Methods of Encouraging Entrepreneurial Activity

**Executive Summary**

This memorandum explores the legal and social factors that have encouraged entrepreneurial activities in the United States. This memorandum will help in understanding the challenge of creating new entrepreneurial activity and in designing specific measures to achieve this.

The key findings are as follows:

Part I -- The legal factors in the United States that encourage entrepreneurial activity include both tax code and securities law provisions. These measures work together to make it easier for new businesses to raise capital, deduct costs and delay paying taxes on gains. The federal government also encourages entrepreneurial activity through antitrust and regulatory enforcement and through programs that provide funding for research or small business activity.

Part II -- Social factors also encourage entrepreneurial activities in the United States. Understanding these social factors will help to design programs that will succeed in promoting entrepreneurial activity. Insights can be gained from: (1) the personality characteristics of the typical entrepreneur, (2) the factors that have improve the social status of entrepreneurs, and (3) the types of environments that have most successfully produced entrepreneurs.

Part III -- Specific measures are recommended and explained that would encourage entrepreneurial activity. These include: (1) Changes to the tax and securities laws, (2) A program to encourage entrepreneurial activity within established corporations, (3) Support networks for high-tech entrepreneurial activity, (4) An annual award for entrepreneurial activity, and (5) A support program for entrepreneurial activity in universities.

The single-most important conclusion is that efforts to create entrepreneurial activity will have **cumulative** results. Encouraging entrepreneurial activity is
complicated, because the motivations of the entrepreneur and the attitudes of society toward entrepreneurs are complicated. Initial efforts are likely to encourage just a few new entrepreneurs, but as they are successful and their success is publicized, other people will be encouraged to try new ventures. Making efforts to encourage entrepreneurs is thus similar to planting a few "seeds," which one day will grow into a "forest" of innovation.

A brief final section explains that we will be happy to answer any questions you may have or provide additional information. Because of the broad scope of this memorandum, you may wish to have more detailed information about specific points, and we would be pleased to supply this. Please do not hesitate to contact us.

Discussion

Introduction: What Are Entrepreneurs and Why Are they Important?

An entrepreneur is generally defined as someone who starts and conducts a business or enterprise. The mid-nineteenth-century British economist John Stuart Mill was one of the first to identify the idea of an entrepreneur. He believed that the essential characteristic of an entrepreneur is a willingness to accept risk. Working a century later, the economist Joseph Schumpeter at Harvard wrote his well-known theory of the entrepreneur as a key factor in the business cycle. Schumpeter thought that the key characteristic of the entrepreneur is the innovation he brings to the enterprise. Today, most people consider an entrepreneur as someone who initiates and controls a new enterprise, frequently a new business. Entrepreneurs are of course found in all fields, but it is in the high-technology fields that they have gained the most importance, since technical advances there have created vast wealth, employment and entire new industries in recent years.

Any developed economy needs entrepreneurs if its growth is to continue. For various reasons discussed in part III below, large corporations focus on steady, incremental improvements to existing products and services, while entrepreneurs create the "spark" that leads to completely new types of products. In the United States, large corporations overall have not created new jobs during recent years, while entrepreneurial firms have created thousands of new jobs.

Given that entrepreneurial behavior is beneficial to a society, considerable research has been done to understand and help the entrepreneur. On occasion, governments have sought policies that will encourage their citizens to become entrepreneurs. Most often, established companies have decided to become "more entrepreneurial" and attempted to foster entrepreneurial behavior by their employees.
I. Legal Factors that Encourage Entrepreneurial Activities

1. Tax Incentives for Entrepreneurial Activities in the United States

The following discussion should be understood from two different perspectives -- that of the entrepreneur and that of the investor who supplies capital to the entrepreneur. The U.S. tax code provides incentives to both of these types of people, and they are both necessary for successful entrepreneurial activity. The tax principles discussed in this section work together with the securities law provisions discussed in section 2. The securities laws reduce the regulatory burden of making an investment in entrepreneurial activity, and the tax incentives increase the chances that such an investment will be profitable.

