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## VENTURE CAPITAL

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Description of the venture capital fund life cycle.

Discussion of the risks, returns and approaches to investing in:

- \* Early-stage, high-technology and other companies.
- \* Leveraged buyouts.

MR. JAY A. NOVIK: We have put together a panel that will provide you with a great deal of interesting information on venture capital. Venture capital is certainly not a new subject either to actuaries or to insurance companies. Prudential and TIAA have been investing in venture capital and leveraged buyouts for years. Actuaries are informed, at least to the extent that they read the Wall Street Journal, about the many new high tech companies started through venture capital and the leveraged buyouts facilitated by venture capital. The first speaker will be Alan Mendelson. Alan is in charge of the high technology venture capital unit of Aetna's Bond Investment Department. Alan will start our presentation by giving you a broad basic summary of what venture capital is and some information about how insurance companies approach venture capital.

MR. ALAN H. MENDELSON: Good afternoon, ladies and gentlemen. It is a pleasure to address you today.

(Slide 1) In the brief time I have I would like to accomplish four objectives. First, I shall provide some general background information on the nature of venture capital investing. Next, I shall explain from an institutional perspective the approaches that can be taken for setting up a program to make venture capital investments. In this regard, I shall cover briefly some of the criteria for making venture investments. Lastly, I would like to give you a feel for the specific program in venture capital that we have developed at Aetna.

What is venture capital? I like to use a fairly simple definition. Venture capital is the business of developing new businesses, especially those with extraordinary growth potential. It is also important to remember that venture capital investing is a long-term process, and covers the range of investments from the time a company starts up until the time a company can obtain continuing investment capital from traditional, institutional and public market sources. This is a process which normally takes from four to six years.

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(Slide 2) Conventionally, venture capital investing can be divided into three categories: early stage financings, which account for approximately 40% of all funds invested, and which include seed capital financing where the investor seeks money for research and development and to write a business plan; start-up financing, where a management team has come together and needs further funds to begin to develop the product; and first stage financing, where the company will already have a prototype and will need funds to begin a full production effort.

Expansion financing can consist of several rounds of investments, although four is usually the upper limit, and represents the need for capital for growth and the upgrading of facilities. Typically, these rounds will take a company to the point where it is earning after tax profits and can increasingly rely on the more traditional public and private sources of capital. Expansion financings account for approximately 50% of all venture capital investments.

The last category of venture capital financing consists of so-called "Mature Investments". The first category of mature investments is the turnaround, where the venture capitalist brings in new management to help an ailing company. The second category is the leveraged buyout in which the venture capitalist negotiates a small equity investment which is then leveraged and used to acquire a going concern. More will be said about these leveraged buyouts by our other panelists. Mature financings account for roughly 10% of all venture capital investments.

(Slide 3) The venture capital industry has grown dramatically over the last several years. At the end of 1983, the industry had grown to \$11.5 billion, almost a 300% increase since 1979. Industry Size, as used here, represents the total capital invested in or available for investment in venture capital companies. The majority of the \$11.5 billion, or \$7.6 billion, is managed by the so-called private venture capital firms, including partnerships and family organizations. \$1.5 billion is managed by Small Business Investment Companies and \$2.4 billion by corporate groups such as Aetna.

The rate of new investments or disbursements to portfolio companies has kept pace with industry growth and has increased 250% from \$1.0 billion in 1981 to \$2.5 billion in 1983. Despite this dramatic absolute growth, venture capital investing continues to be a very selective process. For example, in 1982, of over 8,000 proposals submitted to venture capital industry, only approximately 1,000 were actually funded.

(Slide 4) Where has this venture capital been invested? In 1982, the majority of the money, between 80% and 90%, was invested in high technology businesses. We expect this trend to continue, especially in the areas of computers, electronics and communications. I would also like to point out that in a number of the non high-tech areas, such as energy, the percentage of the dollars invested has declined dramatically over the last three years.

(Slide 5) The next chart shows the geographic distribution of venture capital and the trend of these investments. Not surprisingly, the greatest concentration of venture investing has been centered on the West Coast, especially California because of the Silicon Valley and the northeast due to Route 128 companies in Massachusetts. These two sectors accounted for 78% of all the venture investments made in 1983. However, venture expansion is now spanning new areas of exciting growth opportunity as well as some less

exciting growth in new nomenclature. Growth areas include Dallas/Austin, the so-called Silicon Prairie, and Seattle/Portland, the so-called Silicon Forest. The geographic trend is evidenced by the fact that in 1983 and 1984 the largest states accounted for only 69% of total investments, down from 74% in 1982.

(Slide 6) The sources of venture capital are varied and have been growing at a rapid pace. The table shows commitments to private venture capital firms. While all sectors have grown rapidly, pension funds have accounted for the largest absolute dollar growth and are the single most important source of venture capital. However, it is interesting to note that even with \$1.1 billion of new commitments in 1983, total pension commitments for venture capital are only about \$2.0 billion. This is well under 1% of the approximately \$920 billion of assets under management by pension funds. Insurance companies have shown increasing interest in venture capital in the last two years, but for the most part have not devoted significant capital to this area.

(Slide 7) I would like to shift gears now and spend a few minutes discussing the benefits and risks of venture capital investing. The primary reason for investing in venture capital always has and should always continue to be to generate high rates of return. The historic returns from venture capital have been quite attractive, and in fact have been increasing over the last several years. Industry studies by a number of people indicate that over the last 25 years, which is essentially the entire history of the industry, the returns have been 25% on an annual after tax basis. Of course, in comparison to the returns available from alternative investments over this time frame, this is probably the best and certainly one of the most attractive investment vehicles that has existed. In the last five years these returns, particularly with the increase in the value of the public stock market, have increased to the 35% annual level. Estimates are that in the last three years, in the 1980 to 1983 period, returns have actually approached 50%. Of course, I would point out that these 35% and 50% return numbers are based on unliquidated values which can and have changed with the vagaries of the public equity markets, while the historic 25% return cited above is based on liquidated values.

A second benefit of venture investing is that it is an appropriate vehicle for portfolio diversification, if done in moderation. This is especially so since returns on venture investments essentially are independent of interest rate levels. Partly for this reason, venture investments can not only act as an inflation hedge but also demonstrate superior results in a low interest rate environment.

The third benefit of venture investing is to generate social benefits. A number of studies show the overall economic benefit derived from new small business formation. Not only are these companies more important in terms of generating new jobs and higher tax revenues, but they are also a source of more rapid innovation at a lower cost. For example, one recent study by the National Science Foundation indicated that small companies with 200 or fewer employees generated 24 times as many innovations per dollar of research and development as larger companies. Another recent study by the U.S. General Accounting Office in 1982 highlighted the economic benefits to the country of high technology company formation. Based on a sample of only 72 public companies of 1,332 venture-backed businesses identified, the study reported the following aggregate benefits achieved by the end of 1980.

1. The companies were responsible for the creation of over 130,000 jobs.
2. The companies had generated over \$450 million of corporate and employee tax revenues.
3. The companies had generated over \$6 billion of revenues in 1983 alone. Some of the well-known companies included in this study were Federal Express, Apple Computer, and Tandon Computer. The aggregate equity investment in these sample companies was only \$209 million.

