



STATE OF CONNECTICUT  
 DEPARTMENT OF BANKING  
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HOWARD B. BROWN  
 COMMISSIONER

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October 23, 1987

This bulletin is dedicated to Caleb L. Nichols, Esq., former Director of the Securities and Business Investments Division of the Connecticut Department of Banking. It is appropriate that Caleb be honored in this manner because of the dedication and energy which he brought to bear on the many tasks undertaken by him as Director.

Many innovations came about as a result of the efforts of Caleb L. Nichols, including this periodic bulletin as well as the guest lecture series, both of which provide a wealth of information to Connecticut citizens. We at the Department of Banking wish Caleb continued success and happiness as he takes on new challenges in academia.

## BANKING COMMISSIONER'S COMMENTS

Volume III No. 1 of the Securities and Business Investments Division Bulletin contains a number of significant and timely matters relating to the enhanced enforcement capability of this agency and technological developments that are occurring in the securities and capital markets.

Recent legislation enacted by the State Legislature and signed by the Governor will substantially strengthen the ability of this agency to combat securities violations and abuses. Effective October 1, 1987, the Banking Commissioner has the authority to impose civil penalties not exceeding \$10,000 per violation for violations of the state securities laws. A similar penalty may be imposed for violations of the state business opportunity laws. It is expected that these additional administrative powers will afford this department the necessary flexibility to impose appropriate sanctions for statutory violations and provide for effective implementation of policies and procedures that govern the securities markets.

Because of the relatively swift and significant changes occurring in the securities markets, I believe that it is necessary for regulators to take an enlarged view of the marketplace in an effort to better understand these changes and to keep pace with new technology that is spawning new investment products, services and opportunities. I am pleased to present in this issue of the bulletin a series of articles reflecting the current thinking of various sectors of the securities and capital markets. Although the opinions contained in these articles do not necessarily reflect the official policy of this department, I would urge that you carefully examine them. Of particular interest is an article involving both federal and state regulatory concerns regarding mutual fund advertising. To the extent that assets under management are of increasing concern to federal and state securities regulators, I believe that you will find this article to be particularly useful. There are also companion articles discussing the increasing ownership of stocks by financial institutions and the growing use of program trading by institutions. You may also wish to closely review the article concerning the criteria by which the State of Connecticut selects portfolio managers of pension fund investments.

In many respects, Connecticut's economy is bolstered by the supportive relationship between high technology developments and the capital markets. The collaborative efforts between government, industry and the academic community are becoming more prominent and noteworthy. Additional articles in this bulletin highlight the commercialization and marketing of new technology from University Laboratories. The innovations and developments that are being engendered at Connecticut's institutions of higher learning are significantly fueled and supported by the developments in the securities and capital markets. Fortunately, Connecticut also has in place government-sponsored financing programs that are designed to foster and support high technology developments,

most notably through the Connecticut Products Development Corporation and the Connecticut Development Authority. A fuller explanation of these state-sponsored programs are contained herein. To the extent that the Department of Banking is charged with regulating the securities and capital markets, I continue to believe that this department's policies should facilitate rather than impede the development and flourishing of these new technologies. I share the concern of the Department of Economic Development and the Connecticut Academy of Science and Engineering that the continued success of the economy of this state may well depend upon the fruitful and productive relationships that exist between government, industry and academia.

There is also included in this edition of the bulletin an article involving the impact of the Tax Reform Act of 1986 on the municipal bond market.

Attached to this issue of the Bulletin is a questionnaire/survey. I thank you for taking the time to complete it and return it to this department.

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Howard B. Brown  
Banking Commissioner

## ANNOUNCEMENTS

### Staff Changes

Effective on August 19, 1987, Caleb L. Nichols, Division Director, resigned from the Department of Banking. Mr. Nichols will be a professor at Western Connecticut State University instructing courses in Criminal Justice and Business Law. We all wish Caleb the best in his new endeavors.

June R. Christensen was promoted to Senior Clerk, effective September 16, 1986.

Judith Mercier commenced employment with the Department of Banking, Securities and Business Investments Division, as a Clerk Typist on April 10, 1987.

Vera Garrison resigned as Senior Clerk on June 11, 1987.

### The Late Clarence H. Adams

On May 13, 1987, Clarence H. Adams, of Portland, Maine, a former Commissioner of the Securities and Exchange Commission and a former president and trustee of the Boston Celtics, died in the Maine Medical Center of Portland. He was 81 years old. Mr. Adams was with the Connecticut State Banking Department for 20 years and organized its Securities Division in 1930. The next year he became the first securities administrator of Connecticut and served 19 years as Director of the Securities Division. He also served a term as President of the National Association of State Securities Administrators. President Truman appointed Mr. Adams to be a member of the Securities and Exchange Commission in 1952.

### FROM THE OFFICE OF THE CONNECTICUT STATE BOARD OF ACCOUNTANCY

by Stanley Malis, CPA  
Board Chairman

In 1955, Public Act 55-539 was enacted and the State of Connecticut began to license Certified Public Accountants (CPAs). A grandfather provision was included to allow public accountants practicing at the time the act was passed to continue in the profession provided they met certain criteria. All currently licensed public accountants were approved by the Public Accountants Advisory Commission which was established to assist the Board in evaluating public accountant candidates. Additionally, all licensees CPAs and PAs are governed by the same "Rules of Conduct" found in Connecticut

## Announcements (Continued)

regulation Section 20-280-15c. Also, all licensees must complete forty (40) hours of continuing professional education in order to maintain their licenses. Finally, any function which can legally be completed by a CPA can also be completed by a PA.

Any questions relative to this matter or any request to confirm that a person is currently licensed to practice should be directed to the office of the Board of Accountancy at (203) 566-7835.

### High Technology Plan for Connecticut

The Connecticut Academy of Science and Engineering has prepared a study entitled "High Technology Plan for Connecticut" for the Connecticut Department of Economic Development. The study, which is dated March 12, 1987, addresses the high technology environment in Connecticut and explores avenues through which the state can catalyze the expansion of high technology industry in Connecticut. Copies of this publication may be obtained from Ms. Trudy Jones at 410 Asylum Street, Hartford, CT 06103, telephone (203) 527-2161.

### ADVISORY COMMITTEE/CONNECTICUT TENDER OFFER ACT

On April 28, 1987, Commissioner Brown requested his Advisory Committee on Securities to conduct a study of the Connecticut Tender Offer Act. The request for this study was prompted by a recent United States Supreme Court decision directly bearing on the constitutionality of the Indiana Tender Offer Law. In the case of CTS Corp. v. Dynamics Corporation of America et al, FED. SEC. L. REP. ¶93,213 U.S.S. Ct. (1987), the Supreme Court upheld the Indiana statute, taking the position that the state statute was consistent with the Williams Act and that it did not violate the Commerce Clause. This case is expected to have far-reaching implications to the extent of reaffirming the validity of state tender offer laws and state control over the tender offer process. Prior to the recent ruling in CTS Corp., the prevailing law was governed by the 1982 United States Supreme Court decision of Edgar v. Mite, 457 U.S. 624 (1982), which determined that an Illinois business takeover statute that required pre-tender offer registration and state hearings, imposed excessive burdens on interstate commerce and was therefore unconstitutional. The Mite decision also held that the Illinois takeover statute violated the Supremacy Clause of the United States Constitution. The Mite decision severely undermined the authority of states to control the tender offer process.

Announcements (Continued)

On two occasions during the past 5 years, (the last being W Acquisition Corp.'s bid for Warnaco, Inc.), there have been motions for preliminary injunction to stay enforcement of the Connecticut Tender Offer statute; inasmuch as the Connecticut Department of Banking did not hold a hearing, the issue became moot in both cases. No court opinion was rendered. In 1980, the predecessor to the Connecticut tender offer statute was declared unconstitutional in Hi-Shear Industries, Inc. v. Neiditz, Blue Sky L. Rep. para. 71,640. The statute was subsequently amended to correct constitutional infirmities; however, not amended as a result of the Mite decision.

**INVESTOR ALERT\***  
**HOW TO CHOOSE AND DEAL WITH A STOCKBROKER**

It has been estimated that more than 42 million Americans from virtually all walks of life own shares in America's businesses. A New York Stock Exchange survey shows that about 40% of those had incomes under \$25,000 a year.

Investing in the stock market is a complex business. In many instances the assistance of a good stockbroker or other financial specialist is an essential element of achieving success in the stock market.

The purpose of this Alert is to provide some tips on how to choose and deal with a stockbroker, also known as a registered representative or account executive. There are many things you can do to greatly increase your chances of establishing and maintaining a good relationship with a stockbroker, which in turn will increase the likelihood of your realizing your ultimate investment goals.

**SETTING YOUR INVESTMENT GOALS**

Before you even begin the process of selecting a brokerage firm and individual stockbroker you should determine your realistic investment needs and objectives. Are you primarily interested in long term growth, a steady income stream, tax savings, quick profits or some combination thereof? Your personal financial situation is your guide to choosing an investment. If you have good income, or if you are relatively young and feel you are able to take more investment risks for larger gains down the road, "growth" through appreciation of capital might be your choice. Conversely, if you are living on a fixed or retirement income, your main goal might be regular income through dividends and interest while at the same time protecting your principal.

There are various books and financial publications that you may obtain in the business section of your library that may help you in developing your investment strategy. Many schools and community colleges offer low cost courses on the basics of personal investing, which also may be helpful in sorting out your own investment goals and strategies.

\*The Investor Alert is a quarterly release produced jointly by the Council of Better Business Bureaus (CBBB) and the North American Securities Administrators Association (NASAA), a national organization comprised of securities administrators from the fifty states and the Canadian provinces. The Investor Alert exposes investment frauds to the public and provides useful information on how to avoid the often sophisticated and unlawful schemes that are perpetrated on investors.



Be realistic in setting your investment goals. Remember that no investment is risk-free and, as a general rule, the greater the hoped-for return the riskier the investment. Other questions to ask yourself are whether you can afford to lose the money you plan to invest, whether you have adequate life insurance and whether you have sufficient cash reserves in a very safe place, such as a federally insured savings account, which can be reached rapidly in case of a personal emergency. Even if you have substantial assets, it does not necessarily mean that every investment will be appropriate for you. You should make only investments you fully understand and are comfortable with.

It is also important to realize that, once you have decided on your investment objectives, you have another task in selecting those you want to help you reach your financial goals. You may wish to consult with an accountant or someone familiar with your financial status to help you in determining your financial objectives. Bank trust departments and investment advisers should also be considered, depending on how much money you have to invest. As a general rule you will pay a fee for such services in addition to normal brokerage commissions.

#### CHOOSING YOUR BROKER

When you decide to use a stockbroker you need first to consider whether you want a full service or a discount broker. The primary advantage of a discount broker is that commissions are usually lower than those charged by a full service firm. In fact, the employees of discount brokers are generally paid a straight salary unlike the full service broker, who is paid commissions based on the number and size of transactions made in your account. Generally, only full service brokers will recommend specific stocks or investment strategies that are intended to suit your financial situation.

You should take the same care in picking your broker and sales representative (also known as stockbroker) that you would take in selecting the services of any other professional. The first thing to realize is that brokerage services are highly personal and the quality of the service you receive will depend not only on the firm that you decide to do business with, but also on the particular sales representative you choose. A good way to start your search is to ask for recommendations from friends you know to be successful investors, business colleagues, your lawyer, accountant, banker or other professional whom you may trust. Keep in mind, however, that someone else's ideal broker may not be right for you. Others may have different financial situations, needs, objectives, temperaments and investment philosophies than you. Your goal should be to find a broker who will be able to understand and accommodate your particular investment status and personality.

When you have made your decision as to one or more brokers that you may wish to deal with, you can start off by asking each broker for a brochure that describes the investment options offered by the firm, a list of the services

provided, copies of the firm's specific recommendations over the past year, and a copy of the firm's commission rates. As to commissions, although firms have commission schedules based upon the number of shares sold and the price per share, since 1975 firms have been free to set their own commission schedules. Active investors may be able to negotiate lower than standard rates.

When you first go to a broker's office, you may wish to meet with the office manager to discuss your investment goals. He or she may be able to steer you to a broker particularly knowledgeable in your areas of interest. When you meet with a particular broker at the firm, treat the occasion as an interview. Don't be intimidated by an impressive office or a fast-paced, smooth, but superficial sales pitch. Discuss your investment objectives, and financial capabilities fully with the broker. Ask questions and really listen to the answers you get. Remember there are no dumb or silly questions when it comes to understanding how your hard earned money is going to be invested.

Make sure that the firm's products, services, recommendations and commission structure are compatible with your investment goals and that you are confident that the particular broker you have chosen will help you meet those goals.

Find out whether the brokerage firm is a member of any national stock exchange or of the NASD (National Association of Securities Dealers) and SIPC (Securities Investors Protection Corporation). The NASD is a national self-regulatory organization whose membership includes almost all of the broker-dealers in the United States. SIPC is a quasi-governmental entity created by act of Congress to insure the cash and securities of SIPC members' customers in case a member goes into bankruptcy. SIPC protection is limited to \$500,000 per customer, with a further limit of \$100,000 of cash equivalents per customer. SIPC does not insure the outcome of any given investment. It only protects investments from being jeopardized by financial difficulties which SIPC members may experience. It cannot and does not protect you from losses resulting from bad investment advice, unintentional or otherwise.

Before you deal with any broker's office, you may also wish to contact your state securities commission and/or your local Better Business Bureau to verify that the firm and broker are duly licensed to do business in your state and to learn whether or not the firm and broker have been disciplined by any government regulatory agency.

#### THE RELATIONSHIP-THE NEW ACCOUNT

Once you have decided on a particular broker, you will have to assist him in filling out a new account form, which is used to ascertain and establish certain facts relative to you as a customer. Among other things, you may be asked questions about your net worth, annual income, investment objectives, risk

tolerance, tax bracket, where you work and the depth of your investment experience. Do not take this line of inquiry as an unnecessary intrusion into your private affairs. Depending on the circumstances the broker may be required by the various stock exchanges and the NASD to use "due diligence" in the opening and handling of the customer accounts. The broker is required to "know the customer." This is an ongoing requirement which you should help your broker meet by continually updating him or her whenever you experience a significant change in your financial situation or investment goals. The more your broker knows about you, the better able he or she will be to make appropriate investment recommendations to you. Filling out the account form can provide an invaluable chance to discuss your needs and objectives in detail. The information you disclose is required to be kept confidential from everyone except various government agencies or other parties pursuant to a subpoena.

There will be still more forms to fill out if you want to borrow money from the broker at a predetermined interest rate to buy securities (buy on margin) or if you want to trade options or commodities. Such activity requires setting up separate accounts with special requirements. This is so because of unique suitability requirements and risk factors attendant to this specialized activity. Do not open any of these accounts unless you clearly understand how each operates and appreciate the risks involved.

Another type of account is the discretionary account in which you give the broker complete authority to act without your permission. Discretionary accounts may be useful to some investors. However, because a discretionary account may be open to significant abuse by the broker, who receives commissions based on transactions in the account, many firms refuse to accept discretionary power over an account or, at least, limit such accounts to their most senior sales personnel. While full discretionary authorization must be given in writing, it is possible to orally grant an account executive limited discretion as to the best time and price at which to buy or sell a specific security. Always use caution in giving oral authority to trade.

#### SOURCES OF INFORMATION

Because someone is professionally successful, has status in his or her community and earns a good living does not automatically mean they will be a successful investor. Achievement in one field does not necessarily translate into investment wisdom. Any investor, regardless of his station in life, should consider each investment alternative on his own and in consultation with his broker. A wise investor is an informed investor. This is especially true in light of the numerous and complex financial instruments being offered today.

Apply some effort to clearly understand what each investment is, how it is structured, what its inherent risks and benefits are, and whether it fits into your investment strategy. For many investors, a diversified investment portfolio may be the preferred investment strategy.

One source of information will be the firm and the individual broker. The firm will usually have several regular publications available from its research department to keep you up to date on market trends, good investment possibilities and other relevant financial information. Other materials available to you may cover topics ranging from investment basics to advanced market analysis.

When a broker recommends a security, he or she should do so on the basis of sound reasoning and have something more than a "hunch" or a "tip" to back it up. A recommendation should be made only when the broker has reasonable grounds to believe the investment is suitable in view of the customer's investment objectives, financial situation and needs, level of knowledge, and degree of sophistication. All this takes analysis--of both the security and the customer. Ask your broker to provide you copies of the research or other materials used as a basis for recommending a specific security.

Good communication between you and your broker is essential for a profitable and continuing relationship. The kind of service--and the amount--depends on what you and the broker have established at the time you open your account. Essentially, the frequency with which your broker calls should be consistent with your investment objectives and the size of your portfolio.

For instance, if you hold a total of five stocks which are invested for long-term conservative growth, you probably will not need to talk to your broker more than once or twice a year, if that often. On the other hand, a larger account of 20 or 30 growth or speculative stocks requires closer supervision, and in this case a vigilant broker may want to call you several times a week. You may ask your broker to call you periodically, if you wish, for maintenance of your account, but there is no definite standard that applies to every account.

You will want to know as much as you can about any company in whose stock you are interested. Likewise, if you already own shares in a company it is smart to keep up with its current share price and any other developments relevant to its market performance. You can find valuable information about companies from their annual reports, which are available for the asking even if you are not a stockholder. Your broker can also get copies of annual reports for you. The reports usually contain a statement of the company's earnings, its view of its past performance and prospects, as well as a discussion of new products and the status of industrial relations. A booklet that can help in your understanding of annual report financial statements is available free from the American Institute of Certified Public Accountants, 1211 Avenue of the Americas, New York, NY 10036. It is entitled "What Else Financial Statements Can Tell Me".

Many newspapers carry business and stockmarket information each day. The business or financial sections of many daily papers carry stock tables that report daily price changes and other information, including yields, price earnings ratios and profiles of price movements, about stocks listed on major exchanges and over-the-counter markets. They also report news about the corporate and financial world that may interest you and be relevant to investment decisions.

There are also numerous business periodicals and financial services to which you may subscribe or that are available in your local library, which contain reports on companies, make stock recommendations, feature articles on trends in different industries, the economy and the stock market in general. Only after you have evaluated all the investment information available should you decide whether or not to buy a security.

#### IF YOU HAVE A PROBLEM WITH YOUR ACCOUNT

Most dealings between customers and brokerage firms are straightforward and trouble free. Provided the investment was appropriate for you, was presented to you fairly, and entered into by you with full knowledge of the risks involved, you can't blame your broker if it's not as successful as you might like. In some instances, your expectations may have been excessive and unrealistic.

Sometimes, however, problems between brokers and customers do arise. Some can be considered of an operational nature, such as the late delivery of a stock certificate or dividend check, and often may be resolved by dealing directly with the firm. Other problems are potentially more serious. They may involve sales practices where you may, in essence, have lost control of your account and the objectives and goals that you have set. Among the more severe problems are excessive trading in your account (churning), unauthorized trading, unsuitable recommendations, and failure to execute trades or deliver securities.

Be sure that nothing happens in your account without your prior authorization, or that represents a deviation from your investment strategy. If there is anything that you do not understand or that is inconsistent with your intentions, bring the matter up with your broker immediately. Remember the broker is there to service your account.

If the broker sends you confirmations of stock trades you don't recall agreeing to, call him immediately. Erroneous trades usually can be straightened out without much difficulty if they are caught in time. If, however you wait to see if stock mistakenly bought goes up and only try to cancel the trade when the shares perform poorly, your delay can be used as evidence that you acquiesced in the trade. In addition, make the effort to read and understand the monthly or quarterly account statements that you receive from the firm. Assure yourself that these statements are in agreement with your confirmations. If there is any inconsistency between the two, notify the firm immediately.

If you have any of these problems or any other identifiable problem, or something just doesn't seem right about the way your account is being handled, you should, as stated above, discuss the situation immediately with your broker and, if necessary, with the office manager. If you still do not get a satisfactory response, notify your state securities commission. At the same time, you may wish to send a letter detailing your problem to the chief compliance office of the broker's firm at the firm's home office. You can get the compliance department's address from your broker, his office manager or your state securities commission.

Other agencies or organizations that may be able to help you are the regional offices of the United States Securities and Exchange Commission, the National Association of Securities Dealers, Inc. or, if it is a problem involving the purchase or sale of commodities, the National Futures Association and the Commodity Futures Trading Commission. The New York Stock Exchange, the American Stock Exchange or any exchange that lists your stock can investigate complaints if they involve a member firm. Your state securities commission has the addresses of all these organizations.

### ARBITRATION

If you don't achieve an acceptable resolution through these channels, you may wish to consider initiating an arbitration claim or legal action. Arbitration is a method of having a dispute between two or more parties resolved by impartial persons who are knowledgeable in the area of controversy. Arbitration offers a less costly and generally faster means of resolving a claim than traditional litigation. It is very important for you to realize, however, that arbitration awards are final. Arbitration decisions are subject to review by a court only on a very limited basis. By choosing arbitration as a means of resolving a dispute you effectively give up your right to pursue the matter through the courts.

Among others, the National Association of Securities Dealers, Inc. the New York Stock Exchange and the American Stock Exchange offer arbitration facilities. A list of organizations offering arbitration is set forth on page 13 of this bulletin.

### CONCLUSION

Chances are that if you follow the suggestions contained in this alert, you won't ever need to bring an arbitration or legal action. Take your time in selecting a broker and take the time to establish a relationship of mutual trust, respect, and understanding with your broker. Be an informed and aware investor. Keep on top of the activity in your account. Never hesitate to ask your broker a question and don't be afraid to say "no" to a recommendation by your broker that is not compatible with your investment strategy. Understand the risks and benefits of every prospective investment before making a decision to buy or sell. Never buy on the basis of rumors or so-called hot tips. Keep your eyes open and act on fact rather than emotion.