Also, it should be understood that much of the accounting industry in the United States is focused on applying and interpreting the tax laws so that business transactions receive the best tax treatment. A comprehensive discussion of all the tax code provisions that encourage specific types of business activity would be of enormous length. Instead, this memorandum discusses the principles in the tax law that can be used to structure entrepreneurial activity. Please let us know if any particular tax code provisions are of interest, and we can discuss those in more detail.

The following tax principles encourage entrepreneurial activity:

A. Tax treatment of costs -- This is a very important area of tax incentives. Business enterprises want to deduct as much of their costs as they can from their income. They want to take as many of these deductions as possible in the year they are incurred. The U.S. tax code allows this for "ordinary expenses" such as rent and operating supplies. "Capital investments" such as computers and major office equipment, however, must be deducted over a period of years. (This long-term deduction is related to the "depreciation" of the investment. As a hypothetical example, a $30,000 item might be assumed, under the tax code, to have a useful life of three years. Using "straight-line" depreciation, the owner can deduct $10,000 a year for three years.)

There are several ways that entrepreneurial activity can be encouraged by changing the tax treatment of costs:

"Expensing" investments -- One way to encourage investment is to allow more investments to be "expensed" (deducted as expenses in the year they are incurred), rather than treating them as capital investments to be depreciated over several years. By increasing the speed with which the investment can be deducted, the tax code thus reduces the effective cost of the investment. For example, drug companies in the United States benefit from tax code provisions that allow them to treat certain investments as expenses. Essentially, this makes certain research and development costs an "up-front" expense, rather than an investment that must be deducted over time.
Rate of depreciation -- Similar to the above, investment can also be encouraged by decreasing the number of years required for depreciation. Depreciation rates are typically set in "baskets." Certain baskets of goods are lumped together under the tax code and depending on the basket they are allowed to be depreciated over several years. Thus, by changing the baskets or the number of years required, various types of investments can be encouraged.

Methods of depreciation -- In the hypothetical example above, a $30,000 investment depreciated over three years meant a deduction of $10,000 a year using "straight-line" depreciation. But the tax system can also be structured to allow "accelerated" depreciation. For example, 50% of the capital investment could be deducted in the first year, 35% in the second year, and 15% in the third year. This would lead to deductions of $15,000, $10,500, and $4,500 over the three years. The total deductions over three years would be the same, but there would be a greater incentive to make the investment because the deduction of the cost would be accelerated.

Investment Tax Credits -- A tax credit means that for every dollar spent on certain activities, a fraction of a dollar can be subtracted from the taxes owed. (This is typically more advantageous to the tax payer than merely deducting the costs from income, since only a fraction of the net income is paid as tax. For example, with if a business is in a 15% tax bracket, a $10,000 expense reduces taxes by $1500. A 20% tax credit, however, would reduce taxes by $2000, and the 80% of the investment not subject to the credit could still be deducted, which would be an additional tax reduction of $1200.)

Tax credits can serve as a very powerful incentive to encourage certain types of business activity. The United States uses a variety of tax credits to encourage specific types of corporate activities, including investments in disadvantaged areas, energy efficiency, hiring targeted social groups (disabled persons or members of Indian tribes) and the like. In 1993 the Clinton Administration proposed a broad research tax credit for corporations, but was unable to obtain Congressional budget approval. The Administration was able to implement a more limited research tax credit through a regulatory change that did not need to be approved by Congress; that credit was terminated on June 30, 1995, and there was some controversy whether it induced much more research than would have occurred otherwise. Generally, tax credits were very popular in the United States during the 1980's but they have fallen from favor during recent years because of concern over the federal budget deficit. Nevertheless, tax credits are such powerful tools it is likely that someday they will again be used to shape business behavior.

"Carry-forward" provisions for losses -- New entrepreneurial firms, especially in capital intensive industries such as high-tech, typically will not make any profit
during their early years of operation. Within certain restrictions, the tax code allows the net losses of these firms to be carried-forward to offset net profits earned in later years.

B. Tax treatment of gains -- The tax treatment of net gains to the business also offers potential to encourage certain types of behavior. A key general idea in U.S. tax law is that gains are not taxed until they are realized. Thus if an entrepreneurial company creates a new product or service that becomes a valuable asset to the company, that value is not subject to tax until the company or its owners and investors "realize" the gain -- that is, when they turn it into real money. The owners and investors, however, do not want to wait forever to enjoy their gains. The tax code can be used to encourage entrepreneurial activity and investment by making it easier for the gains to be extracted from the business.

