

A Financing Primer

ADVANCED ORGANIZER

AN EXPENSIVE ENDEAVOR

WHAT DO YOU WANT TO BE
WHEN YOU GROW UP?

SWEAT EQUITY

SCIENCE-FOR-HIRE

DEBT FINANCING

EQUITY FINANCING

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CONCLUSION

Advanced Organizer¹

The purpose of this chapter is to introduce the five broad areas of financing available to technology entrepreneurs seeking to capitalize the growth of their firm: sweat equity, publicly-funded R&D programs, debt, equity, and profit. Not all forms of financing are available to companies at the same time. Debt financing becomes available when the company has sufficient collateral. Equity investments become increasingly available as technology and market risks are decreased. From a financing perspective, the most difficult time for technology entrepreneurs is during the early R&D phase, when the private sector is loathe to make investments. Sweat equity and R&D partnerships enable such companies to develop new technology and position them to involve private sector capital once R&D risk has been decreased.

An Expensive Endeavor

Commercialization is an expensive endeavor, and advanced technology firms have a voracious appetite for money. As a result, technology entrepreneurs must thoroughly familiarize themselves with different funding mechanisms. The scientist shouldn't approach financing by asking, "which type of funding do I prefer?" but instead should assume that at different points in the life cycle of their business they may need to use different types of financing to nurture and sustain their business. The questions to consider are as follows:

- (1) How do the available financing methods vary as a function of the stage of technology/product development?
- (2) In what sequence should different financing options be considered?
- (3) How can various financing options be kept available as commitments to other creditors increase?
- (4) How do personal goals and aspirations interact with the available alternatives?

Why should financing methods be considered prior to the development of a business plan? The reason is simple: financing is a key variable in shaping the planning process. It plays a part in every strategic consideration one makes.

In this chapter we will briefly introduce alternative methods of financing.

ATP awardees will have already made certain choices regarding financing strategies. This chapter pinpoints your location on the financing roadmap, while Chapters 3-6 provide detailed insight into strategies you may wish to pursue.

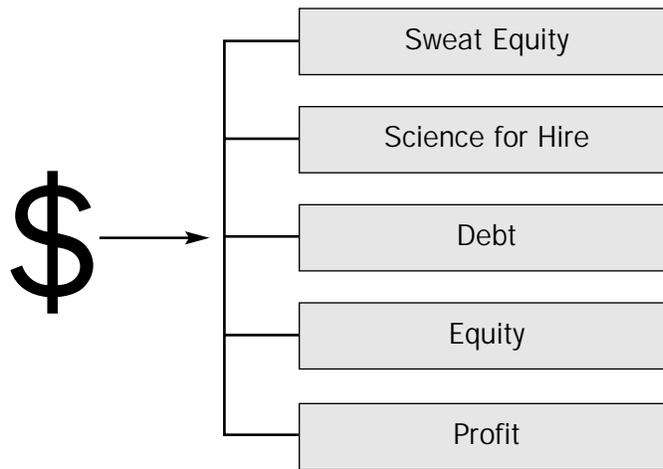
¹*This chapter is an updated version of Chapter 13 from Business Planning for Scientists and Engineers.*

Without federally funded R&D programs, many small advanced technology programs would not survive. Private sector investors prefer to wait until technology and market risks are reduced before investing their funds.

Generally speaking, there are five broad categories of financing that may be used to capitalize a firm: sweat equity, publicly funded R&D programs, debt, equity, and profit. The order of the list reflects the general sequence in which start-ups tend to utilize them. Larger firms use the last five financing categories selectively.

Each of these broad categories will be discussed briefly, and then elaborated upon later in this chapter.

FIGURE 2-1: METHODS FOR FINANCING THE SMALL HIGH-TECH FIRM



The term “sweat equity” implies the use of uncompensated time and the lending of one’s own resources to nourish the business during its earliest phases. Periodically, when cash flow wanes, it is not uncommon for the founders of a company to delay compensation for their work until a later time. Thus, the use of sweat equity is a method that many technology entrepreneurs use to give birth to their business as well as sustain it during periods of financial difficulty.

Many technology entrepreneurs support the preliminary development of a technology through participation in publicly funded R&D programs. Public funding sources include state programs and Federal arrangements such as the SBIR program and the ATP. A variety of contractual arrangements are available through Federal mission agencies, as well as through state programs, often aligned with Federal initiatives.

Debt financing refers to the borrowing of money with the promise of full repayment of the principal with interest. A variety of vehicles can be used for debt financing, including secured and unsecured loans, promissory notes, bonds, leases, supplier credit, and other debentures. Debt gives its owner the right to be repaid the investment with interest irrespective of the success or failure of the business venture. Debt financing can be considered when an individual or a company has sufficient collateral.

Equity financing is speculative in nature, as the financier is not guaranteed repayment of the money invested. This is high-risk capital and therefore commands hefty compensation—compensation that is commensurate with the degree of risk taken. Vehicles used for equity financing include the receipt of stock through the investment of venture capital, business angels, and investment bankers. The return on an equity investment is dependent upon the success of the business. One reaps a large financial reward if the company is successful and no reward if the company fails. Equity financing is subordinate to debt financing, which means that in the case of bankruptcy, debt financing arrangements must be honored before any payment to equity investors may be made. Business angels are recognized as providing the most lenient terms and for making smaller equity investments than entities in the smaller, institutional investor market.

When making decisions regarding the capitalization of a firm with debt or equity, many things need to be considered. The preliminary choice of debt or equity has IRS implications, as taxation is handled differently with these two methods of financing. Interest paid on the repayment of a debt is tax deductible. However, dividends paid on equity investment must be paid with after-tax dollars. This debt-equity decision also raises control issues. For example, the most common evidence of an equity investment is the issuance of common stock. The owners of common stock have voting rights that give them a say in the management of your company. Debt can also be changed to equity. A good discussion of these two methods of capitalization can be found in *A Desk Book for Setting Up a Closely Held Corporation*, by Robert Hess (1985).

As a company grows and becomes successful, profit is accumulated—profit that can be used to fund various business needs and decrease reliance on external sources of capital.