Exchanges and Other Organizations offering Arbitration

American Stock Exchange, Inc.  
86 Trinity Place  
New York, NY 10006  
(212) 306-1000

Boston Stock Exchange, Inc.  
One Boston Place  
Boston, MA 02108  
(617) 723-9500

Midwest Stock Exchange  
Incorporated  
440 South LaSalle Street  
Chicago, IL 60605  
(312) 663-2222

Municipal Securities  
Rulemaking Board  
1818 N Street, N.W.  
Suite 800  
Washington, D.C. 20036  
(202) 223-9347

National Association  
of Securities Dealers,  
Incorporated  
Two World Trade Center  
98th Floor  
New York, NY 10048  
(212) 839-6251

National Futures Association  
200 West Madison Street  
Chicago, IL 60606  
(312) 781-1300

Chicago Board Options  
Exchange, Inc.  
LaSalle at Van Buren  
Chicago, IL 60605  
(312) 786-5600

Cincinnati Stock  
Exchange, Inc.  
205 Dixie Terminal  
Building  
Cincinnati, OH 45202  
(513) 621-1410

New York Stock  
Exchange, Inc.  
11 Wall Street  
New York, NY 10005  
(212) 656-3000

Pacific Stock Exchange  
301 Pine Street  
San Francisco, CA 94104  
(415) 393-4000

Philadelphia Stock  
Exchange, Inc.  
1900 Market Street  
Philadelphia, PA 19103  
(215) 496-5000

PRICE VOLATILITY OF THE NEW YORK STOCK EXCHANGE:  
INSTITUTIONAL OWNERSHIP  
AND  
PROGRAM TRADING\*

By: David M. Dunford, President and CIO  
The Travelers Investment Management Company

The business press over the last year has frequently noted the apparent large moves in the Dow Jones Industrial Averages and the S&P 500 and the rise in market activity as indicated by daily trading volume. Headlines and articles have highlighted what seems to be the historically high price volatility of the New York Stock Exchange. A number of articles have pointed to two sources of this extraordinary high price volatility - first, the increasing ownership of stocks by financial institutions at the expense of the individual investor, and second, the growing use of "program trading" by institutions. Government regulatory bodies, most notably the SEC and the CFTC, have noted increased market volatility and are analyzing different approaches to solve the "problem".

Is there indeed higher price volatility in the market? If so, are institutional investors and program trading the sources of this volatility? This article will discuss these issues by focusing on four areas: (1) the changing ownership of common stocks in the U.S.; (2) the definition of program trading; (3) a summary of empirical studies of price volatility to determine the magnitude of changes in price volatility; and (4) recent responses by the SEC and the CFTC. The comments will conclude with a summary of the evidence and subjective interpretation.

Institutional Ownership

The ownership of domestic common stocks has been changing over the recent past. Table 1 displays ownership by the important investor sectors over the period 1983-1986, (page 18). Total institutional holdings are the sum of pension funds, insurance companies, mutual funds, security dealers, and foreign investors.

The total outstanding common stock has increased from \$2 trillion at year end 1983 to almost \$3 trillion by year end 1986. The total institutional investors have increased their share of common stock holdings at the expense of the household sector. Institutional holdings have increased from 34% of the total in 1983 to 37% in 1986. Mutual funds, foreign investors, and pension funds display the most rapid growth. The household sector still represents the single largest share-owning sector with 63% of the total.

An analysis of common stock acquisitions confirms this data. Table 2, (page 18), summarizes stock acquisitions by the major sectors in the period 1983-1986. Again, mutual funds, pension funds, and foreign investors have been the major purchasers. Foreign investors have been particularly strong in the most recent quarters.

\*The views expressed in this article do not necessarily reflect the official policies of the Department of Banking.



The household sector continues to be a net seller of common stock holdings, a pattern which has been in evidence for the past twenty years.

In terms of the total there has actually been net selling by all domestic investors over the three years. This represents the corporate demand for common stock from mergers, leveraged buyouts, and share repurchases.

Over the near to intermediate term, the strongest net purchasing most likely will come in the mutual fund and foreign sectors. The corporate demand for shares may decline due to tax law changes and the strong market advance. The net selling by the household sector may accordingly slow.

While institutional ownership of stock has indeed been increasing, the institutions' share of daily trading volume has remained very stable. Data from the New York Stock Exchange, (NYSE), and the Securities Industry Association indicate there has been virtually no change in the shares of trading volume over the last 12-15 years. The public accounts for approximately 30% of volume, institutions about 45%, and NYSE member firms (specialists, etc.) about 25%.

#### Program Trading

The term "program trading" has recently been coined to indicate transactions generated by computer which generally involve a large number of stocks bought or sold virtually simultaneously. The primary source of these program trades is arbitrage activities between the stock market and stock index futures.

An example of such arbitrage may be helpful. Arbitrage opportunities can exist between the S & P 500 index of stocks and the S & P 500 futures contract traded on the Chicago Mercantile Exchange. If the futures contract is overvalued on a cost of carry valuation basis, arbitrage profits can be made by selling the futures and buying the stocks of the S & P 500 (or a representative subset). If the future is undervalued, arbitrage can occur through buying the futures and selling the stocks. Such trades can involve millions of dollars. A computer generally identifies the stocks to buy or sell and in what amounts. The buying or selling of the stocks and futures must occur virtually simultaneously to realize the arbitrage profit with minimum risk.

A second and growing area of program trading involves an institutional strategy called portfolio insurance. Portfolio insurance is a computer generated trading technique using option pricing algorithms which results in a portfolio's return being insured, i.e. the returns will not fall below a certain pre-specified minimum level. The trading technique involves buying stocks as the market rises and selling stocks as the market falls. It is estimated that upward of \$50 billion in institutional funds are managed under this strategy. Significant market volatility could trigger a large volume of program trades which could accentuate any market move.

### Empirical Studies and Observations

The press has documented a number of days over the last year where the DJIA and the S & P 500 have exhibited historically large point moves. Importantly, much of this results from the fact that the levels of the Indexes have risen dramatically. At current levels on the Dow Jones Average, a 30 or 40 point move is significantly less of a percentage change than such a move would have represented only five years ago.

Still, there have been some recent large percentage moves, such as September 11-12 and November 18 in 1986, and January 23 in 1987. Most of the periods where high volatility has been observed have been around the days of the so-called "triple-witching hour". This is the day in the quarter when stock index futures, options on the stock indices, and options on individual stocks all expire simultaneously.

Two recently published articles have summarized price volatility studies.<sup>1</sup> Jack Schwager found that price volatility has not, in general, changed due to program trading. The average daily percent price change in the S & P 500 index on an annual basis has not significantly changed over the last 16 years. He did observe, however, that volatility is significantly higher only on the four "triple-witching hour" days in the year.

Stoll and Whaley observed the same increased volatility on the expiration days. They concluded that the volatility effect can be traced to short periods of time at the end of the trading day. The effect, however, is predictable and, therefore, investors have the alternative of staying away.

### SEC and CFTC Responses

The concerns surrounding increased market volatility around expiration days have caused the SEC and CFTC to study the effect and the mechanics of the "triple-witching hour". Studies have been initiated by the staffs with results similar to those summarized above. Both Commissions have indicated a need to better conduct the trading on expiration days. The result has been a number of positive steps, including prior announcement of expiration program trades, and the initiation of option contracts which settle on the beginning of the day index value as opposed to the end of the day value.

<sup>1</sup> Schwager, Jack, "Program Trading: Does It Really Distort Markets?", Futures, April 1987.

Stoll, Hans and Robert Whaley, "Program Trading and Expiration Day Effects", Financial Analysts Journal, March-April 1987.

SUMMARY

The shares of the New York Stock Exchange display price volatility. Increasing institutional holding of common stock has in general not adversely impacted volatility. Evidence to date suggests institutional based program trading has not increased volatility in the markets, although rapidly growing futures markets and portfolio insurance strategies may cause greater impact in the future. Economic and political events remain the prime determinant of market volatility. The increased volatility noted around "triple-witching hour" expiration days is now widely known and changes in expiration mechanics are being addressed by government regulatory bodies and by the exchanges.

TABLE 1

Common Stock Ownership\*  
(\$ billions)

	<u>Pension Funds</u>	<u>Insurance Companies</u>	<u>Mutual Funds</u>	<u>Security Dealers</u>	<u>Foreign Investors</u>	<u>Total Institutional</u>	<u>Household Sector</u>	<u>Total</u>
1983	401	113	74	8	97	694	1,324	2,017
1984	494	108	81	12	96	790	1,328	2,519
1985	528	134	114	12	126	914	1,665	2,579
1986	618	158	158	10	163	1,106	1,866	2,973

TABLE 2

Common Stock Acquisitions\*  
(\$ billions)

	<u>Pension Funds</u>	<u>Insurance Companies</u>	<u>Mutual Funds</u>	<u>Security Dealers</u>	<u>Foreign Investors</u>	<u>Total Institutional</u>	<u>Household Sector</u>	<u>Total</u>
1983	22	5	14	5	5	52	(17)	35
1984	3	(4)	6	3	(3)	5	(74)	(69)
1985	18	4	10	1	5	38	(104)	(66)
1986	3	7	20	(3)	18	45	(118)	(73)

\*Data from Federal Reserve and Goldman Sachs

## MUTUAL FUND ADVERTISING

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The mutual fund industry is among the great growth industries of the 1980s. The number of funds registered with the Securities and Exchange Commission ("SEC") more than doubled during the 1982-1986 period and is fast approaching 2,000. Assets under management, buoyed by the stock market boom, nearly tripled during this period to over \$700 billion at the end of 1986.

A single fund management company may now manage several dozen different mutual funds, with widely ranging investment objectives. One leading management group has popularized "sector funds", each of which specialize in equity investments in a particular industry - a far cry from the early broadly diversified funds. Another leading management group has had significant success with an "index fund", which makes no pretense of trying to beat the market and is satisfied with mirroring broad-based market performance.

Bond funds were stellar performers in 1985 and 1986. And money market funds, which sparked the revival of the mutual fund industry during the high interest rate environment of the late 1970s and early 1980s, have survived a double shock - first, the ability of banks and thrift institutions to offer competitive money market interest rates; second, the major decline in interest rates during the past five years - and their aggregate assets under management have remained relatively stable at over \$200 billion and become a seemingly permanent part of consumer and institutional cash management.

Many fund complexes have their own distribution networks. Some funds are marketed through traditional brokerage firms, large and small. In addition, banks are finding imaginative ways of cashing in on mutual fund popularity without violating the securities underwriting proscriptions of the Glass-Steagall Act.

The New York Times headlined this boom on April 26, 1987 as "A Frenzy to Market Mutual Funds". According to that article, the fund industry spent \$68 million on print ads alone in 1986, up 130% over a year earlier, and television advertising is on the increase.. A cursory review of the Business section of the June 21, 1987 New York Times indicates that mutual fund advertising fills a total of about six full pages, mostly up front and with big, eye-catching messages such as: "Four choices for growth!" "Fight inflation now!" "100% Tax Free!" "Solid gold!" "Government Money with a Tax-Free advantage!" Exclamation points are the rule, not the exception.

This article explores the legal framework for such advertising, some recent regulatory issues affecting advertising, and certain questions which should be considered by consumers and financial planners in connection with mutual fund investments.

\*The views expressed herein do not necessarily reflect the official policies of the Department of Banking.

The basic disclosure document in any securities offering is the prospectus. A formal mutual fund prospectus must contain all the information specified by the applicable SEC registration form to meet the requirements of Section 10(a) of the Securities Act of 1933. (Considerable information is now placed in a separate document, the "Statement of Additional Information", which is available to prospective investors on specific request). But, Section 2(10) of the Securities Act defines "prospectus" very broadly, to include almost any communication. Advertising rules therefore have developed by defining what is or is not a "prospectus" within the meaning of Section 2(10), given the SEC's authority to define technical terms used in the Securities Act.

The four basic rules under the Securities Act governing the content of mutual fund advertising are: 1) Rule 134 - the "tombstone ad" rule; 2) Rule 135a - the "generic ad" rule; 3) Rule 482 - the "omitting prospectus" rule; and 4) Rule 156 - a general antifraud rule. In addition, Investment Advisers Act of 1940 Rule 206(4)-1 must be consulted, and there is an extensive filing and review process administered by the National Association of Securities Dealers ("NASD"). A discussion of these requirements follows.

#### RULE 134

Rule 134 states that certain advertisements are deemed not to be "prospectuses", and therefore can be used without the delivery of formal prospectuses, if they state no more than certain specified information about the mutual fund (see Rule 134(a)(iii), which may include "any graphic design or device or an attention-getting headline, not involving performance figures, designed to direct the reader's attention to textual material included in the communication pursuant to other provisions of this rule." A mutual fund's Rule 134 advertisement must, if it talks about the fund's objectives, policies, services and methods of operation, contain a designated legend indicating where a prospectus can be obtained and that the prospectus should be read carefully before investing.

While Rule 134, which applies to securities offerings generally and not just to mutual fund offerings, is still called the "tombstone ad" rule in the parlance of the trade, as applied to investment companies it provides considerable creative leeway for the advertiser; permitted ads no longer look as bland as information on a tombstone. The key aspect of Rule 134 is that the advertiser must choose between flashy headlines and performance.

#### RULE 135a

Rule 135a is much less frequently used; it states that certain generic advertising will not be deemed to offer any security for sale. Such advertising can only talk generally about investment companies or types of investment companies (e.g., "growth funds", "income funds", "no-load funds") and indicate how further information can be obtained.

## RULE 482

Rule 482 relates to Section 5(b)(1) of the Securities Act which prohibits the use of the mails or interstate commerce to deliver any prospectus relating to a security unless that prospectus meets the requirements of Section 10 of the Securities Act. Rule 482 provides that certain investment company advertisements will be deemed Section 10 prospectuses for purposes of Section 5(b)(1). These "omitting prospectus" advertisements, however, may contain only information about the fund the substance of which is included in the formal Section 10(a) prospectus of the fund; the popular name derives from the ability to omit some of the formal prospectus content.

## RULE 156

Rule 156 is the fourth basic Securities Act rule governing mutual fund advertising; in which it covers not only advertising but all forms of sales literature, which are discussed further below. Rule 156 recites the general anti-fraud requirements which apply to investment companies and then provides more specific guidance, in Rule 156(b), about when a description, representation, illustration or other statement about a mutual fund might be misleading, especially relating to past or future investment performance, management skills and techniques, or comparisons to other investment vehicles or indices. The Rule is particularly concerned with anything which might cause the reader to imply the future from the past, and all advertising must be measured against these standards. A state securities law analog that applies to misleading or fraudulent mutual fund advertising is found in Section 36-472 of the Connecticut General Statutes.

The mutual fund adviser contemplating advertisements must also consider Rule 206(4)-1 under the Investment Advisers Act of 1940, which prohibits any untrue statements of material facts and severely restricts the advertising of an adviser's past performance, although not as much as was thought until recently. More on this later.

Investment company advertisements and sales literature must be filed with the SEC in triplicate within ten days after first use, by virtue of Section 24(b) of the Investment Company Act of 1940. Broker-dealers distributing mutual fund shares must also file such materials within that time with the Advertising Department of the National Association of Securities Dealers ("NASD"), the self-regulatory body to which all registered broker-dealers must belong. Article III, Section 35 of the NASD's Rules of Fair Practice contains detailed requirements as to filing and review. Filing in advance of use is optional, Section 35(c)(1), but is as a practical matter strongly recommended whenever the materials to be used depart more than slightly from materials previously approved (or not disapproved). The broker must keep for three years all sales materials, plus a list of who prepared them and which registered principal of the broker approved them prior to use.

Excluded from the NASD filing requirements (and from the NASD's right to do spot-checks of sales material) are prospectuses; but Rule 482 "omitting prospectuses" and Rule 134 "tombstone ads" of investment companies are not excepted.

The preparer of advertising or sales literature should consult the NASD's Guidelines Regarding Communications with the Public about Investment Companies and Variable contracts, which appear at Paragraph 5286 of the NASD Manual.

The following list of headings in the Guidelines indicates the concerns to be dealt with:

1. General Considerations

The Overall context in which the Statement or Statements are Made

The Audience to Which the Communication is Directed

The Overall Clarity of the Communication

2. Special Considerations in Presenting Investment Results

Investment Objectives and Policies as Related to Data Provided

Appropriateness and Fairness of the Time Periods Illustrated

Adequacy of Information Concerning the Relevance of Results Illustrated to Probable Future Results

The Clarity of a Chart or Table Format

The Adequacy of Summary Results and the Need for Supporting Data

Inclusion of Relevant Charges and Expenses

3. Specific Consideration in Presenting Capital Results or Total Return Illustrations

4. Specific Considerations in Presenting Yield Data or Illustrations

5. Considerations Regarding Comparisons

In Connecticut, investment company advertisements and sales literature must be filed with the Securities and Business Investments Division of the Department of Banking by virtue of Section 36-491 of the Connecticut General Statutes. In recent years, the SEC and NASD have been particularly concerned with the manner in which advertising and sales literature have presented yield quotations on income-oriented funds such as bond and money market funds. The SEC has developed standardized yield calculations for money market funds, and the fund industry has encouraged standardized disclosures for other income funds, as part of investment company registration forms. Indispensable reading on all issues regarding the advertising of yield or historical performance data is Securities Act Release No. 6660 (September 17, 1986), a far-reaching SEC proposal which would also require equity funds advertising performance to use total returns, and would amend Rule 482 to require specific emphasis on risks of principal and income fluctuations. Compounding returns would be banned. Numerous other very detailed issues are dealt with.



NASD Notice to Members 86-41 (May 27, 1986) specifically addressed: (1) inappropriate comparisons between funds investing in U.S. Government-guaranteed securities and certificates of deposit; (2) failure to adequately separate return of capital from dividends and interest in arriving at a yield figure; (3) failure to disclose that current yields may be misleading in periods of declining interest rates; and (4) risks of loss of principal if interest rates rise.

There has always been regulatory concern with the advertising of mutual fund performance over relatively short periods of time. As the NASD put it in a December 29, 1983 bulletin on the subject:

The potential for creation of ... unreasonable expectations is intensified during periods of significant increase in securities prices .... Investor disillusionment, following a period of exuberant focus on the outstanding performance of equity funds during the late 1960's, created a significant obstacle to the sustained growth of the industry .... If a fund has a very short history, or if its history is confined to a period of extraordinary market conditions, special care may be necessary to insure that performance illustrations adequately convey the risks and do not create unreasonable expectations.

This advice is particularly significant in today's environment, when there are many funds with short histories in the 1980's bull market.

Given these concerns about advertising a fund with a short history, how is a fund distributor or adviser to advertise a fund with no history? Is the prior track record of a fund manager with other funds relevant to an investor in the new fund? The common sense answer to the latter question is, of course, "yes", but getting to that result - even with infinitely appropriate caveats - has traditionally run afoul of Investment Advisers Act Rule 206(4)-1, cited earlier. In 1986, however, significant "no-action" correspondence between an adviser and the SEC, seeking assurance that no enforcement action would be taken if a proposed course of conduct were undertaken, shed some new light on this subject.

Clower Capital Management, Inc. (available October 28, 1986), involved an adviser's request to demonstrate in fund advertising past investment results derived from a model portfolio consisting of the same securities the adviser had recommended to clients during the period demonstrated. The SEC, in response, indicated that it would no longer view such advertising as automatically fraudulent. Rather, the SEC set forth an eleven-pronged test (not reproduced here because of its length) which, if satisfied, would not prohibit the desired advertising. The SEC cautioned that this test did not constitute a "safe harbor" and declined to review specific advertisements. The SEC has also indicated (Investment Advisers Act Release No. 1033, August 6, 1986) that it is doing an updating review of the rule in question.

Subsequently, the SEC has permitted to "go effective" the registration statements of a number of investment companies whose prospectuses contain past performance information pertaining to the investment adviser. See, for example, The Aler Fund and Harbor Growth Fund, both effective in November 1986. Since a Rule 482 ad may contain information which appears in the formal prospectus, the ability of a fund complex to advertise the prior performance of an adviser has surely been enhanced. There is some potential for deception here; the prior performance, to be not misleading, must be that of a portfolio which is to be closely matched by the new fund. One should only safely rely on using this technique where it is the stated intent of a new fund to "clone" the old fund. Even on this basis, there has been useful liberalization which appears to be in the public interest.

Another current area of SEC concern which can be expected to affect advertising involves the disclosure of investment company sales charges and sales expenses.

As competition forced front-end sales loads down, funds began to look for ways to finance distribution costs out of fund assets. In the early 1970s, the SEC rejected such efforts as improper, but in 1975 our own Second Circuit Court of Appeals held in Tannenbaum v. Zeller, 552 F.2d 402, that such payments could be a legitimate exercise of business judgment.

After several years of controversy surrounding concept releases and proposals, the SEC in 1980 adopted Rule 12b-1 under the Investment Company Act, which allows a fund to pay distribution expenses if there is shareholder and director approval of a plan to do so and if the independent fund directors conclude that such payments are reasonably likely to benefit the fund. Investment Company Act Releases No. 10862 (September 7, 1979), the proposing release, and No. 11414 (October 28, 1980), the adopting release, are "must" reading in this area.

While mutual funds availed themselves of the Rule 12b-1 process only gradually in the early 1980s, more recently larger numbers have used that Rule to pay most or all distribution costs which were historically defrayed by front-end loads of as high as 8-1/2% of purchase payments, the maximum permitted under Article III, Section 26(d) of the NASD's Rules of Fair Practice. NASD Rule 26(d) does not apply to distribution charges paid by the funds themselves.

Rule 12b-1 plans which totally replace front-end loads are called "spread-load plans" because they spread payments for distribution services over the life of the funds. Funds having spread-load plans may also impose contingent deferred sales loads payable by shareholders out of redemptions before a specified period of time has gone by. Many complicated issues have arisen in the use and administration of Rule 12b-1, and the SEC is presently considering whether to propose changes in the Rule encompassing additional disclosure requirements, corporate governance requirements for fund directors, or both. The impact of Rule 12b-1 on mutual fund advertising is considerable and perhaps not fully recognized. Ten years ago, it was clear what "a no-load mutual fund" meant: no sales charges for the investor, just an investment advisory fee and ongoing operational expenses. Today, it's less obvious. A fund can still be advertised as a "no-load fund" if it has

neither a front-end load or a contingent deferred (or back-end) sales load. Back-end load funds can advertise "no initial sales load". But what about funds with Rule 12b-1 spread load plans? How does one properly represent a fund which charges, say 0.25% per year, or one-quarter of one percent, against fund assets to pay distribution expenses? How would such charges be related to either a front-end load or a contingent deferred sales charge which disappears after some years?

