Legal Resource Guide for Startup Entrepreneurs

Fenwick
FENWICK & WEST LLP

Legal Resource Guide for Start-up Entrepreneurs

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About Fenwick & West LLP

For more than four decades, Fenwick & West has helped some of the world's most recognized technology and life sciences companies become, and remain, market leaders. We have represented hundreds of growth-oriented high technology companies from inception and throughout a full range of complex corporate transactions and exit strategies. Our business, technical and related expertise spans numerous technology sectors, including software, Internet, networking, hardware, semiconductor, communications, nanotechnology and biotechnology.

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Guide to Starting a Corporation

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Introduction

This guide describes certain basic considerations and costs involved in forming a Delaware or California corporation. Although Delaware and California law are emphasized, the legal concepts are much the same in other states. One important tip is that you should avoid making business decisions in a vacuum. Instead, consider how a decision may impact future alternatives. For example, an improperly priced sale of common stock to founders immediately followed by a sale of preferred stock may result in a significant tax liability to the founders. Another example is that converting a limited liability company into a corporation immediately before the business is acquired, rather than at an earlier time, may prevent the transaction from being tax-free.

This guide is only an overview, particularly as to tax issues and cannot substitute for a professional advisor's analysis and recommendations based on your individual fact situations when establishing your business.

A. Selecting the Form of Business Organization

No single factor is controlling in determining the form of business organization to select, but if the business is expected to expand rapidly, a corporation will usually be the best alternative because of the availability of employee incentive stock plans; ease of accommodating outside investment and greater long-term liquidity alternatives for shareholders. A corporation also minimizes potential personal liability if statutory formalities are followed. The characteristics of a corporation are described below, followed by an overview of other traditional forms of business organizations. Each of the following factors is described for comparison purposes: statutory formalities of creation, tax consequences, extent of personal liability of owners, ease of additional investment, liquidity, control and legal costs.

1. Corporation

A corporation is created by filing articles of incorporation with the Secretary of State in the state of incorporation. Corporate status is maintained by compliance with statutory formalities. A corporation is owned by its shareholders, governed by its Board of Directors who are elected by the shareholders and managed by its officers who are elected by the Board. A shareholder's involvement in managing a corporation is usually limited to voting on extraordinary matters. In both California and Delaware, a corporation may have only one shareholder and one director. A president/CEO, chief financial officer/treasurer and secretary are the officer positions generally filled in a startup and, in fact, are required under California law. All officer positions may be filled by one person.

The reasons for using a Delaware corporation at startup are the ease of filings with the Delaware Secretary of State in financings and other transactions, a slight prestige factor in being a Delaware corporation and avoiding substantial reincorporation expenses later, since many corporations which go public reincorporate in Delaware at the time of the IPO. Delaware corporate law benefits are of the most value to public companies. However, if the corporation's primary operations and at least 50% of its shareholders are located in California, many provisions of California corporate law may be applicable to a private Delaware corporation and such a company would pay franchise taxes in both California and Delaware. These considerations may result in such a business choosing to incorporate in California instead of Delaware. Another reason for keeping it simple and using a California corporation is the current non-existent IPO market which makes an acquisition a more likely exit for a start-up.

There is more flexibility under Delaware law as to the required number of Board members. When a California corporation has two shareholders, there must be at least two Board members. When there are three or more shareholders, there must be at least three persons on the Board. Under Delaware law, there may be one director without regard for the number of stockholders. Most Boards stay lean and mean in number as long as possible to facilitate decision-making. Since the Board is the governing body of the corporation, when there are multiple board members, a party owning the majority of the shares can still be outvoted on the Board on important matters such as sales of additional stock and the election of officers. Removing a director involves certain risks even when a founder has the votes to do so. Thus, a founder's careful selection of an initial Board is essential. You want board members whose judgment you trust (even if they disagree with you) and who can provide you with input you won't get from the management team.

A corporation is a separate entity for tax purposes. Income taxed at the corporate level is taxed again at the shareholder level if any distribution is made in the form of a dividend. The S Corporation election described below limits taxation to the shareholder level but subjects all earnings to taxation whether or not distributed. The current maximum federal corporate tax rate is 35%. The California corporate income tax rate is 8.84% and the Delaware corporate income tax rate is 8.7% but Delaware income tax does not apply if no business is done in Delaware and only the statutory office is there. There is also a Delaware franchise tax on authorized capital which can be minimized at the outset but increases as the corporation has more assets.

If the business fails, the losses of the initial investment of up to $1 million in the aggregate (at purchase price value) of common and preferred stock (so-called "Section 1244 stock") may be used under certain circumstances by shareholders to offset a corresponding amount of ordinary income in their federal income tax returns. An individual may deduct, as an ordinary loss, a loss on Section 1244 stock of up to $50,000 in any one year ($100,000 on a joint return).

If statutory formalities are followed, individual shareholders have personal liability only to the extent of their investment, i.e., what they paid for their shares. If the corporation is not properly organized and maintained, a court may "pierce the corporate veil" and impose liability on the shareholders. Both California and Delaware law permit corporations to limit the liability of their directors to shareholders under certain circumstances. The company can raise additional capital by the sale and issuance of more shares of stock, typically preferred stock when an angel or venture capitalist is investing. Though rare, the power of a court to look through the corporation for liability underscores the importance of following proper legal procedures in setting up and operating your business.

Filing fees, other costs and legal fees through the initial organizational stage usually total about $3,500 to $5,000, with a Delaware corporation being at the high end of the range.

2. Sole Proprietorship

The simplest form of business is the "sole proprietorship," when an individual operates a business on his own. The individual and the business are identical. No statutory filings are required if the sole proprietor uses his own name. If a different business name is used in California, a "fictitious business name" statement identifying the proprietor must be filed with the county clerk of the county where the principal place of business is located and published in the local legal newspaper. A sole proprietor has unlimited personal liability to creditors of his business and business income is taxed as his personal income. Because of the nature of this form of business, borrowing is the usual method of raising capital. The legal cost of forming a sole proprietorship is minimal.

3. General Partnership

When two or more individuals or entities operate a business together and share the profits, the enterprise is a "partnership." Partnerships are either general partnerships or limited partnerships (described below). Although partners should have written partnership agreements which define each party's rights and obligations, the law considers a venture of this type as a partnership whether or not there is a written agreement. No governmental filings are required for a general partnership. A partnership not documented by a written agreement is governed entirely by the versions of Uniform Partnership Act in effect in California and Delaware.

In the absence of an agreement to the contrary, each partner has an equal voting position in the management and control of the business. Each partner generally has unlimited liability for the debts of the partnership and is legally responsible for other partners' acts on behalf of the business, whether or not a partner knows about such acts.

The partnership is a conduit for tax purposes: profits (even if not distributed) and losses flow through to the partners as specified in the partnership agreement. There is no federal tax at the entity level. Some partnerships contemplate raising additional capital, but accommodating future investment is not as easy as in a corporation. The legal cost of establishing a partnership is minimal if no formal written agreement is prepared but not having a written agreement may cause disputes over the economic benefits, intellectual property and assets of the partnership. The cost of preparing such an agreement begins at about $2,000 and depends on the number of partners, sophistication of the deal and other factors.

4. Limited Partnership

This is a partnership consisting of one or more general partners and one or more limited partners which is established in accordance with the California and Delaware versions of the Uniform Limited Partnership Act. Like the corporation, this entity has no legal existence until such filing occurs. The limited partnership is useful when investors contribute money or property to the partnership but are not actively involved in its business. The parties who actively run the business are the "general partners," and the passive investors are the "limited partners." So long as the limited partnership is established and maintained according to statutory requirements, and a limited partner does not take part in the management of the business, a limited partner is liable only to the extent of his investment. Like a general partnership, however, the general partners are personally responsible for partnership obligations and for each other's acts on behalf of the partnership.

For tax purposes, both general partners and limited partners are generally treated alike. Income, gains and losses of the partnership "flow through" to them and affect their individual income taxes. A properly drafted limited partnership agreement apportions profits, losses and other tax benefits as the parties desire among the general partners and the limited partners, or even among various subclasses of partners subject to certain requirements imposed by U.S. tax law, i.e., the Internal Revenue Code (the "IRC").

5. Limited Liability Company

This form of business organization is available in Delaware and California as well as many other states. It is essentially a corporation which is taxed like a partnership but without many of the S Corporation restrictions identified below. An LLC has fewer statutory formalities than a corporation and is often used for a several person consulting firm or other small business. An LLC does not provide the full range of exit strategies or liquidity options as does a corporation. It is not possible to grant stock option incentives to LLC employees in the same manner as a corporation. Further, an acquisition of an LLC generally may not be done on a tax-free basis and the expenses of formation are higher than for forming a corporation.

B. S Corporations

A corporation may be an "S corporation" and not subject to federal corporate tax if its shareholders unanimously elect S status for the corporation on a timely basis. "S corporation" is a tax law label; it is not a special type of corporation under state corporate law. Like a partnership, an S corporation is merely a conduit for profits and losses. Income is passed through to the shareholders and is generally taxed only once. Corporate level tax can apply in some circumstances to an S corporation that previously had been a "C" corporation for income tax purposes. Losses are also passed through to offset each shareholder's income to the extent of his basis in his stock and any loans by the shareholder to the S corporation. The undistributed earnings retained in the corporation as working capital are taxed to a shareholder.

A corporation must meet certain conditions in order to be an S corporation, including the following: (1) it must be a U.S. corporation, (2) it must have no more than 100 shareholders, (3) each shareholder must be an individual, certain trusts, certain charitable organizations, employee stock ownership plans or pension plans, (4) no shareholder may be a nonresident alien, and (5) it can have only one class of stock outstanding (as opposed to merely being authorized). As a result, S corporation status will be terminated when a corporation sells preferred stock or sells stock to a venture capital partnership, corporation or to an off-shore investor.

California and Delaware recognizes the S corporation for state tax purposes, which may result in additional tax savings. California, however, imposes a corporate level tax of 1.5% on the S corporation's income and nonresident shareholders must pay California tax on their share of the corporation's California income. In addition, only C corporations and noncorporate investors are eligible for the Qualified Small Business Corporation capital gains tax break. The benefit of this tax break is that if the stock is held for at least 5 years, 50% of any gain on the sale or exchange of stock may be excluded from gross income. This benefit may not be as important because of the reduction in the capital gains tax rate.

C. Choosing a Business Name

The name selected must not deceive or mislead the public or already be in use or reserved. "Inc.," "Corp." or "Corporation" need not be a part of the name in California but must be part of a Delaware corporate name. Name availability must be determined on a state-by-state basis through the Secretary of State. A corporate name isn't available for use in California merely because the business has been incorporated in Delaware. Several alternative names should be selected because so many businesses have already been formed. Corporate name reservation fees range from approximately $10-50 per state for a reservation period of 30-60 days. Exclusive state rights in a trade name can also be obtained indefinitely through the creation of a name-holding corporation, a corporation for which articles of incorporation are filed but no further organizational steps are taken.

D. Selecting the Location for the Business

This decision is driven by state tax considerations and operational need, for example, to be near customers or suppliers or in the center of a service territory. A privately-held corporation cannot avoid California taxes and may not be able to avoid the application of California corporate law if it is operating here and has most of its shareholders here. For example, Delaware law allows Board members to be elected for multiple year terms and on a staggered basis rather than on an annual basis. A privately held corporation, however, may be able to have the benefits of these Delaware laws or any other state's corporate law if it is actually operating in California and more than 50% of its shareholders are here.

E. Qualifying to do Business in Another State

A corporation may need to open a formal or informal office in another state at or near the time of founding. This requires a "mini" incorporation process in each such state. If a California business is incorporated in Delaware it must qualify to do business in California. The consequences of failing to do so range from fines to not being able to enforce contracts entered in that state. The cost of qualifying is approximately $1,000 per state. Some states, like Nevada, also charge a fee based on authorized stock, so the fee could be higher in such states.

F. Initial Capital Structure

1. Structure

The capital structure should be kept as simple as possible and be within a range of "normalcy" to a potential outside investor for credibility purposes. A common initial structure is to authorize 10 million shares of common stock and 4 million shares of preferred stock. Not all authorized shares of common stock are sold at the founding stage. After initial sales to founders, there are usually only about 3-5 million shares issued and outstanding and about 1-2 million shares reserved in the equity incentive plan. This is referred to as the "1X model" below.

While at the outset there may not seem to be any difference between owning 100 shares or 1 million shares, a founder should purchase all of the units of stock he desires at the time of founding. Thereafter, a founder will generally lose control over further issuances and stock splits, particularly once a venture capital financing occurs. In addition, the purchase price will usually increase.

The number of shares issued and reserved in the initial capital structure are driven by a desire to avoid a later reverse stock split at the time of an IPO because of excess dilution. The number of shares outstanding at the time of an IPO is driven by company valuation at IPO, the amount to be raised in the IPO and IPO price per share range (usually $10 to $15). The "pattern" for the business value at the time of the IPO can be reached by forward or reverse stock splits. For example, if a corporation has a market valuation at IPO time of $200 million, it would not be feasible for 40 million shares to be outstanding. A reverse stock split is needed. Reverse stock splits reduce the number of shares held. On the other hand, forward stock splits add shares to holdings. Neither changes the percentage ownership, but seeing the number of shares held decrease because of a reverse split is still hard on employee morale.

Because of the great demand for engineers during the Internet bubble, many corporations used a multiple of this 1X model in order to have more equity units available for employees. The immediate need for employees to increase the possibility of business success outweighed the potential consequence of a later reverse stock split. Currently, most startups use a 1X or 2X model to avoid excessive dilution.

2. Minimum Capital

Neither Delaware nor California law require a minimum amount of money to be invested in a corporation at the time of founding. The initial amount of capital, however, must be adequate to accomplish the purpose of the startup business in order for shareholders not to have personal liability. For example, a corporation which will serve only as a sales representative for products or a consulting operation requires less capital than a distributor or dealer who will stock an inventory of products. A dealership or distributorship will require less capital than a manufacturing operation.

3. Legal Consideration

A corporation must sell its shares for legal consideration, i.e., cash, property, past services or promissory notes under some circumstances. A founder who transfers technology or other property (but not services) to a corporation in exchange for stock does not recognize income at the time of the transfer (as a sale of such property) under IRC Section 351 if the parties acquiring shares at the same time for property (as opposed to services) own at least 80% of the shares of the corporation after the transfer. Because of this limitation, Section 351 is generally available at the time of founding but not later. Since a party who exchanges past or future services for stock must recognize income in the amount of the value of the stock in the tax year in which the stock is received, it is the prefered practice to issue the shares at a low valuation for cash or property.

4. Valuation

The per share value at the time of founding is determined by the cash purchases of stock and the number of shares issued. For example, if one founder buys stock in exchange for technology and the other founder buys a 50% interest for cash, the value of the technology and the fair market value per share is dictated by the cash purchase since its monetary value is certain. Sales of the same class of stock made at or about the same time must be at the same price or the party purchasing at the lower price may have to recognize income on the difference.

Thereafter, value is determined by sales between a willing seller and buyer or by the Board of Directors based on events and financial condition. Value must be established by the Board at the time of each sale of stock or grant of a stock option. Successful events cause value to increase. Such determinations are subjective and there is no single methodology for determining current fair market value. There are pitfalls of hedging on the timing of forming corporation to save on expenses. The longer the delay in incorporating, the more difficult it is to keep the founders price at a nominal level if a financing or other value event is imminent.

A general objective is to keep the value of common stock as low as possible as long as possible to provide greater stock incentives to attract and keep key employees. Tax and state corporate laws generally require option grants to be made at current fair market value. IRC Section 409A has increased the diligence needed in determining pricing for stock option grants.

5. Use of Debt

Loans may also be used to fund a corporation. For example, if a consulting business is initially capitalized with $20,000, half of it could be a loan and the remaining $10,000 used to purchase common stock. Using debt enables the corporation to deduct the interest payments on the debt, makes the repayment of the investment tax free and gives creditor status to the holder of the debt. If a corporation is too heavily capitalized with shareholder's loans, as opposed to equity (usually up to a 3-1 debt/equity ratio is acceptable), however, these loans may be treated as additional equity for tax and other purposes. Debts owed to shareholders may be treated as contributions to capital or a second class of shares and subordinated to debts of other creditors. Eligibility for S corporation status is lost if a loan is characterized as a second class of shares.

6. Vesting and Rights of First Refusal

Shares sold to founders are usually subject to vesting and rights of first refusal in order to keep founders on the corporate team and to maintain control over ownership of the corporation. Grants of options under an equity incentive plan also have such "stickiness" restrictions. Such safeguards are essential to securing a venture capital investment. By designing and implementing a reasonable vesting scheme themselves, founders may forestall an investor from doing so on the investor's terms. Vesting also assures investors that the founders and others are committed to the corporation and not just looking for a quick pay day. The corporation typically retains the option to repurchase unvested shares at the initial purchase price at the time of termination of a shareholder's employment. Vesting usually occurs over 4 years, i.e., if the employee remains employed by the corporation for the entire period, all shares become "vested" and the repurchase option ends. A common pattern is for 25% of the shares to vest after 12 months and the remainder to vest monthly over the next 36 months. Vesting is implemented by stock purchase agreements. An IRC Section 83(b) election must be filed with the Internal Revenue Service by a party buying unvested shares within 30 days of the date of purchase in order to prevent taxable income at the times such shares vest.

A right of first refusal is the corporation's option to repurchase shares when a third party makes an offer to purchase shares. This type of restriction can be used by itself or as a backup to the repurchase option to maintain control over stock ownership once vesting occurs. The corporation may repurchase the shares on the same terms as the offer by the third party. Rights of first refusal are implemented by stock purchase agreements, including under stock option plans, or in the corporation's bylaws. Rights of first refusal (but not rights of repurchase on termination of employment) terminate upon an IPO or acquisition.

G. Sales of Securities

Offers and sales of stock in a corporation, certain promissory notes and loans, certain partnership interests and other securities are subject to the requirements of the Securities Act of 1933, a federal law, and of state securities laws, so-called "Blue Sky" laws. While some state laws are preempted by federal securities laws in some cases, an offer or sale of securities in multiple states generally requires compliance with each state's law. The general rule under these laws is that full disclosure must be made to a prospective investor and that registration or qualification of the transaction with appropriate governmental authorities must occur prior to an offer or sale. An investor can demand its money back if securities laws are not followed. There are also severe civil and criminal penalties for material false statements and omissions made by a business or its promoters in offering or selling securities. Legal opinions regarding exemptions are not possible if securities are sold without regard for such laws. An opinion may be required in venture capital investments or an acquisition.

Exemptions from the registration and qualification requirements are usually available for offers and sales to founders, venture capitalists and foreign parties but offers and sales to other potential investors, even employees, are not legally possible without time consuming and expensive compliance with such laws. State laws have relatively simple exemptions for option grants and stock issuances under a formal equity incentive plan, which is why a plan should be the source of equity for employees and consultants.

The stock purchased in a sale exempt from federal registration and state qualification requirements will not be freely transferable. In addition to contractual restrictions, resales must satisfy federal and state law requirements. Shareholder liquidity occurs through Securities and Exchange Commission Rules 144 or 701, an IPO, other public offerings or other exempt sales.

Venture Capital for High Technology Companies

Fenwick FENWICK & WEST LLP

Venture Capital for High Technology Companies

Introduction

Founding your own high-growth, high technology company, financing it with venture capital and successfully bringing a product to market is a challenging experience. Entrepreneurs are dynamic people, motivated by their vision of a unique product concept and the drive to make that product a successful reality. Because founding a successful high tech company is so different from working in a large company, many new entrepreneurs are unfamiliar with the legal issues involved in creating a high tech start-up.

This booklet introduces new entrepreneurs to a variety of legal and strategic issues relating to founding and financing a start-up company, including determining your product and market, assembling the right founding team, choosing your legal structure, making initial stock issuances to founders, obtaining seed financing, negotiating the terms of your venture financing and the pros and cons of being acquired or taking your company public.

At the end of the booklet, we provide two Appendices. The first Appendix offers a set of financing scenarios that illustrate typical amounts of venture capital raised, company valuations at different stages of a company's existence and how ownership changes over time — first with a company that is successful and second with a company that undergoes a "down round" of financing. The second Appendix is a sample Series B Preferred Stock Term Sheet, illustrating the type of provisions you might see requested by a venture capitalist.

Of course, no two companies are identical and, accordingly, not all issues encountered are discussed, nor will every start-up face all of the issues discussed below. However, they are typical of the start-up companies Fenwick represents.

The following are other available Fenwick booklets:

- Acquiring and Protecting Technology: The Intellectual Property Audit
- Annual Update: International Legal Protection for Software
- Copyright Protection for High Technology Companies
- Corporate Partnering for High Technology Companies
- International Distribution for High Technology Companies
- Mergers and Acquisitions for High Technology Companies
- Patent Protection for High Technology Companies
- Patent Licensing for High Technology Companies
- Structuring Effective Earnouts
- Trademark Selection and Protection for High Technology Companies
- Trade Secrecy: A Practical Guide for High Technology Companies

Typical Start-Up Questions

What is "vesting"? "Vesting" requires founders to earn their stock over time. The company retains aright to buy back unvested stock at the original purchase price on termination of employment. In contrast to founders stock, stock options typically become exercisable as they vest.

Why do I want vesting? Vesting protects founders who remain with the company from an ex-founder becoming wealthy on their efforts if that ex-founder quits before he or she has earned his or her stock. Venture capitalists require vesting as a condition to funding your company.