What Do You Want to be When You Grow Up?

Exactly which sources of financing are available to a firm become clear after reflecting on a company's vision. Three prototypical visions exist (Hisrich & Peters, 1989), as follows:

- ▶ The life-style firm
- ▶ The high-potential venture
- ▶ The foundation company

Equity financing is subordinate to debt financing.

TABLE 2 - 1: DIFFERENT VISIONS FOR THE FUTURE

	Revenue	#Employees	Purpose	Private/Public
Life-Style	\$2 million	30-40	support owners	Private
Foundation	\$10-30 million	40-400	start new industry	Private
High-Potential	\$20-30 million	500	growth & value	Go public

Although it is important to recognize if yours is a lifestyle company, it is not recommended that you label your company as such when talking with external audiences.

Different visions:

- *Life-style company*
- *Foundation company*
- *High-potential venture*

If your intent is to develop a company that will remain fairly small, allow you to pursue your technical interests, and support you and a few others, yours is aptly described as a life-style company. Such a company sees itself as having revenues of \$2-3 million within five years and employing 30-40 people at the most. Such a company is NOT of interest to the venture capital or investment banker community, as their purpose in making an investment is to realize a large return through involvement with fast growth companies. You may find local business angels to be amenable to small investments, however, if you have a good business plan and a good team. Life-style firms are best served by pursuing licensing arrangements, strategic alliances, debt financing, and growth from reinvestment of profit.

At the other extreme are high-potential ventures. Such firms envision revenues in excess of \$20-30 million in five to seven years, and anticipate going public as a means of cashing out and creating value for their investors. A company founder who selects this path must anticipate that he or she will be stretched to the limits of their capabilities; will need to involve a multi-disciplinary team early in the company's life; will need to become facile with different financing options; and will need to master coalition building. As if that is not enough, technology entrepreneurs who aspire to create a high-potential venture must also recognize that that they may have to step aside when the company goes public if they are unable or unwilling to redirect energies to investor relations upon becoming a public firm.

If you are looking to be an industry leader and to grow a company hard and fast, then you are developing a high-potential venture. All forms of financing will be open to you at different points in the development of your company. The Advanced Technology Program funds companies with a bold vision for growth and impact.

The foundation company lies somewhere between these two extremes. The founder has both the technology and the desire to be an industry leader, yet wants to grow the company in a less meteoric fashion. The technology entrepreneur is not attached to having the firm remain small, and sees the company developing

capabilities in all business functions, as is appropriate. The management team is often more conservative with respect to its involvement of equity investors, and chooses to have the company remain privately held. The desire to remain privately held differentiates the high-potential ventures from the foundation companies.

A more detailed treatment of the five major categories for financing a business follows.

Sweat Equity

The first type of financing commonly used by any entrepreneur is sweat equity. How the issue of sweat equity is handled depends upon your vision for the future. If your goal is to develop a high-potential venture, be forewarned that equity investors putting cash on the line will not be impressed by your investment of time and passion. As far as equity investors are concerned, if you have little capital invested in your company, you are not heavily committed. Because your financial commitment may be represented in the form of collateral as well as cash, keep good records on the equipment, real estate, and other hard assets that can be counted as collateral applied to this endeavor.

If you defer compensation during periods of poor cash flow, be sure to keep good records regarding the cash owed to you by the corporation and have formal agreements with the company regarding terms of repayment. In addition, talk with your accountant about what is involved with converting debt to equity in the event that you wish to change the terms of repayment (Blechman and Levinson, 1991).

Another important factor to be attentive to when using sweat equity is the question of how to handle intellectual property developed with your own resources prior to forming your company. If you have clear title to such intangible assets, and if they provide the foundation for your firm, formalize the relationship of those assets with your company. This can be done either by licensing rights to your firm or by selling the intellectual property to the firm. A useful resource to consult for ideas is *Write Your Own Business Contracts* (Barrett, 1990).

Sweat equity is invested not only by founders but also sometimes by service providers. It is not uncommon for founders to seek the assistance of service providers on a speculative basis. When cash is lean, entrepreneurs often seek patent attorneys, market research firms, business consultants, and other recruits to the management team who are willing to become involved “on spec” (speculation). It is important that you keep in mind that such service providers are taking a big risk and are, therefore, likely to ask for a substantial return. Be sure to have contractual arrangements with every party who becomes involved with your company in this fashion. Be aware that, if you give away a substantial portion of your company at the outset, you will have little to bargain with later on when more cash is needed. Be

At the “possibility” stage, a young company requires the passion and enthusiasm of the founder and a few others involved in the firm. These individuals form a special relationship as a result of their strong personal commitment.