There are as yet no clear answers to these questions, particularly since the answers may be different for the shorter-term and longer-term investors. A seminal analysis appears in the January 1987 issue of AAII Journal (available through the American Association of Individual Investors, 612 N. Michigan Avenue, Chicago, IL 60611). An article by John Markese in that issue suggests equivalency tables for 12b-1 charges, on one hand, and front-end or back-end loads, on the other, for varying holding periods. With simplified mathematical assumptions, Markese asserts, for example, that a 0.15% Rule 12b-1 charge over a 5 year period is equivalent to a 1-1/4% front-end load or a 2% back-end load.

We can expect some further pronouncements from the SEC or NASD in these matters as Rule 12b-1 evolves further. A troubling issue appears in the SEC's treatment to date of insurance company asset-based charges on investment company products such as variable annuities and variable life insurance which are subject, additionally, to a 9% sales load limitation appearing in Section 27(a) of the Investment Company Act. Section 27(a), unlike NASD Rule 26(d), does not carve out asset-based charges at the investment company level.

The SEC has not permitted insurers to take into account time value (discounting) factors in monitoring compliance. The better approach for both asset-based charges and back-end loads is to factor in time value, and the SEC may yet come to agree. Part of the SEC's difficulty is in the statute itself, which never anticipated other than front-end charges.

The financial planner or investor surmounting these difficulties will also want to consider overall expense levels of a particular mutual fund in weighing the desirability of an investment. Some funds have fairly high annual expenses (1-1/2% or more of average net assets is not unusual, and a few exceed 2%), and some are very low (the "index fund" mentioned at the beginning of this article had a 1986 expense ratio of 0.28%). This data can be drawn from the per share information appearing in each prospectus. Of interest will be the SEC's recent announcement (Investment Company Act Release No. 15808, June 12, 1987) that net costs of Rule 12b-1 plans be accounted for as expenses, not as charges to capital.

In conclusion, interpretation of the rules governing mutual fund advertising have been and will be for the foreseeable future in a state of change, reflecting product innovation and the continued growth of the industry. "Old knowledge" at any time, whether for fund directors, advisers, distributors, investors or financial planners, must be carefully revisited.

THE ROLE OF OUTSIDE PORTFOLIO MANAGERS  
IN PENSION FUND INVESTMENT\*

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While this article primarily concerns how pension and endowment funds might go about managing their outside investment managers, individuals who invest in mutual funds may also find the article helpful, because they also are "managing managers" when they buy and sell their mutual funds. It is also worth noting that the writer has the perspective of one working with a large pension fund. The Investment Division of the Connecticut State Treasury is responsible for investing pension fund assets currently valued at \$5.4 billion. The Division employs some 30 outside managers of common stock, bond and equity real estate portfolios. It also employs several outside consultants to assist in managing its managers.

Before getting into the main topic, it may be useful to put it in context with the total management of pension fund investments. Various studies on this subject indicate that by far the most important factor in a pension fund's investment results is the policy governing the types and amounts of assets (stocks, bonds, etc.) to be included in the investment universe. Pension funds in general probably spend too little time on developing an intelligent long range asset mix policy and perhaps too much time managing their managers. Portfolio managers are the basic tools used to implement a long term investment strategy. Decisions on selecting and retaining managers must be made with that fact in mind.

The selection of outside managers is at best an imperfect science. Pension funds are heavily dependent on information supplied to them by the managers. The performance numbers are particularly suspect because it is in the manager's interest to show himself in the best possible light. He may be controlling the time frame or showing the pension fund a portfolio with the best performance, not the average performance of all the portfolios under management. Pension funds that know this will ask the manager/candidate for referrals to an existing client of the manager, or let an outside manager search consultant wrestle with this problem.

Other important factors in selecting a manager are the consistency of the investment approach and the stability of the organization in terms of key personnel. After hiring a manager with a particular investment style, pension funds too often find that the style was not as advertised to begin with or has since changed. Moreover, the risk of key people leaving an organization is notoriously high in the investment management business, and is a cause for additional frustration to pension investment officers.

\*The views expressed in this article do not necessarily reflect the official policies of the Department of Banking.

In monitoring investment managers, great care must be taken in measuring a manager's performance. The yardstick used to measure a manager must be fair and reflect his investment style. The S & P 500 Stock Index is not necessarily the best yardstick by which to measure a given equity manager. The U.S. stock market is a universe of 5000 stocks, not just the 500 in the S & P Index. It is also a fact that the stock market rewards managers with different styles at different times. Measuring a manager against managers with similar styles may make the most sense in many cases. Measuring performance is only a part of the monitoring process. Clients of investment managers must also be alert to changes occurring in investment style or in key personnel. These types of changes can be causes for the dismissal of a manager just as well as poor investment results, because they bring into question future performance.

The decision to fire a manager is no less difficult than the selection process or the monitoring effort. First of all, replacing a manager is an expensive proposition. A manager change usually involves abnormally high transaction costs since it is unlikely that the old and the new managers favor the same stocks. Also, we have noticed that for the first few months new managers usually don't perform well. For obvious reasons it seems to take that long for a new portfolio manager to structure the portfolio to reflect his style and current thinking. Due to the time and expense involved, there should be a strong case against the manager to be terminated.

To summarize the whole process of hiring, monitoring, and firing active investment managers is not only expensive but a continuing problem. It is an especially vexing problem for the very large pension funds. They use so many managers and own so many securities that it becomes almost impossible to add value to market returns with actively managed portfolios. The alternative, of course, is to deliberately become the market by adopting an index or passive investment approach. This alternative becomes particularly attractive during such periods as the present, when the performance of the S & P 500 Index has been better than 75% of all active managers. The chief advantage in owning an index fund is its low cost relative to owning an active portfolio. Typically, the management fee for an index fund is only 10%-20% of the fee paid to an active manager. Since very little trading occurs in index funds, their transaction costs also are only a small fraction of an actively managed portfolio.

The chief disadvantage of entirely adopting an index strategy is the loss of an opportunity to "beat the market". Since many pension fund officers believe there are some managers who can add value to market returns, their answer often is to combine active with passive portfolios. This is increasingly the case with the very large funds.

In summary, managing investment managers is an important and necessary aspect of managing a pension fund. It is probably the most interesting and certainly the most time consuming aspect, but it is not the most important. That distinction belongs to the long range investment policy decision. If you get that one wrong, even managing your managers well isn't going to help very much.

## AN OVERVIEW OF THE CONNECTICUT ECONOMY

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In recent years, Connecticut's economy has earned a reputation as a leader in diversified manufacturing, an exporter of high quality goods, and a center for non-manufacturing activities such as construction, insurance, finance, and the service industries. During 1986, these strengths propelled Connecticut ahead of Alaska as the state with the highest per capita personal income (\$19,208), according to U.S. Department of Commerce figures. Connecticut's rise to the top has not been an overnight development; it has been building for some time. Growth in per capita income in Connecticut, as well as in the New England region, has been exceeding the national average for the past ten years (see table, p. 32).

Although data on per capita personal income should be treated with some caution because, for example, they may reflect a skewed distribution of income, other economic data suggest broad participation in economic growth by residents of the state. In recent years, employment growth in both Connecticut and in New England has exceeded that for the United States. Since the start of the current economic expansion in 1982, unemployment rates in both Connecticut and in New England have been at least 2 percentage points below the national average annually. Connecticut's strength in per capita income is not only a measure of the substantial earning power of its highly skilled work force, it also provides new marketing opportunities for businesses in the state.

Connecticut ranks seventh nationally in dependency on manufacturing, making it a major manufacturing state. Over the past 35 years, however, manufacturing employment has declined to about 25% of total employment from a high of 52% in the 1950's. Connecticut's manufacturing sector generally has been impacted by the same problems affecting the national economy in recent years, such as competition from low priced foreign imports. Since 1980, industrial production in Connecticut has grown at a little under two-thirds of the national rate. Despite this, Connecticut employment and personal income have grown from 10% to 15% faster than the U.S. average. Per capita personal income growth has been 25% greater in Connecticut than the overall U. S. rate since 1980 thanks mainly to the strength of non-manufacturing businesses.

Production growth in Connecticut apparently pulled ahead of both the New England region and the U. S. last year. This pickup probably reflected some benefit from the dollar's recent decline which tended to make prices of imported goods less competitive while contributing to relatively lower prices in the highly export oriented manufacturing sector. The Connecticut industries most reliant on exports are: transportation equipment, machinery, electrical equipment, fabricated metals, primary metals and instruments. (The bulk of Connecticut's exports are shipped by sea from the port of New Haven, while the majority of those transported by air are shipped from Hartford's Bradley International Airport.) Like other states in the New England region, Connecticut has cultivated growth in fledgling "high-tech" industries such as microelectronics and biotechnology.

Defense-related business is another important manufacturing sector, with Connecticut ranking seventh in total defense dollars awarded and first in per capita dollars awarded. The heaviest concentration in defense spending in Connecticut occurs in transportation equipment such as aircraft parts, jet engines, helicopters and submarines. The current backlog of defense orders is high, but future growth is expected to be somewhat limited because of the spending curtailment effects of the Balanced Budget Act of 1985.

While manufacturing employment has held steady at close to 400,000 over the past 35 years, non-manufacturing employment has increased three-fold to about 1.2 million. The relatively rapid growth in non-manufacturing employment has been a state-wide trend, has resulted in less volatile economic patterns of growth, and has thereby contributed to moderation in peaks and troughs of the business cycle. Major areas of non-manufacturing employment in Connecticut include retail trade, services (personal, business, health and social services) and government; together these sectors accounted for about 70% of non-manufacturing employment last year. Other significant areas of employment include finance, real estate, insurance and construction activities. The high quality of cultural and recreational facilities and the proximity to major cities in the northeast have attracted many corporate headquarters to the Nutmeg State.

Connecticut's sound fiscal condition has been an important factor in attracting new business activities to the state. In Connecticut, policies have been pursued which seek to restrain business taxes and which are in opposition to personal income taxes; state tax collections as a percentage of personal income placed Connecticut 34th out of 50 states last year, even though per capita income was the highest in the nation. At the same time, the state's debt burden has been kept down through spending restraints and policy efficiencies, while necessary social services have been maintained. This combination of a vibrant state economy and sound fiscal management has permitted Connecticut to enjoy state budget surpluses for four consecutive fiscal years. As a consequence, Connecticut's bond rating has been upgraded twice in recent years, thereby further reducing the state's debt burden.

It would, however, be naive to assume that Connecticut's economy can escape developments in the larger U. S. economy of which it is a part. Nevertheless, while economic prospects in the U. S. now point to modest real growth over the next several quarters at best, Connecticut has the necessary diversification of economic activities to permit it to perform somewhat better than the national economy. For example, the large business inventory overhang currently threatening growth in the U. S. manufacturing sector may be partially offset by growing export orders at Connecticut manufacturers. The threats to residential construction and home sales from rising interest rates could also be partially offset by increases in road and bridge construction in the public nonresidential sector, and the large non-manufacturing sector of Connecticut's economy will act as a buffer in any future economic downdraft.

This is not to say that Connecticut does not face any serious economic problems. On the contrary, the high cost of housing is now contributing to a shortage of skilled workers in the state. Related to this, the rise in pay scales above national averages in many Connecticut industries may price Connecticut products above that of lower cost competitors. Both the Governor's office and state legislature are making the housing problem a priority issue this year. A successful attack on the problem of staying competitive at above-average pay scales may prove to be difficult and slowed by the state's inescapable dependence upon gradually changing economic market forces. But given the recent track record, there is reason to be optimistic about Connecticut's economic prospects for the years ahead.

#### CONNECTICUT STOCK PERFORMANCE

Unfortunately, it is not possible to come up with stock market statistics on Connecticut companies which are as pure as the above economic statistics. The main problem is that many of the significant companies which are headquartered in Connecticut are national or multinational corporations. (For example, while Connecticut is an important center of insurance employment, about 95% of total premium and annuity income from policy holders come from out of state residents.) Consequently, the market price movement of these stocks may say less about the Connecticut economy than it does about the U. S. economy in general. One way around this is to construct an unweighted index -- one which gives equal weight to each of the state's largest 100 stocks and is therefore not dominated by a few big stocks like GE and UTC. We have designated this unweighted index of Connecticut's largest 100 stocks (ranked by market value) the Connecticut 100. This method is not without problems. In the environment of the past few years, for instance, large stocks have generally outperformed smaller stocks by a wide margin. Thus, to compare an unweighted index for Connecticut's largest 100 corporations against a market value weighted index like the S & P 500 may show the Connecticut 100 in an unfavorable light. For balance, we have included Value Line's unweighted index of 1700 U. S. stock.



The accompanying chart shows the weekly price trends for the Connecticut 100, the S & P 500 composite index and the Value Line composite index for the years 1986 and 1987. Notice that after a strong performance in the first 20 weeks of 1986 (Connecticut 100, + 18%; S & P 500, + 10%; Value Line, + 10%), Connecticut stocks have lagged noticeably over the past year (Connecticut 100, + 10%; S & P 500, + 27%; Value Line, + 11%). In other words, over the past 12 months, the average Connecticut stock's price appreciation has lagged behind the performance of the average stock (Value Line) by about one percentage point, while trailing the average big-capitalization stock (S & P 500) by around 17%. Connecticut stocks have continued to lag behind the S & P 500 in price appreciation to date in 1987 (+17% vs +22 %), although the differential is smaller than during 1986's second half.

Through the first week of May 1987, the bull market trend was fairly well intact and the Connecticut 100 was down only 3% from its 1987 high hit early in the second quarter. Nevertheless, the trend of Connecticut stock prices relative to the S & P 500 has been almost unrelentingly down.

If the stock market is a leading indicator for the economy and corporate profits (which, in fact, is not always the case), the 17% increase in the Connecticut 100 stock price index appears to suggest that the near-term outlook for the Connecticut economy is reasonably good. On a relative basis, however, the fact that the Connecticut 100 has lagged behind the S & P 500 and the Dow Jones Industrial Average for the past 12 months may mean that the Connecticut economy is in for a period of decline relative to the more cyclical economies of most of the rest of the United States. That could be the case if U. S. industrial production were to rise out of the doldrums where it has been for more than 2 years. In such a case, U. S. industry could rebound more strongly than it has in years; and Connecticut, although lagging behind relative to some other states' economies, would produce a good performance in absolute terms.

A more likely explanation is that the laggard market price performance of Connecticut stock over the past year may, in fact, reflect only the market's recent "big-cap" bias, and the good relative performance of the Connecticut economy may be expected to continue. Although there are a few signs of a quickening in U. S. industrial activity, there are more reasons (rising interest rates, a stubborn trade deficit, and a moderate overhang of business inventories) to believe that the sluggish economic growth experienced in the U. S. since mid-1984 will continue through 1987. Wright Investors Service believes that in a low-growth environment the Connecticut economy would continue to perform relatively well. And, certainly in the event of recession, Connecticut's economy would most likely fare better than average.

If a recession were to develop somewhere in the not-too-distant future, most stocks would move down from their recent lofty levels. Connecticut stocks are unlikely to escape any such adverse move by the stock market; but, on the basis of a better local economy, they can be expected to perform moderately better than U. S. stocks in general in such an environment.

**COMPARATIVE ECONOMIC PERFORMANCE  
UNITED STATES, NEW ENGLAND AND CONNECTICUT  
1970 to 1986**

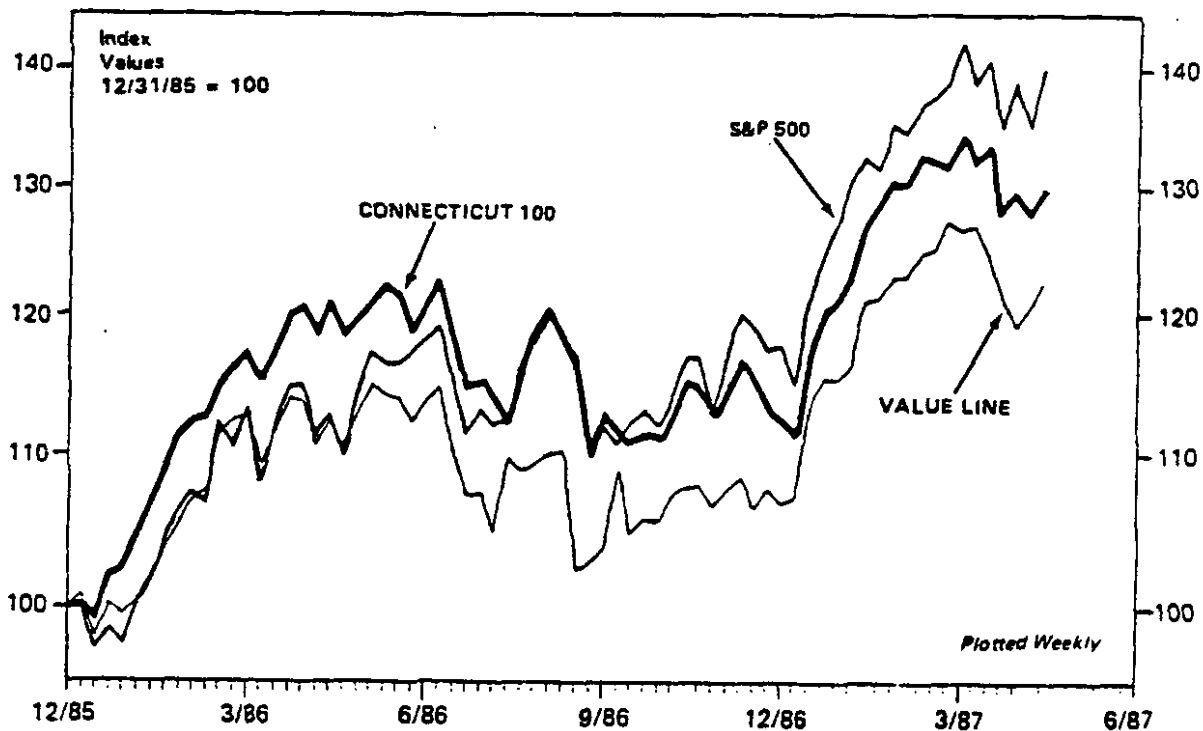
	Indexes of Industrial Production 1977 = 100			Employment (In Thousands)			Unemployment Rates (Percent)			Personal Income (Billions of Dollars)			Per Capita Personal Income (Dollars)		
	U.S.	New England	Conn.	U.S.	New England	Conn.	U.S.	New England	Conn.	U.S.	New England	Conn.	U.S.	New England	Conn.
	1970	78.5	NA	103.1	89,753	5,437	1,398	4.9%	4.9%	5.7%	825.5	52.8	15.3	4,051	4,444
1975	84.8	NA	84.4	97,184	5,614	1,451	8.5%	10.4%	9.1%	1,307.5	77.3	22.0	6,069	6,343	7,133
1980	108.6	108.2	127.8	112,269	6,540	1,681	7.1%	5.9%	5.9%	2,252.0	130.0	37.4	9,910	10,515	12,030
1981	111.0	111.7	128.2	113,444	6,588	1,701	7.6%	6.3%	6.2%	2,512.3	144.7	41.7	10,940	11,657	13,352
1982	103.1	111.3	119.2	112,709	6,587	1,702	9.7%	7.8%	6.9%	2,660.9	155.5	44.6	11,470	12,504	14,248
1983	109.2	117.1	121.6	114,311	6,734	1,725	9.6%	6.8%	6.0%	2,833.2	168.6	48.1	12,093	13,500	15,300
1984	121.4	129.0	134.9	119,841	7,111	1,812	7.5%	4.9%	4.6%	3,101.4	186.4	53.1	13,115	14,828	16,842
1985	123.8	129.8	136.0	123,405	7,329	1,867	7.2%	4.4%	4.9%	3,310.5	201.5	57.4	13,867	15,919	18,101
1986	125.1	130.3	139.7	126,200 <sup>e</sup>	7,520 <sup>e</sup>	1,915 <sup>e</sup>	7.0%	3.9%	3.8%	3,486.2	215.9	61.2	14,461	16,952	19,208

**COMPARATIVE ECONOMIC PERFORMANCE  
UNITED STATES, NEW ENGLAND AND CONNECTICUT  
ANNUAL RATES OF CHANGE**

Annual Rates of Change	Indexes of Industrial Production			Employment			Personal Income			Per Capita Personal Income		
	U.S.	New England	Conn.	U.S.	New England	Conn.	U.S.	New England	Conn.	U.S.	New England	Conn.
1971-75	1.6%	NA	-3.9%	1.6%	0.6%	0.7%	9.6%	7.9%	7.5%	8.4%	7.4%	7.2%
1976-80	5.1%	NA	8.7%	2.9%	3.1%	3.0%	11.5%	11.0%	11.2%	10.3%	10.6%	11.0%
1981-85	2.7%	3.7%	1.3%	1.9%	2.3%	2.1%	8.0%	9.2%	8.9%	7.0%	8.6%	8.5%
1985-86	1.1%	0.4%	2.7%	2.3% <sup>e</sup>	2.6% <sup>e</sup>	2.5% <sup>e</sup>	5.3%	7.1%	6.6%	4.3%	6.5%	6.1%

Sources: U.S. Dept of Commerce, Federal Reserve Board, Conn. Dept. of Labor, U.S. Labor Dept., Bureau of Labor Statistics; (e): Estimated by Wright Investors' Service.

### 1986-87 PRICE TRENDS



**CONNECTICUT 100:** Unweighted average of 100 largest Connecticut-based stocks computed by Wright Investors' Service. **S&P 500:** Market-Value weighted index of 500 institutional-grade stocks computed by Standard & Poor's. **VALUE LINE:** Unweighted index of 1700 stocks computed by Value Line.

## INNOVATION AND CAPITAL FORMATION

### IN THE

### INFORMATION INDUSTRY

by Bill Caffery, Gartner Group, Inc. &  
Tom Crotty, Gartner Securities Corp.\*

The links between financial ingenuity and technological innovation are strong but seldom visible in the information industry. Important new links are now being forged. Technology, for its part, has long been recognized as the single most critical factor to the sustained economic growth of modern industrial societies. Yet, as far back as the early nineteenth century, technological innovation in the U.S. has been tightly entwined with the evolution of large financial institutions.

