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Interview with Dean LeBaron

Batterymarch

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Interviewer: Amy Blitz, HBS Director of Media Development for Entrepreneurial Management

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DEAN LEBARON

The Early Years

I moved around a lot as a small child because my father was in the army during World War II. My father, who was a country doctor, displayed a very entrepreneurial spirit. He was always buying and selling small airplanes and, much to my mother's distress, buying and selling houses, moving her from one to another. I remember quite clearly that he tried to develop an anti-nicotine cigarette. We had mullein, which is a weed, in the oven all the time. You had to make sure that if you were serving spinach you didn't serve this terrible, foul-tasting weed instead. Anyway, I had this entrepreneurial activity being promoted.

It was my father's goal, as a country doctor, that I have educational opportunities he didn't have. He and my mother worked very hard to see that I went to private schools and Harvard and so on. As a result, I had a real leap forward. I could apply the spirit they gave to me with the tools they provided to go on and do almost anything I wanted. The world was open to me. I was also part of a very small cohort of people with such opportunities, since the birthrate in the 1930s was low. That meant the whole group of us had great opportunities to succeed and do pretty much what we wanted, and I did.

There's something called a contrary attitude, which I've always had. Contrarian theory ignores the consensus, especially when the consensus is a big boom. When everyone else is rushing for the exit in a movie theater during a fire, contrarians sit in their seat and observe carefully which is the best way to get out, and the best way probably isn't to rush out with the crowd. The best way is to ignore the consensus and independently think of the remaining alternatives. Being contrarian tends to keep you from making mistakes while thinking about which alternatives are left over so that you can think of some ideas that really are unique, different, and right. You don't find many unique opportunities, but you may find one every five years or so, and when you do, it's usually a big idea.

One early example of being contrarian relates to something I did when I was in private school. Most private schools had rules, quite rightly, that students could not use automobiles on campus or while school was in session. I noticed that the rules didn't say anything about airplanes. So, to come and go from school, I would use an airplane. I had made arrangements with a farmer to use his field for flying in and out. The school had worked very hard to cover horse and buggies and automobiles, but they hadn't eliminated the airplane alternative. I suspect that the rules have been modified to be more inclusive now. All I was doing was trying to find a way to satisfy what I wanted, which was a convenient means of transportation that didn't violate the rules. I think that's what I've always done. It's not like I was breaking the rules. I look for ways that are acceptable, but different.

The HBS Experience

My first exposure to the Harvard Business School was as a recruiter, going there for Norton Company to hire HBS students to work in Norton's management training program. Norton manufactured abrasives. It was a very cyclical sort of business located in western Massachusetts. When I was hiring for Norton Company, I was impressed with the quality of the HBS students, their motivation, intelligence, and ability to work in almost any kind of environment. One day, while I

was at HBS, I went to the Admissions Office and said, "I'm from the Norton Placement Office. Wouldn't it be nice if I came here as a student?" Harvard was kind enough to accept me under those conditions. I had to defer my arrival a little bit. My acceptance at the Harvard Business School and the draft for the army came at the same time. One took precedence over the other.

Harvard Business School was a wonderful two-year opportunity. It gave me a chance to test my abilities against a highly select group of people who were also motivated to test their strategies against others. The case studies are really business simulations. You solve about three of them a day. The cases are the kinds of business simulations that most businesses find almost intractable, but that Harvard Business School students have no trouble whatsoever dealing with and solving within an hour and twenty minutes. I learned strategies for dealing with my peers. I learned how to behave with them, what kinds of data to draw on, and how to make decisions.

HBS has had a tremendous impact on my career. I have drawn on lessons many times, especially when it comes to making decisions fairly quickly. At Harvard Business School you learn how to make decisions much faster than most people in business. I tend to make decisions fairly quickly and move on to the next one. I tend to make decisions on the basis of fairly inadequate information, and I'm not troubled by that. Dick Vancil was an instructor at HBS; he was just starting out and later became one of the senior professors. He said to me, "Dean, in the investment business, many people make major decisions on the basis of inadequate information. They are dealing with huge amounts of money and with great responsibility and they are wrong at least 50 percent of the time. Most people do not expose their careers to such a system. I think you will succeed at it."

This was great advice. I do have those characteristics and I have succeeded. Before I went to Harvard Business School, I thought the one major problem that would remain a major problem and not be solved for fifty years was labor relations, and that I would have to do something about it. I intended to go into labor relations and the question was whether I did that through the Law School or through the Business School. The Law School looked like it would require more patience than I had and more attention to detail than I would like, so I went into the Business School. It was Dick Vancil who first indicated that I should do something else. Fortunately, he was right because labor relations has not been a major problem for fifty years. Prosperity has pushed labor relations issues off to the side.

Finding the Opportunity

After HBS, I started as a young analyst for a brokerage firm in Boston. I was there for about four years, mostly doing analysis on electronics companies, which meant mostly government companies. This was a time when there weren't too many analysts around. In fact, at the door over my office was a sign left over from earlier years that read

"Statistical Department." Most people then were doing yellow and green spreadsheets for forecasting income and dividends and so on. I liked the work. I was good at it.

From the brokerage firm, I went to work for one of the clients, a large mutual fund. I was director of research and ran the company's growth fund during the first heydays of growth funds. Growth funds

were doing very well, and the markets were performing at 50 percent per year. I was in the midst of that climate; it was exciting and rewarding in terms of remuneration. Then one day I thought to myself, "Wait a minute. This system is becoming self-fulfilling. A whole bunch of people are telling each other how bright they are, but nothing is happening underneath in terms of the investing strategies really being improved at this rate." I suggested to my company that they explore some alternative ways of investing by using some of the academic research and academic insights that were available then. No one else was doing this. Everybody was involved in the "star system" and luckily I was one of those stars. I decided that being a star was a relatively transient place, and that sooner or later I was going step in a pothole.

