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VENTURE CAPITAL FINANCING IN THE  
COMPUTER INDUSTRY  

by DUNCAN M. DAVIDSON  
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* The authors recently published a book entitled ADVANCED LEGAL STRATEGIES  
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Lawyers and other advisors to companies in the computer industry will be increasingly faced with financial issues. Until recently, the most common issue would have been how to finance the acquisition of computer products, particularly how to structure a lease. With the explosion of venture capital financing, practitioners now face the issue of financing entrepreneurial companies. The rise in venture capital financing has been largely caused by the creation of a "safe-harbor" for private placements under Securities and Exchange Commission ("SEC") Regulation D (formerly SEC Rule 146), the creation of an "out" into the public markets under SEC Rule 144, the lowering of long-term capital gains rates by tax reductions in 1978 and 1981, and by notable investment successes. In today's mobile, entrepreneurial,

high technology environment, this issue often presents itself in connection with financing a start-up operation. This Article provides an overview of many of the business and legal issues involved in financing computer and software ventures.

I. VENTURE CAPITAL BUSINESS

A. CURRENT SITUATION

One would expect the venture capital industry to be relatively immune to market cycles. Common sense suggests that making serious, long-term investments in growing companies should be based on a consideration of the value of the company and its products, and not on concerns of quick liquidity. In reality, venture capital is highly sensitive to public stock markets. This sensitivity results from a number of complex factors.

When public markets become less receptive to speculative stock offerings, venture capital portfolio companies have a difficult time raising later-rounds of capital, and an even more difficult time providing liquidity for the venture capital investors. The venture funds are then left to their own devices to support their portfolio companies. This requires them to divert their assets and cash to bolster their investments, which limits their ability to make new investments. When the “window” for speculative initial public offerings disappears, many portfolio companies are unable to raise additional capital, and eventually go bankrupt. Because it is difficult to predict how long such a period will last, many venture funds withdraw further from new investments in order to retain additional cash reserves.

In recent years, venture capital funds have been largely capitalized by investments from pension funds, insurance companies, large corporations, and similar financial institutions. When public markets are weak, these institutions tend to refrain from investing, both in venture capital funds and the later-stages of venture capital deals. Thus, a domino effect occurs. Later-round institutions withdraw from investing, the public market window is no longer available for further capital, and the venture capital companies withdraw from further investing to support their own investments.

The old adage that the way to make money in equities is to “buy low—sell high” seems to be inapplicable to venture capital investing. During periods of speculative stock markets, there is much more venture money available, and valuations of companies are bid up to higher levels. Conversely, when venture money is scarce, valuations can be

VENTURE CAPITAL FINANCING

quite low, but deals are not being made. Perhaps the venture business
is based upon the notion of "buy high—sell higher."

In reality, much of the above scenario is exaggerated. Venture capi-
talists still make investments between the periods of speculative stock
offerings, and later-stage companies still obtain additional capital.
When the public market window closes, it does not close completely,
but acts as a sieve with fine gradation, allowing only the highest quality
deals to filter through. Similarly, when venture capitalists become
gloomy, they too act as a sieve, allowing only the highest quality deals
through. Finally, substantial new capital continues to be invested in
venture funds, particularly from foreign sources, providing new sources
for later-stage financing.

Some of the types of deals that were attractive in the last few years
include artificial intelligence computers and software, robotics, optical
disks, super-minicomputers and mini-supercomputers in the realm of
number-crunching, UNIX vertical market software, and computer-aided
design, manufacture, and engineering workstations and software. More
recently, deals which have been funded include optical disk applica-
tions, medical and biotechnology, minicomputer and mainframe
software companies (as opposed to microcomputer software companies),
fast database techniques (both in software and hardware), and, most in-
terestingly, later-round investing. Now that the public market window
appears to be opening again, many funds find themselves with available
cash. These funds wish to deploy their resources quickly before valua-
tions begin to rise again.

B. TYPES OF VENTURE FINANCING

Venture investments can take a number of forms. At the seed
stage, the investment pays for refinement of ideas, demonstrations of
feasibility, marketing studies, and other preliminary analyses. An
early-stage investment pays for development of the new products and
services, establishment of a professional management team, and crea-
tion of a long-term business plan. First round investments fund initial
inventory and sales. Second and third round expansion financing sup-
port the growth of a company after it first reaches profitability. Finally,
during mezzanine investing, the investors purchase securities just prior
to the company's initial public offering. Even after going public, compa-
nies often continue to pursue private financing. In particular, off bal-
ance-sheet financing, usually raised by marketing joint ventures or
research and development partnerships, is useful for growing public
companies.

These various stages are only rough guides. In almost all cases,
venture capital sources invest in common stock, or in securities which
are convertible into common stock. In the best case, venture investing at any of these stages can achieve unusually high capital gains because equity securities of high growth companies increase in value.

Venture investing is very risky for several reasons. Company management can control cash improperly and run out of money. Raising further capital can be difficult, particularly when equity markets are as volatile as they have been recently. The product may never be perfected at an engineering level. The product may be subject to unexpected competition or become obsolete. Even if the company succeeds, the venture investors may not be able to achieve liquidity, causing the enormous paper profits of the investors to dissipate as the company fails to sustain its early promise.

Venture investing is also subject to substantial competition among venture funds. The greater availability of venture financing may have increased the number of engineers and entrepreneurs willing to create deals. This may make second and third round and mezzanine financing easier, but not without costs. There may be too much capital for too few good deals. There may not be enough candidates to provide qualified professional management. Too many resources may be allocated to trendy products, making it increasingly difficult to finance companies that do not follow the trends. Ironically, the very competence of venture funds may preclude any one company from becoming highly successful. Once a new niche is shown to be attractive through the success of one company, other companies are quickly financed to exploit it.

Because of its high risks, venture investing can provide high rewards. The highest rewards and the greatest risks come from seed and early-stage financing. Returns of over ten times the initial investment within five to seven years are possible. First, second, and third stage financing are also very risky, but less than the initial stages. Nevertheless, at these stages returns of five to ten times the investment in three to five years are plausible. Mezzanine financing has less risk, and can be structured like many other financial investments on a proven record of revenues and earnings of a company. Because of prompt public offerings, mezzanine financing can result in relatively fast returns of two to five times the initial investment within two to three years. Finally, off balance-sheet financing for large, existing companies may be the safest investment, because the venture will sell through existing channels of distribution of the company if the particular development succeeds.

C. TYPES OF INVESTORS

There are a number of different kinds of venture investors: venture capital funds; Small Business Investment Companies; private individual venture capitalists; corporate partners; and investment bankers.
1. **Venture Capital Funds**

Venture funds are recent phenomena. Over the last eight years, pension funds, insurance companies, and other financial institutions have invested billions of dollars in newly created funds that are professionally managed. Typically, the managers receive annual management fees of 2.5% of the net asset value or initial invested capital ($500,000 on a $20 million fund), and a back-end interest of 20% of all appreciation in the fund.

The type of investments these funds like to pursue varies. Most of the institutions that invest in these funds want a quantifiable return on their investment (25% per year is the long-term average for professionally managed funds). Therefore, many venture funds invest a significant percentage of their capital in later-stage financing rounds because the professional managers can better estimate the return on their investments. More recently, some early-stage-only funds have been established to try for spectacular successes. Overall, most venture funds have a mixture of early and later-stage deals.

2. **Small Business Investment Companies**

A Small Business Investment Company ("SBIC") is a special creation of the federal government. If these companies meet certain requirements, they can borrow money on a long-term payback basis from government or government-backed funds managed by the Small Business Administration ("SBA"). The SBICs reinvest the money and later sell their investments for a profit after paying back the SBA loan. If the companies have financial difficulties and cannot meet interest payments, they can often obtain additional money from the SBA. This option is usually available, although sometimes the SBA may have already allocated the pool of money for SBICs. Even in this situation, the SBA will normally refinance existing loans in a favorable way. Very few SBICs have failed.

The need to repay the SBA, or at least make interest payments, influences the types of investments an SBIC can make, and the form of those investments. The key component of an SBIC's investment portfolio is the net invested capital, not the borrowed capital. The amount which can be borrowed is a multiple of the net invested capital. Therefore, perhaps contrary to congressional intent, SBICs tend to invest in lower risk or later-stage deals. They also tend to make debt investments, which often puts an undue burden on the portfolio companies because current interest payments on debt must be made. In particular,

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6. SBIC's are licensed under the Small Business Investment Act of 1958, Pub. L. No. 85-699, § 301(c), (d), 72 Stat. 689, 691-92 (codified as amended at 15 U.S.C. § 681(c), (d)).
many SBIC portfolios include real estate or other stable types of investments that provide current cash flow. These investments often use a large part of an SBIC's capital, leaving little room for high risk venture investing.

3. Private Individuals

Private individuals are the most interesting and most eccentric venture investors. Individuals often make decisions more quickly than institutionally financed venture funds or SBICs. Venture investors can bring experience, contacts, consulting, and management abilities, as well as money, to a deal. Wealthy investors exhibit the best and the worst of these characteristics. They often became wealthy through hands-on management of venture deals, and they can apply their skills to small companies. Wealthy investors can also become more involved in a company's operations than management wishes. Finally, they rarely provide the same type of later-round support that institutional venture capitalists offer.

4. Corporate Partners

Large corporations are a category of venture investors of increasing importance. Although corporations act more slowly than other venture investors, they will take different types of risks. The performance of their investment managers is sometimes measured on a different basis than the straight return-on-investment standard used by institutional venture capitalists. Corporate partners can succeed if the venture is successfully integrated into the corporation's lines of business. Therefore, corporations often invest more as partners than investors.

Corporate partners can provide valuable support to new ventures, such as professional manufacturing assistance and existing distribution channels. As in any partnership, however, there must be good rapport between the personalities involved on both sides.

5. Investment Bankers

One final type of venture investor is the investment banker. Many investment banking houses have venture capital groups who invest for the house itself. Traditional investment bankers raise money for ventures, rather than invest their own resources. Typically, investment bankers have a large set of long-term clients that seek investments, including institutional venture capitalists and wealthy companies.

Investment banking is a very important form of venture investing. Most venture deals are structured on a syndicated basis with a number of venture capitalists investing money. The key to such deals is to find a lead investor with a significant reputation to investigate the deal, and
to make the initial decision to invest. Based on that decision and the reputation of that investor, other venture capitalists may join with minimal investigation of their own. An investment banker may act in the same capacity as a lead investor without putting up significant capital.

Investment bankers can provide services that venture capitalists cannot, such as finding sources for later-round financing, and accomplishing the initial and later public offerings. Investment bankers can also provide other financing alternatives to straight investment, such as mergers or acquisitions with major companies.

Investment bankers, however, are primarily interested in fee income from arranging placements. Thus, their focus is on later-stage deals. When a deal begins to fail, investment bankers tend to be hard to find. Unlike institutional venture capitalists, they are not motivated to lend hands-on support to help a company out of difficulties.

II. ATTRACTING VENTURE INVESTORS

A. STRUCTURE OF THE VENTURE

The structure of the entity is the initial finance issue. Good tax planning may favor the use of a structure other than a corporation. Even established companies may want to reconsider their financial structure. For example, new lines of business could be funded through off balance-sheet techniques, such as marketing joint ventures or research and development partnerships. Then, if the venture fails, the company has minimized the adverse effect on its financial statements. Also, a company should consider financing new, high growth lines of business in separate corporate structures. The separate company may be taken public independently and, because of its higher growth rate, it may receive a higher valuation than the parent company. The parent company also benefits because it receives the advantage of this higher valuation.

1. Corporation

Most companies will use the form of a corporation, rather than that of a sole proprietorship or a partnership. Corporations are formed by filing articles of incorporation with the Secretary of State of the desired

8. An unincorporated company with one owner is known as a "sole proprietorship," while an unincorporated company with two or more owners/investors is known as a "partnership" if it is an on-going business, or as a "joint venture" if it is a one-time association. Except where specifically noted, the same principles apply to each of these types of companies. See generally H. HENN & J. ALEXANDER, LAWS OF CORPORATIONS AND OTHER BUSINESS ENTERPRISES §§ 16-17 (3d ed. 1983) (discussing various forms of business entities).
state. Many advisors automatically recommend that a company incorporate. While this is usually the correct decision, it is not always so.

a. Advantages

The corporate structure has a number of advantages. Unlike a partnership, corporate founders are not personally liable for debts incurred in the business. The corporation is the traditional format for conducting business, which makes it easier to raise additional capital. It also offers desirable methods of rewarding good performance by managers, such as stock option plans. There are more options for establishing, and more flexibility in operating, pension and profit-sharing plans in corporations, compared to Keogh plans for proprietorships and partnerships.

Limited liability is a major reason for using the corporate form. Theoretically, any claims against the corporation, whether from customer lawsuits, lenders, or trade creditors, cannot reach beyond the corporate assets. In practice, lenders often require personal guarantees from major shareholders and managers for small, start-up or closely-held corporations. Nevertheless, the corporate form can limit liability from trade creditors and from products liability lawsuits.

b. Double Taxation

One of a corporation's main advantages is also a disadvantage. Income retained by the corporation is subject to taxation only at a corporate tax rate; the shareholders are not subject to taxation on the retained earnings and profits of the corporation. However, when these profits are distributed as dividends to the shareholders, they are included in the shareholders' incomes, and are subject to a second or double tax at the individuals' marginal tax rates.

Most growth companies in their early stages will not declare dividends, but will retain profits to fuel further growth. Investors receive their return on investment after the company goes public or is acquired by a larger company. Double taxation is a critical issue, however, for closely-held corporations which do not intend to go public.

c. Avoiding Taxation on Dividends

Certain techniques can avoid or minimize double taxation in a

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10. E.g., I.R.C. § 401(k) (1985). See also id. § 79 (group term life insurance plans for employees); id. § 105 (health plans); id. § 101(b) (employees’ death benefits).
closely-held corporation. If the shareholders are also managers, their salaries can be increased. Furthermore, benefits can be provided in the form of long-term loans, company cars, and other fringe benefits. Sale-leasebacks of corporate property provide rental income to the shareholders. Pension and profit-sharing plans can minimize the effects of double taxation on profits that shareholders receive.

Each of these techniques must be defensible from a reasonable business standpoint, but they give tax advisors many tax planning options. There are limits, however, on what these techniques can provide. For example, if the corporation accumulates profits above $250,000 ($150,000 for many personal service corporations), the shareholders could be subject to additional corporate taxation unless there is a strong corporate business reason for the accumulation. Thus, a dividend might be unavoidable.

Finally, as an estate planning device, the owners of a closely-held corporation can accomplish a "preferred stock recapitalization." Under this technique, shareholders divide their common stock into preferred and common stock. They then give their children non-voting common stock, thereby transferring future appreciation to them, while retaining control through the preferred stock. Because of possible adverse tax consequences, this complicated transaction should only be attempted after consultation with experienced tax counsel.

The best advice for most companies is to plan to use the corporate form. Before that decision is irrevocably made, however, it is important to discuss the desired tax and other benefits with the company's financial sources.

2. Partnership

The basic advantage of a partnership is that partners can deduct their investment currently on income tax returns to the extent the in-

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11. If the increase in the amount of salary becomes unreasonable under I.R.C. § 162(a) (1985), the Internal Revenue Service will consider the excess to be a dividend if paid to a shareholder, a gift if paid to a family member, or simply a nondeductible expense if paid to the corporation, but the excess is still income to the recipient. See, e.g., Perlmutter v. Commissioner, 373 F.2d 45, 48 (10th Cir. 1967) (disguised dividend); Harold's Club v. Commissioner, 340 F.2d 861, 866-67 (9th Cir. 1965) (unreasonable compensation non-deductible); Patton v. Commissioner, 168 F.2d 28, 29 (6th Cir. 1948) (excessive compensation was a gift).


14. See, e.g., id. §§ 401-409.

15. Id. §§ 531-537.
vestment pays for deductible expenses. In contrast, investors in a corporation cannot claim these deductions regardless of how the corporation uses the investment. This tax benefit to investors enables partnerships to raise capital in return for a smaller percentage ownership of a company. In fact, some companies start as research and development partnerships, and later change into corporations when the flow-through of expense deductions is offset by the flow-through of taxable income.

3. Personal Holding Company

An unexpected tax situation creates a problem peculiar to software companies. The federal income tax system contains the concept of a "personal holding company." Personal holding income is taxed at a penalty rate much higher than the maximum marginal tax rates of corporations (46%) and individuals (50%). By splitting income between corporate and personal income, both the individual investor and the corporation can be taxed at less than the maximum rates. The purpose of the personal holding company concept is to prevent individuals from creating corporations to insulate and split income that would normally be taxed at the higher rates.

