



Munich Personal RePEc Archive

Achieving Amicable Settlements and Possible Reconciliations : The Role of Forensic Accountants in Equitable Distributions

Ojo, Marianne and DiGabriele, Jim

29 June 2013

Online at <https://mpra.ub.uni-muenchen.de/49189/>
MPRA Paper No. 49189, posted 20 Aug 2013 11:04 UTC

ABSTRACT

This book is focussed on investigating how a proper implementation of forensic accounting tools could serve as a means and channel whereby such techniques as valuations, equitable distribution and evidence could be employed in avoiding unnecessary break ups and emotional breakdowns.

How can courts curb contingency costs of matrimonial litigation when a closely held company is involved? – particularly where such closely held companies' profits can be steered towards greater profits if these companies are encouraged to continue to run (as well as alleviate financial problems which may initially have contributed to financial and marital problems). Given recent statistics which indicate a 50:50 success rate in marriages, should courts not have a role in assisting to alleviate and reduce tax burdens which are peculiar to companies run by couples – where it can easily be proven that these were the sources of financial and eventually, marital tensions? What role could forensic accountants also play in providing financial, valuation and business advice to couples experiencing such business difficulties – and who lack the required access to funds or expertise aimed at restoring the viability of their businesses. Would such expertise and advice restore their businesses – and eventually their relationships?

It is a well known fact that financial problems constitute the source of break-downs in many relationships. Whilst other factors may contribute to failures in relationships and whilst some couples may have finalised their intentions and require very little assistance in getting through such painstaking processes, others may have their decisions influenced by court procedures, counselling sessions and the proper application of equitable distribution procedures – such equitable distribution procedure being considered a preferred technique in resolving marital asset distributions than the community property concept.

Further this book highlights factors which need to be taken into consideration – not only in averting unnecessary break-ups, but also in facilitating harmonious and amicable settlements which may eventually pave the way for reconciliation, as well as restoration of broken down relationships. Whilst planning of marital asset distribution should not constitute the focus of any marriage, planning when the need arises may serve not only as a channel whereby a relationship can be restored eventually, but as a temporary means of weathering the storms during the difficult times in the relationship.

Key words: equitable distribution, marital reconciliation, forensic accounting, valuations

**Achieving Amicable Settlements and Possible Reconciliations : The Role of
Forensic Accountants in Equitable Distributions**

Jim DiGabriele and Marianne Ojo

(Preliminary Draft Version)

TABLE OF CONTENTS

Chapter One

Preparation for Marriage or Preparation of the Marital Balance Sheet?

Based on

DiGabriele, J.A., Simoes G.V. and Zaku, L. (2009). The Separation Anxiety of Marital Assets: Preparation of the Marital Balance Sheet. Forensic Accounting in Matrimonial Divorce Engagements. Volume 1. Number 1.

Chapter Two

To Have and to Hold: Consolidating on Heathier Relationships

Based on

DiGabriele, J.A. (2007). To Have and to Hold: An Empirical Investigation of Preferences for Valuation Methods of Closely Held Companies in the Matrimonial Court. Journal of Forensic Accounting. Vol. VIII. No. 1 & 2.

Chapter Three

Gender Choices, Business Valuation, & State Specific Variables in the Division of Marital Assets.

Based on DiGabriele, J.A. (2009). Gender, Valuation of Private Companies, and State Specific Variables in the Division of Marital Assets. Journal of Legal Economics. Volume 15, Number 2.

Chapter Four

Evidentiary Reliability, Valuation Standards, and Rules of Thumb

Based on:

DiGabriele, J.A. (2011). Evidentiary Reliability, Valuation Standards, and Rules of Thumb. American Journal of Family Law. Volume: 25, Issue: 1, 16-22.

Chapter Five

Considering the Market Approach in Matrimonial Valuations: The Application of Regression Analysis to the Direct Market Data Method

Based on

Filler, Mark G. & DiGabriele, James A. (2007) The Application of Regression Analysis to the Direct Market Data Method, Parts I - III. FOCUS. American Institute of Certified Public Accountants. Business Valuation and Forensic & Litigation Support Services Section. March/April. Volume 3. Number 2, October/November/December. Volume 2. Number 6 and August/September. Volume 2. Number 5.

Chapter Six

Matrimonial Business Valuations and the AICPA Statement on Standards for Valuations Services No. 1

Based on

DiGabriele, J.A. (2009). Matrimonial Business Valuations and the AICPA Statement on Standards for Valuations Services No. 1. American Journal of Family Law. Vol. 23. Issue 2.

Chapter Seven

Forensic Accounting and The Marital Life Style Analysis

Based on

DiGabriele, J.A. (2008). Forensic Accounting and The Marital Life Style Analysis. The Journal of Forensic Accounting. Vol. IX. No. 1.

Chapter Eight

Conclusion

REFERENCES

Achieving Amicable Settlements and Possible Reconciliations : The Role of Forensic Accountants in Equitable Distributions

Chapter One

Preparation for Marriage or Preparation of the Marital Balance Sheet?

Based On:

DiGabriele, J.A., Simoes G.V. and Zaku, L. (2009). The Separation Anxiety of Marital Assets: Preparation of the Marital Balance Sheet. Forensic Accounting in Matrimonial Divorce Engagements. Volume 1. Number 1.

Why Laws Which Encourage High Rates of Divorce Should Be Discouraged.

Is there Really a Need For Pre-Nuptial Agreements: Preparing For Marriage Failure? Should arrangements which facilitate pre-meditated break ups be encouraged? Should a pre-nuptial which rewards a spouse according to the number of years spent in a relationship be regarded any differently from that which simply prohibits a spouse from receiving a certain proportion of assets?

What Definition of Distribution Can be Regarded As Truly Equitable?

Greater weight should be apportioned to factors such as the length of marriage and whether children are involved, in arriving at what can be regarded as equitable. Furthermore, contribution of each spouse to income should also be taken into account. Valuation methods in the matrimonial court ,as well as a consideration of more subjective factors such as the effects of gender, age, length of marriage, children, income, are preferable in arriving at a more equitable decision than a more objective and predictable decision which is frequently associated with decisions delivered in states such as California.

Preparation of the Marital Balance Sheet: A Contributory Factor in High Levels of Marital Breakdowns?

For many, the likelihood of impending divorce or separation is an event which is not planned for or anticipated – hence the judgements surrounding such cases and equitable distributions should equally be subjective - taking into account individual considerations whilst arriving at equitable and just decisions. Whilst planning certainly has numerous benefits, one does not plan to fail. This is the rare case where failure to plan is certainly not planning to fail. If a marriage is based on genuine factors and a solid foundation, as well as love being a determining theme, other factors such as hope should be accorded great priority – hence the hope of reconciliation should also be a major determining factor which is taken into account by a judge when deciding to permanently „disconnect“ two previously connected lives. Whilst the period for determining a distribution of the assets may appear to serve as a means for casting a reflection of the existing state of the marriage, it should not be considered a deciding factor in whether certain couples have really decided to call it quits – rather other factors should be considered in deciding whether a spouse deserves the compensation awarded by the judge and whether such a spouse clearly also had other unacceptable „initial“ motives for entering into the union in the first instance.

What is acceptable or unacceptable also needs to be weighed according to the circumstances involved - circumstances such as signs of undue influence – be it externally or within the relationship, environmental, social factors, or other financial and legal reasons whereby certain relationships may be based primarily on the need to avert tax or achieve higher financial savings – rather than the real basis for entering into a relationship (namely, out of pure love and unselfish motivated reasons). In this sense, marital relationships which were intended purely as business relationships can distinguished – however, there is also the need to delineate those situations involving where both parties willingly entered into such a relationship – well aware of its intentions, as well as those where just one party was operating according to a well planned scheme with the aim of financially manipulating or exploiting the other.

In certain cases, one spouse may unwillingly consent to the divorce proceedings whilst the other has many motives for wanting to end the relationship. In such a case it may be fair to award a greater level of compensation (than is usually the case) to the unwilling spouse. The other spouse willing to sacrifice the relationship - not only at the price of losing a huge amount of income, but also gaining his or her freedom in the process. The grant of freedom may in certain cases avert abusive environments as well as avert potential disasters – particularly to the most vulnerable victims, namely, the children. This is not to condone separation but rather to suggest that there are alternatives whereby amicable arrangements could be facilitated in encouraging relationships which are still healthy and non abusive even whilst spouses are living apart. This is where the role of forensic accountants could prove vital in avoiding bitter disputes which arise as a result of asset distributions and which could potentially, permanently and severely damage relationships. Counselling sessions should be incorporated during court proceedings as well as during the instigations of court cases involving marital breakdowns. In certain cases, decisions are taken by some couples which are based on prevailing emotions at the time and may not be based on sound judgement.

The Real Victims of Abusive Relationships

Why do certain spouses remain in abusive relationships? Two primary reasons usually put forward relate to either the importance attached to saving one's marriage or putting up with the situation because children need both parents in the relationship. There are also many other credible reasons: namely, that there is enduring hope that the abusive spouse may amend his or her ways. Whilst the importance of preserving stable, loving relationships cannot be over emphasised, a duty is also owed to preserve the mental, physical state of one's well being – as well as those of the children in such relationships. The abusive spouse may not even consciously realise the environment of abuse that is being generated – passive as well as active forms of abuse exist. An environment where no conversations or loving embraces are exchanged, in a sense may appear less mentally damaging than that where physical or verbal abuse occurs. Whichever form exists, the real victims are the spouse at the receiving end – as well as those observing and living with the frequent recurrence of events. The consequences of such forms of abuse may not immediately manifest themselves – indeed it may slowly build up over the years. The impact of such abuses only become more

apparent when those affected persistently realise that it is not the normal way to live – by witnessing the love and affection which exists within other family spheres and relationships where they may find themselves. These are factors which may shape the lives of those involved in their choices and decisions in latter years of their lives.

It is also frequently accentuated that the impact of the process of marital breakdown on children should also be taken into account. Would the relationship continue to do more harm than good – in terms of the state of abuse in which children could find themselves? Children could be worse off with a spouse's new love or also worse off if they remained in an abusive relationship between their parents. Where children are involved, arrangements for children should constitute higher priority in arriving at what is considered to be an equitable distribution. Namely, the safety of the children – and this does not necessarily always mean that they reside with a particular spouse (since the spouse's new love could be abusive). They could reside with their grandparents if the relationship and comfort between such relatives can be established and is definitely healthier than that which exists with or between their parents.

The analysis of assets and liabilities, commingling of accounts, appreciation in value and ownership is the basis for the compilation of a marital balance sheet; however the distribution thereof still lies in the subjectivity and interpretation of the judge.

The marital balance sheet serves as a primary tool for equitable distribution. During preparation of the Marital Balance Sheet, it is crucial to be familiar with as much detail as possible regarding the marriage. Forming a clear and open line of communication with the retaining attorney and client is critical. Oftimes clients leave out small details assuming these are commonly understood; yet it is these very details which often cause oversights. Similar to visiting a doctor who can not properly diagnose an ailment simply by looking at a patient – only by being told every symptom can a doctor consider all possible ailments.

The marital balance sheet is also the starting point for further analysis. For example, a pre-tax basis balance sheet must be tax-adjusted for property settlements. The tax-adjusted balance sheet represents the after-tax value of marital assets and liabilities as if the assets and liabilities of the marriage were liquidated and the remaining cash were distributed to each spouse. The tax-adjusted balance recognizes the embedded tax liability or savings in assets whose value at the date of divorce differs from its tax basis (usually its cost). The economic value of the assets is the fair market value

of the asset, reduced by the associated deferred tax liability or increased by the deferred tax benefit (savings).

Many states now require an analysis of the tax consequences of a property settlement. Even if not required, preparation of an after-tax balance sheet is the best way of assuring that the parties fully understand the settlement, including the tax consequences. The analysis should include both the assets and the liabilities.

Unfortunately, most states do not provide any guidance for the tax analysis.

Once assets are defined as marital or non marital for the purpose of equitable distribution, the subjective determination of equitable distribution lies in the hands of State. While some states, such as California, have a simplified approach in which there is an even split of property (because a marriage is viewed as a joint undertaking and both parties are presumed to contribute equally to the acquisition and preservation of “property”), other states analyze various inherent factors. Some factors that are considered by other states in applying their principles of equitable distribution include:

- Earning Power – Higher earning power could equate to a smaller apportionment of the marital assets because; higher earning power can be perceived as an ability to recover lost funds during a divorce.
- Who Earned the Property – A closely owned family business may be entirely awarded to the spouse that predominantly operates the business due to ownership by practice; previous settlements have exhibited the awarding the marital home to one spouse and the business to the other when they are relatively close in value.