How do I avoid tax liability on the receipt or vesting of founders' stock? Incorporate early and issue founders' stock at a low price to the founding team before you bring in outside investors. File your 83(b) election with the IRS within 30 days of purchase.

How are venture financings structured? Companies sell convertible preferred stock to outside investors. Employees continue to buy common stock at a fraction of the price paid by the outside investors. The price differential starts at 10 to 1 and then declines as the company nears an IPO or acquisition.

What do I have to give away in negotiations with venture capitalists? Typical deals include basic preferred stock liquidation and dividend preferences, weighted average antidilution protection and registration rights. You'll also have to agree to certain restrictions on how you run your company. Actual terms will vary depending on the quality of your company and the current financing environment.

What should I try to avoid in negotiations with venture capitalists? Avoid ratchet antidilution protection, mandatory redemption, redemption premiums, super liquidation preferences and excessive restrictions on how you run your company.

How do I protect my technology? Use nondisclosure and assignment of invention agreements and consider patent, trademark, trade secret and copyright protection at an early stage.

How do I choose a lawyer? Choose one with substantial start-up experience working with your type of business. It is also helpful if the lawyer's firm has the intellectual property, corporate and securities laws, domestic and international tax and litigation expertise that your company will need as it grows.

Threshold Issues When Starting Your Business

Identifying a Market Need

The first step in starting your new business venture is to identify a market need and the product or service that will meet that need. Too often, high tech products and businesses are launched because the founders become fascinated by their new technology without first determining whether the technological advance will cost-effectively meet customers' needs. Your products and services should be defined and shaped in response to real problems being experienced by real customers. In tough markets, you may have to show customer acceptance of your product or revenue in order to raise venture capital or angel funding.

Product Definition

You must determine the competitive edge that will make your proposed product preferable to comparable products currently used in the target market. Will your product accomplish the job faster, or be easier to use, more reliable and cheaper to produce or service? Will these advantages be long- or short-term? Critically evaluate your plan to ensure that your technological advances will provide cost-effective and reliable solutions to the customer's problem or fill new market requirements and will allow your company to become profitable.

Market Evaluation

Once you have defined your product in terms of a market need, you should evaluate that market. What types of customers will need the benefits your product offers over competing products? Is it a product that will be used by individuals, by small businesses, by Fortune 500 companies, by the government or by foreign customers? The customer base frequently dictates the distribution channels best used to reach your customers. A direct sales force may be required to reach the Fortune 500 market, while a low-priced consumer product generally will be sold through retail distribution or for end-use software via Internet downloads. How large is the market today and how large will it be in five years? A large and growing potential market is essential to obtaining venture capital. Most venture capitalists look for companies that can become profitable and attain at least $100 million a year in revenues in the next 10 years (possibly longer for bioscience companies). Knowing your customer base is a prerequisite to knowing what skills, experience base and connections you will need from your founding team and advisors.

Capital Needs

Once you have assessed your product and its market, you should determine the capital needed to fund its development and commercial exploitation. To avoid excessive dilution, the best approach is to stage the capital raised by development milestones, making sure that you raise enough money at each stage to attain your milestone with some cushion. Milestones met reduce investment risk and increase the company's valuation. Milestones missed increase investment risk and reduce the company's valuation. You also need to evaluate how quickly you want to grow the company and what capital would be needed for slow and fast growth scenarios. Finally, consider currently available sources of capital and their expected financing terms and rates of return on their investment. Your company's capital needs will be a fundamental issue for investors, and should be presented clearly in the company's business plan.

Recruiting Your Team

Composition of the Team

After you have defined the product, its market and the skills needed to bring the product to market, the next step is to put together a founding team. The people you select to make up the founding team are vital to the success of the company. While you may not be comfortable with sharing control of ideas and profits with others, your success will depend on recognizing your strengths and weaknesses early on and recruiting people with skills to complement your own. Ideally, a well-rounded founding team should include the following key managers:

- Chief Executive Officer
- Vice President of Research and Development
- Vice President(s) of Sales and/or Marketing
- Chief Financial Officer/VP Administration

Quality Leadership

You may not be able to recruit all the members of your founding team at once. Take time to recruit the best possible people who are experienced at doing the things your business will need to succeed. Be realistic about your own skills. If you have not had direct experience in managing and growing an organization, recruit a strong CEO who knows how to build a company and translates ideas into successful products. Your ability to obtain funding and the ultimate success of your business depends on the excellence of the people you recruit for your founding team.

Inexperienced key managers in a start-up are more likely to fail and need to be replaced as the company grows. Hiring key replacements is disruptive to your organization and will result in additional dilution of the ownership interests of the original founders. The percentage of the company that the founders will be able to retain is a direct function of their ability to handle key management roles well throughout the company's growth. The financing scenario at the end of this booklet, which shows the founders retaining 22 percent of the company's stock at the initial public offering, assumes a strong founding team in a company needing relatively little outside capital. A weaker team or one that requires larger capital infusions could retain less than 3-5 percent of the company's equity by the initial public offering.

Board of Directors

In addition to recruiting your founding team, you will need to recruit people to serve on your company's board of directors. The board of directors is the governing body of the corporation, owing fiduciary duties to all shareholders. It elects the company's officers and approves all major decisions. The board takes action by majority vote.

As a result, a founder-CEO-director, who owns a majority of the shares, can still be outvoted on the board on such important matters as sales of additional stock and the election of officers. Thus, careful selection of an initial board is essential. You want board members whose judgment you trust (even if they disagree with you) and who can provide you with input and resources not available from your management team. You might also consider recruiting industry experts to serve on an advisory board to assist you with technology and marketing issues.

Legal Structure

The next step is selecting the legal structure for your company. You have a choice among the following structures:

- Proprietorship
- Partnership or LLC
- Corporation
- S Corporation

Although most high tech companies are corporations, it is sometimes preferable to organize your business as a proprietorship or partnership. Before choosing your legal structure, consult with legal and accounting advisors. The following summary can help you select the right structure for your business.

Proprietorship

A proprietorship is simple. You own your own business. You and your business are considered one and the same — there is no legal distinction. All income received by the business is taxable to the individual proprietor, and the proprietor has unlimited liability for all obligations and debts of the business. Although this structure is not recommended for high-growth companies, it may be beneficial for inventors who wish to license their technology for royalties. Typically, an inventor will pay far less income tax as a proprietorship than as a corporation.

Partnership

In a partnership, two or more people operate a business together and divide the profits.

General Partnership: In a general partnership, any partner can bind all other partners for actions within the scope of the partnership's business. All partners have equal management rights and unlimited liability for partnership obligations.

Limited Partnership: In a limited partnership, there are two types of partners, passive and active. The passive or limited partners have no say in day-to-day management. Their liability, like that of shareholders in a corporation, is limited to their investment in the partnership. The active or general partners act as they would in a general partnership.

In both types of partnerships, profits and losses can be allocated among the partners in varying ways and are taxable to the partners when recognized by the partnership. The ability to allocate initial losses to limited partners, within IRS limits, makes partnerships attractive for financing tax-advantaged research and development transactions. While investors in a corporation generally cannot deduct money invested until the stock is sold or becomes worthless, partners can currently deduct their share of a partnership's losses. Limited liability companies (LLCs) are similar to limited partnerships, but are typically inappropriate for fast growth companies since, unlike corporations, they do not easily accommodate employee option plans and a corporation cannot do a tax-deferred acquisition of an LLC.

Corporation

The most common structure used by high tech companies is the corporation.

A corporation is a legal entity that is separate from the people who own and operate it. The shareholders own the corporation and elect a Board of Directors. The Board of Directors governs the corporation and appoints the officers who manage its day-to-day business.

A corporation pays income tax on its income, while its shareholders generally pay income tax only on dividends received. Shareholder liability for corporate obligations is generally limited to their investment in their shares.

One advantage of a corporation is that it can have different classes of stock with different rights. In addition to common stock, it can create and sell preferred stock, having preferences over the common stock. The preferences justify selling common stock to employees who provide "sweat equity" in the business at a substantial discount from the price paid by outside investors for the preferred stock. If your company will need substantial capital, intends to grow rapidly and/or will have substantial numbers of employees requiring equity incentives, you should probably incorporate.

S Corporation

If you won't seek venture capital immediately, but want a corporate structure, you should consider electing to be treated as an S corporation. An S corporation is treated much like a partnership for tax purposes. Corporate income and losses will pass through to the shareholders, enabling the founders to offset their other personal income with the corporation's initial losses.

There are strict rules regarding S corporations. An S corporation can have only one class of outstanding shares and no more than 75 shareholders. Shareholders must be U.S. resident individuals or trusts (not partnerships or corporations). These rules make it impractical for most high-growth start-ups to remain S corporations. For example, upon the sale of common stock to a corporate investor or a venture capital partnership or the sale of preferred stock to any investor, S corporation status will automatically be lost. You can, however, start as an S corporation and later elect to be treated as a C (or normal) corporation.

Initial Stock Issuances to the Founders

If you select the corporation as your form of business entity, the next step is to incorporate the company and issue stock to the founders. You will need to consider stock valuation, income tax considerations, vesting and buy-back rights, the availability of seed financing and compliance with securities laws.

How do You Value Founders' Stock?

It is often difficult to estimate the value of a start-up since it has no business or earnings history. Typically, there is no readily ascertainable value for the stock issued, so founders' stock is usually issued at a nominal price, such as $0.001 per share, paid in cash. However, if you or other founders contribute property or rights to previously existing technology or inventions, you must value the property contributed in exchange for the stock.

It is important to make founders' stock issuances as early as possible to avoid potential adverse income tax consequences. If stock is issued to employees at a low price at the same time that it is issued to outside investors at a higher price, the IRS will treat the difference between the two prices as taxable compensation to the employee.

How do Founders Avoid Income Tax Liability?

There are several ways to avoid income tax on founders' shares when selling equity to other investors.

- Issue the founders' stock early and allow time to pass before issuing stock to outside investors at a higher price.
- Create value in your company between the issuance of founders' stock and issuances to investors. You can create such value by writing a business plan, creating a product prototype or signing a letter of intent with a prospective customer.
- Create a two-tiered capital structure of common and preferred stock. Preferred stock preferences justify charging outside investors a higher price than employees who purchase common stock.

Vesting Schedules and Buy-Back Rights

Because founders buy their initial equity at a nominal price, they should "earn" their stock over a "vesting" period based on their continued service to the company. A typical vesting arrangement would provide that shares vest over four years, with no shares vesting in the first year of employment, 25 percent of the shares vesting at the end of that year, with two percent of the shares vesting monthly thereafter. Since there is a risk of job loss in an acquisition, some vesting arrangements accelerate the founders' vesting by 12 months or more if the company is acquired.

Your company should retain the right to repurchase an employee's unvested shares at the original purchase price on termination of employment. A minority of companies also retain the right to repurchase vested shares on termination of employment at the then-current fair market value of the company's stock although that has adverse accounting implications. In addition, most private companies retain a right of first refusal on shareholder resales of their stock, primarily to keep stock from falling into unfriendly hands.

Why Have Vesting and Buy-Back Rights?

Vesting is important, even though many founders dislike it. Best intentions notwithstanding, all the original members of a founding team may not remain with the company. Some conflict may arise causing one or more team members to leave the venture. If this happens in a company without vesting, enormous resentment results towards the ex-founders who keep their stock and "free-ride" on the efforts of those who continue to build the company.

With vesting and buy-back provisions, an ex-founder is allowed to keep only those shares that vested during his or her tenure. This is more fair and reflects the ex-founder's actual contribution to the company's success.

On a more pragmatic note, if you and the other founders do not impose vesting, the venture capitalists will. Since venture capitalists generally bring the first substantial capital to most start-ups, they will insist that the founders earn the value contributed by the financing over a standard-vesting period before they invest.

What is an 83(b) Election?

Whenever your company reserves the right to buy back stock at the original purchase price on termination of your employment, you should consider filing a Section 83(b) election with the IRS. By filing this election, you, as the purchaser, are electing to be taxed immediately on the difference between the fair market value of the stock and the price you paid for it. If you paid fair market value for the stock, then you will not pay any taxes as a result of the election.

If you do not file a Section 83(b) election within 30 days of your stock purchase, you will be taxed on each vesting date on the difference between the fair market value of the shares vesting on that date and the price paid for them. That difference could be substantial if the company's stock value substantially appreciates, and the tax may be payable before the shares can be sold.

How do you Protect Your Company's Technology?

Next to your people, your company's inventions and technology may be its most precious assets. A few simple steps are necessary to protect that technology. If the founders have developed technology prior to incorporating the company, have them assign the intellectual property rights to the company. From the very beginning, all company employees should sign the company's standard form of confidentiality and assignment of inventions agreement. Have third parties sign a nondisclosure agreement before giving them access to your confidential technology. Consult competent intellectual property counsel to find out if your technology qualifies for copyright or patent protection. Rights can be lost if notice and filing requirements are not met in a timely fashion. Consult trademark counsel before you select your company, product and domain names to find out if they infringe someone else's trademarks and to take the steps necessary to obtain exclusive rights to those names. (See the Fenwick booklets on Copyright, Trade Secrecy, Trademark and Patent Protection for a detailed discussion of these issues.)

Preparing a Business Plan

A business plan is an excellent tool for planning your business and assessing your performance. It also can help sell your company to potential investors. The time invested in developing a good business plan will have major long-term returns.

The business plan should be no more than 25 to 30 pages long. It should be prefaced by a two-page "executive summary" highlighting the following topics that should be set forth in greater detail in the actual business plan:

- Company description, location, and history;
- Product(s) to be developed and underlying technology;
- Size and growth rate of the market;
- Competition;
- Company's competitive advantage;
- Management team;
- Financial summary of projected revenues and income, balance sheets and cash flow statements for five years, with monthly detail for the first two years and
- Amount and structure of the proposed financing.

The bulk of the business plan should focus on the issues the venture capitalists are most interested in: the size and growth rate of the market, your targeted customers, competitors and your competitive advantage and the background of the management team. The business plan should not be a technical treatise on product development or market analysis. You should address these issues, of course, but it is preferable to compile an appendix to the business plan containing that information to be provided to investors who show serious interest. If you have never written a business plan, consult some of the detailed materials provided by many major accounting firms. Before presenting it to the venture capitalists, have it reviewed by counsel experienced in venture capital investments.

Seed Financing

What is Seed Financing?

Some founding teams with strong track records can raise venture capital without a business plan or a product prototype. Most people, however, find it necessary to seek a small amount of "seed" money from friends, relatives, angels or "seed round" venture capitalists. This seed money is used to support the fledgling company while a business plan is written or a product prototype is developed.

Where can you Find Seed Money?

Obtaining capital from outside investors during the early stages of your company's development may be difficult. Since only small amounts of money are usually required at this early stage, friends and family may be a realistic source of seed money. Accept money only from those who are sophisticated enough to understand the risk and who can afford to lose their investment. Doing so helps you comply with securities laws and maintain good relations if your company does not succeed.

Few start-ups can obtain seed money from the venture capital community. For an as yet unproven start-up, it can take six to eighteen months to build venture capital contacts, educate them about your product idea and convince them of the strength of your founding team.

Given these difficulties, it may be better for your start-up to try to attract "angels" or "advisory investors," such as a successful entrepreneur with self-generated wealth in a related industry. This type of investor will understand the merits and weaknesses of your business idea. More important still, these investors can be invaluable in helping you pull together the company and in introducing you to the venture community.

Compliance with Securities Laws

Although your company's initial resources will probably be limited, you must comply with federal and state securities laws when issuing stock or granting employee stock options. At a minimum, noncompliance gives purchasers a rescission right that can compel your company to refund the entire purchase price of the stock. You and your company might also be subject to fines and criminal liability. Meeting the legal requirements is not necessarily expensive if you have competent legal counsel to advise you before you offer to sell the stock. Exemptions from the costly process of registration with the Securities and Exchange Commission (SEC) will usually be available if you are careful in selecting the investors to whom you offer the securities and in making the offer. Filings with federal and state securities agencies may also be required.

What do the Venture Capitalists Want?

Most venture capitalists are looking for a company that can be profitable and grow to at least $100 million or more in revenues in 10 years (possibly more for bioscience companies). They are looking for large and growing markets where there is a demonstrable need for the product the company plans to develop. Many venture capitalists say that they would rather take a technology risk (can the product be developed?) than a market risk (will people want the product?). Technology risks are generally eliminated earlier when the capital needed and the company's valuation are less, while market risks will not be eliminated until after the product has been completed and introduced into the market. Venture capitalists also tend to "invest in people" rather than in ideas or technologies. Hence the strength of the management team is the most crucial element in raising money.

Financing — the First Round

How Should you Select a Venture Capitalist?

Selecting the right venture capitalist is as important as picking the right founding team. Take the time to talk to the venture capitalist to ensure that you can work well together. Look for someone who knows your industry. An ideal candidate would be someone who knows your product or market and is located close enough to your company to be available when you need help. It is also important as you launch your business to get people who have the depth and breadth of experience that you may initially lack.

If chosen correctly, venture capitalists can provide a wealth of information on management techniques, problem solving and industry contacts. They also can offer a broader perspective on your product's market fit, as well as additional funding as your company grows.

If, on the other hand, a venture capitalist is incorrectly chosen, you may find that the capital invested is tied to needless operating restrictions and monthly headaches at board meetings where you will regularly be asked why you are not "on plan." Where funding is available from several venture firms, ask the CEOs of their portfolio companies about their experience with the respective venture capitalists.

How do you Find Venture Capitalists?

There are many sources of basic information about venture capital firms. Some of the published sources include Pratt's Guide to Venture Capital Sources and the Directory of the Western Association of Venture Capitalists. Venture One has the best database on venture capitalists and the companies they fund. Through it you can find out which venture capital firms invested in similar companies and which partners of those firms sit on their Boards of Directors. While this database is not available to the public, most major law firms with a startup focus have licenses to it.

The best way for you to meet venture capital investors is to be introduced to them through successful entrepreneurs who have been funded by them. Other good sources include lawyers, accountants and bankers who focus in working with high tech companies. If at all possible, make sure that you are introduced or have your business plan forwarded to the venture capitalist by one of these people. While your business plan has to stand on its own merits, an introduction from a credible source can ensure it more than a cursory review and can result in useful feedback if the venture capitalist decides not to invest.

How Much Money Should you Raise?

In the first round of venture capital financing, you should try to raise a sufficient amount of capital to fund product development. The business plan usually will set a demonstrable risk-reducing milestone, such as having a working product ready for production. Given the seemingly inevitable delays in product development and the time it takes to arrange the next round of financing (at least two to six months), you should build some cushion into the amount you raise.

How Much is Your Company Worth?

Determining the value of your company at this early stage is more of a “mystic art” than a calculated formula. In theory, investors attempt to estimate the value of the company at some time in the future (say 10 to 20 times earnings in year five). They then discount that value to a present value with a desired rate of return. If the investor is looking for a tenfold return in five years and the company is expected to be worth $50 million in five years, it may be worth $5 million today.

In practice, however, venture capitalists seem to estimate the amount of cash required to achieve some development milestone and, often without regard to how much that is, equate that amount to 50 to 60 percent of the company (fully diluted for employee shares — see Employee Stock Plans below). The best way to find out how your company is likely to be valued is to look at what valuations venture capitalists are giving to other companies at the same development stage and in the same general market area.

Venture Capitalists will give your company a “pre-money” valuation based on its stage of development. Your pre-money valuation is the price per share that they are offering you times all of the outstanding stock, options and pool reserved for future employees. When discussing a pre-money valuation, remember to clarify the size of pool contemplated by the venture capitalists. Adequate shares for one year is typical. After the venture funding, your “post money” valuation is easy to determine. Just multiply the fully diluted outstanding capital of your company by the price per share paid by the last round investors.

The Structure of a Typical Venture Financing

Why Have Preferred Stock?

Companies typically sell convertible preferred stock to venture investors at a substantial premium over the price charged to the founders or the seed investors. At a minimum, the preferred stock gives the investors a liquidation preference in the event the company fails or is acquired. In addition, they usually obtain certain other preferential rights over the holders of common stock. From your company's point of view, these preferences justify a fair market value differential between the preferred stock and the common stock. This enables your company to continue to sell common stock to your employees at a lower price than is paid by the preferred investors.

Typical Preferred Stock Preferences

There are six basic types of preferences granted to preferred stock.

Liquidation Preference. Upon liquidation of the company, the preferred stock has the right to receive a fixed-dollar amount before any assets can be distributed to the holders of common stock. Typically, the liquidation preference is the purchase price plus accrued but unpaid dividends. A "participating" preferred stock also participates with the common stock in the distribution of any assets left after payment of the liquidation preference. In addition to actual liquidations, venture capitalists also want to receive their liquidation preference on a company merger. This provision will give the preferred shareholders the right to receive at least their original investment back in the event of a merger and sometimes a multiple return on their money before the common shareholders will participate.

Dividend Preference. Most preferred stock is given a dividend preference over the common stock. There are two types of dividend preferences. A "when, as and if declared, noncumulative" dividend preference means that the company cannot declare dividends on the common stock until a specified dividend is paid on the preferred stock. By contrast, a "mandatory, cumulative" dividend preference is more like an interest provision, since it requires the company to set aside and pay dividends on the preferred stock at a designated rate. Most high tech companies do not pay dividends, and by agreeing to mandatory, cumula-tive dividends you may adversely affect your company's cash flow and put it at a competitive disadvantage. Mandatory dividends are not frequently used, but if they are, it is usually in conjunction with mandatory redemption by investors.