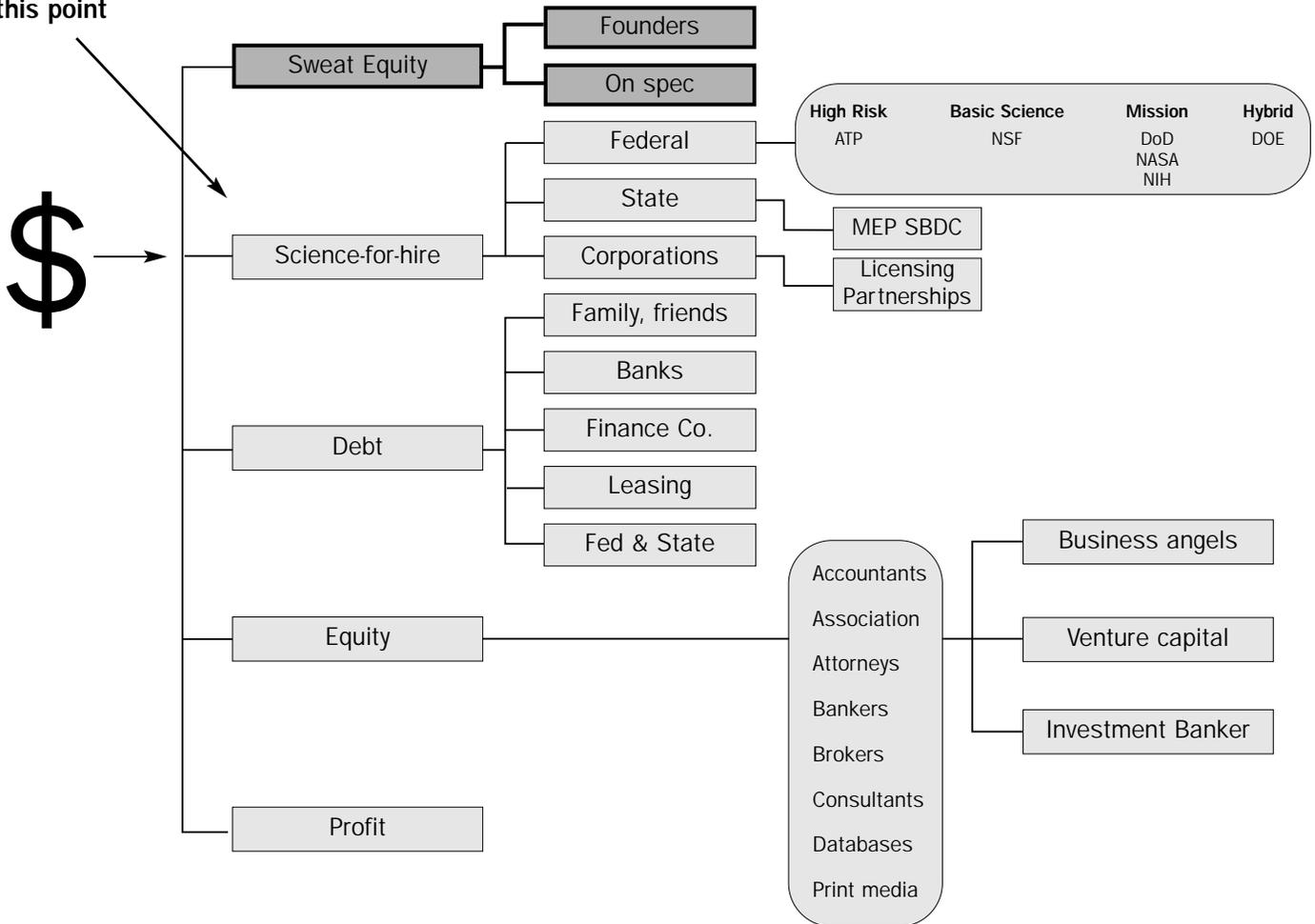
Protect your intellectual property rights.

Owner’s equity refers to the initial capitalization of a company by one or more founders.

sure to think through the relative merits of debt and equity repayment to professionals who have applied their skills and time to your project on spec. Consult an accountant and/or an attorney regarding the long-term implications of such arrangements.

FIGURE 2 - 2: ROADMAP OF FINANCING OPTIONS

Most ATP
awardees are at
this point



R&D Partnerships

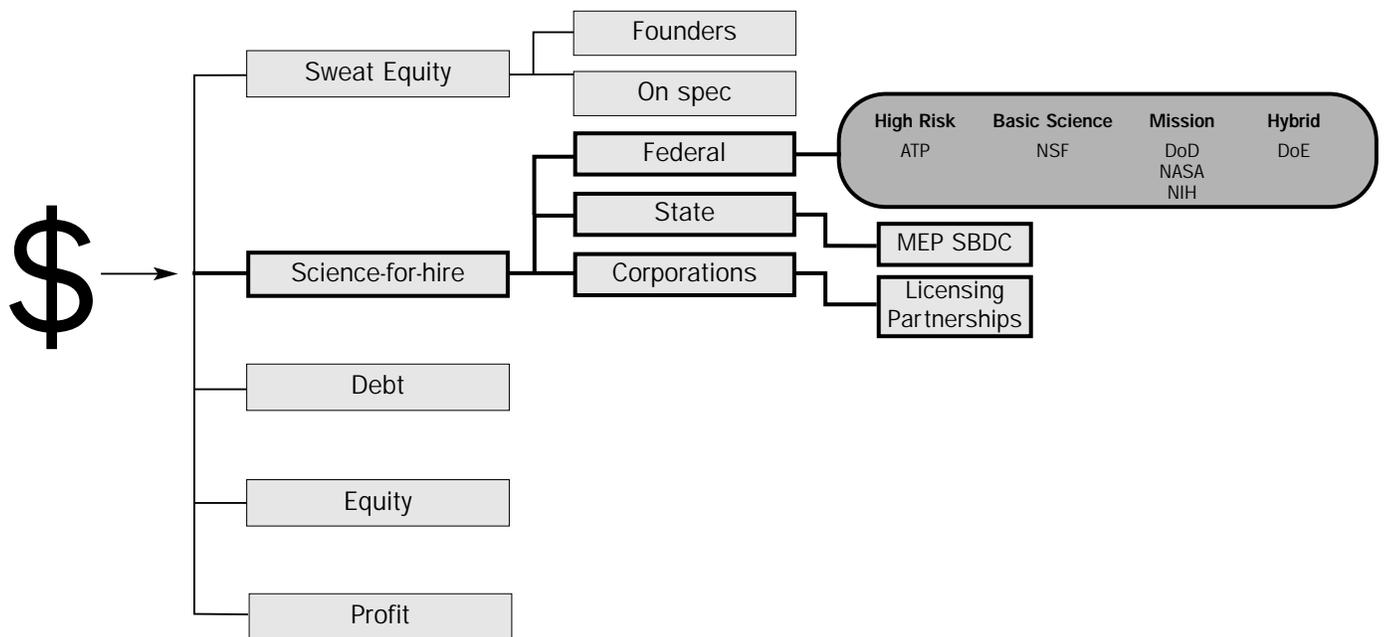
A financing mechanism sought by many advanced technology firms is a Research and Development partnership. Such arrangements allow the entrepreneur to develop intellectual property that can be commercialized through his/her company while working with other organizations. In various ways, Federal, state, and private sources provide such opportunities. The Advanced Technology Program (ATP) is unique in sharing the costs of high-risk technology that result in general economic growth. The Small Business Innovation Research Program (SBIR) provides funding to small businesses with innovative technologies that can solve problems of specific interest to the Federal government. Many of the mission agencies—including the National Aeronautics and Space Administration (NASA), the Department of Defense (DoD), the Department of Energy (DoE), and the National Institutes of Health (NIH)—also contract with technology firms to develop products and services the Agencies wish to buy. The National Science Foundation (NSF), in contrast, has historically focused on making grants to academic institutions for basic research.