Personal holding company income includes royalties on copyright sales, which creates a problem for software companies that market software to licensees. Small software companies, where five or fewer shareholders own more than 50% of the company, and where more than

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16. Not all expenditures of a company will be deductible. The cost to investigate a start-up company is not deductible because there is not yet a "trade or business." Ward v. Commissioner, 20 T.C. 332 (1953), aff'd, 224 F.2d 547 (9th Cir. 1955). Purchases of equipment and organizational expenses should be capitalized. See I.R.C. § 195 (1985). Ordinary business expenses are not deductible (but are considered capital or organizational expenses) until the company is a "trade or business"—a complex question. See Snow v. Commissioner, 416 U.S. 500 (1974). For start-up ventures, until actual marketing begins usually the only deduction comes from "research and experimentation" expenses under I.R.C. § 174 (1985), and amortization of organizational expenses over five years under id. §§ 195, 248 for a corporation, or id. § 709(b) for a partnership.


18. I.R.C. § 541 (1985) imposes a penalty tax equal to 50% of the undistributed after-tax profit. Thus, a possible maximum rate of 73% can result from the 46% corporate rate plus the penalty of 50% of the remaining 54% profit.


20. I.R.C. § 543(a)(4) (1985). It also includes interest; a start-up venture capital financed company might find itself to be a personal holding company from interest on unspent funds.
60% of the revenues are royalties from licenses, have the potential to become personal holding companies if they are incorporated.21

There are several ways to prevent characterization as a personal holding company. The accumulated profits can be distributed to shareholders as a taxable dividend.22 If five or fewer shareholders own more than 50% of the company, then it is not a personal holding company.23 If the corporation elects to be an S corporation, it escapes taxation as a personal holding company.24 If the business is a partnership, it also escapes characterization as a personal holding company. Finally, license fees received by a software company can be separated from installation, maintenance, and custom service charges. This separation creates non-passive (service) income, which may bring passive revenues below the 60% threshold.25

Finally, two other techniques may avoid this problem. If more than half of a company’s revenues are attributable to copyright royalties derived from products that are not developed by that company, then the company is not a personal holding company.26 This special exception in the tax law was developed for the benefit of the movie industry, but it is not limited to that industry. For example, movie distribution companies buy films made by production companies, and collect copyright royalties derived from the movies. Without the exception, this royalty income would be considered personal holding company income, and the movie distribution company would be a personal holding company. This exception could apply by analogy to the computer industry. However, it will probably apply to a software company only if the people who develop the software are not shareholders in the company. The company may need to be restructured to separate the developers from the shareholders. Because the developers are separated from the company, this may force the company to rely solely on copyright protection (not trade secret law) when licensing its products.

Similarly, if more than half of the company’s software revenues

21. Id. § 542(a).
22. Id. § 547.
23. Id. § 542(a)(2).
24. Id. § 1363(a). A software company that is an S corporation, however, may suffer another penalty tax for passive investment income, id. § 1375, and may forfeit its qualification as an S corporation if such income exceeds 25% of its gross receipts for three years; id. § 1362(d)(3). For a discussion of S corporations, see infra text accompanying notes 31-36.
25. This technique may no longer be viable in light of the IRS’s position in Letter Ruling 8450025 (while income from “installation fee” was not personal holding company income, income from a one time software license fee and annual maintenance fees were “royalties” falling within the definition of personal holding company income; no comment on custom service income).
could be characterized as rent of tangible property, the company may not be a personal holding company. To accomplish this, however, the company may need to revise some of its business practices, such as writing its software licenses in the form of software media leases. Otherwise, this strategy may fail because of an almost universal trade usage in the software industry that software is licensed, not sold or leased.

Clearly, a software company needs careful tax advice to avoid characterization as a personal holding company. Many software companies simply ignore the issue. Because they are engaged in an active business, they expect to win any fight with the Internal Revenue Service over the characterization of their royalty income as passive income. This position is bolstered by the fact that the top marginal tax rate on unearned income for individuals was lowered to 50%, which is close to the 46% maximum corporate rate. There is less reason to hide income in corporate form now that the top rates are so similar. The personal holding company tax is an unfortunate anachronism.

4. S Corporation

The third type of entity to consider is an S corporation. This type of corporation is a regular corporation which is given certain federal income tax benefits. Federal tax law allows a small company, one with fewer than thirty-five shareholders and only one class of voting stock, to elect to become an S corporation and avoid being taxed as a regular


28. These companies should review Letter Ruling 8450025, where this argument was rejected by the IRS as to a software company. This argument was unsuccessful in a different context in O’Sullivan Rubber Co. v. Commissioner, 120 F.2d 845, 847-84 (2d Cir. 1941).

29. A high income group may still be encouraged to split income by putting a small amount of income in a corporation to receive the lower tax rate (beginning at 16%) of the corporation. This does not create a tax avoidance situation of the magnitude that the personal holding company tax was designed to address.

30. “As a matter of policy it can hardly be in the national interest to discourage technology oriented business, but that is exactly what the personal holding company tax does . . . . The sense of moral outrage so prevalent in 1937 today seems a bit remote and, in zoological terms, the statute of that era begins to look more and more like a dinosaur. It seems to be a good time to take another look at the policy balance.” Morgan, supra note 19, at 272-73.

corporation. An S corporation is taxed like a partnership;\textsuperscript{32} investors receive tax deductions for their investments.\textsuperscript{33}

S corporation taxation, however, is not as flexible as partnership taxation, and is not used as often as partnerships in financing arrangements. In a partnership, tax deductions can be allocated principally to the investors, rather than managers, up to the amount of their investment.\textsuperscript{34} In an S corporation, tax deductions are allocated by stock ownership.\textsuperscript{35} Thus, the S corporation is best suited for a closely-held company, where all the shareholders contribute the same amount of money, or services of an equivalent value, for stock ownership, and expect the same types of deductions. S corporation shareholders can always elect to become a regular corporation later without any difficulty.\textsuperscript{36}

B. BUSINESS PLANS

Companies of all sizes should have a business plan, which incorporates the company's internal operating plan. The business plan is presented to outside parties in connection with future financing, while the operating plan is primarily an internal planning tool. Within well-managed, major companies, each separate division continually prepares and modifies its business plans. They are the blueprints for that division's operations over the next few months or years. Small companies should do the same.

1. Internal Operating Plan

An internal operating plan, which details company operations, is essential to a good business plan. This simple idea is often overlooked by most entrepreneurs and many managers.

The operating plan serves many purposes and is fundamental to good management. It states the objectives to be achieved, sets financial constraints for the division or company, and limits the degree to which each division can differ from the plan. The plan provides the manager with a standard to measure the implementation of goals. Most importantly, it defines the responsibilities of the various participants in the division or company.

Creating an internal operating plan is a straight-forward, but serious task. First, the goals of the company are defined. The various divisional managers must then analyze the efforts needed to accomplish

\textsuperscript{32} Id. § 1363.
\textsuperscript{33} Id. § 1366.
\textsuperscript{34} Id. § 704(b).
\textsuperscript{35} Id. § 1366.
\textsuperscript{36} Id. § 1362(d).
their particular goals. This analysis creates a large volume of back-up information on issues such as staffing, salaries, and overhead.

This back-up information is then consolidated into basic accounting statements. Although many managers define their basic constraint as expected sales volume, a better constraint for growth companies is expected capital resources. By beginning with the amount of available capital, the manager can eliminate unnecessary expenditures from the back-up information, and prepare more realistic estimates of expenses and revenues.

The most critical step in the process of developing the internal operating plan is for the manager to ask his or her subordinates for the bases for their decisions, to analyze critically these bases, and to negotiate a proper allocation given the limited resources. The manager then prepares pro forma projected future accounting statements from the negotiated decisions on proper allocation of resources.

Subsequently, a descriptive section is added to the internal operating plan to enable others to understand it. The descriptions should accurately reflect the negotiated decisions that have been made. In a marketing plan, the description states employment policies, targeted markets, the required advertising budget, and the distribution channels to be used. In a research and development plan, the description can set forth areas to be investigated, products to be developed, personnel to be hired, and capital resources required. The descriptive part of an internal operating plan is easy to write once the back-up information has been gathered and the resources have been allocated.

The final step in a business plan is to explain in more generic terms what the division or company intends to accomplish, and to generate excitement about the company’s goals. This final business plan has many uses. It can be used internally among division managers to educate their superiors; it can be used by companies as an internal plan for all employees; and it can be shown to outside sources of capital such as banks, venture capitalists, or investment bankers for public offerings.

2. Business Plan Structure

A company should view selling stock like it views selling any other product. It should conduct a market analysis, which includes targeting certain venture capitalists or other investors to determine the type of documentation they prefer to see. Once this information is known, the business plan can be structured to market the stock most effectively.

One common structure for business plans is as follows:

1. Executive summary: explain the company and its business, the market niche or unique product, the need for and use of proceeds, and the projected financial results.
2. Table of contents.
3. Company description: describe its history and distinctive elements that make the ambitious projections feasible.
4. Business: explain the nature of the business, the products, the target markets, and the competition.
5. Operating plan: set forth the internal operating plan, explaining the use of proceeds, and the research and development, marketing, and product development plans; refer to summaries of annual, quarterly, or monthly pro forma financial statements.
6. Operations: list information such as proprietary rights (such as patents), manufacturing, property, and employees.
7. Management: provide detailed resumes (or include as exhibits).
8. Financial data: financial statements for the two previous years and the present year, and three to five years' future projections.
9. Exhibits: Resumes, product pictures or brochures, and market surveys or trade articles.

3. Drafting Suggestions

Initial business plans for start-up companies are often short and have limited projections. Start-up companies should consider hiring an investment advisor (often the seed money venture capitalist) to review and revise the plan, particularly with respect to the projected use of proceeds and income. The initial plan should be written as an internal operating plan. The descriptive parts and financial projections should be correlated. The descriptive parts should be short; they are designed to explain, not to convince. If the company needs to sell the business concept, a brief section can be added to the plan with the attached exhibits. Venture capitalists will want to perceive the "heart and soul" of the entrepreneurs' plan in the document. Therefore, the plan should not read as dryly as a prospectus for a public offering.

In particular, the plan should concentrate on explaining and supporting the reasons to expect high growth and/or high returns on investment. If the plan relies on a market niche, it should include marketing surveys that explain or support the size of the niche and the lack of competition. If the plan proposes to sell a unique product, it should describe patents or other legal protections, or technological advantages, that create barriers to competitors. If the plan is based on a marketing advantage, it should describe the long-term contracts, or particular knowledge or relationships, that create the advantage.

Many venture capitalists view competent management as equally or more important than market niche or product uniqueness. Therefore, in all cases, the plan should include resumes and references that reflect managerial competence and experience in the area.

Projections of future revenues and income are necessary, but should be based on reasonable assumptions. The assumptions should be
discussed. If the business plan is based on an internal operating plan, these assumptions are easily included. The depth of the cash "well" (maximum investment before positive cash flow) can be attractively presented on a graph. In constructing market share and market segment analyses, avoid using overly simplistic assumptions. The market share and market segment concepts are related; a 1% share may actually represent a 10% or larger share if only a small segment of the market contains qualified customers.

C. SECURITIES LAWS CONSIDERATIONS

A company seeking financing should consider the impact of federal and state securities laws. Federal securities laws distinguish between two basic types of offerings: private and public. A public offering is one made to a large number of people. It must be registered with and approved by the SEC. A private offering is any non-public offering. Generally, private offerings are made to a smaller, more selective group of people than the general public, and are made in a different manner than a public offering. Private offerings do not need to registered, but they are subject to a number of other requirements that prevent them from becoming public in nature.

State securities laws also differentiate between public and private offerings, but often have a different purpose. While federal securities laws primarily seek full disclosure, state laws also seek to ensure fairness of the terms of the offering.

1. Practical Considerations

Business plans proffered to raise money are subject to securities laws. However, these plans are often exempt from public offering requirements pursuant to "safe harbor" rules such as SEC Regulation D, California Corporations Code section 25102(i), or section 4(6) of the Securities Act of 1933.

These exemptions do not require specific disclosures to institutional investors, but they do require detailed disclosures to individual investors. Prudence suggests a sliding scale of disclosure. The business plan should closely conform to securities laws requirements if less sophisticated investors are involved, or if broad solicitation of many investors is contemplated.

Attorney review is prudent when seeking investment beyond the

seed level. In addition, when seeking subsequent financing, certain boilerplate language regarding the nature of the plan should be added to the beginning of the plan, which is then called a “private placement memorandum,” and strict compliance with securities laws is necessary.

At all times distribution of the plan should be in the control of one person. The plans should be numbered, and a written log of the recipients should be kept. The entities to which the document is distributed should be limited, and subsequent redistribution by them should be restricted.

2. Federal Requirements

Most private offerings will be subject to Regulation D of the Securities Act of 1933.40 Regulation D exempts three basic types of private offerings from registration. First, SEC Rule 50441 exempts offerings of less than $500,000 that are not a solicitation to the general public, regardless of either the number of actual investors or the type of information disclosed. This means that almost any seed investment composed of family members, relatives, friends, and others is exempt from any specific federal disclosure requirements.

SEC Rule 50543 creates the second exemption to registration. This Rule applies to private offerings of $500,000 to $5 million. These offerings cannot be made to the general public. In addition, several specific requirements are added. For example, a fairly complete disclosure, similar to that required in a public offering registration statement, must be made.44 Furthermore, the maximum number of investors is limited to

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40. Regulation D consists of Rules 501-506, promulgated by the SEC pursuant to the Securities Act of 1933. 17 C.F.R. §§ 230.501-506 (1985). Regulation D rescinds several former rules. Revision of Certain Exemptions From Registration for Transactions Involving Limited Offers and Sales, 47 Fed. Reg. 11,251 (1982). Rules 501-503 give consistent definitions and procedures. Rule 504 replaces Rule 240 and increases the offering amount from $100,000 to $500,000. Rule 505 replaces Rule 242 and increases the offering amount from $2 million to $5 million. Rule 506 replaces Rule 146 and removes two subjective requirements: (i) offerees need not be “sophisticated”; and (ii) purchasers need not be able to bear the economic risk, although they then need to be sophisticated or have a purchaser representative. Rule 506 is not exclusive, and failing to comply with it or the other two options does not preclude the offeror from relying on other exemptions of the Securities Act of 1933, such as section 4(2) (Securities Act of 1933, ch. 38, § 4(2), 48 Stat. 74, 77 (codified as amended at 15 U.S.C. § 77d(2)), or section 4(6) (Small Business Investment Act of 1980, Pub. L. No. 96-477, § 602, 94 Stat. 2275, 2294, amending Securities Act of 1933, ch. 38, § 4, 48 Stat. 74, 77 (codified as amended at 15 U.S.C. § 77d(6)).


42. Anti-fraud provisions still apply, so it may be prudent to supply information to avoid material omissions or misstatements.


44. The disclosure should be the same as Part I of Form S-18 except that only the most recent year’s financial statements need to be audited. However, if obtaining audited
The broadest category of excluded investors is "accredited investors," which includes most venture capital companies. The third type of exempt offering is primarily for offerings of more than $5 million. This exemption is often used by major companies, including public companies, that issue both private and public offerings to raise capital. The key new requirement under Rule 506, in addition to those under Rule 505, is that the investors must be qualified by the company as possessing enough sophistication to understand the nature of the investment, and to bear its risks. This qualification is normally fulfilled by requiring the investors to make representations concerning their sophistication when they subscribe to the offering. Additional written disclosure is also required.

In all three cases, a Form D should be filed within fifteen days after the offering starts, every six months thereafter, and within thirty days of the date it closes.

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45. Rules 505 and 506 limit the number of investors to 35. Id. §§ 230.505-506. Rule 501, however, excludes the following purchasers from that number: (i) relatives of a purchaser or the purchaser's spouse living at the purchaser's residence; (ii) trusts or estates in which the purchaser, relatives, or controlled organizations are 50% beneficiaries; (iii) corporations or organizations in which the purchaser, relatives, trusts, or estates own 50% of the equity securities; and (iv) accredited investors. Corporations, partnerships, or other entities are counted as one purchaser if they were not organized for the purpose of investment. Id. § 230.501(e).

46. An "accredited investor" includes: (i) institutional investors (roughly: banks, insurance companies, mutual funds, business development companies, SBICs, pension funds, and university endowments, as defined); (ii) insiders, such as officers and directors of the offering company; and (iii) three types of wealthy investors: (1) a purchaser of at least $50,000 of the securities offered, if his net worth is five times the amount of his purchase; (2) a natural person with a net worth of $1 million; and (3) a natural person earning in excess of $200,000 (estimated in the year of the offering and for each of the two preceding years). Id. § 230.501(a).

