varied by holding period and price volatility.*

compute the value of a European style option. These inputs include, the risk free rate of return at the valuation date, the price of the underlying stock, the price volatility of the underlying stock, and the expiration date of the option.

We used the following inputs to the Black-Scholes model to estimate the appropriate adjustment for the lack of marketability as follows:

**Risk-Free Rate.** We used the yield for U.S. Government securities with a three month maturity as representative of the risk free rate. This rate was 0.18 percent at June 30, 2010. We used a three month rate to correspond roughly with the estimated holding period.

**Price of the Underlying Stock.** Because we are measuring the adjustment for lack of marketability as a percentage, we used 100 as the price of the underlying stock.

**Price Volatility.** We looked to the trading price of publicly traded, non-utility, electricity generating companies as a surrogate for price volatility, as described previously. Both the average and median price volatility of the public companies was 34.7 percent, which is what we used as an input to the Black-Scholes model. This is a conservative estimate as Doubleday's price volatility would likely be higher based on its size.

**Expiration Date.** We estimated this based on the expected holding period of 60 to 180 days, as presented previously.

From these inputs, the Black-Scholes model computes an adjustment for lack of liquidity of 6-10 percent.

## Exhibit 57: IPO Cost Formula

$$C=0.04305+m+0.03311\lambda-0.00593b-0.00014v$$

*Where:*

- C = The cost of an IPO expressed as a percentage.
- m = Variable related to the market capitalization of the business enterprise.
- $\lambda$  = Market Liquidity of the appropriate size category.
- b = Ownership percentage represented by the Subject Interest.
- v = Marketable value of the Subject Interest.

### QMDM

Z. Christopher Mercer of Mercer Capital published the book, *Quantifying Marketability Discounts*, in 1997, where he presented the Quantitative Marketability Discount Model (QMDM). The QMDM is based on time value of money principles and attempts to value illiquid interests of privately owned businesses based on specific cash flow characteristics of the business.

It uses five variables as inputs into the QMDM formula to compute an adjustment for lack of marketability. These inputs are:

- ◆ The non-controlling, marketable value of the Subject Interest
- ◆ The expected rate of growth in the value of the Subject Interest
- ◆ The expected holding period for the Subject Interest
- ◆ The required rate of return for the Subject Interest
- ◆ Expected dividend payments.

We quantified each of these items for input into the QMDM as follows:

**Non-Controlling, Marketable Value.** To quantify this input, we used the non-controlling, marketable value of the Subject Interest as presented in the Conclusion chapter of this report.

**Expected Growth.** We used the expected rate of growth of 3 percent, which is the same amount used for the development of an applicable capitalization rate in the Income Approach chapter of this report.

**Holding Period.** We estimated the expected holding period as presented previously, except in this case we used a range of two to six months.

**Expected Return.** We computed the expected rate of return earlier as part of the income approach, and used that amount for input into the QMDM.

**Expected Dividends.** Management indicated that no distributions will be expected until after operations have commenced. From this, we used an expected distribution yield of zero for input into the QMDM.

Critics of the QMDM point out that small fluctuations in the assumptions can result in large differences in the computed adjustment for lack of marketability. To address this criticism, we have conservatively estimated several of the inputs. For example, we estimated the required holding period of the Subject Interest at two to six months, when the reality is an independent, third-party purchaser may take longer to be found.

Based on the assumptions presented, the QMDM suggests an appropriate adjustment for lack of marketability of ranging from 4 percent to 8 percent. However, the developer of the QMDM does not believe it is applicable to controlling interests.

### Abbott Method

Ashok Abbott, Ph.D., of Business Valuation LLC has developed a method of measuring adjustments for the lack of marketability which separates the liquidity and marketability components of the adjustment.

**Lack of Marketability.** This method measures the adjustment for marketability as the cost of causing the investment to become liquid through an IPO. By analyzing 8,000 IPOs since 1993, Mr. Abbott has developed a formula that estimates this cost by looking at the size of an entity, the percentage of the entity to be offered in the IPO, and other factors (see Exhibit 57).

Based on Dr. Abbott's data, Doubleday's market capitalization variable is 5.663 percent. The other items in the formula practically offset each other based on the

inputs as they relate to Doubleday. As a result, the estimated cost of performing an IPO based on the Abbott formula was approximately 10 percent (0.04305 plus 0.05663, rounded).

**Lack of Liquidity.** Dr. Abbott uses stock option valuation theory to estimate the lack of liquidity. Because a privately held stock cannot be liquidated in a timely manner, stock option valuation theory can measure the uncertainty of changes in the stock price during the period it would take to sell the shares, thus, measuring the discount attributable to the lack of liquidity. Specifically, he uses the Longstaff Study to measure liquidity.

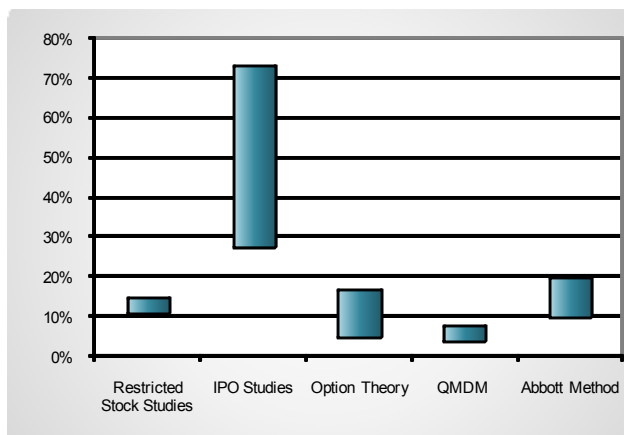
Based on Dr. Abbott's model, we added the estimated adjustment for lack of marketability of 10 percent and the estimated adjustment for lack of liquidity of 10 percent, to arrive at a combined adjustment for lack of marketability and liquidity of 20 percent.

### Summary

We have summarized the various methods of determining an adjustment for lack of marketability (see Exhibit 58). Each of the methods for quantifying an adjustment for lack of marketability can be criticized for its deficiencies. The restricted stock studies, pre-IPO studies and the comparisons of market rates of returns are each very general in nature and do not take into considerations the specifics of the Subject Interest, and have a large degree of variation in their results. One method of overcoming these issues is to look at specific data points within the studies. We found the TMV study helpful in this regard. By using the more detailed data provided in this study, we were able to narrow the range of adjustments based on information specific to Doubleday. But, this only applies to the restricted stock studies, not the IPO studies. As a result, we did not directly use the pre-IPO studies to develop an appropriate adjustment for lack of marketability.

The computational methods required inputs that were specific to the Subject Interest, and therefore we considered these methods as better than using a

**Exhibit 58: Summary of Methods for Lack of Marketability**



generalized average from a study. These methods (the Longstaff, QMDM and Abbott methods) also have criticisms and deficiencies. As previously mentioned, the QMDM has been criticized for producing large fluctuations from small changes in assumptions. Further, the developer of this method states that it should not be used for controlling interests. To counter the criticism that it produces large fluctuations of results, we used conservative inputs to compute the QMDM.

The Abbott method relies, in part, on formulas derived from market data on publicly traded stocks, which reverts back to the criticism of the pre-IPO studies, that they are too generalized. We believe this is partially offset by other inputs that are specific to the Subject Interest. Further, the valuation community has yet to arrive at a consensus as to the separation of the adjustment for lack of marketability into its liquidity and marketability components.