Redemption. There are two kinds of redemption provisions. An "optional" redemption provision lets the company repurchase or redeem the preferred stock at its purchase price plus a redemption premium. The company can thus force the preferred stock to convert to common stock or face redemption. A "mandatory" redemption provision lets the investors require the company to repurchase the investors' preferred stock at its purchase price plus a redemption premium. Investors may want the right to recover their initial investment, plus a profit, if the company fails to meet expectations. Companies dislike mandatory redemption because the investment is more like debt than equity. Under current tax rules, excessive redemption premiums can result in imputed income to the holder of the preferred stock even if the premium is never paid by the company. To avoid this problem, it is prudent to follow the IRS safe harbor provisions by limiting any redemption premium to 1/4 percent per year.

Conversion Rights. Preferred stock issued in venture financings is almost always convertible into common stock at the holder's option. There is also a provision for automatic conversion upon the initial public offering of the company's stock or upon the vote of a majority of the preferred stock. To encourage investors to support the company when it is forced to raise money at a lower price than its previous round, you could have a provision that automatically converts preferred stock to common if the holder declines to purchase his or her pro rata share of a lower priced offering. This is referred to as a "pay to play" provision. Another form of "pay to play" provision will have such holder's shares automatically convert to a "shadow" preferred — identical to the original series of pre-ferred, but without antidilution protection. Typically, the preferred stock will be initially convertible on a one-to-one ratio. The conversion ratio is actually calculated by taking the original purchase price and dividing it by the conversion price. The initial conversion price is normally the original purchase price. The conversion ratio is adjusted for dilutive events or issuances, as discussed in Antidilution Protection below.

Antidilution Protection. Convertible preferred stock always contains provisions protecting it against dilution from stock splits and stock dividends, sometimes called "event protection." Frequently, there are also provisions protecting it against future sales of stock at lower prices, called "price protection." The most common price protection and that are most favorable to your company is a "weighted-average" adjustment of the conversion price. The weighted-average formula adjusts the conversion price by means of a weighted formula based upon both the sale price and number of shares sold. There are two types of weighted average antidilution: "broad based" and "narrow based." Broad-based protection includes preferred and options as well and stock dividends, sometimes called "event protection." Frequently, there are also provisions protecting it against future sales of stock at lower prices, called "price protection." The most common price protection and that are most favorable to your company is a "weighted-average" adjustment of the conversion price. The weighted-average formula adjusts the conversion price by means of a weighted formula based upon both the sale price and number of shares sold. There are two types of weighted average antidilution: "broad based" and "narrow based."

Broad-based protection includes preferred and options as well as common stock in the calculation and will result in a smaller adjustment if there is a "down" round of financing. Narrow-based protection may exclude options or the preferred and is less favorable to the company. If the investors think they are paying too much for the preferred, they may insist on "ratchet" antidilution protection, which drops the conversion price to the most recent lower price at which stock was sold, regardless of how many shares were sold at that price. This protects investors who decline to participate in lower-priced offerings. The second scenario in Appendix A illustrates the effect of antidilution protection as converted to common-percentage stock ownership. In both cases, you should ensure that employee stock issuances and stock issued in mergers and lease financings are excluded from the definition of "dilutive issuances." Some venture capitalists won't include price-based antidilution protection so as to put more pressure on investors to support the company in bad times.

Voting Rights. Preferred stock typically votes with the common stock, on an "as if converted" into common stock basis. In addition, the preferred stock may be given the right to elect a certain number of directors to the company's Board of Directors, with the common stock electing the remainder. Applicable corporate law also gives the preferred stock class voting rights on certain major corporate events, such as mergers or the creation of senior preferred stock. Investors may wish to expand the items requiring a separate class vote. It is generally preferable to avoid series-voting rights since that gives a given series a veto right over items that might otherwise be approved by the shareholders as a whole and by each class of shareholders.

Registration Rights

In addition to the preferences discussed above, venture capitalists require an avenue to liquidity. This is usually achieved by a registration-rights agreement giving the investors the right to require your company to go public and register their shares with the SEC. These registration rights are called "demand rights." The investors may also have the right to require your company to register their shares with the SEC when the company decides to go public. These rights are referred to as "piggyback rights." In both cases, the company usually pays related expenses.

Typical Restrictions Imposed on Management

Venture capitalists generally require certain commitments from your company about its post-financing management. The covenants that you are likely to encounter are affirmative and negative covenants, rights of first refusal and co-sale rights.

Affirmative covenants generally require your company to provide the investors with ongoing financial information and access to the company's records and management and may grant the investors the right to board representation or board visitation rights.

Conversely, investors may also require negative covenants or company agreements not to take specified actions without the investors' consent. Your management must carefully evaluate these covenants to ensure that they will not unduly interfere with your board's ability to manage the company.

Investors also may obtain a “right of first refusal” on further stock issuances by your company. Typically, these provisions will give the investors the right to buy their proportionate share of any new stock offerings prior to the public offering. You should avoid a right of first refusal giving investors the right to buy all of a new issuance because that could make it hard for the company to attract new investors. In addition, certain types of offerings (such as stock issued in mergers, lease financings and to employees) should be excluded from the investors’ right of first refusal.

In addition to these restrictions, the venture capitalists may require that the founders personally sign a co-sale agreement. A co-sale agreement gives the venture capitalists the right to participate in any proposed sale of the founder’s stock to third parties. The reason for a co-sale agreement is that the investors generally do not want the founders to “cash out” without giving the investors the same opportunity. Both the right of first refusal and co-sale agreement should terminate upon a public offering or the company’s acquisition.

Employee Stock Plans

Companies typically establish employee stock option plans to provide equity incentives for employees. Start-up companies are high risk and cash-flow constraints often mean that employees may be asked to accept below-market salaries to conserve cash in the start-up phase. Consequently, equity plans are essential to attract and retain top quality people in a start-up. The number of shares reserved for employee plans is typically 10 to 20 percent of the outstanding shares. It is typical for early stage companies (though not approved by the IRS) to establish a fair market value for common stock for such employee plans within a range of 10 to 20 percent of the most recent value of the preferred stock. This price differential must disappear as you approach a public offering or acquisition of the company or the company may be required to take a “cheap stock” charge to earnings by the SEC.

Corporate Partnering

As your company completes product development and moves into manufacturing and distribution, you should consider structuring some kind of partnering arrangement with one or more major corporations in your field. A strategic alliance with a major corporation can sharply accelerate your growth by providing you with an established manufacturing or distribution infrastructure, credibility, influence and immediate access to both domestic and international customers. (See the Fenwick booklet on Corporate Partnering for High Technology Companies for a detailed discussion on finding and negotiating partnering arrangements.)

When Should you Consider an Acquisition?

Many good companies discover after a number of years of effort that it is going to be difficult (if not impossible) to attain the level of revenues and profits set forth in their initial business plan. The product development cycle may be longer than anticipated, the market too small, the barriers to entry too great, distribution channels may be clogged, the company may not be able to develop follow-on products or the management team may not be up to the challenge of growing the company beyond a certain size. While any of these difficulties may restrict the company's future growth, the company's product or management team could still be highly valuable in the hands of a strategic buyer. For such companies, an acquisition may give investors a quicker and more certain path to liquidity. Alternatively, many technology companies have used acquisitions of related products or companies as a means to accelerate their own growth to the critical mass necessary for success. Since change seems to be the only constant in the life of a high tech company, you need to keep an open mind about the advisability of being acquired or acquiring other companies. (See the Fenwick booklet on Mergers and Acquisitions for High Technology Companies for a detailed discussion on issues and negotiating strategies in technology company acquisitions.)

Financing — the Second Round

At the next appropriate financing "window," or as your company begins to run out of cash, you may seek a second round of venture capital to start the next milestone of your business plan or to adapt to changed market conditions. How much control you are able to exercise during subsequent rounds of financing depends largely on how successful you have been in managing the planned development and growth of the company with previous funding and the degree to which investment capital is available.

Successful Companies

If your company has proven its ability to "execute" its business plan, you should be able to raise money at a substantial premium over the first-round, perhaps one and one-half to two and one-half or more times the first round price. The first-round venture investors will participate in the second round financing, typically providing one quarter to one half of the money in the second round. A lead investor representing the "new money" generally will set the second-round price and its terms and conditions. If the company runs out of cash before the lead investor is found, the current investors may "bridge" the gap by giving the company a bridge loan that will automatically convert into the next round series of preferred stock. Investors typically receive market rate interest and warrants for making bridge loans.

Unsuccessful Companies

If your company has fallen measurably short of its plan, finding new investors will be a problem and your existing investors may need to fund a greater percentage of the round.

Since the company will be in a weaker bargaining position, it may have to raise money at a lower price than the first round, triggering antidilution protection and causing significant dilution to the founders. More onerous preferred stock terms are likely, including pay-to-play provisions, ratchet-antidilution protection and multiple-liquidation preferences. In addition, the venture capitalists may force you to change management, replace the CEO, impose more rigorous controls over the company's management or force personnel layoffs.

When the existing investors lead a "down" round financing, it raises conflict of interest and fiduciary duty issues since the investors who are pricing the deal offered to the company are the same people who are approving the deal on the company's board of directors. Down-round financings should be structured to minimize the risk of liability to the board and its investors and maximize the fairness to the company's shareholders. For example, the company should conduct a "rights offering," permitting all company shareholders who are qualified investors for securities law purposes to participate in the offering and it could obtain an independent appraisal of the pre-money valuation of the company. Because down-round financings raise so many legal issues, consult your corporate counsel on how to best address these issues.

The Initial Public Offering

What are the Prerequisites for Going Public?

In order to go public, your company should establish a consistent pattern of growth and profitability and a strong management team. Your company's ability to go public will depend on market factors, as well as the company's revenue and profitability rate, its projections for future revenue and profit and the receptivity of the securities market. When market interest in technology is high, companies can be valued at levels that seem unrelated to their balance sheets or income statements. There is enormous pressure on companies to go public during these market windows. However, the IPO market is volatile and reacts to factors that are outside your company's control. Even if your company has met the profile described above, you may find that the IPO market window is effectively closed. If that happens, your only options may be self-funding, seeking additional venture funding or a sale to an established company.

Advantages of Going Public

There are two principal advantages to going public. First, the company can raise a larger amount of capital at a higher valuation than it could obtain from private investors because "public" shares can be freely resold. Second, going public can boost your company's sales and marketing by increasing its visibility. From the individual's point of view, some venture capitalists and key managers may sell a small portion of their stock in the initial public offering (IPO) or a follow-on offering, giving them liquidity.

Beyond these advantages, the founders achieve a psychological sense of financial success. Before the IPO, they owned shares with no market and no readily ascertainable price. After the offering, the public market sets the price and provides them liquidity.

Disadvantages of Going Public

There are a number of disadvantages to going public. A public offering is expensive. For example, if your company wanted to make a $40 million offering, the underwriters typically would take a seven percent commission on the stock sold, and the legal, accounting and printing fees would exceed $1.2 million. Once public, your company must publish quarterly financial statements and disclose information you previously considered confidential. The SEC is increasing the scope of information public companies must make available to the public and holding the CEO and CFO responsible for the accuracy of the information provided to the public. In making business decisions, your company's Board of Directors will have to consider the effect on the company's stock price. Failing to meet analysts' expectations can lead to a dramatic drop in the company's stock price. In a very real sense, entrepreneurs tend to feel that they lose control of "their" company after the IPO.

Conclusion

For many high technology start-ups, a venture capital financing strategy is the only realistic way that their new product ideas can be successfully developed and introduced into the marketplace. Without the capital infusions and the management assistance of venture capitalists, many of these companies' products simply would not make it to the public market. Entrepreneurs have an abundance of good ideas and the drive to realize them. The management and market experience they may lack can be provided by the relationships they develop with experienced venture capitalists, accountants and lawyers who focus in working with high technology companies.

Appendix A: Illustrative Financing Scenarios

In order to give you a better idea of what you can expect in the way of share ownership or company valuation if you decide to pursue a venture capital financing strategy, we have prepared two illustrative financing scenarios. Both assume that the company was able to raise the necessary funding to develop and bring its product to market and that the company's product was ultimately accepted by the marketplace. The first scenario assumes a strong, experienced founding team, with strong and continuous growth in product development, marketing and sales, while the second assumes a less experienced team that stumbles, but does not fail, in its objectives, but faces the effects of a down-round financing.

It is difficult to generalize about the percentage ownership founders may retain by their company's IPO. While these scenarios provide some realistic parameters, actual valuations will depend on the attractiveness of the given investment and market conditions at the time.

Highly Successful Team

If you gathered a very strong management team, developed a product with strong market acceptance and were both lucky and particularly successful at executing your business plan, your company's valuation round-by-round and the distribution of your company's outstanding shares at the IPO might be similar to that set forth below:

Shareholders	No. Shares	Purchace Price	Dollars Invested	Company Valuation	% Ownership at IPO
Founders (Common)	4,250,000	$ 0.001	$ 4,250	$ 4,250	22 %
Seed Investors (Preferred)	1,000,000	0.50	500,000	2,625,000	5
Round 1 Inv. (Preferred)	3,500,000	2.00	7,000,000	17,500,000	18
Employees (Common)	1,750,000	0.20	350,000	21,000,000	9
Round 2 Inv. (Preferred)	5,000,000	4.50	22,500,000	69,750,000	26
Employees (Common)	2,000,000	0.45	900,000	78,750,000	10
Public (Common)	2,000,000	20.00	40,000,000	390,000,000	10
Total	19,500,000				100 %

Less Experienced Team

The scenario can be very different if you are unable to attract a highly experienced management team. Inexperienced managers may fail to meet the intensive demands of a high-growth start-up. For this scenario, we have assumed that the company fails to complete product development on time and has to raise additional capital without a completed product. As a result, two of the five founders are replaced with more experienced management before the second round of venture financing. The number of founders' shares at the IPO is less than in the first scenario because the company repurchased the ex-founders' shares on termination of employment. While more capital was needed to complete the product and launch it into the market, the second round financing was done at a lower price per share than the first round because the company had not yet removed the product development risk and the doubts that created about management. In addition, the "As Converted Ownership % @ IPO" column reflects the effect of ratchet or weighted-average-antidilution protection triggered by the "down" round. After the "down" round of financing, the company is then able to get back on track and raise the additional private capital needed at a step-up in valuation. The additional dilution from the lower valuation of the round two financing and the resulting increase in the number of shares of common stock into which the round one preferred stock will convert, dilutes the founders' percentage ownership far more than in the first scenario. Under this scenario, the company's valuation round-by-round and the distribution of the company's outstanding shares at the IPO might be similar to that set forth below:

Shareholders	No. Shares	Purchace Price	Dollars Invested	Company Valuation	% Ownership at IPO (no Anti-dilution protection)	As Converted Ownership % at IPO	
						Ratchet	Weighted Average
Founders (Common)	2,000,000	$ 0.001	$ 2,000	$ 2,000	6.8%	6.1 %	6.5%
Seed Investors (Preferred)	1,000,000	0.50	500,000	1,500,000	3.4	3.1	3.3
Round 1 Inv. (Preferred)	3,500,000	2.00	7,000,000	13,000,000	11.9	21.3	15.7
Employees (Common)	1,750,000	0.20	350,000	16,500,000	6.0	5.3	5.7
Round 2 Inv. (Preferred)	0,000,000	1.00	10,000,000	18,250,000	34.1	30.5	32.6
Employees (Common)	1,750,000	0.20	350,000	20,000,000	6.0	5.3	5.7
Round 3 Inv. (Preferred)	6,000,000	4.00	24,000,000	104,000,000	20.5	18.3	19.6
Public (Common)	3,333,334	12.00	40,000,000	352,000,008	11.4	10.2	10.9
Total:	9,333,334					100 %	

Appendix B: Series B Preferred Stock Term Sheet

Amount of Financing: $7,000,000

Type of Security: 3,500,000 shares of Series B Preferred Stock (“Series B Preferred”)

Purchase Price: $2.00 per share (a $14 million pre-money company valuation)

Projected Postfinancing Capitalization:

	Number of Shares	%
Common Stock	4,250,000	40%
Series A Preferred	1,000,000	10%
Series B Preferred	3,500,000	33%
Employee Options	1,750,000	17%
Total:	10,500,000	100%

Rights and Preferences of Series B Preferred

Dividend Rights The holders of the Series A and Series B Preferred Stock (collectively the “Preferred Stock”) shall be entitled to receive, out of any funds legally available therefore, dividends at a rate of eight percent per year (i.e., $.04 and $.16 per share for the Series A and B Preferred, respectively) prior and in preference to any payment of any dividend on the Common Stock. Such dividends shall be paid when, as and if declared by the Board of Directors and shall not be cumulative.

Liquidation Preference In the event of any liquidation, dissolution or winding up of the Company, the holders of the Preferred Stock will be entitled to receive an amount equal to their original issue price per share, plus an amount equal to all declared but unpaid dividends thereon (the “Preference Amount”). If there are insufficient assets to permit the payment in full of the Preference Amount to the preferred shareholders, then the assets of the Company will be distributed ratably to the holders of the Preferred Stock in proportion to the Preference Amount each holder is otherwise entitled to receive.

After the full Preference Amount has been paid on all outstanding shares of Preferred Stock, any remaining funds and assets of the Company legally available for distribution to shareholders will be distributed ratably among the holders of the Preferred and Common Stock on an as-converted basis.

A merger or consolidation of the Company in which its shareholders do not retain a majority of the voting power in the surviving corporation, or sale of all or substantially all the Company’s assets, will be deemed to be a liquidation, dissolution or winding up.

Conversion Right The holders of the Preferred Stock shall have the right to convert the Preferred Stock at any time into shares of Common Stock. The initial conversion rate for each series of Preferred Stock shall be 1-for-1.

Automatic Conversion The Preferred Stock shall be automatically converted into Common Stock, at the then applicable conversion rate, upon the closing of an underwritten public offering of shares of Common Stock of the Company at a public offering price of not less than $6.00 per share and for a total public offering amount of not less than $10 million.

Antidilution Provisions Stock splits, stock dividends and so forth shall have proportional antidilution protection. The conversion price of the Preferred Stock shall be subject to adjustment to prevent dilution on a weighted average basis in the event that the Company issues additional shares of Common Stock or Common Stock Equivalents at a purchase price less than the applicable conversion price; except that shares of Common Stock sold or reserved for issuance to employees, directors, consultants or advisors of the Company pursuant to stock purchase, stock option or other agreements approved by the Board and certain other issues customarily excluded from triggering antidilution adjustments may be issued without triggering antidilution adjustments.

Voting Rights Each share of Preferred Stock carries a number of votes equal to the number of shares of Common Stock then issuable upon its conversion into Common Stock. The Preferred Stock will generally vote together with the Common Stock and not as a separate class except that, with respect to the election of the Board of Directors, the holders of Preferred Stock may elect three of the five members of the Board. The holders of the Common Stock, voting together as a single class, shall be entitled to elect the two remaining Board members.

Board Representation At the Closing Date, the Board of Directors shall consist of Joe CEO, Industry Luminary, Bill VC, Tom VC and Michele VC.

Protective Provisions Consent of the holders of a majority of the outstanding Preferred Stock shall be required for: (i) any action that materially and adversely alters or changes the rights, preferences or privileges of any series of Preferred Stock; (ii) any action that authorizes or creates shares of any class of stock having preferences superior to or on a parity with any series of Preferred Stock; (iii) any amendment of the Company's Articles of Incorporation that materially and adversely affects the rights of any series of the Preferred Stock; (iv) any merger or consolidation of the Company with or into one or more other corporations in which the Company's shareholders do not retain a majority of the voting power in the surviving corporation or (v) the sale of all or substantially all the Company's assets.

Rights of First Refusal So long as an investor holds at least five percent of the Company's outstanding capital, that holder of Preferred Stock shall be given the right of first refusal to purchase up to its pro-rata portion (based on its percentage of the Company's outstanding common shares, calculated on an as-if-converted basis) of any equity securities offered by the Company (other than shares offered to employees, in a merger or in connection with a lease line or line of credit, etc.) on the same terms and conditions as the Company offers such securities to other potential investors. This right of first refusal will terminate immediately prior to the Company's initial underwritten public offering of its Common Stock at a public offering price of not less than $6.00 per share and for a total public offering amount of not less than $10 million.

Information Rights So long as an investor continues to hold at least 5 percent of the Company's outstanding Common Stock (calculated on an as-converted basis), the Company shall deliver to the investor: (i) audited annual financial statements within 90 days after the end of each fiscal year; (ii) unaudited quarterly financial statements within 45 days of the end of each fiscal quarter and (iii) unaudited monthly financial statements within 30 days of the end of each month. These information rights shall terminate upon the Company's initial public offering.

Registration Rights

(1) Demand Rights If at any time after the third anniversary of the closing holders of at least 30 percent of the "Registrable Securities" (defined below) request that the Company file a registration statement covering the public sale of Registrable Securities with an aggregate public offering price of at least $5 million, then the Company will use its best efforts to cause such shares to be registered under the Securities Act of 1933 (the "1933 Act"); provided, that the Company shall have the right to delay such registration under certain circumstances for up to 90 days during any 12-month period. "Registrable Securities" will mean the Common Stock issuable on conversion of the Preferred Stock.

The Company shall not be obligated to effect more than two registrations under this demand right provision and shall not be obligated to effect a registration during the six-month period commencing with the date of the Company's initial public offering or any registration under the 1933 Act in which Registrable Securities were registered.