Capital gains-- Owners and investors typically own stock in the business. They own the stock because they have started the company or because they have contributed capital to the company. Capital gains are the increases that the owners and investors realize on their shares. Currently, in the United States, capital gains are taxed at the same rate as ordinary income. This means that, for a given individual, a dollar earned as salary is taxed in the same way as a dollar earned on the appreciation of stock.

Many people in the United States believe that business activity would be encouraged if capital gains were given more favorable treatment than other forms of income. The Republican Party has long favored a proposal to give capital gains more favorable tax treatment. There is a major debate whether favorable treatment of capital gains would be fair. There is little question, however, that many people who own stocks that have appreciated are reluctant to sell the stocks because of the taxes that would then have to be paid. As a result, people hold their stocks even though they might otherwise prefer to sell them and invest the money elsewhere. Favorable capital gains treatment would encourage these people to sell their stocks and reinvest the money in higher growth areas.

Special Rule for Certain Capital Gains Earned on Investments in Small Companies -- In 1993 an exception was created to the general rule on capital gains that encourages certain long-term investment in entrepreneurial activity. The rule reduces by 50 percent the capital gains tax for investors who buy stock in small companies at the time the stock is initially issued and hold the stock for at least 5 years. Small companies are subject to various standards in order to qualify under this rule, particularly that they have less than $50 million of gross assets.

Dividends -- Shareholders of a profitable company can of course be paid dividends by the company. The problem is one of double taxation. First the
company pays a corporate income tax on the money earned, then the shareholder pays a personal income tax on the dividend received. While this traditional arrangement is satisfactory for large, established companies, investors in entrepreneurial companies typically do not favor dividends because of the double taxation problem.

Acquisition of the entrepreneurial company -- Sometimes the best way for the owners and investors in a successful entrepreneurial company to obtain the benefits of their successful venture is to sell the business to a larger and more established firm. Such acquisitions can be structured in a variety of ways, including the acquisition of the entrepreneurial company's outstanding shares, an acquisition of the company's assets, or a trade of stock in the entrepreneurial company for shares of the acquiring company. The structure of the deal typically has an impact on the tax consequences to the participants. Thus, the tax code could encourage entrepreneurial activity by reducing the tax burden on acquisitions.

The corporate income tax rate -- Keeping corporate tax rates low, at least for companies with modest earnings, is an important way to encourage owners to reinvest earnings in the company rather than taking the earnings out as a higher salary. The U.S. corporate tax rate is tiered so that a lower tax rate is applied to companies with less income, at least up to the first $335,000 in income. For the first $50,000 in income, the corporate tax rate is only 15%; for many companies, this will be lower than the personal income tax rate of the owners and investors. As a result, the owners have an incentive to retain profits in the company rather than to pay them selves additional salary. This money is likely to then be used for corporate investment that can lead to further growth.

Subchapter S Corporations -- Entrepreneurial activities are encouraged by the fact that if 35 people or less own a company they can structure it as a Subchapter S corporation, which may allow tax savings. In a Subchapter S corporation, the corporate income is taxed at the owners' personal tax rate, and any money owned by the corporation can later be distributed to the owners without additional taxation. The owners are thus able to obtain the advantages of incorporation without subjecting themselves to possibly higher corporate tax rates or potential double taxation (tax on the corporate income and a second personal income tax if these gains are later distributed to the owners). Subchapter S corporations are widely used for some types of entrepreneurial activities, although not as often in the high technology field. This is because some of the alternative minimum tax provisions can result in a higher tax when

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1The U.S. corporate annual tax rate is currently 15% of the first $50,000 in income, 25% of the next $25,000, 34% of the next $25,000, 39% of the amount between $100,000-$335,000, 34% of the amount between $335,000-$15 million, 38% of the amount between $15-$18.3 million, and 35% of everything over $18.3 million.
applied to the research costs of Subchapter S companies.

