Principles of Private Firm Valuation

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Principles of Private Firm Valuation
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The intended audience for Principles of Private Firm Valuation is CPAs, valuation analysts, and CFOs of private firms. Many of the valuation issues these groups deal with are uniquely related to accurately measuring the value of private firms. Several well-known academic and practitioner books deal with the valuation of both public and private businesses. Principles added value is that it integrates academic research results with on-the-ground practical experience to provide a more disciplined guidance on how to address several unresolved issues in the arena of private firm valuation:

- Assessing which valuation method is most accurate.
- Estimating the size of the marketability discount; a reduction in value due to the inability to convert to cash at fair market value in a cost-effective way.
- Estimating the value of control and its implication for valuing minority interests in a private firm.
- The influence of taxes on firm value and, specifically, whether S corporations are worth more than equivalent C corporations.
- How best to estimate a private firm’s cost of capital.

The purpose of valuing private firms varies. Although a valuation is generally required prior to a private firm being transacted, the majority of private firm valuations are completed for tax-related reasons. For example, equity in a private firm that is part of an estate needs to be valued in order to calculate the estate’s tax liability. Similarly, when ownership interests of a private firm are gifted or when they represent a charitable donation, their monetary value needs to be determined, and these valuations typically accompany the donor’s tax return. Hence, these valuations are subject to audit by the Internal Revenue Service (IRS).

IRS challenges to business valuations are often adjudicated in Tax Court. As a result, there have been numerous Tax Court rulings that opine on technical valuation issues. Often, these rulings run counter to valuation practice, which places added pressure on valuation analysts to apply methodologies that are consistent with finance theory and objective empirical research. While the role of the Tax Court is to adjudicate,
its ability to do so effectively depends on the capacity of valuation experts to articulate the logic underlying their valuation work and to ensure that it is consistent with an accepted scientific knowledge base. Simply arguing that the procedures followed are consistent with accepted practice is not sufficient to sustain a position taken on a technical valuation issue.

The best example of practice versus theory is represented by Gross v. the Commissioner. Prior to settlement of this case, it was long-standing practice for S corporations to be valued as though they were C corporations, even though the earnings of the former are taxed only once, at the shareholder level, while the latter’s earnings are potentially taxed twice—once at the entity level and again at the shareholder level. Valuation practice recognized that the shareholder tax is typically paid by the S corporation, so for all intents and purposes this tax is equivalent to an entity-level tax paid by a C corporation. Therefore, accepted practice indicated that the value of an S should be based on tax-affecting earnings and assigning a zero value to the S tax benefit. In Gross, the IRS argued, and the Tax Court agreed, that taxing an S corporation as if it were a C corporation was incorrect, since the primary benefit of S corporation status is the avoidance of corporate taxes and ignoring this benefit would result in a value that is too low.

The lesson in Gross is that no matter what accepted valuation practice happens to be, it will eventually be overruled if it is based on wrongheaded financial analysis. The experience in Gross places an increased burden on all valuation professionals since it forces them to predominately base their valuation practices on sound finance and economics principles and somewhat less on accepted practice and past case law. This in turn means that all valuation professionals need to become more familiar with the growing body of academic research related to the valuation of private firms, and, in addition, they need to be more familiar with the research tools that academics use. It is hoped that Principles adds to this understanding.

Finally, Principles shows how valuation metrics can be used to help owners create more valuable businesses. The same tools that a valuation analyst uses to value a private business can be used to help determine the value contribution from strategic initiatives such as improving inventory management, collecting receivables faster, and increasing the level of net investment. Chapter 2 sets out the managing for value model (MVM), which is designed to measure the value benefits of various strategic initiatives, and Chapter 3 offers a case study that shows how the MVM was used to maximize the value of a private firm.

In the past 25 years, baby boom business owners have created very large, profitable, and, as it turns out, potentially valuable private businesses. Roger Winsby of Axiom Valuation Solutions notes:
Over the next several years, the U.S. economy will experience an unprecedented volume of wealth transfers. Most analysts have focused on the inter-generational wealth transfer from the parents of baby boomers to baby boomers that we are already well into. There is a second, less publicized and less understood transfer that also will take place over the next decade. The entrepreneurial explosion in the U.S. over the last thirty years has resulted in record numbers of small to mid-size, established private businesses (revenues typically in the $1 million to $50 million range). For most of the private businesses started in the 1980s and early 1990s, the owner or owners are now age 50 and over. Just as the baby boomer demographic bulge threatens the solvency of the Social Security system as boomers approach retirement, the private business owner demographic bulge will seriously strain and possibly overwhelm the available supply of buyers and the support infrastructure for business transition and transactions as these owners approach retirement. We call this the business transition tidal wave.

