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THE YEAR 2000 TECHNOLOGY PROBLEM: PENSIONS AND MUTUAL FUNDS

HEARING

BEFORE THE

SPECIAL COMMITTEE ON THE YEAR 2000 TECHNOLOGY PROBLEM UNITED STATES SENATE

ONE HUNDRED FIFTH CONGRESS

SECOND SESSION

ON

THE READINESS OF THE SECURITIES INDUSTRY FOR THE YEAR 2000 TECHNOLOGY PROBLEM

SEPTEMBER 17, 1998

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YEAR 2000 TECHNOLOGY PROBLEM

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THE YEAR 2000 TECHNOLOGY PROBLEM: PENSIONS AND MUTUAL FUNDS

THURSDAY, SEPTEMBER 17, 1998

U.S. SENATE,
SPECIAL COMMITTEE ON THE YEAR 2000
TECHNOLOGY PROBLEM,
Washington, DC.

The committee met, pursuant to notice, at 9:31 a.m., in room SD–192, Dirksen Senate Office Building, Hon. Robert F. Bennett, (chairman of the committee), presiding.

Present: Senators Bennett, Collins, Dodd, Bingaman, and Moynihan.

OPENING STATEMENT OF HON. ROBERT F. BENNETT, A U.S. SENATOR FROM UTAH, CHAIRMAN, SPECIAL COMMITTEE ON THE YEAR 2000 TECHNOLOGY PROBLEM

Chairman BENNETT. The committee will come to order.

Good morning to everyone. We welcome you to the seventh hearing of the Senate Special Committee on the Year 2000 Technology Problem. We may be a new committee, but we are running up a very rapid total of hearings, and I think that is appropriate, given the fact that there is a clear time problem connected with the challenge that we are facing.

We are going to spend the next few hours exploring the Year 2000 readiness of the securities industry. Particularly, we will focus on the topics of pensions and mutual funds. Those who followed this issue for the last year and a half know that I first became concerned about it in my role as chairman of the Senate Banking Committee Subcommittee on Financial Services and Technology. And through a series of hearings on that subcommittee, I have come to understand that the Year 2000 problem creates serious risks for participants in the financial services industry—from bank customers who want to make sure they can access their ATM accounts to investors in the stock market who want to be sure that the companies in which they put their money have got solutions to the companies' Y2K problems.

I have come to understand over the past year just how important it is for customers and investors to get useful information about the Year 2000 technology problem, particularly with regard to the readiness of companies with which they do business and in which they invest.

Over the past year, I have worked with the SEC, Chairman Levitt and Ms. Unger, on this whole question of disclosure. We have worked together to develop enhanced disclosure rules to try to ensure that investors get that information, and the SEC released their revised rules in July. I am looking forward to seeing more meaningful disclosures as a result of those rules in the coming months.

In considering the subject for today's hearings, Senator Moynihan and I have chosen to focus on pensions and mutual funds because they are the primary vehicles through which most Americans access the stock market. Over 84 million Americans participate in pension plans. The Department of Labor reports that of the $3.6 trillion in assets held by private pension plans, nearly half of those funds are invested in equities.

Over the past decades, Americans have directed increasing amounts of their discretionary investments to the stock market, particularly funds accumulated for long-term investment goals, such as college or retirement. Since 1991, individuals have funneled $1.1 trillion into stock mutual funds, and that amount has been increasing at the rate of $21 billion a month.

Americans have made these investments largely because the stock market historically has outperformed other more secure investments, leading many investment advisors to recommend that funds accumulated for long-term goals should be invested in equities. Investment advisors have also encouraged small investors to invest in mutual funds rather than stocks of individual companies because pooling funds in an investment company can allow for greater diversification and, therefore, reduced risk.

Pension and mutual funds are investment vehicles over which most Americans have little day-to-day control. Individual investors rely on fund managers to research and analyze portfolio companies as they make investment decisions. Those managers, therefore, have a high fiduciary duty under the law to make investments that are in the best interests of the underlying investor. But it remains unclear whether, and to what extent, fund managers are considering the Year 2000 problems as they decide what to buy, sell, or hold on equity investment and whether the fund managers are getting the information that they need to make informed judgments—if they do decide to focus on them.

It is important for investors in these funds to feel confident that the managers of their pension funds and investment companies are taking the necessary steps to secure their investment against the Year 2000 problem. If we cannot get that confidence into the marketplace, individual investors will start to move available funds from the stock market in anticipation of the century date change, and that movement of funds could have a dramatic impact on the world markets and the global economy.

I have said over and over again in these hearings that we are not Chicken Little, and we do not want to support the notion that the sky is, indeed, falling. If investors lose confidence in the money managers over the issue of the Year 2000, the sky may not fall, but the Dow certainly will.

First, what are participants in the pension and mutual fund industry doing to prepare their own systems to ensure that all essential operations, such as access to funds and recordkeeping, will continue without interruption after the century date change? In other words, we are looking, first, inside the industry itself to make sure that it does not have any Year 2000 problems.

In order to preserve confidence in this sector, it is important for pension beneficiaries to know that their checks will arrive on time, just as mutual fund holders need to know that their accounts will be managed without interruption and their balances will be kept with clarity, so that they can be tracked and not lost in cyberspace somewhere.

Second, what steps are industry participants taking to avoid investing customer funds in companies where there are serious questions about Year 2000 readiness? That is a more difficult question to answer, but its difficulty does not mean we should not try.

Are fund managers getting the information they need in order to make informed judgments on this issue? There is no such thing as certainty in investing, but it is important to know what fund managers are doing in this area, so investors can make their own decisions accordingly.

Now, we will also hear, as part of this examination of what is going on in this area, from Don Kittell of the Securities Industry Association. The Securities Industry is leading the way in that they have conducted publicly reported tests on how well their system will work, and we will hear the results of those tests in testimony here this morning.

Now, before we start with the witnesses, I want to take a moment to follow-up on our June 12 utilities hearing. Some who follow this issue with us may recall that we were unable to determine at that hearing whether the lights will stay on because there had been no industrywide Year 2000 assessment.

I am pleased to report that the North American Electric Reliability Council, or NERC, in the obligatory Washington acronym, plans to release its industry assessment today. My reading of the advance results suggests that there is both good news and bad news.

The good news is that this is the most comprehensive Year 2000 assessment the committee has seen to date in any industry sector and such assessments are needed desperately in every industry sector. NERC should be commended for this monumental undertaking and for getting the report out in a timely fashion.

The bad news is that the progress continues to be slow. One-third of the electric utility companies have still not completed assessment of their computers and imbedded devices. That is a task that should have been completed a year ago. The hard part—fixing, testing, and implementing—is still yet to come. So there is still cause for concern with respect to the reliability of the power grid and still no firm and definitive answer to the question will the lights stay on. Nevertheless, the NERC study represents an excellent starting point from which to monitor Year 2000 progress over the next critical months, and I assure you that this committee will conduct that monitoring activity.

I also want to say that just because we cannot answer the question absolutely affirmatively that the lights will stay on, neither should anyone interpret that as an answer affirmatively that they will go off. Chicken Little still should stay in the coop with respect to this. We are not ready to start giving dooms-day scenarios.

[The prepared statement of Chairman Bennett can be found in the appendix.]