2. **Securities Law Incentives For Entrepreneurial Activities in the United States**

Any entrepreneurial activity needs capital. A business may need substantial capital to purchase equipment, fund research, expand manufacturing capabilities or enter new markets. Capital is made more readily available through securities laws that allow investments without an excessive regulatory burden.

Successful entrepreneurial businesses in the United States may go through several levels of funding. Typically stock securities are issued during each phase, to provide investors with ownership rights that can provide a return on investment. The offering and sale of securities are subject to both federal and state law. During the early phases, a stock sale typically is a private placement to a limited number of friends and family, or to sophisticated investors. In these cases, the securities laws are deliberately structured to be less of a burden to the company, making it easier to raise capital. The regulatory burden becomes greater as the business seeks increased amounts of capital. Only once the company has grown to the point of making a public share offering does it need to comply with the most demanding aspects of the securities laws.

One of the first and largest burdens is to register the security to be issued. Registration is not the approval of a security as being a good investment, but the acceptance of the security so that it can be issued in a given jurisdiction. Although there are several ways to register a security, none of them are easy for a small business. Indeed, the registration requirements are sufficiently burdensome that they

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2 The stages of financing can include:

*Initial capital* -- Entrepreneurial companies typically start with personal investments of the company founders and their friends and family. Occasionally an investor can be persuaded to invest in a company that is little more than an idea. Not surprisingly, perhaps, such investors are called "angels."

*Mezzanine financing* -- In building construction, a "mezzanine" is a low story between the ground floor and the story above. Mezzanine financing is interim financing, after a business has begun but before seeking full venture funding. Mezzanine financing can include issuing stock.

*Venture Capital* -- Venture capitalists are companies and individuals dedicated to providing financing to entrepreneurs. Venture capitalists typically invest once a new business has proven its basic business concept in the marketplace. They provide the funding necessary for the company to expand the scale and geographic scope of its business.

*Public offering of shares* -- By selling shares to the public, the firm can gain large amounts of capital to finance major expansion. When such offerings are successful, they create large profits for the owners and early investors, which is the driving force behind venture capital investments.

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3 Investors would rather have stock, which has the potential of large returns that would compensate them for the risk they are taking. Owners would rather raise take on debt (loans or bonds) that do not dilute their control of the company. This has led to the creation of a large number of hybrid financial instruments that combine aspects of both debt and equity. More sophisticated entrepreneurial financings use these instruments.
were thought to preclude many small businesses from issuing stock to raise capital. For this reason, in 1992 the federal government created exemptions\textsuperscript{4} for small businesses from certain registration requirements. Since then, many states have created exemptions in their rules that generally track with the federal exemptions.

The specific securities rules adopted by the federal government to encourage entrepreneurial investments are as follows:

\textit{Investments up to $1 million} -- The SEC adopted a series of eight rules (501-508) under Regulation D to the 1933 Act that allow small companies to sell up to $1 Million worth of securities in a one-year period. There are no restrictions on such securities other than restrictions against fraud, and no specific disclosure document is required. The federal rules allow the securities to be advertised and for the securities to be resold without restriction. However, some states impose restrictions on advertising and on resale.

\textit{Investments up to $5 million} -- Small companies also are allowed to sell up to $5 million in securities in a one-year period under Regulation A without registration and without audited financial statements. In this case the companies need to complete a simplified question-and-answer disclosure document.

\textit{Investments up to $25 million} -- For larger companies that need to register (companies with annual revenues of less than $25 million and whose voting stock has a public float of less than $25 million), the SEC adopted requirements that make the registration requirements less burdensome than they would be for truly large companies.

\textit{Simplified forms} -- The SEC has also adopted a series of simplified forms under the Exchange Act for small business issuers.

\textsuperscript{4}The exemption was made effective by the Securities and Exchange Commission (the "SEC") on August 13, 1992. At that time, the SEC aided small businesses by adopting revisions to the registration requirements Securities Act of 1933 and to the reporting requirements under the Securities Exchange Act of 1934.
3. Other Legal and Regulatory Incentives For Entrepreneurial Activities in the United States

There are other provisions in the U.S. law and regulations that have the effect of encouraging entrepreneurial activity:

Antitrust Law Incentives -- Antitrust enforcement generally could be viewed as helping entrepreneurial activity, since a major purpose of the antitrust law is to prevent large companies from unfairly using their market power to keep new competition out of the market.