By using the Longstaff Study as our upper boundary, and the Black-Scholes as the lower boundary, we narrow the range of adjustments to 5 - 20 percent. From this, we applied an adjustment for lack of marketability of 10 percent.

# Conclusion

We have performed this valuation engagement based on the consideration of relevant factors. Our estimate (opinion) of the fair market value of 100,000 shares of the voting common stock of Doubleday Systems, Inc. as of June 30, 2010 on a controlling, non-marketable basis as held by the ESOT, subject to the scope limitation described in the Introduction chapter of this report, is:

**Twenty-Seven Million Five Hundred Thousand Dollars**  
**\$27,500,000**  
 which equates to  
**Two Hundred Seventy-Five Dollars Per Share**  
**\$275/shr**  
 (see Exhibit 59)

This valuation was performed solely to comply with regulatory requirements as defined by the U.S. Department of Labor related to the annual valuation of shares held by Doubleday Systems, Inc. Employee Stock Ownership Trust for the Doubleday Systems, Inc. Employee Stock

Ownership Plan. The resulting estimate of value should not be used for any other purpose or by any other party.

The previous letter and this report are to be considered a single document, distributed only in their entirety, and intended and restricted only for use by the trustee of This report is not to be copied or made available to any persons without the express written consent of Drysdale Valuation, PLLC.

This valuation engagement was conducted in accordance with the SSVA of the AICPA and the SBVS of the ASA, and is subject to the Statement of Assumptions and Limiting Conditions as presented in the appendices to this report.

We have no present or contemplated financial interest in Doubleday Systems, Inc. Our fees for this analysis were based on our customary billing rates, and are in no way contingent upon the results of our findings.

## Exhibit 59: Conclusion of Value

Estimated Value of Operations <sup>1</sup>	\$ 33,034,000
Estimated Value of Non-Operating Assets <sup>2</sup>	5,140,000
	<hr/>
Preliminary Indication of the Value of Equity	\$ 38,174,000
Divided by the Total Number of Shares Outstanding <sup>3</sup>	125,000
	<hr/>
Fully Marketable Indication of the Per Share Value of Equity	\$ 305.39
Less Adjustment for the Lack of Marketability - 10%	(30.54)
	<hr/>
<b>Per Share Fair Market Value of the Voting Common Stock of Doubleday Engineering, Inc. as of June 30, 2010 on a Controlling, Non-Marketable Basis, as Held by the ESOT</b>	<b>\$ 274.85</b>
	<hr/>
Rounded	\$ 275.00
Multiplied by the Total Number of Shares Held by the ESOT <sup>3</sup>	100,000
	<hr/>
<b>Fair Market Value of 100,000 shares (80%) of Voting Common Stock of Doubleday Engineering, Inc. and Subsidiaries as of June 30, 2010 on a Controlling, Non-Marketable Basis as Held by the Employee Stock Ownership Trust</b>	<b>\$ 27,500,000</b>
	<hr/> <hr/>
<sup>1</sup> From Exhibit 42.	
<sup>2</sup> From Exhibits 28.	
<sup>3</sup> From Exhibit 1.	

## Appendix A: Representations/Certification



We certify that, to the best of our knowledge and belief:

- ◆ The statements of fact contained in this report are true and correct.
- ◆ The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and is our personal, impartial, and unbiased professional analyses, opinions, and conclusions.
- ◆ We have no present or prospective interest in the property that is the subject of this report, and we have no personal interest with respect to the parties involved.
- ◆ We have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment.
- ◆ Our engagement in this assignment was not contingent upon developing or reporting predetermined results.
- ◆ Our compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.
- ◆ Our analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the American Institute of Certified Public Accountants Statement on Standards for Valuation Services, and the Uniform Standards of Professional Appraisal Practice standards for conducting and reporting on business valuations.
- ◆ No one provided significant professional assistance to the persons signing this report.
- ◆ The economic, macroenvironmental and industry data included in the valuation report have been obtained from various printed or electronic reference sources that the valuation analyst believes to be reliable. The valuation analyst has not performed any corroborating procedures to substantiate that date.
- ◆ The parties for which the information and use of the valuation report is restricted are identified; the valuation report is not intended to be and should not be used by anyone other than such parties.
- ◆ We relied upon real estate appraisals performed by Babe Ruth Real Estate Appraisal Service as of May 16 2010 for the value of the real estate holdings of Doubleday. We take no responsibility for the analysis and conclusions of this specialist.
- ◆ We have no obligation to update the report or the opinion of value for information that comes to our attention after the date of the report.



Don M. Drysdale, CPA/ABV, ASA



William B. Hamilton, MBA

July 31, 2010



## Appendix B: Financial Information

**Doubleday Systems, Inc.**  
Historical Balance Sheets

As of June 30,	2006		2007	
<b>Assets:</b>				
Current Assets				
Cash	\$ 800,000	2.32%	\$ 1,800,000	4.03%
Accounts receivable	22,000,000	63.69%	26,600,000	59.51%
Inventory	2,300,000	6.66%	3,100,000	6.94%
Other current assets	450,000	1.30%	150,000	0.34%
Costs and estimated profits in excess of billings on uncompleted projects	4,200,000	12.16%	7,000,000	15.66%
Total Current Assets	<u>29,750,000</u>	<u>86.13%</u>	<u>38,650,000</u>	<u>86.47%</u>
Property and equipment, net	\$ 4,700,000	13.61%	\$ 5,970,000	13.36%
Other assets	90,000	0.26%	80,000	0.18%
Total Non-Current Assets	<u>4,790,000</u>	<u>13.87%</u>	<u>6,050,000</u>	<u>13.53%</u>
<b>Total Assets</b>	<b><u>\$34,540,000</u></b>	<b><u>100.00%</u></b>	<b><u>\$44,700,000</u></b>	<b><u>100.00%</u></b>
<b>Liabilities and Equity:</b>				
Liabilities				
Current Liabilities				
Accounts payable	\$ 7,800,000	22.58%	\$12,000,000	26.85%
Accrued liabilities	4,450,000	12.88%	6,000,000	13.42%
Line of credit	2,800,000	8.11%	6,500,000	14.54%
Current portion of long-term debt	740,000	2.14%	500,000	1.12%
Billings in excess of costs and est. profits on uncompleted projects	7,450,000	21.57%	7,700,000	17.23%
Total Current Liabilities	<u>23,240,000</u>	<u>67.28%</u>	<u>32,700,000</u>	<u>73.15%</u>
Long-Term Liabilities				
Long-term debt	1,200,000	3.47%	1,000,000	2.24%
Total LT Liabilities	<u>1,200,000</u>	<u>3.47%</u>	<u>1,000,000</u>	<u>2.24%</u>
Total Liabilities	<u>24,440,000</u>	<u>70.76%</u>	<u>33,700,000</u>	<u>75.39%</u>
Equity				
Retained Earnings	9,400,000	27.21%	10,000,000	22.37%
Other Equity	700,000	2.03%	1,000,000	2.24%
Total Equity	<u>10,100,000</u>	<u>29.24%</u>	<u>11,000,000</u>	<u>24.61%</u>
<b>Total Liabilities and Equity:</b>	<b><u>\$34,540,000</u></b>	<b><u>100.00%</u></b>	<b><u>\$44,700,000</u></b>	<b><u>100.00%</u></b>

Source: Audited financial statements.