ATP projects are selected on the basis of their:

- **scientific and technological merit (50%), and**
- **potential for broad-based economic benefits (50%)**

—ATP Proposal
Preparation Kit,
November 1998

FIGURE 2 - 3: RESEARCH AND DEVELOPMENT PARTNERSHIPS



The various R&D partnership programs conducted by the Federal government and buttressed by state programs provide an excellent and essential bridge between the sweat and owner's equity invested by the founders, and the private sector investments made by lending institutions and equity investors.

Most federally funded R&D programs allow the entrepreneur to retain rights to the intellectual property created while performing the work funded in whole or in part by the Agency. It is the right to retain ownership that provides incentives for the entrepreneur and provides small businesses with the opportunity to commercialize. The government typically receives a non-exclusive license to the technology for government purposes.

Many states also support federal initiatives through services offered by Manufacturing Extension Programs or Small Business Development Centers.

Another source of funding for Research and Development partnerships is large corporations. The development and exploitation of a rich technology platform require considerable resources, and Federal Research and Development programs will likely only take an awardee part way through the R&D process. In most cases, the technology entrepreneur must team with other entities in order to commercialize the technology. Licensing and Research and Development partnerships provide excellent opportunities for small companies to extend their effectiveness in bringing technology to market. Licensing will be discussed in detail in Chapter 5, and Research and Development partnerships will be explored in Chapter 6.

Research and Development partnerships can be extremely advantageous to small advanced technology firms, especially if the entrepreneur views this work as an opportunity to develop intellectual property that can be used as the foundation for his or her business. With such arrangements, the money does not have to be repaid, nor equity parted with. If performing Research and Development for or in partnership with, the Federal government, the government will receive a non-exclusive license for government purposes on intellectual property created. However, you will retain all other rights.

Debt Financing

While an R&D Partnership method of capitalization can be highly beneficial, it will only take you so far. At various times in the evolution of your firm, you will need to consider debt financing. As mentioned earlier, debt financing gives its owner (the lender) the right to be repaid the investment with interest irrespective of the success or failure of your business.

When should you consider such financing?

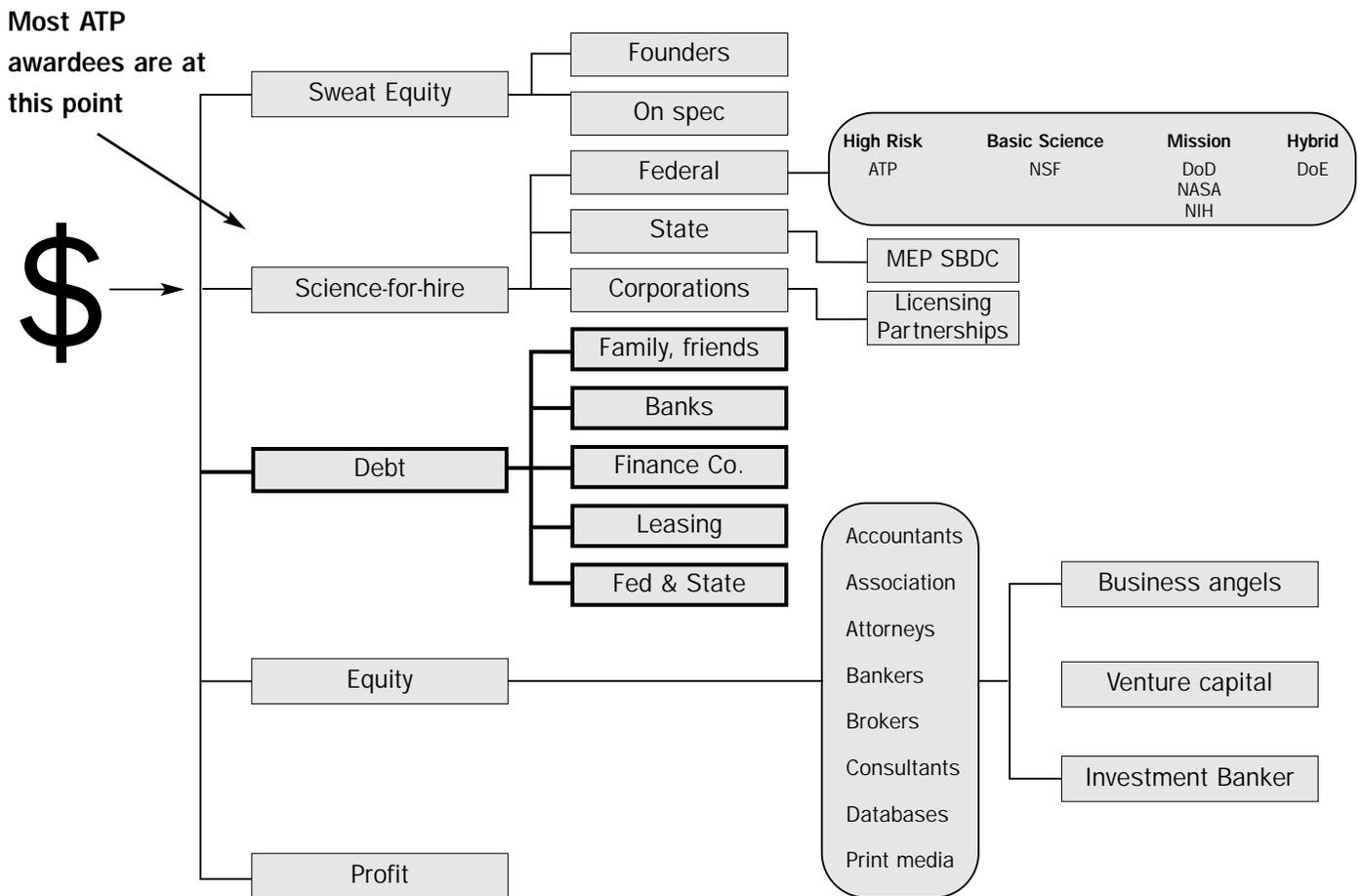
- ▶ when you need assistance with cash flow while performing on Research and Development contracts;
- ▶ when you need working capital and you wish to retain as much equity as possible in your firm;
- ▶ when making large purchases of equipment, buildings, or real estate;
- ▶ when planning acquisitions; or
- ▶ when you wish to refinance existing debt