Chairman BENNETT. With that report of our previous hearings and where we are, let me introduce our first panel for today's hearing.

I will tell you that Senator Moynihan, who has a particular interest in this area and has taken the lead on this area in the committee, has indicated that he will be here later. Vice Chairman Dodd, of course, will be here, and we expect other members of the committee to come in as their schedules permit.

Commissioner Laura Unger has been before both the committee and my subcommittee before. Ms. Unger, you are becoming a regular on this beat, but we are glad to have you here because of your understanding of the issue and your leadership in moving the SEC as an active player to help get this problem solved.

Commissioner Unger has spearheaded the SEC's Year 2000 effort, and her dedication to this topic is evidenced by the fact that she interrupted maternity leave in order to testify today. I will say, as an aside, that the staff director of this committee is perhaps on the most urgent maternity leave. He is not with us. His wife is expecting and we expect to hear word any time that there is a new Cresanti in the world. But like the Year 2000, you cannot be sure. [Laughter.]

Alan Lebowitz is the Deputy Assistant Secretary for Program Operations at the Pension and Welfare Benefits Administration in the Labor Department. As I indicated, the Labor Department has done a number of studies on this issue which have been very, very useful to the committee. And, Mr. Lebowitz, we are grateful to you for your willingness to be here.

So we will hear from these two witnesses in the first panel and, Ms. Unger, we will start with you.

STATEMENT OF LAURA S. UNGER, COMMISSIONER, SECURITIES AND EXCHANGE COMMISSION

Ms. UNGER. Thank you for your kind introduction, Mr. Chairman, and I do think that the Year 2000 will be more than an acorn. [Laughter.]

I am pleased to be here today to testify before the Special Committee, on behalf of the Securities and Exchange Commission, on matters relating to the Year 2000 technology program.

Chairman BENNETT. Could you get a little bit closer to the microphone.

Ms. UNGER. You would think I could get closer than last time.

My testimony focuses on one of America's most successful and important businesses, the mutual fund industry, and its progress in addressing the Year 2000 challenge. As you well know, mutual funds play a key role in the economic life of many Americans. Over one-third of U.S. households now own shares of mutual funds. These funds have more than $5 trillion in assets, over a third of which are estimated to be retirement plan assets. Through the efforts of this Special Committee and others, most people are aware by now that the world's computer systems need to be assessed to ensure that they recognize the Year 2000. Mutual funds, and their investment advisors and other service providers, like most other securities-related enterprises, are heavily dependent upon computer systems.

The Commission has approached the Year 2000 problem from many directions in recognition of the potential for adverse consequences to so many investors if funds do not act and act soon to address the Year 2000 problem. The Commission has taken a number of steps to promote useful disclosure about Year 2000 issues by mutual funds.

First, the Commission staff has issued guidance to mutual funds regarding their Year 2000 disclosure obligations and established a task force to monitor compliance with the Commission's disclosure directives. Then, in July 1998, the Commission issued an interpretative release on Year 2000 disclosure requirements that sets forth the considerations that the Commission expects mutual funds to address in the Year 2000 context.

Over the past 3 months, the Commission's inspection staff has conducted nationwide examinations that are focused on Year 2000 compliance. As of the end of August, our examination staff has conducted inspections of mutual funds representing over one-third of total fund assets. Thus far, data that we have collected show that funds are making progress in addressing their Year 2000 problems. Based on this incomplete data, 90 percent of funds indicate they were taking steps to correct their Year 2000 problems, 77 percent of funds have written plans to address Year 2000 compliance, and 95 percent of the funds have made inventories of all of their computer systems affected by the Year 2000 problem.

To supplement our examination program, the Commission has proposed to require that almost all registered investment advisors, including mutual fund advisors, report their progress on making their systems Year 2000 compliant. The reports would be similar to our recently adopted reporting requirements for broker dealers and transfer agents. Registered advisors would be required to provide information about the readiness of their mutual funds for the Year 2000, as well as their own readiness.

The Commission believes that the proposed Year 2000 reports will further encourage advisors and funds to proceed expeditiously in preparing for the Year 2000. The Commission has proposed to make certain information from the reports available to the public on our web site and will use the information gathered in the reports, among other things, to fulfill congressional requests for information regarding the securities industry readiness for the Year 2000 problem.

The Commission staff intends to use the reporting information to obtain a more complete picture of the industry's overall Year 2000 preparations and to identify any firm, specific problems. Advisors that report questionable or inconsistent information will be asked to explain any problems that we will find and could be subject to follow-up compliance examinations. The Commission expects to take final action on this rulemaking by the end of this month.

The information that the Commission staff has gathered to date shows that the mutual fund industry is aware of the potential problems that the Year 2000 presents and is preparing to meet this challenge in a timely manner. As we approach the millennium, the Commission will continue to gather information and evaluate the status of the mutual funds industry's readiness for the Year 2000. If we find deficiencies, we will aggressively address them with the funds and their investment advisors, conduct further examinations and, as appropriate, bring enforcement actions.

Thank you.

[The prepared statement of Ms. Unger can be found in the appendix.]

Chairman BENNETT. Thank you very much. Mr. Lebowitz, we have been joined by Senator Collins. Would you like to make an opening comment? We will ask you to refrain.

Senator COLLINS. Thank you very much, Mr. Chairman. I have an opening statement, which I will submit for the record in the interest of time.

I served for 5 years in Maine State government as the commissioner of Professional and Financial Regulation, and my responsibilities included the Securities Division. We did a lot of work with investor education, as well as going after some of the bad actors in the securities industry. But I must say nothing in my experience during those 5 years prepared me for the Y2K problem and what its effect might be on our markets and the investments of individual people in the State of Maine and throughout our Nation.

I recently participated with the SEC in an excellent investor education program through the town meetings that the chairman of the SEC has been having, and I look forward to talking further with our witnesses. I know the SEC has a lot of consumer information on the Internet about what questions should be asked by investors, and I look forward to exploring that.

Thank you.

[The prepared statement of Senator Collins can be found in the appendix.]

Chairman BENNETT. Thank you very much.

Mr. Lebowitz, now, please.

STATEMENT OF ALAN D. LEBOWITZ, DEPUTY ASSISTANT SECRETARY FOR PROGRAM OPERATIONS, PENSION AND WELFARE BENEFITS ADMINISTRATION

Mr. LEBOWITZ. Good morning, Mr. Chairman and members of the committee. Thank you for the opportunity to testify about the steps that the Pension and Welfare Benefits Administration is taking under the Employee Retirement Income Security Act to assist employers and others responsible for managing employee benefit plans in addressing the Year 2000 problem.

I am Alan D. Lebowitz, Deputy Assistant Secretary for Program Operations at PWBA.

We are the agency within the Department of Labor that is responsible for administering and enforcing ERISA, which is the primary Federal statute that governs employment-based pension and welfare benefit plans. ERISA establishes comprehensive fiduciary standards to govern the conduct of those responsible for management and administration of employee benefit plans.

Among other things, a plan fiduciary must discharge his or her duties, with respect to a plan, solely in the interests of the plan's participants and beneficiaries. In addition, the plan fiduciary must discharge those duties with the skill, care, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of like character and with like aims.

