

**INTERVIEW WITH
BOB PINDYCK
SLOAN ORAL HISTORY
APRIL 30, 2012**

B: Bob McKersie

P: Bob Pindyck

G: George Roth

G: We were just talking about Penn Brooks, the original dean, and then Howard Johnson. Eli was here for both of those. Bob said that one of the other people we should consider interviewing is Bob Merton, that you and he were both graduate students together here.

P: Yes.

B: Anyway, let's start in. Your resume is very helpful. I don't think I appreciated that you have actually been at MIT (with the exception of some sabbaticals away) since you came here as an undergraduate.

P: Right. I wasn't here for high school.

G: Where was high school?

P: In the New York area, a suburb of New York.

B: Which suburb?

P: Mamaroneck.

B: I grew up in northern New Jersey. One of the first questions is to chart your career. What were the factors that prompted you to shift away from engineering and in the direction of economics?

P: When I finished my senior year as an undergraduate, I wanted to go to grad school in physics. I was very interested in plasma physics, and was going to go to Stanford. I had a fellowship there and they had a pretty good group. But I didn't really like experimental work and the physics I enjoyed was theory, I liked doing math. So I didn't know what to do. I didn't want to continue and go into physics. What I really wanted to do was to take a year or two off. But at that time there was the Vietnam War and I would have been drafted. I was the last generation that was able to automatically get a deferment by staying in school. So the issue was how to stay in school.

The Electrical Engineering department said, "Look, stay here." They gave me financial support. I don't know how well you know the EE department but it was, and still is everything. I mean they do everything, from applied physics to space physics, to biophysics and bioengineering, to computer science, just everything. So I stayed

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In the first year as a grad student I got a Masters in EE, working with my thesis advisor who was Bill Davenport. He passed away some years ago. I worked on a method of... let me back up.

There was a project—I started working on it the summer after I finished undergraduate—to send a satellite around the sun, to transmit a beam back to earth that would measure the density and magnetic field of the solar corona. The solar corona is a plasma, and I was interested in plasmas, so I got involved in this project. My Master's thesis was working out a code, a series of plus or minus pulses, that could be detected and that could be used in that way to measure the density and magnetic field of the solar plasma. It's actually, I think, one of the best things I've ever done, if I look back on all the work I've done. It was very elegant math and very beautiful. Anyway, I finished that in one year, took all of the qualifiers and then all I really had to do for a PhD was a thesis.

The second year I started meandering around and I got interested in control theory and information theory, and started reading economics. I had no background in economics, but I found this really interesting and came up with a thesis idea that involved the application of control theory to economic policy. I decided to pursue that and went to Bob Solow, who agreed to be the advisor.

So at that point, I started taking graduate courses in economics, and eventually shifted over and saw myself more as an economist. It really was just a kind of fortuitous shift.

B: Well, even then the Economics department had national stature.

P: It was a great department. So I took courses and then took the exams in economics and finished in May or June of 1971, which was the right time to finish because I had just turned 26. And at that time, once you turned 26 you couldn't be drafted. So I knew I had to be in graduate school until I was 26, unless the war was going to end. So that's when I finished.

All of what happened to me was really a series of lucky events because while I was in graduate school, I was also involved in a company that I had co-founded. The company was doing quite well, and I wasn't sure I wanted to be an academic. I wanted to stay around Boston and stay involved with the company.

What happened was that the Sloan School approached me, along with the Energy Lab. I don't know if you remember Dave White, the first director of the Energy Lab? Dave died a few months ago. Dave White knew me from engineering and knew my background. They were starting the Energy Lab and he thought it would be very nice to have some faculty involved who knew something about engineering but also were doing economics. So he approached me with this idea that the Energy Lab would fund at least part of my salary. The Sloan School offered me a position and it seemed very nice, so I came.

B: And the Dean then was?

G: Bill Pounds.

P: Abe Siegel was Associate Dean.

B: Who else was in Economics would the group you were in affiliated with?