My idea about using the academic research, which was completely available, was a sort of contrary idea. All of the academics were suggesting different ways of managing money. I thought we should manage money the way the academics were suggesting and nobody else was doing that. The people who were doing it tended, for the most part, to be University of Chicago economists. They were saying that it was best not to manage portfolios in a highly concentrated way, but rather to invest in a broad sector of stocks in order to spread risk. Obviously, during a major bull market, no one cares about risk. They just want to make more money than the next person. But the academics were saying what really mattered was the portfolio analysis.

Launching Batterymarch

I started Batterymarch based upon using these precepts, saying, "Let's ground ourselves in solid academic research. For the price of a subscription to the *Journal of Finance*, we can have highquality research about how to manage money, which nobody else is using." Rather than concentrating on particular companies, Batterymarch concentrated on broad market sectors. We looked at the statistical characteristics of market sectors, their past correlations with each other, and whether or not their performance would persist. At the time, that was true because nobody thought it was true. Today, everybody thinks it's true, so it's probably not true. The situation is like a prophecy. The idea was right, but like most ideas that are right, they destroy themselves. It's like the Heisenberg Principle, where the act of examining something changes it. If we wanted to look for individual stocks, which some people did, we would look for them in places where no one else would look. Since the market was highly institutionalized back then, we would look at very small stocks.

In its earliest days, Batterymarch had a portfolio made up of companies with funny names such as Great Lakes Dredging and Dock. That just doesn't sound like a high- multiple stock. We would almost look for funny names because a small stock with a funny name and a good balance sheet with rising earnings was the kind of thing we could put together as an attractive package. Another package we would put together, which also illustrates this point about contrarian investment strategies, involved companies that were in the later stages of their investment cycle. We would put together a package of stocks that had all been identified as likely to go bankrupt. We wouldn't buy stock in any single company because it would be an embarrassment and clients would lose money. But the stocks were very cheap, so we would buy a package of stocks from 160 different companies. Out of the 160, enough would survive that the collection would be right.

This is an active strategy for making money, but it's a contrary strategy for buying. It's using a portfolio strategy to buy a collection of stocks, which are individually unattractive but in the aggregate are attractive. I remember one of the companies went into this kind of portfolio was Braniff Airlines. Braniff Airlines had to hide from Texas sheriffs because that's where it was going bankrupt, so the planes would fly into Logan. Braniff planes were funny colors, including an orange 747. I could look from my office window in Boston out across Boston Harbor, and all day long I would see the orange plane. It became a symbol of the companies included in this portfolio strategy, a reminder that I had better know what I was doing. There was another feature to this investment strategy. Even though it was the most successful strategy we had in terms of making money, it was a bad business strategy since 10 percent of Batterymarch clients left us. They were embarrassed by our strategy. They didn't like going into their boards and saying, "Our manager has bought us stock in companies that are going bankrupt."

At Batterymarch, we also did indexing, which was a little different. Some would say indexing was a response to clients who would come in and say, "I have \$500 million or more and I want to manage this in the most conventional way. I don't want to make a great deal of money and I surely don't want to lose a lot, but I would like to do a little bit better than everybody else. How can I do that?" I remember the first person who asked me to do this. He was Roger Murray, who was then head of College Retirement Equities Fund or CREF. He later became a professor of finance at Columbia. Roger was one of the grand old men of finance and what he really wanted me to say is that he should buy growth companies forever. What I said to him was, "Roger, what I would do is buy a collection of stocks, the index." Roger was horrified by this. He said, "What a dumb thing to do. Just buy everything good and bad?" I said, "Absolutely, because everything is priced by analysts. Analysts are making the decisions, so it's not as if we wouldn't be using decisions, it's just that we would be using the best decisions of everybody else. We're going to tap into the collective wisdom of the market. The only difference is that by indexing, the transaction costs will be very low or nil."

Roger was puzzled by this reasoning and it troubled him. For about two years, Roger and I would debate and, inadvertently, we laid out one of the best debate programs for financial conventions. Roger would debate in favor of active strategy and I would debate in favor of indexing. I remember that we got so bored with the discussion that we switched sides the last time we debated. Just to be interesting, I said, "Roger, you take my side, and I'll take yours." He said, "Boy, that's a great idea. I love that." At the end of the debate he said, "Hey, you know, I was pretty good." He was very fun. Anyway, if you're going to manage money based on the consensus of analysts, I still think indexing is how you can do it most efficiently and cheaply.

Funding the Company

Batterymarch started in the summer of 1969. It basically started because I was trying to convince the mutual fund firm that I was working for to pick up on the idea of using academic research. I failed. I flunked the salesmanship award. But I convinced myself. I don't remember whether or not anybody said to me, "Well, if you think it's such a good idea, why don't you do it?" Anyhow, I struck out on

my own. Two of my colleagues from the mutual fund came with me and there were two other people, so five of us started in a couple of tiny little rooms someplace.

We had no financing and no clients, but we had a new idea. This was a dumb set of ingredients for a new business. The phones didn't ring. We should have put a little more forethought into it. We really didn't know what we were going to do other than manage money according to our precepts. New precepts in the investment area tend to be employed during times of market disappointment. We started this company during a time of market exuberance. We probably went to market about five years too early. The first five years at Batterymarch were an intensive struggle. We managed to get some clients but it was very hard. For a while, we did research for a brokerage house and that paid the heat and light bills, but it was not a smashing success. I don't think we were ever profitable in those five years. Today, being unprofitable for so long is intolerable in terms of financing. You have to be able to start a business and be profitable right away.

We had no outside finance. We were internally financed, using our own savings and our ability to find people who could work without salary. We didn't eat an awful lot. We ran a very communist type of system. We would sit down together from time to time and say, "Susie, how much money do you need for the next three months to live?" And, "Harry, how much money do you need?" We would pay people according to their need rather than their job, and the purpose was to stretch the money to last, and it worked. The result was a very high sense of camaraderie. We were also a group of people who were extremely patient, waiting for a return. Most groups today would not be that patient.