Regulatory Relief -- Businesses face a variety of federal, state and local regulations. This can be a particular burden on entrepreneurial businesses, which do not have the experience or staff to deal with the regulations. In recognition of this, some regulations have specific exceptions for businesses with fewer than 25 employees or businesses that have been in operation for less than five years. For example, some laws and regulations that apply to an employee's labor rights do not apply to small businesses. Certain tax and pension fund rules are also designed to be less burdensome for small businesses.

Besides specific regulatory exceptions for small businesses, there are frequently informal enforcement exceptions. As a practical matter, the authorities may be more understanding of a small or new business that fails to comply with all of the regulations than they would be of a similar action by a large, established firm.

Government Programs -- The federal government has established several programs that help entrepreneurial activity. The federal government maintains the Small Business Administration to provide a variety of assistance to small enterprises, including some lending at low interest rates. The federal government has established Cooperative Research and Development Agreements (CREDAs) that provide money for private industry research. Significant funds can be provided to small companies under CREDAs that helps them develop new technologies. The Clinton Administration also created the Advanced Technology Program (ATP) in the Department of Commerce, but this had limited effect due to budget battles with the Republican-controlled Congress.

II. Social Factors that Encourage Entrepreneurial Activities

Entrepreneurial activities in the United States are primarily encouraged by social factors, not by legal factors. Focusing on legal changes to encourage entrepreneurs will lead to limited results, but a major increase in entrepreneurial activity requires understanding and acting on the deeper, personal motivations of entrepreneurs.

1. Personality Types
Of course, entrepreneurs are not all alike. Nevertheless enough common factors have been recognized that certain generalizations can be made. Many of these factors arise from the culture found in the United States and will not be easily transported to other cultures. However, some of the following considerations may be transferable, and others need to be understood so that alternate factors can be structured.

Entrepreneurs tend to have the following personal characteristics:

X **Achievement** -- Entrepreneurs are people with a high need for achievement. Such people do not necessarily become entrepreneurs, since they may be happy working in large organizations, but people usually have this quality if they become entrepreneurs.

X **Authority** -- Entrepreneurs are uncomfortable with authority, except authority imposed within themselves. Thus, they are often unhappy in large corporations or organizations where there are rules imposed on them. Psychologists believe that entrepreneurs, as children, often were in the unhappy situation of attempting to meet the rules of a demanding parent and unable to follow their natural desires.

X **Independent Thinkers** -- Entrepreneurs behave independently and are not concerned with reaching a consensus. Entrepreneurs want to innovate, and such innovation frequently contains an implicit criticism of the organization's current way of doing things. Thus, the entrepreneurial personality is not often appreciated by large organizations.

X **Working Style** -- Entrepreneurs are people who can act intuitively and resourcefully. They are self-motivated and do not need structure around them in order to work. They not only work hard, but have the ability to focus on the most important tasks. They are not reckless, but are willing to take bold and independent steps after careful consideration.

X **Effect of Failure** -- Entrepreneurs often do not consider a failure of the business to be a personal failure. The culture in the United States allows entrepreneurs to recover if they fail. This is especially true in centers of entrepreneurial activity, such as Silicon Valley, where there are many who have succeeded after initial failures. Failure is not considered to be a personal shortcoming, but an

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5The most important study was conducted at Harvard more than thirty years ago. See David C. McClelland, *The Achieving Society*, 1961.
unfortunate event that can be overcome. Many entrepreneurs succeed only after failing in their early entrepreneurial ventures. Microsoft Chairman Bill Gates, for example, failed in his first attempt to establish a software company.

X Belief in the Ability to Control Outcomes -- Although it seems somewhat contradictory with the previous point, entrepreneurs also have "locus of control beliefs." This is a sociologists' phrase meaning that entrepreneurs are people who believe that their own efforts will control the outcome of their business venture. Entrepreneurs do not believe that success is caused by luck, fate or the intervention of more powerful forces. In other words, entrepreneurs will work hard because they believe that their own efforts can bring them success, but they do not blame themselves if they fail.