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P: Franco Modigliani. I don't know if it was finance or economics, but he was there jointly with the department. Lester Thurow was there. Ed Kuh, who had also been on my thesis committee. Sidney Alexander was there. Paul MacAvoy was there.

Paul is the person I started working with. We started this project to develop a model of a natural gas industry. He had a long interest in natural gas markets and he'd written about that. We started a project to build a model of the natural gas industry, and it fit into the activities of the new Energy Laboratory, along with a new center that had been created called the Center for Energy Policy Research, which is today the Center for Energy and Environmental Policy Research. So I worked with Paul MacAvoy, and we wrote a couple of articles and a book together, until he left to go to the Council of Economic Advisors, and then from there he went to Yale

Then Dick Schmalensee joined us around 1975, around the time Paul left. So it was a small group at that time, and we were all on the second floor of E52 along with Finance.

B: And a close connection to the Economics Department.

P: That was the great thing. We were all together in that building, E52. So there were people like Paul Joskow, who had just joined the department and was also involved in energy issues. We spoke a lot, and we did some writing together. Jerry Hausman was there, and other people who joined around that time.

B: One development that's interesting to try to understand is, when we talked to Eli, he said it was going to be his priority to have all economic courses in the Sloan School taught by people in the Economics Department, and not try to duplicate it. Somewhere – that would have been in the early '50s, and through the '50s – somewhere along the line it was decided that the continued close working relations with the Economic Department, and maybe even some of the people in the Economics Department would teach in the Sloan School. But they started to develop – the people you just mentioned. That was an important transition, and I don't know when that took place.

P: Yes. And I don't know when that took place. It was certainly – by the time I joined, there were a variety of courses that we taught in Sloan. And it certainly made sense for the MBA students because – well, they weren't called MBA students at that time; they were called Masters in Science and Management – but effectively MBA. It certainly made sense for them because the kind of courses they should take – whether micro- or macro-economics – would be very different from what you'd teach in the Economics Department.

When I started, one of the courses I taught from the very beginning was 15.001, an undergraduate course. At that time we had an undergraduate major, and we had our own Principles of Economics course for the undergraduates, which I taught. Other people also taught it. The course covered both micro and macro all in one semester. What the Economics Department had was 14.01 and 14.02. 14.01 was micro and 14.02 was macro. So if you wanted micro and macro and you took it in the department, it was two semesters. We covered everything in one semester. That course ended, I don't remember exactly when, but sometime in the late 1970s or early 1980s.

The other courses I taught were mostly for MBA students. We had a course on econometrics that Ed Kuh had been teaching. I don't remember the title, but it was for MBA

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students. You want a course like that to be more applied, not to focus on proofs, but be more applied. I taught that course in the very first year or the second year I started and continued teaching it for several years.

That led me, in the end, to write a textbook on econometrics. I didn't realize how hard it was to write a textbook. I had all these lecture notes and I figured it would be easy. Anyway, we had quite a few courses for the MBA students, including a micro course that Paul MacAvoy was teaching, and a macro course that Lester Thurow taught. I ended up teaching the micro course at different times.

And of course you probably remember we had a Senior Executive Program, which was a nine-week program, taught out at Endicott House. I taught in that program from my third or fourth year here and covered both micro and macro.

B: Well, I know you always had a distinguished career here. You've won many teaching awards over the years.

P: I enjoy teaching.

B: You've been very effective in the classroom. A question. You started in engineering and moved to economics and Sloan. This is something we're trying to understand: how the Sloan School fits in to MIT, and particularly how engineers, being the closest other school probably to us, how they view Sloan. Different deans have wrestled with this question about how to connect, or should we be like Harvard Business School, separate from the rest of the Institute. Do you have any thoughts about how, as you came to Sloan from Engineering, how you would position Sloan? How should Sloan be positioned at MIT?