The decision is made to expedite matters, evenly award property and disentangle the spouses.

- Services as a Homemaker – Should a homemaker exhibit that there were missed opportunities for training or job experience; the split for equitable distribution could fall in their favor due to the forfeiture of a higher income.
- Waste and debauchery – Sometimes known as economic fault, if one spouse wasted money during the marriage via gambling losses, lending significant amounts of money to family members (usually

amongst the other's spouse's opposition), the split for equitable distribution could be altered. In some States it is required that the practice of overspending without the consent of one's spouse is exhibited when the marriage was breaking down or a period proximal to the divorce.

- Tax Consequences – A tax-adjusted balance sheet reveals expenses that may be considered for the determination of the split for equitable distribution. For example, the sale of stock could result in the liability for capital gains tax; in which case the spouse awarded the stock and the tax liability may be compensated with a larger portion of equity.

Equitable distribution is within the discretion of the trial judge; the marital balance sheet must therefore be as clear and accurate as possible in order to equip the trier of fact with the right tools to make a just decision. The analysis of assets and liabilities, commingling of accounts, appreciation in value and ownership is the basis for the compilation of a marital balance sheet; however the distribution thereof still lies in the subjectivity and interpretation of the judge.

It is sometimes so difficult to comprehend how best friends could become worst enemies. Should selfishness destroy something which used to be – with the eventuality that nothing can be salvaged from a relationship (and sadly with certain relationships which have endured many years)? Where differences arise, sometimes we need to set priorities and put selfish interests at bay. Priorities such as salvaging memories which cannot be purchased for money and setting these priorities above the need to accumulate as much as one can – at the expense of retaining the all important working and communicating relationship. Where there is genuine love for those involved, then there will also be the desire and satisfaction to know they are well taken care of even when a relationship ceases to be what it used to be. Hence the judge would be wise to ascertain certain characteristics, past behaviour, present situation of individual spouses, as well as other external factors, in correctly and justly apportioning the assets involved. Ultimately, proceeds from the assets, or the assets themselves, may not bring fulfillment and satisfaction to certain spouses - as much as continuing and healthy communication (with the other spouse and the children) would.

Who are those likely to be affected (hence, suffering) the most as a result of a marital breakdown? Those are the subjects who the Law should take into greater consideration in arriving at decisions which are equitable and just in awarding any form of distribution. In certain cases all individuals involved are victims – whilst some would be relieved, to a greater extent, of their suffering should the court intervene – rather than being compelled to remain in an abusive relationship.

Laws in community property states, such as California - where all marital assets are split 50-50, should apply basically to long term marriages. Courts, should be given discretion in apportioning marital assets – rather than the 50-50 equitable distribution rule. Further, where the court is involved, the judge should not be granted sole discretion in the apportionment of marital assets. A panel of panel of experts - which are not necessarily attorneys - should review a judge's opinion before it is finalized

Chapter Two

To Have and to Hold: Consolidating on Healthier Relationships

Based on

DiGabriele, J.A. (2007). To Have and to Hold: An Empirical Investigation of Preferences for Valuation Methods of Closely Held Companies in the Matrimonial Court. *Journal of Forensic Accounting*. Vol. VIII. No. 1 & 2.

This study investigates if preferences for valuation methods exist in the matrimonial courts and what valuation methods would serve as a deterrent for couples looking for an easy way to dissolve their estate, assets – in a bid to conclusively end their relationship. This is not to imply that couples should be held against their will but to provide avenues whereby a „reflection period“ could be facilitated before conclusively deciding for the split. If certain valuation methods prove to be costlier by virtue of tax consequences imposed on certain time limits and as well as the tax tariffs imposed on certain valuation methods, then this may serve as a deterrent for the desire to want a speedy and easy way out - although access to finance for vulnerable parties in need of such funds may also require consideration.

How can courts curb contingency costs of matrimonial litigation when a closely held company is involved? – particularly where such closely held companies' profits can be steered towards greater profits if these companies are encouraged to continue to run (as well as alleviate financial problems which may initially have contributed to financial and marital problems). Should the courts not have a role in assisting to alleviate and reduce tax burdens which are peculiar to companies run by couples – where it can easily be proven that these were the sources of financial and eventually, marital tensions? What role could forensic accountants also play in providing financial, valuation and business advice to couples experiencing such business difficulties – and who lack the required access to funds or expertise aimed at restoring the viability of their business. Would such expertise and advice restore their businesses – and eventually their relationships?

The results illustrate that there are systematic trends in court preferences for specific valuation methods in matrimonial court. The trends presented in the current study provide an empirical basis for litigants, attorneys and experts making decisions regarding which valuation method or methods to consider in matrimonial courts. Furthermore, individuals involved in selecting the valuation method or methods to be proposed to the court should focus on specific factors such as industry type and the specifics of the individual case in addition to current economic staples such as inflation.

I. Introduction

The valuation of closely held companies has been a developing issue in the courts since the 1920's when breweries and distilleries faced substantial losses in the intangible value of their businesses during Prohibition. In response to this problem, the Internal Revenue Service (IRS) issued Appeals and Review Memorandum (ARM) 34. Subsequent to ARM 34, after several decades of litigation, the next time the Internal Revenue Service addressed the issue of the valuation of closely held companies was in 1959 with Revenue Ruling 59-60. As the valuation professional progressed through the years so did several competing professional valuation organizations, the American Society of Appraisers (ASA), the Institute of Business Appraisers (IBA) and, the National Association of Certified Valuation Analysts (NACVA) and, more recently the American Institute of Certified Public Accountants (AICPA).

The discipline of valuing closely held companies further evolved with each organization's development and issuance of competing business valuation standards creating dissimilarity among the discipline (Cercone, 2002). This difference of opinion is chronicled by Beatty, Riffe and Thompson (1999), they contend, the court expects an expert's valuation to be biased toward the benefit of the party compensating them. Accordingly, producing subjective valuation estimates that are consistent with the underlying incentives of the expert. The Courts are then left to rely on these subjective and imperfect valuations in deriving the final estimated value.

The Tax Court responded to this fragmentation in the landmark case, *The Estate of Edgar A. Berg v. Commissioner* (T. C. Memo 1991-279).

The court criticized the experts for the estate as not being qualified to perform valuations and failing to provide analysis of the appropriate discount. The court also observed the estate's appraisal (valuation) consultants, both CPAs, made only general references to a prior court decision to justify

their opinion of value. Additionally, the court observed that they were not active in the business valuation profession, did not have any formal education in business valuations, and were not members of any professional valuation associations. In rejecting the Estate's experts, the Tax Court accepted the IRS's expert because he had the background and training desired by the court and developed discounts by referring to specific studies of comparable properties and demonstrating how they applied to the asset being examined. This case marked the beginning of the Tax Court leaning toward the side with the valuation perceived as the most comprehensive and logical (Wietzke, 2002). Previously, the Court had a tendency to "split the difference" between the experts (Wietzke, 2002; Beatty, Riffe and Thompson, 1999). The Berg case, in the opinion of many in the valuation community, formally launched the profession of valuing closely held companies.

Prior studies on valuation and the courts have ranged from valuation methods presented to and, accepted by the court (Martin 1972), "splitting the baby" (the court ruling in the middle of the two expert reports), Boseland (1963), Englebrecht and Davidson (1977) and, Englebrecht (1979). LeClair (1990) focused on prediction accuracy of valuation methods particularly earnings methods and, Beatty Riffe and Thompson (1999) investigated market comparables in valuing closely held companies in the Tax Court.

This research makes several contributions to the literature on the valuation of closely held companies. Initially, guidance on court preferences for valuation methods of closely held companies in the matrimonial court will directly benefit litigants in this area by aiding in the effort to curb contingency costs of matrimonial litigation when a closely held company is involved.

Second, the legal precedent for valuation methods in the matrimonial court can also be of significant concern to practitioners that include, attorneys and expert witnesses.

Finally, the legal precedent for valuation methods can also be of significant concern to the academia. With the advent of forensic accounting to the current accounting curriculum, this research adds much needed knowledge to a developing discipline.

The chapter is organized as follows; section II reviews the literature that motivates the study for court preferences of valuation methods of closely held companies and presents the hypothesis, section III presents the empirical tests, section IV the results and, section V concludes.

II. Literature Review, Motivation for Hypothesis

Past court decisions involving closely held companies reveal a variety of valuation approaches and methods that have been presented to the court, these approaches and methods include relative value formulas combining various components of assets, earnings, and equity (LeClair, 1990). In addition to relative value methods, there have been judicial support specific valuation methods. For example; the income approach was a preferred approach in Federal tax court using the dividend discount method as illustrated the case of Northern Trust Company vs. Commissioner and, more recent a reconciliation of value based upon a weighted approach of valuation methods that included the net asset method, prior stock transaction method, stockholder agreement method, guideline company method and discounted cash flows in the 2003 Tax Court case, Hess v. Commissioner (Weiss, 1987) (Pratt, 2003).

Equitable distribution in matrimonial cases in several states has also led to additional difficulties in which valuation models must be used absent the concept of fair market value. Marriage is often viewed as a partnership, with joint ownership of all assets accrued during the marriage. If a closely-held corporation is part of those assets, it must either be liquidated and the proceeds dispersed, or it must be valued as a going concern for equitable distribution (Fishman and O'Rourke, 1998; Vuotto, Maier and Brogowski, 2002).

When valuing a business or professional practice in a marital dissolution matter, the valuation expert and the attorney look to statutes and case law for guidance. Many of the state statutes in marital dissolution matters use the term "value" without any description of the characteristics that underlie this crucial standard, and with very little guidance provided to the valuation expert. For example, the Divorce Code in Pennsylvania states that, "marital property" means all property acquired by either party during the marriage, including the increase in value prior to the date of final separation (Fishman and O'Rourke, 1998). The New York Domestic Relations Law defines marital property, separate property, and distributive award, but it never defines value. In Florida, fair market value is not referred to as a standard of value, but as one of numerous approaches for valuing the goodwill of a professional practice (Fishman and O'Rourke, 1998).

Numerous New Jersey cases appear to support the use of fair market value (FMV) in divorce.

However, no New Jersey case until *Brown v. Brown*, 348 N.J. Super 466 (App. Div. 2002) gave mandates on divorce standards of value. Other jurisdictions have specifically addressed the difficult question of standard of value in a divorce context. Some states have adopted the "Intrinsic Value" standard of value. More have adopted the FMV approach. Arkansas stands out from these examples. In *Crismon v. Crismon*, 72 Ark.App. 116, 34 S.W.3d 763 (2000), the Arkansas Court of Appeals rejected the "Fair Value" standard of valuation for divorce. The court stated that it would not borrow the Fair Value standard from other jurisdictions case law on shareholder suits (Vuotto, Maier and Brogowski, 2002).

Ohio allows the use of two standards of value: the FMV standard and the intrinsic value standard. In the 1993 *Brookhart v. Brookhart*, the Ohio Court of Appeals stated that the standard of value to be used for equitable division of marital property is normally the FMV of the property. However, the court stated that in certain circumstances it would allow a court to consider the standard of value to the owner (also known as intrinsic value) (Vuotto, Maier and Brogowski, 2002).

In addition to the type of property to be valued and, the definition of value, the matrimonial courts have also been exposed to a wide variety of valuation methods presented in cases of equitable distribution that include the valuation of closely held companies. As far back as 1988, the Supreme Court of Missouri, in the cases of *Hanson v. Hanson*, and *Graham v. Graham*, stated a strong preference for the use of the market approach when valuing a professional practice in divorce proceedings (Fejer, 1988).

However, in determining the value of goodwill in 1984, the family court in Washington State based their decision on the weighted combination of five valuation methods used in the *Marriage of Hall*; capitalization of earnings method, capitalization of excess earnings, IRS variation of excess earnings, the market method and a buy sell agreement (Fejer, 1988).

The value of a closely held company can be a significant component in a divorce matter. Innately, even when correctly applying approved methodologies, valuation may be highly subjective due to the fact that this type of company does not have a ready market. As a result, the controversy of the valuation of closely held companies continues to grow in the courts including matrimonial dissolution. Thus, courts are left to grapple with conflicting valuation estimates based upon divergent valuation standards and expert bias with the underlying incentives. In addition, the lack of Court directed guidance for the valuation community makes this a fertile environment for the

courts, including the matrimonial court, to gravitate toward a path of preferences for valuation methods as a means of efficiency in the mountain of litigation the courts have to deal with.