A fiduciary's failure to comply with ERISA's fiduciary responsibility provisions may result in personal liability for losses incurred by a plan or its participants and beneficiaries. In accordance with these standards, plan fiduciaries, such as administrators, trustees, and investment advisors and managers, are responsible for ensuring that plans, and their participants, and beneficiaries are protected. Such protection includes the establishment and implementation of a prudent procedure for ensuring that the plan's own computers and, to the extent possible, those of plan service providers are Year 2000 compliant.

Because the Year 2000 problem could have a substantial impact on plan investments, benefit payments, and other essential plan operations, plan fiduciaries are responsible for establishing and implementing a strategy to evaluate and ensure Y2K compliance. Given the complex and technological nature of this problem, plan fiduciaries may need to hire competent outside consultants and experts to inventory, review, assess, convert and test the computer systems relating to the plan.

The plan's fiduciary selection of Y2K service providers is itself subject to the same fiduciary considerations as the selection of other plan service providers. In addition to addressing the Year 2000 problem as it relates to computer systems under their control, fiduciaries have an obligation to determine whether the plan's critical operations will be endangered by the systems of individuals and organizations that provide services to plans, such as third-party administrators. In this regard, fiduciaries are responsible for obtaining information sufficient to evaluate the Year 2000 compliance of all of the plan's existing service providers and determining what action is appropriate to ensure that the interests of the plan, and its participants and beneficiaries are protected.

In addition, when selecting service providers, fiduciaries should include Year 2000 compliance among the most important factors to be considered. The plan fiduciary is also responsible for monitoring service provider operations to assure ongoing compliance with Year 2000 issues.

PWBA has implemented a comprehensive national outreach program to help fiduciaries responsible for the over 700,000 pension plans and more than 4.5 million other employee benefit plans offered by America's private-sector employers to be prepared as they can be to address the Year 2000 issue. We have issued two national alerts to the employee benefit community warning about the Year 2000 problem and calling for immediate action.

We have developed an extensive question and answer brochure designed to give employers and other plan officials an understandable explanation of how the Y2K problem impacts their plans. We have posted all of this material on our web site, and it is available through our 800 line.

We have provided technical assistance to hundreds of people who have called following up on those issuances. Our senior officials have engaged and will continue to engage in a grassroots education campaign to raise the fiduciary implications of the Year 2000 problem in speeches, lectures, and other presentations to groups of plan sponsors, professionals, actuaries, accountants, attorneys, investment advisors and managers.

We have participated with the AICPA in their development of an Audit Risk Alert relating to employee benefit plan audits, and our investigators have been, for some time, reviewing the Year 2000 problem with plans as in the ordinary course of conducting examinations and investigations.

Just as with the selection of service providers, fiduciaries of plans must also consider Year 2000 preparedness in selecting investments and assessing their current portfolios. The obligation to consider Year 2000 compliance is especially important for employers providing retirement benefits through 401(k) plans. Over 25 million American workers are active participants in 401(k) plans. Workers who participate in these plans contribute part of their salary toward their retirement savings and may, in many instances, assume responsibility for directing their own investments from investment options selected by the plan fiduciary.

We strongly encourage plan administrators to disclose to their participants and beneficiaries the extent of the plan's Year 2000 preparedness and the steps they are taking to ensure that the issue does not interrupt the operation of the plan or participants' and beneficiaries' access to their accounts. In addition, because information regarding Year 2000 compliance may be necessary to make informed investment decisions, participants and beneficiaries in 401(k) plans who have the responsibility for directing their own investments should consider the Year 2000 issues when determining how to invest their retirement assets.

Finally, I would like to note that, like the rest of the Federal Government, we at PWBA are taking the Year 2000 situation very seriously, and we are taking appropriate steps to make sure that our own systems continue to work correctly after December 31, 1999.

Thank you very much, and I would be happy to respond to any questions that you or any member of the committee might have.

[The prepared statement of Mr. Lebowitz can be found in the appendix.]

Chairman BENNETT. Thank you. We appreciate it.

We have asked all of the witnesses to keep their opening statements very short because we want to, frankly, have the witnesses interact with each other. We will learn more from them in the questioning period. We can read the formal statements and, in both instances, your statements submitted to the committee in advance of the hearing will be included in the record as if fully read.

Ms. Unger, the staff of this committee, conversing with people in the investing world, have had conversations in confidence with individuals who assert that a very high percentage of the Year 2000 disclosures that are filed pursuant to the SEC requirements are either misleading, incomplete, or outright wrong. The argument goes that a company has more risk in exposing Y2K problems than it does in keeping them hidden because, at this time, there is an independent auditing in place to challenge Y2K statements and no fines for misstatement.

I would like to have your comment on those allegations that we are receiving, put them on the table and let you react to them.

Ms. UNGER. Are you talking about the companies that mutual funds invest in or mutual fund——

Chairman BENNETT. I am talking about companies who respond to the SEC requirements for disclosure in a formal way to all investors that might look at those responses.

Ms. UNGER. I think the last time I was here we did acknowledge the fact that the disclosure was not what we had hoped it would be based on our last survey and the task force analysis of the statements that they reviewed, the filings that were reviewed, and that led us to the actual Commission's interpreted release in July, the end of July, actually. It is our hope and belief that the next set of filings that are due, which are actually due soon, will reflect more disclosure and better disclosure based on the enhanced guidance that we put out in the interpretative release that was published in July.

Chairman BENNETT. It is the committee's hope that that will be the case, and we are delighted that you produced this additional requirement in July.

Ms. UNGER. I would like to add to that.

Chairman BENNETT. Sure.

Ms. UNGER. If at the time that I think there is an intent to review the new set of filings to see how the interpretation has had an impact, and if you would like our staff or me to sit down with you and/or your staff to review those and see exactly how we are doing, we would be happy to do that.

Chairman BENNETT. I am sure that we will do that. What actions would the SEC be prepared to take against a company that files a misleading report?

Ms. UNGER. I think the difficulty with a misleading report is finding out that it is misleading. We would hate to wait until the Year 2000 to bring an enforcement case because by then it would be virtually meaningless. What we would like to do is, and which will be easier in the areas where we have actual Y2K reports due, such as the one I described in the testimony and the one that I described last time I was here for the broker dealers and transfer agents.

If the information in those reports are misleading or the reports are not filed, then we have the basis for an action. The way we could bring an action for misleading statements prior to the Year 2000 would be if there were other statements made in the public by representatives of that company that were inconsistent with the statements that were filed with the Commission.

So we are on the lookout for that, and I do think we find that it would be important—and enforcement is definitely focused on this issue—to bring cases now, so that we can emphasize how important we believe this issue is and that the best disclosure possible is made by companies.

Chairman BENNETT. I think it is important that companies understand that there will be a consequence if they file a misleading or an incomplete report rather than just leaving it on the honor code and say we hope everybody does it right, but if they do not, nothing will happen to them.

Now, you have testified that the mutual funds you have examined to date, and I understand that is about a third of the assets held in mutual funds, only 1 percent have failed to prepare a written plan and conduct an inventory of their systems. There are still two-thirds out there. That 1 percent number may grow. What action do you plan to take against that 1 percent or others that you identify in future examinations?

Ms. UNGER. Well, we do have this filing requirement that we hope to have finalized by the end of this month that will require investment advisors to file reports with the Commission about their Year 2000 preparedness. That will enable us to go out in the examination process and target those filings or the issuers, rather the fund complexes and advisors whose filings that we think show that there is a problem with their Year 2000 preparations. So that will enable us to focus our resources most effectively prospectively.