P: When I was a student in Engineering I didn't know anything about Sloan. I knew there was a Sloan School. I knew there was a management major, but I didn't know anything about it, and I had no real interest in it. In fact, if Dave White and Bill Pounds hadn't come to me and asked whether I'd like to teach in the Sloan School, I'd still probably know little about it. Back when I was a student, I knew almost nothing.

Later on, when I came over, and I talked with people in Electrical Engineering, I think there were some there who felt it was a sellout to come over to a business school instead of building devices and designing things, and you're over there worrying about finance and economics. I think probably some people felt that way. But I don't think it was a big deal. Later on, financial engineering became lucrative – not just popular, but lucrative – and in the 1980s, Wall Street started hiring physicists and engineers because they could solve these differential equations that came out of derivative pricing. At that point I think there was some bitterness among engineers and physicists because their graduates, including PhDs, were ending up on Wall Street making a lot of money but not doing physics and engineering.

B: Yeah. Not doing "real work."

P: I think there were some people who were a bit unhappy about that. But lately, it seems to me that bitterness is gone. I don't detect it in people I speak to in engineering and science.

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My work in the last few years has been in environmental economics, in fact climate change. There are a lot of people over in the School of Science, and there are programs that involve people from here and there. So there's more interaction.

B: That prompts a correction. We have also interviewed Jake Jacoby.

P: Oh, sure. Jake is another person who joined the group. Jake came here to Sloan in Management Science, not in our group. Somewhere along the line, I don't remember exactly when, he shifted over to our group because his interests were more in economics. Jake was very involved in energy issues and in the Energy Laboratory. We had a big project in the mid- to late 1970s to study the world oil market. Jake led that project, and I was also involved in it.

B: Well, that's an important part of the history of the Sloan School, how faculty have come together in different centers, right from the beginning. You were hired, and part of your initial salary, you said was from the Energy Laboratory. And that's continued, right?

P: They haven't covered part of my salary for a long time.

B: But the intellectual connection to other faculty members....

P: Oh, yes. The Energy Laboratory, and more specifically what's now the Center for Energy and Environmental Policy Research (CEEPR), has been very important, and has involved quite a few people from both the Economics Department and the Sloan School.

I just thought of one thing. There's another person, two other people you really should talk to, and that's Dick Schmalensee, of course you've already talked to him.

B: No, no, no. Dick has headed up the Center, from time to time?

P: Yeah. He directed the Center. I think this year he may still officially be the director of the Center. And Ernie Berndt is another person who's been here a long time – not quite as long as me, but a long time – and was involved in the Center.

B: Well, over time the geography of the place just changed a lot. You talked about starting on the second floor of the Sloan Building, E52. Then as things grew, you probably moved to the fourth floor? I don't remember roughly when that was.

P: I know Abe Siegel was dean.

B: One of the things he did, he tried to departmentalize, because EF&A was created under Abe's deanship.

P: Okay. I don't remember how that worked.

B: But Economics and Finance were always very close together. But Accounting ended up over in the other building for awhile I think, didn't they?

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P: I don't know. It was a very small accounting group in the beginning.

B: Right. Yes, Dan Holland...

P: Dan Holland was in the Finance group, and his specialty was taxation. He was editor of the *National Tax Journal*. He taught courses on taxation.

B: George, do you want to ask any questions as we try to understand the timeline?

G: Yes. I was going to follow up about moving floors. One of the things we're interested in is what were some of the conditions that have not just influenced the development of the school, but influenced thought in the field. I don't know that much about what has changed in Economics. I'm guessing certainly your ability to write a textbook in econometrics has probably had a big influence not just here but outside of here. What enabled you to do it here? What kept you here? Why didn't you consider going someplace else? What was it about the environment here at Sloan—colleagues, conditions?—that made you feel this was the place to go, that brought colleagues together and started things that really had a big influence? And what are those for Economics? If I may be so naïve as to say, it's not clear to me what some of the major milestones in the field are, particularly ones that came from here.