X Risk -- Entrepreneurs are moderate risk takers. Contrary to what might be supposed, entrepreneurs are not more likely than other people to take large risks. Entrepreneurs are not gamblers. Rather, they are willing to take some risk after carefully measuring and considering the risk. While they pay attention to risk, the main focus of entrepreneurs is not on what could go wrong with their undertaking. Instead, they are focused on the future they have chosen to create.

X Motivation -- Entrepreneurs are not motivated by the traditional "prerequisites" of corporate life, such as prestigious offices, club memberships and expense accounts. Entrepreneurs are motivated by the chance to become wealthy of course, and they are typically motivated by the challenge of bringing their vision to reality.

X Work Experience -- Entrepreneurs are often dissatisfied with their previous work experience. Frequently, it is only after an employee becomes dissatisfied with a previous job or is laid off from a previous job that they will decide to begin an entrepreneurial enterprise. This is important, since evidence suggests that the "push" of dissatisfaction is more of a motivating factor than the "pull" of the entrepreneur's desire to create something new. Most societies give employees more job protection than in the United States. This has the effect of reducing the number of entrepreneurs, since potential entrepreneurs are not "pushed" out of the company to begin their own ventures.

X Life Path Interruptions -- Similar to the above point, many people turn to entrepreneurial activity only after there has been a serious interruption in the life path they have chosen for themselves. War, illness, political upheaval, economic displacements and similar factors cause people to rethink their career choices and lead to many people embarking on new paths. Also, the level of entrepreneurial activity in the United States is encouraged by the immigration of highly motivated people from other countries. For example, Intel founder Andy Grove is an immigrant from Eastern Europe.

2. Social Acceptance of Entrepreneurs

Until fairly recently, entrepreneurs have not had high status in the United States. Over the past 50-60 years, this country has transformed itself from a society based on
agriculture and small business to one in which central authority and large organizations dominate the lives of many people. This has enormously improved living standards, but it required many people to give up their individual views in the interest of the larger group. Especially during the 1950’s and early 1960’s, entrepreneurs were viewed as people who rebel against the large organizations. Entrepreneurs threatened people who had invested their careers in the large companies.

Beginning about 25 years ago, the social status of entrepreneurs began to improve dramatically. Several factors explain this:

X The success of certain entrepreneurs has been highly publicized. The most noted example is Microsoft Chairman Bill Gates, a Harvard dropout who is now the richest man in America. His enormous success as an entrepreneur has certainly had the effect of encouraging many others.

X The U.S. economy has experienced extensive "downsizing," during which many tens of thousands of corporate jobs have been lost. Even for people who have not lost their jobs, there is a new sense that jobs in large corporations are no longer secure. This has caused entrepreneurial efforts to gain new respectability as a means for executives to control their own destiny.

X Today, in the United States, there are centers, institutes and graduate training programs to train and support entrepreneurs.

A final point is that beginning an entrepreneurial enterprise is a very personal decision. The entrepreneur needs the emotional support of his or her spouse and family. Efforts to improve the social acceptability of entrepreneurs must be targeted at the attitudes of the entire family, not only the individual who will begin the new venture.

3. Environments for Entrepreneurs

Entrepreneurs often receive support from their environment that is critical to their success. It is no accident that entrepreneurs are found in "clusters," such as Silicon Valley or Route 128 outside Boston. The presence of successful entrepreneurs in the same area provides role models, and this encourages others to develop their own ideas. Also, the fear of failure is reduced when people see others who may have failed initially as entrepreneurs but were able to move on to other ventures. Often entrepreneurs have worked at entrepreneurial firms early in their career, and realized that they too could start their own company. Sometimes the role model comes from the family; frequently entrepreneurs have fathers who started companies or were self-employed.

In the United States, universities are important breeding grounds for entrepreneurs. Universities offer facilities and colleagues engaged in top-level research. Young people at universities are more open to new ideas and new ways of doing things. They also have the time to explore ideas they may have that would not be
approved for research in a profit-oriented corporate laboratory. Also, corporate-sponsored research facilities naturally want to own the results of any research breakthroughs made. In the university, the student has a greater chance to own and profit from the results of his research. University research also builds on itself, such as the entrepreneurial activity on Route 128 outside Boston, which has grown from the many universities in the area.