I do believe we intend to visit the other two-thirds independently, but I believe that the most effective—and I am not sure about that—but I do know the intent is to take the reports and to analyze the information and then visit the funds or the advisors that do have problems based on the reports—or that appear to have problems.

Chairman BENNETT. Thank you.

Mr. Lebowitz, you have given us in your testimony a heavy emphasis on the oversight and outreach that the Pension and Welfare Benefits Administration is conducting on the operational side of pension fund management—the accounting systems, payment systems and so on—and you spoke about your own internal efforts to be Y2K ready. Could you give us more detail on how you are guiding and leading pension fund fiduciaries to be on the lookout for Y2K problems in their investment decisions.

Mr. LEBOWITZ. Mr. Chairman, to a large extent, pension plans are really customers, in a sense, of others who provide data to them. So the extent to which a pension plan may be exposed to Year 2000 problems is, in many cases, almost entirely dependent upon how successful others are in getting their systems fixed. For instance, the plan may have some internal systems for cutting checks and paying benefits to individuals, but to determine who is eligible, they are completely dependent on information from employers. Their investment information may be held by brokers, and banks, and insurance companies and investment managers.

So what we have concentrated on in our outreach efforts is to lay out for plan administrators and plan fiduciaries an approach to asking the right questions of all of those with whom they deal, so they can, for themselves, come to a conclusion about the extent to which they are vulnerable and the extent to which they may need to make decisions like changing investment managers, changing bank trustees, getting a different third-party administrator to do the day-to-day bookkeeping and, to the degree necessary, of course, to look internally at their own systems to see how they all integrate together.

Chairman BENNETT. You trigger a memory. I once served on the board of a pension fund. It was made very clear to me, when I was recruited for the board, that I would have nothing to do with investment decisions; that all I would do would be to hire the manager, who would make those decisions. So I think you are right in that it is the responsibility of the board, and I hope you are helping them remember that responsibility, to ask this question of the investment advisors.

Mr. LEBOWITZ. Right.

Chairman BENNETT. Senator Collins.

Senator COLLINS. Thank you, Mr. Chairman.

Mr. Lebowitz, in your testimony you stated that your agency strongly encourages plan administrators to disclose to their participants and beneficiaries the extent of the plan's Year 2000 preparedness and the steps taken to ensure that the Year 2000 issue does not interrupt the operation of the plan or participants' and beneficiaries' access to their individual accounts. Obviously, there could be very serious consequences, as far as access to individual accounts, and the operation of the plan if the steps are not taken to ensure compliance.

Why then are you only strongly encouraging plan administrators to take these steps? Why are you not requiring it? It seems to me it is part of the fiduciary responsibility of any plan administrator, given the potential consequences for the plan if it is not Y2K compliant.

Mr. LEBOWITZ. Well, Senator, the answer to that is, like everything in ERISA, a bit complicated. ERISA's disclosure rules are quite extensive, but they are relatively fixed in the statute, and the discretion that we have to require disclosures beyond that which is specifically provided for in the statute is quite limited.

Much of what the statute requires relates to the terms of the plan itself. What is the benefit formula? What kind of payment do I get? How is my benefit calculated? What are my appeal rights if I am not happy with the decision when I file a claim, that kind of thing.

Financial information and operational information is disclosed indirectly to participants through the annual report, the 5500 report, which, for large plans, is a very significant document. This report is not required to be filed with us and the Internal Revenue Service until 7½ months after the end of the plan year to which it applies. So we are only now, for instance, just receiving annual reports for plan year 1997.

So the statute really does not provide a very effective framework for the types of disclosures, important disclosures, that you are talking about. Also, the significance of this information to participants may well vary, depending on the type of plan. In a 401(k) plan, for instance, the sort I spoke about earlier in my testimony, where participants are making their own investment decisions, everyone else is relieved of fiduciary liability resulting from those decisions.

If that protection from liability is going to continue to apply, participances are going to have to have enough information to enable them to make considered, intelligent investment decisions. And in that circumstance, the statute and our implementing regulations require that participants be given enough information, including information about Year 2000 readiness of those investment choices.

In other types of plans, traditional pension plans where people get a benefit which is a function of salary and years of service, the risk really is on the employer because the employer, in almost all cases, entirely funds that benefit. So the employer is the one who needs the information.

Senator COLLINS. In a defined benefit program you are talking about.

Mr. LEBOWITZ. That is right. This is a long answer to your question—but I think the answer is that it does depend on the type of plan, but to the extent that individuals have the responsibility for making investment decisions, they should have enough information to be able to make intelligent decisions and to know about the Year 2000 vulnerabilities within that context.

Participants certainly have the right to ask their plan administrators, even in a defined benefit plan, what is going on? What are you doing to get ready? Am I going to be able to count on my benefit check coming every month if I retire next year? We encourage people to ask those questions. We encourage employers and plan administrators to answer them, and we encourage people to come to us if they cannot get satisfactory answers to those questions and we will.

Senator COLLINS. It seems to me that if you think ERISA is not clear on this point, as far as your authority to require plan administrators to disclose this information, that you should come to Congress and ask us to clarify that. I think this is very important. It seems to me that the Department would find a plan as not fulfilling its fiduciary obligations to the participants and the beneficiaries if it were not taking steps to become Y2K compliant and did not disclose that. Would you disagree with that?

Mr. LEBOWITZ. Well, there is certainly liability under ERISA on a plan fiduciary whose responsibility is to see to it that the plan continues to be a viable enterprise and who does not take those steps that are necessary to deal with this problem.

Whether the participant has a right to detailed information about what that fiduciary is doing to bring themselves into compliance is going to vary, as I said, from plan to plan.

Senator COLLINS. It is interesting because it seems to me the SEC has taken a different approach in this area, and I want to turn to Commissioner Unger and talk about the question that the SEC has put out for investors to ask in assessing a firm's compliance with Y2K.

Could you go through the kinds of questions that the SEC is recommending that investors ask of their money managers or brokers.

Ms. UNGER. I did know there were eight questions up on the web site, but I did not have them with me. However, the person that you saw come over——

Senator COLLINS. I noticed you had an astute staff.

Ms. UNGER. Yes, I do. When you hear the SEC has wonderful staff, it is absolutely true.

The questions are as follows:

What is the firm doing to become Y2K compliant?

How can the investor be satisfied that they really are compliant?

How will the investor be affected if the company is not ready?

Assuming the firm is ready, will the exchange's clearing agents and other market participants be ready?

What provisions does the company have to test the other market participants before Year 2000?

Will the company participate in any industrywide testing?

What happens if the investor wants to sell in late 1999 or early 2000 and the trade cannot be executed? What will the firm do?

Is the research personnel evaluating Y2K compliance as part of the decision to recommend a buy or sell?

How will this affect the investor's interest and/or dividend payments?

Senator COLLINS. I appreciate your sharing those with us because I think they are exactly the kinds of questions that need to be asked.

The SEC, in my judgment, has really done a terrific job on investor education, and I really salute the Commission, under Arthur Levitt, for making that such a priority. I had 600 people attend the Investors' Town Meeting sponsored by the SEC in Bangor, ME. Unfortunately, the chairman was unable to get there because of weather problems, but we hooked him up via the phone. This, however, is one issue that we did not touch on, and I think we should have, in retrospect, given the potential implications.

