DON CHEW: Good afternoon, and welcome to the First Annual Roundtable on Risk Capital and Innovation. (It may also be the last, of course, but I’m hoping it will have a successor.) My name is Don Chew, and I will serve as co-moderator of this discussion along with Bill Petty and John Martin, the principal organizers of this session. I am Editor of the Continental Bank’s Journal of Applied Corporate Finance. The aim of the Journal is to “translate” outstanding research in corporate finance—conducted primarily by academics at our business schools and published in academic journals—into reasonably plain English for corporate executives. It attempts to provide a meeting ground for theorist and practitioner by stressing the practical import of the research.

With this aim in mind, I would like to use this discussion to give people in the business world a look at the thinking and research now going on at our universities and business schools on the subject of venture capital—or, to use the more inclusive term, risk capital. Stated as broadly as possible, the main issues are these: What is happening today in U.S. venture and other risk capital markets? What do we know about how the functioning of these markets affects the economy at large? And, can we use some of the practices of our own risk capital markets to help in the ongoing transformation of Eastern European economies?
Another promising line of inquiry is to ask what lessons from venture capital can be applied to the financial management of our large public corporations. For example (and I’m betraying my own biases here), some corporate finance scholars, notably Michael Jensen, have argued that the LBO phenomenon represents an on-the-whole successful application of some of the principles of venture capital—especially concentration of ownership and intensive monitoring by a financially interested board—to the management of mature public companies. More recently, Jensen has also argued that the “overshooting” and boom-bust cycle experienced by the LBO market were likely caused by a “contracting failure”—that is, by a rather gross misalignment of incentives between the LBO sponsors and the limited partners who provided the funds. And, as Jensen himself suggested, this kind of “contracting” problem may well explain the recent boom-bust cycle and thus part of the currently depressed state of the venture capital market.

The practices and conventions of our venture markets may also contain at least partial solutions to the problems faced by our largest companies in raising capital—especially the credibility gap with investors that academics have called “informational asymmetry,” but also the so-called “agency cost” problem, the separation of ownership from control that reduces the value of many of our largest companies. Large public companies may also be able to learn from venture capitalists in funding and structuring their own R&D and other growth investments. For example, before the changes in tax law brought about by the Tax Reform Act of 1986, R&D limited partnerships appeared to be providing a tax-efficient vehicle for importing the entrepreneurial spirit into the corporate R&D effort.

This discussion has been set up to fall into two distinct parts. In the first—and by far the longer of the two—we will talk about current developments in U.S. risk capital markets. Where is the money coming from for new ventures? How is that changing, and why? How much does the capital cost, and how are the deals structured? In the second part, we will try to extend some of the insights from U.S. venture capital practice to current developments in Eastern Europe.

Venture capital alone clearly is not the answer to the problems of Eastern European economies. Perhaps the major information “asymmetry” now discouraging foreign investors is one that only government policymakers can correct—that is, the absence of well-defined property rights. But, on the basis of what we know about U.S. ventures, is there much in the private sector alone that can be done to stimulate new business development in the Eastern bloc countries? The privatization of state enterprise is also expected to play a major role in transforming these economies. So, to what extent can the conventions of our own venture markets be exported both to create new businesses and to bring about stronger incentives for improved efficiency within state-owned businesses?

To discuss these issues, we’ve assembled a group of people that represent a variety of perspectives and experience. And I’ll now introduce them.

- **GORDON BATY** is the Managing Partner of Zero Stage Capital Company, a well-known venture capital firm based in Cambridge. He has over 20 years of experience in the formation, financing, and operation of new high-technology firms. Gordon was the founder and CEO of two early-stage, high-technology companies that he later sold to Fortune 500 corporations. He holds a Ph.D. in Finance from MIT and his latest book is *Entrepreneurship for the Nineties* (Prentice-Hall, 1990).

- **WILLIAM BYGRAVE** is the Frederic C. Hamilton Professor of Free Enterprise and academic coordinator of entrepreneurial studies at Babson College. Bill’s current research interests center on high-potential start-ups, and he is the co-author of a book on venture capital that will be published by the Harvard Business School Press in 1992. Like Gordon, Bill also has considerable experience in the formation of high-tech ventures; and he served on the investment committee of the Massachusetts Capital Resource Company, a state-supervised venture capital fund. Bill, by the way, has led a double academic life, earning a Ph.D. in physics from Oxford and much later a doctorate in Business Administration from Boston University.

- **PATRICK FINEGAN** is a Partner of Stern Stewart & Co., a corporate finance advisory firm specializing in corporate planning, valuation, restructuring, and value-based in-
centive compensation. Pat leads Stern Stewart’s industrial consulting practice for smaller and private companies.

**KENNETH FROOT**

is the Thomas Henry Carroll-Ford Visiting Professor at the Harvard Business School, where he teaches finance. Ken has been a consultant to many international companies and official institutions, including the International Monetary Fund, the World Bank, and the Board of Governors of the Federal Reserve; and he is currently serving as adviser to the Prime Minister of the Yugoslav Republic of Slovenia.

**THOMAS GRAY**

is currently Chief Economist of the Small Business Administration, where he has worked since 1978. His major duties include the development of a small business economic data base, and the supervision of research on the following areas: structural changes in small businesses in response to changing demographics; small business adoption of new technologies; and the relationship between small business development and the efficiency of the American economy.

**JOHN KENSINGER**

is Associate Professor of Finance at the University of North Texas. John has published widely on corporate restructuring and innovations in corporate organizational forms such as R&D limited partnerships, project finance, and network organizations. John is also co-author of *Innovations in Dequity Financing*.

**GARY LOVEMAN**

is Assistant Professor at the Harvard Business School. His research focuses on changes in both the demand and supply side of labor markets, and the human resource management issues posed by these changes. Gary is also currently involved in a field study of private small business development in Poland.

**STEPHEN MAGEE**

is the Fred H. Moore Professor of Finance and Economics at the University of Texas at Austin. He has served on the Economic Advisory Board to the U.S. Secretary of Commerce and the National Science Foundation Advisory Committee for Economics. Steve’s primary research interest is the effect of law and regulation on economic efficiency and growth. He is currently a visiting professor at the University of Chicago.

**JOHN MARTIN,**

one of my co-moderators in this discussion, is the Margaret and Eugene McDermott Centennial Professor of Banking and Finance at the University of Texas at Austin. John has written four books, as well as a number of articles on financial planning, corporate restructuring, and the impact of legal and organizational issues on financial management.

**BRUCE PETERSEN**

is Associate Professor of Economics at Washington University, and was formerly a senior economist at the Federal Reserve Bank of Chicago. His areas of research include industrial organization, public finance, and the microfoundations of macroeconomics. Bruce is especially interested in the question of how the choice of internal versus external financing affects corporate spending on capital investment and R&D.

**WILLIAM PETTY,**

my other co-moderator, is Professor of Finance and the W.W. Caruth Chairholder in Entrepreneurship at Baylor University. Bill’s research publications have been focused in the area of corporate finance, with a developing interest in entrepreneurial finance.

**WILLIAM WETZEL**

is the Forbes Professor of Management at the University of New Hampshire’s Whittemore School of Business, and also serves as Director of the School’s Center for Venture Research. His professional and research interests include the role of the entrepreneur in economic development, the financial management of high-growth private companies, and the functioning of informal venture capital markets. Bill also founded and serves as president of Venture Capital Network, Inc., a not-for-profit corporation designed to assist entrepreneurs in finding venture capitalists.
PART I: DEVELOPMENTS IN THE U.S. VENTURE CAPITAL MARKETS

CHEW: Let me start by asking Bill Wetzel to give us a working definition of “risk capital.” How is that different from the venture capital market most of us are familiar with? And can you tell us a little about who you think are the major players in this market, how much money they have to contribute to entrepreneurs, and what sorts of activities they like to fund?

In Search of Angels

WETZEL: I’d like to start off by confessing, as Don did earlier, that my own biases are going to be reflected in my statement of the issues. The area I know most about in venture capital is the so-called “angel” marketplace (which I will get to in a minute), although I’m not unacquainted with the other aspects of the venture capital business.

But first let me say that the set of issues surrounding innovation in business and technology—and the role of venture and other forms of risk capital in stimulating the process of innovation—is just absolutely critical to the economic future of this country. In the most recent President’s Economic Report to the Nation, it was pointed out that innovation and its diffusion accounted for over half of the increase in our standard of living over the last couple of generations.

It should also be pretty obvious by now that our large established corporations are no longer the primary engine of economic growth. During the 1980s—and this was well before the current recession set in—our Fortune 500 companies lost something on the order of four million jobs. Over roughly the same period, our smaller companies created something like 17 million net new jobs. On the basis of these two numbers alone, I would submit that this country’s entrepreneurs and its high-risk investors—and our success in strengthening the connection between these two groups—constitute one of our vital competitive edges in world markets. It’s an edge we need to maintain in the face of global changes that could very quickly erode that competitive position.

Now, in thinking about what, if anything, we ought to be doing from a public policy standpoint to encourage the formation of risk capital, it’s useful to begin by identifying both the principal innovators or entrepreneurs—that is, the potential users of the risk capital—and the investors, or the suppliers of that capital. There are several distinct groups of both innovators and investors, and I’d like to attempt to set up some categories for classifying members of each of these two groups.

The innovators—the ventures that are creating the jobs, the new technology, the products, while also paying taxes and increasing exports—can usefully be divided into four categories: (1) unaffiliated, individual inventors; (2) start-up ventures; (3) large, established technology-based companies; and (4) non-profit organizations such as universities and teaching hospitals.

By far the most productive among these four groups, I would argue, are the firms that fall within the second category—that is, the start-up ventures. Now, I suggest we can usefully talk about three classes of start-ups: First is what I call “lifestyle ventures”—these are firms whose sales potential is limited to, say, $10 million. Second are what I call “middle market ventures”—those that have the potential to be a $50 million company in a relatively short period of time, but that are likely to remain privately owned rather than going public or being acquired by a larger company. Although these companies are relatively invisible, they in many ways constitute the backbone of the economy. They are the real workhorses in the job-generating process. And, third and finally, we come to the “high potential ventures”—firms whose growth potential is likely to go well beyond $50 or even $100 million within five years of starting out. These are the more visible companies, and they are the ones institutional venture capital funds tend to focus upon.

Now, to give you some idea of the relative contributions of these various classes of innovators, let me cite some numbers I’ve appropriated from

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I would suggest there are a quarter of a million active angels in this country—that is, self-made high-net-worth individuals who, to some degree, will help fund the next generation of entrepreneurs in the U.S. I would guess that they invest annually somewhere between $20 and $30 billion, which is at least 10 times the amount invested by institutional venture funds... As the institutional funds continue to reduce their already small commitment to early-stage seed financing, we ought to do everything we can to avail ourselves of the knowhow and the capital that are in the minds and the pocketbooks of the angels.

—Bill Wetzel—
the work of David Birch. Birch has concluded that there are on the order of 50,000 new start-ups in this country every year. And about 5% of these total start-ups would fall into one of these two larger start-up categories that I’ve called “middle market” and “high potential” ventures.

With respect to existing companies, Birch has pointed out that, of the roughly 10 million “small businesses” in the country, over 500,000 are growing faster than 50% per year. And some recent surveys lend support to Birch’s estimates. For example, the median annual growth rate of Inc. magazine’s list of the 500 fastest-growing private companies in America is something like 95% per year; the 500th firm on the list is growing at 65%. So those companies are out there, and they’re doing some remarkable things. But they tend not to make the headlines.

Birch has attempted to translate these kinds of numbers into an annual venture capital requirement—or at least into an annual equity capital requirement—that is, the amount necessary to fund all of these innovators. His estimate comes out in the range of $50 to $100 billion a year. And, that, I think, sums up the importance of the question we’re dealing with here today. That is, where is the capital coming from to finance this growing range of $50 to $100 billion? This is the range Birch is talking about. He estimates that half a million companies that could use something on the order of $50 billion.) Also disturbing to me is the fact that, of the 1,000 companies receiving venture capital funding, only 25% were getting venture backing for the first time. The rest were follow-on fundings of companies already in venture capitalists’ portfolios. And, perhaps even more troublesome, only $60 million dollars, or 3% of the venture capital invested last year went into seed and start-up deals.

The professional venture funds, to be sure, never really have gotten much involved in financing genuine start-ups, but they’re even less into it now. So, the issues I would raise here are these: What are the causes of the current trend in venture capital funding? And, can that trend be reversed, perhaps by enlarging the pool of funds currently available for venture capitalists? And if the answer is no, then who’s going to bankroll our next generation of entrepreneurs?

The second source of innovative risk capital that I’d like to talk about is the “angel” marketplace, or the invisible providers of risk capital. I define angels as primarily self-made, high-net-worth individuals who are unaffiliated either in a family or managerial sense with the ventures they back.

One of my favorite pastimes is looking at Forbes’ portraits of the 400 richest people in the U.S., the annual ridiculous edition that comes out every October. I’m interested in it because I’m curious as to where the wealth comes from in these megabuck families. At the top of this year’s list you’ll find Henry Kluge, the German immigrant who founded Metromedia. Number two is Bill Gates, the 35-year old founder of Microsoft, with a net worth of something like $4.8 billion. And third is Samuel Walton, an entrepreneur in the middle of Arkansas, who has also accumulated a fortune of incredible dimensions. The average net worth of the people on that list is $720 million; the bottom one is $275 million. Now, if you add up all this wealth, the people listed in the Forbes 400 alone represent a pool of capital of $288 billion dollars!

