

# Valuation

## Concepts



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# Pre-IPO studies

## Experts debate their use in determining marketability discounts

When valuing a company, appraisers commonly apply marketability discounts to reflect the difference in liquidity between shares in closely held businesses vs. publicly traded companies.

The holders of closely held shares lack the ability to sell their holdings on short notice and, therefore, the shares can be less attractive investments. According to the Valuation Advisors' Lack of Marketability Discount Study, the median discount in 2003 was 40.1% (down from 63.3% four years earlier).

### A contested method

The discounts between private and public transactions vary under different market conditions and can be difficult to calculate. One method of calculating marketability discounts is to use pre-IPO studies. These studies compare the price of common stock at the time of an initial public offering (IPO) with the “arm’s length” transaction pricing (or the agreed-upon price of two entities acting in their own self-interest) before the IPO.

For example, if a shareholder sells stock at \$5 per share prior to the IPO and the stock later sells to the public at \$10 per share, the marketability discount can be considered to be 50%.

Over the past decade, pre-IPO studies have, in many cases, gained acceptance among valuation professionals

and tax courts. But they have also come under scrutiny and become the target of some criticism.

### Support for the method

Several firms have analyzed transactions involving company shares before and after their IPOs. A Robert W. Baird & Co. study analyzed over 1,500 transactions between 1980 and 2000 that occurred five months or nearer the IPO. Another study by Willamette Management Associates considered all public offerings listed in Thomson Financial’s *IPO Reporter* between 1975 and 1993 and analyzed share transactions 36 months prior to their IPOs.

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The Baird study found a marketability discount consistently above 40% — higher than the discounts of previously conducted restricted stock studies. (Restricted stock studies compare the prices private investors pay for restricted shares with the prices public investors pay for shares that have been registered with the Securities and

Exchange Commission.) The Willamette study more or less corroborated the Baird study’s conclusions.

*Davis v. Commissioner*, a 1998 tax court decision, recognized the relevance of pre-IPO studies. The court found that “in determining the lack-of-marketability discount that is applicable here ... the prevaluation date data in the IPO studies are relevant and provide some insight into the price differences between stock that is freely tradable and ... is not freely tradable.”



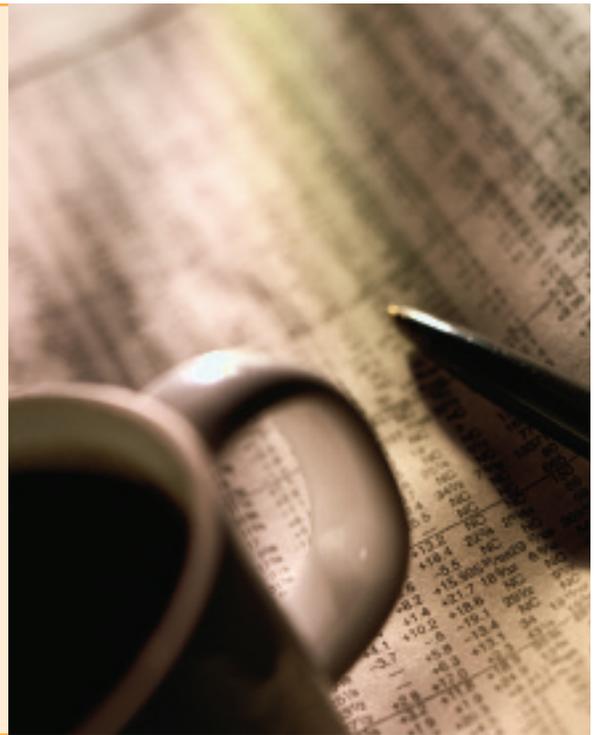
## Restricted stock studies come under scrutiny

Dr. Mukesh Bajaj, well-known for his testimony disputing the validity of pre-IPO studies in *McCord v. Commissioner*, is also an outspoken critic of restricted stock studies. Bajaj has argued that restricted stocks trade at a discount for several reasons besides lack of marketability.