Ms. UNGER. Actually, I participated in one recently, not that recently, about 6 months ago maybe in Boston, and I do not think it came up then either. But as we get closer, I do think that investors are getting more and more aware, are becoming more and more aware of the issue.

Senator COLLINS. I would like to suggest to the SEC that you modify your town meeting program to have a segment on Y2K because I think it is an issue that investors do need some preparation on.

Just one final question, and it is a little bit off the issue of pensions, but it does relate to the issues before us and that the chairman has raised, and that is the speculation that we have heard, that corporations and their filings with the SEC have not been as forthcoming as they should be about the extent of their Y2K compliance because they fear the impact on their stock price.

Is the SEC doing any sort of spot audit or review to test the truthfulness and completeness of the filings on this issue? [Chorus of ayes.]

Ms. UNGER. Well, in the area of investment advisors, and those reports are not due yet, we will be checking for that. We do not inspect issuers, and that is the problem.

Senator COLLINS. It is just disclosure?

Ms. UNGER. Exactly, and that has been the problem with this whole disclosure issue is that we do not have direct authority over issuers other than in the area of disclosure. The reason, I believe, that we think—I, personally, at least think—that issuers were not as forthcoming as the guidance that we gave was staff guidance, and it maybe was not as strong a guidance—it definitely was not as strong a guidance as the Commission-interpreted release that we issued at the end of July.

So I believe with these hearings, and with the public attention focused on the issue, and our increased interest and willingness to come out with a stronger position on what needs to be disclosed that I expect the filings will be much more forthcoming on this issue.

And, again, I said to the chairman, Senator Bennett, that we would be happy to sit down and talk about the most recent filings and what we have discovered, in terms of improvement, as far as disclosures and what we hope to be improvement, when those filings come out. So I certainly would extend the same offer to you.

Senator COLLINS. Thank you, Commissioner, and thank you, Mr. Chairman, for your continued leadership in this area.

Chairman BENNETT. Thank you. We have been joined by Senator Moynihan. Good morning, sir. The panel is available for your witnesses or the committee for your opening statement.

Senator MOYNIHAN. You are very kind, Mr. Chairman. I am late. I am going to have to slip away for a moment to introduce the new head of the Bureau of the Census and find out where they are on the Y2K. It would be interesting if we found out there was nobody in the United States—the computers did not work. [Laughter.]

But I have read your testimony in advance and thank you both.

Chairman BENNETT. Thank you very much. Let me ask you the unfair question, and I realize it is unfair, but it is the unfair question we get asked, so we have to ask you, what is your gut feeling about what is going to happen in the Year 2000? Is this industry going to be ready or not?

Ms. UNGER. Would you like to go first? [Laughter.]

I will go. I believe that the industry will be ready, more or less, and that the more competitive firms will be more ready than some of the smaller firms. I think, as much as we push to get awareness out there, and disclosure, and enable us to better assess the situation, a lot of it has to do with a business decision, and I am sure you are more acquainted with that than I.

But in order to be competitive, and in order to be viable, and in order to serve customers and continue to have a lively and robust market, they are going to make sure the exchanges, and the broker dealers, and the broker dealers, and the investment advisors, that they are prepared for Year 2000. And if there is a way to do it, I think they will find a way to do it.

Chairman BENNETT. Thank you very much. Did you want to add anything, Mr. Lebowitz, to the——

Mr. LEBOWITZ. Just to say that pension plans themselves I think will fare very well if there is a lot of information out there in the marketplace to enable responsible officials to make appropriate decisions. The competitive issues that Commissioner Unger is talking about will result in some companies to be well prepared and others not. As long as there is information out there that plan fiduciaries and investment managers can access easily and take into account in making decisions about what to do with their assets, who to hire for various services, then pension plans will come out of this fine. If the information is not reliable or it is not there, then they are going to suffer.

Chairman BENNETT. Thank you both. We appreciate your being here. I echo the congratulations to the SEC. This is one regulatory agency which, from the very beginning, has taken this matter very seriously and worked very hard at it.

We will go to the second panel. We have Matthew Fink, who is the president of Investment Company Institute; Don Kittell, executive vice president of the Securities Industry Association, and I will take note that Mr. Kittell responded to our last-minute request for a report on the recent testing in the securities industry and, Mr. Kittell, we thank you very much for your willingness to do that and be with us.

Mr. KITTELL. Thank you, Senator.

Chairman BENNETT. And Eugene Maloney, who is the trustee, senior vice president, and corporate counsel for Federated Investors, and he is an expert on the fiduciary responsibilities in the context of Year 2000.

STATEMENT OF MATTHEW FINK, PRESIDENT, INVESTMENT COMPANY INSTITUTE

Mr. FINK. Thank you, Mr. Chairman. I would like to say as strongly as I can that the mutual fund industry takes this issue very seriously. We, frankly, cannot afford to do otherwise because the whole future of the mutual fund industry is dependent on investor confidence.

In considering Y2K issues as they relate to the fund industry, I think there are three special characteristics that ought to be borne in mind.

First, unlike other American corporations, mutual funds are subject to the very stringent requirements of the Investment Company Act, which gives a special sense of urgency to Y2K. The act requires a mutual fund to determine the price of its shares every single business day and to offer an investor the right to redeem or sell his or her shares every business day. Other companies in the country run the risk of damaging relationships with customers because of Y2K. Mutual funds face the normal business risk, but also the simultaneous risk of violating Federal law, the Investment Company Act, if they do not comply.

Second, the fund industry has very substantial experience dealing with modification of its computer systems. Over the years, computer systems in the industry have been changed on a regular basis to comply with new legal requirements and to deal with new shareholder services. Obviously, Y2K issues present unique complexities, but I think that the fund industry, because it is so computer dependent and has gone through so many computer changes, is relatively well-conditioned to deal with the Y2K change.

Third, the arrival of Y2K will have no impact on the protections of the Investment Company Act I mentioned earlier. If a mutual fund experiences a Y2K problem, its shareholders will be protected by the Investment Company Act. In order to explain the efforts that fund organizations are making to comply with Y2K, I might try to explain to you the structure of the typical mutual fund organization. Because it is a bit complicated, I brought a chart with me.

The mutual fund itself is a pool of assets that has no employees of its own. It relies on external entities for management. Those entities are the fund's investment advisor, who selects portfolio investments for the fund, and the fund's principal underwriter, who distributes shares to the public directly or to brokers who, in turn, distribute to the public. That is why in the center of the diagram we have three entities: the mutual fund itself, the advisor, and the underwriter.

Let me turn to outside service providers, if I might. Funds have transfer agents who keep records of their shareholders. Some of the funds use transfer agents that are affiliated with the advisor, but many use independent, third-party transfer agents. On the next panel you will be hearing from a leading one of those transfer agent, DST.

Second, funds under the Investment Company Act have to have a custodian to hold their assets. You will be hearing from one of those custodians, State Street Bank. The diagram also shows other service providers like pricing services and brokers.