About five years into Batterymarch, in 1974, the markets went down 50 percent. New clients were not coming in at all. In fact, old clients were leaving. Even if you could say, "Congratulations, the market went down 50 percent and you went down only 30 percent," you weren't generating a very high feeling of confidence in the stock market. My own response to the situation was to go off for the summer and write a book. I could have done two things: go into therapy or write a book. Writing a book was cheaper. In six weeks, I wrote a book on how I got the institutional ideas that I had and I used the book to test whether or not the ideas made sense. I concluded that my ideas did make sense. The book was published and I sold a few copies to my mother and some other people. The book is out there; you can still find it around. It wasn't a bad book, and it was a good exercise.

Around this time, the business turned. Lots of money started coming in. We had a very good fiveyear track record, so when the market bottomed and started coming back, Batterymarch was there with a five-year track record of handling large amounts of money, using computers and other novel approaches, and applying a new idea, which was contrary investing. People had done contrary investing, but I think they tended to be older-type investors who were hardened by experience and turned to contrary investing as a way of saying, "I've done things wrong for the last forty years, so this is what I should do." No one had done contrary investing since then and no one had done it on what is called a broad institutional scale. We made contrary investing institutionally acceptable. There was a contra-fund, which was very small at only \$75 million, and that was the only institutional contrary investing thing that I know of.

Computerizing the Firm

I'm a computer addict. If somebody will start the computer equivalent of Alcoholics Anonymous, I will sign up for my weekly meetings. That way, when I want to go check my e-mail, I can call somebody on the phone and they'll say, "No, no, don't worry. It'll still be there. Go off and ski." I need Computers Anonymous help.

At Batterymarch, everything was computerized. My original goal was to computerize all functions completely and to have Batterymarch operate as a factory. I was as bad then as I am now. I wanted an investment process that started with idea generation from screening-portfolio construction by covariance, and went to trading by machine, with no traders, to communications with bank custodians and clients. I wanted it all to be run by machine and to be a continuous process that could be observed at any given time by clients or anybody else. The role of people in the process would be to pull the plug at any given time and say, "I don't agree with what's happening. I'm going to change the algorithms." Batterymarch has operated with computerized transactions since long before it became common practice, and it's still not all that common.

Current discussions at the Harvard Business School and elsewhere are on the economics of increasing returns. Scalability is the other term that is used by statisticians. We didn't know these terms in the early days of Batterymarch, but we operated as if we did. The machines we used were tireless. They worked twenty-four hours a day, seven days a week, subject to about two hours downtime per day for maintenance. For all practical purposes, the machines were infinitely scalable. As a result, we could manage \$15 billion with the same general human resources that we would have needed to manage just \$1 or \$2 billion. The upside was tremendous. We also priced our services in a highly scalable form, since the extra cost of managing larger sums was almost zero because our costs were almost zero.

Because of the computers, Batterymarch had different cost-and revenue parameters than other firms, which provided benefits to our business.

I remember one time in the mid-1980s, when I was asked to set up computers to trade out of Switzerland. I set the computers up in a hotel room as a demonstration. The world's security commissioners were meeting in the hotel and two other large hotels. In all probability, we were violating security laws because our computers were loaded with money, and they could automatically buy stocks for clients without human intervention. The machines were on for twentyone hours a day. They'd start trading in Tokyo and cycle to Frankfurt, Paris, London, New York, and San Francisco for after-hours stuff. Then they would cycle on to Australia and so on. The computers were demonstrating continuous buying and selling. The security commissioners would come into this hotel room, watch the machine, and see the output as transactions were being printed out. They'd shake their heads and move on. They didn't know what to make of it.

The demonstration violated most of the precepts about how trading should be done. There was no one signing off on each individual trade, a kind of "know your client" rule. We knew most of the people on the other side, but without a signature it wasn't terribly clear who would take responsibility for the trade. And what we would do is try to buy three securities of the same general

characteristic at any given time. When somebody transacted on the other side, we would advertise that we want to buy these. Instead of keeping them quiet, we would advertise. When somebody bought one, the other two orders would be instantly canceled. Essentially, nobody could front-run us unless they wanted to front-run on all three securities. Ultimately, our portfolio was selected by traders whose interests were adversary to ours since what we actually bought was what somebody else decided they wanted to sell at our price. That's a little bit of complexity science in action. The machine is adaptable. The human is not adaptable. The machine does not have an ego. It does not say, "I must own this particular stock." The machine is relatively neutral based on whatever parameters you put in.

Another way we used computers at Batterymarch was to run courses every week for clients so that they could learn how to use computers for investment decision making. In one week, we would teach clients all of our secrets, every algorithm. At the end of the week, somebody could leave a course and exactly replicate the firm. As a graduation present, we gave clients a Texas Instruments acoustic coupler terminal. It was a clunky, heavy thing that they could set up in their office to screen stocks and optimize their portfolios. We also set up a series of games on our central computer, including chess, checkers, backgammon, tic-tac-toe, and so on. We tested to see whether people actually examined their portfolios for performance or played games. Games won five to one, but the computers resulted in client contact by computer.

Also in the 1980s, our first index presentation to one of the Baby Bells was a fully computerized presentation. A team from AT&T arrived in Boston. I greeted them at the door, took them into the conference room and seated them so that there was a terminal in front of each person. A screen came down and the presentation was projected from the computer. The audience could go into whatever depth or feature they wanted. They were in charge. I said, "Please come out when you're through." They were appalled at first, but then they loved it because they were in control.

From Indexing to Emerging Markets

By the late 1980s, indexing became a commodity. Once there were about seventy-five firms doing index management, I could not see any difference between their management and anybody else's. I couldn't go to a client and say, "We are better because our reports have blue covers instead of red covers." The differences were stylistic and did not have anything to do with investment engineering. As a result, we left indexing and returned \$4 or \$5 billion worth of index money to clients. The clients didn't want to take back their money. It was probably 1986 or 1987, when performance was good and indexing was a profitable business because we could run it for nothing, essentially. We discontinued the offering, though, because we could not say that our offering provided any degree of uniqueness.