2008		2009		2010	
\$ 1,500,000	2.81%	\$ 1,000,000	1.74%	\$ 9,000,000	12.00%
30,000,000	56.29%	30,000,000	52.26%	26,000,000	34.67%
4,000,000	7.50%	5,000,000	8.71%	5,000,000	6.67%
500,000	0.94%	4,000,000	6.97%	11,000,000	14.67%
9,000,000	16.89%	9,000,000	15.68%	8,000,000	10.67%
<u>45,000,000</u>	<u>84.43%</u>	<u>49,000,000</u>	<u>85.37%</u>	<u>59,000,000</u>	<u>78.67%</u>
\$ 7,900,000	14.82%	\$ 8,300,000	14.46%	\$15,000,000	20.00%
400,000	0.75%	100,000	0.17%	1,000,000	1.33%
<u>8,300,000</u>	<u>15.57%</u>	<u>8,400,000</u>	<u>14.63%</u>	<u>16,000,000</u>	<u>21.33%</u>
<b><u>\$53,300,000</u></b>	<b><u>100.00%</u></b>	<b><u>\$57,400,000</u></b>	<b><u>100.00%</u></b>	<b><u>\$75,000,000</u></b>	<b><u>100.00%</u></b>
\$10,000,000	18.76%	\$ 9,800,000	17.07%	\$ 7,000,000	9.33%
10,000,000	18.76%	10,000,000	17.42%	10,000,000	13.33%
3,000,000	5.63%	-	0.00%	-	0.00%
500,000	0.94%	500,000	0.87%	600,000	0.80%
9,000,000	16.89%	10,600,000	18.47%	14,000,000	18.67%
<u>32,500,000</u>	<u>60.98%</u>	<u>30,900,000</u>	<u>53.83%</u>	<u>31,600,000</u>	<u>42.13%</u>
5,500,000	10.32%	5,300,000	9.23%	10,000,000	13.33%
<u>5,500,000</u>	<u>10.32%</u>	<u>5,300,000</u>	<u>9.23%</u>	<u>10,000,000</u>	<u>13.33%</u>
<u>38,000,000</u>	<u>71.29%</u>	<u>36,200,000</u>	<u>63.07%</u>	<u>41,600,000</u>	<u>55.47%</u>
14,000,000		20,000,000	34.84%	24,400,000	32.53%
1,300,000	2.44%	1,200,000	2.09%	9,000,000	12.00%
<u>15,300,000</u>	<u>28.71%</u>	<u>21,200,000</u>	<u>36.93%</u>	<u>33,400,000</u>	<u>44.53%</u>
<b><u>\$53,300,000</u></b>	<b><u>100.00%</u></b>	<b><u>\$57,400,000</u></b>	<b><u>100.00%</u></b>	<b><u>\$75,000,000</u></b>	<b><u>100.00%</u></b>

**Doubleday Systems, Inc.**  
Historical Income Statements

<u>For the Years Ended June 30,</u>	<u>2006</u>		<u>2007</u>	
Project revenue	\$ 63,000,000	95.45%	\$ 80,000,000	90.91%
Other revenue	3,000,000	4.55%	8,000,000	9.09%
Total Revenues	66,000,000	100.00%	88,000,000	100.00%
Direct costs	48,000,000	72.73%	67,000,000	76.14%
Gross Profits	18,000,000	27.27%	21,000,000	23.86%
Operating Expenses				
Advertising and marketing	2,000,000	3.03%	2,500,000	2.84%
Auto and travel	700,000	1.06%	800,000	0.91%
Bad debt expense	70,000	0.11%	70,000	0.08%
Commissions	3,500,000	5.30%	5,000,000	5.68%
Depreciation	650,000	0.98%	700,000	0.80%
Insurance	200,000	0.30%	400,000	0.45%
Maintenance and repairs	100,000	0.15%	200,000	0.23%
Office and miscellaneous	500,000	0.76%	600,000	0.68%
Professional fees	450,000	0.68%	600,000	0.68%
Rent and utilities	300,000	0.45%	450,000	0.51%
Research and development	500,000	0.76%	300,000	0.34%
Salaries, wages and benefits	8,000,000	12.12%	9,500,000	10.80%
Supplies	50,000	0.08%	300,000	0.34%
Taxes and licenses	60,000	0.09%	15,000	0.02%
Warranty and quality control	1,500,000	2.27%	2,300,000	2.61%
Less overhead allocation	(2,000,000)	-3.03%	(2,500,000)	-2.84%
Total General and Administrated Expense:	16,580,000	25.12%	21,235,000	24.13%
Income from Operations	1,420,000	2.15%	(235,000)	-0.27%
Other Income/(Expense)				
Interest income	40,000	0.06%	50,000	0.06%
Interest expense	(400,000)	-0.61%	(500,000)	-0.57%
Gain (loss) on disposal of assets	(200,000)	-0.30%	(10,000)	-0.01%
Miscellaneous income (expense)	150,000	0.23%	300,000	0.34%
Total Other Income/(Expense)	(410,000)	-0.62%	(160,000)	-0.18%
Income before taxes	1,010,000	1.53%	(395,000)	-0.45%
Provision for income taxes	10,000	0.02%	70,000	0.08%
<b>Net Income/(Loss)</b>	<b>\$ 1,000,000</b>	<b>1.52%</b>	<b>\$ (465,000)</b>	<b>-0.53%</b>
EBITDA	2,070,000	3.14%	465,000	0.53%
Five-Year Average EBITDA				

*Source: Audited financial statements.*

2008		2009		2010	
\$ 100,000,000	90.91%	\$ 110,000,000	91.67%	\$ 100,000,000	90.91%
10,000,000	9.09%	10,000,000	8.33%	10,000,000	9.09%
110,000,000	100.00%	120,000,000	100.00%	110,000,000	100.00%
77,000,000	70.00%	77,000,000	64.17%	65,000,000	59.09%
33,000,000	30.00%	43,000,000	35.83%	45,000,000	40.91%
3,000,000	2.73%	3,000,000	2.50%	3,000,000	2.73%
1,000,000	0.91%	1,200,000	1.00%	1,500,000	1.36%
300,000	0.27%	2,000,000	1.67%	200,000	0.18%
6,000,000	5.45%	7,000,000	5.83%	6,000,000	5.45%
1,000,000	0.91%	1,000,000	0.83%	1,000,000	0.91%
500,000	0.45%	400,000	0.33%	400,000	0.36%
250,000	0.23%	250,000	0.21%	300,000	0.27%
1,000,000	0.91%	1,500,000	1.25%	1,500,000	1.36%
800,000	0.73%	1,500,000	1.25%	1,500,000	1.36%
500,000	0.45%	500,000	0.42%	700,000	0.64%
150,000	0.14%	200,000	0.17%	700,000	0.64%
14,000,000	12.73%	18,500,000	15.42%	19,000,000	17.27%
400,000	0.36%	400,000	0.33%	400,000	0.36%
70,000	0.06%	150,000	0.13%	300,000	0.27%
4,000,000	3.64%	4,000,000	3.33%	6,000,000	5.45%
(3,500,000)	-3.18%	(3,000,000)	-2.50%	(3,500,000)	-3.18%
29,470,000	26.79%	38,600,000	32.17%	39,000,000	35.45%
3,530,000	3.21%	4,400,000	3.67%	6,000,000	5.45%
100,000	0.09%	200,000	0.17%	150,000	0.14%
(600,000)	-0.55%	400,000	0.33%	(400,000)	-0.36%
(200,000)	-0.18%	(400,000)	-0.33%	-	0.00%
500,000	0.45%	(200,000)	-0.17%	600,000	0.55%
(200,000)	-0.18%	-	0.00%	350,000	0.32%
3,330,000	3.03%	4,400,000	3.67%	6,350,000	5.77%
100,000	0.09%	30,000	0.03%	10,000	0.01%
<b>\$ 3,230,000</b>	<b>2.94%</b>	<b>\$ 4,370,000</b>	<b>3.64%</b>	<b>\$ 6,340,000</b>	<b>5.76%</b>
4,530,000	4.12%	5,400,000	4.50%	7,000,000	6.36%
				3,893,000	

SAMPLE REPORT: Not represent any actual individuals or companies.