(Slide 8) Of course, as is the case with any investment medium, there are also a number of risks involved in venture capital investing. In the case of venture capital, these risks are not inconsequential and involve both individual investment and portfolio considerations. First of all, there is a high risk of loss on any individual venture investment. Out of any reasonable sized venture portfolio, approximately 25% of the investments will have negative returns including about 10% that will be total write-offs. In fact, in most portfolios, 80% of the returns will come from only 20% of the investments. There is also an old adage in venture that the lemons show up early and that the strawberries take a long time to ripen. Often success comes after several years and only after a number of false starts, crises, and near bankruptcies. For example, several of the most successfully venture-backed companies, including Federal Express and Paradyne, were literally within one "yes or no" decision as to whether they would be bankrupted. Thus, venture investing is not for the faint of heart since at any point in time the overall portfolio return could be quite low or even negative. Also, for these reasons, it is almost foolish to invest in only a few venture situations. A portfolio approach is a necessity. Lastly, it goes without saying that venture provides no current return and the investments themselves are totally illiquid while they are still at the venture stage. Again, this period could be as long as six or seven years and is usually two years at a minimum.

(Slide 9) Before getting into the specifics as to how insurance companies can participate in venture capital, I would like to give you a feel for how a venture capitalist spends his time. This is important since both the skills and functions of a venture capitalist differ in some respects significantly from those of the traditional investment professional at an insurance company. The average venture capitalist will spend from 5% - 15% of his time soliciting deals by attending seminars, conferences, and meetings with other venture capitalists and deal sources. This is a somewhat higher percentage than for a professional in an insurance investment area. The venture capitalist will spend another 25% - 35% of his time reviewing business plans, and selecting and negotiating business opportunities. While this time allocation is somewhat normal for the insurance investment professional in this function, the skills involved in this process are much less oriented toward traditional financial analysis and much more heavily weighted toward management evaluation and generic industry and competitive analysis. The biggest difference between a venture capitalist and the typical insurance company investment professional, however, is the large amount of time the venture capitalist will spend providing assistance to portfolio companies. The specific functions, which can take 50% or more of a typical venture capitalist's time, include serving as a director or monitor of the company, acting as a consultant or strategic planner to the company, recruiting management, and assisting in outside relationships with suppliers, customers, and financial institutions. Lastly, for successful portfolio companies, the venture capitalist will assist in the exiting process, which usually involves

bringing the company public but often will involve its sale to or merger with a third party.

(Slide 10) Having given you a general overview of venture capital, I would now like to turn to the specific ways in which an insurance company can participate in venture capital and discuss the pros and cons of each. Essentially, an insurance company has three distinct options for developing a venture capital program. It can make direct investments in venture capital companies with its own dedicated staff; it can make investments in traditional venture capital partnerships managed by outside professionals; or it can make direct or partnership investments with the advice of an outside professional consultant. Of course, a program involving a combination of these alternatives is possible.

(Slide 11) For many companies a direct investment program will have the most appeal. The potential advantages of such a program are great. It allows the company to concentrate not only on areas of interest, high technology, for instance, but also to pick the stage of development at which the investment will be made. For example, some portfolios might only do expansion round financing where the technological risk inherent in a company's development has been reduced or eliminated. Through the process of a direct investment program, it is also possible to provide a window on technology to interested user or investment groups at the insurance company. In this regard, a direct investment program can help develop new business relationships, both on the insurance and investment sides of the company. The fourth major advantage of a direct program is that it will greatly improve the skills and job satisfaction of the people working in this area.

There are, however, a number of drawbacks and potential disadvantages to a direct investment program in an institutional setting. The first of these is that a venture program requires a consistent market presence which may not mesh with general corporate goals over a period of time. Venture capital cannot be done on an ad hoc basis and a direct program can only be successful if a number of investments are made on a regular basis over an extended period of time. Therefore, companies that follow this route must be able to deal with situations, which many of us face presently, where there is a heavy emphasis on making investments which generate currently taxable income, clearly something venture capital does not do. Another disadvantage of a direct investment program is that it may be difficult to generate a high quality, fairly priced deal flow. Most good deals are originated by successful private partnerships and these partnerships tend to share their deal flow with members of the so called venture capital club. Breaking into this club is not easy and can only be done over time by demonstrating that the institution is professional in its approach, dedicated to its venture program and is in a position to offer something other than money to the venture capitalist. That something usually must be its own deal flow or an existing or prospective investment in the fund. Another disadvantage of a direct program is that it is very management intensive in a way not generally accepted by investment departments at insurance companies. For example, it may take three or four people full time to invest as little as \$10 million per year and monitor a portfolio of ten to fifteen existing investments. Also, staff who do their job well over time may demand greater compensation than other investment professionals or leave to work for a private partnership. Lastly, a direct investment program will inevitably make problem investments, which usually surface early and are highly visible.

(Slide 12) For those who have a direct investment program, these investment decisions will be determined by their evaluation of five critical areas. Of course, while each venture capitalist has his own criteria, almost without exception the process focuses on the same areas. The most important of these areas is management. The management team determines a company's prospect of success; at Aetna, we only invest in situations where a strong management team exists and is complete, given the stage of the company's development. We look specifically for management which has a proven track record either as founders of other companies or as executives with previous profit and loss responsibilities. From a technology standpoint, our highest priority is where proven technologies are applied in an innovative way to emerging or growing markets. In particular, we look for products with a competitive advantage in an area where competition will not be overly burdensome. In general, unless we feel a company has a chance of achieving \$30 - \$50 million of annual revenues within five years based on a realistic market penetration we will not make an investment. The fourth general criterion is to invest only with high quality co-investors, each of whom can help the company grow and achieve its business objectives. Of course, not all companies which have good management teams, products, and attractive markets obtain money. After all of these criteria have been satisfied, a deal must still be reasonably priced and attractively structured. In our case, this means that at a reasonable price to earnings ratio of 10x to 15x, according to the industry, we must believe we have a chance of making 5x to 10x on our money within five years, depending on the stage of development of the company when we invest.

(Slide 13) In many respects, the advantages and disadvantages of investments in venture partnerships are the mirror images of those of a direct investment program. The major advantage of an investment in a private partnership is that these partnerships have the financial resources to attract top quality professionals who can devote 100% of their time to venture investing. Thus, once the partnership in which to invest is chosen, there is little or no drain on management time at the insurance company. Another advantage of this investment vehicle is that it enforces a long-term commitment to a venture program. This is so because most venture partnerships are funded over at least a two to three year period and have a life of at least eight to ten years. Another major advantage of partnership investing is that, since senior management will only look at the record of the partnership as a whole, problem investments will be less visible. Lastly, investing in partnership affords insurance company professionals the chance to learn the venture process without making serious mistakes. They can do this by spending time with the venture capitalist reviewing the reasons why certain investments were made and others rejected, as well as learning how deals get priced, structured, and managed.

The major disadvantage of a program of this sort is that it puts the investment process in another's hand. Thus, the insurance company would probably be unable to pick precisely those areas of venture where it wanted to focus its investments and would have less ability to gain the benefits from the window on technology that a direct investment program can provide. By and large, these disadvantages are not serious and investment in partnerships is the best way to get started in the venture business.