47. Id. § 230.506.
48. Id. § 230.505.
49. Id. § 230.506(b)(2)(ii).
50. The disclosure is the same as is required for the applicable version of Forms S-1, S-2, and S-3 (usually S-1), except if obtaining audited financial statements requires "unreasonable effort or expense," only a balance sheet less than 120 days old need be audited. Id. § 230.502(b)(2)(i)(B). Offerings by a reporting company (already public) can use certain recent filings, such as the most recent annual report, proxy materials, and, if requested, Form 10-K, to satisfy some of the disclosure requirement. Id. § 230.502(b)(2)(i).
51. Id. § 230.503(a).
3. **State Requirements**

Offerings must also comply with state securities laws requirements. A company must comply with state laws in every state in which it actually sells stock and, in many cases, in all states in which stock is offered whether or not stock is actually sold in that state. Normally, this includes the state in which the company is located. Many states have passed securities exemptions for private placements that are similar to the federal exemptions. Thus, if the federal requirements are met, the state requirements are usually met.

Nevertheless, some states impose different requirements. In California, for example, certain additional conditions must be met, and certain investors are counted who would not be counted under Regulation D.\(^{52}\) Important differences under the California law include the following requirements.

1. **Sophistication:** California requires that all purchasers either be "sophisticated" or have a pre-existing relationship with the issuer.\(^{53}\) Rule 505 does not have either requirement.\(^{54}\) Rule 506 requires a different type of sophistication of nonaccredited purchasers.\(^{55}\)

2. **Offerees:** California law, unlike Regulation D, places a nonmandatory limitation on the nature of offerees.\(^{56}\)

3. **Integration:** California law provides a six month "safe-harbor" as does Regulation D. This provision presumes that offerings more than six months apart are separate offerings for purposes of allowing only thirty-five nonaccredited purchasers. California law,\(^{57}\) however, provides more stringent standards for avoiding integration than Rule 502(a).\(^{58}\)

4. **Notice:** California law requires only one notice to be filed thirty days after the offering is complete.\(^{59}\) Rule 503 of Regulation D requires that a Form D be filed no later than fifteen days after the first sale of securities in the offering, every six months thereafter (unless final notice under Rule 503(a)(3) has been filed), and no later than thirty days after the last sale of securities in the offer-

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55. **Id.** § 230.506(b)(2)(ii).


The notice required under California law for most venture capital private placements is the same Form D required under Regulation D.61

5. Accredited investors: although California law does not specifically define an accredited investor, it does exclude certain types of investors.62 In some cases, California's tests differ from Regulation D. For example, California law requires a person investing $150,000 or more to have a net worth more than ten times the amount invested, rather than five times as required under Regulation D.63 In addition, California law requires these accredited investors either to have a business or personal relationship with the company and its officers, or to meet certain sophistication qualifications.64 The sophistication requirement is generally met by requiring the investor to make a representation concerning requisite sophistication.

D. FINANCING SOFTWARE VENTURES

Software ventures present unique problems among high technology opportunities. These differences can make software investing treacherous. Venture capitalists must sometimes use different strategies with software ventures. Companies seeking to finance software development, and software ventures seeking funding, can take advantage of these differences.

1. Advantages

The key advantage of software ventures is that less capital investment is required to achieve the same growth, with higher margins, than many other investments. Software products have virtually no cost of goods. Theoretically, software ventures can achieve extremely high gross profits and high marginal earnings. In addition, software ventures have few development costs other than purchasing a development computer system, paying salaries, and providing work space for the programmers. There is no need to finance tooling, manufacturing facilities, and other capital costs normally associated with a hardware company. When the company begins to sell its products, there is usually no need to finance inventory.

In addition, venture capitalists can hope for a fast return on their investment in software companies. Software has a faster development cycle than most new, complicated products. Software is a more produc-

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62. Id. R. 260.102.13.
tive and efficient type of engineering. Software shares this characteristic with other recent modular technologies, including circuits built from integrated circuit chips, circuits designed with digital logic, and computers designed with plug-in boards and standard bus interfaces.

To take advantage of these opportunities one must realize that software ventures can be financed in a number of ways. In addition to creating a company around a new program, the program can be licensed to existing marketing entities. Thus, in addition to providing investors with long-term capital gains through equity appreciation, software ventures can provide capital gains through properly structured royalty arrangements. In addition to selling equity securities, the software venture can sell tax deductions to investors through research and development partnerships and marketing joint ventures. Most importantly, venture capitalists can finance software development of profitable companies as well as employees who spin-off from existing companies.

2. Risks

Despite all these advantages, software ventures present major risks. For example, most software for microcomputers has a short product life cycle. Furthermore, one of software's major advantages is also a major risk. Because a new software application can be developed rapidly, competitors are able to enter the same market just as rapidly. Also, the market may suddenly shift. Changing hardware tends to exacerbate this problem, as recently demonstrated when personal computer programmers dramatically changed their concentration from the CP/M computers to the IBM-PC. More dramatically, mistakes in protecting software can cause revenues to collapse. Although this has not yet happened, it was threatened in the recent case of Apple Computer Company, Inc. v. Franklin Computer Corp.65 In that case the lower court cast doubt on the ability of Apple to copyright its operating system software. Had it been determined that these programs could be copied with impunity, there would have been adverse effects on revenues of the software companies marketing CP/M, MS-DOS, PICK, OASIS, and various UNIX operating systems.

Another risk is that potentially high margins are misleading.66 In the free market, price is determined by competition, not by costs. The

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66. Financial statements may also be misleading. If software expenses are capitalized, earnings may be grossly inflated. If research expenses are low, earnings would be inflated, but the company may be stealing from its future. If marketing expenses are low, again inflating earnings, the company may be misunderstanding the developing software market by failing to spend much of the high profit margins to lengthen product life cycles.
fact that a product has a very low cost does not insure that margins will remain high. Low product cost could mean that entry barriers to competitors will be low. Price-cutting competition comes in all guises. For example, bundling (selling the hardware and some software in one bundled package) is again prevalent. It is difficult to sell an applications program in a market in which most customers have bought a computer system bundled with word processing, data-base management, spreadsheet, and other applications. Therefore, additional steps have to be taken to separate the applications from the pack. These steps may require additional marketing or product development expenses, thus diminishing potentially high margins.67

Finally, misconceptions about software also create risks. Software is often considered artistic, undefinable, and unpredictable. Investors, therefore, may be more concerned with a software problem than a slow period of growth caused by a hardware problem. This bias compounds the difficulty of managing a start-up venture or developing a suitable strategy for software investing.

3. Strategies To Attract Investors

Strategies to attract investors to software opportunities should not treat software ventures as unique or different, but should use existing concepts of marketing, product development, and management. One strategy is to develop new applications. The goal is to choose an application in a distinct market to avoid competition with a similar product in a highly competitive environment. Furthermore, the product must be continually improved; too much reliance on one product carries the risk that the product may become rapidly obsolete.

A second strategy is to concentrate on product positioning and to capture distribution channels. Some of the most successful ventures begin with a marketing channel. The product is developed later to solve the marketing problem. Many applications programs, particularly microcomputer programs, are best sold in mass markets in the same manner as general consumer goods. The company should heavily advertise programs, jockey for shelf space in retail computer stores, and aggressively pursue rapid capture of market share to establish a name or a standard. The company should also consider hiring professional marketing managers from marketing-oriented companies. In addition to these steps, the company should seek to be a leader in multiple distribution channels.

67. Alternatively, software companies might raise prices despite competition. Product differentiation, imperfections of market information, consumer confusion about the different features of similar software, and the high demand for software may support higher prices and restore high margins.
A recommended strategy for microcomputer software is to combine the first two strategies. A mass-marketing software company with several successful products should continue to develop other products. Fast selling new products can saturate a market in two to three years. These products continue to generate steady income, but new products or markets are necessary to sustain the company's rapid growth.

A third strategy is to create a full service software company with a line of products. This is best accomplished by selling solutions, such as vertical market accounting, for minicomputers or mainframes, but not for microcomputers. Selling hardware and providing custom programming services can stabilize revenues allowing the company to be managed to success without undue dependence on the success of any one product.

A fourth strategy is to distinguish between financing program development and creating a company. A program could be developed and sold to an existing company, or an existing company could finance new software development as a separate joint venture with the investors. This approach avoids the cost of management overhead, extensive research and development activities for follow-on products, and extensive advertising. This approach also provides the potential for quick returns because the existing company's marginal costs to sell the new product to existing customers may be low. This strategy accepts the potentially short product life cycle of microcomputer software and attempts to make profits as quickly as possible. Investors receive income sooner through royalties, instead of seeking stock appreciation. 68

A more ambitious strategy is to attempt to capture an entire new market. The advent of new system architectures may make this strategy feasible. A software company could create a fourth generation computer language which, like BASIC on microcomputers, becomes the language of choice. A company could create a data-base management system, which could be used like traditional operating systems by third parties to create additional applications. A company could also develop the operating system of the future. Once a product becomes the accepted standard, the product life cycle can be quite long.

Regardless of the strategy chosen, all software should be debugged. The high growth market is not like the old software market in which source code was provided to a user along with a list of known defects or

68. Because software is a capital asset, this strategy should still result in capital gains. If software is first licensed on a nonexclusive basis for the long-term capital gain holding period (currently six months pursuant to I.R.C. § 1222(3) (1985)), and then assigned or licensed on an exclusive basis thereafter, long-term capital gain is created. If the particular program contains patentable inventions, any assignment of the software results in immediate long-term capital gain pursuant to I.R.C. § 1235 (1985).
"bugs." Defective software will only prevent substantial growth of the investment.

III. VENTURE CAPITAL DEAL STRUCTURES

The basic deal structure normally takes the shape of the preferred stock umbrella.69 The company's founders and its management receive common stock subject to a restrictive vesting agreement; investors buy preferred stock. Preferred stock typically confers certain rights on the investor in addition to the value of the stock. The most important right is the ability to convert the preferred stock into a certain number of shares of common stock without paying additional money. Most investors wait to exercise the conversion right because preferred stock has greater value than common stock. Therefore, the company normally provides that all preferred stock automatically converts when a public offering is made.70

The basic deal structure often includes a major provision for reserving stock or stock options to future personnel. Venture capitalists are sensitive to the need for hiring and retaining competent, professional management by providing enough equity to compensate them for a reduced and uncertain salary. The preferred stock umbrella structure makes this procedure relatively easy to implement.

A. CRITERIA FOR INVESTING

A venture capital deal is usually syndicated to spread the risks and to facilitate subsequent financing. Most investors in a syndication remain passive, relying on the reputation and involvement of the lead investor. When the venture obtains adequate revenues and earnings, a public offering with a top quality underwriter is made.

The major criterion for venture capital investment is the quality of management. The other critical factors used to evaluate an investment are the business concept and operating plan, the strategic positioning of the product, the existence of large entry barriers to competitors because of some special nature of the product or patent protection, the strength and size of the market niche, and the valuation of the company based on standard financial analysis of past and projected earnings.

The traditional deal criteria do not work well with seed and early-stage investing. Perhaps as a consequence, few institutional venture capitalists concentrated in that area until recently. Management in start-up companies is often unproven or incomplete as a team. There-

69. For a detailed discussion of preferred stock umbrellas, see infra text accompanying notes 71-117.
70. For a discussion of the various rights and preferences requested by venture capitalists that receive preferred stock, see infra text accompanying notes 204-08.
fore, to judge an investment on the management criterion alone can exclude many promising opportunities. Furthermore, valuing the company is difficult because traditional financial analysis is specious for a new company entering a new market, or for a company with no earnings history. Other elements of the standard deal structure are also lacking. Syndication can be cumbersome when the seed investment is small. It is risky to remain a passive investor because of the many ways start-up ventures can fail. Nurturing a company until it can make a major public offering delays investor liquidity, and can inhibit a growing company when capital markets are volatile.

Therefore, the early-stage investment criteria are slightly different. Ideas, products, and marketing strategy are stressed, rather than the unproven, but potential, managerial talents of the founders. Professional management should be brought in as early as possible instead of relying on inexperienced entrepreneurs to apply financial controls, to structure a proper manufacturing line, or to establish a professional marketing program. Professional managers who bear some of the risks of the new venture are highly motivated to succeed.

Because it is difficult to value new companies, investors will insist on a significant ownership position regardless, to some extent, of the amount of the early-stage investment, which can vary widely depending on the company's initial financial requirements. Initial financial needs include attracting professional management, developing an organized business plan, proving the validity of the engineering ideas, and carrying the company while it seeks later-stage financing.

The seed investor is usually the sole investor. This enables the investor to act quickly, to structure a favorable deal, and to concentrate its efforts. The single seed investor, however, may have a dilemma when funding later rounds. To obtain additional capital it is often necessary to have several venture funds already involved. The participation of several funds suggests that the initial deal was sound and correctly valued. Involvement of several funds also spreads the costs of supporting a venture through troubled times. This dilemma has caused more investors to syndicate early-stage deals.

The seed investor invariably remains an active investor. It often assumes positions on the boards of its major portfolio companies and, in appropriate cases, assumes management positions in those companies.

Some seed investors use public venture financing. This approach follows the early-stage investment with a quick public offering, which acts as a venture round of finance. Often the public market's valuation of the company is higher than what private investors would offer. The public market also gives the seed investors faster liquidity.
There are many ways to finance a corporation. The alternatives should be discussed with the investors. The various choices can be compared to the following approach.

In the early stages, a growth company will have three types of shareholders: founders, who receive stock for creating the company and contributing certain ideas or products; managers, who provide services; and investors, who contribute capital. Typically, founders and managers receive common stock subject to vesting, while investors receive preferred stock. This structure creates a preferred stock “umbrella,” which has several advantages.

1. **Tax Considerations**

   Under the preferred stock umbrella structure, it is important to issue both preferred and common stock to reflect the different contributions made to the company, and to avoid adverse tax consequences. If, at the time the company is formed, all shareholders are issued the same class of stock, there may be negative tax consequences. If investors buy stock at one price, while founders and managers receive stock at a lower price, the difference in price is considered to be hidden compensation to the founders and managers for tax purposes. For example, if investors buy stock at one dollar per share and founders and managers receive stock at one penny per share, for income tax purposes the company may have given the founders and managers compensation of ninety-nine cents per share. Arguably, the company should declare this compensation as income of founders and managers. If the company wishes to deduct this amount, it should withhold both federal and state taxes, social security, and other employment taxes.

   To avoid this problem, the preferred stock umbrella structure creates a second class of stock with a higher valuation—preferred stock. Preferred stock has certain advantages over common stock, including priority to receive proceeds from the sale of assets on liquidation or sale of the company prior to any distribution of proceeds to common stock shareholders. Because of these advantages, the preferred stock is arguably worth ninety-nine cents per share more than the common stock, and thus, the tax problem is avoided. This tax problem is also minimized as the number of preferential features in the preferred stock increases, and as the time period between the issuance of cheap stock and the sale of expensive stock lengthens.

2. **Stock Vesting; Section 83(b) Election**

   Common stock purchased by founders and managers is often subject to an ownership vesting arrangement with the company. Until the
stock vests in some fashion, the company retains the right to buy it back at its issue price. A common arrangement allows ownership to vest evenly over four or five years. The investors may also require that the unvested stock be subject to a proxy in their favor and be held in escrow. This prevents founders and managers from voting their shares until they vest, and it limits their rights to own and sell their stock.

A vesting arrangement encourages founders and managers to remain with the company during the first four or five years of the company's existence to help ensure its success. In addition, if founders and managers leave prematurely or have to be replaced, this arrangement provides the company with a supply of low-priced shares to distribute to replacement personnel.

The key tax problem of vested stock arrangements is that within thirty days of the corporate transfer of the right to the stock, the shareholder must decide whether to make a section 83(b) election. Section 83 applies to stock or stock options issued to employees subject to restrictions like stock-vesting. Section 83 allows the shareholder to elect either: (1) to include as income in the year the stock is received the difference between its reduced cost and the fair market value of the stock; or (2) to recognize the appreciation of the stock at the time the stock vests in subsequent years as ordinary gain and not long-term capital gain. Shareholders who elect not to be taxed immediately on the hidden compensation gamble that the stock will not be significantly more valuable when it vests; otherwise they face potentially large tax bills—before they have sold the stock—when the vesting restrictions lapse. By electing to be taxed in the current year, the shareholder defers further taxation until the stock is sold, and preserves long-term capital gain treatment on all appreciation above the stock's initial value.

The shareholder should elect to be taxed in the current year. Under a properly created preferred stock umbrella, the stock would be issued at its market price, and there should be no additional compensation to be taxed in the current year. If the employee receives stock at below market value, he or she must report the difference as income. The employer may claim a deduction for that amount, but must also

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73. Id. § 83(b).