Financial "gatekeepers" like venture capitalists have played a crucial part in allocating funds to those innovative opportunities that promise the highest economic return. Even so, in our opinion, until demand in the information industry recovers to more vibrant, sustained levels, many of the industry's smaller competitors are likely to encounter greater difficulty in raising on favorable terms the funds needed to expand.

In the face of the industry's lackluster growth during the last two years, its reception on Wall Street has been a chilly one. In fact, the greatest bull market of the century has left technology stocks sitting in the dust. In 1986, while the broad-gauged Standard & Poor's 400 gained more than 15 percent, Gartner Groups's technology index lost 6.2 percent. Faring worse, the stocks of small capitalization players in the information industry averaged a drop of 12.4 percent.

#### THE STATE OF VENTURE CAPITAL

Mirroring an industry out of favor on the street, venture capitalists have apparently been scaling back their commitment to newer start-up companies in the information industry. This comes at a time when venture capitalists are managing more than \$20 billion in aggregate, of which the vast majority remains invested in high technology ventures. Indeed, new amounts funneled into independent private venture capital firms have reached historic highs, exceeding \$3 billion in 1986. But the disaffection of Wall Street, while important to the climate for initial public offerings (IPOs), is only part of the reason for cutbacks in [Gartner Group and Gartner Securities was a venture capital new business start-up in Stamford, Connecticut, in March 1979. Gartner Group is now recognized as a leading market research company specializing in the information industry. It is now a public company, after an initial public offering in July 1986. Gartner Securities is a broker/dealer in technology stocks, dealing with institutional investors and is still a private company].

\*The views expressed in this article do not necessarily reflect the official policies of the Department of Banking.

venture capital commitments to newer industry players. Other factors have deeper long-term significance, including the revised Federal tax code, the steep losses sustained by high-technology ventures during the early 1980s, and the persistent industry slump itself.

Looking back, we see that U.S. venture capital investing has been a highly cyclical activity. Certainly there have been long periods of too little venture activity. The 1969 tax law, in particular, ushered in changes in the capital gains tax provision that virtually wiped out venture capital sources for much of the 1970s. Moving from pole to pole, as recent trends would suggest, changes in the 1979 tax code have ushered in unsustainably high levels of venture capital infusions. According to common wisdom, too much venture capital has been chasing too few quality deals. Flush with funds, the unbridled enthusiasm of many venture capitalists has led to runaway extravagances. Managing venture investments successfully in high technology companies, we believe, has come to be regarded as a much more difficult enterprise than once was acknowledged. Moreover, the crisis of management in many information industry companies has stretched thin the management in venture capital companies themselves. Venture capitalists must spend more of their time and money on companies already in their portfolio, straining their ability to finance newer start-ups. Over the next 4 or 5 years, as many as 2,500 existing U.S. high-tech companies will need capital infusions estimated between \$6 billion to \$8 billion.

#### IS THE BLOOM OFF TECHNOLOGY'S ROSE?

Just as ominous for future innovation financing, a deep-seated attitude seems to have taken root among many venture capitalists, one that finds "nothing new" on the technological horizon sufficient to merit the high risks normally entailed in start-up financing. Arthur Rock, something of a doyen and dean emeritus of the venture capital community, has himself publically despaired of this absent excitement.

In our opinion, most of the present problems in capital formation around young companies in the information industry are far more rooted in cyclical swings than in basic secular shifts. Paradoxically, the overall pace of venture capital activity in the information industry continues to be strong, only seeming to be diminished by a hot market cool on technology. In the first three quarters of 1986 (the most recent figures), venture investing in computer-related companies increased 40 percent compared with the year earlier period--to \$965 million from \$691 million for the first three quarters of 1985.

How can venture capitalists be scaling back while investing more? The answer lies in the target of their increased commitments--their present portfolio companies. The "center of gravity" of venture investments is shifting significantly toward older, more established companies. For most of the newer start-ups, particularly those looking for early round financing, cold shoulders and stiff arms prevail.

In considering the role of venture capital in financing innovation, the initial public offering market for emerging growth companies is key. Arguably, the increasing cyclicity of the IPO market, despite its recent relative flatness, is largely induced by its greater sensitivity to the overall economic cycle. But

even in generally unreceptive markets, we expect to see continued public market access for quality information industry companies having proprietary technologies, effectively differentiated products or dominant market shares. Certainly, the recent spectacular performance of high-technology IPOs in the aftermarket bears this out. Indeed, even in very down cycles, the IPO market nearly always offers a company a better valuation than in an institutionally placed private offering. Why? Because such offerings are simply priced at a discount--customarily in the range of 30 to 40 percent--to the public market at that time, no matter how depressed that market happens to be.

Once public, a company not only has access to more capital for fueling its growth and greater liquidity for the stock holdings of its shareholders, but it has stock for acquisitions, as the takeover activity of Lotus and Ashton-Tate, relatively young public companies, have demonstrated in the last 23 months. Having gone public, a company can then leverage the considerable advantages of enhanced image and legitimacy conferred on it by public ownership. Justified or not, this can be crucial for a small company in selling to large customers, many of whom regard public ownership as an indication of business stability.

#### **R&D PARTNERSHIPS**

For private companies, once-popular R&D limited partnerships have played a key role in financing innovation in high-risk, high technology enterprises. For fledgling companies involved in these partnerships, the basic idea is one of spreading risk across as wide a spectrum as possible. Here, the risks of failure are borne by the company, the public and the government--the latter in tax concessions and liability limitations. Yet, the colossal failures of several promising companies invested in heavily by R&D partnerships, firms like Trilogy and Storage Technology, have caused such partnerships to lose their luster. By 1990, we do expect some recovery in the popularity of R&D partnerships owing to the intrinsic appeal of big payoffs, risk sharing and long time horizons.

From the entrepreneur's perspective, financing growth through these limited partnerships can be costly relative to other means. Why? Because fledgling firms rarely have a way to buy back the royalty stream or to repurchase the equity that may have been sold. More than that, a frequent divergence of interests virtually locks in disputes over corporate control and dilutes management effectiveness. Interests are not always coincident--what is best to the company may not always be beneficial for the limited partners.

Arguably the heaviest criticisms that can be lodged against R&D partnerships are their depressing effects, direct and indirect, on company valuation. Indeed, a new company's valuation, customarily a multiple of its net income, can suffer directly, owing to its net income being reduced by royalty obligations. Indirectly, valuations can suffer a certain taint by association. Right or wrong, the R&D partnership is often seen as a second-class method of raising funds, used chiefly by companies that would be unsuccessful in selling straight equity.

Historically, in surveying patterns of financing innovation among quality growth companies in the information industry through public equity markets, we find far less creativity than in the financing activities of other types and sizes of U.S. corporations. The reasons are not hard to find. Clearly, more creative investment vehicles would likely lower a company's cost of capital. But for entrepreneurial companies (and, more certainly, for their investment bankers), the lowest cost of present funds is much less crucial than the ready availability of future funds. The upshot is that for most of the youngest players in the information industry, the cost of equity capital will very likely remain high for the visible future.

#### THE WIDENING ROLE OF LARGE COMPANIES IN FINANCING INNOVATION

Whereas current trends in venture capital financing tend to discourage most fledgling companies in the information industry, we expect that these companies will turn more and more to large corporations as a key source of capital. Here, several new forms of financing innovation are becoming more widely used. One of the fastest growing types of large company financing is "corporate partnering," an alternative approach to both corporate venture funds and corporate acquisition of smaller companies. Here, the larger company provides funding and market guidance for the R&D projects of the smaller company, which remains independent. A good case in point is Xerox's relationship with Ventura Software, developer of the highly innovative desktop publishing program, Ventura Publisher. Xerox, having gotten exclusive distribution rights in exchange for its investment, provides advertising, marketing savvy and a ready outlet for Ventura's product. A much better known example is the strategic relationship that General Motors has formed with Teknowledge, the artificial intelligence start-up.

Despite the spreading appeal of this approach, by 1988 or 1989, we may witness a backlash on the part of the financing parent company for two reasons. First, once aligned, an effective integration of its partners' achievements with its own interests may prove exceptionally difficult, not unlike the better known difficulties of "strategic alliances" between two large companies (e.g., AT&T and Philips). And second, the parent firm may perceive having overpaid for its minority interest in the first place.

Spin-offs are another form of partnering, where an R&D idea or work group is spun off with the parent corporation holding perhaps 50 percent of the equity. ETA Systems, CDC's supercomputer spin-off, is an example of what we expect to be a growing phenomenon, as more and more large companies in the industry struggle to find ways to cultivate innovation. In fact, venture funds pale next to the amounts spent on R&D just within large corporations in the information industry. Despite its chronic and well-advertised revenue problems, the amount IBM spent on R&D in 1986, was roughly equal to the total amount spent by all venture funds on start-ups.

## WHERE ARE THE NEW SILICON VALLEYS?

Why has innovation and its commercial exploitation depended so heavily on start-ups? Typically, start-up environments promote focus and efficiency far better than do larger, established competitors. Moreover, there are no existing product lines to be concerned with. Because a more established company must maintain many more activities, it cannot spend as large a fraction of its total resources on new enterprises. Small companies can keep powerful teams focused for long periods; large corporations have many alternative projects vying for their best people.

To bring about a successful entrepreneurial setting, five conditions are called for. First, sources of ideas and people, particularly technical people, must be in abundance. Typically, these sources are found in large companies with extensive R&D capabilities and sometimes universities. What really counts is immediate access to new ideas. Second, a rapidly changing technology is required, preferably one with many varied applications. Perhaps this is why whole new industries have sprung up around university laboratories. The existence of large and diverse markets is a third condition necessary to provide diverse opportunities for market niches to be developed by the companies getting started. Fourth, risk capital is needed, a source that dried up in the 1970s, seemed far too prevalent in the first few years of the 1980s and is now undergoing basic shifts. And, finally, it takes a society that recognizes the entrepreneur when he is successful. Here, the Japanese would seem to be at a marked disadvantage relative to the U.S. Certainly in Silicon Valley, all of these things have been in abundance.



CONNECTICUT PRODUCT DEVELOPMENT CORPORATION\*

By: Guy C. Worrell, Jr., Vice President

BACKGROUND STATEMENT

The Connecticut Product Development Corporation (CPDC) is a quasi-public instrumentality created by the state legislature in 1972. It was established to promote the creation and preservation of manufacturing jobs in the state, to encourage the diversification of defense-oriented Connecticut companies, and to stimulate the innovation process through investment in new and innovative products during their development phase. CPDC became an active force in Connecticut in 1975 after overcoming early legal challenges. Its founders recognized a market need not being addressed in any other way -- the financing of product development within small- to medium-size companies, which traditionally have the greatest difficulty financing such development and yet are responsible for the creation of the largest number of new jobs through their development activities.

Although the enabling legislation is rather broad in its description of the manner in which CPDC may pursue its goals, the procedure which has been used to date is that of making risk capital investments in new products with the expectation of recovering the investment through royalties on the sale of the product and its derivatives. It is anticipated that the return on investment will be a significant multiple of the investment in one-third of the cases; will break even in one-third; will fail to return the full investment in the balance.

CPDC financial aid is neither a grant nor a loan. CPDC does not seek an equity position in its client companies, nor does the investment appear as an outstanding debt on the company's balance sheet. CPDC participation is truly an investment in the product itself. If the product is a success, CPDC recovers its investment, and if the product fails, CPDC loses its investment. This innovative financing technique makes the Connecticut Product Development Corporation unique in the field of public-private partnerships for economic development.

A second program, the Connecticut Innovation Development Loan Fund (CID), is a revolving loan fund which has been established by CPDC, originally with the help of a grant from the federal government. CID provides low interest working capital loans to companies introducing technology-based new products. The loans may be used to buy machinery and equipment for production of a new product, for inventory build-up, and to introduce and sell a new product or process. Loans are available to companies located anywhere within the state. The program may be free-standing or work in conjunction with CPDC's basic product development program.

Additional methods of investment are under study and development. These may include a return based on royalty of sponsored product, but secured by a royalty on overall sales up to an agreed minimum when the product development and commercialization risk is deemed high. The state has also passed enabling legislation to allow participation in the Seed Venture Capital Fund (CSV). CSV will be funded by \$5 million in state funds matched by a like amount from private investors. Governance will be by a board of directors appointed by CSV's investors. CPDC will

\*The views expressed in this article do not necessarily reflect the official policies of the Department of Banking.

be a special limited partner in CSV which will make investments in the \$50,000 to 500,000 range. Start-up of CSV is expected in 1987.

In addition to these activities involving direct financial aid, CPDC provides limited assistance to Connecticut companies in the areas of financial planning and aids them in contacting other sources of financial assistance and business counseling. CPDC works very closely with the Connecticut Department of Economic Development, the Connecticut Development Authority, Connecticut Small Business Development Centers, the Small Business Administration, and with the various business and investment groups throughout the state.

In considering a new product for its investment portfolio, CPDC requires the applicant to prepare a business plan. This is not only good practice from the standpoint of CPDC, but it forces the applicant to consider all aspects of the process of bringing a new product into the marketplace, including where he will obtain the money and know-how for production, marketing and distribution. Assuming an adequate business plan, a favorable staff appraisal of the plan, and the technical feasibility of the product, the project is recommended to the CPDC Board of Directors. Following project approval and the execution of a development agreement, CPDC then pays up to 60 percent of allowable development costs on the basis of monthly invoices submitted by the company. The review and commitment process takes approximately three months from the time of receipt of a complete business plan.

In considering a potential investment, CPDC looks closely at the company management and history, its record as an employer, financial condition, physical and personnel resources, and at the availability of capital from private sources. Some of the key considerations regarding the proposed project are the following:

- . Is the proposed product technically feasible - will it work?
- . Is the size of the potential market sufficient to provide a return commensurate with the risks involved?
- . How will the company fund its share of the development costs?
- . Once the development is complete, how will the company obtain the working capital for successful market introduction?
- . Does the company have the technical, management, manufacturing and marketing talent required to assure success?
- . Will the new product be protected by patents, business know-how or by other means?
- . Will the number of new jobs created by the project justify the CPDC investment? (At least one job per \$10,000 over a five year period is sought.)

During the course of a typical year, CPDC responds to several hundred inquiries regarding its programs. About 200 of these are from within the state and are concerned with possible CPDC investment in a new

product or process. The majority of these are inappropriate for one reason or another. Whenever possible, these inappropriate inquiries are directed to another potential source of assistance. The initial contacts generally result in 10 to 15 formal applications during a typical year, most of which become approved projects. About an equal number of inquiries come from sources outside the state of Connecticut. These include reporters for various publications, state and local economic development groups, state legislators, and members of the U.S. Congress, as well as federal agencies and foreign governments.

The average size of CPDC investments has increased dramatically over the past few years, from \$90,000 per project in the 1979-80 fiscal year to \$401,500 per project in the 1985-86 fiscal year. This increase not only reflects a general inflationary trend, but, more importantly, more sophisticated development projects with greater job creation potential in Connecticut and an increased awareness of CPDC programs.

Since its first project in 1975, CPDC has participated in the development process for 73 new and innovative products. Seventeen of these products are currently in development and 25 are being actively marketed. A total of 22 are terminated, having failed wholly or in part or completed their life cycle. The net cost to CPDC of the terminated projects has been \$2,100,000, about twelve percent of the total funds committed to date, a record considered remarkably good in view of the relatively high risk investments which CPDC makes. Five current projects are marginal; four have been withdrawn or cancelled.

CPDC-sponsored products cover a wide range of items from soup-base concentrates to sophisticated computer-controlled telecommunications equipment and from hook and loop fasteners to an electronic file cabinet. While the emphasis is clearly on products which could be considered "high technology," the Corporation will consider any product or process which is innovative or new. This includes innovative processes for the production of old and familiar products as well as new products to fill old and familiar needs. If it is a new and innovative product or process, has an adequate potential market, and has the potential for substantial job creation or preservation in Connecticut, it is a candidate for investment by CPDC.

Since 1975, CPDC has committed \$17.1 million to the development of new products in Connecticut. This includes \$3.3 million in the 1985-86 fiscal year. Of this amount, CPDC has paid out \$14.0 million as its share of the development costs incurred to date. The difference between commitment and expenditure occurs because expenses are reimbursed as incurred over the life of the development phase of the project.

The original estimates of CPDC performance indicated that the Corporation would become self-sustaining after approximately ten years of operation and following an aggregate commitment of \$10 million. The legislation creating CPDC set an aggregate limit of \$10 million on the use of state funds by the Corporation. This limit was subsequently reduced and stood at \$7 million until July 1983, at which time an additional \$4 million was approved. Further increases have been granted as needed and now total \$23.7 million.

With an organization such as CPDC, it is rather difficult to know exactly how best to measure performance. Since one of its objectives is to become self sustaining and to repay the investment which has been made by Connecticut taxpayers, CPDC has many of the characteristics of a private venture capital company. On the other hand, since CPDC's mandate is to create and maintain jobs in Connecticut and it is a nonprofit, tax exempt corporation, CPDC also has the characteristics of an agency of the state government. In some respects CPDC is an "investor of last resort" since investments are made in projects for which participants cannot find conventional financing at reasonable rates. This places CPDC in the position of investing in projects which would be considered high risk by conventional standards.

Total taxpayer investment in CPDC operations is currently \$14.6 million. This figure includes both CPDC investment in development projects and the subsidized portion of CPDC operating costs. For the past several years these operating costs have been completely paid out of royalty income. As a result of this investment, \$2,600,000 has been returned to CPDC in the form of royalties on sponsored products. Sales of CPDC sponsored products have passed \$50,000,000. CPDC's operating budget for fiscal 1986-87 is \$533,000. Staffing includes a president, two vice president-project directors, a project director, a project analyst, an executive secretary and a data processor. CPDC is governed by a seven-member volunteer Board of Directors appointed by the Governor and serving at his pleasure.

Using three levels of measurement, CPDC is in its seventh year of meeting operating expenses out of income; its fifth year of generating additional income for further investment, although the amount is not yet sufficient to meet reasonable demand; and looks forward to becoming fully self-sustaining for existing programs in five to seven years.

One measure of CPDC performance is in terms of a return on investment. There are a number of ways to express a return on investment, but the figure used here is simply CPDC royalty income as a percentage of total taxpayer investment. This figure stands at 17.8 percent. It is anticipated that this return on investment will be in the range of 20 to 25 percent as CPDC reaches maturity in a few years.

Measuring the impact of an organization such as CPDC in terms of its economic impact on the state is very difficult and subject to some debate. These impacts involve the creation of new jobs, maintaining jobs that would otherwise be lost, increased tax revenue through corporate and individual taxpayers, decreases in unemployment and welfare costs for workers who would otherwise be unemployed, and the recycling of payroll dollars through other businesses in the state. It has been estimated that for every manufacturing job there are 2.5 additional jobs created elsewhere in the support and service areas. To date, CPDC products, either in development or on the market, were directly responsible, on the most conservative basis for more than 990 full time jobs in Connecticut. Job creation as a result of CPDC programs is accelerating rapidly and is expected to continue to grow in the future.

Throughout the life cycle of a sponsored product, CPDC maintains a

close working relationship with its client companies. This takes place through frequent telephone contact and periodic visits by the project director responsible for the particular project. Over the years, a remarkably good rapport has developed between CPDC and the companies with which it deals. Client companies are encouraged to inform CPDC early of any problems they may be having. When informed of a problem, CPDC works closely with the company to resolve the problem as quickly as possible. In-house expertise by the senior CPDC staff in the areas of technology, finance, product, and marketing is supplemented by outside consultants, paid by CPDC, wherever their use is deemed appropriate. The Corporation will seek additional ways to be of assistance.

With respect to the CID loan program, 23 loans totalling \$3,500,000 have been approved to date. \$2,500,000 remains available for new loans. Interest income and repayments are revolved. Two loans have been repaid in full. All repayments are current.

In summary, we believe that the Connecticut Product Development Corporation is successfully doing the job for which it was created and is beginning to have a significant impact on the economic health of the state. CPDC is a unique organization within the framework of governmental institutions. It should be recognized that the CPDC concept was never intended to be a "quick fix," but was established to provide a growing and ever-increasing influence over the long term. These goals are being accomplished, and we have every confidence that CPDC will continue to grow and succeed in the future. It is anticipated that additional funding via general obligation bonds of the state will be forthcoming as needed until CPDC becomes fully self-sustaining. Although CPDC has had discussions with nearly every one of the states and several foreign countries, to the best of our current knowledge, CPDC remains a unique and uniquely successful experiment in the area of governmental involvement in the stimulation of innovation and economic growth.

Revised 1/1/87

Marketing New Technology from University Laboratories  
and the Financing of New Ventures in the Capital Markets \*

Introduction

Lyle A. Hohnke, President  
University of Connecticut Research and Development Corporation

Collectively, American colleges and universities represent the most sophisticated research resource in the world. Following World War II, federal funding for the university research enterprise increased dramatically. Budget proposals for fiscal year 1988 estimate basic research spending in the U.S. to increase 3.5% to \$9.1 billion with nearly two-thirds of the basic research being conducted in university laboratories. Insuring that the results of government funded basic research at universities are made available to the public for commercial application where appropriate is generally not disputed. Several reasons are often cited in support of this position and include principally economic circumstances, national interests and the taxpayer demands.

Reasons for Strong Technology Transfer Programs

- 1) The strength of the industrial base and the competitive position of the U.S. internationally requires rapid exploitation of new findings.
- 2) The federal government is encouraging disclosure of university owned research results through legislative and economic incentives.
- 3) The public deserves access to basic research findings since government funding dominates university research support.

Universities are not new to the business of exploiting the results of their research. What is new is the growth of novel technology transfer efforts at universities and the rising need to meet the growing cost of leading edge research programs.

Relationships between industry and American universities have been numerous and productive since the turn of the century. These relationships range from general philanthropy and faculty consulting to celebrated multiyear, multimillion dollar research contracts and more recently the creation of new businesses. Table 1 contains a summary of current trends in academic/private sector interactions.

\*The views expressed herein do not necessarily reflect the official policies of the Department of Banking.