**Doubleday Systems, Inc.**  
Adjustments to Public Guideline Company Valuation Multiples

	GRC	IEX
<b><u>Computation of Adjusted Valuation Multiples:</u></b>		
Unadjusted MVIC to EBIT Multiple	16.27	11.65
<b>Adjusted MVIC to EBIT Multiple<sup>2</sup></b>	<b>7.27</b>	<b>6.68</b>
Unadjusted MVIC to EBITDA Multiple	12.08	9.28
<b>Adjusted MVIC to EBITDA Multiple<sup>2</sup></b>	<b>6.29</b>	<b>5.83</b>
<b><u>Variables Used in the Computations:</u></b>		
Size Adjusted Equity Risk Premium	0.1046	0.0949
Size Adjustment <sup>5</sup>	0.0158	0.0255
Unsystematic Risk	(0.0221)	(0.0137)
Unsystematic Risk Adjustment <sup>5</sup>	0.0421	0.0337
Expected Long-Term Growth	0.0791	0.0662
Growth Adjustment <sup>6</sup>	0.0231	0.0102
Equity to Invested Capital	0.9154	0.9071
Risk Free Rate	3.74%	3.74%
Size Adjusted Equity Risk Premium	10.46%	9.49%
Implied Unsystematic Risk Premium <sup>7</sup>	-2.21%	-1.37%
Implied Discount Rate <sup>8</sup>	11.99%	11.86%

<sup>1</sup> Estimated market value of total equity divided by total adjusted annual earnings.

<sup>2</sup> The adjusted multiple is based on the formula presented in the Market Approach chapter using the variables presented herewith.

<sup>3</sup> Estimated market value of invested capital divided by total adjusted annual EBIT.

<sup>4</sup> Estimated market value of invested capital divided by total adjusted annual EBITDA.

<sup>5</sup> Computed as the subject's premium less the public guideline's premium.

<sup>6</sup> Computed as the public guideline's blended growth less the subject's blended growth.

<sup>7</sup> Computed as the implied discount rate less the sum of the risk-free rate and the size adjusted equity risk premium.

<sup>8</sup> Computed as the inverse of the unadjusted price to earnings multiple plus the blended growth rate.

MPR	NLC	PLL	Doubleday
24.93	7.17	14.53	
<b>7.72</b>	<b>5.29</b>	<b>7.59</b>	
19.70	5.15	10.37	
<b>7.13</b>	<b>4.10</b>	<b>6.28</b>	
0.1119	0.0816	0.0843	0.1204
0.0085	0.0388	0.0361	
(0.0602)	0.0084	(0.0156)	0.0200
0.0802	0.0116	0.0356	
0.0624	0.0687	0.0560	0.0560
0.0064	0.0127	-	
0.9366	0.7308	0.8769	
3.74%	3.74%	3.74%	
11.19%	8.16%	8.43%	
-6.02%	0.84%	-1.56%	
<b>8.91%</b>	<b>12.74%</b>	<b>10.61%</b>	

**Doubleday Systems, Inc.**  
Adjustments to Public Guideline Company Valuation Multiples (cont.)

	GRC	IEX
<b><u>Basic Financial Information of the Public Guidelines:</u></b>		
Stock Price <sup>1</sup>	\$ 25.56	\$ 28.89
Number of Shares Outstanding <sup>2</sup>	16,685,535	81,463,661
Market Value of Shares Outstanding	\$ 426,482,275	\$ 2,353,485,166
Option Price <sup>3</sup>	\$ -	\$ 11.85
Number of Stock Options Outstanding <sup>2</sup>	-	5,793,028
Estimated Market Value of Stock Options	\$ -	\$ 68,647,382
Estimated Market Value of Total Equity <sup>4</sup>	426,482,275	2,422,132,548
Interest Bearing Debt <sup>2</sup>	39,435,000	248,094,000
Market Value of Invested Capital (MVIC)	\$ 465,917,275	\$ 2,670,226,548
Equity to Invested Capital	0.9154	0.9071
Total Earnings	\$ 17,408,975	\$ 126,851,003
Earnings Before Interest and Taxes (EBIT)	28,637,000	229,107,000
Earnings Before Interest, Taxes, Depr. and Amort. (EBITDA)	38,561,000	287,721,000

<sup>1</sup> Average closing share price for the month ended at the Valuation Date.

Source: Yahoo! Finance.

<sup>2</sup> From the applicable forms 10-Q or 10-K of the guideline company.

<sup>3</sup> Computed as the value of a call option using the binomial method.

<sup>4</sup> The market value of the shares outstanding plus the estimated market value of the stock options outstanding.

MPR	NLC	PLL
\$ 10.96 14,619,992	\$ 20.67 138,284,584	\$ 34.87 116,665,051
\$ 160,235,112	\$ 2,858,342,351	\$ 4,068,110,328
\$ 4.77 1,373,027	\$ 10.20 1,151,582	\$ 13.06 3,935,000
\$ 6,549,339	\$ 11,746,136	\$ 51,391,100
166,784,451 11,287,262	2,870,088,487 1,057,200,000	4,119,501,428 578,358,000
\$ 178,071,713	\$ 3,927,288,487	\$ 4,697,859,428
0.9366	0.7308	0.8769
\$ 4,447,633 7,143,486 9,039,578	\$ 168,541,190 547,700,000 763,000,000	\$ 206,452,842 323,368,000 453,200,000

**Doubleday Systems, Inc.**  
**Computation of the Guideline Company Size Adjusted  
Equity Risk Premium and Blended Growth Rates**