Based upon the motivating literature, it is proposed:

The matrimonial court prefers a specific valuation method (s) of closely held companies in litigation cases.

III. Data Extraction and Methodology

The data for the study are observed during the sample period of January 1994 through December 2004. The data was extracted from the Business Valuation Resources databases BVLaw, Deluxe BV Update, and Judges and Lawyers Business Valuation Update Database. These databases have access to the full text of court cases, dealing with business valuation issues, corporate statutes involving stockholders from all fifty states, Revenue Rulings, Revenue Procedures, Technical Advice Memoranda (TAMs), Field Service Advice (FSAs), IRS regulations, Internal Revenue Code sections, and Tax Court Rules, all dealing with business valuation issues relevant to the business valuation professional and, court case update

A search of the database was conducted and produced a sample of one hundred and sixty-four (164) cases dealing with business valuation issues that included, the valuation methods in the case; the valuation method preferred by the court, the type of business, type of Court, level of Court, Federal or State, type of case and, size of company. The cases extracted included marital dissolution, stockholder oppression, dissenting stockholder, estate, gift, and, bankruptcy.

Two types of tests were implemented on the sample. First, bivariate differences of means tests were performed using the T-tests and Wilcoxon Signed Ranked Tests.

Second a binary logistic regression was performed using several variables defined as follows: in each case, the outcome variable was whether a specific method was employed (coded as '1') or not employed (coded as '0'). There were three control variables included: gross domestic product for the year of each case (operationalized as percentage growth), inflation rate for the year of each case (coded as the percentage of inflation), and company size (coded as dollar value of the company in \$100,000 increments). These three control variables were entered in the first block of each model.

In the second block the three main independent variables were entered; industry type (operationalized as either manufacturing, service, or holding companies—each coded as ‘0’ for no and ‘1’ for yes), level of court (operationalized as state courts, coded as ‘1,’ versus federal courts coded as ‘0,’ and type of case (operationalized as either a marital dissolution or estate tax case—each coded as ‘0’ for no and ‘1’ for yes). Two-tailed tests were employed and p-values less than .10, .05, and .01 were noted.

The logistic regression model considered the following equations:

Block 1: $\text{Logit (Valuation Method Preferred)} = \alpha + \beta_1 (\text{Gross Domestic Product}) + \beta_2 (\text{inflation}) + \beta_3 (\text{Company Size})$

Block 2: $\text{Logit (Valuation Method Preferred)} = \alpha + \beta_1 (\text{Gross Domestic Product}) + \beta_2 (\text{inflation}) + \beta_3 (\text{Company Size}) + \beta_4 (\text{State Jurisdiction}) + \beta_5 (\text{Manufacturing Company}) + \beta_6 (\text{Services Company}) + \beta_7 (\text{Holding Company}) + \beta_8 (\text{Marital Dissolution Case}) + \beta_9 (\text{Estate Tax Case})$

Interpretation of the logistic regression models is heavily dependent on the concepts of odds and odds ratios. The odds are equal to the probability of being in one group compared to the odds of being in another group. Considering a logistic regression model as an example, (i.e. that which examines whether or not an income method/market method was used), the odds of that method being employed equals the probability that an income method or market method was employed divided by the probability that an income method or market method was not employed. For the entire sample, this is equivalent to the ratio of the number of cases in which an income method or market method was employed, divided by the number of cases in which an income method or market method was not employed.

The odds ratio is a measure of the change in the odds based on a one-unit increase in a predictor variable. For example, if level of court is coded as ‘0’ for State-level cases and ‘1’ for Federal-level cases, then the odds ratio quantifies how different the odds are of an income method or fundamental value method being used for the two levels of court.

An odds ratio of 2.00 for example, would tell us that a one-unit increase in level of court (i.e. moving from State-level to Federal-level) doubles the odds of using an income method or

fundamental value method of valuation. An odds ratio of .50 in this case would tell us that State-level courts are half as likely to use this valuation method as Federal-level courts. If there is no difference in the odds of a court using this method between State-level and Federal-level courts, then the odds ratio would be 1.00.

IV. a. Bivariate Difference of Means Tests

Table 1 and Table 2 report the bivariate results. In order to avoid needless testing, the logistic regressions were performed before the bivariate testing in order to narrow the specific valuation methods tested to the methods relevant to the matrimonial court. In this case; the excess earnings and capitalization of earnings methods were the methods most important to the matrimonial court.

The Wilcoxon Signed Ranked Test z- statistic was used in the tables because the t-statistics were virtually identical.

(Tables - to be included)

Table 1 reports the z-statistic for the bivariate analysis of the market method, discounted cash flow, income method and capitalized earnings method as they are compared to the excess earnings method. In the overall sample for all of the courts combined, federal and state, (n=164) both the market method (z=-4.296, p<.01) and the discounted cash flow method (z=-1.897, p<.10) were preferred over the excess earnings method.

In the sample that included just the matrimonial cases (n=69) there were no significant preferences among excess earnings and the market method, discounted cash flows and capitalized earnings.

However, there was a statistical difference between excess earnings and the income method (z=-1.886, p<.10) indicating a court preference for the excess earnings method over the income method in the matrimonial court.

Table 2 reports the z-statistics for the bivariate analysis of the following; excess earnings method, market method, discounted cash flow and, income method as they are compared to the capitalized earnings method. In the overall sample for all of the courts combined, federal and state, (n=164) the market method (z=-2.810, p<.01) was preferred over the capitalized earnings method.¹

¹ Although both the capitalization of earnings and the method classified as the “income method” for this study are both income approaches, this method was classified in the database as a separate method from the capitalization of earnings and the discounted cash flow method. In order to maintain integrity of the data for this study, we stood

In the sample that included just the matrimonial cases there were no significant preferences among, excess earnings, the market method, discounted cash flows and capitalized earnings. However, there was a statistical difference between capitalized earnings and the income method ($z=-2.4$, $p<.01$) indicating a court preference for the capitalized earnings method over the income method in the matrimonial court.

IV. b. Logistic Regression Results

A series of logistic regression analyses were performed to examine court preferences in the matrimonial court for specific valuation methods. In each case, the outcome variable was whether the specific method was employed. There were three control variables included in each analysis: gross domestic product for the year of each case, inflation rate for the year of each case and, company size. These three control variables were entered in the first block of each model. In the second block, the three main independent variables were entered; industry type, level of court and, type of case (p-values less than .10, .05, and .01 were noted.)

Table 3 illustrates the logistic regression results only for the methods that produced statistical significance in matrimonial cases. A logistic regression analysis was conducted on whether the capitalized earnings methods were preferred (N=25) or not (N=139). In the first block, inflation level was statistically significant, $B=.847$, $p<.05$.

The $\text{Exp}(B)$ value of 2.333 indicates that each additional percentage point of inflation more than doubled the likelihood of the capitalized earnings method being preferred by the court. In the second block, inflation was again statistically significant, $B=.842$, $p<.05$, with a similar value for $\text{Exp}(B)$. In addition, two of the independent variables were statistically significant. First, whether or not the case involved a manufacturing company was statistically significant, $B=1.087$, $p<.10$, with an $\text{Exp}(B)$ value of 2.966, indicating that cases involving a manufacturing company were almost three times as likely to result in a court preference for the capitalized earnings method. Second, whether or not the case was a marital dissolution case or not was statistically significant, $B=1.836$, $p<.05$.

consistent with the database.

The Exp(B) value of 6.274 indicates that court preferences for the capitalized earnings method were more than six times more likely in marital dissolution cases than in other types of cases.

These findings illustrate the capitalized earnings method was more likely to be preferred by the matrimonial court when inflation was high and, involved a manufacturing company.

Fifteen (15) cases of the 164 case sample resulted in a court preference for the excess earnings method, while 149 cases did not. In the first block, none of the control variables were statistically significant. In the second block, two of the independent variables were statistically significant. First, whether or not the cases involved a service company was statistically significant, $B=-1.847$, $p<.10$.

The Exp(B) value of .158 indicates that service company valuation cases were far less likely to have the excess earnings method preferred by the court. Second, whether or not the case was a marital dissolution case was statistically significant, $B=-2.248$, $p</.05$, with an Exp(B) value 9.471 indicating that the excess earnings method was far more likely to be preferred in marital dissolution cases than other types of cases.

These results illustrate the matrimonial courts were more likely to prefer the excess earnings method when the case did not involve a service company.

V. Conclusion

The analysis clearly illustrates preferences for specific valuation methods in the matrimonial court. Cases in the matrimonial court were more likely to prefer the capitalization of earnings method when inflation was high and, involved a manufacturing company. In addition, the matrimonial court was more likely to prefer the excess earnings method when the case did not involve a service company.

The relative importance of these results can be demonstrated by Astrachan and Shanker (2003). They contend that between 80% and 90% of the nation's wealth is held in private, family-owned companies. Considering this staggering statistic and the amount of divorce litigation, this research

provides empirical guidance for the broad audience that includes; litigants, attorneys, experts, financial planning practitioners, and academics.

The direction of future research on this topic may consider focusing in the direction of various valuation methods in the matrimonial court and comparing each individual State jurisdiction using, the effects of gender, age, length of marriage, children, income, and so forth; this research can serve as a foundation for these types of studies. While there is a high degree of variability among the cases, the systematic trends presented in the current study provide some empirical basis for making decisions regarding which valuation method or methods to proposed to the matrimonial court.

References

- Astrachan, J.H. and Shanker, M.C. (2003). "Family Businesses Contribution of the U.S. Economy: A Closer Look." *Family Business Review*.
- Beatty, R. P. Riffe, S. M. and Thompson R.(1999). The method of comparables and tax court valuations of private firms: An empirical investigation. *Accounting Horizons*. September. Volume 13, Issue 3.
- Bosland, C. (1963). Tax Valuation by Compromise. *The Tax Law Review*. Volume 19. Pages 77-89.
- Cercone, L. J., Jr. (2002). Uniform standards for business valuations. *The CPA Journal*. Volume 72, No 2.
- Englebrecht, T. (1979). A Reply, Analysis and Extension of a Closer Statistical Look at Tax Court Compromise. *Taxes*. September. Pages 607-614
- Englebrecht, T. and Davidson D. (1977). A Statistical Look at Tax Court Compromise in Estate and Gift Tax Valuation of Closely Held Stock. *Taxes*.
- Englebrecht, T. and Leeson, C. (1978). Valuation of Closely Held Stock. *The Tax Executive*.
- Feger, D. (1988). Missouri Supreme Court States Preference for Market Approach When Valuing Professional Goodwill. *Business Valuation Review*. Pages 147-159.
- Fishman J. and O'Rourke, B. (1998). Value: More Than a Superficial Understanding Is Required. *Journal of the American Academy of Matrimonial Lawyers*. Volume 15, Issue 11
- LeClair, M. (1990). Valuing the closely held corporation: The validity and performance

of established valuation procedures. Accounting Horizons. September. Pages 31-42.

Martin, S. (1972). Factors the IRS and Court are using Today in Valuing Closely Held Companies. The Journal of Taxation. February.

Pratt, S. (2003). Legal and Court Case Update. Business Valuation Update. October. Volume 9 Number 10.

Reilly, R. (2003). Professional guidance on valuation from IRS publications. Valuation Strategies. Volume 6, Issue 3.

Vuotto, Jr. C., Maier, S. and Brogowski, T.(2002). The Standard of Value Enigma: Brown v. Brown. The New Jersey Law Journal. August.

Weiss, D. (1987). Valuation of Closely Held Stocks-A Recent Decision. The CPA Journal.

Wietzke, R. (2002). The CPA Litigation Service Counselor Common Errors in Business Valuation Reports Revisited. April 2002.

Chapter Three

Gender Choices, Business Valuation, & State Specific Variables in the Division of Marital Assets.

Based on DiGabriele, J.A. (2009). Gender, Valuation of Private Companies, and State Specific Variables in the Division of Marital Assets. *Journal of Legal Economics*. Volume 15, Number 2.

The value of a closely held company may represent a significant component of a marital estate. Business valuation services play an increasingly crucial role in determining the value of a closely held family business and often facilitate a divorce settlement by providing an appraisal estimate in the absence of an actual sale as a basis to distributing marital assets.