Now, with respect to the entire angel marketplace, which of course extends well beyond the Forbes 400, I will cite the following data—and I can say this with some confidence, because nobody can prove me wrong; there just aren’t any sources of really good data, which is one of the troubles with research in this area.

On the basis of this admittedly preliminary data, I would suggest that there are a quarter of a million active angels in this country—that is, self-made high-net-worth individuals who, to some degree, will help fund the next generation of entrepreneurs in the U.S. I would guess that they invest annually somewhere between $20 and $30 billion, which is at least 10 times the amount invested by institutional venture funds. To be sure, the angels put that money out in much smaller chunks than do conventional venture capital firms. I would also estimate that the number of companies receiving backing from angels is probably on the order of 80,000 to 100,000.
Using data we collected at our Center for Venture Research, we looked at sources of funding for new technology-based firms that were founded in New England between 1975 and 1986—that is, during the heydays of the venture capital industry. And we found that over 80% of the angel deals involved the commitment of less than half a million dollars. In the same period, only 13% of the venture fund deals were in that size range. Whereas the median angel deal was $150,000, the median venture capital deal was in excess of a million. Equally important, whereas 60% of the angel deals were seed or start-up deals, only 28% of the institutional venture deals were start-ups.

So, let me summarize this phenomenon by proposing that the angel marketplace is really not a competitive or alternative marketplace to the institutional marketplace, but rather a complementary one. I would also argue that, as the institutional funds continue to reduce their already small commitment to early-stage seed financing, we ought to do everything we can to avail ourselves of the know-how and the capital that are in the minds and the pocketbooks of the angels. Because it’s this group of individuals, not the institutional venture funds, that really are the farmers of American industry. They are plowing and seeding the ground for the next generation of entrepreneurs.

So the issues I would raise here with respect to angels—and, again, I consider them absolutely critical to the future of our entrepreneurial economy—are as follows: How many active angels are really out there? Are their investment decision models different from those of the venture funds? And let me tip my hand by saying I think that they are quite different. I think the angels respond to some personal “hot buttons,” if you will. I’m convinced they get “psychic income” that prompts them to behave in ways that are significantly different from venture fund managers who are trustees for other people’s money. I suspect they have greater tolerance for risk and perhaps longer time horizons than conventional venture capital fund managers.

And I will bring this peroration to a close by suggesting that the active angels in this country are probably outnumbered by what I call “virgin angels”—that is, potential venture investors—by about five to one. And thus a very pressing issue for me is: How do we convert these virgin angels into streetwalkers?

CHEW: Bill, we know that the institutional venture capital market is down from a high of about $4 billion in 1987 to less than a billion this year. What, if anything, do we know about current trends in the angel market?

WETZEL: We don’t have the data yet to be able to say. We are now in the middle of collecting it. But my sense is that the angels have become more active as the venture market has gone down.

CHEW: But doesn’t that suggest that the two groups of investors are not just complementary markets, as you said? They may also function in part as “substitutes.” The angels may be picking up the slack, funding some of the opportunities now being passed over by the institutional venture capitalists.

WETZEL: Yes, I agree. I think that’s happening to some degree.

CHEW: Also, Bill, what you are calling the angels’ hot buttons or psychic income may also be reflections of what economists call lower “information costs.” Having angels instead of venture fund managers provide capital for start-ups may well be a highly efficient way of overcoming the large information costs that confront anybody trying to raise outside capital for risky ventures. In many cases, I would guess that the angels either know the entrepreneurs personally, or they understand the business of running start-ups because they’ve done it themselves.

WETZEL: That’s right. Angels typically fund people they know working in fields they know.

The SBA Looks at Angels

TOM GRAY: We at the Small Business Administration were fortunate enough to work with Bill when he first started measuring the angel market. We have done a number of follow-up studies since then, and I would like to use these studies as a basis for expanding on several points that Bill made.

In particular, I think this information issue that Bill and Don have raised is absolutely critical to how these risk capital markets work. And it’s not so much information costs I have in mind, but what I would call the positive, or synergistic, information benefits that often arise from the union of investor and entrepreneur. In the angel venture market, investors often provide not only capital, but also their own expertise. From our studies, it appears that investors’ willingness to commit their capital seems to depend on their own industry-specific knowledge, or on their familiarity with the particular marketplace that the venture is aimed at. The investors are bringing much more than their wealth, they’re also bringing knowledge.

WETZEL: That’s right, they’re value-adding investors.

GRAY: I would also agree with Bill’s statement that there appears to be growth of activity in this angel marketplace, even as the institutional market continues to decline. The Federal Reserve does a survey on an irregular basis of the wealth status of American individuals. They survey what they call “well-to-do” families,
those with annual incomes of over $100,000. And one of the findings that’s truly startling to me is that over half of those families own at least a partial interest in a business. These people either have a family or personal business, or they are angel investors in other people’s businesses—or both. In fact, a lot of these people fall into the “both” category. CHEW: That must include a lot of physicians and dentists?
GRAY: Sure. But, the evidence also suggests that 80% of angel investors are themselves entrepreneurs. They’re not just wealthy people; they’re people who have launched their own businesses. And that’s what I mean when I say the angels are bringing knowledge to the market. By and large, the angel market is a matter of entrepreneurial people funding other entrepreneurs. To use Don’s terminology, this has got to reduce information costs.
WETZEL: Let me add that there’s evidence that 80% of the millionaires in the U.S. are self-made entrepreneurs. And this supports my contention that there’s a large stock of untapped angel capital in this country.

Hurdle Rates in Venture Capital

BILL PETTY: Bill, there was a recent article in the Wall Street Journal, which cited your work, where the author presented a pretty compelling case for the relationship between the capital gains tax and the level of entrepreneurial investments. As part of the article, the writer described the four basic risk capital markets: (1) professional venture capitalists, (2) initial public offerings, (3) angels, and (4) mom-and-pop operations. Drawing on Commerce Department and Federal Reserve figures, he claimed that in 1986 these four markets produced about $180 billion in new entrepreneurial investments. He further estimated that the make-up of these markets were two percent from professional venture capitalists (after removing leveraged buy outs and acquisitions), 13 percent IPOs, 23 percent from angels, and 62 percent from the moms and pops of the world. However, by 1990, the $180 billion market was thought to be about $90 billion—half of its former size of only four years earlier, with no apparent change in the make-up of the market.

BRUCE PETERSEN: These numbers just confirm my suspicion that the great preponderance of risk capital in this country is internally generated; it doesn’t come from outside sources. In fact, internal finance has probably always been the dominant form of finance for high-risk start-ups, with institutional venture capital accounting for a fairly minor share of that market.

And I don’t believe that’s about to change much either. If we can believe Bill Sahlman’s recent article on venture capital in the Journal of Financial Economics, venture capitalists are using discount rates in the range of 40-60% in evaluating new projects. Such high discount rates probably reflect not only the great uncertainty and risk of such ventures, but also major information asymmetry and moral hazard problems. Remember that if entrepreneurs know a lot more about their chances of success than the people they’re asking to fund them, this can lead to an adverse selection problem in which venture capital investors get stuck with a disproportionately large proportion of losers. For this reason, venture capitalists may rationally require 40% rates of return on individual projects.

Such high hurdle rates would in turn explain why venture capital plays such a limited role in start-up ventures. It just doesn’t seem to me that many projects can pass that kind of a test. It doesn’t appear that many venture capital deals are going to get done if those are the kind of discount rates they need to break even.

CHEW: What are the discount rates for angels, Bill? Is there a survey that tells us they will accept expected rates of return as low as, say, 25% because they personally know the people and the process they’re working with?
WETZEL: I’m going to go out on a limb here. I think angels are very much like venture capitalists in that they don’t want to lose money. They’re just as diligent in investigating the downside risks. But I believe they attach more weight to the upside.
Bill Sahlman’s study suggests that venture capitalists are applying ex ante discount rates of 40% to 60% to individual deals, partly out of fear that they may be getting more than their share of lemons. Venture capitalists may need this kind of “lemons premium,” if you will, to ensure they will earn a high enough rate of return on their winners to make up for their losses. Such high hurdle rates would also explain why venture capital plays such a limited role in start-up ventures. I’ve got to believe these kind of discount rates are denying funding for a lot of otherwise viable projects.

—Bruce Petersen—

KEN FROOT: Well, it’s not clear to me what these information asymmetries are in the case of new ventures, and whether there really is a potential adverse selection problem. Now, I agree that a medium-size company with a choice between the debt or equity markets might have adverse selection properties associated with it. That is, if the company’s management thinks the stock is overvalued based on its view of the future, then it will come to the equity market instead of raising debt. And the market is well aware of that incentive. In fact, that’s probably the main reason why stock prices fall—by about 3%, on average—when new equity offerings are announced.

But, in the case of venture capital, you can only get that kind of adverse selection if the entrepreneur with the idea has somewhere else to go for capital. So, it doesn’t seem likely that venture capitalists are getting more than their share of the lemons. They’re probably getting all of them, good and bad alike—except perhaps for the ones who happen to have an angel, or happen to be pretty rich themselves.

So this brings us back to the question: Why are venture capitalists asking for 50% returns? I don’t know the answer to that. But there may be some confusion here about whether that 50% is really an expected return. My suspicion is that Sahlman is really reporting expected returns conditional on succeeding. In other words, venture capitalists are probably saying to entrepreneurs, “Show me a business plan that, if it succeeds, is likely to deliver 50% per annum. Because I have all this downside risk, I need 50% returns on my winners to get my total portfolio return of 25%.”

PETERSEN: Well, I’m not convinced that venture capitalists really are getting all the entrepreneurs, good and bad alike. A 1990 study by Barry,
Muscarella et al. in the *Journal of Financial Economics* reported that only a minority of all firms that went public in recent years made any use of venture capital. So, I don't think you can so easily dismiss the possibility of a serious adverse selection problem here, especially given the functioning of this alternative angel market Bill's described.

**Measuring Rates of Return in Venture Capital**

**BILL BYGRAVE:** I’ve done a good deal of research in this area, and let me warn that you’ve got to be careful with these surveys and especially with self-reported rates of return. I was sitting in a room at Harvard one day in 1988 with people that represented about one third of venture capital in America. And Bill Sahlman had these people fill out a questionnaire in which they were asked to project over the next five years both their own portfolio’s rate of return and the average rate of return of the entire industry. The most interesting finding to me was that these fund managers thought that, although their own realized rates of return would be about 25%, the industry rate of return would be 15% or less.

Another case in point: In the summer of 1983, Congress did a survey of some 250 venture capital firms. In that survey, the fund managers said they expected to earn between 30% and 40% per annum over the next five years. The actual returns reported by those same firms over the next five years turned out to be in the range of 12% to 14%.

So, self-reported numbers are extremely unreliable. It’s a bit like bragging rights. Fund managers need to project high rates of return in order to go out and raise their next fund. You want to be able to say that you’re expecting to earn 30% on your fund because 15% is not enough to impress the pension fund managers.

**CHEW:** Do all the studies of venture capital suffer from this self-reporting bias?

**BYGRAVE:** No, they don’t. Thanks to *Venture Economics*, we’ve got the actual numbers now; we’ve got rates of return with high statistical reliability. I helped *Venture Economics* set up its returns database, the numbers were checked carefully, and we went to great lengths to make the sample of firms representative.

**PETTY:** And what do the numbers indicate?

**BYGRAVE:** Well, if you throw all the venture capital firms together, then the median annual return since 1986 is actually below 10%. But this broad average is not very meaningful. The year a given deal got its start seems to have been critical in determining its success, and thus it’s more instructive to break out the returns by what venture capitalists call “vintage,” or what economists call “cohort.”

What we’ve found, for example, is that many of the funds started in 1978 earned better than 40% rates of return. 1978 was a wonderful year to start. There was a shortage of venture capital then, and there were a lot of new technologies just becoming commercial. Microprocessing was one. Biotechnology, although not commercial, was beginning to excite people. So there were a lot of entrepreneurs ready, as it were, to be invested in. And we also had this wonderfully hot over-the-counter market in the early 1980s, which peaked in the first half of 1983. This enabled many of the deals in the late 70s to make their exit by going public and thus earn their 40%.

But each generation of funds since then has earned progressively lower rates of return. And, frankly, most of the post-1985 funds are down in the single digits, some are negative, and some are even going to fail. If they do fail, I believe they will be the first failures in the 45-year history of this industry.

**Venture Capital Contracts and The Boom-Bust Cycle**

**CHEW:** Is this a normal competitive cycle, the kind where you seem inevitably to get too many players chasing too few good deals?

**GORDON BATY:** I don’t think we’ve been around long enough as an industry to say what’s normal. I think we’re looking at a bunch of first-time phenomena.

**CHEW:** But, given that everybody expects the other guy to earn 15% or less, isn’t it the general perception of the industry that there are too many players?

**BATY:** I’m not so sure that’s the case now. That was certainly the perception about three years ago. But because of the recession and a number of other sort of exogenous factors, the industry has changed a lot. You certainly don’t have as many deals now, and you have a lot fewer players. Even those funds with significant amounts of liquidity are sitting on it because they know they’re going to have great difficulty in raising the next pool.