P: Well, you're asking a whole bunch of questions. I stayed here because it just was a very nice place. Academically, it was wonderful, and great colleagues, and very good students. So I felt very comfortable here. I thought about moving to Stanford back in the early 1980s. I had been married for about five years or so, and my wife was not excited about moving away, so I dismissed that possibility.

G: That's an important point. Our geography and the life of Boston make it a very attractive place.

B: You did visit at Harvard Business School. And that probably gives you a basis for making sharp comparisons between that place and here. And they have raided us from time to time. Because you don't have to change residence to go over there.

P: Right. I spent a year there.

B: They've worked hard to bolster their disciplinary foundation, which I guess is one of the reasons they've raided us, right?

P: Well, they've raided us very selectively. They've hired a few people. I think the Economics department at Harvard has hired more people from here. The Harvard Business School has tried to become more academic, and to some extent it's been successful. But it's a very different place. And frankly, if somebody were finishing a PhD, at least in economics, and had an offer from the Harvard Business School, and an offer from the Sloan School or the Economics Department, I would caution against the Harvard Business School. I don't think it gives the same opportunities that a place like Sloan does, or our Economics Departments, or other business schools, like Columbia or ...

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B: You also visited at Columbia.

P: I was at Columbia, yes. Very nice. Columbia's doing very, very well. They're really booming.

B: Particularly in economics?

P: In economics, and the business school generally. The business school is doing extremely well in finance, marketing, economics, many areas.

B: They have a dean who's very prominent nationally.

P: Yeah. Glenn Hubbard. When I was very young I lived on 106th Street between Broadway and Amsterdam Avenue. My family had no connection to Columbia, that's just where we lived. When I was in high school I used to take courses at Columbia, so I knew a little bit about Columbia.

Back in the 1970s and through the early 1980s, New York City had high crime rates, and the Upper West Side was terrible. You couldn't walk around on Riverside Drive or West End Avenue. Those areas were really dangerous. Nobody went to Riverside Park, never mind Morningside Park. Then New York got cleaned up, and Columbia figured out that the only way they were going to attract faculty was if they provided housing. So they started buying up buildings right and left, and provided very nice faculty housing. And that did it. New York is a very nice place to live if you can have a nice apartment. We had a wonderful time. We lived on the Upper West Side when we were visiting. Now Columbia's a very attractive place, for students, too. The undergraduate school is extremely competitive. I think people say it's about as hard to get into now as Harvard.

B: Well, they take advantage of their location, too. New York City is a powerhouse of a place. And as an aside, they're going to have a new Science and Technology Center. You follow that?

P: That's not Columbia, that's –

B: No, no, no. Right, but Cornell and Technion.

P: Right. They're developing this big new science and technology (effectively a graduate school) research center.

B: Using Roosevelt Island.

P: That's going to be very exciting.

B: Yes. The mayor, he's got great ideas.

P: He does.

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B: And he moves. This is going back a little bit because I'm curious. You mentioned you had a business. When you trying to decide early on, was the business connected with some of your work, either in either engineering or economics? Because that's always a good test of your ideas. That's the MIT model. Can you take your ideas and put them into practice in the form of a business. Was your business anything to do with – ?

P: Yes. It was related to work I did. Ed Kuh had a big project funded by the NSF called TROLL. I don't know what it stood for. [Added Note: MIT "Edwin Kuh" TROLL – Timeshared Reactive On-Line Laboratory] It was to develop a program that could be used for statistical analysis and simulation on time sharing. At that time, time sharing was a big thing with mainframe computers.

I had a friend who had been working on the TROLL project, running the project, and I got involved in the project. I had a research assistantship one year helping develop algorithms. We decided to develop a commercial version that would be much easier to use and much more commercially oriented. We did that, and we went with a company called Interactive Data Corporation, IDC. They simply provided customers time on mainframe computers. They didn't rent the computers, they rented time. So if you were a business, you could get time on their computers, paying by the minute of CPU time.