(2) Piggyback Rights The holders of Registrable Securities shall be entitled to "piggyback" registration rights on all 1933 Act registrations of the Company or on any demand registration (except for registrations relating to employee benefit plans and corporate reorganizations).

(3) Cutback The investors' registration rights are subject to the right of the Company and its underwriters to reduce the number of shares proposed to be registered pro rata in view of market conditions. The underwriters' "cutback" right shall provide that at least 25 percent of the shares included in the Registration must be Registrable Securities (except for the Company's initial public offering, from which all Registrable Securities may be excluded).

(4) *S-3 Rights* Investors shall be entitled to registrations on Form S-3 (if available to the Company) unless: (i) the aggregate public offering price of all securities of the Company to be sold by shareholders in such registered offering is less than $500,000; (ii) the Company certifies that it is not in the Company's best interests to file a Form S-3, in which event the Company may defer the filing for up to 90 days once during any 12-month period or (iii) if the Company has already effected two registrations on Form S-3 during the preceding 12 months.

(5) *Expenses* The Company shall bear the registration expenses (exclusive of underwriting discounts and commissions, but including the fees of one counsel for the selling shareholders) of all such demand and piggyback registrations and for the first S-3 registration.

(6) *Transfer of Rights* Registration rights may be transferred to (i) transferees acquiring at least 100,000 shares of Registrable Securities with notice to and consent of the Company or (ii) any partner, shareholder, parent, child or spouse of the holder or to the holder's estate.

(7) *Market Standoff* No holder will sell shares within such period requested by the Company's underwriters (not to exceed 180 days) after the effective date of the Company's initial public offering; provided, however, that such restriction does not apply to Registrable Securities included in such registration statement; and provided further, that all officers, directors and holders of more than 1 percent of the outstanding capital stock of the Company enter into similar standoff agreements with respect to such registration.

(8) *Cross-Indemnification Provisions* The parties will provide each other with reasonable cross-indemnification.

(9) *Termination* The registration rights will terminate five years after the closing of the Company's initial public offering and will not apply to any shares that can be sold in a three-month period pursuant to Rule 144 without registration.

Board of Directors The Articles of Incorporation and Bylaws shall provide for a five-person Board of Directors.

Stock Purchase Agreement The investment shall be made pursuant to a Stock Purchase Agreement reasonably acceptable to the Company and the investors, which agreement shall contain, among other things, appropriate representations and warranties of the Company, covenants of the Company reflecting the provisions set forth herein, and appropriate conditions of closing, including an opinion of counsel for the Company. The Stock Purchase Agreement shall provide that it may be amended by or that provisions may be waived only with the approval of the holders of a majority of the Series B Preferred (and/or Common Stock issued upon conversion thereof). Registration rights provisions may be amended with the consent of the holders of a majority of the Registrable Securities.

Stock Vesting Stock sold and options granted to employees will be subject to the following vesting, unless otherwise approved by the Board of Directors: (i) Vesting over four years — 24 percent of the shares vest at the end of the first year, with two percent of the shares vesting monthly thereafter; or (ii) Upon termination of the shareholder's employment, with or without cause, the Company shall retain the option to repurchase at cost any unvested shares held by such shareholder.

Restrictions on Sales The investors will make the customary investment representations.

Invention Assignment Agreement: Each officer and employee of the Company shall have entered into an acceptable confidentiality and invention assignment agreement.

Finders The Company and the investors shall each indemnify the other for any finder's fees for which either is responsible.

Legal Fees and Expenses The Company shall pay the reasonable fees and expenses of Investors' counsel up to a maximum of $30,000.

3Q16

Silicon Valley Venture Capital Survey
Third Quarter 2016

Fenwick

FENWICK & WEST LLP

Silicon Valley Venture Capital Survey
Third Quarter 2016

Barry Kramer and Khang Tran

Fenwick
FENWICK & WEST LLP

Background

We analyzed the terms of 149 venture financings closed in the third quarter of 2016 by companies headquartered in Silicon Valley.

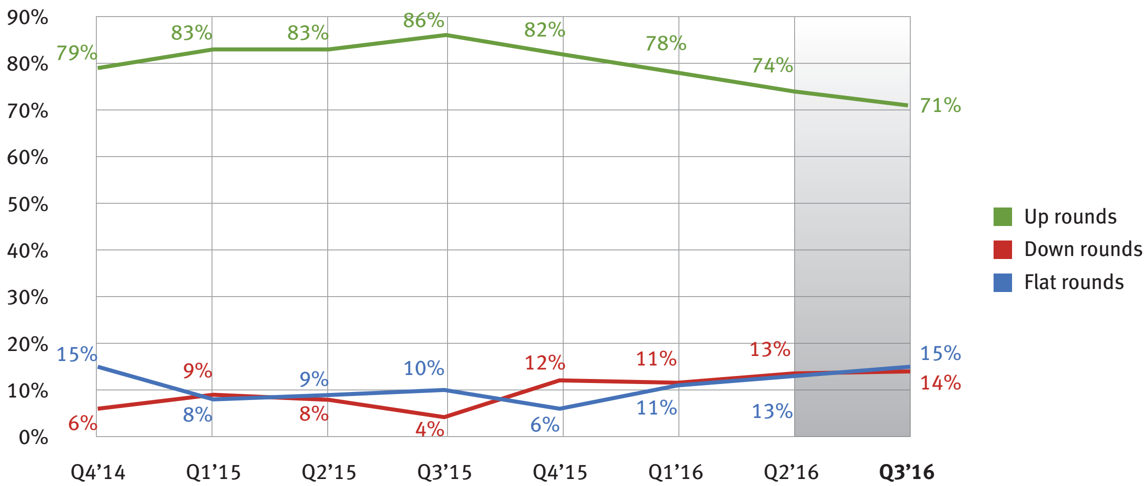
Overview of Results

The weakening in venture valuations that began in the second half of 2015 continued in 3Q16, with two of our three valuation metrics declining. Overall the valuation metrics have returned to their 12 year averages after a very strong 2014-2015.

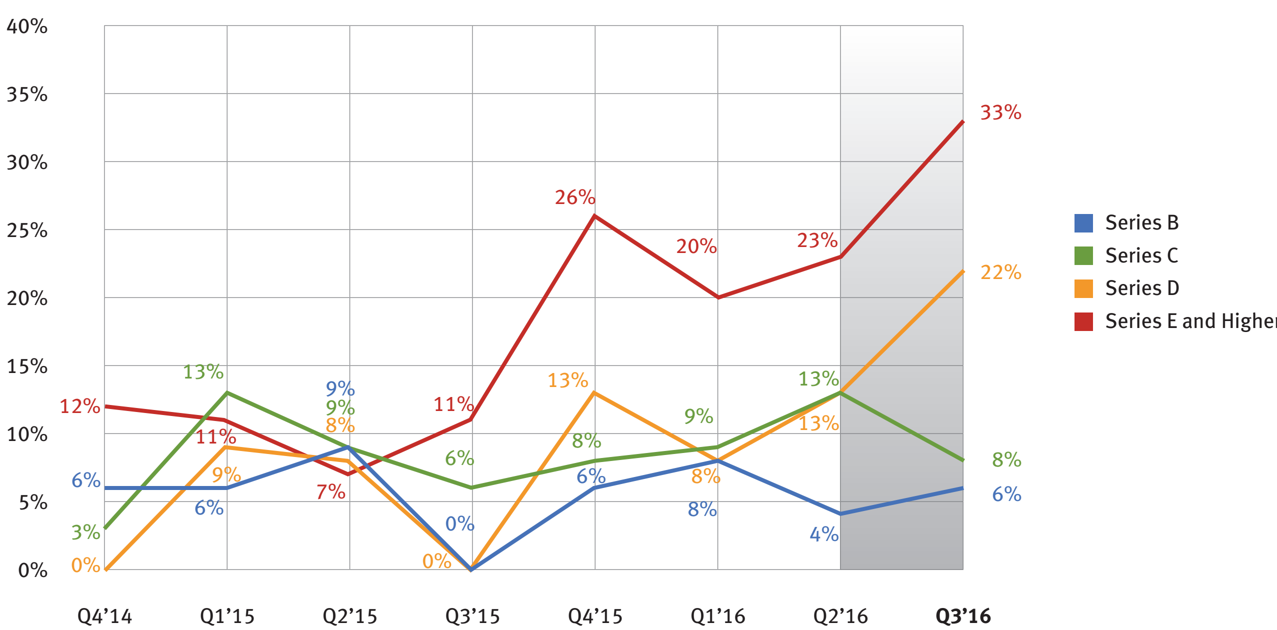
- Up rounds exceeded down rounds in 3Q16, 71% to 14%, with 15% flat. This was a decline from 2Q16 when up rounds exceeded down rounds 74% to 13%, with 13% flat. This was the fourth straight quarter in which the number of up rounds declined and the lowest percentage of quarterly up rounds since 2Q13.
- The average price increase of financings in 3Q16 compared to the prior financing round (the "Barometer") was 52%, an increase from the 40% recorded in 2Q16. This increase was primarily due to two (life science) companies that closed financings with price increases five or more times their prior round. There were no such financings in 2Q16.
- The median price increase of financings in 3Q16 compared to the prior financing round was 27%, a decline from the 31% recorded in 2Q16. This was the fifth straight quarterly decline and the lowest median price increase since 4Q13.
- The strongest industry was "Other", which consists primarily of venture backed food and personal care/ fashion companies. Although software was the next strongest industry, its average price increase was the lowest since 3Q10.

Fenwick & West Data on Valuation

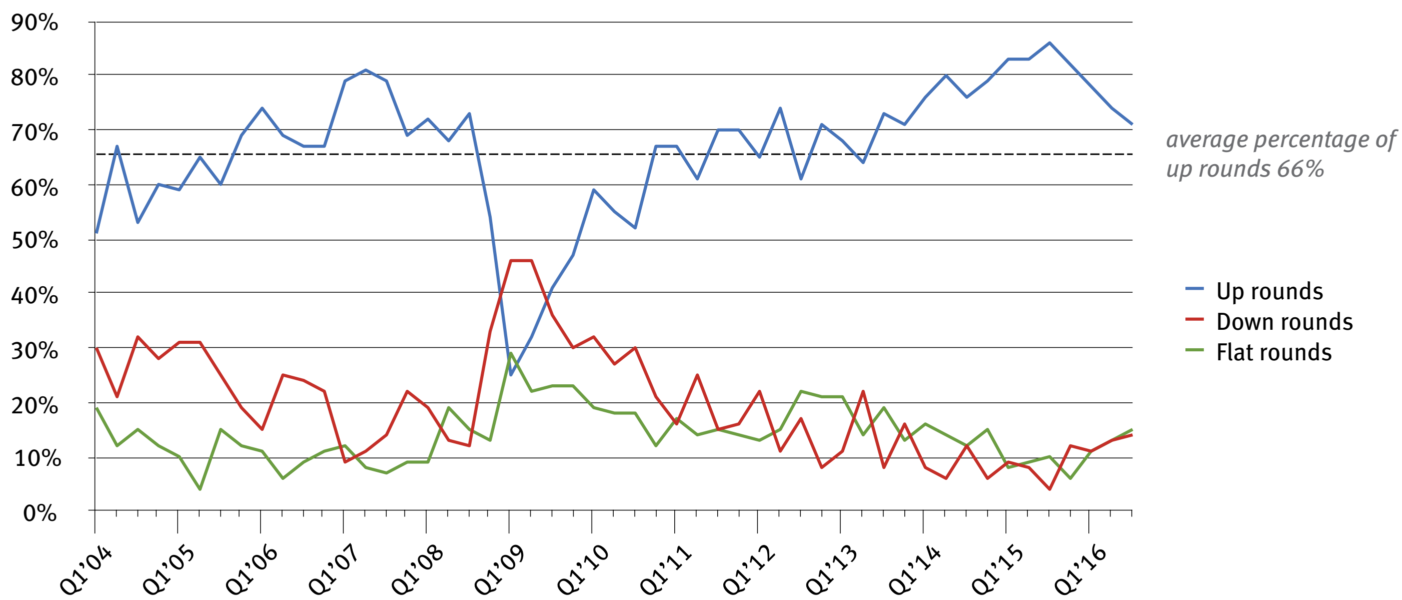
PRICE CHANGE—The direction of price changes for companies receiving financing in a quarter, compared to their prior round of financing.



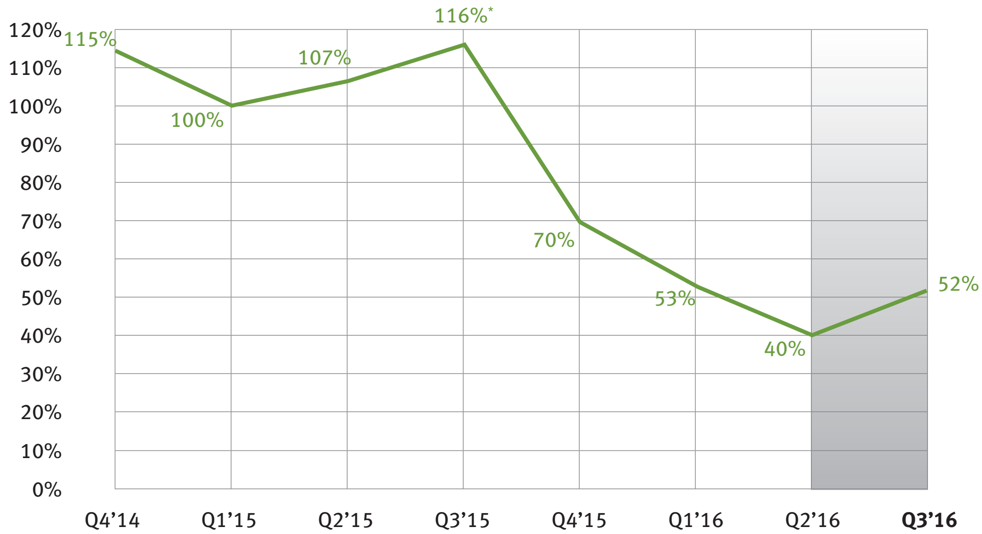
The percentage of down rounds by series were as follows:



EXPANDED PRICE CHANGE GRAPH — Set forth below is the direction of price changes for each quarter since 2004.

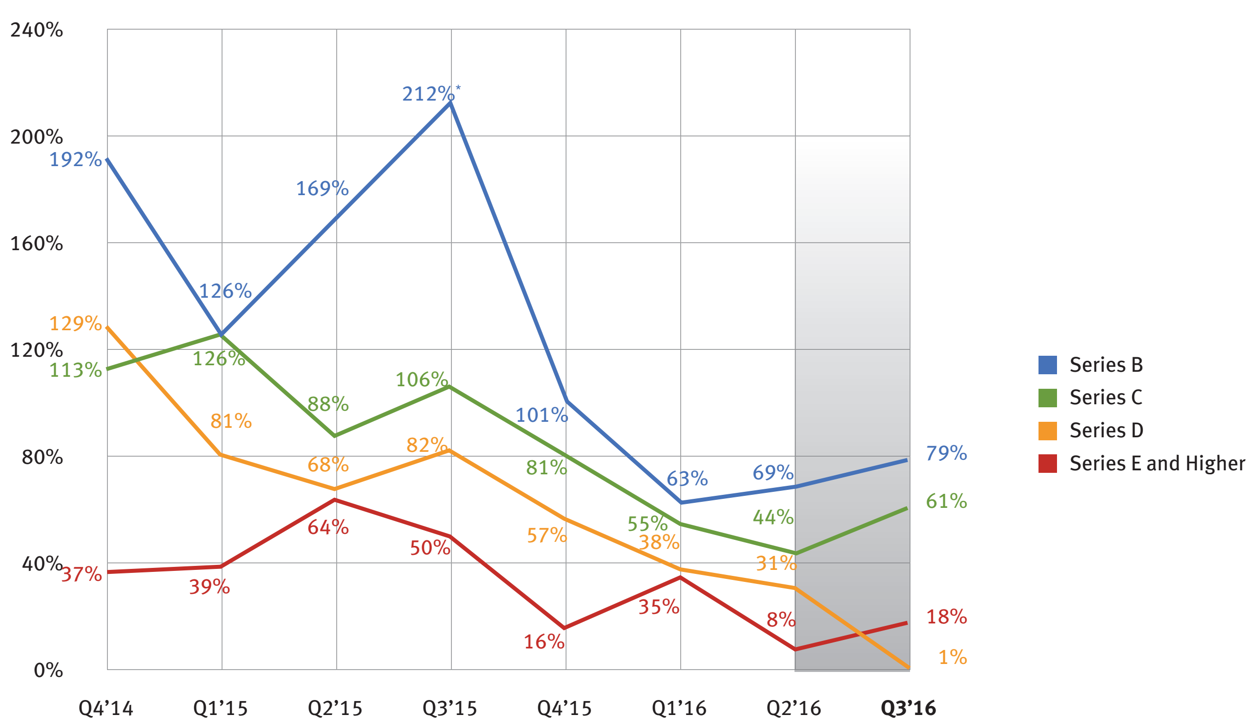


THE FENWICK & WEST VENTURE CAPITAL BAROMETER™ (MAGNITUDE OF PRICE CHANGE)—Set forth below is the average percentage change between the price per share at which companies raised funds in a quarter, compared to the price per share at which such companies raised funds in their prior round of financing. In calculating the average, all rounds (up, down and flat) are included, and results are not weighted for the amount raised in a financing.



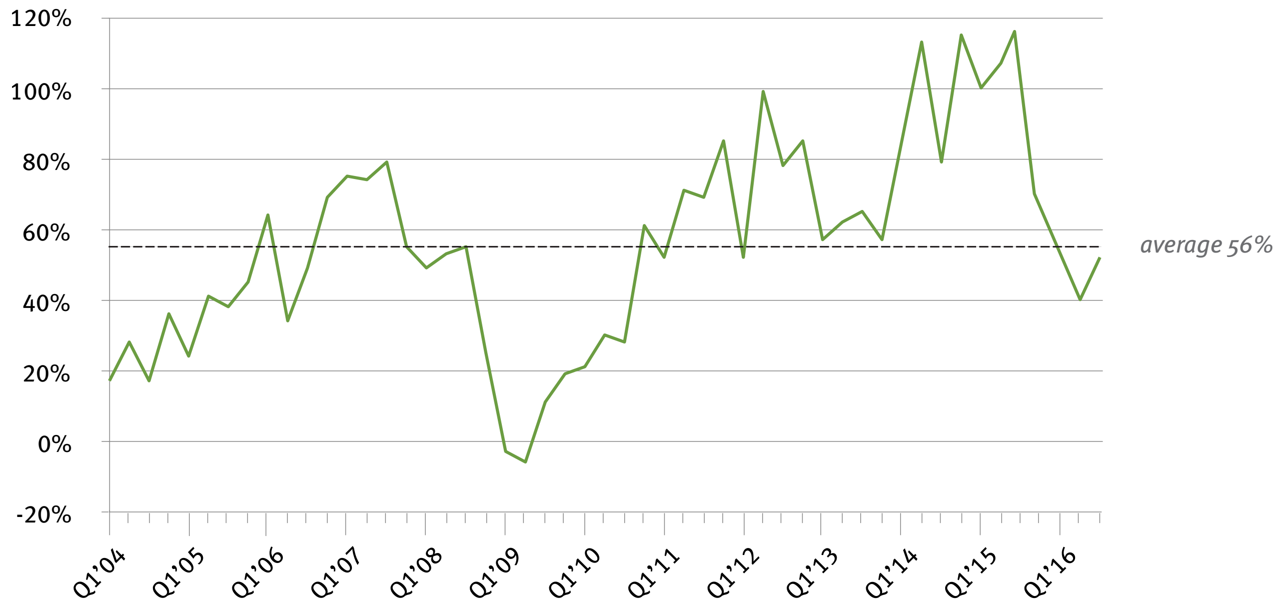
* One company had an over 3000% up round in 3Q15. If this financing was excluded, the Barometer result for 3Q15 would have been 93%.

The Barometer results by series are as follows:

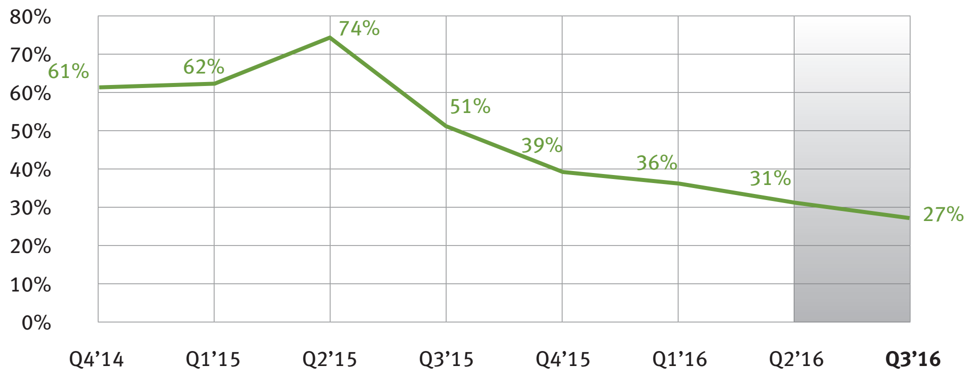


* Please note that the above-mentioned over 3000% up round financing in 3Q15 was a Series B round. If this financing was excluded, the Barometer result for Series B rounds in 3Q15 would have been 132%.