	GRC	IEX
<b><u>Computation of the Size Adjusted Equity Risk Premiums:</u></b>		
Total Assets <sup>1</sup>	\$ 248,490,000	\$ 2,211,527,000
Constant <sup>2</sup>	0.15804	0.15804
Slope <sup>2</sup>	(0.02230)	(0.02230)
Logarithm of Assets (millions)	2.39531	3.34469
<b>Computed Size Adjusted ERP Based on Assets<sup>3</sup></b>	<b>0.1046</b>	<b>0.0835</b>
Total Revenues <sup>1</sup>	\$ 264,465,000	\$ 1,400,717,000
Constant <sup>2</sup>	0.15218	0.15218
Slope <sup>2</sup>	(0.01965)	(0.01965)
Logarithm of Revenues (millions)	2.42237	3.14635
<b>Computed Size Adjusted ERP Based on Revenues<sup>3</sup></b>	<b>0.1046</b>	<b>0.0904</b>
5-Year Average EBITDA <sup>1</sup>	\$ 9,924,000	\$ 58,614,000
Constant <sup>2</sup>	0.13723	0.13723
Slope <sup>2</sup>	(0.02141)	(0.02141)
Logarithm of Revenues (millions)	0.99669	1.76800
<b>Computed Size Adjusted ERP Based on EBITDA<sup>3</sup></b>	<b>0.1159</b>	<b>0.0994</b>
Total Number of Employees <sup>1</sup>	957	1,093
Constant <sup>2</sup>	0.16048	0.16048
Slope <sup>2</sup>	(0.01933)	(0.01933)
Logarithm of Employees	2.98091	3.03862
<b>Computed Size Adjusted ERP Based on Employees<sup>3</sup></b>	<b>0.1029</b>	<b>0.1017</b>
<b>Average</b>	<b>0.1070</b>	<b>0.0938</b>
<b>Median</b>	<b>0.1046</b>	<b>0.0949</b>
<b><u>Computation of Long-Term Growth Expectations:</u></b>		
Analysts Estimates of Growth (5 years) <sup>4</sup>	0.1930	0.1500
Estimated growth beyond analysts estimates <sup>5</sup>	0.0300	0.0300
<b>Blended Growth Rate<sup>6</sup></b>	<b>0.0791</b>	<b>0.0662</b>

<sup>1</sup> From the applicable form 10-Q or 10-K of the guideline company.

<sup>2</sup> From the Duff and Phelps, LLC Risk Premium Report 2008.

<sup>3</sup> Computed as the Constant less the Slope multiplied by the Log of the size measurement.

<sup>4</sup> From Yahoo! Finance. Where discrete analysts estimates were not available industry growth estimates were used.

<sup>5</sup> Estimated to be the same as the long-term growth expectations for the subject entity.

<sup>6</sup> Based on the formulas for computing the present value of future cash flows. See the Income Approach chapter of this report.

	MPR	NLC	PLL	Doubleday
\$	106,177,588	\$ 4,996,700,000	\$ 2,889,282,000	\$ 75,000,000
	0.15804	0.15804	0.15804	0.15804
	(0.02230)	(0.02230)	(0.02230)	(0.02230)
	2.02603	3.69868	3.46079	1.87506
	<b>0.1129</b>	<b>0.0756</b>	<b>0.0809</b>	<b>0.1162</b>
\$	82,768,562	\$ 4,008,500,000	\$ 2,375,279,000	\$ 110,000,000
	0.15218	0.15218	0.15218	0.15218
	(0.01965)	(0.01965)	(0.01965)	(0.01965)
	1.91787	3.60298	3.37571	2.04139
	<b>0.1145</b>	<b>0.0814</b>	<b>0.0858</b>	<b>0.1121</b>
\$	48,887,000	\$ 215,300,000	\$ 129,832,000	\$ 3,893,000
	0.13723	0.13723	0.13723	0.13723
	(0.02141)	(0.02141)	(0.02141)	(0.02141)
	1.68919	2.33304	2.11338	0.59028
	<b>0.1011</b>	<b>0.0873</b>	<b>0.0920</b>	<b>0.1246</b>
	373	11,770	10,600	350
	0.16048	0.16048	0.16048	0.16048
	(0.01933)	(0.01933)	(0.01933)	(0.01933)
	2.57171	4.07078	4.02531	(3.45593)
	<b>0.1108</b>	<b>0.0818</b>	<b>0.0827</b>	<b>0.2273</b>
	<b>0.1098</b>	<b>0.0815</b>	<b>0.0854</b>	<b>0.1451</b>
	<b>0.1119</b>	<b>0.0816</b>	<b>0.0843</b>	<b>0.1204</b>
	0.1200	0.1833	0.1190	0.1262
	0.0300	0.0300	0.0300	0.0300
	<b>0.0624</b>	<b>0.0687</b>	<b>0.0560</b>	<b>0.0560</b>

**Doubleday Systems, Inc.**  
Adjustments for LIFO Inventory of Public Guideline Companys

	<u>GRC</u>	<u>IEX</u>
Reported Inventory Balance	\$ 37,711,000	\$ 87,202,077
LIFO Inventory Adjustment <sup>1</sup>	47,600,000	
Estimated FIFO Inventory	<u>\$ 85,311,000</u>	<u>\$ 87,202,077</u>
Trailing Twelve Month Cost of Goods Sold <sup>3</sup>	201,092,000	\$ 830,264,000
Add Prior Year LIFO Inventory Adjustment	49,800,000	
Less Current Year LIFO Inventory Adjustment	<u>(47,600,000)</u>	<u>-</u>
Estimated COGS using FIFO	<u>\$ 203,292,000</u>	<u>\$ 830,264,000</u>

<sup>1</sup> From the most recent Form 10-Q or 10-K. In some cases the Form 10-Q does not present this information. In such cases the adjustment was estimated as the amount from the immediately preceeding Form 10-K.

	MPR	NLC	PLL
\$	15,680,708	\$ 354,200,000	\$ 356,159,981
	1,632,627	9,700,000	
\$	17,313,335	\$ 363,900,000	\$ 356,159,981
\$	54,423,439	\$ 2,152,000,000	\$ 1,206,544,000
	1,702,854	30,500,000	-
	(1,632,627)	(9,700,000)	-
\$	54,493,666	\$ 2,172,800,000	\$ 1,206,544,000

**Doubleday Systems, Inc.**  
**Computation of the Altman Z-Score**

	<u>Ratio</u>	<u>Multiplier</u>	<u>Extention</u>
Working Capital to Total Assets	0.37	6.56	2.43
Retained Earnings to Total Assets	0.33	3.26	1.08
EBIT to Total Assets	0.08	6.72	0.54
Book Value of Common Equity to Total Liabilities	0.80	1.05	<u>0.84</u>
Altman Z-Score			<u><u>4.89</u></u>

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SAMPLE REPORT: Not represent any actual individuals or companies.

## Appendix C: Sources of Information



In performing this analysis, we were provided with and/or relied upon various sources of information, including but not limited to:

- ◆ Doubleday Systems, Inc. audited financial statements as of and for the years ended June 30, 2008 through 2010, audited by Bucky Dent, LC, Certified Public Accountants;
- ◆ Doubleday Systems, Inc. audited financial statements as of and for the fiscal years ended June 30, 2006 through 2007, audited by The Steinbrenner, P.C., Certified Public Accountants;
- ◆ Doubleday Systems, Inc. Form 1120S, U.S. Income Tax Return for an S Corporation for the years ended June 30, 2008 and 2009, prepared by Bucky Dent, LC, Certified Public Accountants;
- ◆ Doubleday Systems, Inc. Form 1120S, U.S. Income Tax Return for an S Corporation for the years ended June 30, 2006 through 2007, prepared by The Steinbrenner, P.C., Certified Public Accountants;
- ◆ Doubleday Systems, Inc. internally prepared forecast of revenues, expenses and account balances for the future periods ending June 30, 2011 through 2015;
- ◆ General information about the Company as presented on the web site, [www.doubledayengineering.com](http://www.doubledayengineering.com);
- ◆ Articles of Incorporation of Doubleday Systems, Inc. filed with the Secretary of State of the State of New York on November 21, 1975;
- ◆ Restated Articles of Incorporation of Doubleday Systems, Inc., filed with the Secretary of State of the State of New York on March 3, 1983;
- ◆ Restated Articles of Incorporation of Doubleday Systems, Inc., filed with the Secretary of State of the State of New York on May 29, 1984;
- ◆ Certificate of Amendment of Articles of Incorporation filed with the Secretary of State of the State of New York on February 2, 1996;
- ◆ Bylaws of Doubleday Systems, Inc., fully amended as of September, 2004;
- ◆ Doubleday Board Charter dated July 15, 2003;
- ◆ Minutes of the Meetings of the Board of Directors of Doubleday Systems, Inc., dated from February 9, 2004 through May 6, 2010;
- ◆ Doubleday Strategic Plan updated February 2009;
- ◆ Doubleday Systems, Inc. Employee Stock Ownership Plan document amended as of July 1, 2007;
- ◆ ESOP Committee Bylaws, revised June 1, 2003;
- ◆ Unaudited supplemental information, including, but not limited to:
  - History of the Company;
  - Information on certain past transactions in the shares;