At the time, we weren't thinking, "Well, we're going to drop indexing and shift resources to emerging markets," but that's how it turned out. The shift to emerging markets was substantially better in terms of profits and providing a unique service. Many of the clients in emerging markets were people who had been index clients. Emerging markets had several bases of appeal. First, there was an academic grounding because emerging markets were not covariant with developed markets.

They were covariant at about the 0.5 level to the S&P 500, which meant that the addition of an emerging market component reduced the overall portfolio risk considerably, and that is considered a benefit.

The second appeal of emerging markets was that the rate of growth was greater than the rate of growth in developed markets. Finally, the economic engine was revving in emerging markets. Harvard Business School students were going to emerging markets, the World Bank activity was beginning to kick in, and the international finance corporation was having some impact. You could say that emerging markets were taking off in terms of globalization of investment funds. We didn't know whether or not clients wanted to venture into emerging markets but we would take clients to see the emerging markets themselves, so they could actually participate in the decisions.

Venturing into Emerging Markets

One of the best examples of investing in a contrary way might be the fact that in the mid1980s Batterymarch was the first American institutional investor to develop a fund in Latin America. At the time, Latin America had been going through a series of currency crises resulting in hyperinflation. I remember going there to talk with companies because there were almost no foreign investors coming in. As a result, my hosts, generally a bank or something like that, would hold a press conference. The press would come out and ask, "Why do you want to invest here? We want to get our money out. If you want to take our money out and launder it, we'd be very happy. Do you know something that we don't?" The answer was that, essentially, we were making a different kind of investment, one that was a small investment for us and not covariant with other things we were doing.

Another factor was the prices we could pay in Latin America. For example, Varig Airlines had seventy to eighty 747s, but the whole company was selling for the value of three planes. Essentially, we could invest and get seventy-some-odd planes for free, along with some debt and the like. It was a very good bargain. Latin America was loaded with bargains like that, so we invested a lot of money in Latin America for our clients. To convince our clients that it was a good thing to do, we would take them to Latin America with us. Whenever I went on a Latin American research trip, I would take some clients with me so that they could learn. Also, they were good company, nice people, and we had an airplane, so why not fill it? We worked very hard on our trips to Latin America. Generally, we slept on the airplane instead of sleeping in hotels. We worked during the day and got on the plane and flew at night so that we could go back to work the next day. It was an arduous schedule.

Anyway, Latin America was one of the places where we correctly invested early. For many years, performance was up 100 percent to 200 percent a year. The performance was very startling. Very soon after, emerging markets went through a heyday. It turned out to be too much of a heyday because people in the emerging markets decided that these financial services the Americans were doing was fun. They started doing it themselves. They began spending less time manufacturing automobiles, tractors, and other things, and they spent more time building banks and brokerage firms. I think this is one reason the experience investing in emerging markets has been considerably

disappointing in the last five years. Latin America and other emerging markets have taken on more of a financial construct and less of a manufacturing construct. They started doing business the way we do. They followed our patterns and we infected them.

There is a principle, which I think is still true, that you can follow an idea as it ripples from one geographic point to another and that it is possible to catch at least three waves of the same idea. In most cases the idea would start in North America, go out to Japan and Europe, and then go into the so-called emerging markets. I think the waves are still happening, except that now the waves are hard to detect. With so much globalization, internal communications, and whatnot, it's reasonably difficult to identify waves. Maybe Europe will be lagging the United States, but if so the lag is a matter of months, not years. The lag is smaller because of information technology and schools like the Harvard Business School. For some time, HBS has been taking European students who move on and start behaving like Harvard Business School people wherever they are. They carry the HBS baggage with them. Also, as Harvard Business School opens up satellite offices, that closes the gaps even more. The inefficiency in idea flow is gone.

Batterymarch Culture

Batterymarch has performed very well. If a firm has survived, you can assume their performance is good. At some points in time, Batterymarch's performance was 20 to 30 percentage points over the Standard & Poor's. At other times, our performance was five and sometimes zero percentage points over S&P. There was a two-year span when our performance was ten percent under the S&P 500, but then it came back. Today, Batterymarch manages closer to the index. I would prefer it to have a greater degree of difference. But in any case culture was a very important part of the firm's success.

At Batterymarch, I was very visible to everybody. I did not have an office. No one had an office. We had an open office plan in which everybody was visible to everybody else at all times. It was necessary for me, in effect, to maintain a culture of egalitarianism, to be a benign dictator who kept things from getting hierarchical. I thought it was extremely important for everybody to feel that they could do every job imaginable. That's how I was able to maintain a lean staff and a very flexible staff. Everybody in the company had one day a week in which they cleaned the kitchen, everybody, including me.

There was a sense of common participation, that everybody would be willing to do every job. I think that titles tend to tell people what they are *not* responsible for rather than what they *are* responsible for. There were two classes of employee at Batterymarch, the staff and the trustees. There were no increments among trustees and that was how we made people feel that they didn't have a privileged position. Also, we would move people's cubicles so they didn't even get used to having two windows instead of one. These were silly little symbols of egalitarianism. Today, other companies do the same things. Back then, I thought it was essential to maintain this egalitarian system and culture.

Another thing I did to promote a Batterymarch culture was to represent the firm outside. I would also influence culture by hiring and motivating people. At any given time I would work with about six

people in close coordination on their projects. The collaboration was perceived to be a reward for them. It was also a reward for me to be working with a coterie of really turned-on, bright people. The counterpart to hiring was firing people, which I also did. People at Batterymarch did not have security. They were hired and paid exceedingly well. They were paid above competitive rates, but they had no contract. They didn't like that at all. People want high compensation and security. They don't want to feel that they are exposed to risks at all times.

I learned that our home runs at Batterymarch were hit by people who had not been in the investment business. They had been musicians or philosophers, who were very bright and brought experiences from outside the investment business. I was very attracted to those kinds of candidates. I would also have some people who were just very good technically. On occasion, I had people who were peers with me, coming from a fairly conventional background. I needed to have some people like that around since they present themselves well when dealing with clients, and that's part of the job. They would also have a broad strategy position. Some of them had run large investment departments in the past and they would contribute stature and perspective and judgment.