(Slide 14) In selecting a venture partnership, there are a number of important factors that an insurance company should look at. The first is the track record of the partners in the partnership. Notice that I said partners; frequently, the record of a partnership was achieved in large part

by professionals who are no longer with the partnership. Ideally, the record should be over a reasonable period of time, be based on liquidated investments, and involve a meaningful number of dollars. A track record may be necessary, but it is by no means sufficient. It is important to run as many good reference checks as possible with both entrepreneurs and other venture capitalists. This is critical since the partners are the sources of tomorrow's good deals which will allow the fund to be successful. The next set of critical factors requires picking a fund where the philosophy and strategy of investment most matches the insurance company's own goals and objectives. For example, if having a window on technology is important, then one should pick a fund specializing in high technology and not leveraged buyouts or retail. Other factors to look at include the stage at which the fund will invest, the degree to which it will play a lead role in its investments, its geographical preferences, if any, and the fund's willingness to share direct investment opportunities with its limited partners. One final variable which I feel is becoming increasingly important is the staffing commitment of the fund. In today's world of the megafund of \$100 million or more, it is important to ensure that the number of investments per experienced professional is not excessive. My own bias is to pick funds which are not in a big rush to invest and which will manage a reasonable amount of money. In my experience, this is generally a pool of \$50 million or less to be invested in no fewer than two-and-a-half to three years.

The last way for insurance companies to get into venture capital is to turn the investment decision over to a professional investment manager. The main advantage of this alternative is that in many cases these managers will see a higher quality, more consistent flow of opportunities in both funds and direct investments than an individual company might. Thus, they are an attractive alternative for companies who want little or no direct involvement in the venture process and who do not have the resources or inclination to develop a full-fledged venture program. Of course, a major disadvantage of this alternative is precisely that it removes most of the ability to learn about venture first hand. It also puts another party and another fee into the process.

(Slide 15) For the last part of my presentation, I would like to tell you briefly about venture capital at Aetna. Although we have been doing direct venture investing for over three-and-a-half years now, the genesis of our program goes back over 14 years during which time our Bond Investment Department made over \$100 million in equity oriented debt deals. Our returns on this portfolio were in excess of 18%, a very attractive return given the level of interest rates over this time. Currently, our venture investing is done by our high technology unit, which I head and which is an autonomous unit located within the Bond Investment Department. Our mission is to make direct equity investments in high tech companies engaged primarily in the communications, data processing, and medical/health care areas. We also make investments in funds which concentrate on those industries. Our unit manages a portfolio which currently has 21 companies with \$24 million invested and 23 venture capital pools with \$40 million committed and \$30 million invested. This money has all been Aetna shareholder money from the parent casualty companies.

One of the keys to any successful venture program is the caliber of the staff. We have a mature, experienced staff, with a broad range of backgrounds and abilities. Let me take a minute to tell you about our staff. I have been at Aetna for over 14 years, and have been responsible for over \$3

billion of investments in a wide cross section of industries including cable television, electronics, and health care. Since I assumed responsibility for our venture capital investing three years ago, I have also become involved in a number of outside activities involving venture capital. For example, I was Chairman of the Finance Subcommittee of the Governor's Counsel on High Technology in Connecticut. My academic background is in economics and law.

The second member of my team, Norm Thetford, is our technical guru, and has a particularly good background for venture capital. Norm's undergraduate degree was from Rutgers University in electrical engineering, and he has a masters and PhD in biomedical engineering. Norm's work experience has also been quite varied. He has management experience at a clinical lab, has done research at Yale University, and over the last 14 years has been exposed to a wide variety of areas in the data processing area. For example, most recently before Norm joined our unit, he was in charge of all the data processing activities at Aetna's Bond Investment and Common Stock Departments.

The third member of our team, John Siegler, has two years of work experience at a labor union, and has been with Aetna for two years. John's undergraduate degree is from Princeton University and he has an MBA from the University of Chicago.

(Slide 16) What has our performance been to date? We have done quite well. The market value of the 18 direct investments totaling \$22 million, which were outstanding at year end 1983, was \$52.8 million. Now how did we arrive at this number? This number is comprised of two components. Five of those 18 investments, representing an investment on our part of \$11 million, are public. On those five investments we have already received a \$14 million return in cash and at year end the market value of our remaining holdings on these companies based on their quoted stock prices was \$28 million. The rest of our investments are essentially still valued at cost. I might add that the weighted average life of our portfolio at year end was only 16 months.

On the fund side we have also done quite well. For the \$28.8 million invested, the market value at year end 1983 was \$47.0 million, including \$8 million received in cash and securities and the funds' conservative estimates of their own portfolios' market values. We believe these figures are conservative since over 40% of the \$28.8 million has been invested only since January 1982; thus, in most cases, it would be too soon for these investments to have shown much, if any, capital appreciation.

(Slide 17) In conclusion, the environment for venture capital investing continues to be good. Despite the rapid growth of venture capital, the driving forces of the industry, technological change and the supply of good entrepreneurs, have never been in greater supply. An indication of this is the realization that, in 1983, we passed a real milestone in our civilization. There are now more computers than people on earth. Moreover, it is important to remember that the world's knowledge base is now doubling approximately every five years. In specifically addressing the size of the venture industry, it is also useful to remember that even in the record year of 1983, the entire venture capital industry spent less than 75% of IBM's research budget. I believe that venture investing done carefully and in moderation may be an appropriate investment vehicle for insurance companies. However, I would reemphasize that venture investing does involve significant risk and has some structural constraints which may make it difficult for some



institutions to have a meaningful program. These factors include a lack of current return, a lack of liquidity, and a high probability of loss on any single investment. Therefore, I caution that unless an institution is committed to venture on a long-term basis, it may be better off not participating at all in this market segment. But for those who can make this commitment, participation in venture, whether through other pools or on a direct basis, can be a rewarding and profitable activity.

MR. NOVIK: Thank you very much, Alan. Our next speaker is Joe Dowling. Joe has 19 years of Wall Street experience, and has personal expertise in leveraged buyouts. Joe and other partners including Harold Geneen, former Chairman of ITT, did a leveraged buyout of TICOR Insurance Company last year from Southern Pacific. This is the largest leveraged buyout of an insurance company to date. Alan has focused mainly on high tech venture capital investments. Joe will focus more on venture capital investments involving leveraged buyouts.

MR. JOSEPH H. DOWLING: One of the nice things about talking about leveraged buyouts is that the field is so new you can say almost anything with sure knowledge that a) no one has said it before you, and b) no one will be able to criticize you because no one really knows what we are doing yet.

Leveraged buyouts have to be looked at first of all in terms of the environment you are working in and then according to their financial characteristics. In a leveraged buyout, we bring together types of people who never before have been brought together. The underlying basis of a leveraged buyout is greed. I hate to say that. I am sure that when they get around to awarding medals, we shall have a different definition for it. But what we really bring to one meeting place is a high greed, high ego, high drive type person who is the originator/designer of the leveraged buyout transaction. At the same time, we very often bring in management people from areas which do not share those characteristics. By properly melding together these types of characteristics, you end up not with conflict between them, but with each person gaining from the type of individual the other party is, and this will determine the success of the buyout.