One of the implications of the transition tidal wave is that business owners who expect to sell their businesses need to shift their focus from maximizing after-tax income to maximizing after-tax value. These two objectives are not necessarily the same. Maximizing after-tax income typically means commingling personal and business expenses in an attempt to minimize taxable business income. Maximizing after-tax value, by contrast, requires openness on the expense side that allows a potential buyer to easily discern which expenses are business necessary and which are not. Commingling expenses reduces transparency of firm operations, which will always lead to a reduced business value. The reduction in business value from lack of transparency occurs because a less transparent business represents a more risky business from the vantage point of any potential buyer. In the world of finance, more risk always shows up as less value.

As business owners begin to realize that they need to change their focus to value maximization they will increasingly turn to their most trusted advisor, their CPA, for guidance. For those CPAs not accustomed to addressing transition issues, the MVM will provide valuable insights on how value is created, and it will serve as a platform for sharing these insights with their business owner clients. CPAs who are familiar with MVM will focus on helping their business owner clients to quantify how they can create incremental value by implementing various strategic initiatives and other activities designed to make private firms more transparent.

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support. I owe a debt of gratitude to my university colleagues, to the administrators, and to the Bentley College sabbatical committee who supported my sabbatical application. Many people have contributed to the writing of this book. These include my four research assistants, Todd Feldman, John Edward, Jason Verano, and Abdallah Tannous. Todd Feldman built several of the models used in Chapter 5 on the cost of capital and was a valuable all-around contributor and help throughout the project. John Edward was a major contributor to the development of the control premium model discussed in Chapter 7. Jason Verano and Abdallah Tannous provided invaluable technical and editorial assistance. In addition to these people, I could never have finished the book without the support of my good friend and partner Roger Winsby. Despite all the help I received, I take full responsibility for any errors and/or omissions.

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Principles of Private Firm Valuation
Private firms can be valued under multiple standards of value, the most notable standard being *fair market value* (FMV). The FMV standard has several important implications for establishing the value of a private firm. These include identifying the circumstances under which a business entity is being valued, the quality of the information that various valuation models require, and a logical framework for establishing the basis of value. This discussion is important because the models and metrics in this book are designed to establish a private firm’s FMV. Therefore, understanding the meaning of FMV and all that it implies is crucial to understanding the steps necessary to determine a private firm’s FMV. The IRS applies the FMV standard to all gift, estate, and income tax matters. IRS Revenue Ruling 59–60 in part states:

*FMV is the price at which the property would change hands between a willing buyer and a willing seller when the former is not under any compulsion to buy and the latter is not under any compulsion to sell, both parties having reasonable knowledge of the relevant facts. Court decisions frequently state in addition that the hypothetical buyer and seller are assumed to be able, as well as willing to trade and to be well informed about the property and concerning the market for such property.*

Other valuation standards include *liquidation value* and *investment value.* The Financial Accounting Standards Board (FASB) uses the term *fair value* when referring to financial reporting standards that require booking assets and liabilities at FMV. Since FMV is associated with a large body of case law developed in the context of tax regulation that may not be relevant for financial reporting purposes, the FASB concluded that the fair value naming convention was appropriate under the circumstances. However, the name difference does not imply that there is any substantive difference in the
concepts. Other standards of value differ from FMV in that they do not incorporate all of the criteria that an FMV standard requires. Therefore, FMV can be thought of as a baseline value standard with other value standards being distinguished by lack of one or more of the attributes that define the FMV standard.

**FAIR MARKET VALUE: THE MEANING FOR THE VALUE OF PRIVATE FIRMS**

Three features embody FMV:

1. The notion of a hypothetical transaction that leads to the establishment of an exchange value.
2. Willing buyer and willing seller.
3. Reasonably informed parties to a transaction.

**Hypothetical Transaction**

When determining the value of a public firm, one can always defer to the financial markets for guidance. If we consider a firm that is all equity financed, has a recently established share price of $10, and 1 million shares outstanding, then the firm's market capitalization, and the firm's value, is $10 million. Therefore, to determine the value of an equity interest in a public firm, one does not need to assume a hypothetical transaction; one only needs to view the most current share price.