Two recent and important entrepreneurial successes in the United States came from the university setting. The Netscape Internet browser was developed from the Mosaic browser created at the University of Illinois. The Yahoo! Internet search engine was created from work done as a hobby by two graduate students at Stanford University. Each of these ideas is helping to establish not only a new company, but a new industry as well. Either of these ideas could have been discovered by the large corporations doing research on telecommunications and computers, but it was students working in a university setting who had the idea and opportunity to develop them. (The next section includes a discussion of why large corporations have difficulty when they try to behave in an entrepreneurial manner, and how this may be overcome.)
III. **Recommended Measures To Encourage Entrepreneurial Activity**

The following discussion suggests measures that might be considered to encourage entrepreneurial activity.

**Suggestion #1. Changes to the Tax and Securities Laws**

*Tax Code Changes* -- The United States maintains a variety of tax code provisions that make it relatively easy for firms to deduct costs from taxes and to ease the tax burden on gains. The United States also maintains, or has at considered creating, special tax credits to spur specific economic activity. Other countries could base tax relief for entrepreneurs on these U.S. provisions.

*Securities law changes* -- U.S. securities laws make it relatively easier for small firms to raise capital than for large firms. These laws have been a significant incentive for venture capitalists and other investors to supply the funds that entrepreneurial firms need to grow. Other countries could have similar laws.

These legal changes would provide benefits by using U.S. legal regimes as a model. The deeper challenge, however, is that cultural characteristics are a major influence on entrepreneurial activity. Each society needs to find ways to encourage entrepreneurs within its own culture. The following suggestions are offered as possible programs that would accomplish this.

**Suggestion #2. Government Program to Encourage Entrepreneurial Behavior Within Established Corporations**

Entrepreneurship does not need to involve starting a new business. There is no inherent reason why an established corporation cannot encourage entrepreneurial activity from within. During recent years some corporations have attempted to do this. However, as a practical matter, large companies everywhere, including in the United States, have had great difficulty in encouraging entrepreneurial activity within the corporation.

This does not mean that it is impossible to encourage entrepreneurs within existing companies, only that new thinking is needed. A brief outline of such thinking is as follows:

First, why do large corporations in the United States find it difficult to act in an entrepreneurial fashion? Research from the United States suggests the following reasons why large companies have not been able to create internal entrepreneurs:

Χ The typical personality of an entrepreneur may be someone who has difficulty
fitting into large companies.

X Truly new ideas about a company's products are threatening to many within the company, who will find ways to block the new initiative.

X Large companies tend to think of innovation in terms of extending existing product lines. Completely new types of products, however, are unlikely to be supported. For example, companies like Microsoft and IBM invested billions in research on new types of computer networks. Their ideas, however, were to improve on existing types of products. It was entrepreneurs from Netscape, completely outside the large corporate structure, who saw the networking potential of Web browsers.

X Large corporations have difficulty creating financial incentives for entrepreneurs. An entrepreneur within the corporation may be a junior person with an idea that earns the company significant profits. Despite this, many corporations would find it difficult to compensate that person at a higher rate than his superiors.

X Large corporations have developed internal cultures that are the most important factor in employee decision-making. Many employees are convinced that their real success in the company depends on mastering this culture rather than in working for a new corporate goal. Thus, the leadership of a corporation may say that it wants to encourage entrepreneurial activity within the company, but employees will believe that this is only a temporary corporate objective. The employees will make some effort toward the new goal, but they will believe in their hearts that in the long-run their careers will be most successful if they follow traditional paths of advancement.

Second, is it possible for large corporations to become more entrepreneurial despite these difficulties, and, if so, how would they do this? Some U.S. corporations have established effective internal efforts for innovation. For example, IBM has created "IBU's" (internal business units) that can carry out entrepreneurial ideas by operating outside the control of central management. These efforts can be studied and used to model programs that will work. Preliminary research suggests that the keys to success for entrepreneurship inside the company include:

X The top management of the company must support the efforts to increase entrepreneurship.

X Management must make a long-term commitment. Employees are unlikely to risk their careers if they believe that management may change its mind about the program after six months.