Usually in the more normal venture transactions, the investor is just that, the investor. Quite often in leveraged buyouts, however, the investor is a combination of investor/manager and the successful individual in this area knows when he should be an investor and let management do their own managing, and when he should be a manager. There is considerably more involvement on the part of leveraged buyout people in the subsequent management of the company than there is on the part of the typical venture investor. Most of you have seen the ad in the paper that asks "Do you really want to be rich?" You would think by now the answer would be yes, but more typically the answer is no. As I talk, though, I would like you to bear in mind that there are three sets of ears that should be listening to this discussion because we are really talking about three types of investors in the transaction. The first is the underlying venture equity holder. Normally he puts in very little money. He puts in his expertise. He puts in his creativity and he has the biggest potential swing in it. The second investor, the level right above him, would be equivalent perhaps in a more typical corporation to the convertible preferred holder, the subordinate debenture holder, the individual who has somewhat more protection than the low level individual, but does not have the highest protection for his investment. In return for

that additional risk, he gets additional reward; he gets a piece of the action. The third level traditionally is the banker, whether he represents an insurance company or bank or pension fund or something else, the man is serving as a bank. Bear in mind that each type of individual looks at the impending transaction in a different way based upon what he is putting in and where he sees his risk and reward.

I should say that even though I have done several of these, when Jay asked me to speak I gathered the literature so that I could see what it was I was talking about. I really do not understand some of the literature, so let me try to explain what a leveraged buyout really is. It really is not quite as esoteric as it sometimes sounds. All we do when we do a leveraged buyout is to establish a new corporate entity, one that has not existed before, which is to be the ultimate buyer. That corporate entity then arranges its own financing for the transaction. That financing traditionally involves a large amount of debt or debt instruments relative to the underlying equity; that is where the word leveraged comes from. Finally, there is the buyout phase, in which you actually buy the company. All you are really doing is starting a company, financing a company, and buying a company. That's all there is to a leveraged buyout!

Now, I would like to suggest to you that when I talk about the equity holder, the first level, I am really talking about several types of people who are in there for many different reasons. One type, of course, is the venture originator, the leveraged buyout specialist. He may be an investment banker by background, he may be a specialist in industry, he may be almost anything, but he brings in his financing and structural expertise, and he brings in his energy. The whole transaction will ride or fall on his energy. The second group of people in there is the management. You cannot do a leveraged buyout without bringing management along with you. It is just impossible to go through the process of getting all the information you need for bank financing and getting all the cooperation you need down the line, if you are hostile to management. So you automatically bring management as a player into the transaction. If you are going after a public company, you also bring in the key owners because it is important that in effect they do the transaction. You also have to remember that leveraged buyouts are used sometimes in the method of going private, so if there are key shareholders you bring them in. I think this is standard in all transactions. What is not standard and what is most important is that when you structure this deal, it is going to rise or fall on the basis of employees who have not been considered in the course of the transaction. These are, mainly, the operating personnel of the company you are acquiring. It is important to leave a large amount of stock available for the management employees themselves so they have a real incentive to work with you and make the transaction work. The success of the transaction really occurs after the date of acquisition. If you do not have these people properly stimulated, or more important, if they feel there is a clear barrier, you develop a class war within the organization. For instance, you cannot have the president making \$50 million while others receive only a \$10,000 bonus. You have to smooth out the compensation scale in such a way that the vice presidents on down can see a reward to themselves substantially in excess of the reward they would have had had they not been in that corporation at the time of the transaction. You take a chance of losing people if you come in and they see that a few people are going to make an awful lot of money and the rest are going to be left doing all the work. And there is a lot more work after you do the transaction than before!

The real questions are: Where do the targets come from? Where do the ideas come from? Where does the genesis of the company to be bought or to be leveraged come from? First are divisional spin-offs. Through the 1970's the word was buy, and then in 1980 we seemed to have some economic problems and the word became sell. The first thing people tried to spin-off were companies that did not fit in their general scheme. There are many subsidiaries of corporations which are truly better than the corporation they are owned by, but which do not fit in that corporation. Quite often it is possible to get a real gem. We have been looking, for example, at a small food company that is not in the same business as the rest of the operation. The company wants to sell; it is earning only 12% overall on equity and the food company is earning 35% on equity, but they just want to get rid of it because it does not fit. When this emotional selling process is in peoples' minds, you can go in and do a fairly interesting leveraged buyout.

The second source is companies that want to go private. There are many companies in which management is just tired of dealing with public shareholders. For those of you who have had to go through this process, you know of the constant problems in preparing Securities Exchange Commission material and checking with your lawyers every time you do something, and of the unbelievable burden in dollars and time. It may get to the point at which someone looks at his or her stock and realizes it is selling well below book value. If the person knows the company thoroughly, feels the company is much better than the market wants to give it credit for, would rather own the company than get involved in the constant shareholder business, and believes someone else may eventually try to buy the company out, then that person may himself or herself decide to buy the company out. So going private transactions have been and continue to be a large source of leveraged buyouts.

The third source is the underpriced public company. The value of a company is like beauty; it is in the eyes of the beholder. The market represents, however, a consensus valuation. Quite often people look at a company and see aspects of the company that are much more valuable than the other markets looking at it perceive. For example, people a long time ago did not like cafeteria chains, and so cafeteria chains sold quite cheaply. The trouble with cafeteria chains is that cafeteria companies do not show much earnings so no one bothered to look at the fact that the underlying real estate they owned was worth up to four or five times the market price of the company. If you look at a company a different way, sometimes you come to the conclusion that perhaps what the market is looking at is not the value of the company, and you see something there that is more valuable. There are also a number of different points of view about pricing which are tied to different economic viewpoints; not what is there today, but what is going to be there tomorrow. I would advise you that banks like to get paid their interest payments whether or not your view on future pricing is accurate, and it is very dangerous to start off, without some sort of special insight, with an idea that the market is wrong. The market represents a judgement process. It is a giant Delphic projection. The only difference is you have to pay to vote. So the concept of underpriced public companies, which is now often seen in the newspapers, probably represents a major source of future failures in this business. We have not been around long enough to have a track record of failures, so we look pretty good as an industry right now. I suspect that we have our failures up and coming.

Finally, there is the estate sale. You find the person who owns 35% of the company. He really has thought about going public, so he goes to see an investment banker and he is very uncomfortable trying to do business there. The banker just does not take care of him the way he wishes, and one of the things about leveraged buyout people is that they tend to adapt their styles to the specific needs of the other side to get something done. They are paid more on being effective than on being presentable. As a result, you find many mid-western companies in which the fellow really wants to cash out. How do you cash out a private company or semi-private company? There are some semi-private insurance companies out there for example. The answer is someone comes in and makes a good deal that enables the 35% owner to get out without creating a taxable circumstance for his estate; we meet his needs quite easily without in any way jeopardizing the future of the company.