Why should such business valuation services not also play a reconciliatory role in situations where couples would be acting in haste and selling off at a loss – where the possibility exists that such couples could hold on to their business relationships as well as improve their relationships with each other. In such cases, as reiterated in the previous chapter, the court could play a vital role by exempting couples involved in marital difficulties, as well as business problems, from the usual tax burdens which apply when an estate is dissolved. Such exemptions from such tax burdens, as well as financial advice and other forms of financial assistance being granted as incentives to couples willing to sustain and maintain their business relationships – with a view to improving their marital and family relationships. As will be illustrated during the course of the chapter, additional studies on divorce and the family business have illustrated that closely held companies are a primary or sole source of marital funds (Rowe and Hong 2000).

The results of the current study investigate the family court's decision in cases where the marital estate includes a closely held company. The decision was influenced by two factors: state law (community property versus equitable distribution) and the owner of the business (the husband alone or either the wife alone or as co-owner). Cases in equitable distribution states were over four

times more likely to result in a decision for the wife than cases in community property states, and cases in which the wife was either the sole owner or co-owner of the business, the court was over four times more likely to render a decision for the wife.

I. Introduction

The value of a closely held company may represent a significant component of a marital estate. Business valuation services play an increasingly crucial role in determining the value of a closely held family business and often facilitate a divorce settlement by providing an appraisal estimate in the absence of an actual sale as a basis to distributing marital assets. Valuation in the construct of divorce has some unique intrinsic characteristics that differ from a transaction between a willing buyer and willing seller.

State law defines which marital property is subject to valuation and distribution, regardless if the property can be sold to a willing buyer. The valuation exercise is to determine the value to the current owner in the marital community (Aalberts, Claurette and Matoney, 2000, Zipp, 1992, Cenker and Monastra 1991). The basis of value is determined differently for a sale, and risks associated with a management change are not usually relevant for a matrimonial valuation. Divorce valuations include all business assets, whether or not they might be sold to a third party in a hypothetical sale (Mastracchio and Mastracchio 1996, Zipp, 1992). Divorce Court is concerned with the business value in the present owner's hands as a marital asset subject to distribution statutes and monetary awards. (Mastracchio and Mastracchio 1996, Zipp, 1992) Most states require divorce courts to value marital property as of the divorce date. Certain property, such as property acquired before the marriage or even after the divorce, is excluded. It is critical to include only property considered marital by state law when preparing a business valuation for divorce purposes, (Evans 1994, Zipp, 1992).

As it can be gathered, business valuation in a matrimonial action presents itself with an array of issues that contribute to the complexity of an already difficult process. The distribution of assets in these types of cases is always the focal point considering what is at stake. Specific characteristics resembling gender, state law and the nature of business ownership may influence the manner in which these assets are ultimately awarded by the Courts.

This study investigates whether the previously mentioned variables have a function in court decisions where marital estates include closely held companies.

Prior studies on valuation and the courts, focused on specific valuation methods presented to the court and accepted in valuation cases (Martin 1972). Brody and Berger (1977) analyzed weighted average valuations presented to the court cases. Additional studies from Boseland (1963), Englebrecht and Davidson (1977) and, Englebrecht (1979) examined the court ruling in the middle of the two expert's valuations. Boatsman and Baskin (1980) tested Tax Court valuation procedures that were accepted by the court. LeClair (1990) focused on prediction accuracy of earnings methods. Beatty Riffe and Thompson (1999) analyzed market comparables in valuing closely held companies in the Tax Court. DiGabriele (2007) investigated preferences for specific valuation methods in the matrimonial court and found, cases in the matrimonial court are more likely to prefer the capitalization of earnings method when inflation was high, and involved a manufacturing company. In addition, the matrimonial court was more likely to prefer the excess earnings method when the case did not involve a service company.

Additional studies on divorce and the family business have illustrated that closely held companies are a primary or sole source of marital funds (Rowe and Hong 2000). Galbraith (2003) concluded that divorce effects short-term financial performance of a family owned closely held company.

This research makes several incremental contributions to the literature on the valuation of closely held companies in the courts. Astrachan and Shanker, (2003) estimate that closely held companies represent 89% of business tax returns filed with the Internal Revenue, employ 62% of the workforce and contribute 64% of the gross domestic product of the United States.

Considering this contribution, the valuation of closely held companies may be one of the most important issues in financial disciplines such as; accounting, corporate finance and economics. Additionally, the guidance provided by this research will directly benefit litigants in this area when considering gender, state law and the nature of business ownership as a function of a matrimonial courts' decision.

Finally, the results of this research can also be of significant concern to the practitioners that include; accountants, economists, finance professionals, investment bankers, lawyers, and expert witnesses.

II. Motivation for Study

Statistically speaking, “modern marriages” have the likelihood that they will fail fifty (50) percent of the time (Galbraith 2003, Braver and O’Connel 1998). The economic impact on the family unit has been acknowledged in prior research however, there has been a dearth of research on the dynamics of asset distribution in a marital estate when a closely held business is part of the holdings (Galbraith 2003, Braver and O’Connel 1998, Higgins, Duxbury and Lee 1994, Evans 1994). The controversy and dynamics can be easily illustrated in the case of Sheppelmann (2007). The trial court originally found that Scheppelmann Electric was worth between \$220,000 and \$320,000. As a result of the trial court findings the wife appealed the decision. The Michigan Court of Appeals found that the valuation range previously determined by the trial court was not misleading because the expert provided a range of values for the subject company. On remand, the trial court valued the business at \$220,000, found that \$20,000 of that amount represented the defendant's separate property as the value of the business when he received it from his father in 1976, and divided the remaining portion on a 60/40 basis in favor of the defendant. The wife was awarded \$80,000 as her share of this business asset. The court partitioned the premarital component of the closely held company affirming the persuasive feature state law may play in the ultimate award in a matrimonial dissolution. In the previous case illustration the issue of asset award centered on the concept of equitable distribution as the basis for distributing marital property.

Equitable distribution is the division of marital assets that focus on contribution and need when determining how assets are to be divided (Aalberts, Claurette and Matoney 2000, Baker 1998). Equitable distribution allows for a much more flexible framework in marital asset divisions inherently making it difficult to predict an outcome.

Although some equitable distribution states may start with the concept of a fifty/fifty division, other states such as New York and Connecticut have allowed the courts extensive discretion in dividing marital assets. Matrimonial courts in some equitable distribution states have based “their decisions on factors such as length of marriage, emotional support, spouses' ages and employability (Baker, 1998).” Conversely, the concept of "marital partnership," is recognized in community property states such as, Arizona, California, Idaho, Louisiana, Nevada, New Mexico, Texas, Washington and Wisconsin. The objective of this concept is that assets earned during marriage are considered joint assets of the “marital partnership” and are usually divided evenly.

The community property concept is distinctly different from the latitude available in equitable distribution, which is probably why matrimonial courts have been asked whether gender considerations contributed to their methods of valuing the contributions of a non-working spouse (Baker 1998).

The conceptual model first introduced by Becker(1981) where gender comparative advantages are traded, the female in household production, the male in paid labor may in fact influence the economically disadvantaged spouse in divorce settlements. To add to this controversy, some equitable distribution states utilized an unwritten rule that ignored marital contributions in high net worth divorces that resembled “enough is enough” for non-working spouses (Wendt v. Wendt 1997). In a landmark decision (Wendt v. Wendt) in the equitable distribution state of Connecticut, the judge ruled, "there is no limitation as to the amount of alimony, periodic alimony or division of property that can be awarded to a person who is the non-monetary contributor in a long-term high-asset marriage."

Considering the previous motivating literature and the flexible statute of equitable distribution that gives the court more discretion to apportion assets to the party they believe may be an economically disadvantage, accordingly it is proposed;

H1: Matrimonial court decisions in equitable distribution states are more likely to favor the wife in marital estates that include a closely held company.

Recent empirical evidence has indicated both spouses request and actively take part in the family owned closely held business creating a cooperative arrangement between the family and the business (Galbraith 2003, Poza and Messer 2001). Danes and Olsen (2003) investigated 391 family-business-owning couples to examine the work involvement of the wife in the business.

Fifty-seven percent of wives worked in the business, forty-seven percent of whom were paid. Forty-two percent of wives were considered major decision makers. Considering, the contemporary household may include both spouses that are working; it appears likely that when a family business is a component of the marital estate the husband and wife may share management and ownership.

For professional firms such as medical doctors, attorneys, and accountants formal ownership is an option for an unlicensed spouse even though they may work in the firm. There are additional ownership issues resembling active and passive ownership. Active participation in a business

activity generally means that the participant engages in activities making major management decisions, and other efforts intended to enhance the value of the business.

Passive ownership in a matrimonial case is referred to as a spouse who may have had direct or indirect possession of a business interest but made no attempts to enhance the value.

The motivation for the spouse working exclusively working the business is obviously to preserve as much value for them as possible. With the contemporary American households moving away from gender role specialization, both spouses share in the “market provision for the household” with men usually earning more than females (Oppenheimer 1997). This disparity provides a financial advantage moving towards the spouse with greater financial resources. In order to bridge this lack of equality men are usually court ordered to pay the financially weaker spouse support payments (Oppenheimer 1997). As a matrimonial action plays out in the court system, considerations such as the financial inequality between spouses may indeed influence the ultimate decision of the party that ends up with the marital estate’s potentially most valuable asset, the business. A decision for former spouses to co-exist in a post divorce business setting is really not a workable option (Galbraith, 2003).

Equitable ownership of businesses has been a source of controversy in the family courts. In general, when the family unit shares the profits from the business entity, and act as joint owners, ownership is implied as part of the marital partnership. The implied partnership is accordingly recognized under the law of partnerships. Participation in the sharing of profits is sufficient to represent the intent of the parties that an implied partnership exists. Progressive divorce cases have on occasion accepted this line of logic (Turner 2003). In addition, considering the changing contemporary setting where both spouses participate in the family owned business, it is proposed accordingly;

H2: Matrimonial decisions favor the wife when they are considered an owner or part owner of the family closely held company.

In summary, matrimonial law has traditionally relied on judicial wisdom to achieve fair results that include the division of marital assets. Law makers have typically given matrimonial judges complete discretion which is enhanced by the infrequency of jury trials. In fact, for most divorce actions the judge determines both the facts and interprets the law. During the past two decades, judicial discretion in divorce cases has been expanded allowing title based property division to be

succeeded by discretionary distribution philosophy (Garrison 1996).

III. Methodology and Research Design

The primary source of data for this study was extracted from a database maintained by Business Valuation Resources, LLC. This database contains, among other things, listings and information on business valuation court cases at the Federal and State levels. The data for the study are observed during the sample period of January 1996 through December 2007. The data was extracted from the Legal and Court Case Update section of the publication Business Valuation Update.

This section provides summaries of cases that are focused on valuation for tax litigation, shareholder disputes, and matrimonial matters. The cases involving matrimonial actions were segregated. In addition, each selected case was cross referenced to the Lexis-Nexis database to verify the identity of the plaintiff and defendant.

Several variables are extracted from each court case in order to address the two hypotheses. The dichotomous dependent variable (outcome) was based on who the decision was for, the husband or wife (gender). This variable is motivated by the considerable discretion available to matrimonial judges (Garrison 1996), and the subjectivity of equitable distribution (Baker 1998). There were six independent (predictor) variables that were extracted. State law was considered because of the inherent differences between the community property and equitable distribution. This variable was operationalized as a dummy variable with community property as the reference category. Since judges are not financial experts, theory suggests that the valuation approach used in the case may impact a judicial opinion due to court familiarity.

Theory also suggests the party who initiates the case may affect the outcome. As a result a dummy variable for the plaintiff or defendant was created. A variable for the owner of the family business was also included in the model. This variable is motivated by judicial discretion in title based property division (Garrison 1996).

In addition, two control variables were added, one macroeconomic variable the annual inflation rate, and the specific state individual per capita income to maintain overall validity. The final model can be reflected in the following equation:

$$(1) \text{Logit (Husband/Wife)} = \alpha + \beta_1(\text{Per Capita Income}) + \beta_2(\text{Annual Inflation}) + \beta_3(\text{State Law}) + \beta_4$$

(Plaintiff/Defendant) + β_5 (Valuation Approach) + β_6 (Business Owner)

IV. Results

Descriptive Statistics

A total of 125 cases were available for analysis. Cases from 1996 to 2007 were included. Overall, 42 of the 125 decisions (33.6%) were for the husband, while 83 (66.4%) were for the wife. Table 1 contains descriptive statistics for the variables included in the study overall and as a function of the court's decision. State law was defined as either community property (0) or equitable distribution (1). Overall, 29.6% of the cases came from community property States, but this consisted of 47.6% of the cases in which the decision was for the husband and 20.5% of the cases for which the decision was for the wife.