One of these is the fact that private buyers of restricted stock demand a discount to compensate them for monitoring the company's performance and for providing professional advice.

A 2001 study conducted by Bajaj and several colleagues compared two types of private placements: registered and unregistered. The study found that the average discount for registered private placements was 14.04%. The unregistered shares showed an average discount of 28.18% — a significant difference.

After adjusting for other factors that might affect the size of the gap between registered and unregistered private placement discounts — including block size, business risk and placement proceeds — Bajaj concluded that the average discount attributed exclusively to marketability was only 7.23%.



### Criticism of the method

The validity of pre-IPO studies, however, has been undermined somewhat by criticism of the data supporting their use.

The Willamette Management study has been criticized by various valuation practitioners for several reasons. Because Willamette Management considers its data to be proprietary, some of it cannot be verified, including the subjects' management, redemption policies and restrictions on the transferability of stock.



The Willamette study also contains very few companies that paid dividends. Some valuation analysts believe it's difficult to analyze the correlation between dividend policy and the size of the marketability discount.

Both the Baird and Willamette studies have been criticized for implying unrealistically high returns, and for including transactions that may reflect compensation to insiders, who tend to receive shares at discounted prices.

The fact that buyers of shares prior to a public offering are likely to be insiders is a more general concern about the use of pre-IPO studies for determining marketability discounts. Also, some experts believe the discount on pre-IPO shares reflects a discount for the possible failure of the business, not just lack of marketability.

The court in *McCord v. Commissioner*, a 2003 tax court decision, rejected the use of IPO studies. Dr. Mukesh Bajaj, an expert witness testifying on behalf of the Commissioner of Internal Revenue, theorized that any IPO premium over pre-IPO prices may reflect more than just lack of marketability. Instead, he proposed private placement analysis (a variation of the restricted stock analysis).

### Determining value

The *McCord* decision has been widely criticized by valuation professionals. Many appraisers claim that while restricted stock will eventually be publicly traded, closely held shares most likely will not. Therefore, lack of marketability discounts based on restricted stock studies need to be increased when applied to closely held businesses.

Of course, an alternative to restricted stock studies is pre-IPO studies. And, many valuation experts use a combination of restricted stock studies and IPO studies, along with other sources of information. Hiring an expert who understands how to properly apply conclusions from the various studies is vital to developing a business valuation that can withstand scrutiny. ◊

# How appraisers value real estate holding entities

When determining the fair market value of closely held real estate holding entities, valuation professionals often apply discounts, or adjustments, to the value of entities for lack of control or lack of marketability.

Lack of control (or minority interest) discounts are applied when an owner has insufficient influence over the management or operations of a company. Lack of marketability discounts are applied when opportunities for selling ownership interests are limited. Both can significantly reduce the value of the interest being appraised.

## Identifying discounts

When appraisers value a real estate holding entity, they examine financial statements and operating agreements to arrive at a fair market value of the underlying assets. Next, they subtract liabilities to reach a net asset value (NAV). This number is further adjusted by applying control and marketability discounts.

Both knowing when discounts are applicable and deciding the right discount that will hold up under scrutiny are challenging. One resource valuation professionals consult is *Direct Investments Spectrum Newsletter* (formerly *The Partnership Spectrum*), published by Partnership Profiles, Inc.

Another frequently used source is data from the National Association of Real Estate Investment Trusts. Ultimately, the appropriate source to use depends on the type of entity being valued and its comparability to the underlying data in the respective source.

*Spectrum* provides information on average discounts applied to the NAVs of limited partnerships, including real estate holding companies. These price-to-value discount rates condense control and marketability adjustments into a single percentage, with ranges changing each year.

## Knowing the entity

Determining which *Spectrum* discount to use requires valuation professionals to identify the type of partnership being valued and understand such factors as its expense structure — or the financial efficiency of the partnership — and its historical investment performance.

Real estate holding entities vary widely; in fact, the only thing many have in common is the simple fact that they own real estate. The most common categories include:

**Equity — distributing, with low or no debt.** These partnerships own equity interests in income-producing real estate, such as apartments or office buildings. Operating cash distributions are made to the partners on a regular basis and the entity is not overly encumbered with debt.