Now we have looked at the sources, what do we look at to discern a good leveraged buyout candidate. There are probably ten characteristics we look at, the first five of which are high cash flow. If you start to weight them, you just have to say to yourself that no matter what else happens, those bank payments are there to be paid. In February, my partner and I borrowed \$272,000,000 from the bank. You can stay up at night, you know. You have to have the cash to make the bank payments. Banks tend to be very unsympathetic, and your explanation about why your numbers were not very good does not work well, so the first characteristic of a good leveraged buyout is that it throws off enough cash to make your bank payments to keep things going. I will remind you that earnings and cash are two different words. Those of you who have worked on GAAP accounting are certain of that. The other thing I would suggest to you is to seek non-cyclicity or minimum cyclicity or, if you can, as we did on our last, do your purchase at the bottom of the cycle. You do not want to be buying something that looks very good only at a particular point in time. If you buy the company and all of a sudden the business cycle turns against you, you will find the cash flow is not there. The third thing you would like to have is marketable assets, because if you are going to pay X million dollars to buy a company, it is nice if you can get rid of a large part of that debt by selling off some of the marketable assets right afterwards. I am going to go over the TICOR deal later to show you how we did that. Let me give you some other characteristics. We find it much more advantageous to work in medium than in high technology companies. We just cannot be sure. The venture capitalist essentially is using equity capital. You do not have to worry so much about the timing of development. If we have to worry about the timing of development and the timing of replacement, then the requirements become very, very stringent at that stage of the game. Medium technology companies have a fairly decent return in their businesses, but on the other hand they do not end up with the exposure to style change and to technological obsolescence. We also like market niche companies, companies where we know what is going to take place, such as retail chains. They are going to be there long enough in that market regardless of what takes place. We also like companies with stable cash flow. For those of you who are investment buffs, take a look at companies like Kellogg, who just do not seem to be able to stop the cash flow. You also will find in companies like that that their plant equipment is modern. If you look at the average age of plant equipment, you will find that the average plant was built in 1871. We looked at one company which had built the original "Monitor", or made the steel for it. You just cannot get involved in that type of circumstance. You must have stability and you have to be able to meet your payments out of that stability.

What makes a bad leveraged buyout? From our point of view, there are several things, one of which is high non-cash earnings. A corporation is like a diamond; it has many facets and everybody looks at several of those facets and says, "I've seen the diamond." Earnings are one of those facets and people make judgements and stock prices and so forth on the basis of that particular facet. There are people who really think that the best way of dealing with the accounts and value of a company is price to earnings multiple. We tend to call those people bankrupts. There are many companies where the earnings are good but there is no cash. We have to have cash and therefore we cannot afford to pay up for those companies to match that non-cash development. There are other companies that have dividend limitations which can come quite often from indenture agreements, or from the regulations governing an industry. For example, in the savings and loan industry many are selling at 40% of book and the question is why are there not more take overs of savings and loans at 40% of book. The answer is that in most of those cases they have so much scheduled assets in them that the regulators do not let you take a penny out. Also there is a problem about off the balance sheet liabilities. That normally comes up with obsolete equipment. There was a company that went bankrupt several years ago that was a well known maker of women's clothing. It had a beautiful balance sheet except that all the assets were cloth material for making "Villager" goods. One day the ladies woke up and said that they did not want to buy that sort of style anymore, and that asset was just absolutely valueless. We also are very much afraid of high tech exposure. We cannot live with it because none of us are that good in technology to be able to promise to pay the banks off on that basis. That belongs truly in a very specialized area of people who put venture capital in on an equity basis.

When you have said what makes them good and bad, the next question is "Why do they fail?" Most of the failures we see come from four different problems. The first one is very much like the venture situations. It is management. Many times we see management that can sit around in a meeting and agree that a particular thing should be done to improve the picture of the company. For example, they might agree that a division which is losing a great deal of money should be closed down upon completion of the purchase. You agree and give them a percentage of the transaction. Now they have an economic stimulus to do the right thing, but they are the same people they were before the transaction. They could not close down the division before you did the transaction, and they cannot close down the division after you do the transaction. They do not know how to fire and clean up. Many times we have management that knows what should be done, but just cannot do it.

Failure also comes from poor cash flow. The absence of cash is a real problem, which is linked to two related sources of failure, one before and one after the transaction. First of all, in order to work with the banker, you have to give him some idea of what is going to take place after he puts his money in. He is depending on you to a certain extent. They do have expert people in their business loan operations, but they vary between institutions and between industries. We tend to use the Manufacturers Hanover Bank because we find them to be fairly expert and we want them to check what we are doing. It is too easy to let your wishes find their way into your assumptions so that all of sudden you develop numbers on paper which are not going to develop in practice. If you start with a series of very poor and optimistic assumptions, the money will not be there and the leveraged buyout will collapse. Secondly, this is an uncertain world and you

have to keep relationships with your various classes of investors. You have to spend time with them. You never know what is going to take place. We keep, for example, a fairly good relationship with our banks. When we have money, we do not pay down our bank loans. They like the loans. They have good rates with us. We go out and defease them by putting the money elsewhere. We are keeping the loans in place; the banks like that. They keep letting our cash build up, and they like that too. If we paid them the money, they would like us less because now they will meet their ratios. You have to stay in touch with your lenders because you may have to go back for more money. The world is too uncertain.

Where do we go for money? The major sources of funding are the following: banks for the senior lenders, and leveraged buyout groups for the secondary financing. There is a book by Nick Wallner which will tell you where all the leveraged buyout groups are, who they are, what they would like to do, and so forth. There are also asset base lenders you can go to. Some banks have subsidiaries which do this, but also there are separate ones, such as the old factoring companies. They will lend you money on the basis of your plant, your equipment, your inventory, and so forth. There are people who will finance your accounts receivable. You get money that way. There are people who will finance the real estate. Very often you buy a company and the value of the real estate exceeds the value of the company. You can finance the transaction with the real estate. Then there are the equipment leasing people. If you really need money, you can lease out your equipment and pay that off too. Remember, in all these situations you are taking money up front in order to reduce or change the appearance of your debt structure. The truth of the matter is, no matter where you get the money from, you have to pay it back and you also have to pay for the servicing of it, so be very careful. You may be able to achieve a good appearance, but when your total debt structure is considered, you may be very precariously positioned. We were at one time at a thousand to one ratio of debt to equity. I suggested that we take back the equity so that the ratio could not be calculated.

I want to approach one of the comments made about venture capital from a slightly different point of view. That is the question of social obligation. You are changing peoples' lives when you do a leveraged buyout. You are adding risk to them. You are changing many things. You have to recognize that you are fiddling (and fiddling is an appropriate term in some cases) with part of the economic structure of this country, and with the basis on which many people earn their living, or with institutions they look to either as customers or as sources, and so forth. You have an obligation to do your work correctly and to make sure that, in the course of looking at your risk reward, you are not passing risk on to other people who have no commensurate reward from the transaction. The second thing I suggest, because I am seeing a lot of it right now, is do not rob the pension fund. In some of these cases we are being told that the pension fund is overfunded. Some of you probably are not even old enough to remember the case in which the company was actually liquidated for its pension fund, because after you fired everybody, and bought the last 25 employees their pensions, the \$3 million purchase price gave you a \$19 million return. That sort of thing goes on. People come to us with presentations and say they can get so much out of the pension fund. We will not do it, and I think most of the responsible people in the business will not do it.

Let me give you a case history so that you can see how one leveraged buyout worked. Southern Pacific was in the course of discussions with another

railroad about merging. Prior to that time Southern Pacific had acquired a company called TICOR. TICOR is the largest title insurance company in the United States, and is the second largest mortgage guarantor behind MGIC. TICOR did not fit in the railroad merger. The management came to us in 1982. The housing market was very depressed; earnings were down; values were down. Nobody thought TICOR was worth much. We gave them a price offer. Their investment banker told Southern Pacific that our price offer was ridiculous, that we would not be able to find financing, and several other things, but that if it would make management happy, they should go ahead and talk to us even though it could not work.