- Sales and operating profitability statements;
- Ownership breakdown of the shares;
- General information on the Company's marketing, competitors, suppliers, customers, and other information from an interview with the Company's management;
- ◆ Surveys of industry peer financial results contained in BizMiner, whose research methodology tracks and analyzes the experience of over 18 million US business facilities, condensing millions of data points. This study provides detailed financial ratio information on a variety of industry groupings, separated by company size;
- ◆ Analysis of information on possible publicly traded and privately held comparable companies and industry information including the following:
  - Search of the Electronic Data Gathering and Retrieval (EDGAR) database of public company filings with the Securities and Exchange Commission;
  - Analysis of possible public company and industry information via computer database;
  - Specific company annual reports, 10-K's, 10-Q's of publicly held companies;
  - Database searches and review of articles, forecasts and abstracts via the Internet;
  - Analysis of possible privately held comparable companies obtained from BizComps database;
- ◆ Information regarding macroenvironmental factors including the economic outlook, technical innovations, government regulations and other factors;
- ◆ Information regarding the present conditions and outlook for the industry in which the Company operates;
- ◆ Resources regarding business valuation issues, including the following:
  - *Business Valuation Review*, a publication of the Business Valuation Committee of the American Society of Appraisers;
  - ASA Business Valuation Standards of the American Society of Appraisers, and the Uniform Standards of Professional Appraisal Practice, published by the Appraisal Foundation;
  - *Financial Valuation: Applications and Models*, Second Edition, 2006, Hitchner;
  - *Duff & Phelps, LLC Risk Premium Report 2010*, a publication of Duff & Phelps, LLC, distributed by Ibbotson Associates, updated annually;
  - *Stocks, Bonds, Bill & Inflation, 2010 Yearbook*, a publication of Ibbotson Associates, Chicago – updated annually; and,
- ◆ Other various relevant information.

## Appendix D: Qualifications



## **DON M. DRYSDALE, CPA/ABV, ASA**

**Certified Public Accountant**

**Accredited in Business Valuation**

**Accredited Senior Appraiser**

### **DRYSDALE VALUATION, PLLC**

*[drysdalevaluation.com](http://drysdalevaluation.com)*

**5055 E. Broadway, Suite A200**

**Tucson, Arizona 85711**

**520-512-5410 voice**

**866-489-4041 fax**

*[don@drysdalevaluation.com](mailto:don@drysdalevaluation.com)*

**500 North Market Place Drive, Suite 200**

**Centerville, Utah 84014**

**801-466-5410 voice**

**866-489-4041 fax**

### **Professional Designations**

Certified Public Accountant, Arizona #7549-E

Accredited in Business Valuation #600

Certified Public Accountant, Utah #289292-2601

Accredited Senior Appraiser

### **Professional Memberships**

American Institute of Certified Public Accountants

Arizona Society of Certified Public Accountants

Appraisal Issues Task Force

American Society of Appraisers

Utah Association of Certified Public Accountants

### **Previous Employment History**

#### **Yeanoplos Drysdale Group, PLLC**

Valuation Advisors, Tucson, Arizona

Member

#### **Beacon Valuation Group, LTD**

Valuation Advisors, Tucson, Arizona

Manager

#### **Certified Public Accounting Firms**

Salt Lake City, Utah and Phoenix, Arizona

Including KPMG Peat Marwick

#### **Bank One of Arizona**

Phoenix, Arizona

Accountant

### **Education and Specialized Training**

#### **Weber State University**

Bachelor of Arts - Accounting

#### **Nat'l Assoc. of Certified Valuation Analysts**

Fundamental & Techniques for Small Businesses

#### **American Institutes of CPAs**

Certificate of Educational Achievement

Various National Business Valuation Conferences

National Auto Dealers Conference

Construction Industry Executive Forum

#### **Arizona Society of CPAs**

Various Annual Business Valuation and Litigation Support Conferences

#### **Financial Consulting Group**

Various Member Firm Conferences

Various Annual "BV Universities"

#### **Utah Association of CPAs**

Various Annual Business Valuation Symposia

## Articles and Publications

Co-Author, "Adjusting Guideline Multiples for Size, *Valuation Strategies*, Sept./Oct. 2001.

Co-Author, "Best Valuation Approaches to Use and Why," *Industry Valuation Update, Volume Three, Construction*, Business Valuation Resources, 2004.

Author of the Construction section of the Special Industries Chapter, "Financial Valuation: Applications and Models, second edition, 2006.

## Presentations and Lectures

*Common Approaches to Business Valuation*, Presentation given for National Business Institute, 1998.

Valuation, Presentation given for National Business Institute, 1999.

*Business Valuation: Case Study Round Table Discussion*, Presentation given at the National Association of Certified Valuation Analysts Utah Chapter Meeting, 1999.

*Effective Business Valuation Report Writing*, Presentation given at the Utah Association of CPAs 1999 Business Valuation Symposium, 1999.

*Determining Appropriate Business Valuation Methodologies*, Presentation given at the Utah Association of CPAs 2000 Business Valuation Symposium, 2000.

*Valuation Premiums and Discounts*, Presentation prepared for the Utah Association of CPAs 2000 Business Valuation Symposium, 2000.

*The Business of Valuation – Discounts*, Presentation prepared for the Southern Arizona Estate Planning Council, 2000.

*Signed, Sealed and Delivered: Complying With IRS Regulations on Adequate Disclosure of Gifts*, Presentation given at the Society of Louisiana CPAs 2000 Louisiana Tax Conference, 2000.

*Business Valuation*, Presentation given to graduate taxation students at the University of Arizona, 2001.

*Signed, Sealed and Delivered: Complying With IRS Regulations on Adequate Disclosure of Gifts*, Presentation given to the Tucson CPA/Law Forum, 2001.

*Don't Slam the Door on the Way Out*, Presentation given to the Risk Management Association, Tucson Chapter, 2001.

*Controversial Issues Panel: Is the Guideline Public Company Method Control or Minority?*, Panel Member, Financial Consulting Group Member Firm Conference 2001, New Orleans, Louisiana, 2001.

*Turning Goliath into David: Making Valuation Multiples More Applicable for Private Companies*, Presentation given at the Utah Association of CPAs 2001 Business Valuation Symposium, 2001.

*Controversial Issues Panel: The Quantitative Marketability Discount Model*, Panel Member, Financial Consulting Group Member Firm Conference 2002, Denver, Colorado, 2002.