Table 1. Current Trends in Industry/University Linkages & Technology Transfer

<u>Type of Interaction</u>	<u>Comment</u>
1. <u>General Research Support</u> Gifts Corporate Donations (equipment/dollars)	Traditional
2. <u>Knowledge Transfer Mechanisms</u> Consulting/Seminars Affiliates Programs Scientist Exchange Programs Continuing Education	Traditional
3. <u>Cooperative Research Support</u> Joint Research Projects Research Consortia	Relatively New
4. <u>Technology Transfer -- Commercialization</u> Patent & Licensing Offices University Based Research Parks Third Party Mechanisms - Non-profit.....Research Foundations - For-profit.....UConn R&DCorp. First in U.S.	Very New

Clearly, not all academic institutions benefit from each of the interactions listed but some major research universities are aggressively exploiting each approach.

University of Connecticut Research and Development Corporation

In October 1984, the University of Connecticut Research and Development Corporation (R&DCorp) was created to commercialize scientific discoveries from the research laboratories at the University of Connecticut. The goal of R&DCorp is to seek and evaluate technologies developed primarily at the University of Connecticut, select those with significant commercial potential, complete research/development necessary for commercial viability and arrange for commercialization in a manner appropriate to each technology.

The University of Connecticut is the primary source of new technologies evaluated and developed by R&DCorp. Relationships between the University of Connecticut and other institutions, both corporate and academic, are encouraged when such a relationship is feasible.

The key objectives of the University of Connecticut Research and Development Corporation include:

- ° Support, encourage and aid scientific research at the University by faculty, staff and students.
- ° Offer an effective structure for University/industry interactions.
- ° Create a neutral buffer between faculty commitments to the University and business activities with the private sector related to commercialization of faculty research.
- ° Promote the efficient transfer of scientific discovery and invention to public benefit.
- ° Provide continuing income for the University.

Innovations created by faculty and staff researchers are owned by the University and assigned to the University of Connecticut Research Foundation by state statute. The Research Foundation has discretionary power to assign or license proprietary rights to R&DCorp or other entities, which in turn may develop the commercial potential of the intellectual property through joint ventures, spin-offs, licensing arrangements or other appropriate instruments.

Working capital to fund specific venture projects derives from strategic commercial participants, private investors, debt financing and/or a venture capital fund. The venture oriented spin-off, when established, can contract with the University for additional research by paying appropriate direct and indirect costs to the University from acquired working capital. This not only contributes to expansion of the university's research base but also permits the start-up venture to greatly leverage its research and development dollar. R&DCorp provides administrative, financial, technical and development support for venture projects and plays a key role in developing the financial package to help launch the spin-off venture.

Income to R&DCorp derives from the success of venture projects. A commercial participant or venture spin-off pays royalties and license fees in proportion to commercial success of the project. Additionally, R&DCorp may take equity positions in start-up ventures. Income to R&DCorp is used to service debt, repay and possibly buy out passive investors, return capital to the venture fund and finance direct costs of R&DCorp operations. Additional profits are distributed back to the University of Connecticut Research Foundation according to terms contained in a master servicing agreement.



The relationship between R&DCorp and the University is shown in Appendix I (Charts I-IV).

The commercialization path of technologies accepted by the Research and Development Corporation can vary depending on the specific development requirements and the markets into which the products will enter.

In a typical case, and subsequent to selection of a promising technology, R&DCorp organizes an R&D partnership or other entity to finance the development necessary to bring a technology to the point that it can be commercialized. R&DCorp functions as a founder or general partner in each such R&D partnership or development entity and in return receives a small equity interest along with other financial considerations.

R&DCorp, as part of a rapid development strategy, brings commercial partners into the process at an early stage to help develop specific market driven specifications for product cost and performance. Since R&DCorp processes a wide range of University innovations it is critical that appropriate commercial interests participate early in a project to provide specific input on market niches and nuances that are not apparent to those unfamiliar with a particular technology. Failure to attract potential commercial partners to a novel technology may be an indication that the project is over valued or that the project needs further evaluation before resources are committed.

Early participation by commercial partners is also important to project financing. Since R&DCorp itself is a startup business development company, available resources are not adequate to fund, staff and finance research and development that may be necessary for certain projects. Instead, R&DCorp matches the project to appropriate interests external to the University for successful exploitation of the technology. These arrangements can take the form of a license, an outright sale, a joint venture with existing companies or, in some situations, a start up company. Venture capital is an important source of financing for startup companies.

The initial project undertaken by the R&DCorp on behalf of the University focused on a novel bioadhesive material discovered and characterized by Dr. J. Herbert Waite in the Department of Orthopaedic Surgery at the University of Connecticut Health Center. Bio-Polymers, Inc. was organized in 1984 to market and produce the bioadhesive material first isolated by Dr. Waite from the common marine mussel. R&DCorp negotiated the terms of a limited exclusive license for use of the novel technology with Bio-Polymers, Inc. that includes the following provisions:

- (1) Royalties to the University proportional to product sales.
- (2) A minor equity interest for R&DCorp in Bio-Polymers, Inc.
- (3) Payment of an administrative fee.
- (4) Payment of patent filing fees.
- (5) Seed funding for a Biomaterial Research Center at the Health Center.

Bio-Polymers, Inc. is an excellent example of a company being developed as a result of a University based discovery. If Bio-Polymers, Inc. meets expected business projections the University of Connecticut Foundation, R&DCorp, the public and the state of Connecticut will be well rewarded.

Two additional research projects are expected to spin-off new startup companies early in 1987. A soil cleanup technique useful for the removal of hydrocarbon spills from leaking underground storage tanks shows promise and plans are in progress to make the technology available through the services of a new company. A second technology emanating from the University of Connecticut Health Center relates to a novel drug delivery method with unique properties. Research progress on the drug delivery system has been encouraging and commercial development is expected to be underway early in 1987.

#### Seed Venture Fund

The recent progressive actions of the University of Connecticut to stimulate technology transfer have added to the increased awareness within the Connecticut financial and business community of the advantages of early knowledge and participation in business opportunities that arise from University discoveries. Inquiries are regularly received by R&DCorp for information on research projects and in some situations, on potential arrangements for "participation" in the development of selected technologies. Prior to formation of the R&DCorp, the latter arrangements were not possible. Concomitant with the growing awareness of universities as a source of new technology has been recognition of the need for greater availability of risk capital for new companies.

The simple availability of risk capital for a new company, novel product or new process is a critical component to encouraging the creation and growth of companies and expanding employment opportunities. States are eager to improve their economies and promoting the growth of high technology companies has been an important initiative in many states since the mid-1970's and thus an important driving force in the move to establish early stage venture funds.

The strategy for most states has been to persuade high technology companies to locate in areas near a research university so that entrepreneurs and faculty can interact freely and easily. The presence of a major research university campus is considered critical to attracting high technology growth companies because universities perform over half of all basic research in the U.S. and basic research is the seed of innovation.

To understand the importance of risk capital to technological innovation requires some understanding of the innovation process. Technological innovation is not a rapid process but rather requires, on average, seven to ten years to produce a significant new product or process. Innovation is often viewed as a three-stage process. The first stage is invention; the second stage is translation of the invention into a new product or process; the third stage is commercialization of the product or process. Almost 90% of the cost, risk and time is associated with the second stage of the innovation process - translation of invention into product/process.

Universities and federal government laboratories perform most basic research, the majority of which is funded by the federal government. The private sector invests primarily in the high-cost but lower risk, later phases of the innovation "pipeline".

To spread the risk and obtain the necessary expertise for financing early stage ventures, states often invite participation by the private sector into special arrangements. In some cases the arrangement is to have the private sector manage investments made with State funds, in other situations the venture firm is both the investor and manager of capital investments without further public sector involvement. Venture capital investing requires active involvement in an emerging technology by the investor and a commitment to the technology of at least five to ten years.

State programs to fund the innovation gap take a variety of forms but generally include one or more of the following; (1) direct equity ownership, (2) royalty sharing arrangements, (3) technology R&D grants, (4) unsecured long term debt and (5) equity guarantees. Table 2 contains examples of selected state programs aimed at funding early stage companies. For most state-initiated programs, the financing of a new venture is usually linked to special criteria contained in the enabling legislation and often includes, for example, that jobs be created or manufacturing/processing within the state result from the investment.

Table 2

Selected Examples of State Programs for Early Stage Investments

<u>State</u>	<u>Funding</u>	<u>Year Began</u>
<u>Illinois</u> Illinois Venture Fund	\$10-12 million dollars (\$2 million from the state); seed & high technology startups.	1985
<u>Indiana</u> Corporation for Innovation Development	\$10 million; privately managed; State provided 30% tax credit to investors.	1982
<u>Massachusetts</u> Massachusetts Technology Development Corporation	\$6.1 million; early stage technology companies; matching funds required.	1980
<u>Minnesota</u> Minnesota Seed Capital, Inc.	\$5 million; seed/early stage; technology based; Fund II started - \$10 million.	1980
<u>New York</u> New York State Science Technology Foundation	\$3.6 million; high technology startups; requires 3:1 matching.	1982
<u>Pennsylvania</u> Ben Franklin Partnership	State provides \$3 million to four center; each center raised \$2.3 million in private money; high technology seed and startups.	1985
<u>Connecticut</u> Connecticut Seed Ventures, L.P.	\$10-12 million (\$5 million from the state); seed and high technology startups.	1987

As shown in Table 2, Connecticut is expected to join the ranks of states sponsoring seed venture capital funds in 1987. Five million dollars in state funds have been allocated and the private sector is expected to invest an equal amount or greater. Since university derived technology is often embryonic the availability of seed funding mechanisms is critical to its successful exploitation.

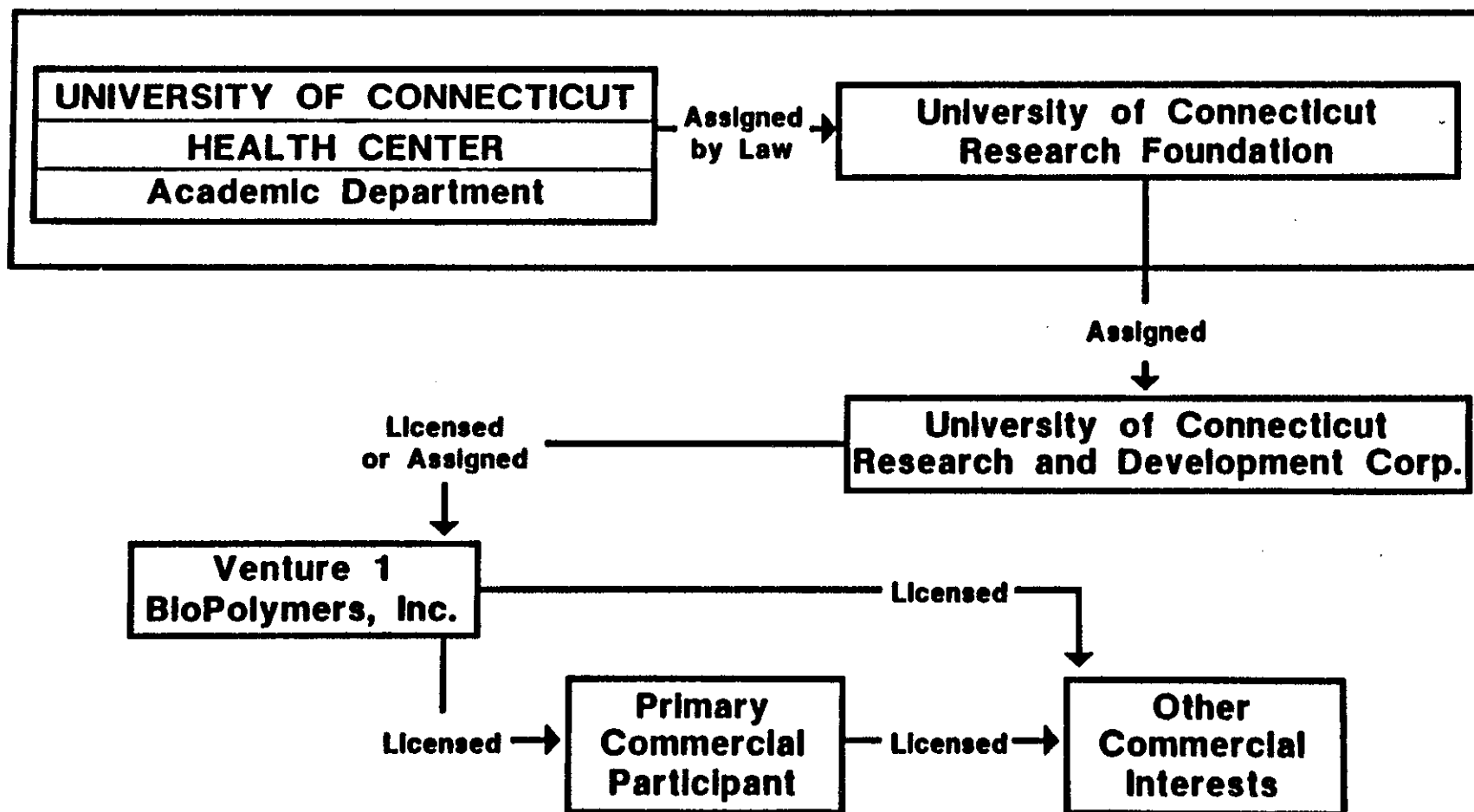
#### Summary

Recognition of the university research laboratory as a source of innovation and new technology has resulted in the creation of new technology transfer mechanisms at universities. Several factors contributing to these new developments include:

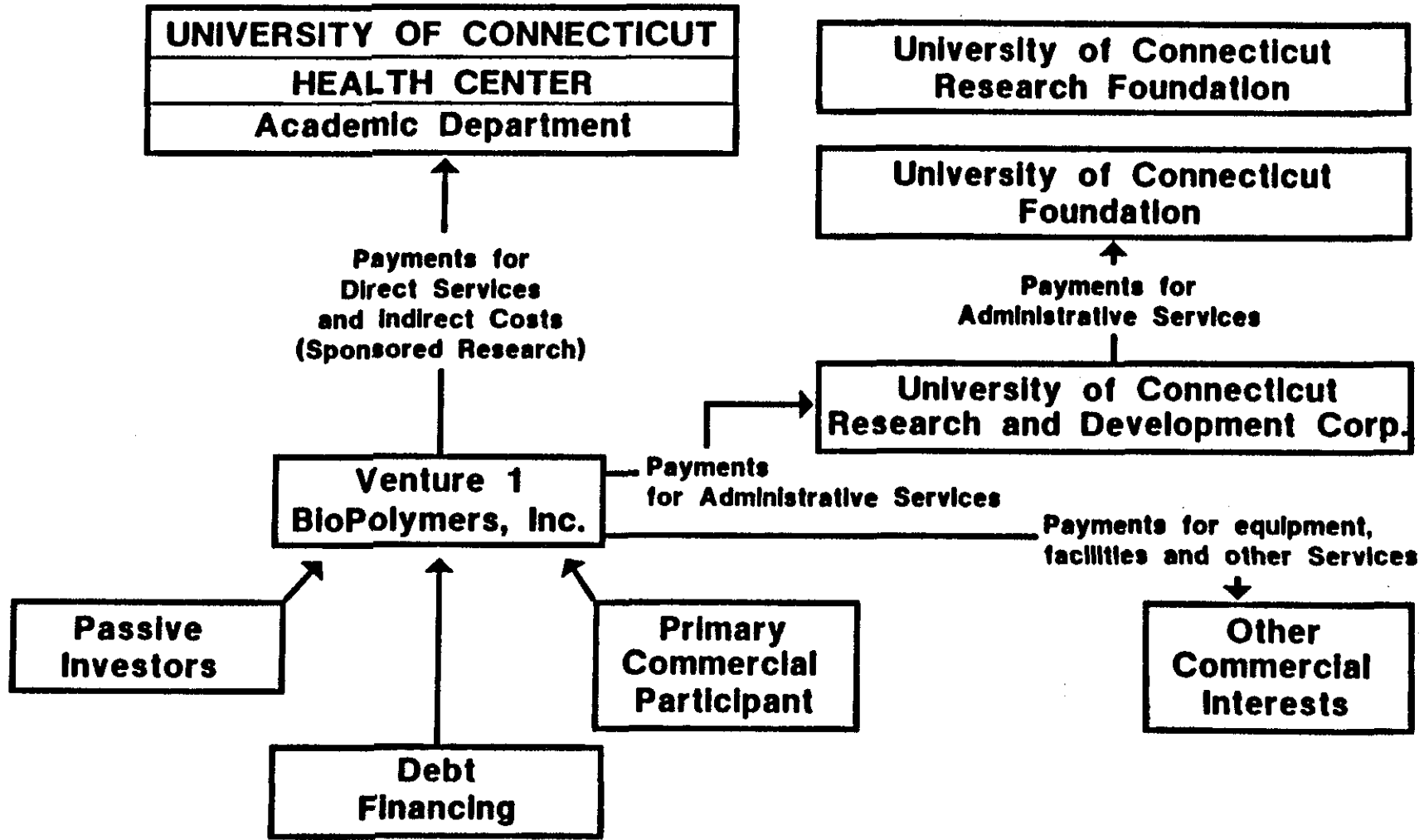
- changes in federal laws relating to universities
- university need to enhance income flow
- rising industry expectations
- entrepreneurial faculty

The University of Connecticut created a novel Research and Development Corporation to facilitate technology transfer and enhance commercialism efforts in Connecticut. The success of R&DCorp to date has increased the awareness in the business and financial community of the university as a source of innovation and technology. The University's efforts to foster the development of technology emanating from faculty laboratories is being aided by many state economic development programs including a new seed venture fund being implemented in Connecticut.