Expecting some change in the housing market, though not the full change that occurred, we prepared our financials and our organization plan and went to the Manufacturers Hanover Bank. They did a great deal of work. We went to two other banks out on the coast at first because the company had its traditional bankers. They said, "This is very interesting, but what is it?" They sat on it for about a month. The Manufacturers Hanover did a first class job of going through everything and came back with some good suggestions. As a result our offer of \$272 million was accepted.

On the date the transaction closed in February of 1984 we paid \$272 million, most of which came from Manufacturers Hanover and \$50 million of which came from an insurance operation which put in the subordinate money. The day after the transaction we paid off most of our Manufacturers Hanover debt, because in the time it took to organize the transaction, we did three things. We took the home office building that was on the books for \$15 million, and sold it for \$62 million. We had a financial printing company which they and their valuation said was easily worth \$25 million despite the low earnings, and we found someone who thought it was worth \$77 million. They also told us there was no way in the world that we could get money out of the insurance companies, no one had ever gotten money out of those companies. We did a major surplus relief reinsurance transaction with one of the companies that took \$50 million out. Our debt is down now to \$95 or \$96 million and our cash is at about \$50 million. All of the money we got from American Can is still sitting in there if we need it. We need the cash. This is a cyclical business.

Looking at the earnings this year for the company on a fully taxed basis -- it will not actually be fully taxed -- but on a fully taxed basis, we paid a little less than two-and-a-half times earnings. We made a very attractive investment for ourselves. We have a put on our stock at the end of five years to American Can, and they have for their \$50 million preferred also made a fairly attractive investment for themselves. The Manufacturers Hanover is very happy. They have a very secure loan at this stage of the game. We could almost pay it off if we had to. Everything looks good. In effect we fronted for American Can's acquisition, because American Can has a convertible preferred.

If you are an insurance company and want to do an acquisition, you cannot put a lot of debt on your balance sheet. If your company already has debt limitations, you cannot put a lot of debt on your balance sheet. By using the leveraged buyout technique you can get acquisition control of companies. If the debt is raised, you are paying for it with debt, but you are not showing the debt on your balance sheet. The venture partners have a very high percentage of the transaction, and we have what most people do not have. We have a put to get out. One of the problems with some of these situations

is to whom do you sell. From an insurance company point of view I would suggest two things. First, you might look at the bank position, the third position, the senior position as being akin to a junk bond. You can get a junk bond yield, but you end up with something better than a junk bond because you are in total control of all of the future financing circumstances. You are able to write it your way, and with a little bit of work you are able to assure that you have a much more secure loan outstanding than you have with a publicly traded security. A substantial number of insurance holding companies should look at the idea of using the leveraged buyout technique as a way of doing acquisitions. You achieve a controlled position this way. Five years later, if you really would like to own it, you exercise your right to acquire the total company and you do own it. On the other hand, if five years later you do not really want to own it, you simply sell your portfolio position. It truly is both a portfolio and an ownership position. You do not have to apologize to your shareholders about selling something; you have no conflict on the board of directors. You have had a five year chance to see if you want to be in the industry. This is an extraordinary opportunity to enjoy the best of both worlds, of being able to get in and of being able to get out.

Finally, the biggest single problem we had in doing this transaction was that most people wanted to know how much money we were going to make. What impressed me about working with Jerry, was that his question was, "How much money are you going to make, because the more you make, the better off we are?" As I said this thing runs on greed, and those words were really sweet to my heart. Thank you.

MR. NOVIK: Our last speaker is Dan Gross. Dan holds the highest title known to capitalism. He is a private investor. I worked for Dan a few years ago when he was President of Colonial Penn Insurance. Since then he has been President of Kramer Capital Consultants and has recently been involved in many large transactions involving the acquisition of insurance companies through leveraged buyouts.

MR. DANIEL J. GROSS: Thank you, Jay. I want to talk about the appropriateness of venture capital and leveraged buyouts as investments for life companies and about some of the practicalities of investigating them.

First, let us talk about appropriateness. We shall start with a strange question. Should life companies own equities? It has probably been 40 years since this question has been asked, but recent actuarial discussions have been centered on C-3 risk, and all investments must be measured against this risk. Equity investments produce lower current yields than alternative investments, and in aggregate they have a fairly long "duration" as values fluctuate inversely with interest rates. Thus, equity investments in general may be inadvisable for companies concerned with C-3 risk.

If we will invest in equities, we must compare venture capital and leveraged buyout investments with traditional equity investing. Unfortunately, returns on classic equity investing (good fundamentals, professional investment departments, etc.) have been very disappointing. Venture capital and leveraged buyout investing, however, have produced the high returns which were associated with equity investments when institutions first bought common stock in the 1950's and 1960's. Since the mid-1970's, these investments have been the major opportunity for institutions to obtain high returns from equity investments. Currently, risk arbitragers and "deal-creators" are



obtaining the biggest returns. These may seem to be strange investments for insurance companies, but venture capital and leveraged buyouts were once also considered strange themselves.

Venture capital investments and leveraged buyouts are highly vulnerable in terms of C-3 risk. They tend to be illiquid in the early years of investment, and can only be sold well during periods favorable to initial public offerings or acquisition binges. They are vulnerable to higher interest rates: leveraged buyouts because of high leverage and both venture capital and leveraged buyouts because of the impact of economic conditions.

In summary, these investment vehicles have generated high returns, and probably will continue to do so. However, they are risky, generally illiquid, and vulnerable to interest rate increases. Investing in them is not as clear cut as it would have been five years ago when life insurers never worried about negative cash flows.

In practical terms, if you want to invest in venture capital opportunities or leveraged buyouts, you do not need to worry about finding people who will help you. You will be inundated with brochures from investment firms, and can find very thick books listing hundreds of firms who will love to invest large amounts of your money in various kinds of deals. Their representatives will be impressive and will point to successful deals and historically high returns. I will address two questions. Have these returns actually been earned? Will they be achieved in the future? The valuation problem arises because the companies to be valued are frequently privately held. Alan indicated that Aetna will value an investment at cost until a company goes public. Perhaps a more common approach is to mark the investment at the most recent price paid for common equity. As Alan pointed out, venture capital investments are made in a series of stages. Typically, at each stage, as the company develops, investors pay a higher price for common stock. Frequently, prices rise even for companies that are not achieving their goals. As a manager of a venture capital fund explained, this pricing provides him with a chance to play the valuation game. If he invests an initial dollar at \$3.00 a share, and six months later invests another dollar at \$6.00 a share, his average cost is \$4.50 with a \$6.00 value based on the latest offering, and he can show his investors a 33% profit. Even public companies can be hard to value; prices can swing widely and markets may be thin. We probably would find markedly lower five year returns on venture capital funds today than we would have only six months ago, because of the decline in technology stock prices. Because of the difficulty in valuation, I suggest that you review not only the overall returns but also the individual deals. A fund will not have very many deals and you can learn much by finding out how each one developed and why.