Y2K compliance is a very high priority in the industry. Funds have dedicated staffs and separate budgets, and provide periodic reports to the funds' own boards. The funds are also very heavily monitoring the compliance programs of their various service providers. In addition, the industry was one of the major participants in the very excellent testing that Mr. Kittell's organization, the SIA, has undertaken for the whole of the securities business.

We are also keeping the SEC apprised of our efforts, both through formal surveys and informally. We are communicating with shareholders through SEC-required prospectus disclosure, and also voluntarily on web sites and in newsletters. I have attached to my written testimony an example of web site and newsletter disclosure.

There are a number of parties looking over our shoulder, in addition to the Congress. They include mutual fund directors—each fund has its own board of directors—other regulators, the SEC, and the media are all focusing on the subject. In addition, the fund industry is somewhat unique, Mr. Chairman, in that we have a captive insurance company, ICI Mutual, who writes insurance for about 70 percent of the industry. It is particularly underwriting Y2K risks in its normal underwriting, and it will either decline coverage or raise premiums or put in exceptions if it independently, for its own business reasons, finds a Y2K problem with a particular fund.

Turning to the other subject you raised of fund portfolio companies. Many of those companies, if not all, of course, are heavily dependent on computers. Therefore, fund advisors, in appropriate cases, are reviewing the Y2K compliance system of companies in which funds invest by reviewing their official disclosure statements, meeting with management, asking a series of questions, and considering their portfolio companies' Y2K compliance with other factors. You will hear on the next panel from three mutual fund groups—Capital, Fidelity, and TIAA-CREF—about what they are doing specifically.

I might say, in conclusion, this is one of those efforts sometimes too rare, where I think Congress has really been leading. I think the efforts of Chairman Bennett and of the committee as a whole have helped the SEC, who has done a very good job and pushed this area generally.

Particularly the fund industry would like to thank the committee and the SEC for improving disclosure by portfolio companies which our advisors need in order to manage their funds.

Thank you for the opportunity to testify.

[The prepared statement of Mr. Fink can be found in the appendix.]

Chairman BENNETT. Thank you, sir. We have been joined by Senator Dodd. Do you have an opening statement or comment?

Vice Chairman DODD. I would just ask unanimous consent to put it in the record, and I apologize to our witnesses on being a bit late and to the first panel that I missed, but we will just proceed.

[The prepared statement of Senator Dodd can be found in the appendix.]

Senator MOYNIHAN. Mr. Chairman, could I put my statement in the record?

Chairman BENNETT. Yes, of course, without objection in both instances.

[The prepared statement of Senator Moynihan can be found in the appendix.]

Chairman BENNETT. Mr. Kittell, we appreciate, as I said, your being here and look forward to your telling us what happened in the first industrywide test of Y2K that I am aware of.

STATEMENT OF DON KITTELL, EXECUTIVE VICE PRESIDENT, SECURITIES INDUSTRY ASSOCIATION

Mr. KITTELL. Thank you, Senator Bennett. My name is Don Kittell, executive vice president of the Securities Industry Association.

The Y2K effort in the securities industry is the largest we have ever undertaken, with a cost estimated between $4-and $6 billion over 4 years. Since 1995, our primary goal has been to protect the industry, the financial markets and the investing public from the Y2K conversion problem.

From the beginning, our goals have been to promote awareness of Y2K issues to share our experience with international financial markets, other industries, and the public sector and, most importantly, to fully disclose our progress at every checkpoint along the way.

My principal message today is that, based on our progress over the last 3 years and our plan over the next year and a half, the securities industry will be ready for the Year 2000, and you will not have to take my word for it. The industry will demonstrate its readiness next year.

The cornerstone of all Year 2000 conversion efforts is testing. Organizations test their systems. They test their interfaces with other organizations they do business with. The unique characteristic of the securities industry's testing program is that we have brought together the industry's exchanges, clearing, settlement organizations and hundreds of securities firms in an industrywide test, which simulates trading of our major products over the four-day period from Wednesday, December 29, 1999, to Monday, January 3, 2000.

It is important to note that a test on this scale has never been attempted before, and for that reason, we determined that we needed a test of the test conducted early enough to ensure a successful industrywide test in 1999. We call that test of a test a beta test, and we completed it in July of this year after a year of preparation.

Some 28 firms volunteered to participate, together with the major exchanges and depositories. Those firms represent about 50 percent of the trading volume in the U.S. securities markets. The products included are all of the major security products ranging from equities to fixed-income to futures, options and so on.

Here is what we learned: First, the beta test participants, both the firms, and the exchanges and depositories, came through with flying colors.

Second, but they did so only after significant commitments of resources. We found no basis for complacency as a result of the beta test.

Third, for the industrywide test to be successful, all participants—300 or 400 firms at one level and more firms at a secondary level—must be prepared to make the same commitment of resources that the beta test firms did in July. In order to manage the large number of firms, we need an extensive education program, we need extensive prerequisite testing by these firms prior to the industrywide test, we need extensive help desk resources at the time of the test, and we need to gather the results in ways that are useful to both the participants and the regulators who are concerned about protection of investors and counterparties.

Now that the beta test is completed, we are preparing for the industrywide test. The first project is October 2, when we are holding an industry conference to launch the education campaign, and we will follow that with a comprehensive pretesting program for the next six months.

We have expanded the scope of the test to include the investment management community, links to market data vendors and to payment systems tests conducted by the Federal Reserve Bank, the New York Clearinghouse, and international payment settlement organizations. We are actively engaged with the major international market participants to coordinate cross-border testing.

In conclusion, the securities industry is making a huge investment to successfully meet this challenge. We believe that investment will pay off in three ways. First, our markets will function successfully during the millenniumdate change. Our goal is to do so with flying colors. Second, our systems will have been upgraded with greater functionality and capacity than we have ever had before. And, third, we will have developed a project management team within the industry to deal with industrywide operations and technology projects that go well beyond the Year 2000 conversion. That team will serve us well in the conversion of the equity markets to decimals in the Year 2000 and in the conversion from 3-day settlement to 1-day settlement by 2002 or 2003. Those latter efforts are in the planning stages today.

We are confident that that investment will preserve the leadership position of the U.S. financial markets for years to come.

I would like to thank you, Senator Bennett, and the committee for the work you have done in this area and for your support of the Year 2000 Information Readiness Disclosure Act. Thank you, also, for the opportunity to appear before you today.

[The prepared statement of Mr. Kittell can be found in the appendix.]

Chairman BENNETT. Thank you. That is a very good summary and both reassuring and sobering to understand how well you have done and, at the same time, how much remains to be done.

Mr. Maloney.

STATEMENT OF EUGENE F. MALONEY, TRUSTEE, SENIOR VICE PRESIDENT AND CORPORATE COUNSEL, FEDERATED INVESTORS

Mr. MALONEY. Good morning, Senator. I am an executive vice president and corporate counsel with Federated Investors. I am also a member of the board of directors of the firm and a member of the executive committee of the firm. For the last 11 years, I have been a member of the faculty of Boston University Law School, where I teach a course in the master's program on the trust and securities activities of banks.

Federated is a New York Stock Exchange listed company which, through various subsidiaries, organizes, manages, administers and distributes a family of mutual funds used primarily by financial intermediaries. As of the close of business yesterday, we either managed or had under administration assets in excess of $150 billion. A substantial majority of the assets in our funds represent investments made by corporate fiduciaries acting in either a trustee or ERISA capacity.