There are various debt instruments and various organizations from which you can seek debt financing. Typical debt instruments include:

- ▶ Promissory notes
- ▶ Secured & unsecured loans
- ▶ Lines of credit
- ▶ Factoring

Debt financing can be obtained from family and friends, banks, finance companies, leasing companies, brokerage houses, mutual funds, and state and Federal government agencies. In most instances a short-term loan is considered to be less than one year in duration, whereas a long-term loan is usually one made over a period of one to five years.

FIGURE 2 - 4: SOURCES OF DEBT FINANCING



Borrowing from Friends and Family

When borrowing from family and friends, both you and they take a risk. Important relationships may be damaged if you fail to honor your debt. Also, such lenders may assume that they own part of your business and try to act as equity investors meddling in the daily activities of your firm. Such problems can be avoided, however. In a brief article entitled “How to Borrow from Family and Friends” (*Inc*, July 1995), one entrepreneur describes how he successfully used this source of financing during the first year of his start-up. He first formalized the relationship with each lender by drafting Promissory Notes due within a specified time period. An option was added to each Note allowing him to roll the loan over as necessary; in addition, an interest rate was agreed to. The entrepreneur’s intent was to view these loans as short-term and shift to bank debt within a year. He did this successfully while maintaining good relationships with all involved.

Another important item to note is that the IRS may examine such arrangements to see if they are truly debt or equity financing. Be sure to discuss this matter with your accountant and consult Hess’s book for ideas. A good Promissory Note should clearly indicate the name of the person to whom debt is owed, the maturity date, who is obligated to pay the debt, the interest due, the right to enforce payment, and the status of the debt relative to other forms of financing.

Borrowing from Banks

Banks are becoming more interested in attracting and retaining small businesses as clients. This is because many large businesses are going elsewhere to meet their capitalization needs, since it is easier for them to obtain equity capital and funds from institutional debt markets. However, the problem for banks is that there is also a good deal of competition for small business from commercial finance and asset-based-lending firms, leasing companies, brokerage houses, mutual funds, and microenterprise lending institutions. (Small business is defined by banks as companies with revenues less than \$5,000,000.)

Once your company has developed sufficient history, you may wish to approach commercial banks again for a loan or a line of credit for your business. Most resources indicate that in order to make this an option, you should develop a relationship with your banker. You need to educate your banker regarding your business, your business plan, and your annual sales projections. Personal credibility develops trust.

As was mentioned earlier, there are many sources that one can approach for debt financing besides banks. In all cases, before approaching a lender, one should take stock of the assets that they have and try to match these assets with the appropriate type of lender to approach. An excellent discussion of how to proceed with

this is found in *Guerrilla Financing: Alternative Techniques to Finance Any Small Business*, by Blechman and Levinson (1991). Most lenders require collateral for loans, that is, something that can be sold to reimburse them for their loan if you default. One form of collateral that is interesting to explore is receivables.

Receivable-Lending Institutions and Factors

When a company has a receivable, such as a contract, back order, purchase order, or work in progress, it can consider approaching a receivable-lending institution or a “factor” (see explanation of factors, below) for financing. A receivable-lending institution is often a division of a commercial bank that uses receivables as collateral in providing a loan. The money is usually provided as a line of credit for up to 60 days. The amount advanced is a percentage of the receivable and varies with the size of the invoice. Interest rates on such arrangements are typically higher than on traditional secured loans (Garner *et al.*, 1994).

A closely related form of debt financing to cover short-term needs for working capital is a revolving line of credit. Working capital loans of this nature are usually short term (less than a year) and can be secured or unsecured. If the company is in the start-up mode, the founders may need to pledge the use of personal assets for collateral. Unsecured loans are a possibility for companies with outstanding credit histories.

Start-up companies will again have a tough time here, as such institutions will look at the financial history of your company and the creditworthiness of your receivables. Certainly, if you are using a contract with the Federal Government as a receivable, the customer is creditworthy. However, if you are a brand new start-up, your company will not have any financial history.

Another source that can be approached with receivables is an entity referred to as a factor. Finance companies often serve as factors. They operate in a very different fashion than banks. According to Blechman and Levinson, start-ups and companies with poor credit would find greater receptivity from a factor than they might from a receivable-lending institution. The fees charged by factors vary and can be hefty. Finance companies do not have the same regulations placed upon them as banks, and thus are willing to take somewhat more risk than a bank. For a good discussion of the pros and cons of factoring and receivable-lending institutions, consult *Guerrilla Financing* by Blechman and Levinson and the *Ernst & Young Guide to Financing for Growth* by Garner *et al.*

Leasing

Before making a decision to purchase equipment, land, buildings, or any other tangible asset, consider leasing. This will require that you talk with your accountant about the pros and cons of such decisions, including the impact leasing will have on your balance sheet. Why your balance sheet? Scientists use calibration devices all the time, and so do investors. All sources of capitalization look at the health of your business by examining financial ratios that are based on either your Balance Sheet and/or your Income & Expense Statement.

The Balance Sheet is a snapshot of your business at a specific point in time. It is the only financial record in which you will see the phrases “assets” (A), “liabilities” (L), and “shareholder equity” (E). A formula is applied to demonstrate the relationships among these items:

$$\text{Assets} = \text{Liabilities} + \text{Shareholder's Equity}$$

Tangible assets include items such as Cash, Accounts Receivable, Loans to Stockholders, Land, Equipment, Real Estate, and Pre-Paid Expenses. Liabilities include items such as Accounts Payable, Loans from Stockholders, Retainers, and Advances. The decision to purchase or lease a tangible item affects whether or not it is considered an asset on your balance sheet and will affect the ratios or measuring devices that investors examine. Leasing is referred to as “off-balance-sheet” financing, because it does not appear as an asset on the balance sheet, and because only the payments that become due show as a liability. Therefore, if you know that you are going to need a loan, you will want to make your balance sheet look as good as possible. A good accountant can advise you how the lease/buy decision will affect your balance sheet.