**CHEW:** But, I thought the peak for venture capital deals came back in 1987, well before the recession?

**BATY:** That’s right, and that was the interval when you in fact had too many dollars chasing too few deals.

**CHEW:** Gordon, my understanding is that venture capitalists like yourself that serve as general partner and put the deals together typically put up only about one percent of the equity—and the limited partners supply the rest. It thus seems to me that the dealmakers don’t really bear much downside risk; it’s all been put off onto the limited partners. Is it con-
ceivable that this problem of too many deals could be corrected by making the venture capitalists put up more of the equity—say, as much as 5 or 10% of the deal?

**Baty:** I very much doubt that you could get the general partners to put up 10% of these huge pools. I think that it’s a problem that would be more directly addressed by showing some decent returns so that we could attract more professionals into the industry.

**Cheew:** But wouldn’t this possibly help reassure investors—some of whom may have already been burned once—if the general partners went to them and said, “Look, I’m putting 5% of my own capital on the line to show you that my interests are closely aligned with yours”?

**Baty:** I don’t think it would have much of an effect. Although there are some wealthy venture capitalists who could do that, they don’t represent a large fraction of the population.

But, as I said, I think there are probably other ways that you could achieve that same effect if that were a major concern. For example, the limited partner investors are increasingly insisting on a minimum rate of return—at least a Treasury rate of return—before the general partner is allowed to share in any upside. That’s one mechanism that the big pension fund managers are increasingly insisting on.

**Cheew:** But the general partners still get their management fee every year, don’t they? And that’s not based on performance, it’s just a fixed percentage of the amount invested.

**Baty:** Yes, but even that is under a lot of pressure.

**Cheew:** Really? That’s interesting.

**Baty:** It’s happening.

**Bygrave:** The gatekeepers are changing the industry.

**Baty:** That’s exactly right.

**Bygrave:** By “gatekeepers” I mean people like Stan Pratt, who take one percent for taking money from limited partners and then choosing a fund like Gordon’s to invest that money in. This trend has brought some standardization of the management fee and compensation structure. Today, for example, the capital gains residuals are almost always split 80/20 between the limited and the general partner.

But, Don, to come back to your point, I don’t understand why you need this extra equity from the general partner. I would have thought the 20% participation in the upside would have been more than enough motivation for Gordon to go and do a great job for me.

**Cheew:** Well, it gives him an upside option, but it doesn’t force him to bear any downside risk. And, as I think we saw from our experience in the LBO markets, this gives some dealmakers—the marginal players, if you will—financial incentives just to do deals, even when the payoffs are not likely to be there.

**Bygrave:** I don’t agree with that. I think the downside risk is that he’s going to want to raise another fund, and his ability to raise that fund will depend on the rates of return he provides his limited partners. So, there is a real downside here: Who wants to employ another unsuccessful venture capitalist these days? They’re a dime a dozen.

**Baty:** Yes, we would have to go out and get a real job then. And that’s a nasty business.

**Cheew:** Okay, but this reputation effect, if you will, doesn’t seem to have prevented some dealmakers in the LBO and HLT markets from overpaying, from doing a lot of uneconomic deals. Only a few firms in the LBO market today seem to be working hard to salvage their reputations.

Gordon, would you agree that the venture market could conceivably have produced some players with short horizons—people who had already raised some money and were willing to do deals just to break into the business and get some of their limited partners’ money invested?

**Baty:** I doubt it.

**Cheew:** I asked the wrong person.

**Gary Loveman:** Don, you might be interested to know that one of the largest U.S. venture capital operations today invests 10% of the capital in any venture capital pool they manage for pension funds. And if you ask them why they use their own capital, they say it’s essentially for the reasons you’ve just mentioned.

**Cheew:** I would assume that kind of statement is very helpful in raising...
money from the limited partners, especially in the current environment. **LOVEMAN:** That’s right, they are saying that they’re in the deal financially as well as emotionally with their limited partners; that’s very clear from the terms of the contract.

**CHEW:** Is there any sign that they are having more success in raising money than the average venture capitalist?

**LOVEMAN:** I’m not an expert on this, but my sense is that they’ve done very well. They certainly haven’t had any problem raising money. And we’re talking about several billion dollars under management.

### Angels and Capital Gains Taxes

**BATY:** There’s a whole raft of interesting things that Bill Wetzel raised in his opening remarks that I think are worth returning to. One I’m acutely conscious of is this fact that the amount of institutional money committed to seed and start-up deals has actually gone down in the last decade. So you have this enormous paradox: If you’re an entrepreneur today, it’s literally harder now than it would have been in 1981 to raise your first million dollars to get a company off the ground. On an inflation-adjusted basis, there’s probably 20% fewer dollars under management for seed and early-stage ventures.

Many of the people with the skills and experience of putting together and financing early-stage technology start-ups have gone out of the business entirely. They’ve discovered it’s a lot easier to make a living running a $400 million fund than running a $40 million venture capital fund. And there’s just no way on earth you could possibly make 400 individual investments in million-dollar start-ups—which is about the average initial investment in this business.

So it is a source of concern. The angels do have to take up the slack. Bill, you said you thought you perceived more angel activity now than perhaps in earlier years. And that puzzles me a little, especially given that we now have no capital gains tax differential. It’s been pretty well proven that capital gains doesn’t affect anything in the institutional world. But, in the world of angels, I would think that capital gains taxes are very important. What tax impact do you see, if any, on the proclivity of angels to invest today?

**WETZEL:** Well, the tax impact is a question not of direction, but of degree. Clearly angels respond negatively to increased capital gains taxes. But the work I’ve done, or am familiar with, seems to indicate that the effect of taxes is relatively marginal in the context of the entire investment decision. But, that does not mean that capital gains taxes are not hurting investment. One of the most insidious effects of the capital gains tax—and this will not show up in the statistics—is that it effectively locks up a significant part of the capital that might otherwise have been liquidated and then moved into other kinds of investment, including start-up ventures.

**PAT FINEGAN:** I disagree. The capital gains tax is more likely to affect the structure of angel-financed deals than the availability of financing. Most “angels” are themselves successful entrepreneurs with their own private companies. By adopting a holding company structure, they often plow otherwise taxable distributions from their core business into promising angel-like ventures.

The point is, unlike a large publicly-held company, where a purely diversifying investment adds no value if it can be replicated individually by its shareholders, many private companies avoid double taxation by managing individual portfolio decisions at the corporate level. Also, by entrusting a series of otherwise independent investment decisions by passive family members to one steward, the CEO, fear of double taxation and of recognizing capital gains may actually extend the group’s investment horizon, inclining it toward more venturesome angel-like investments.

Of course, not all such ventures will make Bill’s census of angel deals, since many are structured as unincorporated business units, product extensions, or divisions. And those that do make the list may have poorer odds of success than ventures funded directly by individuals if (1) they hold out less equity participation for the venture’s managers or (2) they exercise less than arm’s-length restraint when advancing additional funds to the venture.

Where I see problems with the capital gains tax is in its second order effect—perpetuating holding periods. Because cashing out is so expensive, many of the private companies I work with have evolved into mini-conglomerates containing lots of what were once angel ventures—many of which have foundered for want of discipline or incentives, or been sustained only by repeated uneconomic cross-subsidies. In many private companies, diversification becomes so expansive, so ingrained, that it gives rise to significant “agency” problems. The tensions can become so fierce in second and third generations that active and passive family members literally tear the company apart.

**WETZEL:** Let me make one other comment on this issue of capital gains taxes. Economists have estimated that the public or social rate of return on investment in technological innovation is at least twice the private rate of return. So there’s a compelling reason for public policymakers to stimulate this kind of investment. And, with minimal impact on the federal revenues, I believe we could target a capital gains tax differential to encourage direct equity investment in seed-
capital or in smaller venture type deals. I’d offer as a model Senator Bumpers’ proposed bill, which says that if an investment is held five years or longer, the gains tax drops to half the current rate; and if you hang onto it for ten years, it drops to zero. So, if we really believe that this is the engine that drives our economy, we ought to establish a capital gains tax differential for investment in start-up and early-stage companies that is designed to unlock more of this pent-up angel capital.

The Social Returns from Innovation

PETERSEN: Bill, what is the evidence that social returns from technological innovation are twice private returns? WETZEL: Well, a secondary source is the President’s Economic Report to the nation back in 1989. The primary source I have in mind was a study by Edwin Mansfield, an economist at Penn, who looked at some 18 innovations. And, although I don’t recall either the nature of the innovations or the time period, Mansfield reported that the “social ROI,” if you will—and, not being an economist, I’m not sure how he measured this—was over 50%, while the private ROI was in the 25% range.

PETERSEN: I have seen several other studies. Zvi Griliches has written a whole book on this, published by the National Bureau of Economic Research, that also finds very high rates of return from innovation. This large “wedge” between the social and private returns from private investment is thought to be the result of a diffusion or spillover effect. The innovating companies can’t appropriate all the gains from their own innovations. And I think this inability to appropriate gains confronts all types of technology investments, not just those funded by venture capital.

Unlike a public company, where a purely diversifying investment adds no value, many private companies avoid double taxation by managing individual portfolio decisions at the corporate level.... Where I see problems with the capital gains tax is its effect of perpetuating holding periods. Because cashing out is so expensive, many private companies I work with have evolved into “mini-conglomerates” containing lots of what were once angel ventures—many of which have founedered for want of discipline or incentives. Diversification becomes so expansive, so ingrained, that it gives rise to significant “agency” problems.

—Pat Finegan—

FINEGAN: I would guess that the principal beneficiaries of innovations are the customers of the innovating companies. Take the case of the computer industry, where the prices of these high technology products coming out of Boston have fallen very rapidly.

CHEW: Can someone tell us a little bit about how economists measure these gains?

FROOT: It’s actually a matter of looking at chunks of areas under demand curves where technologies lead to price reductions and quantity increases. Some of the gains fall into private hands, but the rest is assumed to be increases in consumer surplus.

GRAY: We’ve sponsored some of the follow-up studies to the original Mansfield work. And one study in particular, by Romeo & Rappaport, compares the effects of innovations by small firms to innovations by large companies. The study finds that the gap between the social and private rates of return is even larger for innovations by smaller companies. And this is what you would expect: A smaller company simply doesn’t have the market power to capitalize on its innovation. Competitors typically come in and appropriate much of the gains.

PETERSEN: It’s also interesting to note that the private rates of return on investment in technology and R&D tend to be much higher than the private rates of return on physical investment. This supports my contention that companies face much greater difficulty in raising capital for R&D than for physical investment. And higher actual returns typically imply higher required rates of return.

Accounting for R&D

WETZEL: That last statement reminds me that I really have a bitch with the accounting profession.

CHEW: I don’t think you’re alone in that, Bill.

WETZEL: But I don’t know quite what to do about it. My problem is with the GAAP requirement that says that corporations must expense their corporate R&D immediately even though they can capitalize their investment. This supports my contention that companies face much greater difficulty in raising capital for R&D than for physical investment. And higher actual returns typically imply higher required rates of return.

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WETZEL: Now, one possible solution to this accounting deficiency would be for companies to talk about their R&D in, say, the cash flow section of the corporate annual report. I think there’s room there for management to make adjustments of their GAAP numbers and to explain to investors what sort of returns they expect to earn on that R&D. The accounting profession effectively assumes that R&D is going to have no return. It’s all just money down the drain.

FINEGAN: Most R&D-intensive corporations do mention and, indeed, they highlight their R&D spending. In fact, it’s a 10K requirement.

CHEW: John Kensinger has recently published a study of the stock market reactions to corporate R&D announcements. John, could you tell us what you found?

JOHN KENSINGER: John Martin, Su Chan, and I recently published a study in the Journal of Financial Economics that looked at the stock market’s responses to 95 corporate announcements of increased R&D expenditures. We found that the average market response was significantly positive, on average—and this was the case even for a smaller sample of firms in which the announcements came in the face of an earnings decline. We also found the market responded very positively to announced R&D increases by high-tech firms, but negatively to similar announcements by low-tech companies.

R&D Limited Partnerships

CHEW: So, the stock market, as shortsighted as its critics have made it out to be, does seem capable of anticipating future benefits from R&D, even if the accounting conventions assume they are zero. And, John, isn’t it also fair to say that the market seems to attempt to discriminate between promising and not-so-promising R&D?

KENSINGER: Yes, that’s what our research suggests. But there’s also been another trend in corporate R&D that may have been motivated, at least in small part, by accounting considerations. Many public companies in the ‘80s began to fund some of their R&D “off balance sheet” through a vehicle called the R&D limited partnership, or RDLP. Since the first RDLP was formed in 1978, almost $4 billion has been raised through roughly 250 individual RDLPs. While it’s true that a change in the tax law in 1987 reduced the attractiveness of some of these deals, close to a billion dollars in RDLPs has been raised since then.

To list some of the deals done this year, Genoa raised $26 million through an RDLP this summer; Genetics Institute did one for $37 million in July; Synergen did one for $50 million in February; and PaineWebber Development raised a $50 million RDLP pool to fund corporate R&D projects.

CHEW: Are the limited partners basically the same institutional investors that might otherwise invest in venture capital funds?

KENSINGER: That’s right. These are all private placements with institutional investors.

CHEW: And why would a company choose that vehicle instead of funding the project internally?