Since the beginning of May, our firm has focused significant resources on the Y2K issue as it relates to the investment management process. At the present time, our investment professionals are assembling information from primary and secondary sources, which will allow them to apply traditional analytical tools to the processes of evaluating which securities to buy, sell, or hold, as the case may be, as the millennium approaches.

We have retained counsel skilled in Y2K matters to assist us as we move forward. We have also consulted with members of the accounting profession, who have experience in reviewing and opining on the financial statements of public companies. This dimension has been useful and will continue to be such as the regulatory agencies, particularly the Securities and Exchange Commission, require more forthright disclosure from issuers as to Y2K readiness in their public filings.

Modern portfolio theory operates on the premise that everything that is known or knowable about the price of a publicly traded security is already fully reflected in its price. Professional securities analysts are, thus, largely limited to interpreting information in the public domain and available to other analysts. This process is just beginning to take shape, and we detect a growing awareness on the part of the analyst community of the need to broaden their evaluation of the securities they follow to include Y2K preparedness in the context of the ability of a company to continue as a going concern over the millennium. This will require an adjustment of sorts on their part in that conventional wisdom holds that the price of the security represents the present discounted value of its future earnings.

Until recently, the analyst community had not focused on the issue of business risk as it relates to Y2K and were content with the vague statements of many issuers as to expenses incurred to date and their self-evaluation of their Y2K readiness. I expect this to change dramatically as issuers begin to comply with the disclosures requirement by the Securities and Exchange Commission in their recent release.

Working with counsel, we have written to the majority of companies whose equity or fixed income securities are owned by the funds we manage. In the domestic equity area, for example, to date, we have received a 23 percent response rate, the quality of which is very uneven. Follow-up mailings have been made to those companies or issuers which did not respond to the initial mailing. A Y2K file has been opened on each security we own, and our analysts have the responsibility of tracking issuer readiness as we go forward.

Each of our investment areas has a Y2K coordinator and all activities relating to Y2K readiness of issuers or efforts made to increase our understanding of Y2K and its impact on the capital markets is documented in the central file.

Many articles are starting to appear which predict a global technology winner. While some level of turmoil is to be expected, we are of the view that it will be temporary in nature. No credible source has predicted a permanent impairment in the value of the securities of publicly traded companies, either as a group or by industry. There will be issuer risk, however, and it is our view that the market will soon start to identify those companies who have been remiss in addressing the Y2K issue.

Fiduciary investment is a process of balancing risks, using professional judgment to weigh information available. We have no reason to believe that this approach will not work relative to which securities to buy, sell, or hold, based on our evaluating the impact Y2K will have on share prices. We do not feel that additional legislation is needed to protect the interests of mutual fund shareholders, be they plan participants, trustee beneficiaries, or individual investors. For example, under the standards articulated in ERISA, a prudent portfolio manager is already required to evaluate risk in the portfolio. Y2K issues are simply an element of risk that a prudent portfolio manager should analyze as part of the existing prudent man standard of ERISA.

Thank you, Senator.

[The prepared statement of Mr. Maloney can be found in the appendix.]

Chairman BENNETT. Thank you very much, all of you.

Mr. Maloney, I am troubled by what you are saying. I think everything you say is accurate, but as they say, that does not make it any less troubling. You say analysts are just beginning to assess Y2K risk.

Mr. MALONEY. Yes.

Chairman BENNETT. Senator Dodd knows that we held hearings on this subject in the subcommittee of the Banking Committee almost a year ago on why analysts should pay attention to Y2K risks and, quite frankly, we were ridiculed, maybe not publicly because a lot of people do not like to publicly ridicule a U.S. Senator unless he is running for re-election. [Laughter.]

And both of us are, so I guess we are fair game.

Vice Chairman DODD. We are used to it.

Chairman BENNETT. We are used to it. [Laughter.]

But privately, as I would hold conversations with people on Wall Street, they would say things to me like, “We have a rule of thumb that says whenever there are two web sites on an issue that means the issue has been fully aired and the market has automatically discounted everything that is on the web site. And since there are dozens of web sites on Y2K, that means the analysts already know everything there is to know, and Y2K will hit the world like a serious snowstorm. It will shut things down for a day or two and then everything will be fine.”

My reaction the first time I heard that was, “You have not been following. You do not understand what we are talking about,” and I later added to that the comment, “Snow melts of its own accord. This problem is not going to go away of its own accord. It is going to require enormous resources.”

Mr. Kittell, I think, has pointed out the truth of another facetious statement that I have made, “The way to solve the Y2K problem is very easy, just start in 1994, and you will have it under control.” And there are many companies that did not start in 1994 or 1995 or 1996, who are just getting started and I, as an investor, would not want to put my money in a company that has been lax in its own computer systems or that does not realize that in today’s global economy, in the food chain of just-in-time inventories and deliveries, the company could have all of its own computers under control and still be vulnerable to serious Y2K disruptions.

Every time I have this conversation with an analyst or with somebody who considers himself a professional in this area, he always says, “Oh, well, you are just paying attention to those Chicken Littles on the web sites that we ignore because the herd mentality * * *” and these are not their words, these are mine put into their mouths “* * * the herd mentality of conventional wisdom says this is not a big deal.”

In your written testimony you say that, as of May of this year, “it was clear that the analyst community had not focused on the issue of business risk as it relates to Y2K.” Now in your testimony here you say that they are just beginning to focus.

Mr. MALONEY. Correct.

Chairman BENNETT. Am I completely out on a limb here being concerned that the analysts are behind the curve on this and may very well catch up to it too late and then we get the Chicken Little syndrome among them?

Mr. MALONEY. My involvement in this issue, Senator, was random. As I mentioned to you when we exchanged greetings earlier, I thought Y2K was a rock group up until early this year. [Laughter.]

Our IT people came——

Vice Chairman DODD. It may also be a rock group. [Laughter.]

Chairman BENNETT. Yes.

Mr. MALONEY. As a matter of fact, our IT people came in my office the other day and took my computer because I did not know how to turn it on.

I got involved in this for the simple reason that we received a letter from a trust client on the West Coast in early spring asking us to recite for them what we were doing from a portfolio management standpoint to get ready for Y2K, and if they were not satisfied with the response that we gave to them, they were going to "go to all cash over the millennium," the very thing you mentioned in your opening remarks.

Well, as a director of the firm and someone who has been there 26 years, we take a great deal of pride in responding to concerns from our clients. So I, basically, went to school on the subject, knew nothing about it. And I have been through the early process of going to the various seminars, where you come away scared and personally threatened by something you really do not completely understand, and I decided I had to dump all of the personal emotional baggage over the side and figure out what, as a company, we were going to do to deal with this and then communicate.

So I went to New York. I started calling analysts I knew asking the kinds of provocative questions that you have been asking and then, quite frankly, evaluating their answers. And the answers I got, personally, were not, in my opinion, satisfactory. It was blown off as the kind of temporary phenomenon you described, and it was not going to cost very much money and, oh, by the way, to prove that I started to get copies of 10Ks, filings by public companies, where there was Y2K disclosure, and it was pap. There is no way you could make an informed investment decision to buy, sell, or hold based on that stuff. Moreover, the numbers were pathetically low, based on the kinds of information I was getting from our investment experts. So that was the reason for my comment in my written remarks. I did not think, at that point in time, that the analysts fully understood the dimensions of Y2K.