There are, of course, other more obvious reasons to lease: (1) if you want to avoid a large cash outlay, (2) if you don't wish to purchase equipment which may become obsolete, or (3) if your production volumes favor leasing over buying, or vice versa.

In a lease scenario, the entity providing the lease is referred to as the lessor of the property. The entity obtaining the lease is referred to as the lessee. There are two broad categories of leases: traditional and modified. Other types of leasing arrangements-referred to as venture leases, master leasing real estate, sale and leaseback financing-are discussed in detail in the texts by Garner and Blechman & Levinson referenced previously.

Supplier Credit

You may not consider it debt financing, but companies with good credit ratings benefit from the 15- to 30-day terms their suppliers provide at 0% interest. If you can speed up the rate at which your customers pay you, you can minimize the need for other interest-bearing loans to pay your suppliers. You can speed up the rate at which your receivables are paid by billing at the time services are rendered (instead of waiting till a specific time each month) or by providing customers with an incentive to pay quickly. Other good money management techniques include requesting progress payments and up-front mobilization fees.

Federal and State Programs

A wide variety of programs provide debt financing to small businesses at both the Federal and State levels. The incentive is always new job creation. Companies with 500 or fewer employees (the SBA's definition of a small business) are important drivers of the economy. Information on these programs is available from your local Small Business Administration office, an SBDC (Small Business Development Center), or your local Chamber of Commerce.

Equity Financing

The phrase “equity financing” refers to a class of investments that share a number of common features. First, from the investor's perspective, equity financing is speculative. With all forms of equity investments, no guarantees exist that investors will be repaid. Realizing a return on such an investment is dependent upon the success of your business. An investor reaps a large financial reward if your company is successful and no reward if your company fails. For this reason, equity investors command hefty compensation commensurate with their risk.

Another feature that equity investors share is ownership in your business. Equity implies the exchange of stock in return for money—as it is through ownership that the investor will profit from the success of your firm. For this reason, founders must decide if they are willing to share the control, as well as the risks and rewards of their company.

Sources of equity investments include professional venture capitalists (sometimes referred to as traditional or institutional investors and venture funds), business angels (also referred to as the nontraditional or informal investment community), and investment bankers. Common vehicles utilized by this community for raising funds and/or cashing out include Private Placements and Initial Public Offerings (IPOs). The Securities Exchange Commission (SEC) as a means of

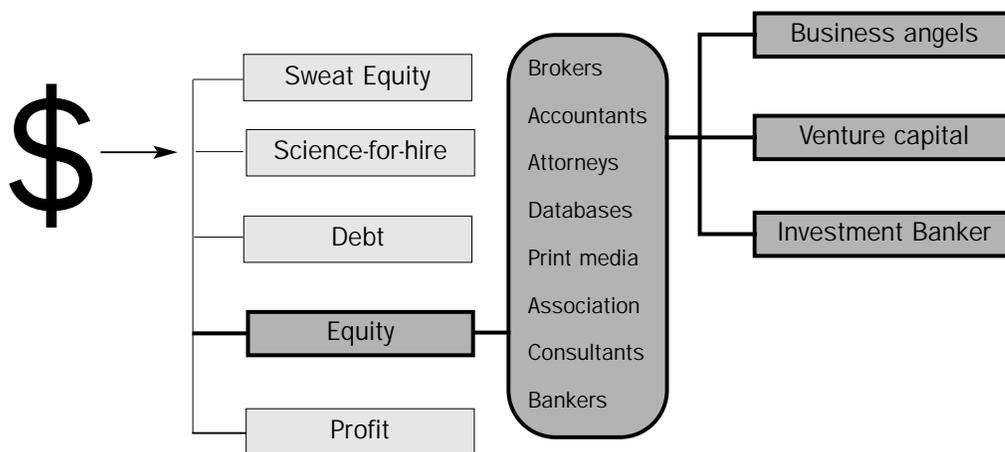
More detailed information on equity financing can be found in Chapter 7.

protecting unqualified investors from unscrupulous entrepreneurs regulates both of these activities. As an aside, the SEC considers qualified or accredited investors to include:

- ▶ Company officers and directors
- ▶ Individuals with an annual income of over \$200,000 annually
- ▶ Individuals whose net worth is over \$1 million
- ▶ Broker/dealers
- ▶ A wide range of financial institutions are also considered accredited or qualified investors (See *The Entrepreneur's Guide to Going Public* by James Arkebauer for more details)

A modified version of the model we have been developing is depicted below. It shows the primary sources of equity investments and the wide range of intermediaries that often serve as a buffer between entrepreneurs and equity investors. This community, more than any other, relies heavily on the use of intermediaries. Although one can also go directly to equity investors, the recommendation of a trusted intermediary is often beneficial.

FIGURE 2 - 5: EQUITY INVESTORS



Availability of Equity Financing

The availability of equity financing from business angels, venture capitalists, and investment bankers varies widely. Although one hears frequently about the venture capital (VC) community, the business angel market is considerably larger.

Business Angels

Business angels are typically self-made individuals with large net worth. This group includes medical professionals, lawyers, accountants, successful entrepreneurs and middle managers looking to move out of large corporations. The transactions of angels are unregulated, so it is hard to determine the actual size of this risk-capital pool. Some have estimated this to be a \$50 billion-per-year capital pool, and others estimate it to be considerably higher. There is wide agreement, however, that this pool provides the largest source of financing for start-ups in the country. It is estimated that angels have backed between 50,000 and 100,000 companies and that 29% of angel funding has been provided at the seed stage (Wetzel, 1989; Hughes, 1989).