KENSINGER: Well, as I said, there were probably some tax and accounting considerations at work here. But I think there’s something more fundamental as well. During the corporate restructuring movement of the ’80s, investors rewarded companies for transactions that loosened management’s control over assets. Such transactions in effect gave the decision to reinvest corporate profits back to the investors who originally supplied the capital. RDLPs, for example, are finite-lived entities that require that all profits from the venture be returned to the investors. By so doing, they eliminate the temptation of corporate management to redirect corporate profits into unprofitable areas they want to subsidize. The high debt financing in LBOs and HLTs, especially those involved in restructuring conglomerates, accomplished much the same end. And investors have volunteered to pay significantly higher prices for projects where they have this kind of control. They’d rather finance specific projects than entire companies because companies last forever; once the capital’s gone in, it’s tough to get it out again. But if you invest in a discrete project—say, a drug development project—then your capital has a well-defined repayment schedule and the project has a finite life, usually ten years or less.

FINEGAN: But, in the case of a new drug project, wouldn’t the parent company sponsoring the RDLP also serve as the distribution arm for the product? If so, it seems to me that at least some of these RDLPs represent a kind of strategic alliance. For example, a drug company whose special strengths are sales, distribution, and marketing may want to keep its R&D outside the corporate structure in order to provide an entrepreneurial environment and incentives for the key engineers that are going to take it into the next century.

KENSINGER: Yes, I agree that specialization and incentives are important motives behind these RDLPs. And, to add to your point about strategic alliances, PaineWebber Development puts together pools of R&D projects for institutional investors; and since there is no corporate general partner to market the products resulting from these projects, PaineWebber will often find or create marketing partners for these technology ventures. As the general partner, PaineWebber will build alliances between the technology and marketing ventures.
FINEGAN: Right, but it seems to me you could get the same specialization and incentive benefits by spinning off the corporate R&D effort into a partially-owned subsidiary, and then giving the key engineers significant ownership of the subsidiary. For this reason, I think one of the main motives for RDLPs was to allow companies to shift the sharing of income and losses for tax purposes over time.

BATY: I think the real reason for RDLPs runs deeper than that. Actually, there are a lot of benefits for investors, but one is the fact that their returns are a function not of profits, but revenues. They get their money back based on the top line, not the bottom line. They don’t care if the product is sold unprofitably, they care only that it gets sold. And, unfortunately, revenues arrive a great deal more reliably than profits, particularly in start-up and early-stage technology deals.

CHEW: John, I thought there were also some major conflicts of interest between the sponsoring corporation that served as general partner and the limited partners supplying the capital. Wasn’t it partly this problem that gave rise to the demand for R&D pools set up and managed by third-party investment bankers?

KENSINGER: That’s right, but besides the third-party pools, there’s been another major change in the structure of the deals that helps overcome this conflict-of-interest problem. Most of the more recent deals by single corporate sponsors—including one that was done by Genentech in 1989 and all the deals done this past year—now include substantial stock warrants in the sponsoring company along with the standard partnership units. Besides mitigating the conflict of interest, these warrants have also effectively allowed companies to place equity without going through a public underwriting.

During the corporate restructuring movement of the ’80s, investors rewarded companies for transactions that loosened management’s control over assets. Such transactions in effect gave the decision to reinvest corporate profits back to the investors who originally supplied the capital. RDLPs, for example, are finite-lived projects that require that all profits from the venture be returned to the investors. By so doing, they eliminate the temptation of corporate management to redirect corporate profits from profitable areas into other areas they want to subsidize. The heavy debt in LBOs and HLTs accomplished much the same end.

—John Kensinger—

LOVEMAN: In some cases, RDLPs are also being used as a vehicle to finance joint projects involving more than one company. And there’s also an interesting “managerial” twist to these joint venture RDLPs. This idea came to me when I was listening to Scott McNealy of Sun Microsystems talk about their deal with AT&T. He said that there is an important difference between undertaking a joint venture and a joint project like an RDLP. The important difference is that a project, as John said, has a contractually defined end. This means that if you have two companies with conflicting cultures and incentives, they have an incentive to get the thing done—basically, just because they don’t like having to deal with each other. The contractual structure forces them to do the unpleasant rather than let the arrangement die through sheer neglect. In the case of joint ventures or strategic alliances, by contrast, there seems to be a strong feeling among a lot of corporate CEOs that indefinite partnerships between two companies like IBM and Microsoft are almost certain to fail. It turns into an endless struggle until one side finally agrees to sell out its investment to the other.

CHEW: So, is this all we can expect from our much vaunted joint ventures and strategic alliances?

LOVEMAN: Well, that seems to be the case when the companies are very different.

A New Breed of Venture Capitalists

LOVEMAN: A number of the big venture capital funds have recently made huge investments in old-line companies that are now virtually bankrupt. These venture capital funds—which include one bank that you would all recognize immediately—come in and buy up a controlling interest. So some venture capitalists have wandered far afield from funding path-breaking technologies. They’re in the business of financial restructuring.

BATY: You’re making a point I think is worth amplifying here. When the general lament starts about how the flow of money into the venture capital industry has fallen way off from its former peak, I would suggest you go back and look at the composition of that peak. Of the $4 billion that went into the industry in 1987, $2 billion really went into just two funds that were doing financial restructuring. They don’t represent venture capital, they’re what Bill Bygrave and Jeff Timmons call merchant capitalists.
They’re opportunists operating diversified equity pools whose aim is to stab whatever bleeds. They’re not starting high-tech or innovative firms; they’re not funding the Federal Expresses or the Intels of the future. They’re white-gloves people who have no interest in getting dirt under their fingernails.

So, if you ignore that $2 billion of merchant capital, the real peak for venture capital in ’87 was only around $2 billion. Now, I don’t think we’re going to reach $2 billion this year; in fact I think we’ll probably end up at about a billion. But, while that’s not that great, it’s also not the disaster that is sometimes portrayed by people who write for the Wall Street Journal.

BYGRAVE: To evaluate the current level of venture capital, you really have to use a little historical perspective. As recently as 1974, there was only about $20 or $30 million a year in new money. On an inflation-adjusted basis, I think we’re still on a much higher level than we were in, say, 1968, which was the last peak of the venture capital cycle.

BATY: Oh, easily.

CHEW: So, if you remove these LBOs and financial restructurings from the totals, then there is no trend, or just a slightly upward trend?

BATY: No, the trend is definitely down from the peak, or what I would call the period of “excess,” of the mid-’80s. No question about that.

But, you see, that’s the mechanism by which the returns are going to start coming back to some kind of historical average level. And there are two effects at work here. First, the investment decisions will become more conservative and the ROIs at harvest are going to be higher. And second—and although this has largely escaped the scrutiny of academia, I think it’s going to turn out to be important—there’s a tremendous secondary market developing in partnership interests. When a bank goes defunct and they have on their balance sheet a $20 million investment in venture capital partnerships, there are venture capital funds set up to go bottom fishing and buy up those outfits at anywhere from 25% to 75% of the original cost basis—that is, at very low valuations. And that activity alone is going to give a significant uplift to the ultimate returns to the industry. So, even as we sit around and lament and hang crepe, I think the returns are on their way back up.

Now, the returns are almost certainly not going to rise to the 40% levels that Bill was attributing to 1982-83—and I think that will turn out to have been an anomalous era. What I think we will find is a return to something more equivalent, say, to the average of the last 12 or 15 years.

PETERSEN: Well, let me point out that in the case of this bottom fishing in the secondary market, the increase in investor returns does not represent an increase in the social return. It’s just taking an asset off of one balance sheet and replacing it on another; one party’s loss is another party’s gain. And from a social point of view, it’s thus a zero-sum transaction.

CHEW: But I think Gordon’s also suggesting that this kind of financial investing performs a social function just by helping to revive the market. Strengthening the secondary market may be what’s necessary to get the primary market back on its feet.

BATY: Yes, that secondary market activity will increase the propensity of some of the people who have pulled away from venture investment to move back into it once they see the returns coming back.

LIQUIDITY AND HIGH EXPECTED RETURNS

BYGRAVE: Let me just say something about returns. Given our present knowledge that historical returns have run on the order of 15% to 20%, this should help educate investors and help manage their expectations: 15-20% is really not at all bad for a pension fund that invests in, say, 60 different venture capital funds. Except for the last ten years, when the S&P has performed extraordinarily well, I think a normal rate of return on the S&P would run in the range of 7-10%. So, placed in this historical perspective, 15-20% for venture capital is probably quite acceptable.

FINEGAN: But it seems to me you have to adjust all these return calculations for interest rates. Have you attempted any of these adjustments?

BYGRAVE: I agree that we should. But, let’s say that the expected rate of return on venture capital is 15%, and that the expected rate on the S&P 500 is half of that (as the actual return frequently turned out to be in the years between 1946 and 1981). In that case, I would say that 15% is not a bad return for pension fund managers absolutely swamped with money flowing in every day—and terrified about where they’re going to invest it before the day is out. And I think once fund managers come to accept that 15-20%, not 30-40%, is the realistic range of expectations, they will actually find that historical yield attractive.

CHEW: Based on current long Treasury yields of about 8%, I would guess that the expected return on the S&P 500 would be at least around 14-16% today. If that’s true, then a 15-20% expected return on venture capital seems like a pretty meager premium above the S&P 500 when you consider the illiquidity along with the level of risk.

BATY: Well, one man’s illiquidity is another man’s stability. The pension fund manager has a number of problems besides illiquidity. He needs the ability to plan liquidity; and venture capital can play a role in that plan-
ning. A whole portfolio of venture capital partnerships would not be a great pension fund. But one that includes a few funds makes all kinds of sense from a liquidity planning point of view.

BYGRAVE: I believe the entire pool of U.S. pension fund money is about $3 trillion. And let’s say there is about $30 or $40 billion tied up today in venture capital. Now, if that amount could come from pension funds, then we’d still only be talking about one percent of all pension monies going into venture capital. So, when you say you’re concerned about the illiquidity of venture capital, I think you ought to keep in mind that pension funds can certainly afford to have such small amounts in a relatively non-liquid form.

CHEW: But the question I’m asking is about the marginal effect of venture capital investment on the risk and liquidity of a portfolio. Investors’ required rates of return, at least as I understand the theory, are supposed to be determined by the effects at the margin.

FINEGAN: This may be another reason why the market for angel financing seems to be going strong while institutional venture capital financing is down. I think it has less to do with individual risk preferences and people’s willingness to put money on the line than with turnover expectations—with how frequently investors expect to want to enter and exit a security. As long as the time horizon between transaction costs is longer for a so-called angel than for a passive venture fund investor—as I think it inevitably will be—then the angel can afford to pay a higher entry price because the exit costs will be less; the exit costs will be lower not only for that particular investor, but for all subsequent investors.

To illustrate how illiquidity raises expected returns and lowers prices, look at the current condition of the junk bond market. I’ve been involved in some recent work valuing a number of junk bond portfolios owned by bankrupt institutions. Because of the lack of liquidity in the current environment, to sell a junk bond portfolio you essentially have to perform an IPO. You essentially have to re-market the portfolio to the investment community.

For a thinly traded junk bond, the costs of such a re-offering often run as high as 400 to 500 basis points. And if you consider that the average turnover of junk bonds in institutional portfolios is still, even in today’s distressed marketplace, about 18 months, and if you assume we will have an illiquid market in most junk bonds for at least another three or four more years, then you’re talking about taking off 10 or 15% of the portfolio’s value in transaction costs. This is the sheer cost of illiquidity.

So, I think the average expected turnover is a critical pricing variable in a highly illiquid market that, like venture capital, has high search costs associated with valuing the assets. And given this kind of illiquidity premium today, if you were a small private company seeking access to capital, you would do everything within your power to resist the temptation to use the debt markets currently. Small companies can’t afford to give up that much money upfront. And, to a similar degree, I think the liquidity crunch is probably troubling the institutional venture capital markets. So, to the extent angels really do have longer horizons, they can be expected to fund more start-up ventures than the institutional venture firms.

BYGRAVE: Another potential problem with venture capital investment is that pension funds are forced to undergo quarterly performance evaluations. When we were surveying pension funds and banks on their propensity to invest in venture capital, one pension fund manager complained that he was being evaluated not on a quarterly, but on a monthly basis—just like the people on the trading floor. Now, it’s obvious you can’t judge venture capital monthly. Almost all the value is in the residual, which is just not liquid.

FROOT: I agree with Bill that this kind of periodic evaluation process could certainly skew investment decisions away from highly illiquid investments. And this is not a problem of short-sighted investors or market myopia; it really reflects a kind of principal/agent problem between the pension beneficiaries and the pension fund.
manager. If you’re a pension fund manager managing money for others who don’t share your confidence in your own ability, it’s easier for you to demonstrate your confidence by volunteering to subject yourself to a review 12 times a year instead of only once or twice. And if you know you’re going to be reviewed 12 times a year, then you’re going to want to concentrate your holdings in relatively liquid investments with values that can be readily confirmed.

**Increasing Liquidity**

**BATY:** You know, if this group of august thinkers had a valuable contribution to make today, it would be to come up with some workable proposals for adding liquidity to the venture capital pool. Illiquidity is one of the main reasons why a lot of investors such as small pension funds and small insurers stay away from it.

**CHEW:** Do you mean an exit route?

**BATY:** Yes, an exit route, or possibly some other kind of liquidity mechanism—something akin to what Salomon did in the early ’80s to securitize house mortgages. If there were a way that could be proposed by somebody a lot smarter than I to securitize a bundle of venture capital partnerships, that would eliminate one of the main reasons why this enormous risk premium is expected. As you point out, it’s not a risk premium so much as it’s a liquidity premium.