Management Practices

I also introduced management practices that avoided some of the dangers associated with agency theory. Agency theory is known in the institutional investment business but not discussed because it's sort of embarrassing. The notion is that when you hire investment managers to act for you, they act in your best interest under all circumstances, without any regard to their own benefit.

There is very strong evidence, however, that this does not happen. As markets become more institutionalized and as the values and profits of institutional management become greater, the temptations for an individual's agency theory to impact decisions become too great. For example, there's an investing principle that says that using money from commissions, so-called soft dollars, to buy research is a good thing to do. Soft dollars or commissions are, in effect, the client's money. So when investment managers use soft dollars to pay for the research they use to make investment decisions, the client is paying investment managers a fee to make investment decisions and buy research. My question is, shouldn't the investment managers pay for their research?

Batterymarch never used commission dollars to buy research. We would always pay for everything in hard dollars, money that was our own. In addition, we would drive the commissions down to very low levels, nearly zero, so that the client would have the benefit of very low transaction costs. These were very controversial things to do and it cost Batterymarch about \$4 or \$5 million a year in money that we could have used to pay expenses. People would say to me, "Dean, why are you so stupid? Why are you ripping up a \$5 million check every year?" I could do it because Batterymarch was 100 percent owned by me by then and I could make decisions for myself. I did what I felt was right and I could afford to make that decision. If I had shareholders or a larger number of partners, they might have convinced me not to make the decision. Anyway, this practice of ours is evidence that there was absolutely no agency theory applied at Batterymarch.

Another example of agency theory would be the use of proxy voting. Institutions have the right to vote the proxies for the shares they own for clients. There are cases of mergers and acquisitions or so-called shark repellants and provisions impeding shareholder rights when managers vote in ways that are counterproductive to the price of the stock. The managers vote this way because boards of directors and client relationships influence them, saying, "Please vote for us." Batterymarch never did that. We voted for provisions that produced a higher price. In fact, we publicized our votes and even indicated which board members voted for provisions that were, let's say, counterproductive to shareholders. We would announce the fact that we were voting against these board members. We took a very argumentative position and it was not conducive to good business growth for Batterymarch.

I had one person who called me once. He was chairman of a company, and I had just voted against his continuation on the board. We were the manager of a portion of the pension fund of that same large company. And he said to me, "Dean, let me explain to you how the world works. You are the red button and I am the finger. And I am about to push it. Are you changing your position?" Needless to say, I would have denied that conversation ever took place, but it had a very strong impact although it did not change my view at all. I thought that what we were doing was a clear application of the fiduciary principles we were charged to uphold for the pension fund, for the workers, and for the shareholders. Our vote wasn't very kind to this fellow, who is a friend of mine, however, so I can understand his position.

There's another application of agency principle that managers know, which is that it's better to lose money conventionally than it is to attempt to make money unconventionally and fail. As a result, managers will typically run a portfolio that is highly correlated to the index, which ensures that they will not deviate very far from that index. In fact, most large institutional portfolios are managed with a correlation of 90 to 95 percent of whatever index they're attempting to track. The reason is that managers don't want to get fired if performance falls. Tracking an index ensures you will not fall into the fourth quartile of performance and that you can always hold out the promise of doing better.

The downside of this strategy is that managers are being paid for active management of money but they're only managing with about 5 or 10 percent of the money that's available. I think that's cheating. It's one of those nasty little secrets that everybody understands but nobody really talks about. When managers talk about disciplined portfolio management, those are code words to mean, "I won't get you fired and I will not embarrass you." I have always been the risky type. I'm not saying we would buy crazy stocks, but we would buy stocks that were not covariant with the market and that had the opportunity to be quite different. That kind of investing is what we were really paid for. Agency theory says, "Stay stuck in the middle."

The market is made up of a huge industry of investment managers, brokers, and researchers, and much has been designed for self-protection, not necessarily for serving the interests of the clients. Batterymarch was extremely fortunate to have a license from its clients to do things more differently than they would have allowed other managers to do. Batterymarch was open and gave clients access to whatever was going on, and we seemed to do things that made sense. Our clients said they wouldn't give us all the money from a large pension fund, but they would give some to us. They

described the portion of the fund handled by Batterymarch as their exploratory fund. They also said that we had done enough things in our history to indicate that we kept client interests in mind.

Our investments in Russia and the former Soviet Union are an example. We had succeeded in developing a fund to invest in Russia. We had the money, but I returned it to the clients. Doing so cost Batterymarch about \$7 million, which would have been absorbed by the fund if we had started it. I could have invested the money in Russia, but once it was there, I realized I could not attest to it, I couldn't follow it. The Russians, I came to see, were going to be so clever in moving the money around that I wouldn't be able to tell the clients what was happening.

I believe in taking the emotion out of investing. I'm a great fan of China. I was ten years ago and I am now. I tried to convince the Russians they should learn what the Chinese know about business practice. The Russians wouldn't do it. I think the Chinese are doing many things right. I'm not commenting on their politics, but on business. In my mind, the Chinese are extremely good at making very dispassionate investment and management decisions.

I think the same approach should be used in investing. I think investment considerations should be as unemotional as possible. I disagree with the notion that it's a good thing for an analyst to be invested in the things they recommend. I would rather have them not be invested. I personally prefer not to follow the Fidelity system in which people are committed because they have their feet in the fire on the things they're recommending. At Batterymarch, we didn't do it that way. Batterymarch funds were not invested in people's own individual securities because I wanted to make sure that the investment judgment, the research judgments, were as neutral as possible. The fact is that we all have enough intellectual ego that we get wrapped up in our own ideas anyway. It seems faulty to me to add financial ego to the mix.