Institutional Venture Capital

By comparison, the size of the venture capital market is smaller and varies tremendously from year to year. For example, the total amount of venture capital committed in 1980 was \$661 million. In 1996 it reached a high of \$11.6 billion. According to the Wall Street Journal (August 1998), 1998 could be the best year ever. The highest investments have been in communications, computers, software, and biotech.

Clear geographic patterns exist in venture capital investments. In 1997, a total of \$8.5 billion was invested in the internet, and a sizable part of that was invested in Silicon Valley. In the second quarter 1998, one-third of all venture capital investments was made in Silicon Valley (\$1.25 billion, in 224 companies). New England came in second with \$379.5 million invested in 86 companies, and the Southeast region received \$348.2 million, invested in 73 companies.

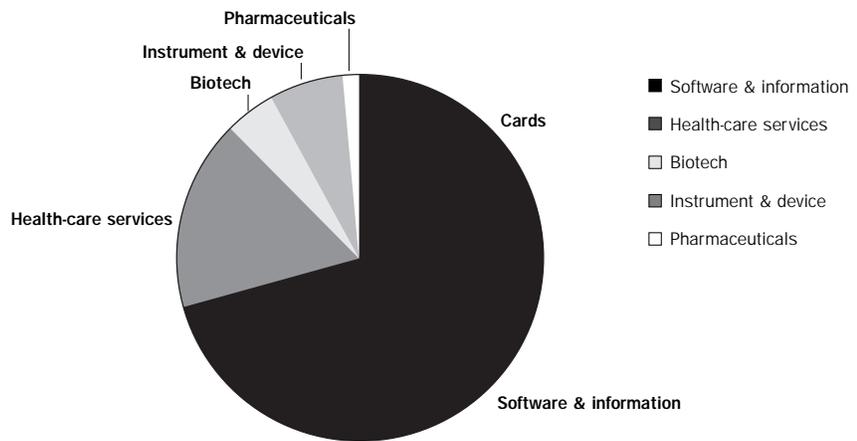
Historically, the venture capital (VC) market has been far more conservative than the business angel community. A significant difference between angels and institutional venture capitalists is that business angels invest their own money, whereas VCs invest other people's money—primarily from pension funds. With this level of fiduciary responsibility, VCs have historically been more conservative in their investments than angels have been.

Figure 2-6 provides an overview of the industries in which the venture capital community invested during the first quarter of 1998. During that quarter, the total value of investments made was approximately \$3 billion.

One-third of venture capital funding went to Silicon Valley and nearly 48% to software and information services.

—Source: Boston Globe, August 16, 1998

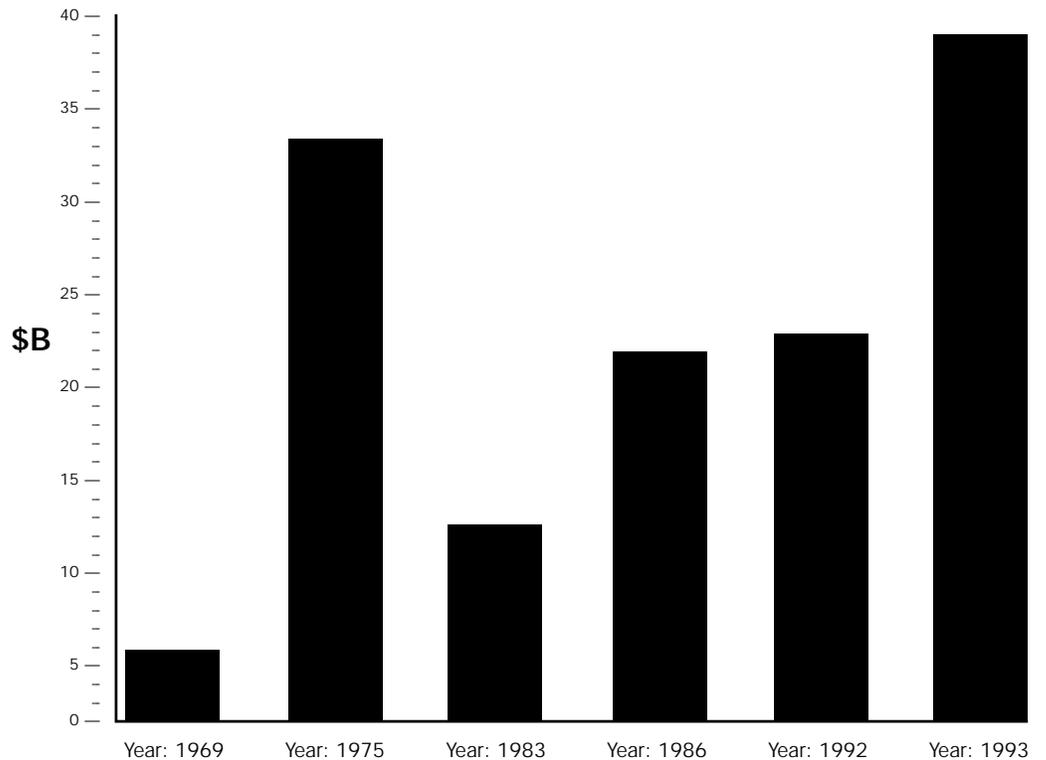
FIGURE 2 - 6: VENTURE CAPITAL INVESTMENTS BY INDUSTRY (1ST QUARTER, 1998)



Initial Public Offerings

As mentioned earlier, Initial Public Offerings (IPOs) are regulated by the Securities & Exchange Commission (SEC) and involve the sale of stock to both qualified and unqualified investors. The size of this market is also quite volatile, ranging from \$6 billion in 1969 to almost \$40 billion in 1993.

FIGURE 2- 7: IPO INVESTMENTS BY YEAR



A small entrepreneurial company looking to get on the fast track is most likely to raise money from angels, then from institutional venture capital investors, and lastly IPOs. There are many other factors to consider besides the relative availability of funds, however, when deciding whether you should seek equity investment, and if so, from what source. Before going to the equity market, familiarize yourself with the terminology used to describe the stages at which investments are made.