**CHEW:** Well, how efficient is this market for rescuing distressed venture funds that you were talking about?

**BATY:** It’s not efficient at all. It’s as inefficient as anything could be.

**WETZEL:** I have an idea that’s been stewing around in my head that I’ve never really explored thoroughly. The managers of pension funds are assumed to be skilled at managing portfolios of listed securities and in evaluating the track record of established companies. And they are also permitted by ERISA law to invest some fraction of their portfolio in the venture capital business.

**Why wouldn’t it make some sense to amend the ERISA law to permit pension fund managers to put a fraction of their assets into established private companies, where they really do have the technical ability to evaluate the merits of the investment?**

**Pension funds could thereby provide an exit mechanism for seasoned companies that don’t want to go public or be acquired. This would add an element of liquidity to the system—one that would also end up allowing money to be recycled back into the early-stage developments that Gordon manages. It strikes me that there’s a real opportunity here to add an element of liquidity; and this liquidity would permit professionally-managed venture money to circulate much more rapidly than it currently can because of the limitations of the acquisition and the IPO market.

**BATY:** It’s an interesting thought. It certainly addresses one of the principal problems of the venture capital process. It’s real easy getting into deals, but it’s very hard to get out of them. And it’s particularly hard to get out of deals in the intervals when the NASDAQ is in the toilet. It’s particularly difficult to get out during a recession when the companies that you would normally sell your deals to are themselves struggling. I think any alternate mechanism that would provide liquidity to the investors in venture capital pools is going to do a lot to recycle the pool itself.

**BYGRAVE:** Gordon, do you mean it would help us unload the losers?

**WETZEL:** Well, presumably the pension fund managers will be able to separate the lemons from the winners in these more established companies. That’s why I think there’s some reason to believe this would work.

**PETTY:** The American Stock Exchange recently announced that it’s going to begin to list emerging companies. Will this have any significant impact in this situation?

**BATY:** Could be. Any time people reduce the standards for listing, we all cheer.

**More on Angels**

**LOVEMAN:** Let me just add one thing there. As a consequence of spending a lot of time in Warsaw recently, I’ve gotten into a number of discussions with venture capitalists—the kind of people who these days are getting invitations to Poland all the time. And from these talks I’ve reached the conclusion—and this is admittedly a very unscientific discovery process—that the art of venture capital is not running numbers or surveying the industry (although venture capitalists do employ lots of Ken’s and my Harvard MBA students to do these things). The real art of venture capital seems to be in deciding whether the guy or the gal who runs the company is the right person to back. And if the answer is yes, then it’s largely a matter of building the right incentive structure for that person.

Now, when I heard this concept of angels—one which I hadn’t heard before today—that got me thinking that these wealthy self-made entrepreneurs are probably the people who are best qualified to make these kinds of judgments about who to back. They may well understand the world in which they’ve gained their own wealth far better than the average venture capitalist. Bill Gates, for example, could personally finance a pretty big venture capital fund if he wanted to; he meets the minimum capital requirements quite comfortably. The alternative, though, is that he becomes an angel and does it on his own. And if he does it on his own,
it’s presumably because he believes he has better information about the individuals who run these operations than the venture fund managers.

BYGRAVE: Gates does fund some ventures, by the way. For example, he and a number of other wealthy individuals funded ICOS, a bio-pharmaceutical start-up. He invested $5 million in June 1990. His investment was worth almost $14 million one year later when ICOS went public.

WETZEL: So do Ross Perot and Steve Jobs.

BYGRAVE: And so did Robert Noyce of Intel. And the d’Arbeloff brothers used to do the same thing in the Boston area. One reason these people are encouraged to participate is the kind of certification effect their participation has. If Noyce is willing to put his own money into it, this puts a seal of approval on the deal.

CHEW: And they can then raise capital from others on the strength of that participation?

WETZEL: That’s right. It’s a form of signalling.

**Changes in Deal Structure**

PETTY: Gordon, given the declining rates of return in venture capital, have there been any pronounced changes in the structure of the contracts between the general partners running funds such as yourself and your limited partners? And a related question: Have there been changes in the contracts between you and the entrepreneurs that you provide funding for?

BATY: Well, I guess the most obvious change since the peak period of 1987-88 is probably the fact that so many of the people who used to fund early stage and start-up ventures don’t do it any more. That means those of us who still do it—and we’re one of a handful of companies left—have really almost no competition in funding early stage deals. So there’s no restraint on our avarice other than our own self-interest in making sure we leave the entrepreneur with enough equity to motivate him to get him out of bed in the morning.

PEITRSEN: So, you’re leaving the entrepreneur with a Malthusian rate of return?

BATY: Thank you for giving me a label.

CHEW: Gordon, how do you sort out the good deals from the bad? Do you use the contracting or negotiating process to in some sense flush out the entrepreneur you’re considering funding? Do you offer him a menu of deals and then ask him to choose one?

BATY: Yes, we do in fact.

CHEW: Can you tell us a little bit about that?

BATY: Well, the price is only one dimension of a really complex, multi-dimensional negotiation. You look at one of these investment agreements for a preferred stock placement, for example, and there must be 15 variables. There’s a question of whether it’s participating preferred or straight preferred, and there’s a question of the conversion rights and when they first come into effect. It’s sometimes a question of whether there’s a dividend due, under what circumstances it’s payable, and whether it accumulates or not.

So, the poor guy across the table has to have a Ph.D. in finance to figure out where his self-interest lies. If you push down on one variable, another one invariably pops up. It’s like pushing the bubble around in an air mattress.

But, at the end of the day, the deals are tougher now than they were two or three years ago. That’s the principal distinction. We expect our entrepreneurs to do more with fewer dollars. I think that, as an industry, we venture capital people are inclined to undercapitalize things. And there’s a strange conspiracy at work between the entrepreneurs and the investors that almost guarantees things are always undercapitalized and starving: We don’t want to put more money at risk than we have to, and the entrepreneur doesn’t want to put more equity on the table than he has to. So everyone kind of joins hands and jumps off the cliff without the money that we should have—and we all pretend that we believe the business plan.

CHEW: But, Gordon, that partly makes sense, doesn’t it? The entrepreneur gets a review, in effect, when he runs out of cash. And it seems to me the earlier he’s willing to submit to that review, the more confidence he’s expressing in the deal. And this in turn gives you more flexibility as to whether or not you want to fund future development. It gives you a valuable option.

And the more willing the entrepreneur is to undercapitalize himself, as I said earlier, the stronger signal he’s sending to you about his own level of confidence in his plan. So, in this sense, it may make a lot of sense to undercapitalize entrepreneurs at the start; it may be an effective signalling mechanism.

BATY: Well, you’ve just sort of epitomized the Yankee type of venture capital deal as opposed to the California deal. In fact, if we could, we would have a closing every week. That’s the way we Yankees tend to think. And it may in fact turn out to be a bit penny-wise and pound-foolish, given the enormous success of the California venture capital community relative to the depressed condition of the Northeast in recent years.

CHEW: Is that a well-established view, that the California style works better?

BATY: Well, if you look at the enormous growth of Silicon Valley in recent years, it’s easier to accept this argument than to disprove it.
BYGRAVE: That would be a good area to research, to see if in fact rates of return have been systematically higher in the California ventures than in the Northeast. But there may be some contaminating factors at work. For example, we've got a huge recession in Massachusetts. We're in the third year of what is at least a five-year recession, in my opinion. We have not had a billion-dollar start-up since Prime Computer in 1972. Since then, California's had Apple, Sun Microsystems, Tandem, Seagate, and Conner. So, it may just be that California happens to be geographically situated at the right point. That's where the chip manufacturers are, and since everything's based on the chip these days, location may be the critical factor in the California successes.

But, maybe you're right, Gordon. Maybe it is a matter of too much parsimony among our venture capitalists in Massachusetts.

Higher Investment Stakes and Strategic Alliances

STEVE MAGEE: Well, what's happening to the rate of innovation in the U.S. today? You've got to keep in mind that we're always going to pass up some good deals. There's type one and type two errors, and we're going take some dogs and we're going to let some great ones get away.

BYGRAVE: Well, there was a big fuss among the federal policymakers that a lot of promising high-tech people, the next Ken Olsen and the next Bill Gates, weren't getting funded. But I don't think there was really any evidence for that.

Gordon, do you have a strong sense that today there are really deserving entrepreneurs and deserving technologies that aren't being commercialized, either not at all or not as fast as they could be through lack of venture capital?

BATY: I don't have any real sense of that, Bill. And it's a lack of evidence, not evidence to the contrary. I just have no way of knowing. We have a constant parade of people through our office. Every morning I've got a foot of business plans on my desk. And the question I ask myself every day is, Which one is going to get read that day? Because one a day is about all I can handle.

But, even with the tight conditions today, I suspect that there are probably more or less the same number of underfunded geniuses going without today as there were a decade ago.

BYGRAVE: Al Bruno and Tyzoon Tyebjee did some work for the National Science Foundation that attempted to identify the opportunities that got away—the ones that never got funded. The premise underlying this work was that deserving entrepreneurs weren't getting funded and that, somewhat like the unemployed, they got discouraged and dropped out of the entrepreneurial pool. But their work didn't come to that conclusion. It suggested instead that entrepreneurs don't disappear, but rather they sort of hover around, and then come back and try again—and sometimes they succeed in getting venture capital.

GRAY: We haven't really addressed the size issue in this discussion. We've been talking about the very bottom end of the market, with the angels, and then we've moved up a little bit to relatively small corporate projects. We also mentioned that back in the late '70s there were a lot of technologies ripe for the picking. A lot of those technologies have matured. And the reality today is that, where we once needed relatively small investments to develop, we now need large investments to play in the game.

I'm thinking in particular of a case like the relationship between Compaq and Conner Peripherals. Conner had an innovation that had to be marketed quickly if they were going to grab the market. If they went in slowly and fought to raise the capital, their ideas would have been appropriated before they could have captured a market share big enough to warrant their investment. So Compaq came to them and said, "Not only will we buy the product, but here's $100 million to help make it."

That has raised the investment ante in the game tremendously, and it strikes me that's what happened to a lot of this market. We're now talking about biotechnology and about computer-related innovations. These are areas where the price of entry is

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John Kensinger and I have been studying cases where a corporation makes a minority equity investment in a key supplier or customer. In the past ten years, for example, IBM has made 13 such investments and Hewlett-Packard has made six. Most of these represent sums far in excess of the typical venture capital investment. This is evidence that large integrated corporations are increasingly serving as a source of risk capital. Further, as the size of the investments required to enter high-tech industries escalates, I think we will see new start-ups become increasingly dependent on financing sources other traditional venture capital.

—John Martin—
much higher than the venture capital market was ever equipped to deal with. And there’s a demand for speed as well as capital: If you’re going to capture the gain from your investment, the competition is such that you have to be able to move quickly, and move quickly with large dollars. FINEGAN: Do you expect to see this reflected in the number of strategic alliances forged each year in high-tech land? They seem to be growing at a rapid rate.

GRAY: I think they’re growing tremendously. In fact, I suspect that simply because of the increase in the size of the investments required, U.S. corporations are now taking the place of venture capital firms in a great many instances.

JOHN MARTIN: I think you’re right, Tom. John Kensinger and I have been studying cases where a corporation makes a minority equity investment in a key supplier or customer. In the past ten years, for example, IBM has made 13 such investments and Hewlett Packard has made six. I don’t know the dollar amounts involved in most of these cases, but I can tell you that most represent sums far in excess of the typical venture capital investment. For example, Ford, Kubota, and Tenneco together invested some $250 million in Cummins Engine. Now, it’s true that Cummins and other recipients of this kind of financing are certainly not the typical start-ups served by venture capital firms, but I think this is evidence nonetheless that large integrated corporations are increasingly serving as an important source of risk capital.

Let me conclude with the example of Hal Business Systems. Hal is a new start-up enterprise that has offices in Austin and is a member of the Austin Technology Incubator. The company was founded by a former IBM employee, Andrew Heller, with the financial backing of Fujitsu Corpora-

tion. The interesting thing about this start-up is the magnitude of the start-up financing. Hal obtained a commitment for over $40 million from Fujitsu before the firm was to have a sellable product.

So, I think that corporations may well be playing a venture capital role in these high-dollar start-ups. Further, as the size of the investments required to enter high tech industries escalates, I think we will see new start-ups become increasingly more dependent on financing sources other than traditional venture capital.

BYGRAVE: I don’t believe that start-ups are turning to corporations simply because of the amount of money they need. Rather, it’s because corporations are willing to offer the entrepreneur cheap capital, relatively speaking, in the hope of receiving benefits from a strategic alliance with a dynamic young company. That is why some “high-profile” entrepreneurs such as Finis Conner, the founder of Conner Peripherals, prefer to get their funding from corporations instead of venture capital firms.

Look, for instance, at how Steve Jobs financed NeXT. He raised about $20 million from Ross Perot for about 16% of NeXT’s equity, and then, a couple of years later, raised another $100 million from Canon for another 16%. Remarkably, even after Canon’s investment, Jobs still owned more than 50% of NeXT, with a paper worth of $300 million plus. And NeXT was then a company that had not shipped product. If Jobs had instead financed NeXT with venture capital, he would not have owned even 10% at that point—maybe much less. Canon was more generous than a venture capital syndicate would have been with its financing terms because it was entering into a strategic partnership with NeXT. Besides getting a share of NeXT’s equity, it also got marketing rights to NeXT’s products.