The problem was they didn't really have software that would provide access to data. So they did two things. First, through Chase Manhattan Bank (at the time) they arranged for access to data. Then we provided the software. So you could take that data, use it, look at it, plot it, do regressions, do statistical work, build models, simulate models, and so on.

G: Economic data?

P: Well, any data, financial, everything. It was all the data that were available at the time. There were a lot of financial data. You could get financial data on companies, stock prices, all of those things.

We created software. We also did consulting, helping companies use this stuff. We never did any consulting that did not involve the software, because our view was that the way you make money is through leverage. The leverage is that they pay royalties; that every time they use our software, in addition to paying IDC for computer time, we got paid for the use of our software. So we would help companies build models, simulation models, or do analyses or whatever using our software, and then hand it to them, and they would continue to work on it, and we'd get royalties.

The company did quite well. And by the time I was about to graduate, I think we had at least 14 people working full time. Then in the first year after that, we increased it to about 30 people. We had offices in Brattle Square. So that was the nature of the company. And we sold the company in the end.

B: We probably don't have a lot more questions, but one of the things the dean is going to be pulling faculty together for, and we can ask you: If someone says, in the 50 years of the Sloan School, or in your area of economics and finance, what are some of the big ideas or the things we should really showcase if we're talking about the history of Sloan? Some people would talk about hedge-fund pricing, Black-Scholes derivative pricing.

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P: That's something that's very important that came out in the 1970s at Sloan.

B: We had Franco here, and Bob Merton got recognized while he was at Harvard Business School for work he'd done earlier here. And clearly your economic text. What would be anything else that we should put on a list of things that are special features of the Sloan School? Accomplishments, I guess....

P: There was a lot of research output from the School. I think the energy and policy area is one example of the work that was done, and large-scale modeling. The natural gas model, and then later we had a world oil model, a large-scale model of the industry. And the use of models like those that to inform policy. There were many studies done of a variety of policy issues related to energy, synthetic fuels, nuclear energy, all kinds of things. When he was here, Lester was doing some basic work on poverty and inequality. It was not popular at that time.

B: No. He was one of the first ones to flag income inequality.

P: Yes, and I think that was very important.

B: Right. Speaking of Lester, I have not run into him recently.

P: He's in Israel, right now. He'll be there until the middle of May. He's been there for the last few months.

B: He's still running that program at Technion, isn't he?

P: I don't know if he is. But you know his wife is Israeli. And he spends a fair amount of time there. I don't know if he's running that program or not. I don't think he was ever running it, but he was involved in it. And I don't know whether he is now or not. But I think he'll be back.

B: And will he be teaching again in the fall?

P: No. But he's been involved in some of the Sloan School international programs. And I think he'll stay involved in that.

B: Right. He was heavily involved, particularly with China. He made that decision while he was dean, to take us into these partnerships with three Chinese universities, initially, and then it has broadened.

One other thing I picked up: like a lot of economists, you've been involved with NBER.

P: Right. I'm a research associate at the NBER.

B: This is another way in which the excellence of this community of economics really comes into play. In fact, that's where you saw Eli, because Eli had a major role in NBER, didn't he?

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P: He was a director of the NBER. But no, I didn't interact with Eli through the NBER. It was purely when he was here. The NBER has grown enormously, has research associates from universities all over the country. It's very attractive for people teaching in the Boston area because it's another place where there are meetings, conferences, workshops. So in addition to seminars and workshops here at MIT, or going over to Harvard, there's all the stuff going on at the NBER. I think, in some ways, it's a competitor. It has both good aspects for MIT and not such good aspects.

B: Yes, and it has lower overhead, too, doesn't it? It's another advantage.

P: It has lower overhead. I used to have NSF grants for many years, and I started running my NSF grants through the NBER. I did that for two reasons. One was MIT's overhead, which was much higher than the NBER's. But second, what really irritated me was I would write a proposal saying this is what I want to do, and this is what I need. But MIT did nothing to help you with the proposal. All they would do is tell you to fill out various forms.