Since a private firm by definition does not have any economic interest traded in a market, the value must be established under an assumption of a hypothetical transaction. The outcome of a hypothetical transaction is an exchange price that reflects the price that would result in an exchange between willing and informed parties, and in this sense the exchange would be fair. Therefore the hypothetical transaction is assumed to mimic the process that would occur in a market between willing informed buyers and willing informed sellers. This does not mean that a market price would be established, but rather that the process of arriving at exchange value or price would be the same as would occur if the participants were operating in a market.

The notion of a fair exchange flows directly from the concept of parties to the transaction being fully informed. If both parties have the same information and act on it, then the resulting price must be fair. Markets are generally believed to provide exchange prices that are fair because it is assumed that all parties and/or their agents have equivalent information about the risks and opportunities that are expected to impact the performance of the firm whose economic interest is being transacted. Thus, transaction prices
would not be fair if groups of participants were disadvantaged in the sense that their access to information is limited or the quality of what they have access to is substantively deficient. Transaction prices are generally believed to be consistent with FMV when transactions take place in markets governed by regulations designed to maximize accurate and timely disclosure of critical financial data and other performance information. Therefore, in markets characterized by asymmetric information, transaction prices will not meet the FMV standard.

**Willing Buyer and Willing Seller**

This characteristic means that potential buyers and sellers are not forced to transact. Each party can withdraw and, in most cases, can do so without a penalty. In contrast, a liquidation value standard requires that the selling party transact and accept the best price. In this case, sellers cannot withdraw and therefore have no recourse as they would under the FMV standard. Moreover, *willing* also implies that market participants have the means to be parties to an exchange. Calculating the FMV of a private firm assumes that hypothetical buyers have the financial wherewithal and sellers have the legal right to sell the interests in question.

**Reasonably Informed**

This attribute means that buyers and sellers are cognizant of an entity's true cash flow and also have expectations of future performance consistent with those held by knowledgeable market participants. Let us consider the cash flow issue first. Assume that Company X reported no profit in each of the past five years. Would having this knowledge meet the reasonably informed criteria? The answer is no if, after disentangling the firm's financial statements, one established that the firm indeed made a profit in each of the past five years, and a fairly large one at that. How could this happen? If analysis of the firm's financial statements showed that lack of reported profit was the result of the owner receiving a salary in excess of what an outside executive would normally receive for doing the same job, or payments to family member employees far in excess of what unrelated people would earn for the same work, or the existence of other expenses like club fees that were purely discretionary, then one might reasonably conclude that adjusting reported expenses for these excesses would result in the firm earning a profit. Although the financial statements were accurate in this example, being reasonably informed means more than being informed about the accuracy of the financial statements. *Reasonably informed,* in the context of FMV, means that market participants are knowledgeable about the true financial condition of the firm.
Being reasonably informed also means that parties to a transaction have performance expectations that are fully consistent with those held by knowledgeable market participants. Since the hypothetical transaction that informed parties engage in is intended to mimic the information processing that ordinarily takes place in a market environment, it follows that informed investors in a private transaction would also require, at a minimum, the quantity and quality of information that would normally be available to them if they were engaging in a market-based transaction.

Finally, the reasonably informed criterion also means that participants and/or their agents can accurately process disclosed information and rationally act on it. If this were not the case, then accurate disclosures about the current and expected future performance of the transacted entity would have no practical meaning. The assumption of rational participants in a transaction that underlies FMV can best be appreciated by considering the logic often presented for the difference in value between a controlling and a minority economic interest.

**FMV AND THE VALUES OF CONTROLLING AND MINORITY INTERESTS**

A *minority owner* is one who exchanges cash for the right to receive future cash flow, but who has no influence over how the assets of the firm that produce the cash flow are managed and/or financed. A *control owner* has the right to alter how the assets are used and financed, and also has control over the size and timing of any cash distributions. Because minority owners have no control over cash distributions, it is often believed that minority ownership in a private corporation has little or no value.

To understand the full implications of this last point, consider the following hypothetical transaction: A firm’s control owner desires to sell a minority interest in the firm. The minority investor exchanges cash in return for a minority interest because he believes that he will receive regular distributions from the firm. Once the transaction is completed, the control owner raises his compensation to the point where the firm can no longer make any distributions. Knowing that a control owner can do this, the question is, why would anybody purchase a minority interest in a private firm for anything more than a trivial sum? Because of this possibility, it is often concluded that a minority interest is worth much less than a controlling interest in a private firm.