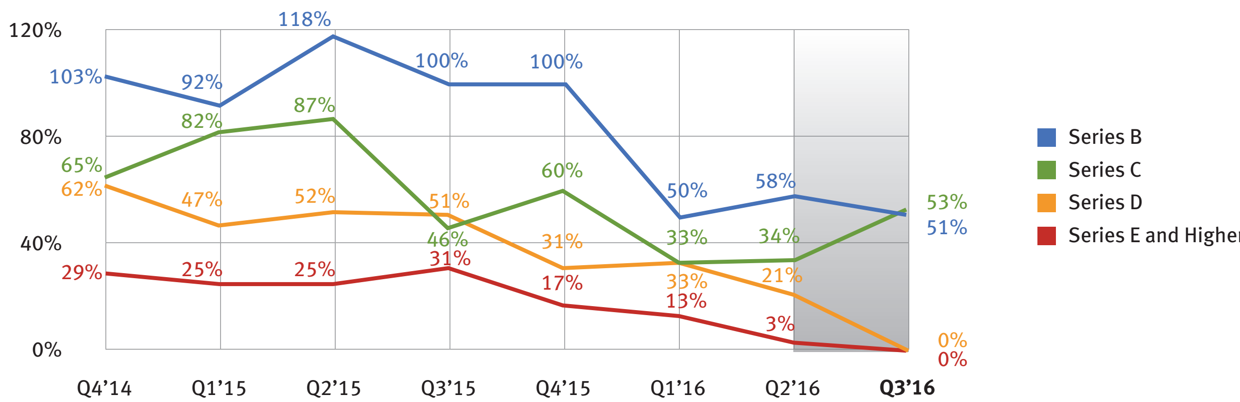
EXPANDED BAROMETER GRAPH — Set forth below is the average percentage price change for each quarter since we began calculating this metric in 2004.



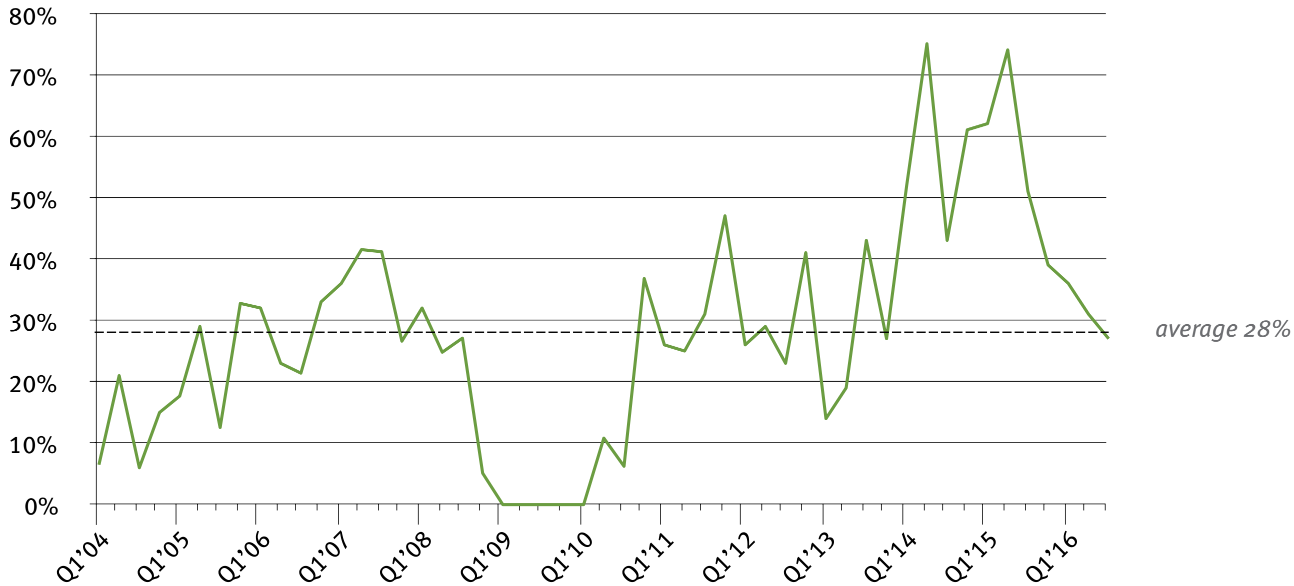
MEDIAN PERCENTAGE PRICE CHANGE—Set forth below is the median percentage change between the price per share at which companies raised funds in a quarter, compared to the price per share at which such companies raised funds in their prior round of financing. In calculating the median, all rounds (up, down and flat) are included, and results are not weighted for the amount raised in the financing. Please note that this is different than the Barometer, which is based on average percentage price change.



Median percentage price change by series.



EXPANDED MEDIAN PRICE CHANGE GRAPH — Set forth below is the median percentage price change for each quarter since we began calculating this metric in 2004.



RESULTS BY INDUSTRY FOR PRICE CHANGES, BAROMETER AND MEDIAN CHANGES —The table below sets forth the direction of price changes, Barometer and median results for companies receiving financing in this quarter, compared to their previous round, by industry group. Companies receiving Series A financings are excluded as they have no previous rounds to compare.

Industry	Up Rounds	Down Rounds	Flat Rounds	Barometer	Median Barometer	Number of Financings
Software	78%	14%	8%	44%	32%	49
Hardware	69%	8%	23%	44%	17%	13
Life Science	45%	18%	36%	86%	0%	22
Internet/Digital Media	80%	20%	0%	15%	24%	15
Other	82%	0%	18%	78%	53%	11
Total all Industries	**71%**	**14%**	**15%**	**52%**	**27%**	**110**

DOWN ROUND RESULTS BY INDUSTRY —The table below sets forth the percentage of "down rounds," by industry groups, for each of the past eight quarters.

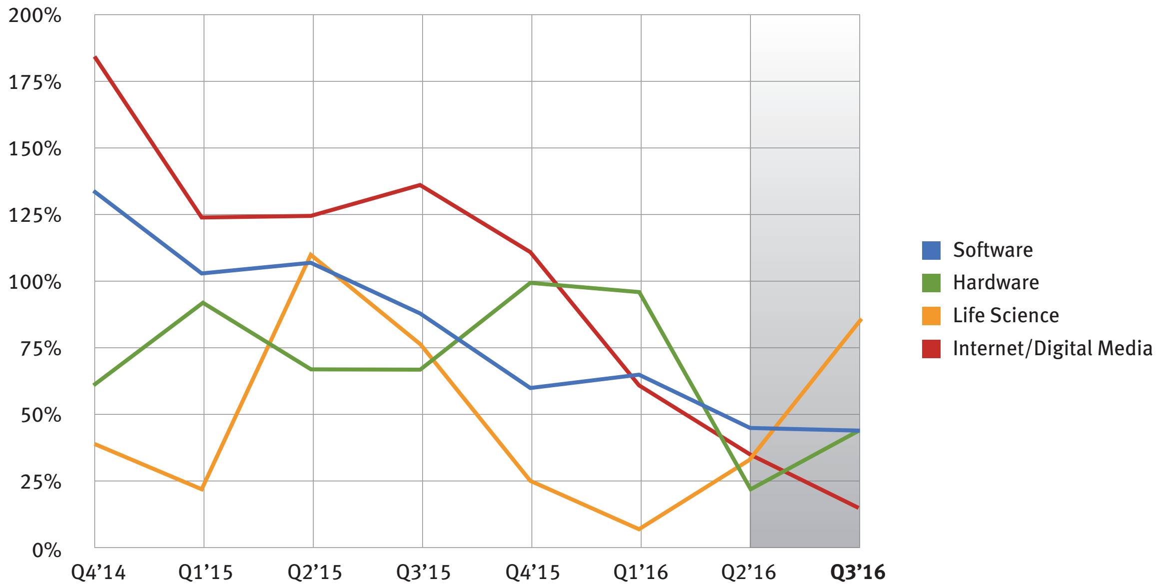
Down Rounds	Q4'14	Q1'15	Q2'15	Q3'15	Q4'15	Q1'16	Q2'16	Q3'16
Software	7%	8%	3%	6%	10%	7%	13%	14%
Hardware	6%	6%	25%	0%	18%	18%	15%	8%
Life Science	6%	13%	12%	6%	25%	17%	13%	18%
Internet/Digital Media	6%	12%	9%	4%	6%	10%	13%	20%
Other	0%	9%	11%	0%	11%	0%	8%	0%
Total all Industries	**6%**	**9%**	**8%**	**4%**	**12%**	**10%**	**13%**	**14%**

BAROMETER RESULTS BY INDUSTRY —The table below sets forth Barometer results by industry group for each of the last eight quarters.

Barometer	Q4'14	Q1'15	Q2'15	Q3'15	Q4'15	Q1'16	Q2'16	Q3'16
Software	134%	103%	107%	88%	61%	65%	45%	44%
Hardware	61%	92%	67%	67%	100%	96%	22%	44%
Life Science	39%	22%	110%	76%	25%	7%	33%	86%
Internet/Digital Media	178%	124%	125%	136%	115%	61%	35%	15%
Other	83%	155%	108%	509%	33%	16%	56%	78%
Total all Industries	**115%**	**100%**	**107%**	**116%**	**69%**	**53%**	**40%**	**52%**

* If the above-mentioned over 3000% up round financing in 3Q15 was excluded, the Barometer results for companies in the "Other" industry group and for all reviewed companies in 3Q15 would have been 47% and 93%, respectively.

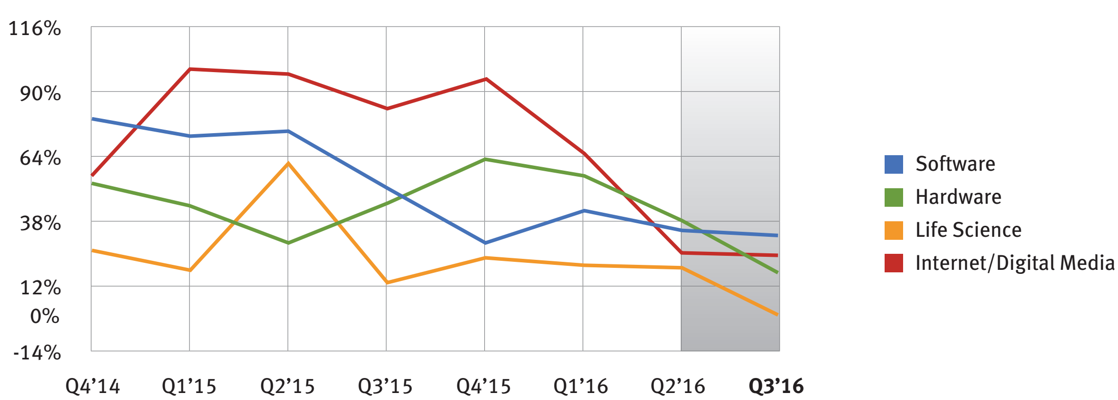
A graphical representation of the above is below.



MEDIAN PERCENTAGE PRICE CHANGE RESULTS BY INDUSTRY —The table below sets forth the median percentage price change results by industry group for each of the last eight quarters. Please note that this is different than the Barometer, which is based on average percentage price change.

Median % Price Change	Q4'14	Q1'15	Q2'15	Q3'15	Q4'15	Q1'16	Q2'16	Q3'16
Software	79%	72%	74%	51%	29%	42%	34%	32%
Hardware	53%	44%	29%	45%	63%	56%	38%	17%
Life Science	26%	18%	61%	13%	23%	20%	19%	0%
Internet/Digital Media	56%	99%	97%	83%	96%	65%	25%	24%
Other	29%	92%	77%	36%	38%	2%	39%	53%
Total all Industries	**61%**	**62%**	**74%**	**51%**	**39%**	**36%**	**31%**	**27%**

A graphical representation of the above is below.

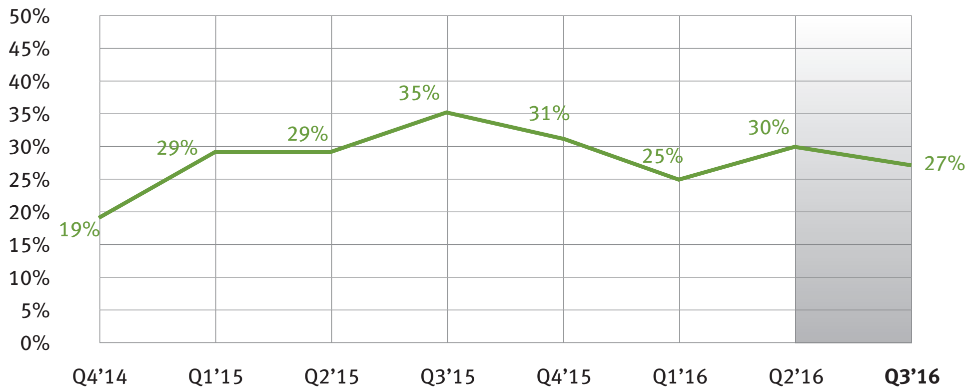


FINANCING ROUND — This quarter's financings broke down by series according to the chart below.

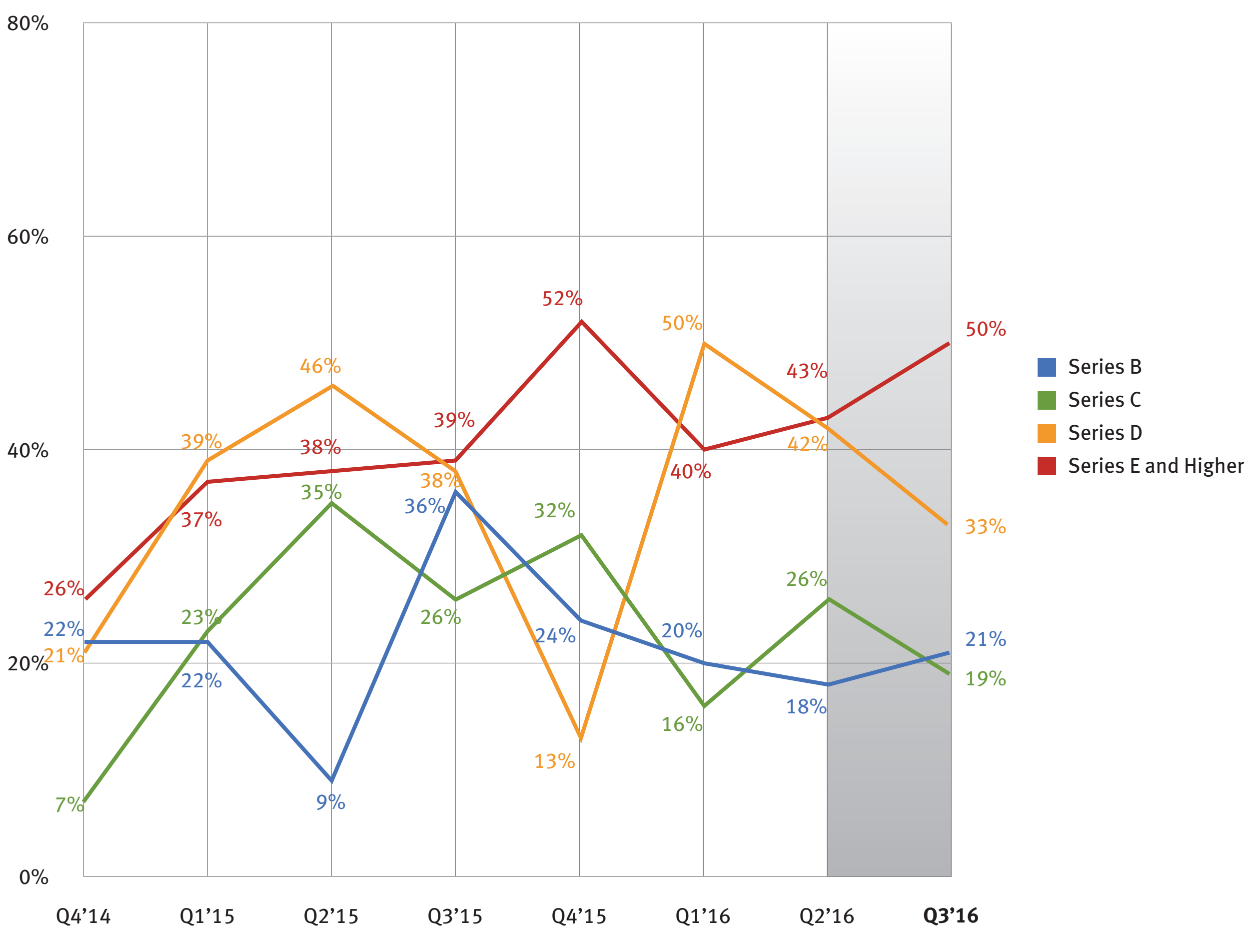
Series	Q4'14	Q1'15	Q2'15	Q3'15	Q4'15	Q1'16	Q2'16	Q3'16
Series A	27%	25%	18%	23%	27%	22%	21%	26%
Series B	21%	29%	28%	22%	21%	27%	23%	32%
Series C	19%	18%	20%	19%	25%	29%	24%	17%
Series D	9%	13%	16%	14%	11%	8%	12%	12%
Series E and Higher	23%	16%	17%	22%	16%	14%	21%	12%

Fenwick & West Data on Legal Terms

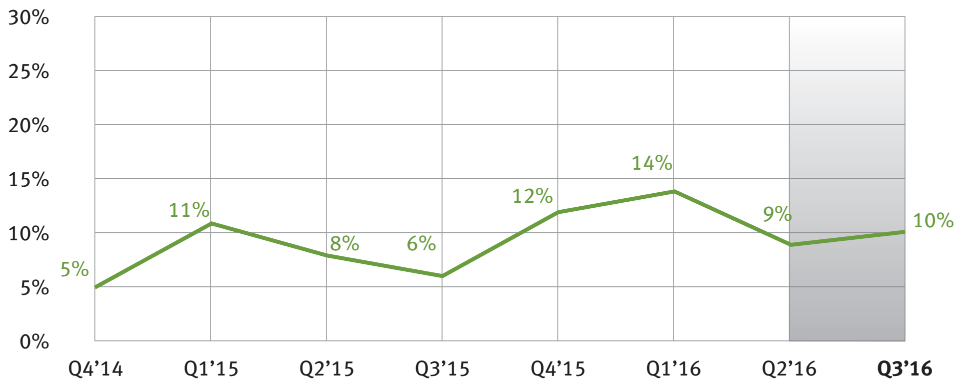
LIQUIDATION PREFERENCE—Senior liquidation preferences were used in the following percentages of financings.