The NBER on the other hand said "Give us the proposal." They took care of everything. So many people shifted their grants over to the NBER.

One of the changes that's happened in Sloan is there's less need to get an NSF grant. We have plenty of research money here. So I haven't had an NSF grant for at least the last eight or ten years.

We have an EF&A lunch every Tuesday, a faculty lunch to which I go. But there's also a lunch seminar at NBER every Tuesday in their productivity group, which Ernie Berndt is involved in. So Ernie goes over there, and some other people do as well. So, the fact that there are seminars and lunches and meetings at NBER takes people away from activities here, to some extent. So it's a mixed.

Overall, NBER is wonderful, and it's been great for me. I just find it fantastic to have that resource nearby.

G: It's interesting because the way a lot of engineering faculty work is they need to bring in the grants because that's what funds their students.

P: Sure. And it pays part of their salary, too.

G: How does that work? Do economics students tend to be more funded by the department or the Sloan School rather than needing a grant to fund them? And what happens to your salary? Do you decrease your appointment? Or is it part of your outside work?

P: First of all, what the NSF does, their rules and all that, differ across areas. I don't know what they do in engineering. But it used to be, in the early days, I had NSF grants for the work I did on natural gas, on oil markets, later and on natural resources markets. I've always had those NSF grants. For many years they covered, in addition to summer salary and research assistants, they covered 25% of my time during the academic year. So I could buy off one course, because our teaching load used to be more or less three courses. Then they stopped doing that. The NSF budgets got tighter, and they would no longer buy off a course. They would

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provide summer salary, but they would no longer give you 25% of your salary during the academic year. But we had the Center for Energy and Environmental Policy Research, and that would typically, given my research at the time, buy off 25% of my time. So I could continue to teach, but with one less course.

When Dick Schmalensee was dean, one of the good things he did was reduce the teaching load. He felt: Look, we are a research institution; faculty should have time for research. So we went to this point system where basically if you teach two sections of a course, or two courses, with at least 60 students in each section, it more or less covers your points. You get enough points to cover your teaching requirements. So for quite a few years I haven't needed any other support. I teach an MBA elective for second year MBA students. It's called Industrial Economics for Strategic Decisions. I teach two sections. I've got about 80 students per section, which is more than enough to cover my teaching load. So I do all my teaching in the fall.

Anyway, that evolved, this issue of research grants. We're not like Engineering. I don't think any Sloan faculty are expected to have grants to cover their salary. I'm not aware of that. Certainly not in Economics and Finance.

G: Right. It is a very different model. And I'm just wondering about Office of Sponsored Programs, if they're oriented toward that, and they don't know what to do with the grants that are here, that come through from NSF.

P: I don't know. I have no idea.

B: As an aside, Bill Pounds thinks we should be more like Engineering because it would require faculty to be out hustling and addressing problems and meeting the tests of the funding market.

P: Oh, that's a good point. Sure. There's certainly an argument for that. And, in fact, at CEEPR we often ask the people who got funding from us to at least try to get funding from NSF or some other place, because otherwise it's too easy. Why should we provide funding? We had corporate sponsors, so we had this money for research, but it's not a bad idea to ask people to go out and write proposals and try to get other funding. So there's something to be said for that.

G: In terms of evolution of things, you mentioned that when you first came to Sloan the idea of "selling out" by going to a business school. That triggered my thinking about ... At that time it was really the Sloan School of Management. Now it has evolved into a business school in terms of more of a focus on corporate management than other forms of management. We've heard that from other people. I don't know if you have any views on that from your teaching and work in economics.

P: Well, certainly I've seen a shift in the following sense. Back in the earlier days, more of our students – of course we were a much smaller school back then, we had fewer students, but a much larger percentage (today the percentage is close to zero) took jobs in the public sector, went to places like the World Bank, United Nations, the government, government agencies, as opposed to consulting firms and investment banking, and Wall Street and Procter & Gamble.