The plaintiff in the case was coded as 0 = husband and 1 = wife. The wife was the plaintiff 64.0% of the time, including 59.5% of the cases in which the decision was for the husband, and 66.3% of the time when the decision was for the wife. The asset valuation approach was the most popular (46.4% of cases). Given the low frequencies of wife-owned business ($n = 7$), the owner of the business variable was dichotomized into cases where the husband owned the business (coded as 0) and cases in which either the wife owned the business or both the husband and wife owned the business (coded as 1). In nearly three-quarters of the cases (73.6%), the owner of the business was the husband alone. In cases where the decision was for the husband, the husband alone owned the business 85.7% of the time compared to 67.5% of the time when the wife was the owner or co-owner of the business. The mean per capita income was \$29,952.09 (SD= 4751.82), while the annual inflation rate was .03 (SD= .01).

Bivariate Analyses

The initial step in the examination of the relationships between the court's decision and the control and predictor variables was a set of bivariate analyses. For the categorical predictors, χ^2 tests of independence were performed while independent samples ttests were performed for the continuous control variables.

The first test compared the court's decision for community property states and equitable distribution states. The χ^2 test was statistically significant, $\chi^2 (1) = 9.86, p = .002$. Percentages for cases within community property states indicated that the court's decision was for the wife 45.9% of the time, while in equitable distribution states the decision was for the wife 75.0% of the time.

The next test compared the court's decision based on the plaintiff in the case. The χ^2 test was not statistically significant, $\chi^2 (1) = .55, p = .458$. The percentage of cases where the husband was the plaintiff in which the decision was for the wife (62.2%) was similar to the percentage of cases where the husband was the plaintiff in which the decision was for the wife (68.8%). The third test compared the court's decision as a function of the valuation approach selected. This test was not statistically significant, $\chi^2 (2) = .42, p = .812$. The percentage of cases in which the decision was for the wife was similar regardless of whether the asset (65.5%), income (69.6%) or market (61.9%) approaches were used.

The final χ^2 test compared the court's decision as a function of the owner of the business. This test was statistically significant, $\chi^2 (1) = 4.78, p = .029$. The percentage of cases where the husband was the sole owner and the court's decision was for the wife (60.9%) was lower than the percentage of cases where the wife was the owner or co-owner and the decision was for the wife (81.8%).

Two independent sample ttests were then conducted comparing cases in which the decision was for the husband and the decision was for the wife in terms of per capita income and annual inflation rate. The comparison of per capita income was not statistically significant, $t(123) = .46, p = .648$. This indicates that the per capita income in cases where the decision was for the husband ($M = 30226.10, SD = 5144.94$) was similar to the per capita income in cases where the decision was for the wife ($M = 29813.42, SD = 4566.39$). The test comparing the annual inflation rates was also not statistically significant, $t(123) = -1.32, p = .190$, indicating that the annual inflation rate in cases where the decision was for the husband ($M = .03, SD = .01$) did not differ from the annual inflation rate in cases where the decision was for the wife ($M = .03, SD = .01$).

Logistic Regression

Table 2 shows the results of the logistic regression analysis performed to determine which of these variables were predictive of the court's decision. The baseline model correctly classified 66.4% of the cases (based solely on the observed frequencies of the court's decisions).

In the first block of the analysis, the two control variables (per capita income and annual inflation) were entered. This model was not statistically significant, $\chi^2 (2) = 2.25, p = .324$, and the percentage of cases correctly classified did not increase. In the second block the four predictor variables were entered, and the logistic regression model was statistically significant, $\chi^2 (7) = 19.20, p = .008$, with 72.0% of cases correctly classified. This shows a 5.6% increase in the predictability of the court's

decisions based on the Block 2 regression model.

Two of the predictor variables were statistically significant. First, the state law was a statistically significant predictor of the court's decision, Wald (1) = 9.10, $p = .003$. The Exp(B) value for state law was 4.08, and given the coding of this predictor (i.e. 0 = community property, 1 = equitable distribution), this indicates that cases in equitable distribution cases were 4.08 times more likely to result in a decision for the wife than cases in community property states.

The second statistically significant predictor was the owner of the business, Wald (1) = 6.72, $p = .010$. The Exp(B) value for business owner was 4.29. In this case, the coding of the predictor (i.e. 0 = husband alone, 1 = wife alone or both husband and wife) indicates that in cases where the wife was either the sole owner or co-owner of the business, the court was 4.29 times more likely to render a decision for the wife. The plaintiff in the case, the valuation approach, per capita income, and annual inflation were not statistically significant as predictors of the court's decision.

V. Conclusion

In summary, the court's decision was for the wife in 66.4% of the 125 cases examined. The court's decision was influenced by two factors: state law (community property versus equitable distribution) and the owner of the business (the husband alone or either the wife alone or as co-owner). Cases in equitable distribution states were over four times more likely to result in a decision for the wife than cases in community property states, and cases in which the wife was either the sole owner or co-owner of the business, the court was over four times more likely to render a decision for the wife. None of the other potential predictors examined here (the plaintiff in the case, the valuation approach, per capita income, and annual inflation) were related to the court's decision.

An implication of the results of the current study was that the court may indeed be influenced by equitable distribution and community property considerations. Although there is a high degree of variability in each case, the current study provides some empirical basis for making decisions in these types of environments.

A second implication of the current study is related to ownership of the business. This study provides particular empirical basis for business ownership in a matrimonial setting in different legal regimes.

The future research that the results of the current study justify can range from; as precedent continues on a regular basis, a follow up study may be necessary. In addition, variables such as age, length of marriage, children, income, and so forth could also be examined.

A limitation in the study is the data did not indicate if premarital or post marital agreements influenced the division of marital assets.

References

Aalberts,R.J., Clauretje, T.M. and Matoney, J.P. (2000) Small Business Valuation: Goodwill and Covenants-Not-to-Compete in Community Property Divorce Actions. *Journal of Forensic Economics*, 13, 3, 217-31.

Astrachan, J.H. and Shanker, M.C. (2003). Familybusinesses' contribution to the U.S. economy: A closer look. *Family Business Review*, 16, 3, 211-219 .

Baker, D. (1998) Wealthy Wives' Tales: High Asset, High Profile Divorces are Changing the Way Judges Look at Partnership. *ABA Journal*, 84, 7, 72-76.

Beatty, R. P. Riffe, S. M. and Thompson R.(1999). The method of comparables and tax court valuations of private firms: An empirical investigation. *Accounting Horizons*. September. 13, 3, 177-199.

Becker, G. 1981. *A Treatise on the Family*. Cambridge, MA: Harvard University Press.

Boatsman, J. R. and Baskin, E. F. (1981). Asset Valuation with Incomplete Markets. *The Accounting Review*. January. 56, 1, 38-53.

Bosland, C. (1963). Tax Valuation by Compromise. *The Tax Law Review*. 19, 8, 77-89.

Brave, S. and O'Connel, D. (1998). *Divorced Dads*. New York. Tarcher-Putman.

Brody, M. and Berger, J. (1977). Formulas May Be Used To Value Closely Held Businesses in Light of IRS Opposition. *Estate Planning*. November, 394-400.

Cenker,W.and Monastra, C. (1991) Business Valuations: Constraints Imposed by Divorce. *Journal of Legal Economics*,1,3,7-21.

Danes, S.M. and Olson, P. (2003). Women's roleinvolvement in family businesses, business tensions, and business success. *Family Business Review*, 16, 1, 53-69.

Di Gabriele, J.A. (2007) To Have and to Hold: An EmpiricalInvestigation ofPreferences for Valuation Methods of Closely Held Companies in the MatrimonialCourt. *Journal of Forensic*

Accounting, 8, 1 & 2, 1-12.

Englebrecht, T. (1979). A Reply, Analysis and Extension of a Closer Statistical Look at Tax Court Compromise. *Taxes*, 57, 5, 607-614.

Englebrecht, T. and Davidson D. (1977). A Statistical Look at Tax Court Compromise in Estate and Gift Tax Valuation of Closely Held Stock. *Taxes*, 57-5, 607-614.

Evans, F.C. "Business Valuation: Equitable Distribution in Divorce." *Pennsylvania CPA Journal* 65 (1994).

Chapter Four

Evidentiary Reliability, Valuation Standards, and Rules of Thumb

Based on:

DiGabriele, J.A. (2011). Evidentiary Reliability, Valuation Standards, and Rules of Thumb. American Journal of Family Law. Volume: 25, Issue: 1, 16-22.

The Daubert standard of evidentiary reliability codified in Federal Rule of Evidence 702 defines the admissibility of expert testimony based on the following:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.²

While Daubert³ is the law in federal courts and more than fifty percent of the states, the Frye⁴ standard still remains the general acceptance test for the determination of the admissibility of scientific evidence in the remaining venues. Frye does require expert testimony to be founded in generally accepted scientific principles that are recognized in the particular field; and there must be evidence that the technique has been used. According to a recent study, those states not adopting Daubert are California, Colorado, District of Columbia, Florida, Kansas, Maryland, Nevada, New York, North Dakota, Pennsylvania, South Carolina, Washington, and Wisconsin⁵.

Arizona was originally included in the above list; however in May 2010 it adopted the Daubert standard for admitting expert testimony and expert evidence.⁶

² Federal Rules of Evidence 702.

³ Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993).

⁴ Frye v. United States, 293 F. 1013 (D.C. Cir.1923)

⁵ Kaufman, M.S. (2006). The Status of Daubert in State Court. Atlantic Legal Foundation. <http://www.atlanticlegal.org/daubertreport.pdf>.

⁶ 2010 S.B 1189 was signed into law May 10, 2009.

Daubert and Frye are cornerstones in establishing the reliability, and ultimately, admissibility of expert testimony. This article illustrates how valuation standards, which serve in the role of providing evidentiary reliability, dictate the use of Rules of Thumb. This concept is further explored in the matrimonial case of *Devries v. Devries*⁷ which specifically highlights opposing arguments regarding the use of Rules of Thumb, their prescribed application according to valuation standards, and the challenges made against their reliability in the value calculation of goodwill. The conclusion addresses the limitations of the outcome of the *Devries*' case in light of Daubert and Frye and highlights the potential role of rules of thumb in future cases.

VALUATION STANDARDS, RULES OF THUMB, AND RELIABILITY

The methods of valuing closely held companies are segregated among three broad approaches: the asset approach, the income approach, and the market approach. Specific valuation methods reside in each of the broad categories. The capitalization of earnings method is an example of a valuation technique that is a component of the income approach.

The capitalization of earnings method calculates firm value by estimating the subject businesses' current annual earnings and dividing that benefit stream by the capitalization rate. The capitalization rate is derived by reducing the required percentage rate of return on the investment in the business by a long term sustainable growth rate. As with all valuation methods, the reliability of a calculation or conclusion of value is sensitive to the assumptions driving the model. In the case of the capitalization of earnings method, items that are likely to be scrutinized are the components of the capitalization rate that will moderate a higher or lower value. In a trial setting, the reliability of these assumptions will usually be the focal point of determining the credibility of the expert's findings.

Valuation standards issued by the American Society of Appraisers (ASA), National Association of Valuation Analysts (NACVA), and the American Institute of Certified Public Accountants (AICPA) are consistent, recognizing the asset approach, the income approach, and the market approach as reliable indicators of value for business ownership interests. However, all three have a common thread in that they encourage rules of thumb to be considered only with other valuation methods.

⁷ In re Marriage of Devries, 2009 WL 4264309 (Cal. App. 4 Dist. 11/30/2009).

The NACVA addresses the rules of thumb in development standard 3.8⁸ by stating that “typically, a rule of thumb or benchmark indicator is used as a reasonableness check against the values determined by the use of other valuation approaches. For Valuation Engagements, it should not be used as the only method to determine value of the subject interest.”

The ASA Business Valuation Standards⁹ focus on the use of rules of the thumb in section five of the market approach to business; “Rules of thumb may provide insight into the value of a business, business ownership interest, security or intangible asset. However, value indications derived from the use of rules of thumb should not be given substantial weight unless they are supported by other valuation methods and it can be established that knowledgeable buyers and seller place substantial reliance on them.”

The AICPA Statement on Standards for Valuation Services No. 1 (SSVS 1) became effective January 1, 2008. Guidance on rules of thumb resides in paragraph 39 of SSVS 1.¹⁰

It states that, “Although technically not a valuation method, some valuation analysts uses rules of thumb or industry benchmark indicators in a valuation engagement. A rule of thumb is typically a reasonableness check against other methods used and should generally not be used as the only method to estimate the value of the subject interest.”