Now when it comes to harvesting mechanisms, it may be that corporations are playing an increasing role. We know that, since around 1985, proportionately more venture-capital-backed companies have been acquired by corporations than have gone public, which is a significant break with the past. Certainly, there have been some spectacular acquisitions of venture-capital-backed biotech companies by multinational pharmaceutical corporations. In some of those cases, the amount of money was probably more than could have been raised through a public offering, let alone a private venture capital placement. For instance, the Swiss pharmaceutical giant, Roche Holdings, bought 60% of Genentech for $2.1 billion. I think it worked out to be a P/E of about 80. But we are not talking about a start-up here. Genentech is a 15-year-old public company with revenues of about $500 million. Again, as with Canon’s investment in NeXT, those kind of valuations are justified only by the investing company’s perception of substantial strategic synergies from the deal.

Let me also mention that I know someone who is starting a venture capital fund, and right in his prospectus it says that the harvest mechanisms for his portfolio companies will be selling them to strategic partners. In fact, it’s partly because of the unreliability of the market for public offerings that strategic partnerships have become so popular in the biotech industry.

The Next Wave

BYGRAVE: I think we’re all waiting for another technology wave. There’s only so many technologies that come along. We had a miraculous wave of technologies in the ’70s and I don’t see anything as spectacular as the personal computer on the horizon.
The PC business went from zero to a $100 billion business worldwide in 15 years. The biotech sector, by contrast, has got only four billion dollars of total revenue right now. Communications also have a lot of promise. But I really don’t see any miraculous wave of electronics technology that’s going to generate a $100 billion market in ten years.

Cold fusion could have been something very big. It promised an abundant—indeed, a limitless—source of cheap electricity. Unfortunately, it turned out to be a mirage. If it had been real, it would have solved the problem of generating electricity, which is one half of the electricity equation. But we may now be close to a solution to the other half of that equation, which is minimizing electricity losses. High-temperature superconductors show great promise for transmitting electricity with little or no losses. They have the potential to trigger a revolution bigger than anything since electricity was first used commercially a century of so ago. But we’re not there yet.

So development in the biotech sector and these other areas isn’t going to replace the jobs being lost in the PC market anytime soon. Maybe they will eventually, but it will take a while. According to one estimate, biotech won’t be a $50 billion market for another decade or so.

Baty: I’m not smart enough to say what’s going to be the key technology in a decade. When I was working for Burroughs back in 1979, I bought one of those crafty little Apple II computers because they ran a spreadsheet. In those days, a computer to me was something that would have filled this room—that was a computer! So I wouldn’t have invested any money in Apple, or Kaypro, or any of those people.

Bygrave: That’s right. The technology field is just full of gurus who have made wrong forecasts. In 1943, Tom Watson predicted that the total world market would be ten very large computers. Ken Olsen said he couldn’t imagine why anyone would ever want a computer at home—and that, by the way, was after committing to make the Rainbow personal computer.

A Network for Angels

Gray: When we did our surveys of the angel market in ’87–’88, one of the questions we asked was: If there were additional ventures available with characteristics similar to those ventures you’ve already invested in, would you have been willing to make additional investments? From the responses, we estimated there was over 50% excess capital available at that point in the angel market. And I’ve argued ever since then that we have an opportunity-constrained situation here. Capital is clearly not the scarce resource.

Chew: But, again, there may be very high search or information costs in linking angels to entrepreneurs. As you yourself suggested, Bill, angels are likely to fund only people they know in businesses they know. And that’s a very real constraint.

Froot: Well, from Gordon’s story, it also sounds like human capital may be constrained as well. There may be a real shortage of people like Gordon with the experience and knowhow to read these business plans and turn them into productive businesses.

Baty: I can manage about ten companies in my portfolio at any given time, but I can’t manage twenty. So if you handed me twice as much money as I’m currently managing, I could either decline it, or I could go out and hire some bright MBA to run part of the portfolio. But the average quality of the management is going to go down.

Bygrave: Maybe it will go up, Gordon. Who knows?

Baty: Right, maybe it will go up—or sideways. I withdraw the foregoing.

Bygrave: When I started my first company back in 1970 with venture capital, it was a tremendously secretive industry. There were no directories then and you didn’t have any idea whom to contact or how to go about doing it. Today, there’s almost an overabundance of people like myself and Bill Wetzel who will freely supply information about the venture capital industry—about how to negotiate with Gordon, and how to raise capital. And that must surely have helped to increase the efficiency of the marketplace.
BYGRAVE: No, you’re right. You’re virtually alone, Bill, in providing a means for people to find angels. Sometimes would-be entrepreneurs come to see me, and I tell them, “Oh, that’s not a venture capital deal, that’s an angel deal.” And they say, “What’s an angel? And you then explain to them that an angel is this thing with feathers and wings.

Then they say, “Well, do you know of any?” And of course you do, but you don’t want to risk a friendship. So you instead tell them to call Bill Wetzel because Bill’s got this venture capital network, which has just been moved to MIT. And before Bill tells you more about it, let me say just that I think the formation of this network is a very positive step. It should really improve the efficiency with which we connect promising entrepreneurs with other entrepreneurs with capital.

WETZEL: Well, this angel network is still an experimental undertaking. It was started at the University of New Hampshire, where I teach. And it’s just been moved down to MIT as part of the MIT Enterprise Forum. I hate to use the analogy, but I can capture the sense of it fairly easily by calling it a “dating bureau.” It gives an individual investor who will never be listed in the Pratt’s Guide to Venture Capital Sources (they keep very low profiles for obvious reasons) a chance to remain anonymous, but still have an opportunity to look at a partially screened deal flow.

Our entrepreneur database is also confidential. It requires an entrepreneur to submit a two-page executive summary of the business plan (that appears in our database without the name of the entrepreneur or any proprietary information). If there seems to be a match between the entrepreneur’s proposal and an angel’s expressed area of interest, those pieces of data change hands. And if there’s further interest, the two are introduced to one other, and it goes on from there. We have not yet proven that this network is going to be a significant factor in the angel marketplace, but we have high hopes for it.

MARTIN: Bill, I would like to add briefly that we have started a similar dating service in Austin. It is called the Texas Capital Network and it is a non-profit corporation that operates as a member firm in the Austin Technology Incubator. Although the Network is less than two years old, it has already succeeded in matching up a number of small firms with investors.

WETZEL: But there has not been a great deal of this kind of activity in the angel marketplace.

BYGRAVE: What is especially interesting to me is the difference between how this British venture fund operates and the way most of our funds operate in the U.S. In 1989, for example, 3i paid out only $20 million in dividends while reporting $464 million in capital gains. The fund manager’s policy is to plow most of their current returns back into new investment; and the company’s been doing that.

An Alliance between Public Capital and Private Management

BYGRAVE: The largest venture capital fund in the world is in fact an English institution called “3i.” Quite interestingly, it was started in 1945 by a socialist government in those dark days when the socialists were busily nationalizing all of the strategic industries—coal, steel, railroads, transportation. And yet, in spite of these unlikely beginnings, that company has an extraordinary record. It has invested in some 10,000 companies. And, as of year-end 1991, the company had over $5 billion under management that was invested in about 4,000 active companies in its various portfolios. It invests as little as $100,000, and as much as $10 million, in any single venture. It also provides funding for companies in all stages of development. In 1989, for example, it did over 200 start-ups, and about 800 deals in total. Its return on equity in the late 1980s was about 25% (although, unlike most venture capital firms, it has considerable debt as well as equity on the right-hand side of its balance sheet).

What is especially interesting to me is the difference between how this British venture fund operates and the way most of our funds operate in the U.S. In 1989, for example, 3i paid out only $20 million in dividends while reporting $464 million in capital gains. The fund manager’s policy is to plow most of their current returns back into new investment; and the company’s been doing that.
ever since its beginnings. U.S. venture funds, by contrast, operate very much on a project-by-project basis, returning most of their profits to the limited partners as they are earned.

Now, let me also say that although the initial capital for 3i came from the Bank of England together with the five major English banks, the fund itself is run completely privately, with no outside interference from government. And it seems to me that this kind of alliance between public funding and private management might be applied to Eastern Europe. This might provide a superior alternative to the “impatient” model of venture capital in the U.S. It’s true that most U.S. funds will give ventures as long as ten years to develop, but that may not be long enough, especially in a case like Eastern Europe.

BATY: That’s right. You don’t want a lot of limited partners who are sitting around looking at quarterly IRRs.

BYGRAVE: Exactly. And so the important thing here, I think, is to get the central banks involved. At the same time you want to give the investors strong incentives to keep the money in the venture capital partnership as long as possible. So, if it were European banks that were involved, for example, you might want to offer some special tax benefits for keeping the money invested.

3i, incidentally, has also cloned their model in India, with Grindley’s Bank, and in Australia with Westpak. And, to my knowledge, the fund with Westpak is one of the only two viable venture capital funds remaining in Australia. The other Australian funds were started mainly in Victoria using a lot of government subsidies and initiatives. And the outcome has been an enormous waste of capital in terrible deals that have been ruined by the combination of inexperienced venture capitalists and too much government interference. Almost all the Australian venture capital funds have failed miserably. But it seems to me that some modification of the 3i model that unites public money with private management might have a shot at working in Eastern Europe.

GRAY: The World Bank has funded a number of small, venture-type groups in Eastern European countries, which is a departure from their typical role of funding large infrastructure projects. But, as far as I know, they have lost every penny they’ve ever put into Eastern Europe.

BYGRAVE: In Massachusetts, we’ve got a similar fund, Mass Capital Resources, that attempts in a small way to do what 3i has done in Britain. I served on the investment committee for a while. It was started at the initiative of Dukakis back in the late ‘70s, but all the money was put up by Massachusetts insurance companies and pension funds. The insurance companies hired the people to run the fund, so it was run entirely by the private sector. And that fund has been quite successful in terms of the dividends it’s paid to its investors and the number of ventures it’s financed.

But there was another fund started at state initiative, Mass Technology, which is staffed by people I would describe as “quasi-government appointees.” And that fund’s not been nearly as successful. It’s arguably been successful in the sense that it’s funded lots of technologies without losing very much money. But the truth of the matter is that it couldn’t pay back its initial capital to the state when the state wanted it back last year to help cut the state’s deficit. The fund managers told the state, “Well, if you want the money back, then we will have to shut down.” Mass Capital, by contrast, could easily pay back its investment if it chose to do so, and then raise new money in the private sector.

So, my point is that you probably need some government initiative and funding to get large venture projects off the ground. But once you’ve done that, then you’ve got to have the fund run by the private sector with no government interference whatsoever.

GRAY: There are a number of state venture capital funds that are run like your successful Mass Capital fund—that is, they combine government money with private management. We don’t yet know whether they are performing well. The definitive studies haven’t been done. But my feeling is that, if the states have enough patience to leave the funds there, they will eventually be profitable.

The Irrelevance of Venture Capital to Eastern Europe

LOVEMAN: I don’t want to bury this discussion, but I would argue that the venture capital industry is almost entirely irrelevant to the current predicament of Eastern Europe. Think about Gordon sitting in his office with 20 business plans on his desk. Now, although many of these plans are probably moonshine, at least they’re written in English and Gordon can understand how the numbers were calculated and so on.

In Poland, however, consider that the Prime Minister Bielecki—who is also the country’s most famous management consultant—will be the first to admit that, if you asked for the financial statements of a particular company, you would get a document that would be almost incomprehensible. He would also warn you that, if you talked to the top management of such companies, you would likely be dealing with people who have risen to prominence largely on the basis of their capacity to mislead anyone who wants to know anything about what they do. And because the Information Age has not arrived in Poland, the capacity of bureaucrats to mislead is enormous.
For example, when the World Bank did a survey of Polish industry, they looked at the tax registries to determine what people are in what industry. And what they found, quite simply, is that most people lie about what industry they're in. In fact, in a study they've done recently, they found that only about 25% of the addresses listed in the tax registry physically exist anywhere in Poland. So, there are some rather basic problems that exist in trying to find anyone that you would want to do business with.

Now, this is not to say that there aren't remarkable opportunities in Poland. We run across entrepreneurs there all the time who are able to exploit these niches in the market that have been created by 40 years of gross mismanagement. There are people who, after the liberalization, imported bananas because you could never get a perishable good to market under the old system.

CHEW: Are these natives or foreigners you're talking about?

LOVEMAN: This guy was a native, and his incredible insight was that you could book bananas on Lufthansa and get them to market before they spoiled. And the guy's made a fortune. There are lots of these kinds of very basic opportunities.

For outsiders, however, the problem is that such opportunities come and go in an instant. Competition sets in very quickly. But when you start looking for business opportunities that are sustainable, then you really run into complications. And, as a consequence, the Poles have had great difficulty in raising capital for new investment.

The first people the Poles looked to for capital were the Polonia people of Polish origin living in the United States. The most famous one was a Mrs. Johnson (née Piasecka), heir to the Johnson & Johnson fortune, who expressed interest in buying the Lenin shipyards. She almost promised to buy the company before she bothered to find out what the assets might be worth and whether the workers would be willing to give up their right to strike. That deal fell through.

So, what you need, at a minimum, are people who have remarkable motivation and the resources to slug it out in an environment where things are changing just constantly. Property rights, in many instances, are poorly defined. There is no bankruptcy law in Poland. It's completely unclear what it means to go bankrupt. There's no incentive for banks to push creditors into bankruptcy so that they can recover collateralized assets.