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SAMPLE REPORT: Not representative of any actual individuals or companies.

*Professional Practices: What's Your Time Really Worth?*, Presentation given at the Utah Association of CPAs 2002 Business Valuation Symposium, 2002.

*Finance: The Basics (Learn to Read and Understand Balance Sheets, Income and Cash Flow Statements)*, Presentation given for Lorman Education Services, 2002.

*Getting Down to Brass Tax! Exploring Taxation Issues in Domestic Relations*, Presentation given at the Joint Tax Litigation Seminar for the American Women's Society of CPAs, Tucson Affiliate, Arizona Society of CPAs, Southern Chapter and the Arizona Women's Law Association, 2002.

*Exploring the Taxing Financial Issues of Divorce*, Presentation given for the CPA/Law Forum of Tucson, 2003.

*Exploring Issues in Valuing Stock Options and Other Assets You Can't See*, Co-discussion leader for a one day AICPA course sponsored by the ASCPA, Phoenix, Arizona, 2003.

*Small Business Valuation Case Study: Let's Work Through the Issues!*, Discussion leader for a one day AICPA course sponsored by the ASCPA, Phoenix, Arizona, 2003.

*Best Valuation Approaches to Use and Why?*, Guest author for Industry Valuation Update, Volume Three, Construction, published by BVRResources.

*Niche Vignette: Construction*, Presentation given to the American Institute of CPAs, 2004 National Business Valuation Conference, Orlando, Florida, 2004.

*Business Valuation*, Presentation given to the Risk Management Association, Tucson Chapter, 2005.

*Finance: The Basics (Learn to Read and Understand Balance Sheets, Income and Cash Flow Statements)*, Presentation given for Lorman Education Services, 2006.

*Building a Value of Construction Companies*, Presentation given at the 21st Annual Construction Industry Conference of the Arizona Society of CPAs, 2006.

*Construction Companies: Building a Better Value*, Presentation given at the 15th Annual Consultants' Conference of the National Association of Certified Valuation Analysts, 2008.

*Adjusting Public Multiples for Size*, Guest lecture given as part of an elective graduate finance course, University of Arizona, Eller College of Management, 2008.

*Square Pegs in Round Holes: Adjusting Multiples from Public Guidelines for Private Firms*, Presentation given at the National Association of Certified Valuation Analysts and Institute of Business Appraisers 2009 Annual Consultants' Conference, 2009.

*Valuing Construction Companies*, Teleconference presentation given for Business Valuation Resources, 2010.

*Square Pegs in Round Holes: Adjusting Multiples from Public Guidelines*, Presentation given at the Business Valuation Committee meeting of the California Society of CPAs, 2010.

*Squaring the Circle: Can the Income and Market Approaches be Reconciled*, Presentation given at the joint Business Valuation Conference of the American Society of Appraisers and Canadian Institute of Chartered Business Valuators, 2010.

## Selected Engagements

### Employee Stock Options

- **Development Stage Alternative Fuel Company**, executive stock options, Vernal, Utah.
- **Development Stage Safety Syringe Manufacturer**, employee stock options, Lexington, Kentucky.
- **Operator of Nursing Homes**, executive stock options, Midwestern U.S.

### Employee Stock Ownership Plans

- **Designer and Manufacturer of Water Treatment Systems**, ESOP, Salt Lake City, Utah.
- **Medical Device Manufacturer**, ESOP, Salt Lake City, Utah.
- **Sheet Metal Fabricator**, ESOP, Ogden, Utah.

### Estate, Gift and Other Taxes

- **Aircraft Parts Manufacturer**, estate tax, Ogden, Utah.
- **Collection Agency**, conversion to an S-corporation, Utah.
- **Development Stage Wind Farm**, gift tax, Laramie, Wyoming.
- **Hydrogen Fuel Cell Patent**, estate tax, Burlington, Vermont.
- **Installer of Custom Countertops**, owners goodwill, Provo, Utah.
- **International Wedding Dress Designer and Distributor**, shareholder buyout, Salt Lake City, Utah.
- **Operator of Group Homes for the Physically and Developmentally Disabled**, gift tax, Western U.S.
- **Reseller of Long-Distance Telephone**, charitable contributions, Nationwide.

### Financial Reporting

- **Bed Linen Distributor**, purchase price allocation FASB 141, South San Francisco, California.
- **Development Stage Filtration Product Company**, impairment analysis of long-lived asset FASB 144, Las Vegas, Nevada.
- **Manufacturer of Can Making Equipment**, purchase price allocation FASB 141, Centennial, Colorado.
- **Rural Telephone Companies**, goodwill impairment analyses FASB 142, Eastern and Southern Utah, Southern Wyoming.
- **Therapy and Health Care Supply Distributors**, purchase price allocations FASB 141 Pleasanton, California, Houston, Texas, Michigan, Ohio.

### Marital Dissolution

- **Dental Lab Operator**, Layton, Utah.
- **Fast Food Restaurants**, Park City, Utah.

### Owner Buyout/Buyin

- **Credit Card Processing Company**, shareholder buyout, Los Angeles, California.
- **Engineering Firm**, buyout of shareholder, American Fork, Utah.
- **Language Translation Firm**, purchase of shares from minority owner, Provo, Utah, Germany.
- **Mechanical Contractor**, admission of new owners, Salt Lake City, Utah.
- **Pediatric Practice**, physician buyin, Tucson, Arizona.
- **Pet Food Manufacturer**, dissenting shareholder action, Ogden, Utah.
- **Start-up Internet Company**, admission of new shareholders, Nashville, Tennessee.
- **Surgical Center**, buyout of shareholder, Ogden, Utah.

## **WILLIAM B. HAMILTON, III**

**Master of Business Administration**

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Centerville, Utah 84014

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### **Previous Employment History**

#### **Los Alamos National Laboratory**

Business Analyst, Los Alamos, New Mexico

#### **Center of Excellence for Hazardous Materials Management**

Feasibility Consultant, Carlsbad, New Mexico

#### **SC Capital Partners**

Research Analyst, Tucson, Arizona

#### **Tucson Rent Search, Inc**

Founder/President, Tucson, AZ

### **Education**

#### **University of Arizona**

Eller College of Management

Master of Business Administration - Finance

#### **Washington & Lee University**

Bachelor of Arts - Philosophy

Teacher's Assistant - Economics, Operations Mgmt

Economics Tutor - Executive MBA Program

2nd Place Finish - PAC-10 MBA Case Competition



# Appendix E: Statement of Assumptions and Limiting Conditions



**U.S. Treasury Circular 230 Notice:**

Federal regulations require the following disclosure. The opinion arrived at in the report is limited to the Federal tax issues previously stated. Additional issues may exist that could affect the Federal tax treatment of the transaction or matter that is the subject of this opinion and this opinion does not consider or provide a conclusion with respect to any additional issues. With respect to any significant Federal tax issues outside the scope of this opinion, this opinion was not written, and cannot be used by the taxpayer, for the purpose of avoiding penalties that may be imposed on the taxpayer.

**We have relied upon information:**

We have based our report on historical and prospective financial information, historical and current entity information, and other information provided by owners, management, and third parties. We have not audited or reviewed this information and the resulting report should not be construed, or referred to as an audit, examination or review. Had we audited or reviewed the underlying data and information, matters may have come to our attention that would have resulted in our using amounts that differ from those provided. Accordingly, we take no responsibility for the underlying data presented or relied upon in this report. We have assumed that all of the representations and information supplied by the Company, its management and agents are true, accurate, and complete.