74. Id. § 83(a).

75. Even if there is no additional hidden compensation, the employee should still elect to be taxed in the current year. Alves v. Commissioner, 79 T.C. 864 (1982), aff'd, 734 F.2d 478 (9th Cir. 1984).
withhold employee taxes on such income.\textsuperscript{76}

3. \textit{Stock for Later Management}

Management is often brought in gradually after the initial financing is complete. If the company is succeeding, the value of the stock should be appreciating. If the company has been raising capital, it will have a higher valuation, and the value of the stock will have appreciated. Thus, common stock given to later management shareholders should have a higher price than the stock received by the original founders and managers. Otherwise, later managers would have the same tax problem encountered by the original founders and managers. The new shareholders should treat the difference in price as income in the year the stock is received. The company might have to treat the compensation as an expense against earnings and withhold taxes.

Under the preferred stock umbrella, this problem will not ordinarily arise. If the original managers receive stock at one penny per share, later managers could receive stock at ten cents per share and still receive the common stock at market value. Subsequent rounds of investors would receive preferred stock at ever-increasing prices, extending the preferred stock umbrella.

The preferred stock umbrella only creates an argument that stock issued to later managers and investors is correctly valued. There can be no assurance that the IRS would agree with this argument. Accordingly, every situation must be analyzed based on its particular facts.

4. \textit{Junior Common Stock}

The preferred stock umbrella should be effective until the company goes public by issuing stock in an initial public offering. When a company goes public, all preferred stock is usually converted to common stock, thereby removing the preferred stock umbrella. Thereafter, all stock issued to managers must either be sold at a market price that bears some relation to the public stock price, or the hidden compensation issue must be faced.\textsuperscript{77} From this time forward, managerial compensation must take a different form.

One alternative form of managerial compensation is a reverse preferred stock umbrella—a common stock umbrella. This structure involves two classes of common stock: regular common stock and junior common stock. Junior common stock is given weaker voting, dividend,


\textsuperscript{77} In this situation, one may be able to argue that the price of the common stock given to insiders, which is restricted from resale by stock vesting arrangements and federal and state securities laws, is 35\% to 60\% of the value of the stock in the public market, where no such restrictions apply.
and liquidation rights than regular common stock. Theoretically, companies could issue junior common stock to managers at values lower than that of the regular common stock without encountering a tax problem. The junior common stock would be convertible into regular common stock when the company meets certain sales or earnings goals. The junior common stock could be issued directly or under stock option plans.

However, the Financial Accounting Standards Board ("FASB") concluded that, for generally accepted accounting purposes, junior common stock did not create a common stock umbrella in all circumstances. To be effective, junior common stock must be convertible into regular common stock to enable junior common shareholders to resell their shares. The FASB also held that, at the time such conversion was "reasonably certain," the company must treat the difference between the value of the junior common stock and the value of the regular common stock as compensation to the employees. If the common stock of the company has appreciated substantially, this can create an expense against earnings. This offset against earnings, however, may hinder future appreciation of the stock, despite no change in the fundamental value of the company, because valuation is frequently calculated based on an earnings multiple.

Because earnings calculated for accounting purposes are not synonymous with taxable income, there may not be adverse income tax consequences in some situations. There may be adverse financial reporting consequences, however, which limit the ability of a fast-growing public company to receive value for its stock, and to raise additional capital in the future. Therefore, junior common stock arrangements are not recommended for fast-growing companies unless the discount is not much larger than 50% of the value of regular common stock.

5. Incentive Stock Option Plans

Other alternatives for later managerial equity compensation are various employee stock option plans. If the stock option plan qualifies under I.R.C. section 422A, it could receive favorable treatment as an incentive stock option. If the plan does not qualify, it would be treated as a non-qualified stock option with different tax consequences. Although most states follow federal law, incentive stock option plans

78. If the stock was issued at fair market value, it should be tax-free to the employee. Its subsequent conversion is most likely tax-free under I.R.C. § 1036(a) (1985). If a § 83(b) election is made upon receipt, the later gain from selling the regular common stock could be long-term capital gain.
80. Id.
may not qualify under state tax laws, particularly where the state regulations have not kept pace with changes in federal law and regulations.

a. Qualifications

A stock option must satisfy several conditions to qualify as an incentive stock option ("ISO"). The option must be granted pursuant to a plan which states the number of shares subject to options, and the employees who may receive them. The plan must be approved by the shareholders within twelve months before or after its adoption. All options under the plan must be granted within ten years from the date the plan is adopted, or the date it is approved by the shareholders, whichever is earlier. The option terms must not be longer than ten years. The option must not be transferable except on death, and must be exercised by the subsequent option holder during his or her lifetime. Each option, by its own terms, must not be exercisable while there is an outstanding ISO previously granted to that employee. Finally, the options must be granted only to employees to be exercised by them no later than three months after the termination of employment. This three month period is extended to one year if an employee is disabled, and is entirely waived in the case of death.

The ISO must also meet certain price and amount limitations. The option price must not be less than the fair market value of the underlying stock at the time the option is granted. If the option is granted to an employee who already owns more than 10% of the company's voting power, that employee cannot be issued any ISOs unless the option price is at least 110% of the stock's fair market value, and the option term does not exceed five years. The company can rely on a "safe harbor" when pricing the option if it makes a "good faith attempt" to set the option price. However, this good faith attempt rule does not extend to the pricing of options for 10% shareholders. The fair market value of all stock granted to any one employee in any one year must be no greater

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82. The requirements for an ISO are set forth in I.R.C. § 422A(b), (c) (1985), and the regulations promulgated thereunder.
84. Id. § 422A(b)(2).
85. Id. § 422A(b)(3).
86. Id. § 422A(b)(5).
87. Id. § 422A(b)(7).
88. Id. § 422A(a)(2).
89. Id. § 422A(c)(9).
90. Id. § 421(c)(1)(A).
91. Id. § 422A(b)(4).
92. Id. § 422A(b)(6), (c)(8).
93. Id. § 422A(c)(1).
than $100,000 plus any "unused limit carry-over."\textsuperscript{94} This carry-over amount is one half of any excess over $100 thousand in any year, and may be carried over for three successive calendar years.\textsuperscript{95}

\textit{b. Tax Advantages}

There are several tax advantages to ISO plans. Income is not realized upon the grant or the exercise of an ISO.\textsuperscript{96} When an ISO is exercised, however, the difference between the exercise price and the fair market value of the stock is a tax preference item subject to the 20\% alternative minimum tax ("AMT").\textsuperscript{97} If the stock acquired upon exercise of an ISO is not sold before two years after the date the option was granted, and was held at least one year after the date of exercise of the option, the gain will be taxed as long-term capital gain.\textsuperscript{98} Again, however, the net capital gain deduction upon disposition of the stock is a tax preference item subject to the AMT.\textsuperscript{99} Selling early could result in short-term gain or loss, and an expense or income item to the company, within certain limits.\textsuperscript{100}

An ISO plan may permit pyramiding. Pyramiding allows an option holder to exercise the option by exchanging previously acquired stock of the same company.\textsuperscript{101} The surrender of previously acquired stock is generally non-taxable as a like-kind exchange.\textsuperscript{102} If the surrendered stock is ISO stock, however, the exchange will not be tax free unless the two year and one year holding period requirements noted above are met at the time of transfer.\textsuperscript{103} Unfortunately, this requirement limits many of the advantages gained by pyramiding.

\textit{c. Alternative Minimum Tax}

ISO plans must be created and administered with care. An employee's exposure to the AMT because of tax preference items may create a serious problem. For example, an employee is granted an option for 100,000 shares at their then fair market value of ten cents per share

\textsuperscript{94} Id. § 422A(b)(8).
\textsuperscript{95} Id. § 422A(c)(4).
\textsuperscript{96} Id. § 421(a)(1).
\textsuperscript{97} Id. §§ 55(b)(2), 57(a)(10).
\textsuperscript{98} Id. §§ 422A(a)(1), 421(a). These holding period requirements are waived in the event of death. Id. § 421(c)(1)(A).
\textsuperscript{99} Id. §§ 55(b)(2), 57(a)(10).
\textsuperscript{100} Id. § 422A(c)(2). If stock is transferred pursuant to the exercise of an option, and the transferee disposes of the stock during the same taxable year, there is no tax preference item. Treas. Reg. § 1.57-1(f)(5)(i), T.D. 7564, 1978-2 C.B. 19.
\textsuperscript{101} I.R.C. § 422A(c)(5)(A).
\textsuperscript{102} Id. § 1036(a).
(a total exercise price of $10,000). If the stock appreciates to $10 per share, its market value is $1 million. If the employee exercises the option by payment of the $10,000, the employee would have a tax preference item equal to the difference between the market value of the stock ($1 million) and the exercise price ($10,000). This $990,000 tax preference item is taxable at the 20% AMT rate—and the taxpayer would not be able to sell the stock in that tax year to pay the AMT without disqualifying the sale for long-term gain. This is especially a problem for taxpayers attempting to shelter income who have other AMT preference income.

d. **Sequential Exercise Rule**

The sequential exercise rule also limits the usefulness of ISOs. This rule blocks the exercise of later-granted ISOs before earlier options have been exercised. Occasionally the earlier options may have a higher exercise price than later-granted ones, and a depressed stock price may make exercise of the more expensive ISOs uneconomical. Furthermore, if the original ISO was granted over an installment period, such as vesting at 20% per year for five years, and after the first year the employee is issued a second option, the second option would not be exercisable at all until all five years of the initial option had been exercised. This rule can also increase the likelihood of an AMT problem if the stock suddenly appreciates before the sequential restriction is removed.

Several strategies can be used to obtain the same vesting effect without the restrictions. All stock options could be immediately exercisable, but subject to repurchase by the company. The repurchase right could lapse 20% per year for the five years. It may also be possible for the administrator of the ISO to accelerate the vested option exercise date so that this revision is not deemed a modification. However, a modification of an ISO could be considered a grant of a new option, which may prevent the modified option from being exercised until the old option, which is no longer exercisable, expires.108

e. **Loans**

Problems can also arise if the company has loaned the employee the cash needed to exercise the ISO, or if the ISO is exercised by the employee giving a note as payment. The note given must be full recourse.106 If the note term extends beyond one year, but bears an inter-

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est rate less than approximately 9% per annum, the imputed interest rules will apply.\textsuperscript{107} The unstated interest is not considered part of the option price, and thus would cause the option price to fall below the fair market value as of the date granted. As a result, the option would no longer qualify as an ISO. Furthermore, if the ISO does not permit exercise of the option by giving a note as payment, allowing such a payment may be deemed a modification of the plan causing the blocking problem under the sequential exercise rule.\textsuperscript{108}

\textit{f. Determining Fair Market Value}

Resolution of many of these issues depends on a proper determination of the fair market value of the underlying stock at the time the option is granted. Appraisals should be conducted in connection with an ISO to establish a good faith attempt at market valuation. While these appraisals could be done internally, it is better to have several independent appraisals.

The most difficult question is the amount of discount that can be taken against the public market price in light of factors such as restrictions on the sale of private stock. A discount of at least 33% may be relatively acceptable to the IRS.\textsuperscript{109}

\textbf{6. Non-Qualified Stock Options}

All other stock option plans, including plans which do not fully comply with the ISO requirements, are non-qualified stock option plans. Non-qualified stock options are an important element in a compensation package, notwithstanding the benefits of ISOs. Non-qualified stock options are not subject to the $100,000 per year stock valuation limit for ISOs. They also do not have the sequential exercise rule problem. Perhaps most importantly for highly compensated employees, non-qualified stock options are not subject to the 20% AMT on their paper appreciation. Finally, non-qualified stock options can be granted to non-employees as well as employees.

\textit{a. Tax Considerations}

Upon the exercise of a non-qualified stock option and the acquisition of stock, the paper appreciation is taxable as ordinary income.\textsuperscript{110} The employee could attempt to make a section 83(b) election to characterize the appreciation as long-term capital gain, but the election is per-

\begin{itemize}
  \item \textsuperscript{107} I.R.C. § 483 (1985). This rate is adjusted monthly.
  \item \textsuperscript{108} Id. § 425(h). See Morris v. Commissioner, 70 T.C. 959 (1978).
  \item \textsuperscript{109} Cf. Greshen v. Commissioner, 79 T.C. 20 (1982) (taxpayer allowed to discount by 33% the value of restricted stock acquired upon exercise of a qualified stock option).
  \item \textsuperscript{110} I.R.C. § 83 (1985).
\end{itemize}
missible only if the option, when it was granted, had a readily ascertainable fair market value.\textsuperscript{111} This requirement is difficult to establish unless the option is traded in an established public market.\textsuperscript{112} The company can claim a deduction if the exercise of a non-qualified stock option creates income, but it should also withhold taxes from the employee.

\textit{b. Administrative Considerations}

Non-qualified stock options create some interesting complications. First, an option grant that meets all the requirements of an ISO will be treated as an ISO for tax purposes even if it is labeled a non-qualified stock option.\textsuperscript{113} Second, a company must establish certain procedures to be able to take the paper appreciation and compensation deductions. Specifically, the company must generally withhold 20\% of the income recognized by the employee from the employee's taxable income.\textsuperscript{114} Third, although low interest loans to the employee create an imputed interest problem, they do not disqualify a non-qualified stock option. However, low interest rate loans cause the employee to incur additional compensation income.\textsuperscript{115} More importantly, the loan must be full recourse or the stock will not be deemed to have been actually transferred to the employee until the note is paid.\textsuperscript{116} The employee then risks additional ordinary income on any appreciation in the interim. Finally, procedures to determine the fair market value of the underlying stock should be established for purposes of section 83, even if the options are not issued at that value.\textsuperscript{117}

\footnotesize
\textsuperscript{111} Id. § 83(e)(3).
\textsuperscript{112} See Treas. Reg. § 1.83-7(b)(2), T.D. 7554, 1978-2 C.B. 71, which sets forth requirements that must be met for there to be an ascertainable fair market value in the absence of a trading market.
\textsuperscript{113} Treas. Reg. § 1.422A-2(a)(1)(iv) (proposed Feb. 7, 1984) (effective for options granted after April 9, 1984). This problem can be easily avoided by making specific changes, such as setting the term of the option to 11 years rather than 10, or allowing it to be exercisable four months after termination of employment instead of only three months.
\textsuperscript{114} Treas. Reg. § 31.3402(g)-1(a)(2)(ii), T.D. 6259, 1957-2 C.B. 645, amended by T.D. 6860, 1965-2 C.B. 399, amended by T.D. 6882, 1966-1 C.B. 244. This can usually be accomplished by withholding the required amount from the employee's regular compensation, or by holding back a sufficient number of shares of stock.
\textsuperscript{115} I.R.C. § 483 (1985).
\textsuperscript{117} Such a determination is necessary when the employee exercises the option to determine the employee's taxable income, the company's compensation deduction, and the effect of a § 83(b) election, if available.
c. **Comparison to ISO**

ISOs are an important part of a growth company. This is especially true if the company outgrows the usefulness of the preferred stock umbrella, but use of junior common stock is not practical. ISOs should be established and administered by qualified personnel under the guidance of competent tax and legal counsel.

A non-qualified stock option plan is best established when some employees are better off receiving ordinary income rather than tax preference items subject to AMT. Therefore, a company may wish to have two option plans, with the ability to issue ISO or non-qualified stock options based on each employee's particular tax circumstances.

In most cases, however, the ISO remains preferable despite the AMT. It is almost always better to pay the 20% AMT rate at the time of exercise of the ISO, rather than pay the 50% ordinary income tax rate at the time of exercise of the non-qualified stock option. Although the AMT may have to be paid again at time of sale of the ISO stock, the AMT is a problem only if the employee has other tax preference income in addition to the 60% long-term capital gain deduction applicable to the sale of the ISO stock. An employee in the 50% bracket still has to pay the same 20% tax on the capital gain as on the AMT.

A non-qualified stock option has a clear advantage over an ISO only when: (1) the employer is sharing the value of its tax deduction with the employees by paying cash bonuses or other compensation; (2) the employer wishes to issue options on stock worth more than $100,000 to a particular employee; or (3) the particular employee shelters a lot of income and is vulnerable to the AMT.

C. **Tax-Advantaged Deal Structures**

An alternative to straight equity investing is the creation of a tax-advantaged deal structure. This structure passes tax deductions, losses, and credits ("tax items") through to the investors during the development stage of the venture's business. The investors take advantage of tax deductions, which lowers the cost of their invested capital and lowers the compensation the company must give in exchange for the capital. These deals usually are not tax shelters because the tax benefits to the investors are seldom more than the amount of capital invested. Investors who are at risk for borrowed capital, however, are able to leverage their investment and obtain additional write-offs.