Here is the situation the Polish government is faced with. There are currently seven or eight thousand state enterprises in Poland not yet privatized. The value of these companies is falling virtually every day, because the workers are literally walking off with the assets. The best workers and managers are going to the private sector, and the state budget is an unmitigated disaster. So, not only do they have to act quickly, but they have to do it en masse. They have got to find a way to transfer ownership of a very large number of companies to the private sector in a single transaction, or through a single legislative act.

—Gary Loveman—

WETZEL: To go back to your original point, Gary, what about the bigger ventures? Are there many of these going on?

LOVEMAN: There have not been a large number of big ventures in Poland. I know of one venture capitalist from a very well-known fund who has made about 20 investments in Czechoslovakia. And he's already devoted about two and a half years to this effort. But let me also point that these investments don't take a great deal of money since relative prices are very low in these environments. And, in the case I just mentioned, the money is coming from the same sources that the fund is using to fund its more traditional investments in the U.S. and in Western Europe.

GRAY: Are these forms of what you might call bootstrap financing?

LOVEMAN: Well, in his case, it's big pension fund money, just some small portion of which is beginning to find its way into these places.

But, again, the Poles have been very frustrated by their inability to raise money from just anywhere. The Minister of Privatization is just this month beginning a dog-and-pony show all around the United States, trying to appeal to Polish Americans in particular. But such efforts, as I mentioned, are running up against these kinds of information problems, the ambiguity surrounding property rights and legal structures, and the complete ineffectiveness of the banking institutions in Poland. All of these things are fundamental to foreign investment of any size.

GRAY: Yes, but my impression is that there's an American on every street corner saying, "You've got to privatize, you've got to establish property rights, you've got to put a bankruptcy law into place." So, it's clear what needs to be done. My question is, What's holding up the process on the Polish end?
LOVEMAN: Well, it’s mainly political. The first fully free parliamentary election in Poland will be held the 27th of this month. Sixty-five parties have registered candidates for that election, and until that process is complete, no one is going to really do anything. The privatization issues have so many constituencies around them that it’s difficult to get any movement forward.

But let me make one other point here. As Bielecki would be the first one to admit, the truly scarce resource in Poland is competent managers. I’ve been contacted by a number of American companies who want to do something in Poland. They will ask me, “Can’t you simply find me a Polish manager who can prepare a budget, hire some other people, and do some fairly basic things? We’ll do everything else. We’ll give them money, we’ll buy the land if we can do it.” So I’ve sensed that a good number of these deals are not happening in large part because you can’t find well-trained Polish managers.

Vertical Integration Gone Haywire

GRAY: In Moscow McDonald’s put in a very large operation. But before they did that, they spent about five years building an infrastructure that would support their market. They went out and actually taught the farmers what they meant by a head of lettuce. They literally took every aspect of their production function and said, “We’ve got to vertically integrate this all the way up and down. And until we get that infrastructure built, we aren’t going to put a hamburger patty out on the stand.”

CHEW: What’s the expected rate of return on that investment?

GRAY: Well, I don’t know. I think McDonald’s makes good money in this country doing the same thing. McDonald’s makes good money in this country doing the same thing.

FROOT: Well, I think the justification for this investment is this: If and when the Soviet Union turns around, then McDonald’s will be there first.

But let me also say there’s not much evidence that this kind of vertical integration is effective. In fact, there is already a degree of vertical integration in the large state-owned enterprises in Eastern Europe that most of us, I suspect, would find astonishing. For example, Polish LOT Airways tends its own pigs in order to be able to feed their employees for lunch. There has been this huge— I would call it “cancerous”—growth in the size and scope of firms that has created just massive inefficiency. And it has also bred a large bureaucracy that will resist any attempt at change.

So, if you want to privatize these huge state enterprises, it will involve far more than just finding investors willing to put up capital. In most cases, it will require a complete restructuring, a complete rethinking of the activities in which these firms participate.

CHEW: You mean you will first have to break these huge companies into their separable parts?

FROOT: That’s probably right, in most cases. And, as Gary mentioned, there’s a real scarcity of managerial talent and experience. Part of this shortage arises from the fact that the key managers within these firms have not been given product or line responsibilities, as in U.S. firms; instead they have been assigned to deal with specific government agencies. It’s as if a U.S. firm told its CEO and top managers to spend most of their time lobbying in Washington. In Polish firms, for example, one high-level position is responsible for dealing with the Finance Ministry, another with the Planning Ministry, and yet another with the Pricing Ministry.

These people are essentially the equivalent of an American CFO, director of corporate planning, or director of marketing. Given that Polish managers have effectively been rewarded according to their ability to manipulate the political system, it’s understandable that managerial expertise in marketing, finance, or operations has not developed at all.

On top of that, as I mentioned, there are all these vested interest groups resisting change. In every country, there are powerful people who have a substantial amount of control. And, as Gary said, the problem is political. They stand to benefit from blocking change. You can see this clearly in the Soviet Union and in every Eastern European country.

Starting Over with Small Firms?

CHEW: Well, given these massive inefficiencies and resistance to change in state enterprises, wouldn’t it make more sense for outsiders to build their own businesses from the ground up? Perhaps you could build your own organizations just by pulling employees out of existing organizations?

LOVEMAN: This is what’s happening. This is the good news in Poland. In the past, the Communists have been very effective at driving small businesses out of existence; so, to the extent the small business sector exists, it has been underground. And because this economy is virtually invisible, everyone’s attention in Poland has been focused on the restructuring of the large state sector firms.

But what’s happened since 1990 is that the state sector has begun to disintegrate very rapidly, and the private sector has really begun to grow rather dramatically. We are seeing the most enterprising people seeking the highest returns in the private sector.
CHEW: In very small firms?

LOVEMAN: Yes, in firms that might have, say, 50 people or, under the most remarkable circumstances, 500 people. These firms have found products or services the market wants; and they have discovered ways of building alliances with suppliers that allow them to provide these products at prices that people can afford. But, for would-be investors, the problem is that these entrepreneurial firms are hard to find. Such firms may be reluctant to take venture capital money even when it’s offered because they risk losing control.

PETTY: But don’t these companies represent a very small percentage of the GDP vis-a-vis large state-run manufacturing firms?

LOVEMAN: Oh yes, it’s tiny.

PETTY: So they’re really not contributing that much to a general recovery.

LOVEMAN: That’s right. On the other hand, every little bit helps, and it’s got to start somewhere.

MARTIN: An article in The Economist said that although there are something like 1.2 million small or privatized firms, they accounted for only 2.7 million employees. That’s only about two employees per firm.

BYGRAVE: Well, then, do these companies really need more capital? If they had more capital, could they then grow faster, and is that the best hope for the economy? What I’m hearing from you is that it is in this small private sector that the real entrepreneurial talent lies.

FROOT: In Poland, when you walk down the street today, you just see a million street vendors selling all kinds of goods that are hawked from the streets of West Germany. The whole business of retailing has been stimulated and undergone this dramatic transformation. But these are very small-scale operations.

But if you look at the Polish successes on a meaningful economic scale—the products they have been able to export to the world market—then you would think about lightweight manufacturing of things like golf carts. These products are made by medium-sized or larger firms with substantial capitalization, and these firms today have significant capital needs.

BYGRAVE: Have any of those firms been privatized?

FROOT: No, most of them are still not privatized. Very little progress has been made in privatizing companies.

BYGRAVE: So presumably the opportunities for what we would call MBOs are very great. Are any MBOs going forward, at least in the planning stages?

LOVEMAN: Mainly in smaller firms.

BYGRAVE: If there were capital available, though, would that make a significant difference?

LOVEMAN: No, I don’t think so. Again, the problem here is primarily political. If you allow the current management to buy the companies they run, guess who the current management tends to be? Communists. In fact, anyone in a position of power or authority today is widely believed to hold that position arbitrarily; the current endowments, if you will, are all perceived to be unfair. For example, if you work for reasonably successful companies like LOT or the Polish Merchant Marine, you are viewed as having either been lucky, or the recipient of political favor. Those companies will probably survive. But if you happen to work at the steel plant, your probability of success is zero.

So, if you allow people access to state-owned assets on the basis of where they happen to work or manage, that’s a political nonstarter.

FROOT: To even think about a solution here, you have to separate the questions of deciding on the ownership rights to existing assets and the kinds of financing mechanisms you’re going to put into place to grow those assets that are productive. The changes in ownership of state assets that I believe will eventually be made will involve some amount of widely distributed citizen share ownership, some amount of worker control—albeit not a huge amount—and some amount of foreign participation.

But the most important question here is not how you divide up the existing claims—although that obviously is a very politically sensitive issue—but whether or not you’re going to have the kind of political and economic stability that’s going to encourage large infusions of capital and thus provide the basis for future growth. If you look at the history of

---Ken Froot---

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developing countries' ability to attract capital inflows from abroad, the preponderance of that investment has almost never come in the form of private foreign direct investment. During the 1970s, it came primarily in the form of commercial bank loans from developed countries.

So, I would argue that foreign direct investment tends to follow rather than to ignite the growth of developing countries. And this presents a problem for Eastern Europe: Given that the international financial institutions and creditor governments in developed countries are not particularly rich at this time, where is money going to come from to start growth off in the first place? Where is the combustion going to take place to start things moving?

Learning from Maquiladora?

WETZEL: Ken, both you and Gary have spent a good deal of time in these countries and observed these changes firsthand. Is there something akin to the Maquiladora concept that could provide a workable transitional model to get the wheels of industry turning? What I have in mind here is sort of a partnership between a Western European firm that builds a plant on the border to make use of low-cost Eastern European labor. Would that overcome some of the major objections and obstacles we're hearing about here?

LOVEMAN: I think it might work. I've discussed this possibility with people from The Limited. They have places all around the world that make undyed cloth that they can then turn into dresses or shirts or whatever. So, could they do it in Poland? Yes. But is it better to do it in Poland than in Sri Lanka? Maybe not.

So, the issue is not simply can you make it possible for this to happen in Poland, but rather can you attract money into Poland that would otherwise be going to Mexico, Latin America, or any other developing country. One of the great headaches for a guy like Bielecki is that every day there's a new country, every one of which is going to compete with him for the little money and markets that are available.

FROOT: Yes, but the Maquiladora example is one that's predicated on geographical proximity. The idea is that you can integrate a depressed economy into a more vital one and spread the prosperity through trade.

GRAY: But in Poland it's actually the other way right now. It's a “reverse Maquiladora.” They're building warehouses not in Poland, but in Germany right on the Polish border. This way they can sneak goods across the border. And there's a large and flourishing industry that does that every day of the week.

FROOT: Well, there's also a political obstacle to this in the Western European countries. Countries like Poland, Czechoslovakia, and the Baltics all actually do produce a lot of agricultural goods. And they do so efficiently enough to wreak havoc with Western Europe's common agricultural policy.

So there's not a lot of enthusiasm in Western Europe for the idea of finding employment for some 30 million workers within a thousand kilometers of Berlin who will work for less than 50 cents an hour. These people are not going to be received with open arms by either East Germans or Western Europeans. That's a real barrier and a problem.

In fact, from the surveys I've seen of firms that actually have gone into Eastern Europe, those firms have identified their principal motive not as gaining access to cheap labor. Instead their response is, “We want to get there first.” So it's very much an orientation not of producing there with the intent of selling elsewhere, but instead of getting there to secure rights to local consumer markets.

And those are going to be slow-growing markets. Those countries are not going to get rich rapidly. So these experiments of McDonald's are going to be banner kinds of investments. They're way out-of-the-money strategic options, if you will. McDonald's bet here is that the Republic of Russia is going to turn into the next Korea.

PETERSEN: Other than in agriculture, do you have any sense of what Poland's comparative advantage might be five or ten years down the road?

LOVEMAN: Well, Poland has a huge number of people, some 40 million, and a labor force of about 20 million. It has, by European standards, a massive agricultural sector; and, as Ken suggested, they have a certain comparative advantage in agriculture. They also have this old textile sector in Lodz, which has done reasonably well—and they do export textiles. As I also mentioned, the Polish merchant marine is very effectively internationally, and has been for a long time. There is also a strong skilled craft sector in Poland, and the Poles have been successful in assembling construction crews and exporting them to build things in other countries. They build bridges in Germany, for example. But there aren't a lot of manufactured durable products.

GRAY: There is another political problem, and that is the very large inflow of people into Western Europe from all of the countries in Central Europe. It's a flow of illegal immigrants, and the Western Europeans are suddenly becoming unusually sympathetic to some of the immigration problems we've experienced for decades because they're now experiencing them in spades.

FROOT: The most popular T-shirt in Berlin this summer had written on the front of it, “I Want My Wall Back.”
GRAY: Unfortunately for Eastern Europe, the folks who are leaving are the ones endowed with the energy and risk-taking capability that characterize most emigrants. And these people are exercising their powers, as immigrants do, by crossing the border into Western Europe.

LOVEMAN: At the same time, let me add that Poland is actually receiving a large and continuous stream of immigrants from various parts of the Soviet Union. If you go to the Polish-Russian border, you will see many Russian cars where people sit and sleep for days and days, because the guards only allow a few in each day. They come in with their trunkfuls of babushka dolls and other things they will sell in Warsaw. And then, once their permit expires, they go back out and fill their trunk again and get back in the queue.