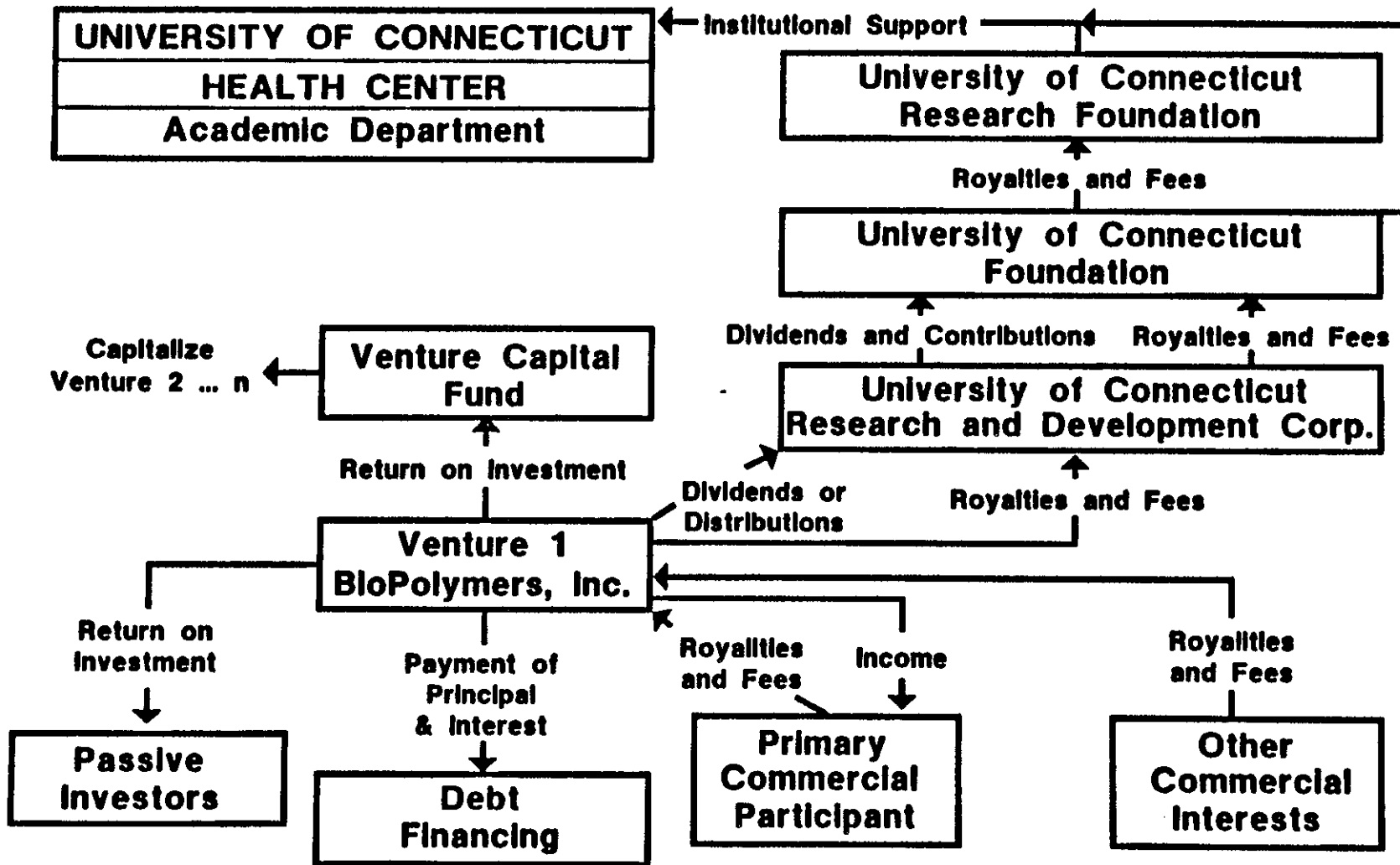
# RIGHTS TO INTELLECTUAL PROPERTY



## FLOW OF INVESTMENT INCOME (Working Capital)

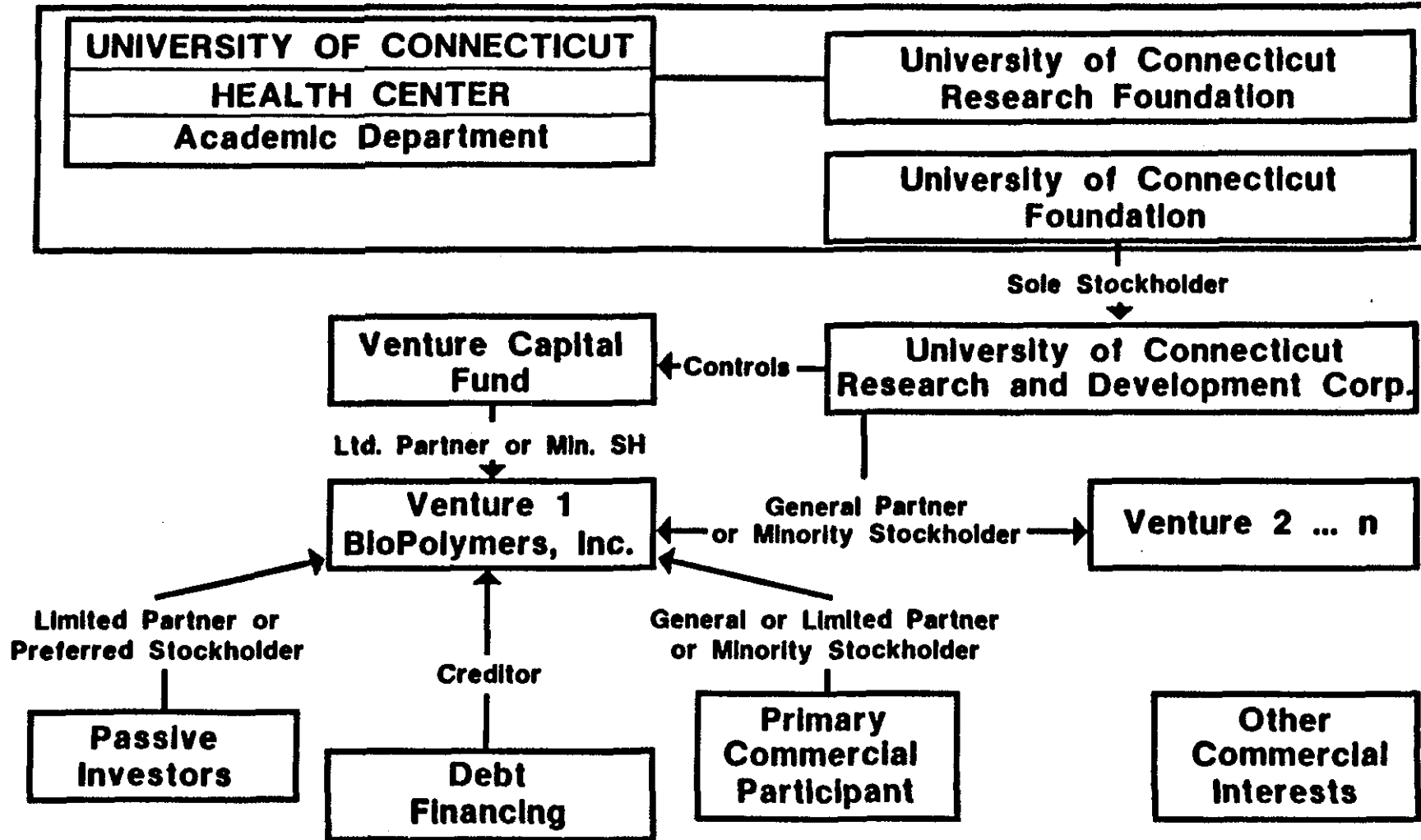


## FLOW OF PROJECT DERIVED INCOME (Profits)





# OWNERSHIP AND CONTROL



## STATE LOAN PROGRAMS FOR ECONOMIC DEVELOPMENT

Roy W. Breward, Deputy Director  
Connecticut Development Authority\*

Connecticut Development Authority was established to assist in the development of commerce and industry within the state in order to create, maintain, and expand employment and tax revenues. Since its inception in 1973, the Authority has provided approximately \$2.5 billion in financing, the bulk of which has been in conjunction with financial institutions in the state, through the Authority's Self-Sustaining and Umbrella Industrial Revenue Bond Program, and its Industrial Mortgage Insurance Program.

In addition, the Authority administers for the State Department of Economic Development a number of small loan programs designed to address specific needs, such as: areas of high unemployment, lack of suitable child care facilities, or programs to help finance the repair of dams within the state.

Most of the loan programs administered by the Authority are used to provide real estate and equipment financing for Connecticut manufacturers with working capital financing made available in a number of small loan programs.

The Authority's largest loan program is the Self-Sustaining Revenue Bond Program, which provides a vehicle for obtaining tax-exempt loans for manufacturers for real estate and equipment projects and for certain non-manufacturing activities from conventional lenders, such as: solid waste disposal, water supply and distribution facilities, and health care facilities which qualify as a 501(c)(3) corporation under the federal tax code.

The Authority's role in this financing is to act as the issuing agency as required under federal tax law and to make sure that the project as proposed complies with not only federal tax law but also with state law.

Loans under this program cannot exceed \$10 million in the aggregate, in most cases, nor forty years in term. Because the loans made under this program are exempt from federal income taxes, the interest rate is typically lower than commercial rates and in most cases, lower than bank prime or base rates as published from time to time by the largest banks in the country. Bank involvement has typically been motivated by business development opportunities.

The Authority's second largest loan program is its Umbrella Revenue Bond Program, whereby the Authority makes loans directly to manufacturers to be used for real estate and equipment projects. The loans cannot exceed \$800,000, nor be outstanding longer than twenty (20) years. The Authority obtains its funds from the sale of tax-exempt bonds and bond anticipation notes, which are exempt from federal income taxes and typically provide very attractive interest rates to the

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borrower, similar to those experienced under the Self-Sustaining Program.

The third largest program of the Authority is its Industrial Mortgage Insurance Program, whereby loans made by banks and other conventional lending institutions are insured by the Authority. Under the program, loans are available to manufacturers and wholesale distributors for real estate and equipment projects for amounts not to exceed \$10 million, of which no more than \$5 million can be for equipment, for terms not to exceed twenty-five (25) years. In return for the insurance, the Authority currently charges a premium of one half of one percent on equipment loans.

In addition to the loan programs just described, the Authority administers a multitude of small loan programs for the Department of Economic Development. These small loan programs were created to address specific needs identified as important to the state.

The first group of small loan programs is targeted to specific geographic areas of the state and consists of the following:

- A. Enterprise Zone Loans are available to any business, including start-ups, currently in or locating in one of the State's ten (10) enterprise zones whose gross sales did not exceed \$1.5 million in the most recent fiscal year. Loans under this program can be used for real estate, equipment or working capital. Loans in the aggregate cannot exceed \$200,000 or fifty percent of the total financing needs for a maximum term of ten (10) years. Because of the 50% cap, participation with Connecticut banks is common.
- B. Loans under the Naugatuck Valley Loan Program are available to manufacturers and wholesale distributors in approximately fifty (50) towns, most of which are in the Naugatuck Valley, for real estate, equipment, and working capital, which in the aggregate cannot exceed \$200,000 or one-third of the total financing needs of the borrower for a term not to exceed ten (10) years. The interest rate under this program is determined by the Naugatuck Valley Revolving Loan Fund Committee periodically, and is currently 6.7%. Because of the limitation of one-third of total financing needs, participation with Connecticut banks is also common under this program.
- C. Loans to manufacturers and wholesale distributors, research and development, and product warehousing businesses located in the nineteen (19) towns comprising the northeast sector of the state whose gross sales did not exceed \$10 million in their last fiscal year and who are not start-ups are available under the CORNER program. Loans cannot exceed \$300,000 in the aggregate for real estate, equipment and working capital, for terms not to exceed fifteen (15) years.

The second group of small loan programs is available to businesses located anywhere in the state and consists of the following:

- A. Small Manufacturer Loans are available to any manufacturer or wholesale distributor including start-ups whose gross sales did not exceed \$5 million in the last fiscal year. Loans can be used for real estate, equipment and working capital in amounts not to exceed \$450,000 in the aggregate for projects located in distressed communities (Development Investment Areas), and \$350,000 for projects located in other areas. The term cannot exceed ten (10) years and, in addition to the dollar limits noted, working capital loans cannot exceed fifty percent of total working capital needs with the balance often provided by a bank.
- B. Small Contractor Loans are available to any construction or service contractor or manufacturer with a contract for goods or services whose gross sales did not exceed \$1.5 million. Loans can be used for labor, material and equipment, rental costs necessary to complete a contract. The maximum amount of the loan cannot exceed \$250,000, nor one (1) year in term. The contract must be assignable to the Authority.
- C. Exporter Loans and guarantees are available for working capital and accounts receivable financing to any exporter of a product or service whose gross sales did not exceed \$50 million for businesses exporting to a new market for the first time, or new to export entirely and \$25 million gross sales limit for all others. Any combination of loans or loan guarantees cannot exceed \$350,000 with terms not exceeding 180 days for direct loans and five (5) years for loan guarantees needed to bring a product or service to the market under a specific export contract.
- D. The State Department of Economic Development administers a program which the Authority is not directly involved in, but which will often find itself participating in through one or more of its other programs. This program is called the Employee Ownership Loans and Interest Rate Subsidy Program and is available to groups of employees of a business which is engaged in manufacturing, research and development, product warehousing or wholesale distribution for the purpose of acquiring the business, as long as the majority of the employees end up owning a majority of the business being acquired. Under this program, loans cannot exceed \$500,000 or ten percent of the purchase price and interest rate subsidies cannot reduce the rate of interest on a loan made by a commercial institution by more than five percent per year, nor by more than fifteen percent of the principal amount of the loan or \$1 million over its life.

The third and final group consists of loan programs that are administered by the Authority in cooperation with state agencies other than the Department of Economic Development and includes the following:

- A. The Child Care Facilities Loan Program was sponsored by the Department of Human Resources. This program makes loans available to non-profit corporations for real estate or equipment projects for child care which benefit the children of employees of the non-profit corporation. Loans cannot exceed \$50,000, nor five (5) years in term.
  
- B. Dam Repair Loans are available for repairs of dams which have been cited by the State's Department of Environmental Protection as being in an unsafe condition and where repairs have been ordered. Loans cannot exceed \$150,000 or seventy-five percent of repair cost for a term not to exceed thirty (30) years.

As noted, the rate of interest under the major loan programs administered by the Authority is determined by market conditions at the time loans are made. Under the Small Loan programs, the rate of interest shall not exceed the rate obtained by the state on its most recent General Obligation Bond Sale, plus one percent. The exception to this is the Naugatuck Valley Loan Program, wherein the rate is established by the Naugatuck Valley Revolving Loan Fund Committee.

The maximum amounts and terms as described in each program description do not necessarily represent the amount that will be loaned, guaranteed or subsidized in fact. Equipment loans are generally seven (7) to ten (10) years; working capital loans are even shorter; and collateral value and useful life of fixed assets will affect the term and amount.

The Authority looks to collateralize all its loans to the extent necessary. It tries to balance the need to protect the interest of the state while carrying out its mission of assisting commerce and industry to expand and maintain or increase employment and the tax base.

**CAPITAL FORMATION AND  
NEW FUNDING CONCEPTS NEEDED  
FOR FUTURE TECHNOLOGY\***

by John S. Rydz  
Vice President, Technology

Emhart Corporation  
Farmington, Connecticut

On the way to the year 2000, business and industry will be experiencing major changes brought about through the impact of many new and emerging technologies that will create dramatically new product opportunities as well as significantly change the way companies manufacture and service these products. New materials will provide lighter weight products with greater durability. Developments in information systems will create the effective management of global operations. And recent advances in electronics and materials should enhance our leisure enjoyment through new consumer goods, re-orient the direction of many businesses and restructure our work force.

To take full advantage of these emerging technologies, new approaches are needed in the way companies acquire and develop these new technical advances. New technical developments are now being launched from many sources -- small company R&D Laboratories as well as the large companies -- through venture capital companies, University Parks, Incubators, Independent Entrepreneurs themselves, as well as many other sources. Moreover, new technology is no longer an exclusive U.S. phenomena. It has become global.

As the Corporate Vice President of Technology for Emhart, a \$2.1 billion diversified corporation headquartered in Connecticut, I am responsible for assisting our operating units in the use of new technology. We have become increasingly aware of the need to explore ways by which we can bring "next generation" technology into our company. Internal development is no longer the only route nor is it always the most effective in the rapidly changing technology environment.

Several trends are occurring in the capital formation area. It is the objective of this article to provide some insights as to how technical executives might exploit recent capital funding trends and how the development of new technology is created through capital markets. Also, new trends are developing in the means for funding technologies and investing in these new technology opportunities. The creation of these capital markets and the means for capital

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formation will become an important consideration as companies explore how to effectively supplement their internal research and development efforts through externally funded technical programs.

In this article, we will explore the potential impact of the changing capital markets for technology by focusing on:

1. An identification of some of the major emerging technologies.
2. An assessment of how the State of Connecticut is positioned to take advantage of the potential opportunities that will result from these technical advances.
3. An overview of the changes occurring within companies that are creating opportunities for external development programs.
4. A summary of the changing trends that are now happening in the capital formation market for technology and how the capital funding participation by states is increasing.

#### NEW TECHNICAL DEVELOPMENTS ON THE HORIZON

Predicting what technical advances are important to a company's long-range technical strategy is an exercise in "CRYSTAL BALL GAZING" that is not as difficult as it may seem. Technical executives establish extensive links throughout industry, universities and government. Through these information channels and programs, we are able continually to update consensus feedback as to the future direction of technology and the potential impact that this technology will have on our company products and processes.

In my own case, I have been fortunate to be associated with the National Science Foundation (NSF) as a member of the final selection committee for NSF's engineering research centers.

NSF's engineering research center program, established in 1985, was formed to provide a stronger basis for more rapid technological development in critical technical areas that would help maintain our nation's competitive position. In addition, through Emhart's Association with Technology Transitions Inc. (TTI), a venture capital investor in technology companies, I have been made aware of the trends in the technical areas receiving venture capital funds.

Through an analysis of the national statistics of venture capital funding, as well as discussions with my colleagues and NSF staff members, combined with an analysis of the National Academy of Science and Engineering Projections, we can confidently predict that the greatest impact of technology within the next decade will come in the following major areas -- advanced engineered materials, biotechnology, information systems, computer integrated manufacturing, automation systems, and electronic and electro-optical materials and systems.

Admittedly, this list is certainly not all encompassing, but it serves to highlight some of the principal areas of technology development.

## CAPITAL FORMATION OPPORTUNITIES FOR CONNECTICUT

As a Connecticut resident, I am vitally interested in our state's potential to capitalize on emerging technologies. I personally believe that Connecticut is well positioned to take advantage of its unique attributes and will continue to grow in the High-Tech Economy. Connecticut's geographic location and excellent living environment should continue to attract the talent that can make things happen through these emerging technologies.

This is confirmed by data received from the Connecticut Department of Economic Development, which clearly indicates the progressive trend of Connecticut in the High-Tech area.<sup>1</sup> Further, the state's MANPOWER DEVELOPMENT AND PLANNING REPORT prepared in January 1987 places Connecticut second in technology employment, with 13 percent of its workers employed in high technology pursuits.<sup>2</sup> Significantly, Connecticut's high technology manufacturing employment comprises 3.8 percent of our nation's manufacturing high-tech employment, which is more than double the share of Connecticut's population and labor force. Since 1975, this represents a gain of 25.8 percent in high tech manufacturing while all manufacturing in Connecticut during that same period has gained 5.6 percent. This is certainly a clear indication of the move toward high tech in Connecticut.

A cursory analysis of the data provided by the MANPOWER DEVELOPMENT AND PLANNING REPORT, reveals that at least 7 percent of our high tech industrial manufacturing is associated in some way with materials of a nonmetals nature -- chemicals, plastics, engineered materials, etc. Probably the figure of 7 percent is low since many companies associated with metal forming have extensive operations with other materials as well.

Further analysis of the state's employment statistics reveals that over 7 percent of our manufacturing is in some way associated with medicinal and pharmaceutical drugs and medical instrumentation, indicating a possible base for future trends in bioengineering.

<sup>1</sup>Personal conversations with Eric C. Ott, Director of Conntac, Connecticut Department of Economic Development.

<sup>2</sup>MANPOWER DEVELOPMENT AND PLANNING REPORT, State of Connecticut, January 1987, Furnished by State Department of Economic Development.



Another 7 percent of our high-tech manufacturing industries are classified as communication or information systems. Additionally, Connecticut's computer service industry comprises nearly 2 percent of the national figure for employment in the high-tech services area, which when combined with our manufacturing content within the state, could provide a respectable base for further expansion in the growth area of information, data processing, and future computer systems. Admittedly, my estimate of about 10 percent might even be low, but this base itself should have considerable leverage in the growing information systems opportunities.

While the data is difficult to analyze for computer integrated manufacturing and automation, I would estimate that more than 10 percent of our high technology base could provide a springboard for these types of opportunities within the state, considering that many of the companies included in the other statistics would in some way be involved with Computer Integrated Manufacturing (CIM) and Automation Systems.

With regard to electronic and optical advanced materials, at least 10 percent of our high-tech manufacturing industries are in some way involved in those particular areas. I am sure that a large percentage of Connecticut companies will, in the near future, be involved in emerging trends such as the superconductivity developments that are attracting so much attention, as well as in promising developments in gallium arsenide and electro-optics.

CORPORATE TRENDS TOWARD EXTERNAL  
FUNDING OF RESEARCH AND DEVELOPMENT PROGRAMS

Traditionally, companies have relied on their internal research and development organizations to develop new technologies that could be applied to their new products or in the development of proprietary manufacturing processes.

While internal research and development programs will continue in most companies, certain changes are taking place within U.S. Corporate Infrastructures that will cause a re-examination of the traditional research and development strategies.

There are numerous factors that are affecting a corporation's research and development strategy. Some of these factors include: restructuring, leveraged buy-outs, acquisitions, mergers, as well as shifts in the priorities of research and development to business strategy. Many of these factors can have a significant effect upon a corporation's research and development program, either positively or negatively. I believe that three major trends will have a strong impact on many corporations' future research and development plans:

1. A trend toward the decentralization of research and development activities within companies.
2. Difficulties in attracting and holding technical talent associated with the more sophisticated emerging technologies.
3. A need for companies to dramatically shorten the long time cycle traditionally taken to develop products.

There is a major trend toward decentralization within companies, with an increasing emphasis on autonomous operating units with minimal corporate-type support functions. The traditionally centralized corporate research and development organization is being disbursed into operating divisions throughout many U.S. companies. The trend is gathering momentum, with the result that research and development personnel are becoming more closely associated with a business's marketing, manufacturing, and service organizations. Decentralization of research and development, while often beneficial for existing businesses, does not always provide the long-range environment or resources necessary for long-term programs. Also, smaller R&D organizations at a divisional level might not have the critical mass of technical resources needed to develop dramatically new emerging technologies. For example, a strictly mechanically oriented research and development activity simply does not have the resources needed to explore possible electronic concepts that might ultimately replace a company's mechanically oriented products. An operating unit contemplating more electronic R&D will either have to internally expand the resources for electronics or acquire those resources externally.

In my opinion, companies having decentralized research and development activities should consider external programs as a strategy for exploring new technology. This is especially important where the technology requires a critical mass that would not be available within the company. All too often, companies underestimate what is required to successfully bring a new technology to the level required for application to a company's products or processes. An external R&D sourcing strategy can be highly successful, especially if it leverages a company's technical capabilities. This can certainly be a more effective way to develop new technology rather than attempting to accomplish the development internally with insufficient resources.

Additionally, in today's complex and sophisticated world of technology, it is often difficult to attract the new technological expertise into our more traditional company R&D laboratories. With certain technologies, there can also be a considerable employment risk in the hiring of the technical expertise dedicated exclusively to the emerging technology. This embryonic technology may or may not have the potential for the company originally envisioned. Thus, the company may find itself in the position of having to re-assign specialists to other activities -- sometimes very difficult for technologists who have dedicated themselves to a particular field.

It is my experience that during the early stages of a developing technology it is more effective to utilize an external R&D source rather than hire highly specialized expert talent. If the technology proves feasible and there is a clear indication that such talent would be more beneficial within the company, then it can consider hiring that talent.

A third major factor occurring fairly universally is the need to shorten the total product development time. Industrial literature abounds with examples of how the traditional product life cycle curve is shortening. Furthermore, emerging technologies are having a strong impact on the shortening of these product life cycles. U.S. companies must reduce, by at least 50 percent, the time required to take a new product from inception to the marketplace. As a result, companies simply cannot take the time to develop the technical expertise, acquire the technical resources, and, most importantly, change the existing technical cultures. By finding external R&D sources with the necessary talent, resources, and culture, a company should be able to shortcut the development cycle, especially relative to what it would take internally.

The above are just three of the many reasons why corporate technical executives must explore new concepts such as external R&D programs as a means to leverage their company's strengths with the technical capabilities of nontraditional external means to bring emerging technology into a company's new products and manufacturing programs. This means that companies must broaden their capital formation horizons to encompass venture capital, R&D partnerships, consortiums or more effective university relationships, or expand the traditional route of R&D subcontracting.

#### TRENDS IN CAPITAL FORMATION FOR TECHNOLOGY

U.S. Business and Industry's technical leadership will depend upon the continuous development of "Next Generation" technologies. Implicit in this statement is the increasing need for sources of capital, not only to stimulate innovation through new technology but also to assure the application and successful implementation of that technology into new competitive products and proprietary manufacturing processes that will restore America's industrial competitiveness.

Within the capital formation infrastructure, certain trends are occurring in the links between technological innovation and the capital markets. Emhart is successfully making the transition from a so-called smokestack industry to a diversified company whose individual businesses are recognized as innovative leaders by their marketplace.

One trend is very noticeable: the capital formation initiatives that are beginning to develop at the state level. For example, the National Science Foundation Engineering Research Centers are successfully bringing together industries, universities, and the states in a cooperative effort. At every one of nine site visits that I recently attended in connection with my association with NSF's final selection committee, not only did I see a significant industry participation, but also a major commitment by the states involved with the University, namely; Pennsylvania through its Ben Franklin program; North Carolina with a direct commitment of money to a university-industrial consortium; Ohio, New York, Maryland, Massachusetts, Colorado, and California, all making significant matching commitments to federal programs in order to encourage the development of university-industry programs.