Stages of Equity Financing

Equity investors use various terms to describe the stages at which equity financing is provided. These terms reflect the degree of risk and changes in the types of activities typically accomplished by the firm receiving the investment. Moving down the list from top to bottom, one moves from the most to the least risky.

Each of these terms is described below. There is some variation in how investors use these terms, however, so you should seek clarification of terms when you encounter them, to confirm that they are being used in the same way:

EARLY-STAGE FINANCING means financing that is available during periods when no revenues are being generated (see also Seed Financing and Start-Up Financing).

SEED FINANCING refers to early-stage financing of under \$1 million. Such monies are usually spent on product development, market research, business plan development, and the hiring of the management team.

START-UP FINANCING refers to early-stage financing typically provided to those who are “ready to do business.”

FIRST-STAGE FINANCING is funding needed to initiate full-scale manufacturing and sales.

SECOND-STAGE FINANCING is capital provided at times of expansion to provide operating capital for a company that is shipping product, although the company may not yet be profitable.

MEZZANINE FINANCING is for companies that are beginning to turn a profit and require funding for expansion of various functional elements of their business.

BRIDGE FINANCING is funding provided to companies that plan to go public within six months to a year.

LEVERAGED BUYOUT means using the assets of the acquired company to help fund its acquisition by an outside party.

What Do Equity Investors Look For?

Management!
Management!
Management!

Equity investors look at the management team of a company in which they are considering making an investment. Unlike banks and other sources of debt financing that require collateral to assure repayment of their loans, equity investors view the management team as paramount to the success of the business and realizing a return on their investment. A seasoned, well-balanced team serves as a form of human collateral, as it is the management team that makes the opportunity come alive. It is often said of venture capitalists that they prefer a Grade A management team with a Grade B plan to a Grade A plan with a Grade B team. This statement is not intended to minimize the importance of a good business plan, but rather to indicate that a strong management team is needed when seeking venture capital. According to John Preston, previously with MIT's Technology Transfer Office, a strong management team is one that "keeps a healthy balance sheet, has a clearly focused strategy, and is realistic about marketing."

In other words, before approaching an equity investor, the technology entrepreneur should realize that venture capitalists don't deal with sole proprietors. A well-balanced management team includes individuals with expertise in at least three areas: (1) finance and administration, (2) sales & marketing, (3) and R&D, engineering and manufacturing (as appropriate).

Venture capitalists don't deal with sole proprietors.

If a venture capitalist invests large sums of money in a company, it is likely that he or she will require a seat on the Board of Directors and will take strong interest in—and work hard toward—the company's success.

The venture capitalist becomes an important part of the team. When courting an equity investor, one should ask for references, as well as the names of other entrepreneurs in their portfolio who can be contacted. It is also helpful to ask about their contacts in your industry and their experience with your company's technology. Look for the synergy and the value these investors can add.

Keep in mind that while venture capital firms sometimes invest on their own, they often invest in conjunction with others as well. (They may invest as part of a syndicate—a cluster of investment firms—for example.) In addition, a number of Fortune 500 companies have venture capital arms affiliated with them or other venture capital firms with which they often team. If your technology or product will eventually be a good acquisition candidate for a large firm, determine if that firm has a venture capital arm or a venture capital company with which it teams.

What Do Equity Investors Want in Return?

Equity investors make money by helping firms grow. They then cash out, usually at year five. The phrase “cashing out” implies the following:

- ▶ going public via an Initial Public Offering, or
- ▶ selling stock, either back to the company or to another company, at a premium

These two techniques for liquefying the initial investment are referred to as Exit Scenarios. The whole intent of equity investors is to invest money in exchange for equity (ownership of stock); to sell the stock (liquefy their investment) in about five years; and to realize a substantial return on their investment (ROI). A substantial return is approximately 5 - 10 times their initial investment. That would mean that on an investment of \$3 million, equity investors would look to make \$15 - \$30 million in 5 - 10 years. This is typically done by substantially increasing the value of the company and then conducting an IPO or selling the company.

Return on Investment (ROI)

The earlier an equity investor invests in a company, the greater the return on investment (ROI) the investor expects—and the greater the equity in the firm that the firm must give up. According to Garner *et al.*, “It is not uncommon that first- and second-round capital might take 40 to 60 percent of the equity shares, and succeeding rounds of financing, including public offerings, may leave the original owners with as little as 5 to 20 percent of the stock” (1994, p. 70).

Most venture capital firms are not interested in running the day-to-day operations of a firm as long as the company is doing a good job of creating value. However, if the company’s management doesn’t keep stride with the demands of a fast-growing venture, it runs the risk of being replaced. Technology entrepreneurs can minimize the likelihood that this will occur if (a), they seek a role in the rapidly growing company which allows them to utilize their strengths or (b), they form a spin-off company to which they license technology developed in a closely-held firm and seek a good management team and equity investments in the spin-off.

Business angels, venture capitalists, and investment bankers look for similar things in making equity investments. However, business angels, being an informal, part-time investment source, tend to be more lenient and patient with their money. Chapter 7 provides more detailed information on equity investors.

In summary, the risk-capital community is made up of three distinct types of equity investors: business angels, venture capital, and investment bankers (who issue IPOs). The business angel community is the largest, and is responsible for

VCs tend to be more risk adverse and wait to enter a deal when technology and market risks have been decreased.

much seed financing. Such investors invest their own funds. They each make a couple of deals a year. The venture capital community is considerably smaller, and makes fewer investments in early-stage companies. VCs invest other people's money, primarily from pension funds. They tend to be more risk averse, and wait to enter a deal when technology and market risks have been somewhat decreased. The IPO market has been booming and is appropriate for high-potential ventures to consider. An IPO is an expensive process and one that totally changes the future operating procedures of the company. In all cases, equity investors take equity or ownership of company stock and look to make a significant return on their investment.

Conclusion

The purpose of this chapter was to provide a general overview of the financing options that a high-tech firm could consider for advancing the commercialization of its technology. These options include sweat equity, R&D partnerships, debt, equity, and profit. ATP awardees have already made some financing choices prior to submitting their ATP proposal. Advancing the commercialization of that technology requires ongoing attention to additional forms of financing.