**Equity — distributing, with moderate-to-high debt.** These own equity interests in income-producing real estate. They make operating cash distributions to the partners on a regular basis, but the entities are leveraged with debt.

**Equity — nondistributing.** These own equity interests in real estate, but cannot make distributions due to high debt service or property improvement funding needs.

**Undeveloped land.** These partnerships own undeveloped land for the purpose of value enhancement through rezoning, annexation and land planning prior to selling to a developer. Operating distributions are not common to this type of entity.

## Discounting trends

According to the 2003 *Spectrum*, the overall average price-to-value discount for real estate holding entities has declined steadily over the past decade. (In the past few years, however, the rate of decline has slowed, suggesting the discount rate is stabilizing.)

*Both knowing when discounts are applicable and deciding the right discount that will hold up under scrutiny are challenging.*

Why the decline? In the past decade, real estate investors have shortened their expected holding periods before liquidating. In 1993, when price-to-value discounts ranged between 46% and 48%, investors expected their holding horizon to approach eight to 10 years.

This changed in the mid- to late 1990s, when the real estate market began to recover from its slump and large, publicly held real estate partnerships began liquidating their holdings. Many real estate partnerships followed suit and sold their holdings as well, meaning investors realized a return on their investment much sooner than originally anticipated. As the risk associated with holding real estate for longer periods diminished, price-to-value discounts dropped significantly.

### Experience and judgment

Although they're different from operating entities, it's usually appropriate to apply discounts when valuing real estate holding entities; the value of an entity isn't simply the appraised value of the real estate held by it. Valuation analysts, therefore, use their experience and professional judgment to properly classify the subject entity and apply the appropriate price-to-value discount. ◇

## DCF calculations are only as good as the numbers you provide

The premise behind the discounted cash flow (DCF) method of valuing a business or project is fairly simple: It's what someone is willing to pay today for an anticipated cash flow in the future.

Unlike some other valuation methods, the DCF model factors in capital expenditures and other cash flows required to generate earnings and incorporates business risk and other business opportunities that affect value.

### Starting with solid projections

When appraisers decide to use the DCF method, they first have to gain a solid understanding of the business being valued, including its financial projections. They do this by examining its budgets and financial projections and comparing these with historical numbers, such as profit margins, net income, capital expenditures and whether the company regularly meets its sales goals.

This exercise tells them whether the business's projected results are realistic based on the past. If there are deviations between projected and historical results, the company should have a valid explanation. Appraisers otherwise risk basing their DCF calculations on misleading projections. The company's projections also need to take into account debt repayments and anticipated asset acquisitions.

The appraiser will question and test the company's results for reasonability. For example, say a company currently has sales of \$5 million, and its sales growth hasn't topped 10% in the past 10 years. Unless the company has a breakthrough innovation or a lucrative new contract, it shouldn't predict an average sales growth of 15% annually for the next five years.

Obtaining accurate projections for new or smaller companies — between \$1 million and \$25 million — can be particularly difficult. When projections are unavailable, appraisers usually must spend additional time with the company's management discussing its past financial and operational results, and future expectations.



Once a business's projections have been made and tested against historical numbers, the appraiser compares them with industry growth rates to ensure management's expectations are within reasonable ranges.

### Using the right discount rate

The appraiser chooses a specific DCF model based on the nature and purpose of the engagement, whether the business is large or small, whether it's fast- or slower-growing, and possibly other factors such as the company's profitability and competition, the economic and industry outlook, and the influence of emerging technologies.

The appraiser then selects a discount rate (which adjusts the formula for the fact that cash received at a future date has less value than cash received now) to apply to

the projected cash flows. The selection of the discount rate should reflect the expected total rate of return that the investor requires in order to commit funds to a particular investment.

Certain empirical data — such as the 20-year Treasury bond rate — is usually used as a component of the discount rate.