Predicting future returns is a very tough task. Joe was very frank about leveraged buyouts. They are a new industry. They have received a fantastic press. They have been very successful, but when you talk to leveraged buyout people, they all tell you about the other people's deals that have not been able to pay penny one of interest.

Currently, the success of leveraged buyouts has significantly increased the acquisition price of private companies. The owner of a typical midwestern manufacturing company will not sell it for the same price he would have three years ago. Too many people who have raised a great deal of money have been pounding on his door to buy his company. There is a clear analogy to term

insurance. At one point, term insurance was overpriced and insurers could cut prices and still be very profitable. The reinsurers provided funding and gradually more and more people entered the game. Prices were being cut, and cut again, and the reinsurers continued to provide the funding. Ultimately, the game started to hurt. To some extent the banks played the same role in leveraged buyouts. They had the opportunity to make good loans at higher interest rates. But the markets grew very rapidly and pricing has changed and volume has exploded. Perhaps the high historic returns will continue, but there is no question that investors are paying more for deals.

I am not sure if the same phenomenon has occurred in venture capital investing. One investment manager told me that management's expectations on technology stocks are so unrealistic that he finds it impossible to strike a deal with them. He has stopped investing in start-up businesses. He is using his technological expertise to buy public technology companies whose stocks have fallen out of bed. He buys cash in the till, a tax loss carryforward, and management in place. Compared to spending his money on a pure start-up, he is far better off.

In summary, as one would expect, rapid success seems to be increasing demand for these investments and should gradually decrease returns. To judge the future, I again suggest reviewing individual investments and comparing current deals with prior deals. Look at the stability of earnings, the price to book value relationship, the price to earnings relationship, and the interest coverage. If these ratios have deteriorated, you have to be concerned about achieving the historic returns.

I do not want to sound too negative. There are plenty of opportunities. However, I do not expect the same outside returns in the future that were achieved in the past.

MR. NOVIK: Thank you, Dan. I would like to open this panel discussion for questions.

MR. CLAUDE Y. PAQUIN: I have a comment which might be interpreted as a question. I was sitting here at the end of the presentation and was wondering how this fits in with Jenkins' fifth difference, modified, osculatory interpolation formula.

MR. DOWLING: Do you mean a 32-point one or another one?

MR. PAQUIN: Six points will do the job. What I am wondering about out loud is, "What does this most interesting presentation have to do with actuarial science?" So far I have not figured that out. Do you have an answer for me?

MR. NOVIK: I would like to start with one answer. Last week I spent three days in London. A good portion of that time was spent talking to actuaries, members of the Institute. If you look at the involvement of U.K. actuaries in investment, you will see that it has been much more extensive than in the U.S. The actuaries often determine investment policy and do everything but purchase the securities. They look at the business on the books, the reserves necessary, and the future cash flow, and determine very specific requirements for the necessary investments. I think we are seeing a trend in the United States that would lead towards a greatly increased involvement by actuaries in the investment process. The products that are being developed

now require very close interaction with an investment department, if not actual direction of the investment process. I believe that actuarial science will have to begin to encompass much more of the investment process of an insurance company. Venture capital investments may not currently be in the portfolio of most insurance companies, but are certainly in the portfolio of some, and are things for actuaries to consider in looking at their company's investment strategy.

MR. DOWLING: The parallel to the Dow Jones index in London is a Financial Times actuaries index. The answer to your question, Claude, is this. Actuaries have tended to support the movement of the life companies from being risk bearing companies in a mortality sense, to being risk bearing companies in an asset sense. Consider, for instance, annuities, universal life and Guaranteed Investment Contracts, products for which the risk is an asset risk, not a mortality risk. Under those circumstances, it would be nice if, when we set the rates, we had some idea of the risk we were assuming. It is important to recognize when you are an amateur entering a professional field. People often go out of their way to take advantage of you in this venture capital business. When you enter the venture capital club, you will have to pay a very high commission, and my suggestion is that you recognize the risk; perhaps you will decide that your company does not belong in it. Or if it does belong in it, you should take a rather cautious look at how you are pricing your products and structuring your products. If we have anything to be embarrassed about over the next ten years, it may well be about the fact that we have changed the nature of our companies without changing our actuarial approach to pricing in those companies. If there is a risk in the future, it is the risk we had in 1930 where companies went under not because liabilities were poorly stated, but because the assets were not there.

MR. NOVIK: I would like to ask a question. If you look back ten years or so, a leveraged buyout of \$10 million was considered a substantial transaction. Now we are talking about billion dollar leveraged buyouts. What do you think the prospects are of having a very large collapse of a billion dollar buyout in the next few years?

MR. DOWLING: Every investment gain goes on until it becomes self defeating. That is the nature of greed. You keep reaching for more until you have proved yourself totally wrong. It is a certainty that some leveraged buyouts will be going under, including some of the big ones. However, you have to understand that a large leveraged buyout going under is like a large bank going under. You will not see it in that form. You will see a consolidation with something else, and it will look more like a gentlemen's situation. I am not sure that is constructive for a so-called capitalistic economy, which we claim to be. None the less, you probably will not see a failure in that usual sense. First of all, what bank currently facing Bolivia, Mexico, Brazil, Argentina, Baldwin-United, and half the real estate in Texas wants to foreclose on the loan? I do not think you will see one soon. That does not mean they are not in trouble. It means that we have developed a panoply of ways, through the accounting system, of not quite telling the whole truth.

MR. NOVIK: Joe, you did a leveraged buyout of an insurance company. The Baldwin situation illustrates how a company with great cash flow in a regulated industry can still have very substantial problems in meeting its debt obligations. Do you think it is likely that there will be many leveraged buyouts of insurance companies, given the regulatory constraints?

MR. DOWLING: I do not know how to do a leveraged buyout of a life insurance company. You do not make enough money. On a post-tax dividendable income basis, meeting IRS and statutory requirements, and so forth, I cannot borrow money at 14½% or 15½% to buy companies earning 12% on investment. It will not work if I buy at book value. But the answer to your question is, "Somebody else will." You are more likely to see leveraged buyouts of companies that own insurance companies, because the cash flow appears to be there. Just as in some cases, the reinsurance appears to be there. Neither is real! I would be very, very suspicious of anyone who told you they can do a leveraged buyout by paying a multiple of book value for that company. You have to strip out the non-real earnings, cap adjustments, get down to cash, and compare the "developmental earnings" with interest rates. With the current nature of the insurance industry, I would doubt very much if it would pay for itself. That is another way of saying that there are a lot of companies which are safe.

MR. GROSS: Joe and I ought to talk. As Joe indicated before, you look at a different thing when you evaluate a company for a leveraged buyout than when you evaluate for a stock purchase. On a leveraged buyout, you look at cash flow. On a stock purchase, you look at reported earnings. Most life insurance companies are not managed or priced for cash flow. They invest most of their cash in marketing for new business and may be getting a low return on this investment. Through the use of reinsurance, these companies can be managed to produce cash flow. As no-one has yet figured out the potential cash flow, some companies can be bought at a low enough multiple to support a successful leveraged buyout.

MR. DAVID M. CANTOR: The conversation has all been with respect to investments of insurance companies. Would anyone like to comment on the appropriateness of venture capital investment for a pension fund and perhaps what size fund you would have to have before you really should consider a venture capital investment on a partnership basis?