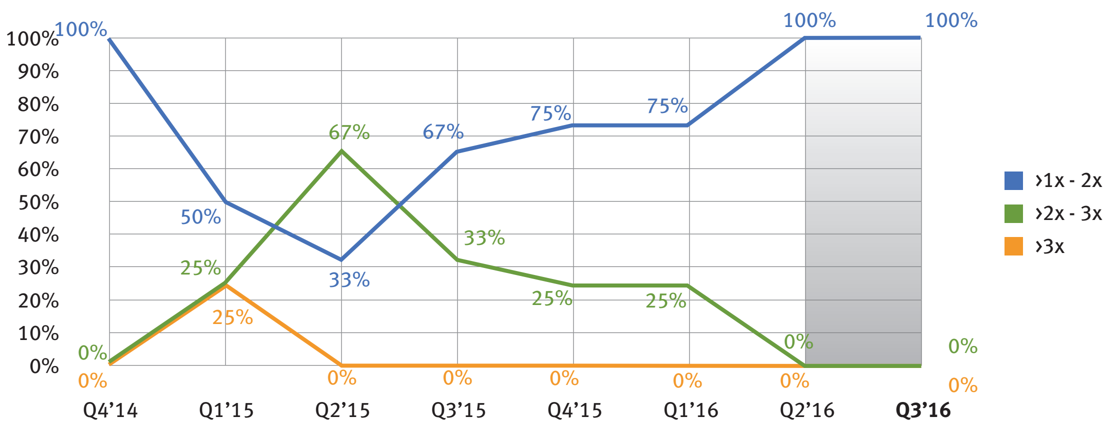
The percentage of senior liquidation preference by series was as follows:



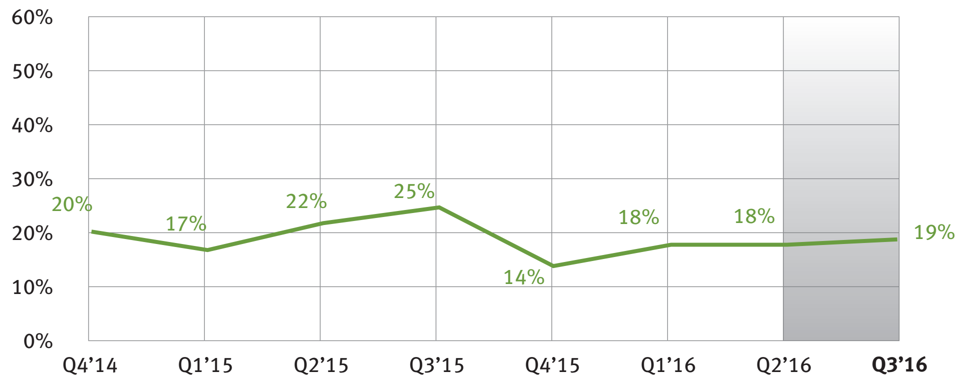
MULTIPLE LIQUIDATION PREFERENCES — The percentage of senior liquidation preferences that were multiple liquidation preferences were as follows:



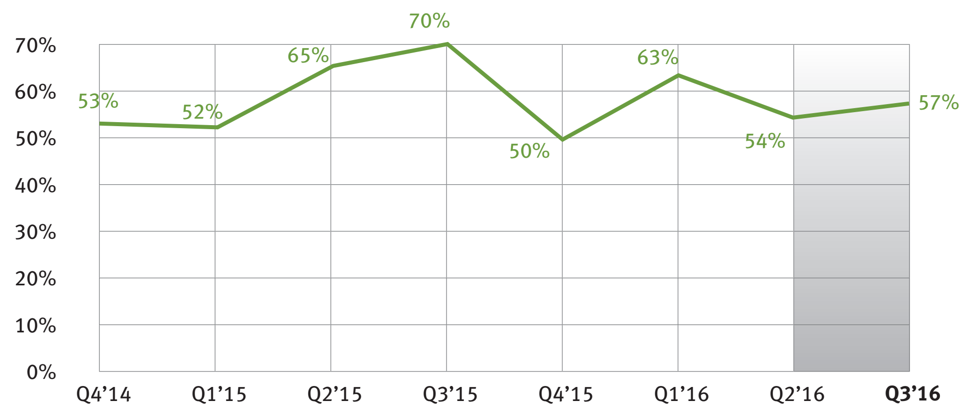
Of the senior liquidation preferences that were a multiple preference, the ranges of the multiples broke down as follows:



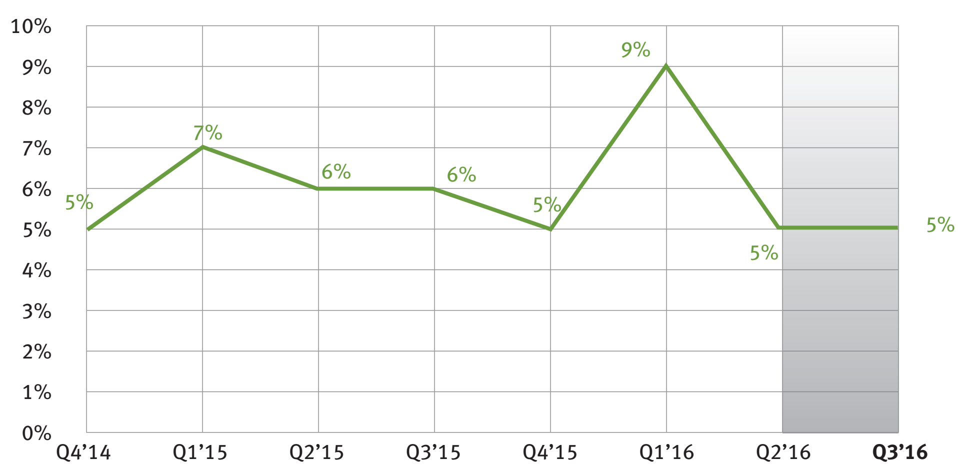
PARTICIPATION IN LIQUIDATION — The percentages of financings that provided for participation were as follows:



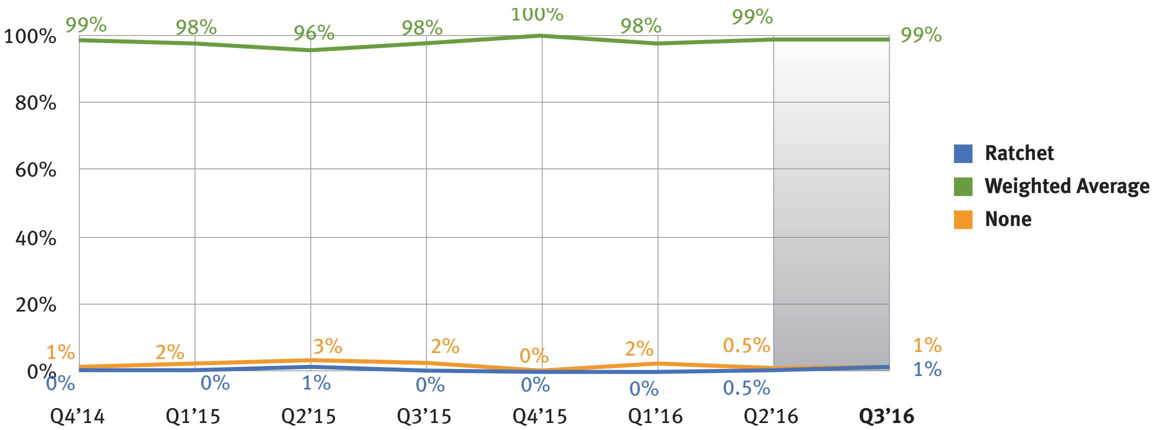
Of the financings that had participation, the percentages that were not capped were as follows:



CUMULATIVE DIVIDENDS – Cumulative dividends were provided for in the following percentages of financings:

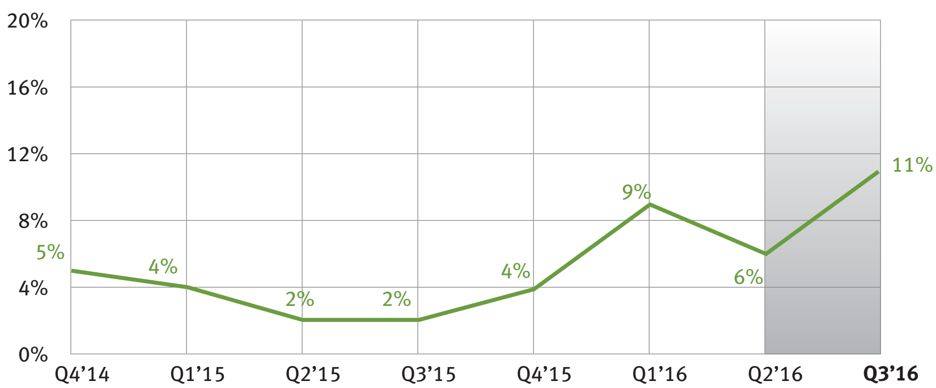


ANTIDILUTION PROVISIONS –The uses of (non-IPO) antidilution provisions in the financings were as follows:

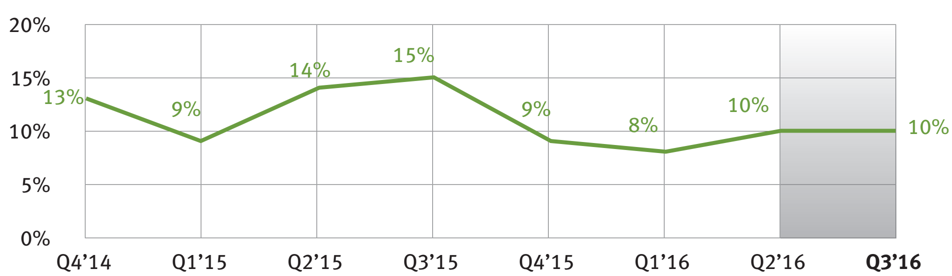


Please note that the chart above only applies to non-IPO anti-dilution provisions. In other words, the chart refers to anti-dilution provisions that protect the investor against a future venture financing at a price below what the investor paid. The chart does not include anti-dilution provisions designed to protect against an IPO at a price below the price paid by the venture investor (e.g., an IPO ratchet), because those provisions are generally only negotiated/included in very late stage, high value deals. We believe it would not be useful to provide a percentage of all financings that have IPO anti-dilution provisions, because it will provide a result that is artificially low. An analysis of IPO anti-dilution provisions is included in our Unicorn Survey, which by its nature is focused on late stage, high value deals.

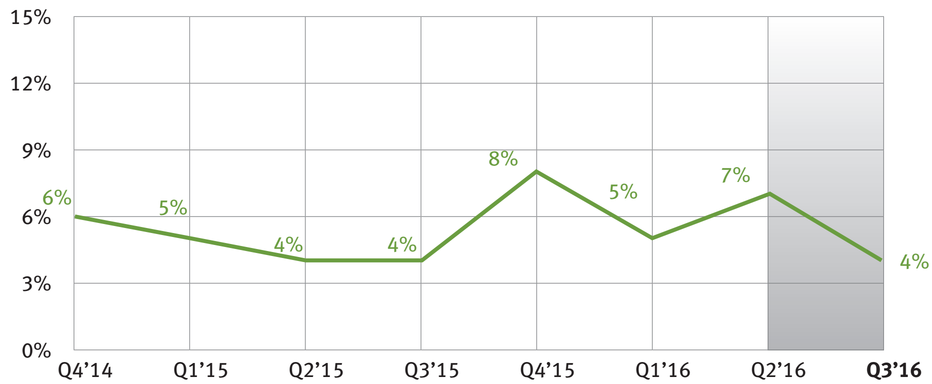
PAY-TO-PLAY PROVISIONS – The percentages of financings having pay-to-play provisions were as follows:



REDEMPTION – The percentages of financings providing for mandatory redemption or redemption at the option of the investor were as follows:



CORPORATE REORGANIZATIONS – The percentages of post-Series A financings involving a corporate reorganization (i.e. reverse splits or conversion of shares into another series or classes of shares) were as follows:



- **About our Survey**

The Fenwick & West Venture Capital Survey was first published in the first quarter of 2002 and has been published every quarter since then. Its goal is to provide information to the global entrepreneurial and venture community on the terms of venture financings in Silicon Valley.

The survey is available to all, without charge, by signing up at www.fenwick.com/vcsurvey/sign-up. We are pleased to be a source of information to entrepreneurs, investors, educators, students, journalists and government officials.

Our analysis of Silicon Valley financings is based on independent data collection performed by our lawyers and paralegals, and is not skewed towards or overly representative of financings in which our firm is involved. We believe that this approach, compared to only reporting on deals handled by a specific firm, provides a more statistically valid and larger dataset.

For purposes of determining whether a company is based in "Silicon Valley" we use the area code of the corporate headquarters. The area codes included are 650, 408, 415, 510, 925, 916, 707, 831 and 209.

- **Note on Methodology**

When interpreting the Barometer results please bear in mind that the results reflect the average price increase of companies raising money in a given quarter compared to their prior round of financing, which was on average about 18 months prior. By definition the Barometer does not include companies that do not do follow-on financings (which may be because they went out of business, were acquired or went public). Accordingly we believe that our results are most valuable for identifying trends in the venture environment, as opposed to calculating absolute venture returns. Please also note that our calculations are not "dollar weighted," i.e. all venture rounds are treated equally, regardless of size.

- **Disclaimer**

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- **Contact/Sign Up Information**

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FENWICK & WEST LLP

Explanation of Certain Terms Used in Venture Financing Terms Survey

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THIS SUPPLEMENT TO THE FENWICK & WEST VENTURE FINANCING TERMS SURVEY EXPLAINS THE MEANING OF KEY TERMS USED IN THE SURVEY.

Common Stock

Common stock is the basic equity interest in a company. It is typically the type of stock held by founders and employees.

Preferred Stock

Preferred stock has various "preferences" over common stock. These preferences can include liquidation preferences, dividend rights, redemption rights, conversion rights and voting rights, as described in more detail below. Venture capitalists and other investors in private companies typically receive preferred stock for their investment.

"Series" of Preferred Stock

When a company raises venture capital in a preferred stock financing, it typically designates the shares of preferred stock sold in that financing with a letter. The shares sold in the first financing are usually designated "Series A", the second "Series B", the third "Series C" and so forth. Shares of the same series all have the same rights, but shares of different series can have very different rights.

Liquidation Preference

"Liquidation preference" refers to the dollar amount that a holder of a series of preferred stock will receive prior to holders of common stock in the event that the company is sold—or the company is otherwise liquidated and its assets distributed to stockholders. For example, if holders of preferred stock have a liquidation preference equal to $30 million and the company is sold, they will receive the first $30 million before common stockholders receive any amounts. The liquidation preference amount can be paid in cash or stock of an acquiror.

Senior Liquidation Preference

A series of preferred stock has a "senior" liquidation preference when it is entitled to receive its liquidation preference before another series of preferred stock. All series of preferred stock will, of course, be "senior" to the common stock simply by virtue of having a liquidation preference. For example, if the Series B has a $30 million senior liquidation preference and the Series A has a $25 million liquidation preference and the company is sold for $40 million, the Series B will receive $30 million and the Series A will receive $10 million.

Multiple Liquidation Preference

The amount of liquidation preference that a given series of preferred stock has is usually equal to the amount paid for the stock. However, in certain financings new investors may require that their liquidation preference amount be equal to more than the amount they originally invested—often referred to as a "multiple" liquidation preference. Multiples tend to be one and one-half to three times the purchase price. A multiple liquidation preference will almost always also be a senior liquidation preference as well. For example, if the Series B was purchased for $30 million, but has a senior liquidation preference equal to two times the purchase price, then the Series B investors will receive the first $60 million on any sale of the company before the Series A or common stockholders receive any amounts.

Participation

Preferred stock is said to "participate" or to have "participation" rights when, after the holders of preferred stock receive their full liquidation preference amount, they are then entitled to share with the holders of common stock in the remaining amount being paid for the company, or otherwise distributed to stockholders.

For example, if the company is sold for $200 million, the preferred stock has a liquidation preference of $30 million and the preferred stock represents 40% of the total number of outstanding shares of the company, then the $200 million would be distributed among stockholders as follows:

1. First $30 million—paid to holders of preferred stock per their liquidation preference
2. Remaining $170 million:
   - Preferred stock holders receive their 40% pro rata share ($68 million) per their participation rights
   - Common stock holders receive remaining 60% ($102 million)

Totals: Preferred stock holders—$98 million
Common stock holders—$102 million

Capped Participation
Participation rights are described as "capped" when the participation rights of the preferred stock are limited so that the preferred stock stops participating in the proceeds of a sale, or other distribution, after it has received back a pre-determined dollar amount—caps typically range from three to five times the original amount invested.

Building on the previous example, if the participation rights of the preferred stock were capped at a 3x multiple of their liquidation preference amount—3x includes the amount of liquidation preference—then the result would be that the preferred stock would receive only an additional $60 million in participation in step (2) above. Thus, the total amount received by the holders of preferred stock would be $90 million—down from $98 million without a cap—and the amount received by the holders of common stock would increase to $110 million—up from $102 million.

Note: If the price paid for the company in this example were substantially higher (e.g., $275 million) then the holders of preferred stock would convert to common stock, thereby giving up their liquidation preference, in order to eliminate the 3x cap, because 40% of $275 million equals $110 million, which is $12 million more than the preferred would receive if they did not convert and were subject to the 3x cap.

Cumulative Dividends
Holders of preferred stock having a cumulative dividend right are entitled to be paid, in addition to a liquidation preference, an amount equal to a certain percentage per year of the purchase price for the preferred stock—typically five to eight percent. For example, if the preferred stock purchase price was $20 million, and the stock had a 1x liquidation preference and a six percent cumulative dividend, and if the company was sold after three years, then the preferred stock holders would be entitled to $23.6 million before anything was paid on the common stock. In some circumstances cumulative dividends must be paid annually, but this is unusual in venture financed companies.

Conversion Rate
Almost all preferred stock issued in venture financings can be converted into common stock at the option of the holder of preferred stock. The typical initial conversion rate is one share of preferred stock converts into one share of common stock. However, the conversion rate can change for a number of reasons, such as stock splits or antidilution adjustments.

Antidilution Provisions
Antidilution provisions retroactively reduce the per share purchase price of preferred stock if the company sells stock in the future at a lower prices. This is effected by increasing the conversion rate of the preferred and accordingly increasing the number of shares of common stock into which a share of preferred stock converts.

There are two main types of antidilution protection: weighted average antidilution protection and ratchet antidilution protection.

Weighted Average Antidilution

Weighted average antidilution provisions, which are the milder form of antidilution protection, increase the conversion rate of the preferred stock based on a formula that is intended to take into account the overall economic effect of the sale of new stock by the company. The formula includes variables for the price at which new stock is sold, the price at which the old preferred stock was sold, the total number of new shares issued and the total number of shares outstanding.

Ratchet Antidilution

Ratchet antidilution provisions, which are the tougher form of antidilution protection, increase the conversion rate of the preferred stock based on the price per share at which the company sells its stock in a future down round, regardless of how few or how many new shares are sold at the lower price. This has the effect of retroactively reducing the price per share that the preferred was sold in the current round to the new, lower valuation of a future down round.

Pay to Play

Pay to play provisions impose penalties on investors for not investing their full pro rata share in the next round—typically only if the next round is a down round. The more severe version of these penalties is to provide that investors who do not invest their full pro rata amount will have their existing preferred stock converted into common stock, resulting in the loss of their liquidation preference and antidilution protection, among other rights. A less severe version is to convert the preferred stock into a different series of preferred often referred to as "shadow preferred," that retains some or all of its liquidation preference, but loses anti-dilution protection, both for the subject financing and going forward.

Redemption

Redemption provisions allow investors to require the company to repurchase their preferred stock under certain circumstances, typically for the price originally paid. Redemption rights usually cannot be exercised unless the holders of at least a majority, sometimes more, of the preferred stock so request and usually cannot be exercised for four to five years after the financing. In certain circumstances, redemption provisions may provide for a right of exercise more quickly or for a repurchase at more than the original purchase price.

Corporate Reorganization

Corporate reorganizations typically refer to either (a) the conversion of existing preferred stock into common stock, or into a new series of preferred stock with a substantially reduced liquidation preference amount and/or (b) a reverse stock split of outstanding stock. Corporate reorganizations are usually implemented to reset the economic interests of existing stockholders to current economic realities so as to facilitate the company's ability to attract additional investment and to provide appropriate incentive to the management team. The conversion of existing preferred stock into common or a new series of preferred stock has a significant economic effect, as those stockholders will often lose substantial liquidation preferences and other rights. A reverse stock split has no economic effect in and of itself, but is usually undertaken when a company's stock price has fallen significantly and the company wants to raise it to a more typical range.

For additional information about this glossary please contact Barry Kramer at 650-335-7278; bkramer@fenwick.com or Michael Patrick at 650-335-7273; mpatrick@fenwick.com at Fenwick & West. To be placed on an e-mail list for future editions of the Fenwick & West Venture Terms Survey please go to www.fenwick.com/vctrends.htm.

Key Service Agreement Issues: Service Providers Checklist

BY DAVID J. BARRY

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Outsourcing of technology-related services continues to grow. Many service engagements now include an offshore component. These overseas arrangements can reduce the cost of the business activity but they also present different issues for both parties, which need to be addressed in the agreement. Further, there is intense competition among service providers which leads to considerable pressure on pricing and on negotiating the other business and legal terms of the transaction. Many service providers may promise anything to get the deal. You need to try to avoid every deal being a "bet the company" deal. There will always be some risk-taking but the challenge is to balance risk allocation among the parties with the need to stand behind the quality of services. A provider's credibility and business acumen is visible in its agreements and negotiation positions. A welldrafted and negotiated agreement can lead to a stronger long-term business relationship.

This paper addresses the key agreement provisions from the service provider's vantage point and identifies the risks and consequences of such provisions. It highlights areas that a service provider should include in its standard agreements to speed up revenue generation and avoid problem situations.

1. Master Agreements. The best business practice is to use a master agreement so additional services or projects can be performed for the same customer simply by adding an agreed-upon statement of work which is signed by both parties. This will lower the cost and reduce the time to document additional deals with the same customer. Any changes in the allocation of risk for a specific project can be made in the applicable statement of work.

2. Revenue Recognition. Avoid broad customer remedies that postpone revenue recognition. For example, if the customer may receive a full refund upon a breach of a performance warranty at any time during the agreement, recognition of the revenue from the agreement may be delayed until the end of the agreement. Another example is a provision that provides a full refund if a software deliverable is not accepted by a customer even if interim deliverables have been accepted and payments made upon such deliveries.

3. Agreement Signing. Make sure the agreement or statement of work is signed by the customer before beginning work. While there are legal theories (quasi contract, quantum meruit) that may provide a means of recovery in the absence of a signed agreement, the best business practice is to have a signed agreement in place. Ignoring the temptation to begin work before an agreement is signed may be difficult but you will be at risk if you start work prematurely.

4. Customer Credit Risk. You may need to do fundamental financial due diligence on the credit risk of a potential customer. Some potential customers may represent they have funding when they do not. While you may need to take some credit risk, do so on an informed basis by having access to basic financial information (such as a D&B report, balance sheet or bank statement) to evaluate this risk.

5. Termination Rights; Payment. Relatedly, be sure the agreement can be terminated or at least work can be suspended within a reasonable time if the customer fails to pay you in accordance with the payment schedule. For example, if payment terms are net 30 days and there is a 30-day notice and cure period before termination is effective, you will have to continue work through at least a 60-day period before termination is effective. At a minimum, this means you have to keep working and have a high risk receivable for the 60-day period before termination can be effective. This period should be shortened to reduce your exposure. Sometimes a customer proposes a provision that provides there is no right to terminate if the payment obligation is disputed by the customer. Such a provision means you have no leverage to be paid and could be obligated to keep working indefinitely. To provide leverage to be paid, assignment of IP ownership to the customer should be conditioned on receiving full payment.

6. Operational Coverage. Ensure the agreement permits delivery of the services in the manner that you operate. For example, if an offshore subsidiary corporation will actually deliver all or part of the services to the customer, the agreement must permit subcontracts so delivery can be accomplished that way. Subsidiaries are separate legal entities and you must have a subcontract in place to cover their responsibilities. Confidentiality provisions are another example. They must permit disclosure of the customers' confidential information to the extent needed to protect all parties in the delivery cycle. The agreement would be breached if confidential information is released to a subcontractor when disclosure is permitted only between the parties to the agreement. Unless expressly allowed, only the parties and their employees (but not subcontractors or consultants) are covered.