A practical interpretation of the above groups’ recommendations on the use of the rules of thumb as a sole valuation indicator can be understood as follows: a rule of thumb should be used as a “sanity” check against valuation methods dwelling in the asset approach, income approach and market approach.

Valuation standards are designed as guidance for members, however they also serve as a form of evidentiary reliability. From both a Frye and Daubert perspective valuation standards are both generally accepted and peer reviewed. In light of these valuation directives a California court, in the case of Devries v. Devries, chose to use a rule of thumb type formula to calculate the value of

⁸ http://www.nacva.com/PDF/NACVA_Standards.pdf

⁹ <http://www.appraisers.org/Files/Professional%20Standards/bvstandards.pdf>

¹⁰ http://www.aicpa.org/InterestAreas/ForensicAndValuation/Resources/Standards/DownloadableDocuments/SSVS_Full_Version.pdf

goodwill for a construction business.¹¹

CALIFORNIA'S DEVRIES V. DEVRIES

The Devries filed for divorce after approximately 27 years of marriage. The principal marital asset was the closely held company Brian DeVries Construction, Inc. (the Company). The valuation of the Company was the key issue in dispute. Mr. DeVries had concerns with several aspects of the court's valuation of his construction business, maintaining its ruling was not "supported by substantial evidence."

In the trial court proceeding, the Devries recognized the Company had goodwill though disagreed if it had a value and, if so, the amount. The court defined goodwill as "the advantage or benefit which is acquired by an establishment beyond the mere value of the capital stock, funds or property employed therein, in consequence of the general public patronage and encouragement which it receives from constant or habitual customers, on account of its local position, or common celebrity, or reputation for skill or affluence, or punctuality, or from other accidental circumstances, or necessities, or even from ancient partialities or prejudices; it is the probability that the old customers will resort to the old place. It is the probability that the business will continue in the future as in the past, adding to the profits of the concern and contributing to the means of meeting its engagements as they come in." Goodwill is intangible which creates difficulty in quantification.

As a business is negotiated for sale, the regularity and frequency of purchasing a good or service of the subject business is an integral asset of its value and typically a component of the selling price. In the Devries case it was determined the Company had a value of \$850,000 as of December 31, 2005, with hard asset value of \$750,000 and an intangible value of \$100,000.

The court appointed a forensic accountant who submitted a written report and testified at trial. The forensic accountant used three different methods in the valuation of goodwill associated with the Company. The excess earning method and the capitalization of earnings method provided "no measurable goodwill."¹²

A third method was utilized using a rule of thumb type metric that considered three months of

¹¹ In re Marriage of Devries, 2009 WL 4264309 (Cal. App. 4 Dist. 11/30/2009).

¹² Quotations taken from In re Marriage of Devries, 2009 WL 4264309 (Cal. App. 4 Dist. 11/30/2009).

past gross profits rounded. The rule of thumb type indication engendered a goodwill value of \$100,000. The forensic accountant explained to the court the gross profit number was the most reliable because there were numerous prerequisites between sales and net income.

A rule of thumb should be used as a “sanity” check. Mr. Devries hired a forensic accountant who offered an opinion that the method of valuation used by the court appointed forensic accountant “is not listed” in SSVS 1 as a valid valuation method.

The husband’s forensic accountant maintained SSVS 1 did not recognize the court appointed forensic accountant’s “rule of thumb type formula utilizing three months gross profits” as a reliable valuation under Standard 39. Mr. Devries forensic accountant testified that based upon two standard valuation methods, the value of goodwill was zero.

Mr. Devries argued “the courts in California have recognized the applicability of these standards to the determination of legal issues.” In an effort to bolster this position, the case of *Anderson v. Deloitte & Touche*¹³ was referred to where an accountant did not adhere to the AICPA guidelines concerning the “information and disclosures regarding the limited partnerships available to prospective investors by way of a confidential offering memorandum.” Mr. Devries’ forensic accountant characterized the comparison as an “extreme deviation from the AICPA standards.”

However, the court refused to adopt the position that the guidelines recommended by AICPA are the “benchmark for the applicable standard of care for accountants” and these guiding principles should be given more weight than “established case authority.” The court explained that California had a sufficient “body of case law holding goodwill is property of an intangible nature.” As a result, “the courts have not laid down rigid and unvarying rules for the determination of the value of goodwill but have indicated that each case must be determined on its own facts and circumstances and the evidence must be such as legitimately establishes value.¹⁴” The court also stated the guidelines issued by the AICPA are “instructive but not dispositive on the issue.” In addition, Mrs. Devries argued SSVS 1 did not become effective until January 1, 2008. This was two years after the court appointed forensic accountant performed the valuation of the Company. In the end, the court approved the rule of thumb type of formula by using three months of gross profits.

¹³ 56 Cal. App. 4th 1468, 1472, 66 Cal. Rptr. 2d 512 (1993).

¹⁴ *Marriage of Foster*, 42 Cal. App. 3d 577, at 582-583, 117 Cal. Rptr. 49 (1974).

ANALYSIS OF DEVRIES

In *Devries*, the Court referenced *SSVS 1* as instructive but not the deciding factor in the outcome of the case. This finding should be considered from a holistic view. Although valuation standards have set the framework for a calculation or conclusion of value, each case or even every valuation subject is unique where facts and circumstances in combination with guidance could be a determining factor. The practice of valuing closely held companies is a fundamentally intricate path within unhindered circumstances. The adversarial process intensifies the potential to complicate the development of a valuation calculation or conclusion. The court appointed forensic accountant revealed that the Company had numerous perquisites in arriving at the net income; this led to the accountant's belief that net income may not be the most dependable measure to arrive at the intangible value of the company. As a result, the forensic accountant analyzed the Company's profit and loss statement in several ways including a review of the gross profits (sales less cost of goods sold) over a three month period, Mr. Devries' annual wages, and the net cash flow for six months of 2006. The gross profits were regarded as the "cleanest" number.

It is important to note that California case precedent affirms that intangible assets such as goodwill can be valued using various techniques provided that the valuation is founded in historical earnings rather than future earnings.¹⁵

As previously noted, the court appointed forensic accountant based the goodwill valuation on three months of prior gross profits which followed a pattern established in the 1973 case of *In re Marriage of Fortier*.¹⁶

Fortier demonstrated that the value of the goodwill for the husband's medical practice was established based on the three months of prior accounts receivable.

CONCLUSION

¹⁵ Foster, *supra*, 42 Cal. App. 3d 577 at 584.

¹⁶ See, e.g., *In re Marriage of Fortier*, 34 Cal. App. 3d 384 at 388, 34 Cal. Rptr. 3d 383 (1973).

Both arguments presented in the Devries case were well developed. Mr. Devries argued that valuation standards were explicit about using rules of thumb as a check for reasonableness but not a sole method of valuation. He pointed out that the court appointed accountant employed generally accepted and peer reviewed formulas of valuation (excess earnings and capitalization of earnings) and that their derived values for the goodwill of the Company were \$0.

The court appointed accountant arrived at a value of \$0. The court appointed accountant admittedly arrived at a value of \$0 for the Company's goodwill based on the excess earnings and capitalization of earnings methods (which rely on net income). However, the accountant also employed a "sanity" check because the net income number was grossly distorted with copious perquisites, and therefore, not reliable. As a result, gross profits (referred to as the "cleanest" figure) for three historical months were utilized to calculate the Company's goodwill, a rule of thumb type method.

Devries took place in California where case law allowed for a diversity of ways to value goodwill premised by the use of historical and not future earnings. Furthermore, there was precedent that employed a rule of thumb type method in the valuation of goodwill where accounts receivable for three historical months were utilized. However, not every matter is heard in a jurisdiction that has similar precedent to California. Parties involved in litigation that choose to consider a sanity check over generally accepted and peer reviewed valuation methods should proceed with caution.

The objective of this article is not to support or disparage any position in the case put forward by the parties but, to inform possible stakeholders in future litigation about rules of thumb and their potential to support valuations of intangible assets of closely held companies. This can prove to be beneficial in the management of litigation costs. Although standards from all major valuation organizations indicate that rules of thumb are not technically a method to value closely held companies, the instructive component of this guidance fills the void and provides explanation. For example, NACVA describes rules of thumb as "a benchmark," ASA uses the term provides insight, the AICPA's expressive for the rule of thumb is a "reasonableness check." The valuation paradigm has not explicitly indicated that rules of thumb should suffice for a calculation or conclusion of value.

However, when compared to potentially flawed metrics, the guidance on rules of thumb may be just that, a check to establish "sanity check."

Chapter Five

Considering the Market Approach in Matrimonial Valuations: The Application of Regression Analysis to the Direct Market Data Method

Based on

Filler, Mark G. & DiGabriele, James A. (2007) The Application of Regression Analysis to the Direct Market Data Method, Parts I - III. FOCUS. American Institute of Certified Public Accountants. Business Valuation and Forensic & Litigation Support Services Section. March/April. Volume 3. Number 2, October/November/December. Volume 2. Number 6 and August/September. Volume 2. Number 5.

INTRODUCTION

In matrimonial litigation, forensic accountants are often called upon to make a determination of the value of a privately or closely held business. The value of a closely held company can be a significant component in the distribution of assets relative to a divorce proceeding. When a closely held corporation is part of the marital estate, that business should either be liquidated and the proceeds distributed, or the business should be valued as a going concern.

One problem associated with the valuation of a closely held company is the subjectivity of the task due to the fact that the stock of these companies do not enjoy a ready market. As a result, practitioners are always searching for valuation techniques that attempt to remove some of the subjectivity associated with a valuation exercise. This chapter discusses the application of the statistical technique, regression analysis, to be used in conjunction with empirical data from the privately held marketplace. The objective is to illustrate how this technique can improve valuations in matrimonial matters while reducing the innate subjectivity associated with this topic.

WHAT IS REGRESSION ANALYSIS AND WHERE HAVE I SEEN IT BEFORE?

Technically speaking, curve fitting, or regression analysis, or simply, regression, is a generic term for all methods attempting to fit a model to observed data in order to quantify the average relationship between two groups of variables. The fitted model may then be used either to merely describe the relationship between the two groups of variables, or to predict new values. In other words, regression analysis is all about “looking for relationships.”

The two groups of variables involved in regression are usually denoted x and y , and the purpose of regression is to build a model where $y = f(x)$, read as “ y is a function of x .” Such a model tries to explain, or predict, the variations in the y -variable, or dependent variable, from the variations in the x -variable, or independent variable. The link between x and y is achieved through a common set of data for which both x - and y -values have been collected, as when an economist may seek to evaluate or predict price increases based on either changes in demand levels or changes in the money supply, rates of inflation or interest rates. In short, “What affects what?”

For example, in business valuation, where it is commonly known that, *ceteris paribus*, value is a function of cash flow, various databases such as Bizcomps, Pratt’s Stats, Done Deals and IBA, have collected data sets from market transactions that include for each transaction, among other items of interest, selling price and Seller’s Discretionary Earnings (“SDE”). Regression is then used to relate selling price, the y -variable, to SDE, the x -variable. Once you have built a regression model, you can predict the selling price for your subject company, using the known SDEs from the database as the predictors.

While regression is a technique that has not yet been accorded wide-spread use in business valuation, still there are some valuation applications of regression that we are all familiar with. For instance, your personal residence was likely appraised for assessment purposes using a form of regression known as multiple regression, wherein the selling prices of all homes in the municipality over a given time period are regressed against such x -variables as square footage, age, number of bathrooms, lot size, etc. Plugging the x -variables of your home into the model produces assessed value.

In business valuation, the pioneering work of Jay Abrams relating equity value and the subject company’s discount rate to Ibbotson’s 10 deciles of stock market returns was accomplished using regression, as was a similar study carried out by Grabowski and King using, instead of 10 deciles,

25 percentiles from the Duff & Phelps database, to determine the equity risk premium based on various proxies for size. Grabowski and King went on to regress the equity risk premium against annual average operating margin, the coefficient of variation of annual operating margin, and the coefficient of variation of annual returns to shareholders' equity. Each of these examples provided practitioners with the models' output, i.e., the x-variable coefficients, that when multiplied by the appropriate x-variable, produced the subject company's value or discount rate or equity risk premium, with no additional knowledge or work required of the user. And, let's not forget CAPM's Beta, which is also regression derived. However, all of these business valuation regression applications are confined to the Income Approach.