Of significance is the participation by industry in the National Science Foundation Engineering Research Center Programs, (ERCs). It is interesting to note that in the initial 11 centers that have been established throughout the United States, there are a total of 100 separate industrial company participants who help fund these centers.<sup>3</sup> While there are more than 100 individual companies participating in the 11 research centers, many of these companies are supporting several ERCs. Hence, if one counts the number of participants totally associated with the 11 ERCs, the number is closer to 189 for industry participation. More important, however, is that these industrial participants are funding programs to be conducted in state fund committed laboratories. These programs will ultimately foster entrepreneurs and new business opportunities, thus capitalizing on the new technology by helping launch new companies and product manufacturing opportunities for the sponsoring industrial members.

The State of Connecticut itself does indeed receive high marks by studies such as those conducted through publications such as INC. Connecticut also consistently receives high marks for having significant capital resources, strong official support for small businesses, and highly active small business investment companies. In fact, through my association with the State Department of Economic Development, I am often pleasantly surprised to see the many opportunities that do exist for entrepreneurs and small businesses within Connecticut. The statistics on venture capital disbursement by leading states placed Connecticut within the top ten. However, as a percentage of dollar amount invested in venture capital, California, Massachusetts, and Texas have a large share -- over 60 percent -- with Connecticut in the 2-3 percent range. A review of INC.'s data on ranking the states for encouraging a small business environment reveals that Connecticut is well above the national average on SBIC financing per 1000 population.

<sup>3</sup>Lewis G. Mayfield and Elias Schutzman, "Status Report on the NSF Engineering Research Centers Program," RESEARCH MANAGEMENT, pp.35-41, January-February 1987, Industrial Research Institute, Inc.

According to INC., Connecticut ranks among the top 10 states in capital resources; namely, the level of industrial and commercial lending, small business investment company (SBIC) activity, and four types of state-capital resources programs (Direct Loan, Loan Guarantee, Bond Guarantee and Venture Capital Funds).

Finally, there are other external means by which companies can take advantage of emerging technology. Increasingly, companies are discovering that new alternatives can provide them with new avenues to explore how to identify and implement the next generation technologies that can provide not only new market opportunities but proprietary manufacturing processes as well.

As current trends in venture capital financing indicate a decrease in funding "start-up" situations, we can expect that many of these fledgling companies will turn toward large corporation as a source of capital. Other possible strategic alliances include joint marketing and development such as Cullinet and Software Publishing Corporation. We are also witnessing the emergence of several industrial consortiums such as the fiber textile apparel consortium located in North Carolina. In the consortium, several companies in the fiber textile and apparel industries have formed a center, TC<sup>2</sup>, in which programs will be funded by the consortium leading toward developments aimed at bringing the apparel business back to the U.S.

Emhart is part of a seven-company glass container consortium, international partners in glass research, in which the glass container industry is funding research and development projects for the strengthening of glass containers as well as improving the overall efficiency of the glass bottle making industry. In personal discussions with Bruce Merrifield, Assistant Secretary of Commerce for Productivity, Technology and Innovation, I found him most informative and helpful in describing the potential of R&D Limited Partnerships (RDLP) and Industrial Research Consortiums.

In the area of RDLP, Merrifield cites the example of Cummins which used the RDLP to develop its new high-speed hybrid engine.<sup>4</sup> Through the Cummins-sponsored RDLP program, \$19.5 million was raised in 14 weeks from 221 limited partners to develop the engine.

According to Merrifield, Cummins chose the RDLP method of financing since the company wanted to continue its long-term research program but needed to avoid increasing debt or diluting equity to finance this research. By turning to a RDLP for this particular technical project, Cummins enlarged its research

<sup>4</sup>D. Bruce Merrifield, "R&D Limited Partnerships Are Starting to Bridge the Invention-Translation Gap," RESEARCH MANAGEMENT, pp. 9-12, May-June 1986, Industrial Research Institute, Inc

capacity, shifted the risk of research to the limited partners, and avoided a shift of the development to an overseas company that would have ultimately reduced Cummins' domestic work force. All of this was done without affecting its balance sheet. Estimates are that the return to the investor will be 28-33 percent.

Other examples cited by Merrifield are Prutech and Mesa Diagnostics, which through a pooled RDLP have raised \$80 million as of December 1984 and invested in 16 R&D projects with 15 companies. The limited partnership interests were subscribed for by 8000 limited partners. In this particular case, the general partner, R&D Funding Corporation, is a wholly-owned subsidiary of the Prudential Insurance Company of America.

Merrifield also pointed to Prutech's investment in Mesa Diagnostics in Los Alamos, New Mexico. Prutech is providing \$6.3 million of a total \$8 million package to fund the development of two medical diagnostic instruments, based on newly-discovered federally-funded technologies. The underlying technology for the project originated at the Los Alamos National Laboratory. MESA Diagnostics has contracted with the University of California and Department of Energy to continue the commercial development of the instruments. Prutech's investment in the project entitles the partnerships to eventually receive royalties and stock warrants. This deal highlights new efforts by the federal government to release federally-funded technology to the private sector for commercialization, specifically the Technology Act of 1986. This legislation will have a significant impact on government laboratory licensing of their technology and permission to conduct collaborative efforts such as is occurring through Prutech and MESA Diagnostics. This is certainly an avenue that deserves attention on the part of companies who might take advantage of federally-sponsored technology that heretofore could not be transferred to industry.

#### CONCLUSION

In this article I have presented some perspective on the need for new initiatives in the linking of capital markets to technology. Moreover, states are becoming more active as a means to help launch entrepreneurial companies. In this regard, Connecticut has a good high technology base, being well positioned in those emerging technology areas having the greatest potential for new products and processes.

In the past, legal barriers often prevented cooperative R&D efforts among organizations which today are operating in consortiums or in joint R&D ventures. Furthermore, today's climate for entrepreneurial endeavors has created new avenues by which company technical executives can bring "Next Generation" technology into their companies at reduced risk and in significantly less time. Both of these factors are critical in assuring that companies can indeed establish strong competitive positions through technology.

Of significance are the new initiatives in capital formation. Most importantly, technical managers today need to become aware of these new vehicles for technical funding. Technical managers need to increase their awareness of the critical changes that are taking place in the financial markets. The new product future of their companies will be greatly enhanced through the financial prowess of their technical management.

THE IMPACT OF THE TAX REFORM ACT OF 1986  
ON THE MUNICIPAL BOND MARKET\*

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With the 1986 Tax Bill finally in print (all 1,800 pages of it) some of the details emerging are interesting and significant for the municipal market. But with each passing day the reality of its impact on the market appears to be moving towards this: The impact is greatest on the issuers of municipal bonds rather than on the investors of municipal bonds. Moreover, individual investors will be affected less than institutional investors. Clearly, with the lower proposed tax rate, the after tax yield on government and corporate bonds will be greater, but still will lag behind the yields available for municipals.

Also, the dreaded alternative minimum tax (AMT) on municipals appears to be a paper tiger. Its applicability is very narrow and its trigger point very high. Let's look more closely at both of those items: taxable vs. tax-exempt yields and the AMT.

The much heralded move to only two income tax rates - 15% and 28% is really an oversimplification. First, there will be four rates in 1988, 15%, 28%, 33% and again 28%. The 33% rate is the so-called marginal tax rate on taxable income above \$71,900 (joint return). This produces an effective tax rate on total income of 28%. Also, with income amounts over and under the 15% and 28% breakpoints taxed on a melded basis, there are really twenty-eight different rates, from 0% to 28%. Second, the top rate of 28% doesn't go into effect until 1988 - in 1987, the top rate is 38.5%. Additionally, the 1987 rate will not go into effect until April 1st whereas the new rules on itemized deductions will begin January 1, 1987 (with some provisions phased in over several years). This results in an effective rate exceeding 40% in 1987, which doesn't include the add on of state and local taxes.

Before turning to the AMT, a final observation on the new tax rates. With a lower federal tax rate, the state tax becomes more important because less of it is deductible. Therefore, the absolute decline in tax rates is not a direct one and the penalty for buying out of state municipals will be proportionately higher. In New York and Rhode Island, the penalty for buying out of state municipals will now be a 7.2% effective rate instead of 5%. That's a 44% increase in tax liability. In Connecticut, the 44% increase is based on the top federal tax liability of 28% - if the federal rate is lower, the penalty for buying out of state municipals is even higher.

AMT or alternative minimum tax is a new concern for individual investors of municipal bonds. Under the Tax Bill, interest income on new issue private-

\*The views expressed herein do not necessarily represent the official policies or endorsement of the Department of Banking.



(Tax Bill)

activity bonds sold after August 7, 1986 will be treated as a preference item and subject to an alternative minimum tax. Private activity bonds currently available in the secondary market that were originally offered as new issues prior to August 8, 1986 may continue to be purchased without the AMT consideration. However, the exempted amount of income allowed from preference items subject to the AMT is very high, and therefore, it's likely that few individuals who own private-activity bonds subject to the AMT would pay the tax anyway.

First, a point worth emphasizing again. Only new issue private-activity bonds sold after August 7, 1986 would be subject to the AMT. In other words, your current portfolio of municipals can contain an infinite amount of private activity bonds which will never be subject to the AMT so long as they were originally offered as new issues prior to August 8, 1986. As for the "exemption amount", and this is the paper tiger aspect of the AMT; an individual with an adjusted income of \$150,000 or less (assuming he had no other preference item tax liabilities) could have up to \$40,000 in interest income annually from private-activity bonds subject to the AMT and still not have any tax liability under the AMT. That's a portfolio of \$500,000 with an 8% return - and, of course, that \$500,000 would have been purchased since August 7, 1986.

Naturally, if an individual has substantial preference tax items in other areas - oil and gas shelters, mining exploration costs, intangible drilling costs and accelerated depreciation on personal property (to name a few), that \$40,000 exemption could be used up. However, most investors do not have those shelters and thus the \$40,000 exemption, or at least most of it, would be significant.

What type of tax-exempt bonds fall into the private-activity category? The most familiar categories are multi and single family housing, IDRs, airports, docks and wharves and solid waste. That leaves everything else fully exempt from the AMT. That group, which perhaps makes up 75%-80% of the municipal new issue market includes all general obligations (GOs), public powers, hospitals and higher education, water and sewer, sales tax bonds and ports. Finally, if the non-AMT bonds are not plentiful enough in 1987 to satisfy an investor's requirements, there's good news. Before placing the AMT tax on private-activity bonds, the Congress provided in the Tax Bill transitional relief for over \$25 billion of municipals which otherwise would have either been taxable or subject to the AMT. Therefore, individual investors may purchase those transitional bonds in late 1986 or beyond and be fully free from any taxability.

In summary, while the tax bill creates many rules for issuers, it creates far fewer rules for individual investors. Under the new tax code, the incentive to buy municipals will remain high and their tax-exemption will, with only a modest effort, remain fully intact.

(Tax Bill)

### INVESTING IN MUNICIPALS: POST TAX BILL STRATEGIES

On October 22, 1986 the President signed into law the Tax Reform Act of 1986. The areas relevant to the municipal bond market and the investor appear, on balance, to be quite manageable. In fact, we believe that investment opportunities are present in the post tax reform environment if various strategies are kept in mind. Here's a variety that may be key to successful portfolio management of your current and future municipal holdings.

1) Analyze your own portfolio - Under the new tax code, municipals are classified in two broad categories - Governmental Activity Bonds (GABs) (formerly known as GOs and other traditional revenue bonds) and Private Activity Bonds (PABs) (formerly various revenue issues in the areas of housing, industrial development, student loan, solid waste and other categories). From a tax standpoint, if all of your holdings were purchased prior to August 8th, the bonds' status as GABs or PABs is not significant - all your holdings are fully tax-free and the PABs will not be subject to the AMT (alternative minimum tax). The value, however, of tracking your holdings in the fashion described above is to be aware of possible differences in secondary market value if you part with some of your holdings prior to their maturity date. "Seasoned" PABs will have greater intrinsic secondary market value than "new" PABs sold as new issues since August 8, 1986. Secondary GABs vs. new issue GABs will not trade with any intrinsic differences. You should also separate out new issue PABs (sold after August 7, 1986) from your "seasoned" PABs as those new issue PABs will be subject to the AMT (while very few individuals will pay a tax on PABs subject to the AMT, it's important to keep track of that category of bonds).

2) Understanding the Secondary Market - Over time, the secondary market will be dotted with more and more PABs subject to the AMT. For now, most PABs in the secondary market are "seasoned" (issued before August 8th) and therefore may be bought without an AMT liability and have equal intrinsic value to GABs from a tax standpoint. That's important to understand if portfolio diversity is an objective. Also, if the AMT is not a problem for you, new issue PABs subject to the AMT should be bought aggressively if they appear cheaper to the non-AMT PAB market. For bank portfolios, "designated as qualified issues" will also be available in the secondary market and should be purchased at higher price levels due to the tax advantages of owning such bonds. The new code does allow 80% deductibility of interest paid to carry "designated as qualified" issues purchased in the secondary market.

3) Understanding the New Issue Market - The new issue market will consist of either GABs or PABs. The GABs will be fully tax-free to individuals without limit. Perhaps 20%-30% of the market will consist of PABs that are subject to the AMT. Again, these should be bought - if cheap to the market and if you believe that their AMT liability will not be a problem. GABs in the new issue

(Tax Bill)

market should be considered for investment with the same criteria as before the Tax Bill went into effect. A third group of bonds that will be offered in the new issue market are PABs without an AMT liability. These so-called "transitional" issues number about \$25 billion and will carry the same tax status as GABs. They will likely be lower yielding than AMT PABs with returns similar to secondary market non-AMT PABs. "Designated as qualified" issues will sprinkle the new issue market and perhaps increase as issuers discover the interest cost advantages of selling such bonds. A final comment on the new issue market - PABs are volume capped and therefore there should be some protection for the investor from diminished value due to large volumes of such bonds.

4) In-State vs. Out-of-State Bonds - With lower federal tax levels, awareness of in-state vs. out-of-state bonds is more important. Essentially, the lower your tax liability, the more effective it is to buy in-state municipals than out-of-state municipals. For example, if your federal tax liability is 20%, only 20% of the state tax liability on out-of-State bonds is deductible from your federal returns. With the top rate dropping from 50% to 28%, the advantage in buying municipals will increase (in-state municipals are not subject to state income tax). Each investment decision will vary depending on the maturity and rate selected but the after tax yield of out-of-state municipals should be compared to in-state before the former is purchased.

5) Yield Spreads - With the new tax code in place, the municipal market will be somewhat smaller than 1985 or 1986 and the ratio of GABs to PABs will differ from past years as GABs will dominate more than ever before. In 1985, the new issue volume was over \$200 billion, in 1986 it will likely approach \$135 billion but in 1987 it may be closer to \$100 to \$120 billion. With a smaller new issue market and anticipated strong retail demand, yield spreads may narrow between Aaa and Baa issues. Among GABs, the attractiveness of that category without AMT concerns may result in narrowing yield spreads. PABS with AMT liability may be more sloppy for a time until underwriters determine retail interest and potential volume levels. A broader spread between lower rated PABs and higher rated PABs than would be found among GABs of a similar rating spread should make the lower rated PABs attractive. Conversely, a narrow yield spread between GABs of a broad rating difference should make the higher rated GABs attractive. For secondary issues, non-AMT PABs will likely trade in a narrow range due to their lack of AMT liability.

6) Discount Bonds and Capital Gains - If you contemplate taking capital gains in 1987 from your municipal holdings, take them in 1986. The new capital gains rate in 1987 will be 28% rather than the current 20%. That 8% difference is a 40% increase in your capital gains tax liability. Therefore, action in 1986 should be strongly considered. We are not, however, referring just to municipals with longer maturities (1995-2025) but to those maturing in 1987 or 1988. In January of 1982, \$100,000 New York State 6.30s of 10/15/87 were offered at an 11.50% yield with a dollar price 79. If sold in December of this year, assuming interest rates are the same then as they are now, the bid would be 101.

(Tax Bill)

Therefore, a twenty-two point capital gain or \$22,000 would have a \$4,400 capital gains tax liability. This compares to a twenty-one point capital gain or \$21,000 if held to maturity in 1987. But in 1987, the capital gains liability would be \$5,880 or \$1,480 greater. Unless you're quite sure that you'll have significant losses in 1987 that are not available this year (which can offset the gain in 1987), capital gains should be taken this year.

7) Insured Bonds - With the smaller market anticipated in 1987, insured bonds may not be as prevalent in the new issue market. This may result in an insured new issue market representing perhaps 15% of the total rather than the 1985 peak figure of 25%. A reduction will likely occur for two reasons. First, a smaller market will create stronger technical conditions and as a result, decrease the yield spread between higher rated and lower rated bonds. This will create stiffer bidding for new issues by underwriters and make such bonds more difficult to insure unless premiums are lowered significantly. Second, the percentage of new issue GABS will go up as new issue PABS go down. This will mean more competitively offered issues and fewer negotiated loans. As negotiated loans are insured in greater numbers, total insured volume will decrease. Because of the greater competition, the credit quality of the four major insurers will be important to monitor. If premiums are reduced, greater capital adequacy will be required.

8) Understanding the AMT - If the AMT is fully understood by individuals, AMT PABS can be bought in many cases without a liability and with a resulting yield advantage. The details are these. Under the tax bill, interest income on new issue PABS sold after August 7, 1986 will be treated as a preference item and be subject to an alternative minimum tax. PABS currently available in the secondary market that were originally offered as new issues prior to August 8, 1986 may continue to be purchased without the AMT consideration. However, the exempted amount of income allowed from preference items subject to the AMT is very high, and therefore, it's likely that few individuals who own PABS subject to the AMT would pay the tax anyway.

9) Effective Return - The ultimate investment criteria must, of course, be effective return. Investors may wonder how attractive municipals are at a top rate of 28%. Nevertheless, as our chart indicates in last month's report, the municipal advantage is found in virtually every tax rate - from 15% to 28%, from short maturities to long. Investing in municipals under the new tax code will require the same comparative yield determination as in years past. Surprisingly, however, with municipal yields closer than ever to taxables, the appropriateness of investing in municipals is effective for a large array of individuals. 1987 may see a widening of spreads and therefore during this period of some confusion, buying opportunities may exist.

# TAX EXEMPT VS TAXABLE YIELDS

## 1987 TAX RATE SCHEDULE—FEDERAL AND CONNECTICUT COMBINED LIABILITY (JOINT RETURN)

TAXABLE INCOME:	\$30,000	\$40,000	\$50,000	\$60,000	\$70,000	\$80,000	\$90,000	\$100,000	\$125,000	\$150,000	\$250,000
CT. TAX RATE*:	0%	0%	0%	2%	5%	7%	11%	12%	12%	12%	12%
COMBINED CT. & FEDERAL EFFECTIVE TAX RATE**	15.5%	18.6%	21.2%	25.0%	28.8%	31.5%	35.2%	36.9%	38.7%	39.9%	42.3%
TAX EXEMPT YIELD	EQUIVALENT TAXABLE YIELD(%)***										
3.25%	3.84	4.00	4.13	4.33	4.56	4.74	5.01	5.15	5.30	5.40	5.63
3.50	4.13	4.31	4.45	4.66	4.91	5.10	5.40	5.54	5.70	5.82	6.06
3.75	4.43	4.61	4.78	5.00	5.26	5.47	5.78	5.94	6.11	6.23	6.49
4.00	4.72	4.92	5.08	5.33	5.61	5.83	6.17	6.33	6.52	6.65	6.93
4.25	5.02	5.23	5.40	5.66	5.96	6.20	6.55	6.73	6.93	7.07	7.36
4.50	5.31	5.54	5.71	6.00	6.32	6.58	6.94	7.13	7.34	7.48	7.79
4.75	5.61	5.84	6.03	6.33	6.67	6.93	7.33	7.52	7.74	7.90	8.23
5.00	5.90	6.15	6.35	6.66	7.02	7.29	7.71	7.92	8.15	8.31	8.66
5.25	6.20	6.46	6.67	7.00	7.37	7.66	8.10	8.32	8.56	8.73	9.09
5.50	6.49	6.77	6.99	7.33	7.72	8.02	8.48	8.71	8.97	9.15	9.53
5.75	6.79	7.07	7.30	7.66	8.07	8.39	8.87	9.11	9.38	9.56	9.96
6.00	7.08	7.38	7.62	8.00	8.42	8.75	9.25	9.50	9.78	9.98	10.39
6.25	7.38	7.69	7.94	8.33	8.77	9.12	9.64	9.90	10.19	10.39	10.83
6.50	7.67	8.00	8.26	8.66	9.12	9.48	10.03	10.30	10.60	10.81	11.26
6.75	7.97	8.30	8.57	9.00	9.48	9.85	10.41	10.69	11.01	11.23	11.69
7.00	8.26	8.61	8.89	9.33	9.83	10.21	10.80	11.09	11.41	11.64	12.13
7.25	8.56	8.92	9.21	9.66	10.18	10.58	11.18	11.48	11.82	12.06	12.56
7.50	8.85	9.23	9.53	10.00	10.53	10.94	11.57	11.88	12.23	12.47	12.99
7.75	9.15	9.53	9.84	10.33	10.88	11.31	11.95	12.28	12.64	12.89	13.43
8.00	9.44	9.84	10.16	10.66	11.23	11.67	12.34	12.67	13.05	13.31	13.86

\* Connecticut Residents are subject to the Capital Gains, Dividends and Interest Tax when their adjusted gross income is \$54,000 or more.

\*\* We have combined the Connecticut Tax Rate and Federal Tax Rate based on taxable income. Individuals taxable income may vary from their adjusted gross income. The equivalent taxable yield shown may underestimate the basis point spread in that the Connecticut tax is based on AGI rather than taxable income.

\*\*\* The Equivalent Taxable Yield is not applicable to U.S. Government Bonds in that such securities are not subject to state taxation. All other investments (i.e., corporate bonds, money market accounts, savings accounts) are subject to state taxation.