Surviving Mistakes

Businesses go through rotations. I've had a number of failures in my business and I've glossed them off and moved on. One failure occurred when I tried to develop agricultural investment as an asset class for institutional investing. I developed a management company that got some institutional assets and invested in farms for the institutions. I myself invested in farms thinking that farms would be the equivalent of gold, a non-covariant investment that had some new science coming in. The idea was that family farming was going out and institutional farms would replace them. The idea failed. I may have hired the wrong people. Also, farming may have been unattractive because farms are still very much involved in American farm subsidies. In fact, we spend \$50 billion a year on farm subsidies, so institutional investing in farms was almost like a vehicle to get farm subsidies rather than farms.

The idea to move into the Soviet market was another wrong idea. I don't feel at all distressed by it because it was such a wonderful experience. In fact, I just recently made a private investment in St. Petersburg. The Soviet experience started in 1989 when I went to a last-minute presentation in Cambridge for a group of Soviet military industrial leaders. The Soviets were being lectured by a group of very junior people, because no one really paid much attention to the Soviets even though

they were leading enterprises of 250,000 people each. The head of the Soviet delegation was the head of 25 percent of the Soviet economy. Anyway, the Soviets were really bored by the meeting. The meeting was a disaster. I was asked to speak about how one would finance Soviet industry, and I said I would break it into pieces and develop a small piece as a model of western management style with Soviet technology. The Russians thought my idea was the best thing they had heard during the meeting, which isn't saying much given the other presentations.

The Soviets asked if they could visit my office. I agreed, and the next day they came to Batterymarch. For whatever reason, they liked Batterymarch. We had an engineering mentality about investment and most of the Soviet managers were engineers, so maybe they could relate to us. That night, the Soviets came to my house. We drank a lot of vodka and I didn't fall over, though I don't know why. Then they said, "Would you come to visit us in Moscow?" I said, "Sure, when would you like me to come?" They said, "When can you come?" I said, "I can be there in two or three days." They were bowled over by the pace of activity. I was in the Soviet Union within a week and I had a mandate from then-president Mikhail Gorbachev to privatize the military segment of Soviet industry. They provided me with tremendous resources. I had a large dacha, which was probably thoroughly bugged so that the Soviets could learn about business.

This was a time when the Soviets were trying very hard to be in partnership with the United States, in particular. They thought we had been equals in the Cold War and that we should be equals in peace. Graham Allison, who was then dean of the Kennedy School, is a friend and he would come back and forth from Russia with me. We saw eye to eye and saw this time as an opportunity for what he called the Grand Bargain, to come out of the Cold War and combine the technology and raw materials of Russia with the business know-how and financing of the United States. I believe it would have worked if it weren't for the fact that the Cold War mentality persisted in the United States. The Soviets said, and they were right, that more often than not they were coming to the West on their knees and saying, "Please partner with us," and we would push them aside.

From the Batterymarch point of view, we had a wonderful opportunity without any other analysts or competition around. We could go over the best parts of a huge economy and pick out investments at prices we hadn't seen since the early days of Latin America. We could buy large enterprises that would normally be capitalized in this country at \$50 billion for \$500 million or less. I was like the proverbial kid in the candy store. I liked the people, too. As time went on, however, suspicions built up. Obviously, my mandate from Gorbachev went when he went.

So things didn't work out, mostly because of politics, although economics mattered, too. Americans were willing to invest, but the Russians began to feel that working with Americans was not going to be a partnership. The Russians had learned that any money coming in would include some young naive people from firms like McKinsey who were coming in with some sort of government grant, so the Russians would be able to steal the money, which they did. I think we continued with the Cold War mentality and the Russian response was, "OK, they're not sending any real talent over here. They're sending a bunch of kids and they're not going to do anything with us, so let's just take whatever money comes and move the funds through."

I think that's what they did and we missed a big opportunity. American business had something strong to offer and contribute, and it had a privileged position for moving into a literate consumer market. The literacy rate in Russia is 98 percent, even in the countryside. Russia would have been a consumer market with high raw materials and a very high level of scientific and technical capability. Americans were given free rein to come in and participate in the Russian market. It was an incredible opportunity.

The downside of rejecting the opportunity has been fairly gloomy, as nuclear and biological weapons and talents in bio-war tended to diffuse around the world to what we now refer to as rogue states. I know this is a political issue, but if a colonel in the Russian army is not being paid and he's in charge of a missile and some silos, he has a very high incentive to pocket a little money as his own pension fund. Success would have meant that the United States said, "You are now our partners in peace," and established the equivalent of a Marshall Plan, which is what we said and did with Germany at the end of World War II.

Our failure to do something like this embarrassed the Russian people. I remember the last time I talked about a business proposal with a group of Russian business leaders. They said, "Dean, we're developing a little investment portfolio. If you put in some of your money, you'll earn 300 percent a year" or something like that. I'm sure they were right, but by what means I would not want to know. I didn't do it because I didn't know the characteristics of the investments. Originally, investing in Russia would not have posed an ethical dilemma. They were willing to run by what they referred to as normal standards. They wanted to be a normal society. I ran training courses there talking about profits, debt, equity, transparency, and the like. They were willing to change.

Now, the synonym of businessman in Russia is criminal. You see people rushing around in large Mercedes 600s with a blazer behind and shotguns. St. Petersburg is the murder capital of the country. It's the most beautiful city in the world, but it's completely ruined. They think they got this way because of us in the United States. That's not really true, although we, in effect, started it. The Russians have developed a fine art of criminal business by varying capitalism to a degree greater than I certainly had ever known. It's somewhat true that if you want to operate successfully in Russia, you have to follow along. I mentioned that I recently made a private investment in St. Petersburg. I think that company is operating under very high standards. Do I know all of the details? No.

Going Global

Entrepreneurs can learn a lot about moving into foreign markets by first looking at overseas business models that were prepared for the local market and then adjusting those models to match American precepts. At the moment, there's a little bit of a feedback in the system. The European and Asian business models are attempting to be copies of the American model, but what you really want is to find examples that are more local and more generic. India is a good example of a country that essentially hasn't been too infected by the American business model. You can take an American business model and get financing, but you want your model to represent a sound business idea centered on a local issue more than a financing issue.