These tax-advantaged arrangements can also provide advantages to the sponsoring company. If the venture fails, the company's capital is not at risk. The sponsor can use off balance-sheet financing, which creates no assets or liabilities on the balance sheet, and turns the research and development expense into revenue on the income statement to the
These deals can be quite complicated, and there are a myriad of alternatives in their structure, tax, and payment relationships. The following discussion is a step by step analysis of the organization of a deal, including: (1) the initial choices concerning deal structure and the resulting tax consequences; (2) alternatives for contracted research and development or marketing arrangements; (3) payment of royalties, equity, or other consideration; and (4) a general discussion of the business and deal-related issues in raising capital for a research and development partnership, or a marketing joint venture.

1. Structure

Participants in a tax-advantaged deal include: (1) the sponsoring entity, which originates the technology or looks for marketing funding (the "Sponsor"); (2) the tax-advantaged entity in which the investors will invest (the "Financing Vehicle"); (3) the investors; and (4) any additional entities that might be created between the Financing Vehicle and the Sponsor, such as a joint venture.

It is simplest to structure the Sponsor as a partnership or an S corporation, rather than a regular corporation. This is best done at the beginning of a venture, when the Sponsor is formed. The Sponsor then becomes the Financing Vehicle. Under these structures, tax items are passed through to the investors.

If the Sponsor already exists as a corporation, and it wishes to take advantage of off balance-sheet techniques, a more complex deal structure must be created. Under this structure, the Financing Vehicle is created as a separate entity. It is usually a partnership for research and development arrangements, or a joint venture for marketing financing. It could also be an S corporation. Each alternative offers advantages and disadvantages.

a. Partnership

The main advantage of a partnership as the Financing Vehicle is the allocation of tax items on a non-pro rata basis. Investors in the Financing Vehicle can be allocated most of the tax loss (typically 99%),

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118. Under FASB Statement No. 68 (Oct. 1982), Research and Development Arrangements, the sponsor must genuinely transfer substantial risk to the research and development venture, such as by not being liable to repay the funds invested or otherwise guarantee success. Situations to avoid include financing base technology of the company, so it would be virtually required to repurchase the technology to continue its business.
while the managing general partner is allocated a much lower amount (typically 1%). To achieve this allocation, the partnership must qualify as a true partnership for tax purposes. The IRS has established four basic criteria for this determination,\textsuperscript{119} and it has established guidelines under which it will issue advance rulings concerning whether an organization qualifies as a partnership for tax purposes.\textsuperscript{120} The main tests are the following.

The partnership must not have an indefinite continuity of life, which is an attribute of a corporation, but not of a partnership.\textsuperscript{121} This criterion is easy to meet. The partnership can have a specified expiration date, and it can be dissolved earlier by a vote of the limited partners.

The partnership must not have centralized management.\textsuperscript{122} Management is centralized where the owners have delegated management to a small group. A limited partnership in which the investors are allocated 80% or more of the profits, but are not managing general partners, most likely has centralized management. Research and development partnerships will fail this test. Fortunately, a company need not meet every test to be taxed as a partnership.\textsuperscript{123}

The liability of partners must not be completely limited. The IRS requires more than a provision in the partnership agreement that only limits the investors' liability, not the general partners.\textsuperscript{124} A corporation shields management as well as investors against corporate debts and other liabilities. A limited partnership must instead have a "deep-pocket" whose assets are at risk beyond the amount invested. Therefore, the general partner should have a net worth of approximately 10% to 20% of the contributed capital.

A partnership must have limited transferability of interests. Free transferability of interests is considered an attribute of a corporation.\textsuperscript{125} This test can probably be met by requiring a general partner to consent to any transfer of a partnership interest.

\textit{b. S Corporation}

Alternatively, the separate entity could be an S corporation. An S

\begin{itemize}
\item 120. Rev. Proc. 72-13, 1972-1 C.B. 735; Rev. Proc. 74-17, 1974-1 C.B. 438.
\item 123. \textit{Id.}; Rev. Proc. 74-17, 1974-1 C.B. 438.
\item 125. Treas. Reg. \textsection\ 301.7701-2(e), T.D. 6503, 1960-2 C.B. 409.
\end{itemize}
corporation is a regular corporation for all purposes except tax purposes. Under this structure, some tax items can pass through to investors as in a partnership. The main difference is that in an S corporation, the allocations must be pro rata, according to share ownership. If a significant number of shares of the S corporation are owned by management, the investors will not receive a full deduction of their investment. If the S corporation issues options instead of shares to managers, and only issues shares to the investors, then tax losses can be deducted as in a partnership.

c. Trade or Business?

An overriding issue is whether the Financing Vehicle is a trade or business. Deductions for ordinary business expenses can be taken only if an entity is already a trade or business. Similarly, the 25% per year credit for the increase in research and experimentation expenditures can only be taken by an existing business. “Start-up expenditures” ordinarily must be capitalized and amortized over at least five years. In contrast, research and experimentation expenditures can be either capitalized or expensed at the option of the taxpayer, even if the entity is just beginning. Even then, the Financing Vehicle should not remain solely a research and development venture. The IRS could attempt to recharacterize the arrangement as a disguised equity investment and end the tax benefits if there are no plans to create a trade or business.

Therefore, the type of expenditures must be carefully determined. If the expenditures fall within section 174, the Financing Vehicle can pass through deductions immediately to the investors. If the expenditures do not fall within that section, steps must be taken to create a trade or business.

One method to create a trade or business is to acquire marketing rights or full ownership of existing products of the Sponsor, and immediately market those products (by hiring the Sponsor to do the marketing). This should create a trade or business no later than when sales commence.

127. Id. § 30.
128. Id. § 195(c)(1). See Odom v. Commissioner, 44 T.C.M. (CCH) 1132, 51 T.C.M. (P-H) ¶ 82,531 (1982), aff’d, 707 F.2d 508 (4th Cir. 1983).
132. See Deputy v. DuPont, 308 U.S. 488 (1940); Blitzer v. United States, 684 F.2d 874 (Ct. Cl. 1982). But see I.R.C. § 195(c)(2) (1985) (authorizing the IRS to promulgate regulations on when a “trade or business” commences).
For tax purposes, however, the immediate deductibility of a trade or business expense could be outweighed by an allocation problem. The value of the marketing or rights acquired must be apportioned and accounted for appropriately. The purchase price normally is not a partnership expense, but a purchase of a capital asset subject to amortization or depreciation, if it is deductible at all. Therefore, some of the invested capital would not be immediately deductible. Still, there may be an investment tax credit on some of the purchased assets. Furthermore, once a trade or business is created, it may be possible to take the research and experimentation credit of 25% of the increase in research and experimentation expenditures over a base period. Finally, a technique to gain a current deduction for capital allocations is to borrow an amount equal to the capitalized items, deduct the interest, and repay the principal out of the royalty stream.

d. Allowable Deductions

Once a structure that passes tax deductions through to investors has been created, it must be determined which expenditures result in deductions. Organizational costs, such as the cost of setting up the legal structure, are not deductible; they must be amortized over a period of at least five years. Syndication costs in the sale of limited partnership interests must be capitalized, and are not amortizable. Furthermore, if fixed assets or other capital goods are acquired, rather than expenses incurred, the value of these items must be capitalized and then depreciated. If these assets are used for research and experimentation, such as in a research and development partnership, they may qualify for accelerated cost recovery over a short three year period. In some circumstances the purchase of assets may result in an investment tax credit. The investment tax credit can also be passed through to the investors, subject to certain tests and limitations.

e. Research and Experimentation

Expenditures such as developments or improvements "in the

134. I.R.C. § 30 (1985). Note, however, that if the research and experimentation expenditures relate to software, there is a similar tax credit problem, as discussed below, to obtain tax deductions under § 174, for software "the operational feasibility of which is not seriously in doubt." Treas. Reg. § 1.174-2(a)(3) (proposed Jan. 21, 1983).
136. Id. 709(a).
137. Id. § 168(c)(2)(A)(ii).
138. Id. § 46.
139. Id. § 704(b), as limited by § 46(c)(8) ("at risk" rules), § 46(e)(3) ("50/15" test).
experimental or laboratory sense" are deductible. These expenses include development of prototypes, models, plant processes, formulas, and inventions. They exclude surveys, quality control, testing, literary or historical research, and costs of acquiring inventions from third parties.140

The most difficult issue in the computer industry is how to account for the development of software. In the past, the IRS held that the cost of developing new or significantly improved software fell within the scope of section 174.141 In recently proposed amendments to the regulation, however, the IRS has taken the position that the costs of developing computer software are not research and experimentation expenditures within the meaning of section 174.142 The proposed regulation also states that although costs for new or significantly improved software fall within section 174, costs paid or incurred “for the development of software the operational feasibility of which is not seriously in doubt” are not covered.143

The language of the proposed regulation goes beyond a mere distinction between the maintenance of existing software and the creation of new software. It is doubtful the IRS meant that investors in an off balance-sheet situation for development of software can gain tax benefits on a current basis only if it is unlikely that the development effort will prove fruitful. “Operational feasibility” should not be the determining factor, rather it is marketing feasibility, or the feasibility to develop within a certain time limit and within a certain budget, that should control. Although the proposed regulation is under reconsideration, it reflects a growing risk in research and development financing of software. As software becomes more commonplace and is accepted by the business and investing community, it will be treated more like other engineering products with distinctions made between true research and simple development.

2. Contracts with the Sponsor

Once a deal structure is created, the Financing Vehicle contracts with the Sponsor to accomplish the research and experimentation and/or marketing. The Financing Vehicle can also contract with third parties or hire its own personnel for this development. The arrangement is usually structured, however, so the Sponsor can use its resources under contract to develop or market the products.

143. Id.
VENTURE CAPITAL FINANCING

The basic contracts include: a base technology license\textsuperscript{144} from the Sponsor to the Financing Vehicle; in some cases, a transfer of rights to the Financing Vehicle to market or own certain existing products; a license back to the Sponsor for any technology developed that is not directly related to the research project; a service contract with the Sponsor to do the development work and/or the marketing; and a license-and-purchase-option for the Sponsor to exploit the new products once developed, and to buy them from the Financing Vehicle.

The Financing Vehicle and the Sponsor must be treated as separate companies. Therefore, the base technology must be transferred or licensed to the Financing Vehicle. If this existing technology has a value, the investors will lose current deductions for that amount. Instead, the investors receive a capitalized amount which should be either depreciable or amortizable, depending on the nature of the rights or the technology.\textsuperscript{145} Often some consideration is paid for the license of technology in an attempt to create a low value that would not be challenged by the IRS. To create additional consideration, the Financing Vehicle will sometimes grant back a license for some of the technology that it develops. For example, the Financing Vehicle could acquire technology, develop its planned products, and license any spin-off technology back to the Sponsor. An alternative, where the value of the base technology is high enough to lessen significantly current deductions, is for the Sponsor to contribute the technology or license in a tax-free exchange for a partnership interest.\textsuperscript{146}

The Sponsor will charge a fee to accomplish the research or marketing contracts. Typically the fee equals costs plus an additional percentage as profit. After all, the parties are purporting to engage in an arms-length transaction, and an independent contractor would seek a profit on the research contract. If the profit percentage is reasonable, it would be a deductible expense which could be allocated to the investors.\textsuperscript{147} The fee could be a fixed price, in which case the Sponsor takes the risk that it has underestimated the cost to complete the development.

\textsuperscript{144} A base technology license permits the Financing Vehicle to use any technology that is the basis for the development of products, or any rights to products that are being marketed.


\textsuperscript{146} I.R.C. § 721(a) (1985).

\textsuperscript{147} \textit{Id.} § 174. If the profit percentage is unreasonably high, the parties risk recharacterization of the transaction as not being arms-length, but a disguised equity investment in, or a loan to, the Sponsor.
3. Repurchase Option: Long-Term Capital Gain?

The Sponsor will insist on an option to acquire the developed products and/or to reacquire the marketing rights. There are many complex tax and business issues that relate to this option. The option must be structured and priced high enough to make it a true option. Otherwise, the arrangement could be recharacterized as a loan or as an equity investment, and the tax advantages of the option will be lost.

Another tax advantage that investors seek is long-term capital gain on the appreciation in value of the developed technology. There are three ways to receive long-term capital gain treatment on the exercise of the option: (1) if the developed technology is patentable and certain other conditions are met;\textsuperscript{148} (2) if the acquired technology is a capital asset and is held for more than six months;\textsuperscript{149} or (3) if the option is to acquire a security, such as the limited partnership interests of the investors, rather than to acquire technology.\textsuperscript{150}

\textbf{a. Section 1235: Patentable Technology?}

Section 1235 provides an exception that permits long-term capital gain treatment for transfers of all substantial rights to patentable technology from a “holder” of the patentable invention.\textsuperscript{151} A holder is the inventor of the technology, or individuals who finance the inventor if the individuals are not the inventor’s employer or related to the inventor.\textsuperscript{152} Because a holder must be an individual, the Financing Vehicle cannot be a holder. Individual investors, however, can be holders if the Financing Vehicle is a partnership which acquires the patent rights before the invention is reduced to practice.\textsuperscript{153} Once determined to be a holder, an investor can receive immediate long-term capital gains on a further transfer of the invention, without any holding period, if the transfer of “all substantial rights” to the invention occurs after the section 1235 property is reduced to practice.\textsuperscript{154}

It may be unclear when reduction to practice occurs. The Sponsor may wish to exploit the product whether or not reduction to practice has actually occurred. Accordingly, the Financing Vehicle usually provides an interim limited license to the Sponsor, which conveys less than

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\textsuperscript{148} I.R.C. § 1235 (1985).
\textsuperscript{149} Id. §§ 1221, 1222(3), 1231.
\textsuperscript{150} Id. § 741.
\textsuperscript{151} Id. § 1235(a).
\textsuperscript{152} Id. § 1235(b), (d).
all substantial rights. Limitations on fields of use, geographic area of use, marketing, or on the term of use will probably be sufficient to convey less than all substantial rights.\textsuperscript{155}

While section 1235 concerns "patents," it is not necessary to apply for a patent or for a patent to have been issued.\textsuperscript{156} An opinion of patent counsel that the technology is patentable should be obtained, however, before entering into a research and development deal conditioned on section 1235.

\textit{b. Holding Period}

Even if section 1235 does not apply, long-term capital gain treatment is obtained if the capital asset is sold after it is held for the requisite holding period, currently six months.\textsuperscript{157} For technology, the holding period commences when the technology is reduced to practice, that is when "property" is created.\textsuperscript{158} The technology must then be held by the Financing Vehicle for at least six months before all substantial rights are sold.\textsuperscript{159}

The Sponsor is usually given an interim right to market and exploit the technology until the holding period has expired. This right can be exercised before the product is reduced to practice, although it often has little practical value until then. The interim right should continue for more than six months after reduction to practice to avoid any mistakes concerning the actual date of reduction to practice. The exploitation during the interim period must be on a limited basis to prevent a premature transfer of all substantial rights.\textsuperscript{160}

One of two types of limited arrangements are typically used: either


\textsuperscript{157} I.R.C. § 1222(3) (1985).


\textsuperscript{159} Pickren v. United States, 378 F.2d 595 (5th Cir. 1967); Rev. Rul. 64-56, 1964-1 C.B. 133.

\textsuperscript{160} Precedent under § 1235 is not clear for determining when all substantial rights have been transferred. The basic policy behind § 1235 cases is to protect a sole inventor who might be exploited by large corporations. Therefore, several exceptions for various types of limitations have been made to ensure that there was no sale of all substantial rights before reduction to practice. In contrast, in this situation the parties can be characterized as greedy investors in a partnership of questionable legitimacy, who seek to take advantage of tax laws for their own purposes. Therefore, it can be expected that there will be a higher standard to demonstrate that all substantial rights were not transferred during the interim period. Geographic limits, field of use limits, and limits on duration may not be sufficient, particularly if the limits still encompass a substantial area of marketability of the product, or substantially all of the product life cycle. Compare Treas. Reg. § 1.1235-2(b)(1), T.D. 6263, 1957-2 C.B. 570, amended by T.D. 6852, 1965-2 C.B. 289.
a non-exclusive license of limited duration with no renewal; or a joint venture of limited duration, in which the Financing Vehicle has substantial control. As a practical matter, the Financing Vehicle is not expected to attempt to exploit the technology elsewhere during the non-exclusive license period. It should have that legal right, however, because the Sponsor may fail to exercise the option or may be unable to exploit fully the technology.

c. Capital Asset?