X The entrepreneurial activities must be shielded from those in the company who believe in the traditional method of operations. For example, a traditional finance department should not be able to disapprove automatically the innovative ideas of an entrepreneurial unit. In essence, entrepreneurs operating within a company need someone to act as their liaison with the rest of the company.

X The entrepreneurial unit should have direct access to the top management of the company. There should be not be a committee or other unit that makes
preliminary judgements about the ideas of the unit, since these non-entrepreneurial judgements may defeat the very ideas that the top management wants to encourage.

There must be clear rules for what the entrepreneurs inside the company may and may not do. Although true entrepreneurs will not like to have this authority imposed on them, the rules are necessary to avoid misunderstandings and to keep the entrepreneurial activities in harmony with the broad goals of the company.

Compensation should be structured to reward entrepreneurial success to a reasonable degree. Entrepreneurs within the corporation cannot expect the degree of compensation that successful independent entrepreneurs would enjoy. However, some monetary recognition is an important incentive, and it sends a message to the organization that entrepreneurial activity is important.

**Suggestion #3. Support Networks for High-Tech Entrepreneurial Activity**

Governments and large companies could establish support networks that are specifically designed to assist high-technology entrepreneurs with the type of challenges they are likely to encounter. A high-technology entrepreneur typically has the technological skills that have led to the vision and design of a new product, but needs other skills to create a successful enterprise. The needed skills include:

- Management skills, including focusing the company's activities and resolving conflicts among the company's principals.
- Production skills, including creating prototypes that are suitable for mass production and bringing prototypes to the manufacturing stage.
- Finance skills, including lack of understanding of how to obtain financing, or how to value the new company once financing is obtained.
- Marketing skills, to understand the potential market, how the market may be changing, determining the features that a new product will need to be successful, and deciding how much to charge for the product.
- Administrative skills, including accounting, legal and personnel requirements.
- Communications and sales skills, including the ability to explain the company's new products to non-technical people.
- Leadership skills, including keeping people motivated despite setbacks and failures.

A support network for high-technology entrepreneurs would work by providing advice in each of these areas. Entrepreneurs could turn to the network when faced by a problem. The network might be staffed by retired executives. Even if they were not entrepreneurs themselves, they would know how to approach problems in their area of expertise. The network could also provide a means for entrepreneurs to communicate among themselves, to provide mutual support and advice. The regions around Silicon
Valley and Route 128 outside Boston have many entrepreneurs, and this serves to provide similar support and advice to new firms in those locations.

**Suggestion #4. Annual Award for Entrepreneurial Activity.**

Governments and companies might encourage entrepreneurial activities through measures designed to improve the social status of entrepreneurs and to publicize the success of entrepreneurs. One method is to create a new and prestigious award for entrepreneurial activity. There is a precedent from the United States, which has created the prestigious Malcolm Baldrige award for corporations that achieve quality in their operations. After only a few years in existence, this award has become very important in the U.S. business community, and the award has succeeded in its goal of promoting the idea of quality in U.S. business operations.

**Suggestion #5. Support Program for Entrepreneurial Activity in Universities**

As discussed in section II-3 above, universities are an important potential growth area for entrepreneurs. Promoting entrepreneurs on campus will not only make students likely to begin new ventures, but encourage clusters of ventures to be established in the university area. Students need to be given the opportunity to perform research without the restrictions that are found in corporate research facilities. Faculty members can also be encouraged to become entrepreneurs, and this will have an effect on students. Courses in entrepreneurship can be established.

**IV. Next Steps**

This memorandum provides an overview. There is more information available on all of the topics that have been discussed. Comprehensive research would be valuable before any decisions are made to implement new programs.

There is no single "magic solution" to creating entrepreneurial activity. Large corporations that believe they can become more entrepreneurial merely by establishing this as a goal will be disappointed. Instead, comprehensive efforts by both government and industry can succeed in encouraging entrepreneurs, both within and outside the corporation. Detailed programs can be designed that will create some new entrepreneurs and help change attitudes about entrepreneurs generally. Over time this will encourage others to become entrepreneurs and lead to a more entrepreneurial culture.

Please do not hesitate to contact us if you have any questions or would like additional information. We would be pleased to assist with additional research or with
establishing these programs.