I'm a great fan of computer programs that do business models for you. The programs force you to answer important questions. I also think that the form of ownership structure, whether it be a partnership or a so-called enterprise, is not as important as the nature of the business and the nature of the service. I'm a fan of a mantra from General Doriot of the Harvard Business School. His advice to entrepreneurs was, "Get the business right, serve customers, and the profits will take care of themselves." Many of the business models I see today have got it backwards. They're saying, "Our goal is to have a liquidity event in eighteen months," and everything backs up into how they plan to get to that liquidity event. It's the kind of planning that General Doriot would have thrown out, saying that it has nothing to do with developing a business.

Creativity

Batterymarch was known as a company that fostered creativity. Decades ago, I was asked to be the keynote speaker at what may have been the first investment creativity conference in New York. I was the opening speaker in a large ballroom filled with hundreds, if not a thousand, people. I had a speech in my pocket. I was introduced by the organizer in glowing terms. He said that Batterymarch is a very creative firm, and does all sorts of wonderful, creative things. Then he said I would talk about how to organize for creativity. Everybody looked eagerly at the stage. They wanted to learn how to be creative.

At the last minute, I had an idea. I decided that I wasn't going to deliver my speech. I walked across the stage very slowly, got to the lectern, pulled my notes out, turned the lights on, adjusted the microphone, and said, "Don't." I turned the light off, put my notes back in my pocket, and walked back across the stage with my speech to sit down. The notion is, "Don't organize creativity." The fellow who ran the conference was going berserk. He had allocated forty-five minutes for this talk and I gave it two seconds. I went back to the podium and dealt with a Question & Answer session. I explained my point, that anything you do to organize for creativity is counterproductive. By organizing for creativity, you can only hurt it. You can't help it.

Within complexity theory is the notion that society works best when it's at the edge of chaos because that is where things are happening, that's where the turmoil is going on, that's where things are dying and being refreshed, and so forth. Ideally, you want to get to the edge of chaos, and then you don't want to pull back. The last thing you want, as a collective society or a species, is security. Things like the open office plan and the lack of hierarchy allow creativity. They allow you to stay at the edge of chaos. People can get locked into tight job descriptions. As a result, they might say things like, "I'm responsible for the eastern region. Don't tell me what happens in the western region. That's not my job. My job is over here." This is not necessarily desirable. Finding and operating on the edge of chaos is hard. Some people want to have things defined while others are more like me. People want to go to an alumni meeting and say to their classmates, "I have just been promoted. I am now senior vice president." Meanwhile, I have had the same job title for twenty years. People think they have to have progress points. I think more harm than good is attached to those progress points.

Restructuring Batterymarch

When Batterymarch started up, I had partners. The idea was to have a partnership structure and, indeed, it operated as the ultimate partnership structure, where everyone was compensated according to their need. Everyone was very satisfied with that system. I then started to think that we should bring in people with institutional credentials rather than continually filling the firm with younger people who needed to be trained. Some of my first employees were unhappy with this decision. They felt that I was bringing in people to compete with them and they felt that I was being high handed, and I was. They were absolutely right. They left Batterymarch and started a very successful firm, which is as it should be.

What I discovered in running the company a different way was that it is better that I have all the ownership. As a result, I made people an offer they couldn't refuse. I paid them a huge amount of money at a time in which Batterymarch wasn't worth much. Everybody said, "What a dummy Dean is." I took ownership away from people but gave them money. And I gave people who stayed huge salaries. As for me, I didn't have to explain to anybody why I wasn't going to take commissions and use them. I didn't have to explain why I was going to leave Russia. The business decisions could be made unilaterally. I always say that when a group of HBS people form a company, they tend to spend a lot of their time collectively on policy issues rather than going out, getting customers, and serving them. At Batterymarch I said, right from Day 1, that I would make the business decisions, not so much because I would make the right decisions, but because we wouldn't have to spend time collectively on making them.

My most difficult decisions were about how I would allocate my own time. The main challenge in business is husbanding one's own time. Time tends to get lost. Decisions in the early days were about how much time to allocate to clients—since I liked a lot of client contact—how much time to spend on researching ideas—since I loved spending time with academics and developing research ideas myself—and how much time to spend being an administrator. I hated being an administrator, but I knew I had to do it. I'm a bad administrator because administration is lowest on my priority list but should probably be highest. Anyway, I was always fighting with time.

The resolution was that I spent as little time as possible on the administrative stuff. I wasn't good at it. One of my reasons for having machines was not so much that machines are good, but that machines don't need me to worry about vacation policies or who is sick or who is having a baby. Machines were really good about not doing those kinds of things. Another part of the resolution was that I would try hard not to steal time from clients to do research. Probably half my time was spent with clients, but research was what I really wanted to do. I tended to write and speak a lot as a way of working out ideas.

Handing Over the Reigns

When it came time to sell Batterymarch, I was like someone walking around with a sandwich board that said, "Buy Batterymarch." Around 1991 or 1992, I had started to prepare the company for other people to take it over. My idea was that I would adopt a senior role, doing research while somebody

else ran the company. I couldn't find anybody who would run Batterymarch "my way," but I didn't really look very hard. If I was going to sell my company so that someone else could run it, they should run the company their own way and not mine. It was clear to me that anybody else who was going to run Batterymarch would run it differently than I had. I knew that the person would run the company in a more conventional way than I had. I knew the company would be more market driven, giving clients what they say they want—which is the same thing that every other manager is providing—rather than anticipating what clients would want—which was what I would do.

I sold Batterymarch to Legg Mason in 1994. In my senior role, I became an anachronism. I was increasingly representative of a firm that was no longer there. As Batterymarch evolved towards a more conventional structure, I became the deviant. I had put myself into a role where I couldn't do anything more than express my deviance. I had to decide to either grab back the firm and take it over again or throw myself out. I threw myself out, but in a way in which the new buyer had the option of using me or not using me.