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Back then there was much less emphasis on going out and making money, at least from students' point of view.

One of the things that's bothered me for quite a few years—I've raised this a number of times, but nobody really listens—I've been bothered by the fact that the career development office make a big deal about starting salaries. Now our starting salaries for graduating MBAs are very good, up there among the top three or four schools. But why should that be so important? Why is it important that when you come out of here you're going to make a lot of money? Instead, why not say you're going to come out and do a lot of good? You're going to do great things. Maybe you'll make money. Maybe you won't. But you'll do great things.

We had an alumni magazine (I don't know if it exists any more) and quite a few years ago it had on its cover a person whom I knew personally, who had graduated. It showed him on the cover in a very fancy sports car, a Porsche, or whatever. This guy had "made it." Look at this. Look what he's driving. I thought that was terrible, that that's what we're promoting. If a student today, one of our graduating students, says, "You know what? I got an offer from McKinsey. I'll get a starting salary of \$200,000 a year. Great. Wonderful. I can brag about it. But you know what I'm going to do? I'm going to go work at the Securities and Exchange Commission. They badly need people. I concentrated in Finance, and I can help them out. I'll only get paid \$50,000 a year." Look at this. First of all, he or she is being told that, in some sense, that's a failure. Second, it's even worse than that, because if you do that is you're lowering the average starting salary for the whole graduating class so you're hurting your classmates, and you're hurting the school.

B: In ranking, because ...

P: In ranking, because you're lowering the average.

B: Business Week and these other outfits that do the rankings always plug in starting salaries.

P: Yeah. Starting salaries. So, I find today very few students – there are some – who have an interest in education, who have an interest in going to developing countries. There are some people. And maybe it's picking up now. But I think one of the trends, one of the changes is a movement away from the public sector toward general corporate type stuff. That's unfortunate.

B: In that same vein, very few students do a thesis now.

P: That's a different matter. I think the thesis was always a mistake. I think that having a required thesis just doesn't make sense in a professional school such as a business school. We're not teaching students how to do research. You could call it a masters of science in management. But the fact of the matter is that it's not science. It's a professional school.

And what used to happen with the thesis is that a very small number of faculty would each end up supervising 15 or 20 theses. A small number of students would learn a lot from doing a thesis. And a large number of students, you had to pull them through, and it was just garbage that they were producing.

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So I think it was a good thing that we got rid of the thesis. The problem was MIT. We had to get MIT to let us do that.

B: Oh, absolutely. Because Engineering still has a thesis.

P: Oh, yes. Every other master's degree.

B: That's good to hear your views on that important point about where our graduates go and the climate of the school.

P: I think it's a broad question. The narrow question, where do our graduates go? But the broad question is what are the values we promote? And the Career Development office has a very clear promotion of one value, which is making money. And the more money you make, the better. I think that has all kinds of consequences with respect to how people view ethics. What's okay? What's not okay. If the objective is to make as much money as possible then more stuff becomes okay.

G: And more stuff goes back to the sustainability issue, which I'm guessing is the underlying issue – that we cannot continue to consume at the rates that we have and sustain the natural environment.

P: That's just nonsense. And all this sustainability stuff is just nonsense. And you can record that exactly as I said it.

G: Okay. You can edit it out if you want to.

P: Nobody can explain what sustainability is. I asked all kinds of people here, "What do you mean by sustainability? What does that mean?" And nobody has a clear meaning. Everybody thinks it means something else. So, what does it mean to say that we can't consume or we can't use oil? What do we mean by sustainability? There are serious environmental issues and questions that need to be addressed. But that's not sustainability. Sustainability is just a buzzword that's used in a silly, over-simplified way. "Don't turn lights on because it's not sustainable."

G: I certainly share some of those views, and I want to hear your views and not argue with you, Bob.

P: So that's my view about sustainability. That's been a big thrust for the school. It's a buzzword, and I guess it sells. It's unfortunate.