To achieve long-term gain after the holding period, the technology must be a capital asset under sections 1221\textsuperscript{161} or 1231.\textsuperscript{162} The initial hurdle is whether the technology is "property." This is not a problem with patentable technology, which includes certain uses of computer programs.\textsuperscript{163} Trade secrets, know-how, and similar types of unpatentable technology have also been considered the correct types of property.\textsuperscript{164}

Certain types of qualified property, however, will not provide long-term gains. There are three basic tax issues: (1) whether the Financing Vehicle is in the business of inventing and, therefore, the technology is "inventory,"\textsuperscript{165} (2) whether the technology is a copyrighted work, in which case the sale of it is treated as ordinary income\textsuperscript{166} and (3) whether the deductions granted to the investors are subject to the tax benefit rule and later recaptured.\textsuperscript{167}

The first question may seem peculiar, but a research and development partnership that only develops and sells technology may truly be in the business of creating inventions.\textsuperscript{168} This is particularly possible where a number of products are being developed.\textsuperscript{169} If so, the inventions are "inventory," and sales of inventory do not receive long-term capital gain treatment.\textsuperscript{170} The Financing Vehicle in such situations, therefore, should do something different than simply develop and sell technology. For example, it could enter into a marketing joint venture

\textsuperscript{161} I.R.C. § 1221 (1985).
\textsuperscript{162} Id. § 1231.
\textsuperscript{163} Diamond v. Diehr, 450 U.S. 175 (1981).
\textsuperscript{165} I.R.C. §§ 1221(i), 1231(b)(1)(A) (1985).
\textsuperscript{166} Id. §§ 1221(3), 1231(b)(1)(C).
\textsuperscript{168} E.g., Silver v. Commissioner, 15 T.C.M. (CCH) 489, 25 T.C.M. (P-H) ¶ 56,095 (1956).
\textsuperscript{170} I.R.C. § 1221(1) (1985).
with the Sponsor to exploit products of the technology, but never sell the technology itself.

The second question relates to software. Software may be deemed a copyrightable work of authorship, which arguably is not a capital asset that provides long-term capital gain on sale.\textsuperscript{171} This result can be avoided by characterizing the development and license of software in the documentation of the deal to include patentable inventions, trade secret information, and other components that are more than a copyright interest.

The tax benefit rule would characterize gain on the sale of the technology in a research and development situation as ordinary income up to the amount of deductions taken, and capital gain thereafter. Fortunately, in planning for long-term capital gain, it should be assumed that the tax benefit rule does not apply. Until recently, in a heavily criticized position,\textsuperscript{172} the IRS argued that the tax benefit rule did apply to the sale of confidential know-how, following deductions under section 174.\textsuperscript{173} The IRS reversed its position, however, in a recent Revenue Ruling.\textsuperscript{174} Thus, deductions for research expenditures are not recaptured as ordinary income upon sale of the resulting technology.

\textit{d. Sale of Partnership Interest}

Technology can be acquired from the Financing Vehicle by directly purchasing the investors' partnership interests, or the Financing Vehicle's joint venture interest, rather than buying the technology. These interests are clearly securities that receive long-term capital gain treatment.\textsuperscript{175} Furthermore, the holding period theoretically begins when the interest is acquired, not when the technology is reduced to practice.\textsuperscript{176} The IRS could argue, however, that long-term capital gain treatment is inappropriate if the transaction was a device to transform ordinary income into capital gain, such as in the following circumstances.

Sale of a partnership or a joint venture interest provides capital gains treatment under section 741,\textsuperscript{177} unless the gain is attributable to


\textsuperscript{172} E.g., Maloof, \textit{Software and the Tax Benefit Rule}, 3 COMPUTER LAW. 38 (Dec. 1984) (arguing that the tax benefit rule should not apply to § 174 transactions).

\textsuperscript{173} Letter Ruling 8409009; G.C.M. 39162 (1983); Rev. Rul. 72-528, 1912-2 C.B. 481.


\textsuperscript{175} I.R.C. § 741 (1985).

\textsuperscript{176} \textit{But see infra} text accompanying note 175.

\textsuperscript{177} I.R.C. § 741 (1985). This rule even applies if the purchase terminates the partner-
imputed interest under section 483, or to appreciated inventory or unrealized receivables under section 751. The IRS could argue that the sale price is section 751 property to the extent of tax deductions already received. In addition, if the technology has not yet been reduced to practice, the IRS could argue that it represents inventory because it is not a capital asset. Furthermore, even if the technology has been reduced to practice, gain on a sale within six months of that date is arguably attributable to acquisition of "unrealized receivables." The proceeds from the sale of the technology directly would have been short-term capital gain, and would be treated as ordinary income.

In effect, the IRS can analyze the sale as if the Financing Vehicle assets had been sold directly. Creating intervening partnerships, such as by the Sponsor and the Financing Vehicle (1) entering into a joint venture, to which appropriate rights, capital, and technology is transferred and (2) structuring the buy-out as a purchase of the joint venture interests, does not avoid this problem.

Similarly, the sale of shares of stock in an S corporation can result in capital gains treatment unless the corporation "collapses." A corporation collapses when it was created as a device to convert an increase in value that would be ordinary income into capital gain. If an S corporation is used as the Financing Vehicle, the provision of section 341 must be carefully considered.

4. **Option Price**

There are three basic ways to pay for the exercise of the repurchase option: royalties; split of profits; or an equity interest. Often a combination of the three is used.

Royalty payments are usually a percentage of gross revenues. The percentage may be high initially and decrease as certain aggregate reve-
nue goals are met. The royalty payment may disappear entirely after a certain maximum payment is made, or after a lump-sum buy-out is made. While many royalty payments range between 6% and 10% of gross revenues, some deals have a higher initial royalty such as 20%.

If the Financing Vehicle is, or enters into, a joint venture with the Sponsor, profits instead of royalties are used. The profit split is often 50% to each party, but it can vary depending upon the deal structure.

Equity interests are usually in the form of warrants for shares of stock of the Sponsor. The warrants can be issued upon the initial structure of the deal, or upon exercise of the buy-out option. Both situations create tax allocation issues. If warrants are issued upon the initial deal structure, the value of the warrants must be allocated to part of the investors’ capital contributions. To that extent, no deductions are possible. If warrants are issued upon the exercise of the buy-out option, the value of the warrants at that time is considered part of the income received. If the transaction at buy-out results in long-term capital gain, the value of the warrants would be taxable at that rate. In both situations the warrants must be priced fairly. In addition, in the first situation the exercise of the warrants must not be conditioned on the Sponsor exercising the buy-out option, or else the whole arrangement might be recharacterized as a disguised equity investment.

Instead of warrants, stock could be issued directly at buy-out. With warrants, unless they are publicly traded, an investor must pay cash to exercise the warrants, and hold the underlying stock for at least six months after exercise to receive long-term capital gain treatment on the appreciation of that stock. These factors must be considered when pricing a deal. In contrast, although the value of the stock at the time of the buy-out (higher than the value of the warrants) would be taken as part of the long-term capital gain of the investors, the investor need not wait until after some future exercise date, but only need wait six months to receive long-term capital gain treatment of any further appreciation of the stock.

187. The allocation treats the transaction as a purchase or a security. It is a good practice to set a purchase price for the warrants—even to get an appraisal. Otherwise, their value may be established at the time of the exercise analogous to § 83 stock options. E.g., Simmonds Precision Prods., Inc. v. Commissioner, 75 T.C. 103 (1980).

188. Purchase of unexercisable warrants is evidence that the arrangement is a sham. This is particularly troubling where the percent of royalties paid on buy-out is heavily discounted due to the value of the warrants; then the transaction looks even more like a delayed equity investment. Even if the IRS fails in this recharacterization to disallow research and development deductions, it may succeed in delaying the valuation of the warrants until buy-out. This could result in the spread between the value of the stock and the exercise price of the warrants at the time of the buy-out being treated as ordinary income. Id. See also Green v. Commissioner, 83 T.C. 667 (1984) (recharacterization of research and development arrangement).
An equity interest could also be provided in a deal if the Sponsor and the Financing Vehicle contribute their assets to a new corporation in a tax-free reorganization in exchange for stock in the new corporation. This plan cannot be pre-arranged, but must be subject to a difficult decision by the Sponsor to exercise its option to reorganize. Otherwise, the IRS might recharacterize the whole arrangement as a disguised equity investment. While this plan avoids taxation at the time of the reorganization, the disadvantage is that it requires the Sponsor to recapitalize itself in a new entity. This new structure instead could be a subsidiary of the Sponsor or an affiliate.

The value of the equity interest must be discounted in these various structures from the value of a straight equity investment. First, the amount of royalties and the share of joint venture profits must be considered, based on an analysis of the present value of future cash flow. Furthermore, the value of the tax benefits, which are lost to the Sponsor and gained by the investors, must be considered. As a consequence, even in a deal structured solely for equity and not royalties, the investors usually receive 60%-80% of the amount of stock they would have received for a straight equity investment.

5. Value of Tax Deductions

Research and experimentation deductions under section 174 are a tax preference item subject to the 20% AMT. The amount of tax preference is based on amortizing the same expenditures for a ten year period. Thus, 90% of the amount of the deduction is considered a tax preference item. Many investors in these deals are not in the 50% tax bracket and could be far below the 20% bracket except for the effects of the AMT. A research and experimentation deduction actually increases the tax burden of these investors. In addition, if the deal produces long-term capital gain, the amount of the long-term capital gain deduction (60% of the appreciation) is also a tax preference item subject to the AMT.

The Sponsor has different tax consequences, depending on whether it accounts on a cash basis or an accrual basis. Under recent tax reforms, however, there are some restrictions on many of the tax devices used with these types of bases, particularly regarding prepayments.

190. Cf. Rev. Rul. 72-12, 1972-1 C.B. 735 (for tax treatment as a partnership, purchase of limited partnership interest should not entail an option to purchase securities of the corporate general partner).
192. Id. § 57(a)(6)(B)(ii).
193. Id. § 57(a)(9).
194. See infra text accompanying notes 196-200.
Generally, payments received under the research or marketing contract are considered income whether they are received on a cash basis or earned on an accrual basis.\footnote{195}{Rev. Proc. 71-21, 1971-2 C.B. 549.}

If the Financing Vehicle made an unconditional prepayment, prior tax laws permitted use of interesting tax strategies. A prepayment made on December 31, which would be entirely spent in the next calendar year, was deductible in the current year.\footnote{196}{Id.; Zaninovich v. Commissioner, 616 F.2d 429 (9th Cir. 1980).} Current law, however, limits the time period during which the prepayment is spent to three months.\footnote{197}{I.R.C. \S\ 461(i)(2) (1985).} In addition, the following issues must be considered before an unconditional prepayment can be deducted.

If the prepayment is characterized as a deposit, there would be no advanced deduction, even for a three month period. However, if the prepayment is non-refundable and a precondition of services, it may not be considered a deposit.\footnote{198}{Cheroff v. Commissioner, 40 T.C.M. (CCH) 183, 44 T.C.M. (P-H) \# 80,125 (1980).}

If the prepayment creates a material distortion of income, an advanced deduction may not be allowed.\footnote{199}{I.R.C. \S\ 446(b) (1985).} A substantial business purpose, however, vitiates any distortion.\footnote{200}{Keller v. Commissioner, 79 T.C. 7, 28-29 (1982); Van Raden v. Commissioner, 71 T.C. 1083, 1105-06 (1979), aff'd, 650 F.2d 1046 (9th Cir. 1981).} Indeed, if there is a business purpose for the prepayment, an advanced deduction may be allowed.\footnote{201}{Rev. Rul. 75-152, 1975-2 C.B. 144 (pre-paid livestock feed).}

A number of purposes will suffice, such as when the Sponsor: (1) has insufficient resources to carry the expenditures for any length of time; (2) has insufficient capital to attract qualified personnel; (3) will use the prepayment to gain credit from its suppliers; or (4) is willing to make a turnkey contract with the Financing Vehicle.

6. \textit{Deal Points}

Finally, a number of specific deal points must be considered in structuring any off balance-sheet financing. An important consideration is whether the general partner or a third party will be the Sponsor. It is not advisable for the general partner to be the Sponsor because conflicts of interest can arise. Some companies, such as Storage Technology, were caught in the middle when an off balance-sheet research effort failed. When companies caught in the middle terminate their efforts, they are subject to lawsuits. An independent general partner can mitigate these problems, but the independent general partner usually
receives a greater share of the profits of the Financing Vehicle than a sponsoring general partner. Normally, the Sponsor would receive a 1% interest; an independent general partner would receive 20% to 25%. To make the benefits to the investors equivalent, the Sponsor must forfeit an increased amount of royalties or equity.

An investor must consider the quality of the base technology. Issues to consider are: whether the technology is patentable; whether it is fully-owned by the Sponsor; whether the development is likely to fail; and whether there is a possibility of obsolescence from competitors.

The investor must also consider the quality of the company. Is the management experienced, and is the research team capable? More interestingly, is the technology being developed integral to the company’s future, or is it merely a sideline? This difference may determine whether the Sponsor will exercise its option and sell the new products. Another issue is whether the Sponsor can fully exploit the new products once developed. Finally, because research and development partnerships are used to finance start-up companies, an issue is whether these companies will have sufficient capital to produce, manufacture, and market the product.

The fundamental question is whether the project itself is well financed and well planned. Risks are always present. One way for a passive investor to minimize these risks is to invest in professionally arranged multiple pool or blind pool research and development funds.

D. Valuation

Often the most difficult part of structuring a venture deal is to determine the value of the company. The value determination can be an act of pure negotiation. Entrepreneurs, quite justifiably, overvalue their companies because they believe in what they are doing. Conversely, venture investors seek a good return on their investment.

All too often both parties will negotiate valuation using little more than speculative analyses or anecdotal comparisons to other deals. The intuition and judgment of an experienced venture capitalist usually deserves greater respect than it is granted by the entrepreneur. Haggling over a valuation based upon intuition can lead to an impasse. It is better to set an objective standard to measure the value of the company. A variety of techniques can be used.

1. Cash Flow Approach

Valuation techniques use the basic concept of finding the present value of the anticipated future cash flow to the investors. There are many variables in this analysis. In venture investing, future cash flow usually comes from selling stock. Therefore, estimates must be made.
ventures, how capital markets are doing, and how quickly liquidity can be achieved through a public offering or acquisition by a larger company.

The factors to determine present value are also uncertain. Discounting to present value requires an appropriate interest rate. In modern financial analysis, the formula to determine the proper interest rate is the sum of two variables: the interest rate of secure or risk-free investments; and the "beta" or covariance factor times the higher interest rate for speculative investments. Analysts have studied stock performance in a variety of market segments, and have established betas for many industry segments. Many new ventures, however, are targeting new markets and technologies for which the analogized betas only provide a guide.

As a consequence, a basic approach of many venture investors is to determine the market value of the company three or five years out, and discount it by the investors' internal target rate of return or "hurdle" rate. It is presumed that cash flows will soon follow. Hurdle rates tend to be in the range of 40% to 60% per year (compounded) for individual investments.

2. *Shorthand Approaches*

Many shorthands are used because of the difficulties of applying the present value analysis in this situation. The most common shorthand approach is to determine a reasonable estimate of future after-tax earnings of the company in the third or fifth year. The earnings estimate is then multiplied by a reasonable estimate of the price/earnings ratio of similar companies with publicly-traded stock. A multiplier of ten to twenty times the after-tax earnings is often appropriate for growth companies. Another good estimate of the multiplier is half of the growth rate in earnings. If the earnings double every year, the price/earnings multiplier will be fifty times.

For example, assume that in the fifth year a company's revenues are $50 million, and its after-tax earnings are $5 million. Assume the investor wants to invest $2 million, and wants an internal rate of return that will make that investment worth $20 million in the fifth year. A

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202. This formula, known as the Capital Asset Pricing Model, is expressed as follows: $r = r_f + \beta(r_m - r_f)$, where $r$ is the interest rate to be determined, $r_f$ is the current risk-free interest rate, $r_m$ is the interest rate for investments in publicly traded stocks, and $\beta$ is the beta or covariance factor. The difference $r_m - r_f$ is historically 8.3%; many financial analysts substitute this value. For an excellent discussion of the Capital Asset Pricing Model and betas, see R. BREALEY & S. MYERS, PRINCIPLES OF CORPORATE FINANCE 126-92 (2d ed. 1984).
multiplier of twenty times earnings creates an estimated $100 million valuation of the company in the fifth year. Therefore, the venture investor would want a 20% interest in the company in the fifth year (20% of $100 million is $20 million).

This percentage share is further adjusted if the company issues any other stock in those five years. Assume that in the third year the company will have to raise $5 million, and at that time the company's value is $25 million. Therefore, there will be a 25% dilution in value. In this case, the venture investor would want approximately a 25% interest in the company in the first year, which will be a 20% interest after the 25% dilution in the third year. The investor would value the company at $10 million in the first year.

A second shorthand method to value a company is to estimate revenues rather than earnings in the fifth year, divide the revenue estimate by a factor of five in a good market or seven in a bad market, and subtract from this the amount of money the company is raising. In the example above, the $50 million in revenues would become a $10 million company valuation in the first year in a good market, or $7 million in a bad market. If the company is raising $2 million in the first year, the value of the company would be $8 million, or $5 million in a bad market.