The scope of our procedures was limited. The client did not provide current real estate appraisals on the real estate held by Doubleday. As such, the values of the real estate held was estimated based on older appraisals and historical costs.

We have relied on public and other information sources we believe to be reliable. However, we make no representation as to the accuracy, completeness or correctness of such information and have performed no procedures to corroborate the information.

We have relied upon the representations of the owners, management, and third parties concerning the value and useful condition of all equipment, real estate, investments used in the business, and any other assets or liabilities except as specifically stated to the contrary in this report. We have not attempted to confirm whether or not all assets of the business are free and clear of liens and encumbrances, or that the Company has good title to all assets. Drysdale Valuation, PLLC assumes no responsibility for matters of a legal or tax-oriented nature affecting any of the property valued or any opinion of value.

We based this valuation in part on forecasts of revenues, earnings, and other matters as estimated by the management of the Doubleday Systems, Inc. Some assumptions inevitably will not materialize, and numerous unanticipated events and circumstances may occur. Therefore, the actual performance in the areas forecasted will vary from the forecasts and the variations may be material. Drysdale Valuation, PLLC expresses no form of assurance whatsoever on the likelihood of achieving the forecasts or on the reasonableness of the assumptions, representations and conclusions.

Any such forecasts are presented for valuation purposes only, and are not intended to be used separately or for any other purpose, including: to obtain credit, make investment decisions, make purchase decisions, or solicit investors. Any such potential parties must independently examine the outlook for the Company and make their own separate determinations. The parties should employ qualified advisors to assist them in doing so.

**The report will not be used for:**

We have performed this valuation only for the Company and the purpose stated herein. The report and any information contained within are not to be used for any other purpose by any other party. Such other use will render the report invalid and is not authorized. This report or its findings are not to be included in, or referred to, in any offering memorandum (public or private) or prospectus of any kind.

The report, its information and findings are confidential and are not to be published, copied, reproduced, disclosed, or disseminated in any way by any means, in whole or in part, without the express prior written permission of a duly authorized officer of Drysdale Valuation, PLLC. This report is copyrighted and remains the property of Drysdale Valuation, PLLC.

Neither all nor any part of the contents of this report shall be conveyed to the public through advertising, public relations, news, sales or other media without the prior written consent and approval of Drysdale Valuation, PLLC.

**Assumptions (not all inclusive):**

In determining the opinion of value included in this report, we have assumed that the existing management will maintain the character and integrity of the Company through any reorganization or reduction of any existing owner's/manager's participation in the activities of the Company.

We have assumed that there are no factors such as restrictive agreements of any kind, other than those noted herein, which will affect or impair value in any way or the ability to affect an expedient sale of the ownership interest being valued.

We have assumed for valuation purposes that the Company is in good standing and is not in violation of any laws or regulatory statute of any kind; this has not been independently verified. We have also assumed that there are no contingent or other liabilities of any kind, including pending or threatened lawsuits, environmental or hazardous waste or other similar matters except as noted herein.

The dollar amount of any value reported is based on the purchasing power of the U.S. dollar as of the valuation date. The appraiser assumes no responsibility for economic or physical factors occurring subsequent to the date that may affect the opinions reported.

Drysdale Valuation, PLLC is not an environmental consultant, engineer or auditor, and takes no responsibility for any actual or potential liability from environmental contamination or injury from such contaminants or hazardous substances. Drysdale Valuation, PLLC has not independently determined whether the subject business enterprise is subject to any present or future liability relating to environmental matters (including but not limited to CERCLA/Superfund liability, contamination of soil, water or air, or release of any substance that could damage the environment or individuals) nor the scope of any such liabilities. We take no such liabilities into account, except as they have been reported to us by the subject company or by an environmental consultant working for the subject company, and then only to the extent that the liability was reported to us in an actual or estimated dollar amount. Such matters, if any, are noted in the report. To the extent such information has been reported to us, Drysdale Valuation, PLLC has relied on it without verification and offers no warranty or representation as to its accuracy or completeness.

The estimate of fair market value assumes that the Company is a "going concern," based on an all cash purchase, or equivalent terms thereof. The Company would have a materially different value in liquidation. No estimate of the value that could be achieved in liquidation is included in this report.

**If the business is sold or transferred:**

Drysdale Valuation, PLLC, Don M. Drysdale, CPA/ABV, ASA, and William B. Hamilton, III, MBA do not purport to be guarantors of value. Valuations involving closely held companies is an imprecise science, with value being a question of fact, and reasonable people differing in their opinions of value. However, Drysdale Valuation, PLLC and the individual analyst(s) have used conceptually sound and commonly accepted methods and procedures of valuation in determining the opinion of value included in this report.

Nothing in this report is intended to recommend, imply or provide any guarantees, representations, or opinions of any kind whatsoever regarding the financial prudence, collateral, investment potential or debt service ability of the Company or any investment in its stock or assets by any party, including investors of any kind, financial institutions and all other individuals or entities. Such parties should undertake a full due diligence review of the Company and make their own independent determinations of its future prospects, financial and otherwise, and the financial prudence, tax, legal, and all other ramifications of any contemplated transaction and should retain independent and qualified advisors.

Nothing in this report should be construed as providing a “due diligence” study of the Company, as such a study has not been undertaken. Such a study could uncover factors not considered herein which could result in a materially different estimate of value. No “fairness opinion” of any kind is expressed herein regarding an ownership interest in the subject entity or for any pending or contemplated transaction.

Nothing in this report constitutes a recommendation regarding the purchase or sale of any securities or assets. Drysdale Valuation, PLLC expresses no opinion, guarantees or form of assurance of any kind, expressed or implied, on the potential investment performance resulting from a purchase of an interest in the Company or its assets.

This report is neither an offer to sell, nor a solicitation to buy securities, and/or equity in, or assets of, the subject entity.

**Other:**

We have no present or contemplated financial interest in the Company. Our fee for this analysis is based upon our customary billing rates plus out-of-pocket expenses, and is in no way contingent upon the results of our findings. We have no responsibility or obligation to update this report for events or circumstances occurring subsequent to the date of this report, although we would be happy to do so should prior arrangements be made, including providing expert testimony or to be in attendance in court or at any government hearing with reference to the matters contained herein. The opinion expressed herein is valid only for the stated effective date, June 30, 2010, and only for the stated valuation purpose. The actual value realized at a date subsequent to the valuation date may vary from the value set forth and such variations may be material.

No change of any item in the report shall be made by anyone other than Drysdale Valuation, PLLC, and we shall have no responsibility for any such unauthorized change.

The valuation date is stated in the report without any guarantees as to the fair market value at the valuation date or any future date, or any contrary opinions as to the value as of the same date.

Possession of the report or work papers or other written documentation regarding the analysis does not carry with it the right of publication of all or part of it, nor may it be used or relied upon without previous written consent for any purpose other than that set forth above. No third parties are intended to be benefitted. Drysdale Valuation, PLLC assumes no responsibility for any liability for damages of any kind resulting from reliance on this report by the Company or any other party. Schedules, information and other work papers developed during the assignment by Drysdale Valuation, PLLC or supplied by the client are the sole property of Drysdale Valuation, PLLC and are not subject to examination or production to the client at any time during or after the engagement.