## 1988 TAX RATE SCHEDULE—FEDERAL AND CONNECTICUT LIABILITY (JOINT RETURN)

TAXABLE INCOME:	\$30,000	\$40,000	\$50,000	\$60,000	\$70,000	\$80,000	\$90,000	\$100,000	\$125,000	\$150,000+
CT. TAX RATE*:	0%	0%	0%	2%	5%	7%	11%	12%	12%	12%
COMBINED CT. & FEDERAL EFFECTIVE TAX RATE**	15.1%	18.3%	20.3%	23.1%	26.3%	29.0%	32.9%	34.4%	35.7%	36.6%
TAX EXEMPT YIELD	EQUIVALENT TAXABLE YIELD(%)***									
3.25%	3.83	3.99	4.08	4.22	4.40	4.57	4.84	4.95	5.05	5.12
3.50	4.12	4.28	4.39	4.55	4.74	4.92	5.21	5.33	5.44	5.52
3.75	4.42	4.59	4.71	4.87	5.08	5.28	5.58	5.71	5.83	5.91
4.00	4.71	4.90	5.02	5.20	5.42	5.63	5.96	6.09	6.22	6.30
4.25	5.00	5.20	5.33	5.52	5.76	5.98	6.33	6.47	6.60	6.70
4.50	5.30	5.51	5.65	5.85	6.10	6.33	6.70	6.85	6.99	7.09
4.75	5.60	5.81	5.96	6.17	6.44	6.69	7.07	7.24	7.38	7.49
5.00	5.90	6.12	6.28	6.50	6.78	7.04	7.45	7.62	7.77	7.88
5.25	6.18	6.43	6.59	6.82	7.12	7.39	7.82	8.00	8.16	8.28
5.50	6.48	6.73	6.90	7.15	7.46	7.74	8.19	8.38	8.55	8.67
5.75	6.77	7.04	7.22	7.47	7.80	8.09	8.56	8.76	8.94	9.06
6.00	7.07	7.34	7.53	7.80	8.14	8.45	8.94	9.14	9.33	9.46
6.25	7.36	7.65	7.84	8.12	8.48	8.80	9.31	9.52	9.72	9.85
6.50	7.66	7.96	8.16	8.45	8.81	9.15	9.68	9.90	10.10	10.25
6.75	7.95	8.26	8.47	8.77	9.15	9.50	10.05	10.28	10.49	10.64
7.00	8.25	8.57	8.79	9.10	9.49	9.85	10.43	10.67	10.88	11.04
7.25	8.54	8.87	9.10	9.42	9.83	10.21	10.80	11.05	11.27	11.43
7.50	8.83	9.18	9.41	9.75	10.17	10.56	11.17	11.43	11.66	11.82
7.75	9.13	9.49	9.73	10.07	10.51	10.91	11.54	11.81	12.05	12.22
8.00	9.42	9.79	10.04	10.40	10.85	11.26	11.92	12.19	12.44	12.61

\* This 1988 Table assumes the same State Tax Rate as 1987. If Connecticut Tax Rates are lowered, our tables will be adjusted accordingly.

\*\* We have combined the Connecticut Tax Rate and Federal Tax Rate based on taxable income. Individuals taxable income may vary from their adjusted gross income. The equivalent taxable yield shown may underestimate the basis point spread in that the Connecticut tax is based on AGI rather than taxable income.

\*\*\* The Equivalent Taxable Yield is not applicable to U.S. Government Bonds in that such securities are not subject to state taxation. All other investments (i.e., corporate bonds, money market accounts, savings accounts) are subject to state taxation.

ENFORCEMENT

ADMINISTRATIVE ORDERS

Caucus Distributors, Inc. etc.

On January 12, 1987, Commissioner Brown ordered Caucus Distributors, Inc. of New York, N.Y. and its Representatives ("CDI") to Cease and Desist from offering and selling unregistered securities, employing unregistered agents and engaging in fraudulent conduct in connection with the purchase and sale of securities. At least four other states including Alaska, Maryland, Indiana and Illinois have reached a similar conclusion.

First Wilshire Securities Management, Inc.

Robert Chapman, a/k/a Robert John Chapman and Robert J. Chapman, Bruce Joell

On February 2, 1987, Commissioner Brown issued a Cease and Desist Order against First Wilshire Securities Management, Inc. of Los Angeles, California, its president, Bruce Joell, and Robert Chapman, a company representative. First Wilshire was not effectively registered as a broker-dealer in Connecticut from October 1982 through June 1984 during which period it sold and purchased securities for one or more Connecticut client.

WILLIAM M. DIERAUER

Commissioner Brown gave notice to William M. Dierauer of Plymouth, Massachusetts of the Department's intent to revoke his registration as a broker-dealer agent in Connecticut based on complaints that he engaged in dishonest and unethical practices in securities dealings with three Connecticut residents. Allegedly, Mr. Dierauer knowingly and without client authorization, listed his personal address on newly-opened securities accounts causing statements associated with the accounts to be sent to his residence rather than to the customer. In addition, margin agreements, purportedly bearing the signatures of certain customers were, in fact, not signed by the customers. An administrative hearing has been scheduled.

Federal Music and Video Club, Inc./ Sheppard Gorenkoff, President

On June 23, 1987, Commissioner Brown, through the Securities and Business Investments Division of the Department of Banking, ordered Federal Music and Video Club, Inc. and its president Sheppard Gorenkoff of Juno Beach, Florida, to Cease and Desist from offering and selling business opportunities in the State of Connecticut.

ADMINISTRATIVE ORDERS (CONTINUED)

Based on the division's investigation, it was alleged that the Respondents, their officers, agents and employees offered and sold business opportunities to Connecticut residents. It was further alleged that the Respondents violated the anti-fraud provisions of the Connecticut Business Opportunity Investment Act because they failed to provide purchaser-investors with statements of the financial condition for Federal Music and Video Club, Inc. and other Respondents; failed to provide a description of risk factors relating to the business opportunity and to disclose that the business opportunity was unregistered; and failed to inform purchaser-investors of adverse orders, judgments, decrees and pending litigation in other jurisdictions.

## ADMINISTRATIVE ACTIONS

### STIPULATION AGREEMENT/JOSEPH BIAFORE, JR.

On April 23, 1987 Commissioner Brown entered into a Stipulation Agreement with Joseph Biafore, Jr., a member of the Connecticut Bar.

Under the terms of the Agreement, Mr. Biafore forfeited his privilege to practice and represent clients before the Department of Banking for a period of one year from the date of execution of the Agreement. As a result of an investigation conducted by the Securities and Business Investments Division of the Department of Banking, it was found that Mr. Biafore violated the state securities laws by selling securities which were neither registered nor exempt from registration. A copy of the Stipulation Agreement was forwarded to the Office of the Attorney General and the Connecticut Bar Association.

### STIPULATION AGREEMENT

#### JOHN H. DAWSON/JOHN DAWSON ASSOCIATES

Commissioner Brown has levied administrative sanctions against securities firms and professionals in three states for violating provisions of the Connecticut Uniform Securities Act.

The Department of Banking entered into a stipulation agreement with John H. Dawson, president of Chicago-based John Dawson Associates, (JDA), as a result of allegations raised by the Securities and Business Investments Division following an investigation into JDA activities. The investigation revealed that JDA not only failed to register with the Department as a broker-dealer from January 1985 to August 1986 while engaging in securities transactions in Connecticut, but that it also employed unregistered agents to serve as company representatives.

Without admitting or denying the allegations, JDA consented to stipulations providing for a letter of censure, requiring JDA to review and modify its compliance manual to detect and prevent further violations; and for payment of a \$3,402 administrative fine. The settlement agreement was executed on January 30, 1987 and since that date, JDA has complied with these conditions and has been registered to operate as a broker-dealer in Connecticut.



ADMINISTRATIVE ACTIONS (CONTINUED)

Offer of Rescission/American Diversified/  
Gateway Center, a California Limited Partnership

At the request of Commissioner Brown, American Diversified/Gateway Center, (ADGC), a California Limited Partnership which is an affiliate of American Diversified Saving Banking, (ADSB), a California Savings and Loan Association, has made a rescission offering in the amount of \$310,035.07 to fifteen (15), Connecticut investors.

On February 14, 1986, the Federal Home Loan Bank Board appointed the Federal Savings and Loan Insurance Corporation, (FSLIC), as sole conservator of ADSB. The grounds for the conservatorship were that: (1) ADSB was insolvent; (2) that the bank had incurred substantial dissipation of assets and earnings due to violations of law, and due to unsafe and unsound practices and (3) the bank was in an unsafe and unsound condition to transact business.

Consequently, the FSLIC designated new management to operate ADSB and its affiliates including the general partner of the Partnership. The management of the Limited Partnership determined that possible violations of state and federal securities law may have occurred in connection with the original offering by the Partnership. Accordingly, restitution was made to all Connecticut investors.

R. A. JOHNSON & COMPANY, INC.

On March 30, 1987, Commissioner Brown entered into a Stipulation Agreement with R. A. Johnson & Company, Inc. of Salt Lake City, Utah. The Securities and Business Investments Division alleged that between the period commencing August 1985 and continuing through May 1986, the firm effected certain securities transactions when it was not registered as a broker-dealer in Connecticut. It was further alleged that the firm employed unregistered agents. Under the terms of the Stipulation Agreement, the firm undertook to offer rescission to its Connecticut clients, to be censured, to review and modify its compliance manual and pay a fine in the amount of \$1,000.

FIRST GEORGETOWN SECURITIES, INC.

On March 16, 1987, Commissioner Brown entered into a Stipulation Agreement with First Georgetown Securities, Inc. of Washington, D.C. The Securities and Business Investments Division alleged that the firm conducted securities business from January 1985 through August 1986 during a time when it was not registered as a broker-dealer in Connecticut. It was also found that the firm employed unregistered agents. Under the terms of the Stipulation Agreement, the firm was censured, required to review and modify its compliance manual and pay a fine in the amount of \$500.

ADMINISTRATIVE ACTIONS (CONTINUED)

FIRST MERIDIAN PLANNING CORP.

On February 27, 1987, Commissioner Brown revoked the investment adviser registration of First Meridian Planning Corp. of Albany, New York. The firm was incorporated in the State of New York and registered as an investment adviser in Connecticut in September 1984. On November 5, 1986, the Supreme Court of New York temporarily enjoined the firm and its officers from engaging in any business relating to the purchase and sale of securities within and from the State of New York. It was concluded that the injunction issued against the respondents in New York provided a basis for a revocation of the respondent's registration in Connecticut. This is the first financial planning firm that has been the subject of administrative action by this agency. The Commissioner is closely monitoring and policing the Financial Planning Industry so as to insure that those financial planners who are providing investment advisory services are in full compliance with statutory registration and financial responsibility requirements.

First Meridian and its officers, Rogers V. Sala, president, and John W. Donovan, vice president, were also the subject of a cease and desist order issued in December 1986 following an investigation into the firm's activities by the Securities and Business Investments Division. It was alleged that First Meridian offered and sold unregistered securities and employed certain personnel who were not registered as investment adviser agents. In addition, the firm and its employees provided investors with untrue or misleading information pertaining to their investments. The cease and desist order was subsequently made permanent as to respondents First Meridian and Sala. Commissioner Brown issued a consent order with respect to respondent Donovan pursuant to which Donovan agreed to abide by the terms of the cease and desist order.

Banking Department records indicate that First Meridian allegedly had a total of 950 clients from New York, New Hampshire, Massachusetts and Connecticut who were induced to invest more than \$55 million. As part of its financial planning advice, the company would recommend that clients invest primarily in three products -- condominiums, numismatic coins and art, and would then make arrangements for the purchase.

First Meridian's investment advisory board failed to provide objective analysis and concealed from clients their lack of qualifications to provide investment advice. Sala, for example, was convicted in 1978 of a felony involving illegal gambling operations -- a fact First Meridian failed to note when applying for an investment adviser registration in Connecticut in 1984. New York authorities also questioned the company's projections for profits in its Florida condominium investments portfolio without pointing out to investors the depressed Florida condominium market.

In Connecticut, at least 80 residents invested more than \$4 million in Florida condominiums, \$1.6 million in coins and half a million in works of art.

## CIVIL REFERRALS

### KENNEDY INTERVEST FUND

On April 14, 1987 Commissioner Brown requested Attorney General Joseph Lieberman to seek a full accounting of investor funds placed under the management of Lyle H. Kennedy of Groton, CT, the general partner of Kennedy Interinvest Public Fund ("KIFL"), a limited partnership.

### Herbert M. Kirschner/HMK Management Corporation Shearson Lehman Brothers, Inc.

On July 10, 1987 Commissioner Brown requested Attorney General Lieberman to intervene in an action that has been filed in the United States District Court, Bridgeport, (B-85-108 (TFGD)), by several investors who were allegedly defrauded by Herbert M. Kirschner, principal of HMK Management Corporation of Ridgefield, Connecticut. As a result of a prior investigation conducted by the staff of the Securities and Business Investments Division of the Department of Banking, Commissioner Brown concluded that Shearson failed to properly supervise its Greenwich branch office inasmuch as it permitted Mr. Kirschner, a customer of the firm, to use the firm's office equipment, including a desk, telephone and a quotron machine. The Commissioner stated that it was his position that because Shearson failed to properly implement supervisory procedures in its Greenwich branch office, Mr. Kirschner, during a two year period, was in a position to use Shearson's office facilities both as a means to induce members of the public to do business with him and also as a facility through which he could defraud members of the public who invested funds with him. In a related administrative hearing, it was established that Mr. Kirschner has defrauded investors of more than two million dollars, \$600,000 of which was taken from Connecticut residents.

Commissioner Brown specifically requested Attorney General Lieberman to bring to the attention of the court the relevant facts attending this case and to file an amicus brief with the court on behalf of this agency and to state as a matter of record his position concerning three principal issues, namely:

- (1) that Herbert Kirschner was an actual or apparent agent of Shearson as a consequence of Shearson permitting him to use its office equipment and facilities during the period from 1982-1984.

CIVIL REFERRALS (CONTINUED)

(2) that Shearson failed to discharge its affirmative duty to properly supervise its personnel and office facilities as mandated by Section 36-484(a)(2)(k) of the Connecticut Uniform Securities Act and by Section 36-500-15(a)(2)(H)(i)(mmmm) of the Regulations; and

(3) that Shearson should be held liable for the full amount of the losses incurred by Connecticut investors who invested with Herbert Kirschner.

CRIMINAL REFERRALS

HERBERT YOUNG

In June 1985 Commissioner Brown issued a Cease and Desist Order against Herbert C. Young of Trumbull, Connecticut for failure to register as a broker-dealer or agent and for offering and selling unregistered securities in the form of limited partnerships known as Vernon Court Venture Limited Partnership and the Medina Venture Limited Partnership. Neither investment was registered, nor exempt from registration, as is required under Connecticut's securities laws.

An investigation by the Securities and Business Investments Division of the Department of Banking determined that Mr. Young failed to provide investors with proper disclosure and specifically engaged in a practice of fraud and deceit by making untrue or misleading statements of material fact regarding the limited partnerships.

Subsequently, this matter was referred to the Chief State's Attorney's Office. On June 1, 1987, Mr. Young pleaded guilty in Bridgeport Superior Court to fourth degree larceny and was sentenced to six months in prison. The sentence would be suspended after thirty days and placed on one year probation. He was also ordered to make restitution to Connecticut investors in the amount of \$11,734.34.

CRIMINAL REFERRALS (CONTINUED)

✓ WILLIAM C. BATES

On May 7, 1986, Commissioner Brown requested Chief State's Attorney John Kelly to criminally prosecute William C. Bates of West Hartford. On February 6, 1987, Mr. Bates pleaded guilty to three counts of fraud in the sale of securities. In addition to being ordered to make full restitution to Connecticut residents of \$110,000, Superior Court Judge Herbert Barall placed Mr. Bates on probation for three years and ordered him to continue psychiatric therapy and to perform 1,000 hours of community service. The Court also required further alcohol and drug evaluation as a condition of Bates' probation. On the date of his sentencing, Mr. Bates deposited a certified bank check for \$25,000 as a first in a series of payments he is to make during the next eight years toward full restitution of investor funds that he embezzled while an agent for Lowry Financial Services Corporation of North Palm Beach, Florida. Mr. Bates misappropriated customer funds that he received in connection with the sale of certain limited partnership interests of Sturbridge Isle Limited Partnership, a Massachusetts venture that was engaged in the building and operating of an interstate travel center. It was found that Mr. Bates converted investor funds to his personal account rather than paying them to the general partner.

POLICY STATEMENT CONCERNING REQUESTS FOR  
ADVISORY INTERPRETATIONS AND NO-ACTION  
LETTERS UNDER THE CONNECTICUT UNIFORM SECURITIES ACT

Banking Commissioner Howard B. Brown has announced that, as of August 1, 1987, the Department of Banking will no longer issue advisory interpretations and no-action letters concerning self-executing exemptions under Section 36-490 of the Connecticut Uniform Securities Act unless the matter under consideration involves extremely complex or novel questions of law. For purposes of this policy statement, an exemption is self-executing when 1) it requires no filing other than the Consent to Service of Process mandated by Section 36-502(g) of the Connecticut General Statutes, and 2) no order or other formal action by the Commissioner is needed to trigger the exemption.

The foregoing position extends to questions regarding the scope of the definitions contained in Section 36-471 of the Connecticut General Statutes, and to exceptions from those definitions, other than exceptions triggered by an order of the Commissioner.

The Commissioner reminds persons relying upon an exemption afforded under 36-490 of the Connecticut General Statutes that, by statute, the burden of proving an exemption or an exception from a definition is placed upon the person claiming it.

## LEGISLATIVE DEVELOPMENTS

On June 19, 1987, the Governor signed into law P.A. 87-353 (An Act Concerning the Imposition of Civil Penalties for Violation of the Connecticut Business Opportunity Investment Act) and P.A. 87-375 (An Act Amending the Connecticut Uniform Securities Act). Each piece of legislation will become effective on October 1, 1987.

### Amendments to the Connecticut Business Opportunity Investment Act

P.A. 87-353 amends Section 36-515 of the Connecticut General Statutes to permit the Commissioner to impose a civil penalty not exceeding ten thousand dollars per violation on any person who has violated any provision of the Connecticut Business Opportunity Investment Act or any regulation, rule or order thereunder. A hearing must be held before any such penalty can be imposed.

P.A. 87-353 also permits the Commissioner to seek a court-ordered fine against any person found to have violated any order issued by the Commissioner. Previously, the Commissioner's ability to seek such judicial redress was limited to violations of administrative cease and desist orders. In addition, the amount of the fine which a court may impose for violations of an administrative order has been increased from one thousand dollars per violation to ten thousand dollars per violation.

### Amendments to the Connecticut Uniform Securities Act

P.A. 87-375 made various substantive and technical amendments to Chapter 662 of the Connecticut General Statutes, the Connecticut Uniform Securities Act.

Section 36-474(c) of the Connecticut General Statutes has been amended to prohibit an investment adviser from engaging an investment adviser agent unless the investment adviser agent is registered. The amendment adds that the registration of an investment adviser agent is not effective during any period when he is not associated with a particular investment adviser registered under the Connecticut Uniform Securities Act. The amendment also provides that both the investment adviser and investment adviser agent must promptly notify the Commissioner when the investment adviser agent begins or terminates a connection with the investment adviser. However, a party providing such notice is not liable for the other's failure to meet the notice requirement.

One of the more technical amendments concerned Section 36-479 of the Connecticut General Statutes. The amendment permits the Commissioner to waive the photograph requirement set forth in that section.

Section 36-484(a) of the Connecticut General Statutes has been amended to permit a cease and desist order issued by the Commissioner to constitute grounds for the denial, suspension or revocation of a broker-dealer, agent, investment adviser or investment adviser agent registration.

In addition, a new subsection has been added to Section 36-484 of the Connecticut General Statutes. The new provision would permit the Commissioner to deny an application for abandonment if the applicant fails to provide requested information on a timely basis. Denial of an application for abandonment, however, would not preclude the applicant from submitting a new application for registration.

P.A. 87-375 also amends Section 36-496 of the Connecticut General Statutes to allow the Commissioner to impose a civil penalty not exceeding ten thousand dollars per violation on any person who has violated any provision of the Connecticut Uniform Securities Act or any regulation, rule or order thereunder. A hearing must be held before any such penalty can be imposed.

In addition, P.A. 87-375 permits the Commissioner to seek a court-ordered fine against any person found to have violated any order issued by the Commissioner. Previously the Commissioner's ability to seek such judicial redress was limited to violations of administrative cease and desist orders. P.A. 87-375 also increases the amount of the fine which a court may impose for violation of an administrative order from one thousand dollars per violation to ten thousand dollars per violation.

Finally, Section 36-498 of the Connecticut General Statutes has been amended to provide a civil remedy against persons who violate subsection (a) of Section 36-473 of the Connecticut General Statutes and against investment advisers who violate subsections (b) and (c) of that section. If successful on the merits, recipients of investment advisory services may recover the consideration paid for those services as well as losses resulting from the investment advisory services, less any profits earned through transactions effected as a result of the advice rendered plus interest, costs and reasonable attorney's fees. Suit must be brought no more than two years after the contract for investment advisory services.



QUESTIONNAIRE/SURVEY

- (1) Do you find the Securities Bulletin useful?
- (2) What subject matter, if any, do you find particularly useful?
- (3) What subject matter do you wish to be addressed in future editions of the Securities Bulletin?
- (4) Should the Securities Bulletin be published more frequently or less frequently? Are you satisfied with the current schedule on which the Securities Bulletin is published?
- (5) What are the major problems that state and federal securities regulators will encounter in the foreseeable future?
- (6) What is your opinion concerning the existing level of state and federal securities regulation?
- More regulation needed? \_\_\_\_\_
- Less regulation needed? \_\_\_\_\_
- Satisfied with existing level of securities regulation? \_\_\_\_\_
- No opinion. \_\_\_\_\_
- (7) In what specific areas would you desire to see greater uniformity between state and federal securities regulation?
- (8) In what areas can state securities regulators most effectively utilize their resources?
- (9) Does this office effectively and promptly respond to your concerns? If not, please specify.
- (10) Do you think state securities regulators should assume a larger role in regulating tender offers? Agree \_\_\_\_\_ Disagree \_\_\_\_\_  
No Opinion \_\_\_\_\_

The foregoing questionnaire is designed to elicit pertinent information that will hopefully enable this office to better respond to your concerns. I thank you for completing this questionnaire and returning it to Ms. Louise Hanson, Department of Banking, Securities and Business Investments Division, 44 Capitol Avenue, Hartford, CT 06106.