A third shorthand approach is to look at a price/earnings multiplier of first year earnings. Assume the company would have sales of $3 million, but earnings of only $100,000 at the end of the year. If the price/earnings multiplier is twenty, the company would be valued at $2 million. In a fast growing company, this method greatly undervalues the company compared to the first two methods. Growth companies tend to have very low earnings in their first few years.

A fourth shorthand method, and a more reasonable way of judging the value of a growing company, is to look at first year revenues and apply a price/sales multiplier. In volatile capital markets, this multiplier is more evenly applied to companies than a price/earnings multiplier. This multiplier also acts as a cap on unrealistic valuations. Capital markets tend to use a multiplier of no more than one to two times revenues, regardless of earnings. In that case, the value of the company in the above example would be between $3 million and $6 million.

3. Stock Price Approach

As exemplified above, shorthand methods can produce disparate results. Another approach, which is easy to use, may be the most accurate of all, although it is not related to earnings and revenue projections. This approach involves examining the price of the company's stock at
the last round of investment in the company. For an average growth company (one which would justify a twenty-times price/earnings multiplier), each round of private investment would normally be a multiple of three to five times the last round. This is a simple rule of thumb and is reasonably accurate if the last round of investing was made with a fairly solid investigation of the value of the company.

Between the seed investment and the first major round of investing, the multiplier is usually much higher, perhaps as much as ten times. This higher multiplier represents the value of successful application of research. Between the last round of private investment and the public offering, the multiplier is usually lower, perhaps only two times if the public offering occurs quickly. This reflects a more general rule that the value of restricted stock is roughly 40% to 60% of the value of publicly-traded stock.

4. **Equity Earn-Backs**

Sometimes none of these methods is useful. This is especially true for early-stage deals where revenue and earnings projections are highly speculative, and there are few or no previous rounds of investing by which to gauge valuation. An equity earn-back is a final technique to bridge the high expectations of the entrepreneurs and the cost conscious instincts of the venture investors. Under this approach, the venture investor invests according to its valuation. However, if management achieves its speculative earnings goals, it may earn back additional equity and later achieve its valuation.

E. **Investment Contracts**

Investors usually insist on a complicated investment agreement. These agreements typically describe the deal in the initial sections, contain several standard corporate clauses, and include a number of exhibits. The standard corporate clauses concern representations and warranties of the parties, closing conditions, covenants of the company, and particular rights of the venture investor. These rights usually include registration rights, anti-dilution protection, and rights of control. One common exhibit is the company's amended articles of incorporation, which describe the preferred stock used to create the preferred stock umbrella. If the investor insists that employees sign employment agreements concerning stock vesting and nondisclosure of trade secret information, an appropriate form agreement can be included as an exhibit.

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203. For a detailed discussion of equity earn-backs, see infra text accompanying notes 211-15.
1. **Representations and Warranties**

Prudent venture investors investigate a company with due diligence. Management will make representations about the company to the venture investor orally or in other documentation. Most of these representations are found in the company’s business plan or private placement memorandum. The investment agreement sets forth in writing the most important factual representations.

In this manner the agreement becomes one of the fundamental disclosure vehicles. Typically, it contains boilerplate representation language and instructs the company to list exceptions. It is a fine art for company counsel to reveal sufficient information in the exceptions schedules without compromising the company’s interests by overbreadth.

One universal representation confirms that all statements in the business plan or private placement memorandum are true and correct as of the agreement’s closing date. The investor will suspect fraud unless this representation is made. This representation is sometimes coupled with a further statement that the business plan does not contain any factual omissions needed for full disclosure by the company. The securities laws and regulations concerning the stock offering set forth standards for full disclosure. If the laws require no specific types of disclosure, such as in an offering only to accredited investors, the company should carefully examine this representation regarding omissions because it is often unclear what full disclosure means. The company can suggest that it is incumbent on the investor to ensure that full disclosure requirements are met. The usual compromise is for the agreement to define what types of omissions are “material,” and to qualify the representations “to the best knowledge” of management, provided the knowledge is attained after reasonable investigation.

A company should also request that the investors make representations to ensure that the offering and sale of the company’s stock will comply with applicable securities laws and regulations. Typical representations include that: (1) the investors are purchasing for investment and not redistribution; (2) they understand that trading of the stock will be restricted; (3) they are sophisticated and capable of evaluating the risks in this investment; and (4) they have received sufficient information about the company. If several versions of the private placement documents were distributed, the investors should further represent that they have received the final version and rely only upon it in making their investment.

Another important representation concerns the company’s capital

204. *See supra* text accompanying notes 40-51.
structure. The investor will want to know the capital structure so that the valuation and the number of shares being purchased correlate accurately. This representation is often coupled with a covenant that this capital structure will not be changed after the agreement is executed until after the closing (or in some cases, not at all unless the investors consent). A typical exception to this covenant allows changes in the capital structure for certain specific purposes, such as stock grants to new key employees.

A third important representation for a high technology company sets forth the status of its proprietary rights. A typical representation states that the company has taken all steps to perfect its interests in its proprietary information and materials, including filing patents and copyright registrations. This type of representation, however, is incomplete. A further representation states that the company has rights to conduct all its intended activities under the business plan. For example, if some of the software or technology has been acquired from someone else, the company must have all the necessary contractual rights to use them. A more comprehensive representation also sets forth the steps taken to perfect proprietary rights, rather than a simple assertion that steps have been taken. Typically, such a representation is coupled with an exhibit to the agreement, which lists the status of the various patent claims filed, the various copyright registrations and the dates they were filed, the extent of any trade secret program of the company to protect trade secret information, and the licenses of base technology from their companies.

Sometimes these proprietary rights representations include an independent opinion from patent or copyright counsel concerning the validity or enforceability of these rights, and the effectiveness of the steps taken. This has become particularly important in the highly mobile environment of some high technology communities. Key employees of a company often leave to create a new company. Lawsuits may be filed unless proper investigation is made concerning the respective rights of the old and new companies. These lawsuits occasionally name the investors, as well as the company and its employees, as parties.

2. **Conditions**

Typical closing conditions are that: (1) the proper opinions from legal counsel have been given concerning the company's authorization to enter into the investment agreement and to issue stock; (2) the representations and warranties remain true as of the closing; (3) all necessary pre-closing measures, such as filing the amended articles of incorporation, have been taken; and (4) an opinion of intellectual property coun-
sel has been obtained by the company and approved by the investors' lawyer.

3. **Covenants and Voting Rights**

   The company normally makes a number of covenants. The most important covenant is that the company will continue to do business as set forth in the business plan, or as it has previously conducted business. In other words, there will be no dramatic change in the business such as the sudden employment of other people.

   Other common covenants include financial statement disclosure monthly or quarterly, financial consulting fees, lead investor role and the right of first refusal on future financings, limits on management compensation, and the 1934 Securities Exchange Act current reporting requirements to allow use of Rule 144. Occasionally, the reporting requirements are coupled with options on management stock for failure to comply.

   Investors sometimes request additional covenants concerning rights of control. At a minimum, they will normally request rights to elect members of the board of directors in proportion to their ownership of the company. If they do not control the board of directors, the preferred stock investors typically demand a super voting right that allows them to elect a majority of the board members and assume control of the company if it fails to perform as promised. Super voting provisions can be controversial and are occasionally conceded by the investors because of the good rapport and trust between the investors and managers. Investors who have seen this rapport shattered, however, insist upon these clauses.

4. **Registration Rights**

   Registration rights require the company to register an investor's stock in a public offering. There are two basic rights: a demand right to force a public offering; and a piggy-back right to be included in a public offering.

   Underwritten registrations are costly and not always successful. To limit the risks and costs of a failed offering, a company can limit registration rights to firm underwriting public offerings. In a firm underwriting, the underwriter purchases the stock for a fixed price from the company and then resells it to its customers. Thus, the underwriter bears the risk that it priced the deal incorrectly. In such an offering, the investors request that part of their stock be bought by the underwriter in addition to the company stock offered.

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The other type of public offering is a best efforts underwriting offering, in which the underwriter promises to try to sell the stock, but with no guarantee. While an underwriter is not completely bound in either situation, the difference reflects the underwriter’s belief in the likelihood of a successful offering.

Demand rights are desired by venture investors but are seldom used. These rights allow investors to demand that a public offering be made. Companies should be concerned, however, about granting these rights. The company can usually negotiate certain restrictions on the exercise of demand rights, which gives the company some flexibility in planning and structuring the offering. Typical restrictions include the right to delay a demand up to six months. The delay may be requested by the company’s investment banker during a major corporate reorganization, such as a merger, or by the company’s board of directors because of market conditions. A demand for the initial public offering may be precluded directly, or be emasculated by requiring that a demand registration be implemented only if the company is able to negotiate a firm underwriting offering. The number of demands can be limited. A company can require forfeiture of a demand if it is later withdrawn, unless withdrawal was caused by the company’s negligence, such as issuing misleading financial reports to the selling shareholders. Finally, a company can require that the demand, or some of the demands, be made pursuant to a less expensive form of registration, such as Form S-3, if it is available.

Piggy-back registration rights are commonly granted to investors. If the company decides to register its stock in a public offering, investors can request that a certain amount of their stock be added or piggy-backed onto the offering. The company normally agrees to this request subject to cut-back: if the underwriter cannot sell all of the stock requested to be piggy-backed, the underwriter can exclude as much of the investors’ stock as it wants without preventing the sale of the company’s stock. If there are several rounds of investors, there may be several priorities of exclusion rights. It is often sensible for venture investors to agree to this condition in a growing company. The amount of capital raised by the offering is critical to the ongoing success of the company. The exclusions make a successful offering more likely.

The company normally bears most of the increased expenses of including the selling shareholders in a registration. The selling shareholders may be required to pay the expenses of a failed offering they demanded, particularly when they withdraw their demand, and for unusual expenses due to their peculiar situation or negligence.

In negotiating registration rights provisions, the company should be

206. See id. § 239.13.
aware that registration is not the only way that investors can cash out of a deal. Indeed, investors primarily sell stock in the public stock market under Rule 144.207 In general, Rule 144 allows an investor to sell an amount of stock equal to 1% of the outstanding stock in the company in any three month period.208 An investor who wishes to register less than that amount of stock does not need registration rights. Nevertheless, an investor might ask for registration rights to ensure that the best price is achieved in sales controlled by underwriters. An investor who independently sells a large block of stock could depress the stock price, a situation an underwriter can often prevent. If the company can achieve a firmly underwritten registered offering, however, it is probably adequately capitalized. As a result, it is unlikely that a sale of fewer than 1% of the outstanding shares spread over several trading days will have any appreciable effect on the market price of the stock.

5. **Anti-dilution**

Anti-dilution rights protect the investor against changes in the company's capitalization. The investor often does not control the board of directors. The board has some ability to issue new stock or to change the capital structure of the company, which could diminish or dilute an investor's ownership interest. For example, if the investors hold preferred stock, the company may decide to increase the amount of common stock available and issue it to management at a low price, thereby diluting the investors' interests.

The minimum anti-dilution provisions provide that if there is a stock dividend, stock split, recapitalization, or other rearrangement of capital, investors will retain the same percentage interest they had prior to that action.

Investors may also request price protection, so that if the company sells other securities at a lower price than that paid by the investors, the investors can take advantage of the lower price. In the extreme case, the conversion price of preferred stock ratchets down to the new price, and upon conversion the investors get the number of shares of stock they would have purchased at the lower price. In the usual case the investors get an increased amount of stock based on a weighted average determined by: (1) taking the total number of shares before the new offering multiplied by the price that the old investors paid; (2) adding the amount of money that new investors are contributing; (3) dividing by the total number of shares after the new offering. This figure

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207. *Id.* § 230.144.
208. *Id.* § 230.144(e)(1)(i). If the trading volume in the stock during the preceding four weeks exceeds 1% of the outstanding shares, the investor can sell an amount of stock up to that volume. *Id.* § 230.144(e)(1)(ii).
is the adjusted price. By dividing the adjusted price into the amount of the original investment, the result is the adjusted number of shares to which the investor is entitled.

IV. PUBLIC VENTURE FINANCING

One alternative to private venture financing is public venture financing. Public venture financing involves an early initial public offering, which acts like a venture capital round of financing. There are a number of new considerations that apply to this form of financing.

A. GENERAL CONSIDERATIONS

There are two basic approaches to financing companies. One approach is to get as much money as possible whenever one can because capital markets can be volatile. If a company fails to go public when the market is favorable, capital requirements may force it to go public when the market is hostile.

The second approach is to delay going public as long as possible because there are overhead costs associated with a public company, such as ongoing disclosure and reporting requirements. This approach also alleviates the problem of maintaining the price of the stock. Short-term decisions to promote current stock prices may result in long-term problems because of insufficient research and development, or bad planning.

Furthermore, a significant amount of venture capital is available for later rounds of financing. Seeking public venture financing is an indication of the weakness of the deal. Because the company cannot sell to sophisticated institutions, it sells to the unsuspecting public. In addition, venture capitalists provide support in ways public venture financing does not, such as facilitating further private financings and providing management consulting assistance.

Venture capital investors, as a consequence, have mixed feelings about public venture financing. It gives them quicker liquidity, but it also creates a more volatile stock pattern, and it may harm the reputations of both the company and the venture capitalist.

Once a company's reputation is tainted in this manner, subsequent attempts to place the stock with the proper institutions, or to accomplish other public and private financings with the proper underwriters and investment bankers, may be more difficult. Nevertheless, if the company is successful, it can usually attract higher quality underwriters for a subsequent financing even though the original underwriter is not of high quality.

Investors and managers are often concerned about their returns because the valuation for the public will not be as high at an early offer-
ing as it could be in several years. Still, the company may be able to raise more money publicly now than it could through private financing. The additional capital may increase gross revenues so much that by the time the company would otherwise have gone public if it had waited, the stock market may value the company even higher than it would have had the company waited—particularly if the earlier offering was initiated in a booming market. Furthermore, public investors should value the company higher than private investors. Liquidity is usually worth the value of the stock; private non-registered stock of a public company would be sold at a 40% to 60% discount from the public stock price because of restrictions on its trading and the lack of a market for it. Conversely, the price per share in a public offering may be up to twice as high as the price in a private placement among venture capitalists, which allows the founders to retain greater ownership of their company.

Public venture financing also provides a way to finance companies that venture capitalists may avoid. The venture business is trendy. Often the biggest difficulty in private venture financing is to get one venture firm to risk taking the lead on the investment. The longer it takes to find a lead investor, the more likely other investors will avoid the lead because they suspect, usually erroneously, that something makes this deal less attractive than it appears.

In conclusion, if the deal is a good one, the public venture route can provide a company with a better valuation and more money. The company can remove any stigma associated with public venture financing by good future performance. If the deal is not a trendy one, the public venture route may be the only way to obtain substantial capital. The public venture route also allows for certain techniques (described infra) that may provide for easier rounds of later financing even without venture capital support.

B. UNDERSTANDING UNDERWRITINGS

Public venture financing requires the company to understand underwriters. Underwritings of any public offering proceed best if they meet several requirements designed to allow the stock to be supported after it is sold in the offering, that is, in the after market.

One requirement is liquidity, having a sufficient trading volume or a sufficient number of shares to trade. An underwriter normally wants at least 500,000 shares or units available for trading. Penny stock underwriters take extreme measures to create a high amount of liquidity. They may offer as many as ten, twenty, or thirty million shares at the penny price. The penny price is alluring because if the stock rises to two cents, the investment has doubled.
A second requirement concerns price. Price and liquidity are related. The lower the price, the greater the number of shares available for the same offering. Prestigious initial public offerings tend to be priced around $15 per share. The New York-style of penny stocks tend to be priced around $5 per share. The Denver-style of penny stocks can be priced from a penny to $1. High technology deals are generally priced from ten cents to $1 per share. The securities sold may be structured as units rather than shares of stock. Often the New York-style cheaper stocks are priced at $5 per unit if a $5 per share price cannot be justified. The units then consist of two or three shares. This enables the underwriters to operate in their pricing range despite the low revenues or earnings of the company.

Price and volume together put limits on the type of offerings that underwriters can sell. To justify an offering of 500,000 shares at $15 per share usually requires company sales of at least $10 million and earnings of $1 million. A major underwriter has little reason to consider companies with lower revenues and earnings because they cannot accomplish their combined goals of obtaining the price and selling the number of shares offered.