I think that doing work on policy issues, whether it's related to environment, whether it's related to income inequality, whether it's related to whatever, is important. But coming up with this buzzword called "sustainability" is really sad. It's very sad for a place that considers itself science-oriented.

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G: You know what my understanding of it is, that it's intended to put a thrust into something different than just promoting corporate well being and profit and higher starting salaries, that there is a responsibility that's here. I think people are trying to work out what that is, and using that in a way to differentiate what MIT does from some other business schools. So is that good or bad?

P: That's not what sustainability is. That's not what they're talking about. I think there's nothing wrong with having people work on issues of ethics, having people work on questions of what are things that managers can do that can make this a better society, that can do things like create better healthcare, more affordable healthcare, that can deal with crime and reduce crime, that can provide more educational opportunities. Some of our graduates have gone off in educational endeavors, working in companies that create educational products, or trying to start schools. Those are all very good things that provide social benefits.

G: Right. And now there's social entrepreneurship, which is another developing approach.

P: Yeah. But, you see, when people hear "sustainability," they're usually talking about energy, and let's not use oil or other resources, and don't consume. Why not? What exactly is the point? And that's what nobody can address.

B: No, that's well said. Well, I'm glad we got on these themes. Those are important.

P: Yes.

B: Were there any other things have been on your mind that we should get down?

P: No. The School has moved, and they've had a number of varying initiatives over the years. When Lester Thurow was dean, one was international – and we did very little in the way of international teaching. He really pushed the international aspect, which I think was important. That was very good.

B: Yeah. As you look at the history of the school, we've shut some programs down. We had this Accelerated Masters Program, which we shut down. We shut down the program that you taught when you first came, the Senior Executive Program. We shut down Health Studies and some of those areas that were a part of being a management school. But we've started a lot of things at the same time.

P: And some of the programs were shut down just because they weren't working economically. The Senior Executive Program was shut down because we weren't getting enough applicants. We didn't have enough people who could come here and take nine weeks out of their lives and devote it to a program like that. That was the problem. I think it was a good program, but you had to devote nine weeks to it. Other programs probably just didn't make sense.

G: Look what we're doing in executive education now. I think we found a different way of delivering that content than a senior executive program.

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P: Yeah. That's right.

G: We had people come here in groups, and they'd have a different kind of impact.

P: One thing we forgot about. As you know, at Sloan there are many PhD programs in different areas. There's a PhD program in Marketing, there's a PhD program in Accounting, there's a PhD program in Finance, in Organizations, and so on. So there are all these different programs, and they're small. Typically each program has maybe two or three students who start every year and another small group who finish each year. We had a program in Applied Economics – a PhD program – that we ran for quite a few years. I don't remember how many.

G: Erik Brynjolfsson –

P: Yes, Erik Brynjolfsson came out of that program. His brother, John Brynjolfsson, also was in that program. John is at PIMCO.

P: So, we had a PhD program. And we had some great students. Erik was one. We had others. But we reached a point where we felt it just wasn't making sense because of the scale. Again, because we'd have maybe two or three students a year enter, and we really couldn't offer many courses. So they ended up taking most of their courses over in the Economics Department.

We ended up deciding that it just didn't make sense economically in terms of scale. So, the Finance PhD renamed itself the PhD in Financial Economics. The idea was that the money we had to take PhD students went to Finance. I think, in the end, they didn't get to keep that. I think it ended up going back into whatever pot the PhD money goes into. But the PhD program in Finance is still called Financial Economics for that reason. The net result is that we don't have very many PhD students. We'll work with PhD students in Finance occasionally. More typical is to work with PhD students in the Economics Department. That's more common. My RAs, for example, have been PhD students in the department. And often, like now, my RAs are all undergraduate UROP students who are great.

B: Oh, our undergraduate students are incredible.

P: They're amazing. You get some really good students, they're just fantastic.

B: Okay. That's a good addition. Okay. You've got to be somewhere by one.

END OF INTERVIEW