In this chapter, the authors will introduce, and attempt to induce you to use, regression analysis as it applies in general to the Market Approach; and more specifically to the Direct Market Data Method using, in this case, the Bizcomps database. The general principles outlined here are also applicable to the IBA, Pratt's Stats and Done Deals databases. We believe that regression analysis is the ultimate "relationship-detection" tool, and therefore our purpose is to help you get the most explanatory power from the databases and to increase the probability of accuracy in your estimates of value if you are using the Direct Market Data Method.

A brief introduction to simple linear regression When you plot two variables against each other in a scatterplot, the values usually do not fall in a perfectly exact straight line. When you perform a linear regression analysis, you attempt to find the line that best estimates the average relationship between the two variables (the y-, or dependent, variable; and the x-, or independent, variable). The line you find is called the fitted regression line, and the equation that specifies the line is called the regression equation.

If the data in a scatterplot fall approximately in a straight line, you can use linear regression to find an equation for the regression line drawn through the data. Usually, you will not be able to fit the data perfectly, so some points will lie above and some below the fitted regression line.

The linear regression line that Excel fits will have an equation of the form $y = a + bx$, which is also known as ordinary least squares ("OLS") regression because it minimizes the squared differences between the fitted regression line and the observed y-variables.

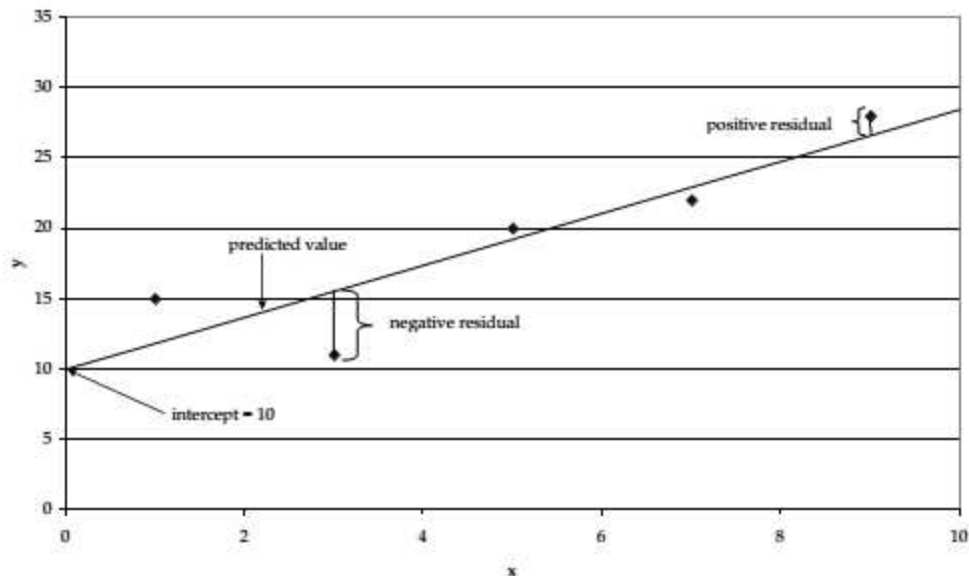
Once again, y is the dependent variable, the one you are trying to predict, and x is the independent,

or predictor, variable, the one that is doing the predicting. Finally, a and b are called coefficients.

Figure 1 shows a line with $a=10$ and $b=2$. The short vertical line segments represent the errors, also called residuals, which are gaps between the line and the points. The residuals are the differences between the observed dependent values and the predicted values.

Because a is where the line intercepts the vertical axis, a is sometimes called the intercept or constant term in the model. Because b tells how steep the line is, b is called the slope. It gives the ratio, known as rise over run, between the vertical change and the horizontal change along the line. In Figure 1, y increases from 10 to 30 when x increases from 0 to 10, so the slope is: $b = \text{vertical change/horizontal change} = (30-10)/(10-0) = 2$.

Figure 1



Suppose that x is years on the job and y is salary. Then the y -intercept ($x = 0$) is the salary for a person with zero years' experience, the starting salary. The slope is the change in salary per year of service. A person with a salary above the line would have a positive residual, and a person with a salary below the line would have a negative residual.

Chapter Six

Matrimonial Business Valuations and the AICPA Statement on Standards for Valuations Services No. 1

Based on

DiGabriele, J.A. (2009). Matrimonial Business Valuations and the AICPA Statement on Standards for Valuations Services No. 1. American Journal of Family Law. Vol. 23. Issue 2.

The American Institute of Certified Public Accountants (AICPA) issued the Statement on Standards for Valuation Services No. 1 (SSVS No.1) in June of 2007. This directive applies when an AICPA member performs an engagement that estimates the value of a business, a business interest, security or intangible asset. This also includes not-for-profit entities or activities. The effective date for the new Statement was January 1, 2008. Considering that "modern marriages" have the likelihood that they will fail fifty percent of the time¹⁷ and that family-owned companies make up a significant portion of the nation's wealth,¹⁸ awareness of this valuation standard is important to matrimonial attorneys.

PURPOSE AND SCOPE OF SSVS NO.1

The main objective of SSVS is to improve the quality and consistency for AICPA members providing valuation services in addition to sending positive market signals that a standard exists among CPA's that resembles generally accepted best practices. It is important to understand that the statement includes services that are exempt from the standard. The follows services are not subject to SSVS No. 1:¹⁹

- The statement is not applicable to a member who participates in estimating the value of a subject interest as part of performing an attest engagement; compilation, review or audit.
- The statement is not applicable when the value of a subject is provided to an AICPA member by a

17 Galbraith, C.S. (2003). Divorce and the Financial Performance of Small Family Business: An Exploratory Study. Journal of Small Business Management, 41, 3, 296-309.

18 Astrachan, J.H. and Shanker, M.e. 2003. Family Businesses Contribution of the U.S. Economy: A Closer Look. Family Business Review. 16 (3):262-277.

19 Statement on Standards for Valuation Services No. 1.

client or third party, and the member does not apply valuation approaches and methods.

- The statement is not applicable to internal use assignments from employers to employee members not in the practice of public accounting.
- Economic damages (i.e. lost profits) are exempt unless an estimate of value is included.
- The statement is not applicable to mechanical calculations that do not rise to a level of an engagement to estimate value where the member does not apply valuation approaches and methods.
- The statement is not applicable when it is not practical or reasonable to obtain or use relevant information; as a result, the member is unable to apply valuation approaches and methods.

There are overall engagement considerations that a member must consider before an assignment is accepted:

- **Professional Competence:** a valuation assignment requires a member to possess special skill and knowledge of valuation theory and principles. These skills will assist in identifying, gathering and analyzing data with the application of appropriate valuation approaches and methods.
- **Nature and Risks of Valuation Services and Expectations of the Clients:** at a minimum a member must consider:
 - The proposed terms of the valuation engagement.

- The identity of the client. The nature of the interest and ownership rights in the business, business interest, security, or intangible asset being valued including control characteristics and the degree of marketability of the interest.

- The procedural requirements of a valuation engagement and the extent, if any, to which procedures will be limited by either the client or circumstances beyond the client's or valuation analyst's control.

- The use and limitations of the report and conclusion or calculated value.

- Any obligation to update the valuation.

- **Objectivity and Conflict of Interest:** The principle of objectivity compels the obligation to be impartial, intellectual, honest, disinterested and free from conflicts of interest. If necessary, where a potential conflict may exist, a valuation analyst should make the disclosures and obtain consent.

- **Independence and Valuation:** Independence calls for maintaining integrity and objectivity by avoiding both actual and perceived conflicts of interest. Maintaining independence in fact and in appearance suggests that a member must not only be unbiased, impartial, and objective, but also be perceived that way by others.

However, AICPA Interpretation 101-3, "Performance of Non attest Services," addresses the issue of independence in instances where valuations services are provided to attest clients. A member should meet the requirements of the interpretation so as not to impair his independence with respect to the client.

- **Establishing an Understanding With the Client:** The valuation analyst should establish an understanding with the client, preferably in writing, regarding the engagement to be performed. If the agreement is oral, this should be documented by memoranda or notations in the work papers. The understanding should include, at a minimum, the nature, purpose, and objective of the valuation engagement, the client's responsibilities, the valuation analyst's responsibilities, the applicable assumptions and limiting conditions, the type of report to be issued, and the standard of value to be used.

- **Assumptions and Limiting Conditions:** Assumptions and limiting conditions are common to valuation engagements. Several examples are as follows:

- The conclusion of value arrived at is valid only for the stated purpose as of the date of the valuation.

- Financial statements and other related information provided by [Subject of Valuation] or its representatives, in the course of this engagement, have been accepted without any verification as fully and correctly reflecting the enterprise's business conditions and operating results for the respective periods, except as specifically noted. [Valuation Firm] has not audited, reviewed, or compiled the financial information provided to us and, accordingly, we express no audit opinion or any other form of assurance on this information.

- Public information and industry and statistical information have been obtained from sources we believe to be reliable. However, we make no representation as to the accuracy or completeness of such information and have performed no procedures to corroborate the information.

- We do not provide assurance on the achievability of the results forecasted by the subject because events and circumstances frequently do not occur as expected; differences between actual and expected results may be material; and achievement of the forecasted results is dependent on actions, plans, and assumptions of management.

- The conclusion of value arrived at is based on the assumption that the current level of management expertise and effectiveness would continue to be maintained, and that the character and integrity of the enterprise through any sale, reorganization, exchange, or diminution of the owners' participation would not be materially or significantly changed.

- **Using a Specialist in Engagements to Estimate Value:** It may be necessary to have a third party specialist. For example, using an equipment appraiser to value the fixed assets of a company

to recast the balance sheet. The valuation analyst should note in the assumptions and limiting conditions the level of responsibility, if any, being assumed by the valuation analyst.

VALUATION OR CALCULATION ENGAGEMENT

The engagements indentified by SSVS No.1 are valuation engagements and calculations engagements. A valuation engagement requires more procedures than a calculation engagement. A valuation engagement results in a conclusion of value where the outcome of calculation engagement is a calculated value.

According to SSVS No.1, for a valuation engagement a valuation analyst should (1) analyze the subject interest, (2) consider appropriate valuation approaches and methods and (3) prepare and maintain appropriate documentation. The analysis of the subject interest will assist the valuation analyst in considering, evaluating, and applying the various valuation approaches and methods to the subject interest (i.e., business, business ownership interest, security, or intangible asset). The nature and extent of the information needed to perform the analysis will depend on, at a minimum, the following:

- Nature of the subject interest
- Scope of the valuation engagement
- Valuation date
- Intended use of the valuation
- Applicable standard of value
- Applicable premise of value
- Assumptions and limiting conditions
- Applicable government regulations or other professional standards.

The subject company's non-financial information should be analyzed to provide a meaningful understanding of the subject entity. Examples or relevant non-monetary information are:

- Nature, background, and history
- Facilities
- Organizational structure
- Management team (which may include officers, directors, and key employees)
- Classes of equity ownership interests and rights attached to them
- Products or services, or both

- Economic environment
- Geographical markets
- Industry markets
- Key customers and suppliers
- Competition
- Business risks
- Strategy and future plans
- Governmental or regulatory environment.

The Statement requires the valuation analyst to obtain certain ownership information with respect to the subject interest. Where applicable and available, ownership information regarding the subject interest will enable the valuation analysts to:

- Determine the type of ownership interest being valued and ascertain whether that interest exhibits control characteristics.
- Analyze the different ownership interests of other owners and assess the potential effect on the value of the subject interest.
- Understand the classes of equity ownership interests and rights
- Understand other matters that may affect the value of the subject interest, such as:
 - For a business, business ownership interest, or security: shareholder agreements, partnership agreements, operating agreements, voting trust agreements, buy-sell agreements,
 - loan covenants, restrictions, and other contractual obligations or restrictions affecting the owners and the subject interest
 - For an intangible asset: legal rights, licensing agreements, sublicense agreements, nondisclosure agreements, development rights and commercialization or exploitation rights.

FINANCIAL INFORMATION

A CPA member/valuation analyst should obtain, when available and where applicable relevant financial information for the valuation engagement. This includes items such as:

- Historical financial information (including annual and interim financial statements)
- Prospective financial information (for example, budgets, forecasts, and projections)
- Comparative summaries of financial statements or information covering a relevant time period
- Comparative common size financial statements for the subject entity for an appropriate number of years

- Comparative common size industry financial information for a relevant time period
- Income tax returns for an appropriate number of years
- Information on compensation for owners including benefits and personal expenses
- Information on key man or officers' life insurance
- Management's response to valuation analyst's inquiry.