MR. MENDELSON: Pension funds have become increasingly interested in venture capital and I have talked to most of the funds that are out there. They have taken a very cautious approach. Over a period of time they have put from one to five percent of their assets into venture capital. Five percent is on the high side, and not many pension funds have reached that. Those that have have tended to do it on a portfolio approach. Initially, they put most of the money into private partnerships and spread that out among several partnerships, typically with commitments of \$2 million or more. Since you are putting in only one percent of your assets, could the return really be meaningful on your overall portfolio? Even if you get 25% or 50% return a year on one percent of your assets, it is not going to make a big difference to your overall portfolio. If it does not work out, it is a highly visible exception. As a result many fund managers are reluctant to take the approach. Pension funds that have done it have done it with two views in mind. One is that if they can do it slowly and do it successfully, they can build it up to a higher percentage and then it can have a meaningful impact. Second, direct venture investing is exciting and can generate synergy for the company itself.

MR. NOVIK: A number of pension funds have been involved in leveraged buyouts, but I agree that complex decisions are necessary.

# VENTURE CAPITAL

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SLIDES ACCOMPANYING MR. MENDELSON'S PRESENTATION

## SLIDE NO. 1

### PURPOSE OF PRESENTATION

- \* Venture Capital Investing
- \* Approaches to Venture Investing
- \* Criteria for Venture Investing
- \* Venture Capital Investing at Aetna

## SLIDE NO. 2

### TYPES OF VENTURE CAPITAL INVESTING

- \* Early Stage Financings
  - \* Seed
  - \* Start-Up
  - \* First-Stage
- \* Expansion Financings
  - \* 2nd - 4th Rounds
- \* Mature Financings
  - \* Turn Arounds
  - \* Leveraged Buyouts

## SLIDE NO. 3

### VENTURE CAPITAL INVESTING: INDUSTRY GROWTH

(\$ Millions)

<u>Year</u>	<u>Industry Size</u>	<u>New Investments</u>
1983	\$11,500	\$2,500
1982	7,600	1,700
1981	5,800	1,400
1980	4,500	1,100
1979	4,000	1,000

SLIDE NO. 4

## USE OF FUNDS

(Distribution of Dollars Invested)

	<u>1980</u>	<u>1982</u>
Computers	26%	42%
Energy	21	6
Communications	11	10
Electronics	10	14
Medical/Health	9	6
Genetic Engineering	8	3
Other	15	19
	<u>100%</u>	<u>100%</u>

SLIDE NO. 5

## GEOGRAPHIC DISTRIBUTION OF VENTURE CAPITAL FINANCINGS

<u>Region</u>	<u>1970-81</u>	<u>1982</u>	<u>1983</u>
West Coast	37%	48%	52%
Northeast	32	26	24
Southwest/Rockies	12	13	10
Midwest/Plains	11	8	7
Southeast	8	5	7
	<u>100%</u>	<u>100%</u>	<u>100%</u>

Largest States

California	45%	47%
Massachusetts	13	11
Texas	8	5
New York	8	6
	<u>74%</u>	<u>69%</u>

SLIDE NO. 6

SOURCE OF FUNDS

<u>Investors</u>	(\$ Millions)		1983
	<u>1982</u>	<u>1983</u>	<u>%</u>
Pension Funds	\$ 474	\$1,070	31%
Individuals	290	707	21
Foreign	188	531	16
Corporations	175	415	12
Insurance	200	410	12
Foundations	96	267	8
	<u>\$1,423</u>	<u>\$3,400</u>	<u>100%</u>

SLIDE NO. 7

VENTURE CAPITAL INVESTING:  
INVESTMENT ATTRACTION

\* High Expected Return

Historical Annualized Rates of Return

- \* 25 Years (1955 - 1980) - 25%
- \* 5 Years (1975 - 1980) - 35%
- \* 3 Years (1980 - 1983) - 50%

\* Portfolio Diversification

\* Innovation and Jobs

SLIDE NO. 8

COSTS OF VENTURE CAPITAL INVESTING

\* High Risk of Loss on  
Individual Investments

\* Investments Have No  
Current Return

\* Investments are Illiquid

\* Process is Long Term One

SLIDE NO. 9

## FUNCTIONS OF A VENTURE CAPITALIST

- \* Soliciting Proposals
- \* Evaluating Investment Opportunities
- \* Structuring and Negotiating Specific Investments
- \* Providing Assistance to Portfolio Companies
- \* Assisting in Exiting Process

SLIDE NO. 10HOW AN INSURANCE COMPANY  
CAN PARTICIPATE IN  
VENTURE CAPITAL

- \* Direct Investments by Company Staff
- \* Investments in Traditional Venture Capital Partnerships
- \* Investments Made with Assistance of Professional Investment Manager

SLIDE NO. 11

## DIRECT INVESTING

## Advantages

- \* Concentration on Areas of Interest
- \* Provide Window on Technology
- \* Improve Skills and Job Satisfaction of Staff
- \* Develop New Lending Relationships

## Disadvantages

- \* Program Requires Consistent Market Presence  
Which May Not Mesh with General Corporate Goals
- \* May Be Difficult to Generate High Quality Deal Flow
- \* Management Intensive
- \* Problem Investments Very Visible
- \* May Lead to Staff Turnover and/or Staff Dissension



SLIDE NO. 12

CRITERIA FOR DIRECT INVESTING

- \* Superior Management
- \* Innovative, Superior Product
- \* Large Market with Rapid Growth Potential
- \* High Quality Co-Investors
- \* Reasonable Pricing and Deal Structure

SLIDE NO. 13

INVESTMENTS IN PARTNERSHIPS

Advantages

- \* Ability to Attract Good People
- \* Problem Investments Less Visible
- \* No Drain on Management Time
- \* Enforced Long Term Commitment
- \* Ability to Learn Process of Venture Investing

Disadvantages

- \* Less Concentration on Areas of Interest
- \* Less Ability to Keep Window on Technology

SLIDE NO. 14

CRITERIA FOR SELECTING A VENTURE PARTNERSHIP

- \* Track Record
- \* References
  - \* Entrepreneurs
  - \* Co-Investors
- \* Strategy of Investment
- \* Staffing Commitment

SLIDE NO. 15

## AETNA'S VENTURE CAPITAL GROUP

- \* 14 years of Equity-Oriented Lending
- \* 3 years of Direct Venture Investing
- \* Source - Parent/Casualty Funds

<u>Name</u>	<u>Position</u>	<u>Advanced Degree</u>	<u>Work Experience</u>
Alan H. Mendelson	Asst. Vice President	J.D.	14 Years
Norman A. Thetford	Investment Officer	Ph.D.	18 Years
John C. Siegler	Analyst	M.B.A.	4 Years

SLIDE NO. 16

## AETNA'S INVESTMENT PERFORMANCE

	(\$ Millions)	
	<u>Cost</u>	<u>12/31/83 Market</u>
18 Direct Investments	\$21.6	\$52.8
23 Venture Capital Funds	28.8	47.0

SLIDE NO. 17

## CONCLUSIONS

- \* Environment for Venture Investing is Good
- \* Venture Investing May be Appropriate Investment Vehicle for Insurance Companies