7. Service Level/Performance Warranties. Define the level of service performance and schedule as clearly and realistically as possible. The performance level is sometimes referred to as an express performance warranty. Delivery metrics such as response time, service results, network or application downtime percentages, etc. should be defined as objectively as possible to reduce disputes over measurement. Exaggerated claims of performance will be quickly discovered and will destroy the ongoing relationship, so be realistic and precise. When using a master agreement, performance levels can be addressed in the applicable statement of work since requirements may vary by service engagement even for the same customer.

8. Implied Performance Warranties. Disclaim implied performance warranties of merchantability and fitness for a particular purpose to avoid the possibility that there are performance requirements beyond the express warranties. The Uniform Commercial Code ("UCC") is intended to apply to products but you should assume it will apply to a services agreement at least when software or other technology is being developed. For example: "EXCEPT AS OTHERWISE EXPRESSLY PROVIDED IN THIS AGREEMENT, SERVICE PROVIDER HEREBY DISCLAIMS ALLWARRANTIES, OF ANY KIND, EXPRESS OR IMPLIED INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE." The capitalized wording should satisfy the conspicuousness requirement of the UCC.

9. Intellectual Property. Make sure you continue to own all pre-existing patents, copyrights, trade secrets and other intellectual property ("IP") before entering into the agreement and also, to the extent feasible, (1) any improvements or derivative works to such pre-existing IP and (2) other IP developed that may be repeatedly used in your business. In addition, to provide leverage to be paid, any assignment of IP ownership to the customer should be conditioned on being fully paid. Sometimes "joint ownership" with the customer without any duty of accounting to the other is an acceptable compromise at least as to the improvements to pre-existing IP. As a practical matter, there will be intense pressure from the customer to own IP. The best practice may be to allocate IP ownership in the applicable statement of work since it may vary by service engagement. The service provider will likely have to bear the risk of any claims of IP infringement or misappropriation in its deliverables.

Service businesses must not ignore their IP. Most service businesses have IP of some type. For example, IP includes the copyright and possible trade secrets in a database of domain knowledge in a technical support business and script in a call center business. It also includes the copyrights, possible trade secrets and patents in software routines that are incorporated into a software deliverable and software tools used in a network support business.

10. Damages Exclusions and Limitations. Economic exposure varies widely depending on the type of service. For example, the exposure from a tax return preparation service is considerably different from a call center business doing outbound sales calls. In all cases, exclude consequential, special, indirect and incidental type damages and, to the extent feasible, cap direct damages. Try to cap direct damages at the amounts paid in a payment period (month, quarter) rather than the total payments made under the agreement. Otherwise, the economic effect is that you have not been paid even for the good service you provided. Following are sample provisions: "In no event will either party be liable for any form of special, incidental, indirect or consequential damages of any kind, even if aware of the possibility of such damages. Service Provider's total liability under this Agreement will not exceed the amounts paid by customer during the three (3) months immediately preceding the date of the applicable claim." The UCC does not contain the conspicuousness requirement for these provisions.

11. Insurance Requirement. Comply with the workmen's compensation and liability insurance requirements of your customer. Work with an insurance broker who fully understands your business. Make sure your insurance covers all parties in the delivery process. For example, a special rider may be needed to cover the exposure of employees of a subsidiary corporation particularly if they are offshore. The named insured on a policy may not extend to these separate legal entities or the actions of their employees.

12. Force Majeure. Use a force majeure provision, particularly for service offerings involving delivery over a network. For example, if you are using overseas affiliates to provide services and there is a disruption in service caused by an earthquake, the agreement should not be terminated. The agreement should provide an opportunity for recovery within a specified period. Termination may occur only if recovery doesn't occur within the period.

13. Governing Law. Choose a governing law to provide more certainty to the interpretation of the agreement and, to be sure it will apply, use the clause: "excluding that body of law known as conflicts of law", following the choice of law. For example: "This Agreement will be governed by the laws of California excluding that body of law known as conflicts of law." The chosen law must have a relationship to the parties or the transaction such as being the state of their principal office or incorporation.

14. Dispute Resolution. Adopt a dispute resolution procedure that elevates the resolution process in an orderly, timely way. The first step could be a discussion between CEOs and the next step, non-binding mediation. Use binding arbitration as the ultimate mechanism to resolve disputes in order to increase the chances of maintaining the relationship. To avoid frivolous claims by either party, designate the arbitration site to be the customer's business location when you request arbitration and your business location if the customer requests arbitration.

15. Entire Agreement. Include an entire agreement provision so that verbal agreements do not become part of the agreement and amendments may only be implemented in writing. The following provisions do so: "This Agreement and the exhibits hereto constitute the entire agreement and understanding of the parties with respect to the subject matter of this Agreement, and supersede all prior understandings and agreements, whether oral or written, between or among the parties hereto with respect to the specific subject matter hereof. This Agreement may be amended only in a writing signed by both parties."

A service provider's credibility and business acumen is visible in its agreements and negotiation positions. Because of the competitive environment there may be a great temptation to accept almost any terms or credit risk in order to get a deal. You need to make sure risk allocation is balanced. Securing a deal on any terms may mean you work for free.

409A VALUATION MEMORANDUM

Federal tax laws make it especially important for companies granting stock options as compensation to set the exercise price of the underlying shares at or above the price that can be shown by a reasonable valuation method to be fair market value (FMV) at the time of grant. Employees, officers, directors and consultants who receive stock options with exercise prices that cannot be shown to be at or above the reasonably-determined FMV on the date of grant face immediate tax on vesting at a combined federal and state tax rate as high as 85% or more. Companies can establish a defensible FMV by using an IRS-approved valuation method. This shifts the burden from the company to prove the FMV determination is reasonable to the Internal Revenue Service to prove the FMV determination is unreasonable, reducing the likelihood of a successful challenge. Public companies that acquire private companies continue to be reluctant to take risk in the area of 409A and option valuations.

High Taxes on Options with Below-FMV Exercise Prices. Section 409A of the Internal Revenue Code (Code) requires the holder of an option having an exercise price below FMV at the time of grant to recognize taxable income equal to the spread between the exercise price and the FMV of shares as they vest. Thus, the optionholder will be taxed on income the optionholder does not actually receive, from shares that may not then even be saleable. Further, in addition to regular federal income and employment taxes, an additional 20% federal tax will apply. Certain states (for example, California) may have parallel statutes that in addition to their regular income and employment taxes can impose an additional 20% state tax. With respect to employees the company is required to withhold income and employment taxes (but not the additional 409A tax), and if it fails to do so, then it could be liable for these taxes plus penalties and interest. Although options that qualify as Incentive Stock Options (ISOs) under Section 422 of the Code are not technically subject to Section 409A (because by definition the exercise price of an ISO is at least equal to FMV at the time of grant), companies are advised to obtain Section 409A valuations even when granting ISOs.

Establishing a Reasonable Valuation Method. Start-up company stock values are uncertain at best, but the high taxes optionholders potentially face, and potential withholding obligations imposed on companies, make it important to establish a defensible FMV at the time options are granted. Of Section 409A's three approved valuation methods, we describe two below that are generally pertinent for start-up and venture-backed companies. These valuations apply for up to 12 months unless there are intervening events that would reasonably and materially impact FMV, such as a financing or receipt of a term sheet for an acquisition.

Independent Appraisal. Most venture-backed companies routinely rely on professional appraisals to determine FMV and set the corresponding exercise prices of compensatory stock options. Section 409A allows FMV to be established presumptively by qualified independent valuation experts using methods recognized under the Code. Many independent appraisers have extensive experience with Section 409A valuations and can prepare a valuation at reasonable fees. Contact your F&W attorney for a list of independent appraisers with 409A experience.

Illiquid Start-up Appraisal. A company that has been in existence less than 10 years and does not reasonably anticipate an IPO in the next 180 days or an acquisition in the next 90 days can rely on a valuation performed using Section 409A's enumerated valuation factors by a person (who can be a company employee) with significant knowledge and experience or training in performing similar valuations, if the stock being valued is not subject to put or call rights (other than a right of first refusal and repurchase rights on termination of service) and the valuation is memorialized in writing. The experience requirement may be met by having at least 5 years of relevant experience in business valuation or appraisal, financial accounting, investment banking, private equity, secured lending, or other comparable experience in the line of business or industry of the company. This methodology is rarely used, in part due to the burdensome requirement to memorialize the analysis in a writing.

Restricted Stock as an Alternative to Section 409A. Restricted stock is not subject to Section 409A, and so an alternative for early-stage companies is to sell or grant shares of unvested stock to eligible recipients. In this case, the recipients could file an election under Section 83(b) of the Code to be taxed in the year the election is made on the difference between the purchase price and the FMV of the shares on the date of grant (typically zero or a nominal amount), rather than being taxed on the difference between the purchase price and the FMV as the stock vests (when the stock hopefully is worth more).

Section 409A is another factor for start-up companies to consider when granting stock options. As a result, companies should seek legal counsel before promising or granting stock options to employees or other service providers.

For more information, you may contact any attorney in the Executive Compensation and Employee Benefits Group at Fenwick & West LLP.

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A Patent Portfolio Development Strategy for Start-Up Companies

BY RAJIV P. PATEL

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Successful high technology companies recognize that a comprehensive intellectual property portfolio can be of substantial value. One key component of the intellectual property portfolio is patents. A patent is a right granted by the government that allows a patent holder to exclude others from making, using, selling, offering to sell, or importing that which is claimed in the patent, for a limited period of time.

In view of this right many companies recognize that a well-crafted patent portfolio may be used for a variety of business objectives, such as bolstering market position, protecting research and development efforts, generating revenue, and encouraging favorable cross-licensing or settlement agreements. For companies that have developed original technology, a patent provides a barrier against a competitor's entry into valued technologies or markets. Thus, many start-up companies that have developed pioneering technology are eager to obtain patent protection. However, to develop an effective patent portfolio, a start-up company should first devise a patent portfolio strategy that is aligned with the company's business objectives.

A patent portfolio strategy may vary from company to company. Large companies that have significant financial resources often pursue a strategy of procuring and maintaining a large quantity of patents. These companies often use their patent portfolios for offensive purposes, *e.g.*, generating large licensing revenues for the company. For example, IBM generates close to $1 billion dollars a year from licensing its patent portfolio.

In contrast, for most start-up companies, developing and building a comprehensive patent portfolio can be prohibitively expensive. However, with an understanding of some basic principles of patent strategies and early planning, a start-up company can devise and execute a patent strategy to develop a cost-effective patent portfolio. For example, a start-up company can develop an effective patent portfolio by focusing on obtaining a few quality patents that cover key products and technologies, in alignment with their business objectives.

A patent strategy involves a development phase and a deployment phase. The development phase includes evaluation of patentable technologies and procurement of patents. A deployment phase includes the competitive analysis, licensing, and litigation of patents. For most start-ups the initial focus is on the development phase. Starting in the development phase, the patent strategy identifies the key business goals of the company. Clear business goals provide a long-term blueprint to guide the development of a valuable patent portfolio.

With the goals identified, the evaluation process begins by mining and analyzing intellectual assets within the company. In this process, a company organizes and evaluates all of its intellectual assets, such as its products, services, technologies, processes, and business practices. Organizing intellectual assets involves working with key company executives to ensure that the patent strategy closely links with the company's business objectives. Often, these individuals assist with developing a budget for the patent strategy, as well as making arrangements to get access to resources for executing the patent strategy.

Organizing intellectual assets also involves gathering key company documented materials. Examples of documented materials include business plans, company procedures and policies, investor presentations, marketing presentations and publications, product specifications, technical schematics, and software programs. It may also include contractual agreements such as employment agreements, license agreements, non-disclosure and confidentiality agreements, investor agreements, and consulting agreements. Such materials provide information used to determine ownership issues and the scope of patent or other intellectual property rights that are available for the company.

Organizing intellectual assets also includes identifying and interviewing all individuals who are involved with creating or managing the company's intellectual assets. These interviews uncover undocumented intellectual assets and may be used to evaluate patent and other intellectual property issues. For example, events and dates that may prevent patentability of some intellectual assets may be identified. Likewise, co-development efforts that may indicate joint ownership of intellectual assets may also be identified. Identifying such issues early on helps prevent wasteful expenditures and allows for effective management of potentially difficult situations.

After organizing information about the intellectual assets, each asset should be evaluated to determine how best to protect it. This evaluation includes determining whether the intellectual asset is best suited for patent protection or trade secret protection, whether it should be made available to the public domain, or whether further development is necessary. It also involves determining whether a patent will be of value when it issues, which is typically approximately 18 to 36 months after it is filed, and whether infringement of that patent would be too difficult to detect.

The evaluation phase may also provide an opportunity to determine whether obtaining protection in jurisdictions outside of the United States is prudent. International patent treaties signed by the U.S. and other countries or regions allow for deferring actual filing of patent applications outside the U.S. for up to one year after the filing of a U.S. application. Thus, planning at this early stage may include identifying potential countries or regions to file in and then begin financially preparing for the large costs associated with such filings.

The evaluation phase also provides an opportunity to determine whether a patentability or patent clearance study is necessary. Such studies are used to determine the scope of potentially available protection or whether products or processes that include or use an intellectual asset potentially infringe third-party rights. This evaluation may also involve identifying company strengths with regard to its patent portfolio as well as potential vulnerable areas where competitors and other industry players have already established patent protection.

While the evaluation phase is in progress, the company can move into the procurement phase. In the procurement phase of the patent strategy, a start-up company builds its patent portfolio to protect core technologies, processes, and business practices uncovered during the audit phase. Typically, a patent portfolio is built with a combination of crown-jewel patents, fence patents, and design-around patents.

Crown-jewel patents are often blocking patents. One or more of these patents is used to block competitors from entering a technology or product market covered by the patent. Fence patents are used to fence in, or surround, core patents, especially those of a competitor, with all conceivable improvements so the competitor has an incentive to cross-license its patents. Design-around patents are based on innovations created to avoid infringement of a third party patent and may themselves be patentable.

For most start-ups, costs for pursuing patent protection are a concern because financial resources are limited. Hence, most start-up companies begin the procurement phase by focusing on procuring one or more crown-jewel patents. To do this, the start-up company works with a patent attorney to review the key innovations of the company's product or services as identified during the evaluation phase. The patent attorney and start-up company consider the market for the innovation in relation to the time in which the patent would typically issue. This analysis helps identify the subject matter for the crown-jewel patents.

Once the subject matter is identified, in some instances a prior art search prior to filing provisional or utility patent applications may be conducted to determine what breadth of claim coverage potentially may be available. However, a company that considers such prior art searches should first consult with the patent attorney to understand the risks associated with them so that appropriate business decisions can be made.

Next, a strategic business decision is made as to whether to file a provisional patent application or a full utility, or non provisional, patent application for the identified subject matter. A provisional patent application is ideally a robust description of the innovation, but lacks the formalities of a full utility patent application.

The provisional application is not examined by the U.S. Patent and Trademark Office ("USPTO") and becomes abandoned 12 months after filing. Within the 12 months, an applicant may choose to file one or more utility applications based on the subject matter disclosed in the provisional application, and therefore, obtaining the benefit of the provisional application filing date. However, the later filed utility application must be fully supported by the disclosure of the provisional application in order to claim the benefit of its earlier filing date. Under U.S. patent law, this means the provisional application must satisfy the requirements of written description, enablement, and best mode, as is required for the utility application.

If the provisional application is filed with sufficient completeness to support the claims of subsequently filed utility applications, the provisional application provides a number of benefits. First, as previously discussed, one or more utility applications may claim the benefit of the provisional patent application filing date. The early filing date may not only protect the crown jewel subject matter, but may also protect some critical surrounding subject matter, hence increasing the overall value of the patent portfolio. Second, the provisional application provides an earlier effective prior art date against others who may be filing patent applications on similar inventions.

Third, provisional patent application filings costs are currently $80 to $160 versus $370 to $740 for a full utility application. Fourth, inventors often take it upon themselves to draft the core of a provisional application with the guidance of a patent attorney and request that the patent attorney spend time simply to review the application to advise on the legal requirements and potential pitfalls. This means that the attorney fees for a provisional patent application may be substantially less than attorney fees associated with preparing a full utility application.

Fifth, the provisional patent application precludes loss of patent rights resulting from activity and public disclosures related to the target inventions. For example, almost every country except the U.S. has an absolute novelty requirement with regard to patent rights. That is, in these countries, any public disclosure of the target invention prior to filing a patent application results in a loss of patent rights. For many start-ups this can be somewhat disconcerting. On the one hand, the start-up may want to preserve the right to pursue patent protection outside of the U.S. On the other hand, immediate business opportunities and time demands often conflict with the timely preparation and filing of a utility patent application. However, through international treaties, most countries will recognize a filing date of a provisional application filed in the U.S. Thus, the applicant may be able to file for a provisional application and convert it to a utility application that can be filed in the U.S. and other treaty countries within 12 months.

Although the provisional application provides a cost-effective tool for creating a patent portfolio, filing a provisional application does not end the portfolio development process. Once the provisional application is filed, and when finances and time permit, the company should be diligent in filing utility applications that may claim the benefit of the provisional application filing date. This is true for a number of reasons.

First, the provisional application is not examined and will go abandoned 12 months after it is filed. Therefore, the filing of the provisional application provides no more than a filing date placeholder for the subject matter it discloses. Second, the utility application costs more than the provisional applications to prepare and file. Thus, a company must adequately budget and plan for this expense. Third, as time passes the time available for patent matters may become more difficult in view of product cycles, marketing launches, and sales events. Hence, budgeting time for planning and reviewing filings of subsequent utility applications based on a provisional application becomes important. Fourth, products and technologies continually evolve and change, often soon after the filing of a provisional application. Therefore, a company must continually revisit their patent portfolio and strategy to reassess whether the provisional application can provide sufficient protection in view of further development.

Over time, companies that value their intellectual assets set aside time, money and resources to further enhance their patent portfolio. To do this a company may move to the deployment phase. In the deployment phase, the company begins the competitive analysis process to study industry trends and technology directions, especially those of present and potential competitors. The company may also evaluate patent portfolios of competitors and other industry players.

Also in the deployment phase, the company may incorporate the licensing process. Here, the company determines whether to license or acquire patents from others, particularly where the patent portfolio is lacking protection and is vulnerable to a third-party patent portfolio. Alternatively, in the licensing process the company determines whether to license or cross-license its patent portfolio to third parties. The deployment phase may also include the litigation process. Here, the company determines whether to assert patents in a lawsuit against third party infringers.

In summary, for most start-up companies, devising a patent portfolio development strategy early on can be a wise investment to help the company develop and build a strong foundational asset on which to grow. This investment will likely reward the company with positive returns for years to come.

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Developing a Patent Strategy

A Checklist for Getting Started

BY RAJIV PATEL

For many technology companies, developing a patent strategy is an important component of the business plan. However, for many the approach for developing a patent strategy is more happenstance than execution of a precisely defined plan. To help develop a patent strategy, this document provides a checklist for getting organized in preparation for developing a comprehensive patent strategy for the company.

A. Business and Patent Portfolio Goals

Starting in the development phase, the patent strategy identifies the key business goals of the company. Clear business goals provide a long-term blueprint to guide the development of a valuable patent portfolio. In particular, the company should:

- ❑ List the business goals for the company.
- ❑ Identify key industry players (competitors, partners, customers).
- ❑ Identify technology and/or product directions (within company and within industry).
- ❑ Determine whether a patent portfolio be used offensively (*i.e.*, as a "sword" asserted against others; revenue generation, etc.), defensively (*i.e.*, used as a "shield" or counterclaim against others who file suit first), for marketing purposes (*i.e.*, to show the outside world a portfolio to demonstrate company innovation), or a combination of these.
- ❑ Meet with attorney to align goals, industry information, technology/product information, and patent portfolio use to outline core patent strategy.

B. Evaluation of Company Assets

The evaluation process begins by mining and analyzing intellectual assets within the company. Intellectual assets include products, services, technologies, processes, and business practices of the company. In this process, a company organizes and evaluates all of its intellectual assets. To help think of what the intellectual assets may be, consider the business goals and technology and/or product directions outlined previously. For example, for each business goal, determine what are the **core** technologies and/or products that will help drive that goal.

Note that organizing intellectual assets involves working with key executives who can provide input to help align the patent strategy with the business objectives. Here, the company should:

- ❑ Identify team members that will lead the mining and analysis process. The selected members should have an understanding of the commitment this will require and an ability and desire to commit sufficient time for the commitment. The team members should have the backing of management and management should understand the implications of insufficient time and effort as it impacts the implementation and execution of this phase and the costs involved with it.
- ❑ Identify employees that create intellectual assets for the company.
- ❑ Clearly articulate the business goals and align the technology and/or product directions with those goals.
- ❑ Identify the intellectual assets. To help determine this, gather and organize documented materials. Examples of documented materials include business plans, company procedures and policies, investor presentations, marketing presentations and publications, product specifications, technical schematics, and software programs. It may also include contractual agreements such as employment agreements, assignment and license agreements, non-disclosure and confidentiality agreements, investor agreements, and consulting agreements.

- ❑ Identify the anticipated life span for each intellectual asset. For example, critically evaluate the anticipated lifespan of technologies and/or products before they are likely to be replaced with the next generation?
- ❑ Identify the market for each intellectual asset.
- ❑ Identify products/product lines incorporating each intellectual asset.
- ❑ Identify those intellectual assets best suited for patent protection.
- ❑ Review risk analysis with attorney involving competitor studies.
- ❑ Prepare budget for patent strategy and patent procurement (See attorney to obtain insights on various costs and fees associated with this step. Some considerations for fees include setting and implementing the patent strategy, preparing patent disclosure materials, preparing and prosecuting patent applications, and maintaining the patent portfolio).