VALUATION APPROACHES AND METHODS

In developing the valuation, the valuation analyst should consider the three most common valuation approaches:

- Income (Income-based) approach
- Asset (Asset-based) approach (used for businesses, business ownership interests, and securities) or cost approach (used for intangible assets)
- Market (Market-based) approach

INCOME APPROACH

Two frequently used valuation methods under the income approach include the capitalization of benefits and the discounted future benefits method (for example, earnings or cash flows). When applying these methods, the valuation analyst should consider a variety of factors, including but not limited to those discussed below:

- Capitalization of benefits (for example, earnings or cash flows) method; the valuation analyst should consider the following:
 - Normalization adjustments
 - Nonrecurring revenue and expense items
 - Taxes
 - Capital structure and financing costs
 - Appropriate capital investments
 - Noncash items
 - Qualitative judgments for risks used to compute discount and capitalization rates
 - Expected changes (growth or decline) in future benefits (for example, earnings or cash flows).
- Discounted future benefits method (for example, earnings or cash flows). In addition to the

items above, the valuation analyst should consider:

- Forecast/projection assumptions
- Forecast/projected earnings or cash flows
- Terminal value
- Intangible asset, the CPA should also consider when it applies:
 - remaining useful life
current and anticipated future use
 - rights inherent to the intangible asset
 - life cycle of the intangible asset
 - appropriate discount rate, research and
 - development expenses and allocation of
 - income to intangible asset

ASSET APPROACH AND COST APPROACH

The adjusted asset method is a frequently used method under the asset approach. When applying the adjusted net asset method in valuing a business, business ownership interest, or security, the valuation analyst should consider, as appropriate, the following information related to the premise of value:

- Identification of the assets and liabilities
- Value of the assets and liabilities (individually or in the aggregate)
- Liquidation Costs if applicable

MARKET APPROACH

Three frequently used valuation methods under the market approach for valuing a business, business ownership interest, or security are:

- Guideline public company method
- Guideline company transactions method
- Guideline sales of interests in the subject entity method

For intangible assets the standard identifies:

- Comparable uncontrolled transactions method
- Comparable profit margin method
- Relief from royalty method

THE VALUATION REPORT

For calculation of value engagements, the analyst should consider the following items at a minimum:

- Identity of the client
- Identity of the subject interest
- Whether or not a business interest has ownership control characteristics and its degree of marketability
- Purpose and intended use of the calculated value
- Intended users of the report and the limitations on its use
- Valuation date
- Applicable premise of value
- Applicable standard of value
- Sources of information used in the calculation engagement
- Valuation approaches or valuation methods agreed upon with the client
- Subsequent events, if applicable.

A detailed report is used to justify the valuation analyst's reasoning and analysis underpinning the conclusion of value. A detailed report should include the following sections:

- Letter of transmittal
- Table of contents
- Introduction
- Sources of information
- Analysis of the subject entity and related non financial information
- Financial statement/information analysis
- Valuation approaches and methods considered
- Valuation approaches and methods used
- Valuation adjustments
- Nonoperating assets, nonoperating liabilities, and excess or deficient operating assets
- Representation of the valuation analyst
- Reconciliation of estimates and conclusion of value
- Qualifications of the valuation analyst
- Appendices and exhibits

CONCLUSION

SSVS No.1 is applicable to engagements beginning on or after January 1, 2008. The general structure of SSVS No.1 is similar to that developed by other governing organizations²⁰ including after introductory considerations, rules for the development of a business appraisal and the written report.

SSVS No. 1 provides important detail regarding the engagement circumstances where SSVS No.1 applies and enhances the guidance on exceptions. Written and oral reports are allowed under the standard and the type of service may be a valuation engagement or a calculation engagement however ~ there is an extensive list of exceptions to be aware of.

Since significant amounts of matrimonial valuations are prepared by accountants who are members of the AICPA, it is important for matrimonial attorneys to be aware of the requirements and application of this directive.

²⁰ Examples of other governing organizations include the National Association of Certified Valuation Analysts (NACVA) and the Institute of Business Appraisers (IBA).

Chapter Seven

Forensic Accounting and The Marital Life Style Analysis

Based on

DiGabriele, J.A. (2008). Forensic Accounting and The Marital Life Style Analysis. The Journal of Forensic Accounting. Vol. IX. No. 1.

(Should Awards be based on Marital Lifestyle Analyses?)

Yes if there is clearly an abused spouse within the relationship. As a matter of fact, greater compensation should be awarded to such abused spouses than is generally the case. Greater protection would be required for such abused spouses to prevent them (and/or their children) from being tracked down by the manipulating, abusive or obsessed ex. A spouse rescued from such an abusive relationship may also require counselling and other forms of additional treatment to regain self dignity. On the other hand, a spouse who married an abusive other half and was clearly aware of the character of the person at the time they were married may have a compensation reduced on the grounds that such spouse contributed to the present condition encountered by such a spouse.

„Gold diggers“ could also be awarded the standard levels of compensation based on marital lifestyle analyses if it can be established that they were subjected to abuse during the marital period . Furthermore, they could be awarded even higher levels of compensation to deter potentially „blinded“ people from falling in love when all the red flags in the relationship are evident – that is, it is apparent that no mutual love existed right from the beginning. Marital relationships which were clearly entered into without the intention of a life together - „till death do us part“ , should have greater consequences and penalties imposed on the spouse who is obliged to pay the compensation and maintenance payments. Marital relationships - being a very serious issue – in terms of commitment and those who are affected, namely the children, should not be taken lightly.

(Should Awards be based on Marital Lifestyle Analyses?)

No if the separation was based on unpredictable and unforeseen circumstances. Further a self

employed spouse or spouses who cannot afford the other's maintenance at the time of the separation should not be subject to excessively punitive awards based on the standard marital lifestyle analysis.

Achieving Harmonious Settlements

This is very important not only in ensuring that an amicable and healthy relationship exists between couples – which could eventually result even in reconciliation, but for a continuing and healthy relationship between couples and their children (where children are involved). Whilst a separation is not the ideal eventuality wished for, it is always best to make the most out of any situation and it has even been demonstrated that children who find themselves subsequently in loving relationships eventually recover from the traumas of an abusive and unloving home environment than those whose fate could be negatively impacted if compelled to remain in certain unhealthy relationships. Staying amicable and retaining healthy family relationships should constitute the focus – and as stated previously, reconciliations are not precluded where an initial amicable settlement has been instigated.

In matrimonial dissolution cases involving and child support a forensic accountant is usually called upon to provide an analysis of the standard of living during the marriage. The basis for evaluating the support of a spouse or children following a divorce is rooted in the lifestyle experienced throughout the marriage. Marital lifestyle can be broken down but not restricted to the type of marital residence lived in during the marriage, vacation homes, real estate and investment accounts, cars, boats, planes, recreational vehicles, the level of savings, annual vacations, personal items such as furs and jewelry, type of stores frequented, club memberships, entertainment, household help, the value of household furniture including collectibles and artwork, and children's extracurricular activities.

The role of a forensic accountant in performing a lifestyle analysis life style analysis begins with the initial step of compiling all documentation relevant to the expenditures of the parties. The records requested include bank checking and saving accounts records, brokerage statements and credit card statements. Collecting the information with an eye on consistency is crucial because the documentation period used for a life style analysis is generally a three year period prior to the filing of a divorce complaint. When the requested documents are received, the forensic accountant will meticulously review and categorize each check written along with credit card debit card transactions.

Upon completion of the categorization of each transaction, overall expenditure amounts for the three year base period will have been documented. From this data a marital life style budget can be prepared.

Specific expense categories are easily budgeted due their current fixed nature. For example, a mortgage payment or current rent expenditure represents the appropriate level to consider when preparing a life style budget. Potential escalation clauses in the mortgage or lease should also be considered.

Discretionary expenses pose a different problem and require a different methodology when preparing a life style budget. It is considered acceptable to use an average of the three years to establish discretionary expense levels. Examples of discretionary expenses include home repairs and maintenance, vacations, household groceries, restaurants, entertainment, clothing, gifts, and savings. Characteristics such as the brand of clothing purchased or the type of restaurant frequented for example, are important and are captured in the average of actual discretionary expenses.

Certain spending categories should be adjusted in the final analysis. These categories include expenses of the spouse providing the support, expenses paid by the supporting spouse, and expenses affected by child sharing arrangements.

Budgetary consideration should also be given to expenses paid directly by a business of the self employed spouse. Examples include common perquisites such as: personal use of a company car, company supported vehicle operation and maintenance, gasoline credit cards, non business entertainments, club dues, hobby expenses, and personal bills. Customarily, such expenses contribute to the marital lifestyle and should be part of the analysis.

Potential Problems Establishing the Marital Life Style

The most pressing problem for a forensic accountant developing a marital life style analysis is dealing with the potential of undisclosed income for a self employed spouse. Undisclosed income often makes its way into the marital life style during the marriage but, with a little divorce planning, happens to slip through the cracks during proceedings. The challenge facing forensic accountants when dealing with undisclosed income is the use of unreported income to fund perishable expenses used for discretionary spending money. The lack of any trail makes these

kinds of expenses vulnerable to divorce planning by a self employed spouse.

The most frequent areas of undisclosed income include: not recording or understating gross receipts, the inflation of expenses, creating fictitious expenses, and the transfer of income from one period to another. Understating of gross receipts often occurs when a self employed spouse runs a largely cash operation; customers do not require a receipt, and the result is an incomplete transaction audit trail. In addition, further methods of reducing income include the following: bartering, diverting income to another entity, and re-characterizing income as a capital contribution.

There are additional areas of opportunity for manipulation of the marital life style. A frequent area of abuse is the understatement of net income for a self employed spouse.²¹ A technique of choice for a self-employed spouse in the business of selling merchandise or products is to overstate the cost of goods sold and understate ending inventory. This type of financial manipulation directly affects the bottom line income used to establish marital life style in addition to child support.

Additional Methods of Life Style proof²²

Life style analysis cases innately lend themselves to an extraordinary amount of detailed information. This information may be used to perform indirect methods of determining the potential understatement of income; a net worth analysis, a personal expense analysis, a bank deposit analysis or a source and application of funds analysis. All these methods can combine to provide the necessary objective.

Net Worth Method²³

The net worth method considers evidence of income utilization such as asset accumulation, liability reduction, expenditures, and other financial data to indirectly establish correct taxable income. In its simplest form, the net worth calculates the change in net worth, networth being calculated as assets less liabilities. This is achieved by first determining the net worth at the beginning and end of a period, then subtracting the beginning period's net worth figure from the ending period's net worth figure; this computation produces the change in net worth. The total change in net worth is adjusted for living expenses in addition to nondeductible and nontaxable items to arrive at a corrected adjusted gross income amount. The corrected adjusted gross income

21 Wise, R.M (2004). Reconstructing Business Income in Financial Litigation. Journal of Forensic Accounting. Volume V. Pages 457-480

22 <http://apps.irs.gov>

23 Fenton, E.D. (2004) Audit Techniques Guides from the IRS: Useful 'Tool for Industry Specific Investigations. Journal of Forensic Accounting. Volume V. Pages 35-48

amount is further adjusted for itemized deductions or the standard deduction amount followed by any exemption adjustments. Ultimately a corrected taxable income figure is calculated. Finally, a comparison is made between the corrected taxable income amount with the taxable income reported on illustrated on the tax return. The forensic accountant can determine at that point if there is an understatement of taxable income.

Likely defenses to the net worth method include: opening net worth was incorrectly calculated, net worth was increased by loans, gifts and other non income sources.

The life style analysis report is an integral resource to the court for decisions on spousal and child support, and the court desires assurance that it is comprehensive.

A forensic accountant preparing a life style analysis should be well versed in direct as well as indirect methods of establishing the marital life style. Special attention should be paid to the awareness of red flags.²⁴ for possible unreported income that may otherwise escape the examination.

The skills required for this type of analysis mirror the skill set utilized by IRS agents to unveil unreported income. The difference between IRS agents searching for unreported income and forensic accountants preparing a life style analysis is as follows: an IRS agent approaches the analysis with the objective of the initial find of unreported income; a forensic accountant preparing a marital life style analysis has to determine if the disappearance of income that was previously supporting the married life style was a result of divorce planning of the self employed spouse, and still in fact exists.

²⁴ DeBerry, T.W. and Merritt, M.E. (2006). A Study of the Abilities of Accounting and Auditing Professionals in Recognizing Red Flags of Fraud. Journal of Forensic Accounting. Volume VII. Pages 89- 108