It has turned out that I have been more useful to Legg Mason as a whole than I have been to just Batterymarch. I still have an office at Batterymarch. Even so, Batterymarch is not a firm that I recognize a whole lot. It takes the intensity of the founding entrepreneur to keep a company close to its original intent. For example, if I were running the firm, it would be an Internet operation. I am sure of it. It would be hard to find any bodies there at all. We probably wouldn't even have an office. It would be totally decentralized and you could have, in effect, a virtual company, with no running around the world. We could use all of the Internet's resources, which tend to be better than many of the institutional resources. Whether this is a good idea or bad idea, I don't know, but I'm sure I would have done it. Automating the business happens to be the kind of thing that turns me on. It uses the tools that are available today and I would have moved on it.

For me to represent Batterymarch as the senior statesman of a conventional firm just wasn't the role I wanted. I wanted to put myself in the research laboratory on a full-time basis. I was having so much fun playing with ideas that I didn't want to spend any time on clients. I would have spent a little time on clients, but instead of spending 50 percent of my time with them, I would have gone down to 10 percent, and I would have given up administration. I understood when I sold the firm that it would slide towards conventionality and that it should, probably, find a successful life outside of the founder. Batterymarch is successful and it will last for a long time. Legg Mason is happy with it and the employees are happy. Selling Batterymarch was the right thing to do and I'm glad I did it.

I didn't spend too much time mourning it because there are so many new ideas around to play with. How could I mourn having this wonderful opportunity? I started a magazine a year ago in a field that I like and the publication has become the leading voice for the field. I can use it to talk about anything I want. I have my own bully pulpit and people respond to it. I'm having a ball. What I'm doing now is very similar to what I was doing before, except that I have put myself in the laboratory. If we come up with ideas that Batterymarch or anyone else finds useful, that's fine, but it's not essential to me that they find it useful. I also think that Batterymarch has been allowed to find its new life comfortably within Legg Mason rather than Legg Mason imposing a style and structure

there. The new Batterymarch has probably taken longer to evolve because no structure was imposed, but that's probably more satisfactory.

The thing I hoped to accomplish with Batterymarch was to find a way to play with my own ideas. I did not found Batterymarch to make money. I learned in the first three months at the Harvard Business School with my fellow students that I was probably going to be able to make a reasonably good living, whether it be at General Motors or wherever.

Money was not an issue and I did not anticipate that my financial needs would be great. What I wanted to do was develop new ideas and have the time to do that. It struck me that I would be better off hiring myself than finding somebody else to hire me. Starting Batterymarch helped me fulfill my goals.

The investment business is highly traditionally oriented. It's a very consensus-oriented industry. People tend to do the same things as everybody else. The critical success factor of Batterymarch was that it was willing to be different. In fact, we were passionately in pursuit of anything different. We rejected the notion of being like other people. There's a reason investment managers are alike, which is that they're all reading exactly the same reports about what clients want. As a result, they respond in exactly the same ways. The investment business is like all cyclical industries: Everyone builds steel plants at the same time and tears them down at the same time, all because they're responding to the same factors.

At Batterymarch, we wanted to get out of the cycle. We were passionately, obsessively dedicated to finding niches that were not covered by other people. If something was covered by other people, we didn't do it. That was the difference between Batterymarch and other firms. It was a success factor. Also, there weren't very many competitors to Batterymarch. We didn't require very much money and we were tremendously successful in pursuing this difference.

Advice for Other Entrepreneurs

Being adaptable is what entrepreneurs most need to prepare for. I'm a great fan of adaptability. You might start a company, develop a business plan, have a forecast, get financing, and so on, but you're wrong if you think you know what the future holds. Whatever the outcome of your enterprise, it's not going to be what's written on paper. It's going to be something else. You have to be able to recreate the business at least once or twice, possibly even more.

The second thing entrepreneurs need to do is prepare to work hard, very hard. I'm lucky enough that entrepreneurs ask me to advise them and they tell me they're prepared to work hard for maybe eighteen months, maybe two years and maybe longer. I tell them the work may have to be even harder than they think and they may even come to the point of being obsessive. For better or worse, I have seen a number of entrepreneurs' marriages break up. It's not a good thing to happen, but it appears to be one of the prices paid by people who stick it out.

I think entrepreneurs also have to be prepared and willing to fail. They're certainly going to fail on some things and it may be important to fail quickly. Some aspects of their plans are not going to

work out and they will do best to leave those aspects behind. It's hard, but failure is a normal part of building a business. The industry went through a period in which the availability of financing kept a lot of businesses from failing that really should have failed. That prevented a lot of entrepreneurs from understanding how brutal the entrepreneurial system can be. Entrepreneurs have to be prepared to be brutalized.

In addition, my advice to entrepreneurs is to find something that is unique. Ask yourself what your unique strengths or the unique strengths of your business are. What will you do better than anybody else? If you aren't better than anybody else, don't try to build a business. I also think that nobody can define success for anybody else. Success is very much an internal thing. I have a friend who is an Episcopal minister and very statistically oriented. Maybe he counts success as the number of souls he saves. Maybe a college president counts how many square feet of a building he has built up in a certain amount of time. Definitions of success are highly individual. My definition of success has been to be in control of my time.

I heard Ted Turner answer the question, "What would you have done differently?" He said, "Given the conditions at the time, I probably wouldn't have done anything differently." For me, there are probably things that I would have changed. For example, I wouldn't have done the agricultural thing. I probably would have stayed in China because I think it's a dynamic place. I might have tweaked indexing along the lines of making it a mechanical construction of a variety of portfolios. I think the mutual funds industry has great vulnerability because there are better things coming along. I would probably get involved in something competing with mutual funds. I would have turned indexing into something like that. In general, however, I can't think of too much I would change.

I have been trying to encourage my children to be charitable so that we participate as a family in charitable decisions. That's not so much a form of a legacy as it is training and getting them used to giving away reasonably large sums. I don't even think about how I'll leave a legacy of investment style or company structure. I'm living in the moment, for better or for worse.

The one final piece of advice I have for entrepreneurs is "Do it." Whatever you have in mind, if it seems right, do it. Don't hesitate.