Underwriters also require that the stock be placed with institutions or large investors who will not trade the stock. A good rule of thumb is to try to sell 80% of the offering to several large customers the underwriter knows will not be traders. Otherwise, too many small traders could dump the stock, causing the stock price to drop. Large traders then dump their shares, resulting in a complete collapse of the stock price. Besides looking bad, this is a major risk for an underwriter that is also supporting the stock in the after market, or that is a market-maker actually putting bids to buy and sell the stock at certain prices. If there is a run on the stock, the market-maker could buy it all back at ever-decreasing prices and end up with a very large loss.

Often the initial customers of the stock will be traders. The penny stock underwriter can do little about this fact because it lacks the resources to sell to more established institutions. A price increase of at least 20% after the opening can help take the stock away from the initial traders and place it with long-term investors. This initial appreciation signals the institutions that there is substantial interest and support behind the stock. This also indicates that the stock is well-priced. Generally, most underwriters wish to have the price rise on the opening to keep customers happy, as well as to develop interest in the stock.

In addition, if the stock offering looks solid and the price rises, the initial underwriter can usually find other companies to become market-makers, to buy and sell the stock for their own accounts at bid and ask prices close enough to create a stable and active market. Market-mak-
ers increase the support for the stock, help to keep the price up, and lower the risk to the initial underwriter. The disadvantages of public venture financing include the difficulty in obtaining a good network of market-makers, and the shallow capitalization of penny stock underwriters, which are unable to support too many bad stock offerings.

C. UNIT OFFERINGS

Public venture deals are often unit offerings. In a unit offering, the security being sold consists of a combination of other securities. Typically, the unit consists of one or two shares of common stock and one or two warrants. Investors often prefer units because they can ultimately sell the stock to recover their investment plus a small appreciation, yet retain the warrants in case the price rises dramatically.

1. Advantages

Units can justify a higher range for the security's offering price than a stock offering. For example, if the value of stock in a company will be only $1 per share, calculated by using a multiplier of twenty times earnings, there are only two possible ways to improve the stock price: (1) accomplish a reverse stock split; (2) combine the shares into units consisting of several shares. A reverse stock split creates fewer shares and, therefore, a higher price per share based on the same earnings, but it may also cause such a small number of shares to be offered that there will be poor after-market liquidity. Unit offerings also decrease the number of items being traded after the offering, but the units can later be divided into their underlying shares, which increases the volume of stock that is tradeable. This approach is usually taken where it is likely that the price will rise after the offering. The institutions that buy a $5 unit in the offering will later have stock which may be worth $3 to $5 per share after the unit is divided.

Units with warrants theoretically create several public offerings for the price of one. Assume a unit consists of one share and one warrant at a price of $2. If the warrant is exercisable at $2.50 per share, it has little initial value for the unit, and each share is effectively priced around $2. If the company retained a right to call the warrants, such as by redeeming them at a very low price, the company will redeem the stock when the price rises above the warrant's exercise price. The investors are then forced either to exercise the warrant and receive stock, or to sell the warrant to the company. Most investors want the appreciation in the stock and will exercise the warrants. Thus, the company gets two public offerings, one at $2 and one at $2.50, for about the cost of one offering.
2. Disadvantages

There are three basic disadvantages of a unit offering. First, the company has a regulatory burden to keep its offering prospectus and associated registration statement current as long as the stock to be issued upon exercise of the warrants is publicly tradeable. Thus, the company is not really getting several stock offerings for the price of one. The price of an ongoing initial offering is higher over time than it would be in a completed stock offering. Second, the warrant prices are selected in anticipation of an increase in the value of the stock, but the price may not increase gradually. If the price rises quickly, the warrant exercise price may be a bargain to the investors. The company would be left with an offering price lower than it could have commanded. Third, in most situations the warrant is eventually separated from the unit and can be traded separately, if its trading is registered. This may depress the price slightly because most investors consider a tradeable warrant to be a better investment than the stock.

Several alternatives that are infrequently used are available to improve the advantages of a unit offering. The warrant exercise price can be selected at the option of the company. However, this company control makes the unit offering less attractive to investors. The warrant can also be structured to be exercised in exchange for another unit, such as a share of stock and another warrant. The process is repeated when the second warrant is exercised. The result is a never-ending offering because the investor will always have an unexercised warrant. The price for the new remaining warrant can be set at the time the company redeems all outstanding old warrants. If the company ever wants more liquidity, it could always issue two warrants as part of one of the later units.

D. Equity Earn-Backs

Valuation negotiations in a public venture financing are often more like valuation negotiations in venture capital deals than normal public offerings. The company going public often has no appreciable record of earnings or growth. Therefore, traditional financial analyses are inapplicable. One consequence is that the company's valuation may be in-

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209. Rule 415(a)(1)(iii), 17 C.F.R. § 230.415(a)(1)(iii) (1985). The company should include an undertaking in its registration statement to amend the registration statement annually, such as in connection with filing Form 10-K under the 1934 Act as companies with publicly-traded stock are required to do. See Regulation S-K, item 512(c), id. § 229.512(c). Concerning the issue whether companies must actually print prospectuses each year, see Rule 174, id. § 230.174. See infra note 231 and accompanying text.

210. An interesting legal question is whether this approach creates an equity shelf-offering which is outside the boundaries of of Rule 415, 17 C.F.R. § 230.415 (1985).
flated, particularly if it knows that public valuations tend to be higher than private valuations.

Some public venture underwriters overcome this problem by using equity earn-backs. Equity earn-backs give management the ability to earn a greater equity share of the company if it meets its optimistic earnings projections. Thus, the public offering can be accomplished at the low valuation sought by the underwriter without undue objection by management, yet management can obtain a greater share if it performs as well as it expects.

The equity earn-back can be structured in a variety of ways. Several classes of preferred stock can be created, one for each of the target years. If management meets a target year's earnings, the preferred stock is convertible into common stock. If management misses its target, the stock is redeemable by the company at a very low price.

The same result can be accomplished by using junior common stock, warrants, or other options. Options are slightly less desirable to managers because the holding periods under Rule 144,211 and for long-term capital gain treatment,212 do not begin until the option is exercised. In contrast, the period that convertible preferred stock is held can be added to the holding period of the common stock received.213 Furthermore, the exercise of the option may create a taxable event similar to the conversion of junior common stock,214 unless the options are properly created to avoid this result, such as through an incentive stock option plan.

An interesting legal question arises at this point. Earnings projections are not traditionally included in a prospectus. The SEC has tried to encourage inclusion of projections by promulgating safe harbor regulations,215 but few issuers have used these provisions. An equity earn-back, however, must be disclosed in the "Description of Securities" section of the prospectus. Therefore, any diligent investor who reads the prospectus thoroughly will see very optimistic future earnings projections in the guise of an equity earn-back. This may cause a legal prob-

211. Id. § 230.144(d)(1).
214. Because junior common stock is often valued lower than common stock (whereas preferred stock is often valued higher than common stock), an accounting problem can arise through the use of junior common stock. If the conversion of junior common stock into regular common stock is deemed to be hidden compensation to managers, managers then have to include in their income the difference between the value of the junior common stock and the value of the regular common stock. Similarly, the company has to include this difference as payment of compensation, which is a deduction against its earnings (depressing the stock price). In addition, the company should withhold the proper amount of taxes. See infra text accompanying notes 77-80.
lem, especially if the negotiation of the equity earn-back was made with knowledge that the earnings projections were overly optimistic, and with knowledge that the underwriter would advise its customers to read the earnings projections in the prospectus.

E. Securities Laws Considerations

A public offering requires an additional level of attention and care. Typically, an underwriter is chosen to handle the offering, although an underwriter is not essential. Legal costs are substantially higher. Legal costs for private placements are approximately $20,000 to $40,000, whereas public offering costs are over $100,000. Accounting costs will also increase because the financial detail required in a public offering, and the liability of the public accounting firm, are heightened. Finally, the process of going public takes a longer time than a private placement, and requires greater attention and care by the company.

1. Preparation

Public offerings should be planned in advance. The company should have its financial statements certified by a major public accounting firm before the offering. Otherwise, at the time of the offering, the accountants may have to review several prior years to certify all statements. The company should also make sure its articles of incorporation and bylaws have been properly approved and filed, that minutes of all shareholder and board meetings have been properly taken, that all basic corporate actions have been approved by the board as reflected in the minutes, and that any potential problems have been solved.

In particular, the company promoters should expect to take all their ideas public. Entrepreneurs sometimes attempt to save some ideas for starting a new company later. It is better to combine all the founders' ventures before the public offering process begins. This increases the commitment of the founders to the company, and makes a successful offering more likely.

The hardest step in a public offering is to convince the underwriter to remain committed to the offering. This process is similar to finding and closing venture capitalists, except that underwriters will look for different things in a company, that is, one which can be sold to the public at a good valuation, and one with prospects which will support appreciation in the stock.

2. Prospectus

The disclosure the company has to make to investors in a prospect-
tus is similar to the Regulation D disclosure,\textsuperscript{216} except that more complete financial disclosure is required. A number of additional items must be included in the registration statement filed with the SEC, such as contracts and other exhibits.\textsuperscript{217} The SEC tends to review prospectus disclosures more carefully than Regulation D disclosures. Companies are strictly liable for any misstatements in a registration statement.\textsuperscript{218} Company officers and directors are also liable unless they show that they acted reasonably and with due diligence in investigating all statements in the registration statement.\textsuperscript{219}

3. Selling Restrictions

\textit{a.} Gun-Jumping

While the registration statement is in the drafting stage, the company must take great pains not to jump the gun; that is, not to notify anyone that it is contemplating the offering, or to attempt to prepare the market for the offering. The company can continue its normal product announcements, and displays at business and trade shows, but it must strictly avoid any activities relating to the sale of stock other than answering factual questions about the company.\textsuperscript{220}

\textit{b.} Waiting Period

During the waiting period, after filing the registration statement and before its approval by the SEC, securities offers can occur, but they must occur in a controlled environment. Essentially, nothing should be said at any meetings with potential investors that is not more fully expressed in the preliminary prospectus.\textsuperscript{221} These preliminary meetings normally occur throughout the country in meeting halls where the company makes a presentation explaining the company's business. The preliminary prospectus is then distributed and questions are answered.

The company's attorneys will be in constant communication with the SEC during the waiting period to make any necessary changes and

\textsuperscript{216} Id. §§ 230.501-.506.
\textsuperscript{217} Cf. id. § 230.502(b)(2).
\textsuperscript{218} Securities Act of 1933, ch. 38, § 11(a), 48 Stat. 74, 82 (codified as amended at 15 U.S.C. § 77k(a)).
\textsuperscript{219} Id. § 11(b)(3)(A), 48 Stat. 74, 82 (codified as amended at 15 U.S.C. § 77k(b)(3)(A)).
to ensure approval of the registration statement. The underwriter's attorneys, or sometimes the company's attorneys, will also be in contact with the state securities commissioners in the states in which the public offering will be held. Approval must be obtained from the state commissioners as well as the SEC. The state commissioners often impose additional requirements on offerings, which can require more attorney time than SEC approval.

By the time the registration statement is approved by the SEC, the underwriter usually knows whether it has sold the deal. If the underwriter has to reprice the deal, or if the deal is in great demand and the underwriter wants to issue more shares, the approved registration statement can be amended.

c. Cooling-Off Period

The company should avoid making any major discretionary announcements for ninety days after the effectiveness of the registration statement (the cooling-off period). The underwriters that sell the stock, and the underwriters that will follow the stock in the after-market, want a controlled, stable market, not a speculative market. Essentially, the company should be prepared not to make any major changes in its management or business plan during this period to avoid upsetting the market. If any changes are made in management or the business plan, or in the terms of the stock offering, the registration statement and the prospectus must be amended, and the offering may have to be withdrawn.

4. Ongoing Regulatory Burden

Following the cooling-off period, the company will have continuing regulatory obligations to the SEC. It must file Form SR, which explains how the proceeds of the offering were spent. It must file a financial statement for its quarterly performance on Form 10-Q. Whenever a major change in the company occurs, it must file a Form 8-K explaining the change. Every year the company must file audited financial statements and a description of the company's business and

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227. Id. §§ 240.13a-1, 240.15d-12, 249.308a.
228. Id. §§ 240.13a-1, 240.13a-11, 240.15d-1, 240.15d-11, 249.308.
acts during the year on Form 10-K. This annual filing is often done in connection with the annual report of the company, although the annual report of the company can be in a different form and need not comply with SEC requirements. If the company desires to solicit proxies of shareholders who will not attend the annual meeting of shareholders, the company must issue specific disclosures before the meeting concerning the subjects of the vote. In addition, if the company’s stock offering includes convertible securities, such as warrants, the company must keep the registration statement current by amending it annually.

5. **Insider Trading**

The company’s officers and directors, and shareholders who own more than 10% of its stock (“affiliates”), are constrained in their trading activities. The stock they receive in private offerings cannot be sold in public markets except under specific circumstances pursuant to Rule 144. The stock cannot be sold for the first two years it is held, unless it is part of the registration of securities. Thereafter, stock can only be sold in small amounts. The amount sold in each quarter typically must be less than 1% of the total amount of outstanding securities of the company. In contrast, people who receive stock from private offerings who were not affiliates in the past three months are entitled to sell their stock with impunity in public markets after holding it for three years.

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229. *Id.* § 249.310.


232. Restricted securities, such as those acquired in a Regulation D offering or those held by officers, directors, and 10% shareholders, cannot be sold absent registration except under Rule 144 or in private transactions otherwise exempt from registration. 17 C.F.R. § 230.144 (1985).

233. *Id.* § 230.144(d)(1).

234. *Id.* § 230.144(e). The amount which can be sold under Rule 144 in any three month period has been increased recently to the greater of one percent of the outstanding shares of the company or the average weekly trading volume during the preceding four weeks. *Id.*

235. Most restrictions under Rule 144 have been removed for non-affiliates who have held the stock for three years. *Id.* § 230.144(k). Because of this, it makes sense that all shareholders (including founders and employees) contractually agree not to trade their...
In addition, the affiliates cannot sell and purchase the company's securities within any six-month period. If they do, they could be subject to a claim of taking profits based on inside information, even if they did not rely on any inside information. The affiliates can sell several times in a six-month period, or buy several times in a six-month period, but they cannot buy and sell, or sell and buy, within a six-month period.

Finally, company insiders, including but not limited to affiliates, are precluded from using inside information to make purchases of securities. This is a controversial area, and the standards are not yet clear, but essentially any person privy to nonpublic information, and under an express or implied obligation to keep it secret, should not purchase or sell securities until that information is released to the public.

6. Due Diligence

Attorneys, accountants, and consultants for the underwriter will make certain investigations of the company in connection with a public offering. The company's attorneys should also make these investigations. Investigations should be conducted with due diligence, and are often called "due diligence investigations."

Initially, the attorneys will investigate the corporate actions. The articles of incorporation and the bylaws must be in proper form, and corporate acts must comply with them. Minutes of shareholder meetings must reflect proper authorization for major corporate actions. Board meeting minutes must reflect board authorization for necessary corporate action, including the actions necessary to make the public offering. If these documents are deficient, the company must ratify past actions through the proper authority of either the shareholders or the directors. Finally, all aspects of the registration statement will be investigated to ensure it is not misleading and does not omit any material information.

An abbreviated checklist for these investigations is as follows:

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stock within 90 days of the closing of a public offering by the company. Otherwise, it might be troublesome to find an underwriter where a large "overhang" exists of potential stockholders who might dump their stock during and just after a public offering, thereby lowering the price.


1. Check corporate minutes for proper elections of directors and officers, and actions such as loans, leases, compensation plans, and stock issuance. Look for any management or accounting problems that might be recorded in the minutes.

2. Determine the good standing of the corporation by reviewing the most recent articles of incorporation and any filed stock declarations, and comparing them to actions taken by the directors and the shareholders. Request certified copies of these documents, including a long-form good standing certificate. Also consider requesting certificates of compliance from appropriate taxing authorities, and evidence of qualification to do business, such as good standing certificates, in all states where the company transacts interstate business (typically where company maintains facilities or offices).

3. Ascertain any shareholder rights or restrictions, such as cumulative voting rights, preemptive rights, rights of first refusal, anti-dilution rights, registration rights, and proxy and voting rights. Determine whether all shares are validly issued, purchased, and accounted for. Be sure necessary permits were obtained. Note that if a company is located in California, even if it is incorporated in another state, California "pseudo-corporation" law may apply.239

4. Review major transactions, such as loans, leases, insider loans, key employee contracts, and perfection of patent, copyright, trademark, and trade secret rights.

5. Review material litigation and unasserted claims.

6. Distribute questionnaires to officers and directors.

7. Analyze financial information, such as backlog contracts.

CONCLUSION

Venture capital investing is an increasingly important aspect of a high technology lawyer's practice. The business, tax, and legal issues have only recently been fully explored. A practitioner who masters these issues can participate in the explosive, exciting, entrepreneurial revolution in the development information economy.