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Discount rates can differ significantly for the very same business, ranging from percentage rates in the low teens to more than 45%. Furthermore, even the slightest change in the discount rate can cause a significant fluctuation in the DCF's formula outcome.

Once the appraiser has cash-flow calculations and a discount rate, he or she can value future cash flows. The appraiser considers whether the resulting number makes sense based on experience valuing similar companies. When in doubt, the appraiser rechecks all of the DCF formula's underlying assumptions — including original projections and the discount rate used.

If the DCF method results are significantly more or less than the result an appraiser gets using other valuation methods, they may not be very useful.

#### Getting the best results

At the end of the day, DCF methods are only as good as the company's underlying projection assumptions. Therefore, it is important for business owners and executives to spend time preparing their company's projections and ensure their accuracy. Ultimately, this will help the appraiser provide the best assessment of the value of your business. <

## Prescription for change

### *Payment reform, managed care affect how medical practices are valued*

Traditionally, valuation professionals have relied on the analysis of historical financial and accounting statements to predict the future performance and value of a medical practice.

But recent changes in the health care industry, including payment reform, a move to managed care, industry consolidation, more stringent regulations and greater demand for services from aging Baby Boomers, may

have a significant impact on the way medical practices are valued.

#### Payment reform

Responding to continually rising health care costs, between 1992 and 1996 the Health Care Financing Administration (now the Centers for Medicare & Medicaid Services) implemented the Resource-Based Relative Value Scale (RBRVS), which dictates government reimbursement rates for health care providers. This fee schedule replaces the complicated, and as some critics claimed, inequitable, Medicare reasonable charge schedule.

In many cases, the RBRVS schedule pays lower amounts for specialist and surgical procedures than the previous system. What's more, recent changes brought about by the Medicare Prescription Drug, Improvement and Modernization Act reduce reimbursement amounts for such services as administering cancer-fighting drugs in oncologists' offices.

These developments potentially reduce the profitability of medical practices. Profitability is further being



undermined by a move toward capitation plans, which reimburse health care providers by paying a fixed amount for each enrolled member — regardless of the actual services provided. Practices with patient visits that exceed that contractual reimbursement rate can lose money.

For these reasons, a practice's past performance may not be the best indicator of future results. Valuation professionals need to stay abreast of new regulations and other developments affecting provider reimbursement to better predict cash flows.

### Antikickback regulations

Antikickback regulations that prohibit medical practices from receiving payments for Medicaid and Medicare patient referrals are also affecting medical practice appraisals. Government agencies may now conduct a fraud investigation when the transactional value of a practice exceeds the fair market value of its hard assets.

This is particularly necessary when a practice is being bought by a nonprofit. If the IRS considers a purchase price irregular, it could threaten to revoke the nonprofit's tax-exempt status.

### *A medical practice's past performance may not be the best indicator of future results.*

Appraisers must, therefore, identify a medical practice's goodwill — or its intangible assets that contribute to the success of the practice. This ensures the value of the practice doesn't reflect inducements for referrals of services reimbursable under state or federal health care programs.

To substantiate the value of intangible assets, valuation professionals either calculate: 1) the future income that can be derived from the asset, or 2) the cost of replacing or reproducing the asset. For example, a non-compete covenant might be valued by analyzing the projected cash flow from fee-for-service and capitation contracts. Or, the value of patient records might be appraised by determining the cost of creating and maintaining them.



### Goodwill disputes

In recent divorce, tax and bankruptcy cases, the way medical practices' personal goodwill (goodwill resulting from the personal efforts of the individual) is valued has become a particularly contentious issue.

In some states, courts presiding over divorce cases have held that both personal goodwill and practice goodwill (which is attached to the business enterprise) are divisible marital assets. Other jurisdictions have found that personal goodwill is a nonmarital asset because it represents future earning capacity from practice goodwill — a distinguishable and divisible marital asset.

### A fairly valued practice

Valuing a medical practice is challenging — mainly due to the recent changes to our nation's health care system. But appraisers with a thorough understanding of health care legislation and regulations and economic factors influencing practices can help ensure that the medical practice in question is fairly valued. ◊

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