C. Procurement Phase

While the evaluation phase is in progress, the company can move into the procurement phase. In the procurement phase of the patent strategy, a start-up company builds its patent portfolio to protect core technologies, processes, and business practices uncovered during the evaluation phase. Typically, a patent portfolio is built with a combination of crown-jewel patents, fence patents, design-around patents, and portfolio enhancing patents. Each patent may have a unique value proposition for the company. An integral part of the procurement phase is to develop and establish a process for patent procurement and management. This allows the company to capture all inventions to evaluate intellectual property protection options that include patent, trade secret and copyright. In addition, a thought-out, well-organized process can be an important component of maintaining cost controls. Thus, in the procurement phase, a company should consider:

- ❑ Identify a patent administrator to oversee, coordinate, and manage the patent process and patent review committee.
- ❑ Identify a patent review committee that will be responsible for this phase. Members of the committee may include a cross-section of company individuals that together can integrate the company's patent strategy with its business strategy and financial considerations. Here again, the selected members should have an understanding of the commitment this will require and an ability and desire to commit sufficient time for the commitment. As with the prior phase, team members should have the backing of management and management should understand the implications of insufficient time and effort as it impacts the implementation and execution of this phase and the costs involved with it.
- ❑ Draft invention disclosures (See attorney for Invention Disclosure Form). Note that the level of completeness for the invention disclosure (see also next step) may impact the cost of patent preparation and, subsequently, patent prosecution (examination). Hence, a good invention disclosure form often is helpful in organizing and articulating an invention for others in this process to understand the key aspects for protection consideration and its benefits.
- ❑ Evaluate completeness of invention disclosures and determine whether (and what) additional details may be required.
- ❑ Critically evaluate each invention disclosure in the context of the patent strategy (including considerations of product life, potential time to issuance, and industry trends/directions).
- ❑ Weigh risks versus reward of a conducting a prior art search. Note that a prior art search is not required, but may be worthwhile to have a better understanding of the boundaries of what type of legal protection may be available. However, there are risks of certain type of prior art searches, such as searches of issued patents that should be discussed with an attorney.

- Evaluate benefits and risk of provisional versus utility patent application with attorney.

- Forward invention disclosure to an attorney for patent application drafting.

- Over time, determine whether to conduct further competitive analysis to study industry trends and technology directions and identify patent portfolio coverage in view of same.

- Over time, evaluate risk versus reward of studying patent portfolios of competitors and other industry players to identify how to further strengthen its patent portfolio.

- Tune the budget for patent portfolio procurement and development. (See attorney to obtain insights on various costs and fees associated with tuning, including aspects such as pruning, focus for prosecution, etc.).

D. Deployment Phase

A company that values its intellectual assets may set aside time, money and resources to further enhance its patent portfolio. To do this a company may move to the deployment phase. The deployment phase may include licensing all or part of a patent portfolio to others in the industry or to alternative applications for the technology. Alternatively, it may include asserting rights established by its patents, such as through litigation. The deployment stage often includes high-level management involvement. In this stage a company should consider:

- Review "sword", "shield", and/or "market" strategy considerations.

- Determine risks and benefits of various enforcement options (cease & desist; cross-license; etc.). Evaluate impact on business goals and reporting and financial statements.

- For "sword" evaluate competitor products for infringement considerations and determine risks versus rewards of cease and desist strategy or licensing strategy.

- For "sword", evaluate strength of competitor patent portfolios to access the potential for competitor counter-attacks.

- For "shield" evaluate impact of patent with respect to potential aggressors.

- For "market" review patent portfolio to identify those assets that company can sell for cash or use to spin out new business.

The above outline provides one approach to a comprehensive patent strategy. As with any strategy, the approach your company may take could differ and should be flexible enough to account for those differences. Companies that take the time and effort to develop a patent strategy will be well positioned to capitalize on the rewards for the time, money and effort spent early on as their business continues to grow and prosper.

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A Framework for Identifying Inventions Worth Patenting

BY ROBERT R. SACHS

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The selection of an invention for patenting must be based on the business goals and needs of the client. This mandates that the prosecutor take the time to understand the patentee's business, and not merely its technology–the mere technical 'coolness' of an invention is not a sufficient reason for patenting it.

The patentee's business is typically focused around some number of markets or market segments. Identification of these markets is necessary to determine who are likely competitors, and what are types of products or services they offer. This informs how to structure different claims for products, systems, or "components," to better ensure infringement by different parties.

Next, in each of these markets, identify the competitive advantages on which the patentee seeks to capitalize. The competitive advantages may be in specific product features or functionality, technology independent product or service architecture, a service offering, or in satisfying particular customer requirements (*e.g.*, security, fault tolerance, real time updates, etc.). It is these competitive advantages that the patent portfolio must as a whole seek to protect. Since it is unlikely that any one patent will protect all of the company's competitive advantages, the strategy is to develop a 'minefield' of patents that must be negotiated by the competition in order to effectively compete.

With the competitive advantages so identified, the next step is to identify which technologies support each competitive advantage. In some instances the competitive advantage will be created by a technical achievement; in others multiple different technical features will cooperatively provide this support. Each of these technical features, or their relevant combinations is then evaluated for the threshold requirements of novelty and non-obviousness. Satisfying these patentability requirements is a necessary but not sufficient condition for filing a patent application. That question is answered by evaluating a number of "strategic value considerations."

- Does the invention have longevity? An invention has to be useful not just today, but for at least 5-9 years, time enough for a patent to issue and be either lucratively licensed or enforced against infringers.

- Are others likely to infringe? A primary solution to a major technical problem, may provide a powerful blocking patent, whereas a "one of many" solution generally adds value in a portfolio built around a product or technology infrastructure. Even if the invention is not itself a candidate for a blocking patent, consider whether it can, together with a number of other patents form a sufficient "mine field" of protection around the patentee's business space. This approach is commonly used in patent licensing pools that cluster around a technology standard. Further, patents on second and third best solutions, even if they are not going to be in the patentee's own products, can form effective barriers to entry by increasing the cost to others to design around.

- Can infringement be cost effectively detected, particularly before litigation? Duplication of "customer facing" technology or features (*e.g.*, end user products or services, user interface features, business methods) is easier to detect and confirm infringement. This increases the likelihood of efficient enforcement and reduces the costs associated with convincing an infringer to cease or take a license. Patents on internal technical architectures, such as chip structures, internal data processing algorithms, and other "below the surface" features are more costly difficult to enforce, as they often require access to a competitor's engineering documentation, source code or other trade secret material. In addition, patents on these types of inventions often do not directly target eCommerce competitors who integrate software and systems from other vendors to create their eCommerce business. Better are the high level "service offering" patents that describe the functional aspects of the patentee's services or products, independent of specific technical architecture of implementation.

- Are there valuable licensing or business opportunities provided by the patent? Licenses to competitors may create value for the patentee, either through direct revenue, or often more importantly, through a cross license to the competitors' patents, thereby providing a greater scope of design freedom. Patents on technical infrastructure often provide licensing opportunities to non-competitors outside of the patentee's primary business space. This creates a source of additional return on the investment without giving up the competitive advantages provided by the patent in the patentee's markets. In some instances, patents may serve as the core of a new business opportunity that can be spun out of the company. These opportunities should be addressed as well.

- What patents are the company's competitors obtaining? Competitive intelligence is another important part of the invention selection process. While U.S. patent applications can be confidential for at least 18 months, regular searches on issued patents, published U.S. and international applications provides significant information. If a competitor is filing aggressively in a particular technology area, that should increase the value of inventions by the company in that same area. This ensures some patent assets to form the basis of a defensive cross license if needed in the future. In particular, when the company's engineers find out what patents their competitors are getting, it often yields a competitive atmosphere and more invention disclosures.

These various criteria can be differently weighted according to the patentee's business needs. For example, each criteria can be rated on a scale of 1 to 5, and the total scores added; inventions with scores over some threshold (typically tied to an available budget) are selected for patenting. More common is simply using this information to make an overall informed judgment about whether an invention is worthy of patenting.

The final consideration is the patentee's available budget. Clearly, all patentees should patent the inventions that score highly on the foregoing considerations, that are the "crown jewels" of the company's technology. For patentees with high legal budgets, there is greater flexibility, particularly in patenting inventions that are merely second best solutions or portfolio builders. Yet even for those with modest legal budgets, serious consideration should be given to the "mine field" approach. This is because most patentees will very rarely come up with a formidable competition-stopping pioneering patent. Most will likely develop incremental advances in their field with the occasional "key feature" invention that is important to the company's product, but that is not essential to the competition. A portfolio then of "key feature" patents works as a whole to increase the costs to competitors for doing business, which itself becomes a competitive advantage to the patentee.

Selecting inventions to patent is not a science—its every bit as complex and strategic as selecting which products or services to bring to market. Insight into the industry, a strong sense of business strategy, economics, and a bit of luck all play a part. Close collaboration between patent counsel and the client leverages the client's own business expertise and knowledge of the industry and competitive position with patent counsel's understanding of how to best position patents for successful prosecution, licensing, and litigation.

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The Basics of Copyright Law

Just Enough Copyright for People Who Are Not Attorneys or Intellectual Property Experts

BY MITCHELL ZIMMERMAN

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This article originally appeared in the California Bar Journal *as an educational piece for attorneys not expert in intellectual property law, but is suitable for non-attorneys as well.*

You have been helping a client set up her consulting business for failing bookstores (Speak Volumes Recovery Group), and she mentions that she has developed a PowerPoint presentation and hand-outs for use in their seminars. "Do you think we should trademark or copyright these materials?" she asks. "We're really jazzed about the slides; we made them much more exciting by using a lot of photos we found on the internet. Also, the manuals we give our customers include some great ideas we've developed about bookstore inventory control —the copyright will keep our competitors from using our ideas if we register the manual, right?"

"Well," you respond, "ummm... ahh.... Let me think about that." (Maybe you should have taken that intellectual property course in law school after all!)

No mind; not too late. Copyright issues can arise in any practice, but you don't need to become an expert in the most sophisticated and arcane aspects of the practice in order to answer some basic questions. This article seeks to provide you with just enough copyright law to understand the fundamentals and address the key issues.

JUST WHAT IS A COPYRIGHT?

Copyright refers to the rights of authors in works of authorship —as distinguished from patents (whose subject matter is inventions), trademarks (which concern symbols of an enterprise's reputation and goodwill) and trade secrets (information whose value derives from being kept secret).

Copyright protects the *expression* in a work of authorship against *copying*. Copyright law does not protect the underlying ideas embodied in a work; neither does it protect against independent development.

Basic copyright protection is automatic, essentially free, and more or less world-wide in scope. Although people often speak of "copyrighting" a work or "obtaining a copyright," these are misnomers. The copyrights in any original work of authorship come into existence automatically, without further action, as of the moment of "fixation" of the work. Registering a work with the U.S. Copyright Office and marking a work with a copyright notice are not required, and failure to do so does not result in loss of the basic rights of copyright holders.

COPYRIGHT REQUIREMENTS

There are three basic requirements for copyright protection: that which is to be protected must be a *work of authorship*; it must be original; and it must be fixed in a tangible medium of expression.

1. The Work of Authorship Requirement

What is a work of authorship? The subject matter of copyright embraces a wide range of works, whether published or unpublished, including:

- Literary or textual works of all kinds (including novels, short stories, biographies, articles, news stories, poems, outlines, letters, email messages, etc.).
- Pictorial, graphic and sculptural works (including sketches, paintings, photographs, drawings, designs, etc.).
- Musical, dramatic and choreographed works (songs, telephone ring tones, plays, TV shows).
- Sounds recordings (performances of songs, public speeches, books on tape).

- Computer programs, most websites, and various other digitized works.

2. The Originality Requirement

"Originality" is a constitutional requirement, but it is a minimal requirement under copyright, not comparable to the "nonobviousness" standard for a patent. A hackneyed or trivial work can be original enough for copyright protection, so long as it is not copied from an earlier work and so long as it contains a tiny spark of creativity. What would represent *insufficient* creativity? Arranging the names in a telephone directory in alphabetical order.

3. The Fixation Requirement

A work must be "fixed," under copyright law, to enjoy copyright protection. This does not mean it must be the final or a well-considered version of the work. Rather, the term simply refers to the requirement that an embodiment of the work be set down or "fixed in a tangible medium of expression" for a more than transitory period. A draft of a novel on paper, the "rushes" from a film before editing, the beta version of a computer program on a CD-ROM disk, a snapshot on film or a digital camera's flash memory, all are "fixed" works within the meaning of copyright law. But the most brilliant and creative improvisation is not "fixed" if unscripted and unrecorded.

BENEFITS OF REGISTRATION WITH THE U.S. COPYRIGHT OFFICE

Registration, though not required for basic copyright protection, has important advantages: Registration is necessary if you want to (i) record security interests in a copyright, (ii) ask U.S. Customs to block infringing goods from being imported into the country, (iii) benefit from the (rebuttable) presumption that all facts stated in the registration certificate, including ownership, are true or (iv) be eligible for statutory damages and attorneys fees.

In cases in which the infringement begins after registration or within three months of publication, the registrant is entitled to statutory damages —damages awarded without need of evidence of harm to the plaintiff or unjust enrichment of the defendant —in a discretionary amount between $750 and $30,000 per infringed work (increased to as much as $150,000 per infringed work in cases of willful infringement). The plaintiff is in any event always eligible for actual damages or infringer's profits if they can be proven.

Registration is also required (v) as a condition for filing a copyright infringement lawsuit. The registration is just the ticket for getting into court, however; you can register and sue even if you had not registered before you learned of the infringement. Also, it is not uncommon for plaintiffs to file a complaint and attach a registration application, and then to substitute the actual registration certificate later.

The form is a simple one and the registration fee, relatively trivial. Some works, like computer software and web sites, can pose more difficult issues, and a lawyer's help may be needed for them. The Copyright Office's examination of the application is largely ministerial, and it does not engage in the kind of substantive review characteristic of patent and trademark applications.

OWNING A COPY VERSUS OWNING A COPYRIGHT

Although a work must be fixed in order to be protected, the copyright in a work is not the same as the physical medium in which the work was fixed. It follows that owning a "copy" of a work (even, for example, the original of a painting) is not the same thing as owning the *copyrights* in the work. The owner of a lawfully transferred copy (or original) therefore does not own the copyrights, in the absence of an express copyright assignment in writing.

THE RIGHTS OF COPYRIGHT HOLDERS AND LIMITING DOCTRINES

Under the Copyright Act of 1976 (and international copyright law), the copyright holder owns a bundle of rights. The copyright owner is the only one who has the right to

- reproduce the work in copies;
- prepare derivative works based on the original work;

- distribute copies to the public; or
- display and perform the work publicly.

Although the copyright holder owns these exclusive rights with respect to a work, there are still limits on the *scope* of the rights. These are the principal limiting doctrines:

- Copyright does not protect against independent development, only against copying. Thus, if you and I each independently write identical sonnets, without any copying, each of us owns a copyright in our own work notwithstanding who came first or that the works are the same.
- Copyright does not protect ideas, only the way the ideas are expressed. This is often referred to as the "idea —expression 'dichotomy'," although the distinction is really more of a continuum.
- Copyright does not protect individual words and short phrases.
- Copyright does not protect procedures, processes, systems, concepts or methods of operation that are embodied in works; only the particular way they are expressed.
- If there is only one or very few ways to express an idea, the expression is deemed to be "merged" with the idea and it is not protected against copying. This "merger" doctrine prevents copyright from being used to monopolize ideas.
- "Standard treatments" of a subject within a genre of works (known as "scenes a faire") are not protected. (Example: the gun duel on a dusty main street in a cowboy movie.) The scenes a faire doctrine bars protection for features or elements of a computer program that are dictated by "externalities" such as the purpose of the program, standard programming practices, the requirements of the relevant computing environment, etc.
- Copyright does not protect "facts" or data. But the selection and arrangement of facts (e.g., in databases) can be protected as a "compilation." In that event, copying the underlying facts is not an infringement, so long as the creativity residing in selecting or arranging the facts is not appropriated by the copier. Thus, extracting facts or data from a web site (so-called "screen scraping") is usually not a copyright violation. (Keep in mind, however, that it might nonetheless violate the web site's terms of use (which may or may not be enforceable under contract law). And if automated software "robots" or "spiders" were used to collect masses of data from a web site, the owner of the site might also assert a state law claim for "trespass to chattel.")

OWNERSHIP AND TRANSFER OF COPYRIGHTS

The author initially owns the copyrights in a work. The author is either the individual who wrote or created the work or (under the "work made for hire" doctrine) her employer, if the work was created by an employee within the scope of her employment. 17 U.S.C. §§ 101, 201(b). With only a few narrow exceptions (see part (2) of "work made for hire" definition in 17 U.S.C. § 101), when a consultant creates a work of authorship, he or she is the author and owns the copyrights in the work even if someone else specifically commissioned and paid for the work.

When two or more individuals contribute parts intended to be united into a single, unitary, indivisible work (e.g., the music and lyrics of a song, or the analytical software engine and user interface of a computer program), they are considered joint owners of the copyright in the work. Unless they contract otherwise, each has the power to exploit the work (and each may license third parties' use of the work) without the permission of the other joint owner, subject only to an obligation to account to the other party for profits.

Copyrights can be transferred only by an express assignment in writing. This requirement governs exclusive licenses as well as assignments of the entirety of a copyright.

COPYRIGHT INFRINGEMENT

The unauthorized exercise by a third party of any of the exclusive rights of copyright holders, such as copying, is copyright infringement. There is no bright line test for how much is too much copying. But actionable copying is commonly presumed when the defendant had access to the original work and —after setting aside ideas or other elements of a work that are not protected —what is left is "substantially similar" to the original work. For works that enjoy only "thin" copyright protection (such as, for example, representational sculptures of real creatures), infringement will not be presumed unless the works are "virtually identical" or the defendant has "bodily appropriated" the original.

SECONDARY LIABILITY

One can be liable for the infringing acts of third parties under three distinct doctrines. Liability for *contributory infringement* attaches if (i) with knowledge of the infringing acts, someone (ii) materially contributes to the infringement. *Vicarious infringement* lies if the defendant (i) had the right and power to control the infringing activity and (ii) received a direct financial benefit from it. Finally, one is liable for *inducement of copyright infringement* if it can be shown that one (i) distributed a device or technology with (ii) the object of promoting its use to infringe copyright, as shown by clear expression or other affirmative steps taken to foster infringement.

DEFENSES TO COPYRIGHT INFRINGEMENT: FAIR USE

Even if a work is copied in whole or in part, a *prima facie* infringement will not mature into liability if an affirmative defense such as fair use applies. Section 107 of the Copyright Act of 1976 mentions "criticism, comment, news reporting, teaching, scholarship, or research" as examples of fair use purposes. But all such uses are not necessarily deemed "fair use," and the statute directs courts to consider four factors to decide whether a particular use is fair:

- Purpose & character of use (e.g., commercial, educational, and particularly including whether the use is "transformative" —whether the new work is imbued with new purpose, expression, meaning or message);
- Nature of copyrighted work (copying of factual works is more likely to be deemed fair use than copying of creative or fictional works);
- Amount and substantiality of what was taken (it militates against fair use to take the entirety of the work or more than needed for the claimed fair use purpose); and
- Effect on the potential market for or value of the copyrighted work (it tends to go against fair use if the new work is a substitute for the demand for the original work).

EXAMPLES OF FAIR USE

- Cases have held that it represented fair use, and therefore was not an infringement of copyright, for defendants to:
- Copy numerous features of the original work in order to create a parody that ridicules the original;
- Use "thumbnail" copies of photographs on a website as part of a visual search engine;
- Copy and display photographs when the photos themselves are the subject of commentary or a public controversy;
- Copy television programming for purposes of "time-shifting" (make temporary copies so the consumer can view the programming later);
- Copy the full text of millions of books, when the texts are not made available to end-users for reading, but are only used for data mining or to enable searches to locate small excerpts from the books.
- Transfer digital copies of recorded programming, which consumers lawfully possess, to their mobile devices;
- Reverse engineer and copy the code of a game program, as an intermediate step, when that is required in order to understand the functional specifications of the work and when those functional specifications are needed to prepare new, compatible, non-infringing games to operate on the same platform.

AFFIRMATIVE DEFENSES: COPYRIGHT MISUSE

The use of the copyright to secure (i) an exclusive right or limited monopoly (ii) not granted by the Copyright Office and which is (iii) contrary to public policy constitutes copyright misuse. Cases have therefore held it to be misuse to impose terms in a copyright license that require the licensee to agree not to create new, non-infringing works of the same genre, to agree not to purchase competing non-infringing works from third parties, or to agree to limit access to the work in a way that precludes the creation of new, non-infringing works.

The copyright misuse defense can be asserted by a defendant who was not a party to the misuse-embodying license or contract. Misuse does not invalidate the copyright, but renders it unenforceable for the period of misuse and until the results of the misuse are purged.

AND ABOUT SPEAK VOLUMES RECOVERY GROUP…

Getting back to your client, you can now explain—

> That copyright, not trademark, is what protects their PowerPoint presentations and handouts, and the advantages of registration;
>
> That copying photos off the internet is likely copyright infringement, and they need to license rights to the photographs useful in their business; and
>
> That copyright law won't prevent SVRG's competitors from using the ideas contained in the SVRG manual, though it may perhaps be possible to protect the company's ideas through a business method patent or as trade secrets.

But those are subjects for another day.

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