**Angels in Eastern Europe**

PETTY: What I’m hearing you all say is relatively pessimistic. Is there any good news?

LOVEMAN: It seems to me—and this is a very tentative argument—that you really have to start betting on individuals rather than companies, because companies come and go very quickly. You have to find people who have a demonstrated record of success and you have to be willing to invest only relatively minor sums of money. You don’t need massive amounts of money. But you need to be very patient.

Now, to proceed in this way would chew up a lot of Gordon Baty’s time. There has to be some reason why he’d be willing to go at it in this way. But I don’t see any other way.

WETZEL: Sounds like an angel deal to me.

CHEW: What is the potential role for angels in Eastern Europe? I’ve been told, for example, that taxi cab drivers have mattresses stuffed full of “hard” currency, and that they are a prime source of capital for new ventures. Or what about other informal lenders like loan sharks—they have low bankruptcy costs, or at least very efficient enforcement mechanisms?

LOVEMAN: Well, some of this is happening. There is a car dealership in Warsaw that sells only the top model Mercedes and BMWs. There aren’t many people who can afford to buy them, but there are some; and these people are potentially very important in the process of investment and intermediation in the country.

The problem is, there just aren’t enough of them. Remember, in Poland you have a hyperinflation with annual rates of inflation of more than a thousand percent. This means that anyone who held their wealth in domestic currency is penniless today. So it’s only people who’ve saved in hard currencies who were able to accumulate any wealth.

CHEW: But, today these people could conceivably invest in these smaller ventures with an informal set of property rights. They could perhaps devise their own enforcement mechanisms to make sure their claims are upheld.

LOVEMAN: Today, if you were to start a joint stock company, the property rights are clear. For the most part, that’s no problem. Where things get very messy is when you get into the existing state sector. That’s where all the risk and uncertainty is.

FROOT: Poland has passed a joint venture law and various laws on foreign investment, so that some of the laws are in place. But, as you mentioned, the bankruptcy side is very underdeveloped.

CHEW: So there won’t be any debt financing?

FROOT: Who’s going to arbitrate the claims you have when you go into some kind of restructuring? The courts don’t really understand the difference between liquidation and financial restructuring.

Now, from the legislative point of view, property rights are in a sense defined. But that doesn’t mean investors will feel confident that their claims will be upheld. Investors in U.S. companies today have considerable uncertainty about how their claims will be upheld under the U.S. bankruptcy system, but in Eastern Europe the uncertainty is much, much greater.

So things are still very much up for grabs at every level; and that’s why the kind of activity you’re seeing right now is at the very, very small end. For these small operations, the legal and bankruptcy issues don’t really matter.

CHEW: But is it conceivable you could build up a large, privately-owned family business, like a Cargill for example, which today has something like $40 billion in assets?

WETZEL: That may well be the only thing that is conceivable.

GRAY: Yes, but take a look at the Hungarian experience. They’ve argued that for 20 years they’ve had entrepreneurial successes. And although that’s partly true, such entrepreneurship has not been permitted to grow into anything larger than single-family ownership. In 20 years, Hungary has produced some 5,000 viable, entrepreneurial businesses. But most of them are relatively small storefront operations: delicatessens or restaurants or retail.

FROOT: I think the whole experiment of Eastern Europe rises and falls not on whether these private company empires are possible, but on whether large-scale industry can be made efficient and profitable. Large industry, after all, accounts for a substantial fraction of employment; and, as I said earlier, the average firm size is many times larger in Eastern Europe than in the U.S. If the state-owned sector founders completely,
and unemployment across Eastern Europe turns out to be very, very high, then you’re going to have real political problems—and, then, who knows what?

Privatization Schemes

CHEW: Gary, can you tell us about the Polish privatization plan, since that seems to be one way of attempting to reform large state enterprises?

LOVEMAN: The privatization plan you’re referring to is actually only one aspect of a larger scheme to sell off state assets in a variety of ways. Part of the scheme includes IPOs for some companies; there have been management buyouts or MBOs for companies at the small end; and then there have been proposals for sales of those companies that are attractive and large enough to support the cost of having outside analysts come in and determine the value of the company. In a few cases, however, companies have found that the consulting fees for all this analysis have exceeded the sale price of the firm.

But here is the situation the Polish government is faced with. There are currently seven or eight thousand state enterprises in Poland not yet privatized. The value of these companies is falling virtually every day, because the workers are literally walking off with the assets. The best workers and managers are going to the private sector, and the state budget is an unmitigated disaster. So waiting any longer is not feasible. And not only do they have to act quickly, but they have to do it en masse. They have got to find a way to transfer ownership of a very large number of companies to the private sector in a single transaction, or through a single legislative act.

So what they have proposed is a very complicated scheme in which they will package together about 500 companies that have positive net cash flow and meet certain financial health considerations. To invest in this group of 500 companies they propose to create 20 intermediary funds called National Wealth Funds. Each of these 20 funds will own a 33% stake in 1/20 of the 500 companies, as well as small percentage stakes (about 3.5%) in the remaining 95% of the companies.

CHEW: Is this designed to ensure that each company has at least one large owner who will serve as a monitor for the other minority interests?

LOVEMAN: That’s right. And that brings me to the ownership and management of the funds. According to the proposal, every Polish citizen over the age of 18 will receive a share in each of those 20 funds. These shares will not be sellable for two years. And the expectation is that, in the intervening two years, the fund managers are going to be out there busting their tails to restructure these companies that are in their portfolios.

The problem, however, is that during the six months that have elapsed since this plan was proposed, instead of their being 500 companies with positive net cash flows there are now only about 300. That’s how fast the economy is deteriorating. The kind of reorganization and restructuring that this will require is enormous. And the Polish people will have to be educated about what a share is, and what it entitles them to—because there are not yet any tradable shares in the constituent companies. And then there are other difficult issues: How do you evaluate and monitor the performance of a fund manager when there are no market valuations of the firms he or she oversees? And how do you find the people to run the funds? Their idea was that they could hire people like Gordon to come in and run these funds. They would find Westerners because only Westerners know how to do this stuff.

CHEW: Are Westerners lining up for these projects? They’re going to have to supply the expertise, and a lot of it’s going to be free labor if the plan doesn’t work. And how much capital, if any, are these firms willing to put in upfront?

LOVEMAN: Some firms have expressed a willingness to think more about it. The problem is this: Imagine, based on the political reaction in the U.S. to corporate restructuring, what would happen if Gordon walked into Lodz and said that he wanted to close five textile plants? It would not take long for that to become a political issue and Gordon would quickly be sent on his way back to Cambridge.

So I don’t think Westerners will be running these funds. A more likely alternative is that the funds will be run by Poles, with Western venture capitalists and management consultants being hired on an advisory basis. And those Poles running the funds will have a significant financial interest in the performance of the firms.

FROOT: These fund managers will have to be a kind of hybrid between a venture capitalist and a portfolio manager; they will have very active roles in some individual companies, but they will probably not end up pumping a lot of money into the Polish economy. Their real job will be to revitalize the economy by moving labor out of hopeless industries, closing down outmoded plants, and finding productive uses for their existing resources.

CHEW: So there’s no proposal for new money in this scheme?

LOVEMAN: That’s right. But the proposal would give these people the power to raise money from outside sources. To the extent that such money exists, they could certainly go out and raise debt financing. The question of equity financing is tricky, however, because as soon as you raise the issue of outside equity, you disturb the
There may be some important constraints on the growth of liquidity in risk capital markets. If you put out an IPO today and the stock price goes down, you will get sued by investors, be dragged into this nightmarish legal quagmire, and incur enormous costs. These law suits have nothing to do with violations of the legal code, they’re just sheer litigiousness brought on by disappointing results. Investors are using our legal system to get rid of their downside risk. If you have this huge legal liability associated with anything that fails—and remember there are supposed to be failures here—then these markets will grow less rapidly and liquidity will suffer.

—Steve Magee—

ownerships under firms under will provide new equity for these bigger question is whether anyoneance for among the Poles. But the worked so hard to try to gain acceptance for these firms under any circumstances.

WETZEL: Aren’t there a couple of big Eastern bloc pools that have been put together by Salomon and people like that? What are they doing with that money?

LOVEMAN: I don’t know, I’m not familiar with what Salomon’s doing there. A lot of the money that people have put together in places like the World Bank and the European Bank for Reconstruction and Redevelopment has gone largely for “technical assistance,” which means paying consultants to come in and help out with what ought to be done.

But the odds that even this privatization proposal—and you can imagine what it would be like to try to explain this to your average Polish farm worker—the odds that this will fly politically are fairly small. And if it doesn’t, there’s really nothing around to replace it. So I’m very pessimistic.

CHEW: But why wouldn’t this proposal fly if there were going to be a generous representation of Poles on the boards of all these mutual funds?

LOVEMAN: The problem is, if you’ve just spent the last 15 years of your life trying to get out from under authoritarian rule, you’re very unlikely to let other people come in and take that job again. They’re going to insist on some system of checks and balances. There have been several scandals already among financial institutions in Poland. There was what amounted to a kiting scheme in Poland that they had no capacity to detect until it became clear that someone had managed to expropriate a sum that was something like 2% of the GDP. As a consequence of things like this, there’s tremendous skepticism about giving people real power, the power that will be necessary to restore efficiency in these companies.

The Ultimate Free Market Solution

MAGEE: Given that these old party members are still running the show in most of these countries, it seems clear that until they’re out of the way that not much is going to happen. These people have a vested interest neither in leading the way for change nor even in just getting out of the way. And if the whole free market experiment collapses, then they’re right back in business. Is there any sign that the bureaucrats are being dislodged?

LOVEMAN: They’re certainly not out of the way. In Poland they occupy the majority of the seats of the Parliament until the 27th of this month. And they continue to have most of the management positions in the major firms in the state sector. They have a tremendous amount of power.

BATY: It sounds like Poland doesn’t have any problems that the U.S. capital industry can do much about. Is there any other country in Eastern Europe with better prospects?

LOVEMAN: Poland is actually better off in the sense that it doesn’t have these ethnic rivalries that are tearing some countries apart.

FROOT: I would have guessed that Hungary and Slovenia are probably among the top places where there really is an existing stock of human resources, people who really understand what it means to produce for and sell to a market.

BYGRAVE: I think Slovenia would be a huge success if it wasn’t for this damn civil war. They have considerable entrepreneurial experience, in terms of world markets, in terms of raising money, in terms of management. And in fact the civil war’s really being fought over that issue: Croatia and Slovenia are much wealthier per capita than the rest of the country.

FROOT: Yes, that’s right. Slovenia has ten times the per capita wealth of the rest of Yugoslavia. One reason why at least parts of Yugoslavia function well is that the country has been on a market-based system for some time. And so, assets weren’t crazily allocated for long periods of time, the way they were in Poland and the other Eastern European economies. But, in Yugoslavia you do have exactly the same problem as far as the Bolsheviks being in control of the major banks, the major companies, and in appropriating capital as they liked, before these legal questions of ownership are fully resolved.
PETTY: What about the Baltics?
FROOT: The Baltics are just in real disarray. The thing about the Hungarians and the Slovenes is that they understand well their capacity, at least in principle, to export to Western Europe—and they are doing it. But it’s hard to imagine a rapid turnaround in the Baltics because so much of the infrastructure has been dedicated for so long to trade with the Soviet Union.
LOVEMAN: There was a recent study by George Akerlof and his colleagues at the Brookings Institute that suggested that, given current prices and the one-to-one parity of the West German and East German currencies, less than 10% of East German firms have any chance at competing in the newly unified Germany. And you’ve got to remember that East Germany was widely thought to be the best off of all of these countries, as well as having the benefit of close ethnic ties to West Germany.
FROOT: One major problem at this point, though, is that so many policymakers across Eastern Europe are looking at the East German example and are concluding that it’s a reason not to plunge ahead with drastic change, but rather to take a gradual approach to change. But, meanwhile, as we’ve observed, the assets are being stolen and conditions are rapidly deteriorating.

And I think the interpretation that’s being put on the East German experience is incorrect. The problems in integrating East Germany are really being driven almost exclusively, in my view, by the insistence on wage parity between East and West German workers. The socio-economic problems associated with bringing back some part of what was formerly the nation, and having garbage workers demand that they get paid the same in the east as they do in the west, simply wouldn’t exist in Poland, Czechoslovakia, or any of these other countries. And so the likelihood of large-scale unemployment resulting from a rapid, decisive transition to a free market economy is a lot lower. On the other hand, there’s only so low wages can go and they’re now pretty close to that level in many of these countries.

WETZEL: Well, when everything is stolen, privatization will be complete.
LOVEMAN: It’s true. One proposal that people typically make in jest is that the best thing the Poles might actually do is to just let it happen—just let the state sector be dismantled piecemeal by the workers, and then let free enterprise rise up in the vacuum. This way, you can just start over with what’s left and avoid all the political pain of this privatization.
MARTIN: It seems to me that the whole problem may stem from this paradox that the Poles are trying too hard to manage their move to an unmanaged economy. Maybe the best solution is to quit managing the move. Maybe they should just let it alone, let it burn down, and something better will rise up in its place.
GRAY: Well, these huge bureaucracies that have managed things totally for years are seeing the disappearance of their reason for existence. They’ll fight it tooth and nail.
MARTIN: That’s why I say this may be the only way; it may be the only way to get rid of the bureaucrats. Let the employees take it home.