The problem with this logic is that it is inconsistent with the FMV standard. Indeed, under the preceding scenario, a transaction would never take place. The reason is that FMV assumes a rational buyer. That is, under what conditions would a rational informed investor purchase a minority interest in
a private firm? Surely no rational investor would purchase any minority shares under the preceding conditions. Since no transaction would take place, minority discounts cannot be based on this logic. What logic is implied under an FMV standard that offers guidance about the size of a minority discount in a hypothetical transaction? Although, FMV does not stipulate the conditions under which a minority interest is transacted, it does imply that a rational and informed buyer would never purchase a minority interest in a private firm unless there were enforceable oversight provisions and associated financial penalties for noncompliance by the control owner. Oversight provisions might include a board seat and the ability to audit the books on a regular basis. While oversight is critical to the minority owner being kept reasonably informed about the operations of the firm, the minority owner still has no control over who receives cash distributions, how much they receive, and the timing of when the cash distributions are made. Nevertheless, there are a number of ways rational minority owners could protect themselves from potential abuses by a control owner. Such protections will be a function of the fact pattern that is unique to each valuation circumstance. The point here is not to articulate what these protections might be, but rather to suggest that a rational acquirer of a minority interest would demand such protections before purchasing a minority interest. This discussion suggests that determining the FMV of a minority interest under the assumption of a hypothetical transaction implies that reasonable protections are in place so the control owner cannot siphon off cash at the expense of the minority owner.

**FMV AND STRATEGIC VALUE**

FMV requires that participants are reasonably informed about the risks and opportunities of the property in question and are also knowledgeable about the factors that shape the market in which the entity is expected to transact. This implies that the business is being valued on a going-concern basis. For example, assume that a textile firm recently sold for $1,000. The acquirer plans to use the assets of the firm to produce steel, and is willing to pay a premium over its value as a textile firm to ensure that his offer is accepted. Is $1,000 the textile firm’s FMV? The answer is no. The reason is that the price does not reflect the value of the firm as a textile producer but rather as a steel company. Thus, when FMV is the standard of value in a hypothetical transaction, the standard assumes that the entity being transacted will continue to operate as it had before the transaction. This follows from the definition of FMV, which states that the buyer and seller are well informed about the “property and the market for such property.” In the example, the market for this property is the market for the textile firm, and hence its FMV is based on this.
Strategic or investment value emerges when an acquirer desires to use the assets of the acquired firm in a specific way and this use gives rise to cash flows in addition to those that can be expected from the firm being operated in its going-concern state. To see the difference between investment value and FMV, consider the following example. A local insurance agent would like to sell her agency. An informed potential buyer who desires to run the agency much like the seller is willing to pay $1,000 for the agency. The seller believes this price is consistent with the firm’s FMV. A nationally recognized financial services firm has decided to purchase local agencies all over the country as part of a roll-up strategy designed to reduce the costs of managing local agencies as well as to sell additional insurance products to the client bases of purchased agencies. The nationally recognized financial services firm is a strategic buyer. This buyer is always willing to pay more than a buyer who desires to run the business like the seller. The reason a strategic buyer will pay a premium over FMV is that the buyer expects the combined businesses to generate more cash flow than they could produce as two stand-alone entities. The price established by the strategic buyer is not the firm’s FMV because the exchange value is not based on the business as it is currently configured. FMV does include a control premium; however, it is only partially related to the premium established via a strategic acquisition. In a strategic purchase the control premium is made up of two components—the value of pure control and the synergy value that emerges from the combination that is captured by the seller in the competitive bidding process. In the preceding example, the strategic buyer is willing to pay a premium over the value of the agencies cash flows for the right to manage and finance the assets to ensure that the expected cash flows from the going concern accrue to the owner. This is the value of pure control, and it is based on the risks and opportunities of the entity as a going concern. The second part of the premium emerges because of the synergy value created by the combination. This portion is not part of the acquired firm’s FMV. Therefore, investment value is effectively equal to the FMV of the acquired firm plus the captured synergy value.

This last result bears directly on the calculation of a firm’s minority equity FMV. Without reviewing the arithmetic of translating a reported premium for control to the implied discount for a minority interest, we simply note that a 50 percent control premium translates to a 33 percent minority discount. In practice, a valuation analyst will typically arrive at a firm’s control equity FMV and then reduce it by the implied minority discount to arrive at the firm’s minority equity FMV. To see this, let us assume the valuation analyst arrived at a control value of $1.50 for an all-equity firm. From a number of control premium studies, the analyst calculated a median control premium of 50 percent, then calculated the implied minority discount of