I then invited our local auditors out to breakfast because that is the second leg of the stool, disclosure. And I said, "Are you looking at Y2K from a business risk standpoint?" and the answer I got was, "You are not pinning this one on us. We cannot get our arms around it from a business risk standpoint, so how do you expect us to opine?" There is the second leg of the disclosure triumvirate that an analyst, that we would use to make the decision to buy, sell, or hold.

And, last, of course, you have the lawyers, always the lawyers. The lawyers would tell you anything you put in writing is going to wind up in a courtroom, so do not say anything. So what you have essentially done is cut off the information flow that an investment professional would use to make the appropriate evaluation to buy, sell, or hold a security.

We now just see the analysts starting to look at Y2K from a business risk standpoint. It is our opinion that the recent release by the Securities and Exchange Commission, the fruits of which we think we will see in the next anniversary of financial statements, will now start to have the kind of disclosure that we can use to apply traditional analytical tools to the investment management process. Our message to our clients is the best way to ameliorate risk is through a broadly diversified portfolio of securities and what better way to do that than the use of a mutual fund.

What we have also done, just because of the nature of our client base, we have enlisted the assistance of John Langbein from Yale University Law School. A piece by Professor Langbein is in my written submission. He is the author of the Prudent Investor Act.

His first take on Y2K and, of course, he has an opinion on everything, was this is just a variation on a familiar theme. It is risk management, albeit a unique risk.

Chairman BENNETT. Thank you for sharing that with us. You have encapsulated in a relatively short 6-month period what Senator Dodd and I have been going through for a year and a half. We came to the same sense of frustration and determination that the analyst community, frankly, did not have a clue about the time you were getting into it.

I do have friends whose judgment I trust, who have told me absolutely they are out of the market, and they are going to stay out of the market until they can get the kind of information that you are talking about. I talked to one of them just this week. He said, "I got out of the market in January." He said, "It was Y2K concerns that caused me to do it," and he says, "Frankly, the return on the bonds that I purchased, compared to the Dow, I have done better than if I had stayed in the market," and I do not think Y2K had anything to do with it.

But, yes, if we are going to have informed investors, we have to have that information flow, and you have very carefully and accurately summarized the three blockages that impede information from coming forward.

Vice Chairman Dodd.

Vice Chairman DODD. Thank you, Mr. Chairman. The chairman, I think, has identified appropriately the concerns that we all have, and I appreciate immensely your testimony here this morning.

I just want to pick up on that last major point I think the chairman was trying to make and was making in his comments. In looking at your testimony, Mr. Maloney, where you state, "Our courts do not demand infallibility, nor hold a trustee to prescience in investment decisions." It is troubling, with all due respect, it is sort of a cavalier mentality in a sense. I mean, I suppose you could make the analogy that with a huge storm developing in the Sahara, as the example cited, it is true that people on the coast of Florida, and North Carolina, and South Carolina, on up to New England, that many other things could happen to them, but we would be highly irresponsible not to track and warn about the potential harm here that could occur. So while no one anticipates or expects infallibility, certainly this is something we know is going to happen.

I, therefore, am interested in your comments and I will ask you to address this as well as the proposed legislation that Senator Hatch, Senator Leahy, Senator Bennett, and myself have introduced dealing with information sharing, which is, I hope, going to be a positive step. We are trying to get that done in the next few days. But I am growing concerned because I can sort of hear the rumbling already about protections that we will be asked to provide legislatively for tort actions and so forth.

And I am concerned that in pension fund and mutual fund reports that Y2K information is being sort of buried—it is asterisked in the bottom of reports, if at all. The foundation of economic security for most Americans is their home and their pension fund, and for a growing number of Americans, their investment in the stock market.

I wonder if you might, No. 1, just comment on this proposed legislation dealing with the information sharing.

No. 2, Mr. Kittell, I wonder if you might share with us whether or not SIA is testing to uncover any problems with foreign telecommunication systems and, if not, are you concerned about this—obviously, for a variety of reasons, certainly investors' decisions made in overnight activity in foreign markets, but also as we know that our own major exchanges are now listing, products that are off shore, and to what extent are we looking at those industries to make sure that they are going to be compliant.

Maybe if you would just address those two issues. I address them to all three of you. Mr. Fink, if you want to begin.

Mr. FINK. On the first issue, we would support enactment of the pending legislation, which deals with one of the problems, to a limited extent, on information sharing. I think that is very important because for firms that deal with the same vendors it obviously would be a lot simpler to pass on information to each other about that vendor's status without worrying about antitrust.

If I might go on, I think after you complete hearings, it would be good to look at it litigation reform more generally in this area. Any legislation is going to have to be a balancing act and mutual funds are on both sides of it. We are issuers of securities and can be subject to frivolous lawsuits. On the other hand, we buy securities and often are plaintiffs. But you do not want to create a safe harbor that is so broad that companies continue to make no decent Y2K disclosures. On the other hand, you do not want to have strike suit lawyers really profiting on Y2K. But I think a second piece of legislation would be worthwhile.

I cannot speak to what Mr. Kittell is doing, or how the SIA is looking at foreign issuers, but I might just say a word about mutual funds in that regard.

Vice Chairman DODD. Let me just interrupt for 1 second. As you may know, and Senator Bennett was a tremendous help on this, it has been about 7 years finally getting a securities litigation reform bill passed, and then this year we did the uniform standards legislation, and I think we did a very sound job in limiting these strike suits, where mere fluctuation of a stock could provoke a computer-driven lawsuit.

I just want to put people on notice that I see this as a very different situation here. It is going to be awfully difficult to make the case to a majority of our colleagues that somehow this issue was not—people did not know about it or whatever else. I mean, you are going to have an awful time. I mean, as someone who feels very strongly about these strike lawsuits and so forth, I do not know how it can stand up.

And having gone through 2 years of this, of hearing, after hearing, after hearing, after hearing, and day after day after day, we still find—and I understand we are trying to deal with some of these questions—but lack much necessary information. So for anyone to come back later and say, "Well, we were afraid of lawsuits" is not going to be a good defense to not disclose information. And for those who will want legislation that proivides liability protection, I just tell people ahead of time, I mean, I would not look for much cover up here anyway when it comes to that.

Mr. FINK. What I hope to say, Senator, is that I think you ought to look at it, but be careful, because it is a balancing act. I do not think it is as clear as either of the prior two pieces of legislation. That is what I was——

Vice Chairman DODD. Yes. You wanted to mention something about the——

Mr. FINK. Well, just on the foreign issue, funds get involved in two ways. We buy foreign securities, and we have to do analysis of those securities and those markets. Second, we rely on foreign infrastructure much like we rely on U.S. infrastructure, and there we do it through our custodian banks. I just want to point out that funds are involved in this inquiry both ways, both the issuers they are buying and the markets they are buying in.

Mr. KITTELL. Yes. Thank you. I would like to comment on both questions.

The first, the SIA favors the proposed legislation. I am not a lawyer. Many of the people I work with are not lawyers. They are operations and technology practitioners. And in their view, the real liability of the Year 2000 problem is not making an all-out effort to fix it, and that the liability associated with sharing information or disclosing information is minuscule compared to the overall liability of not making a best-efforts effort to fix it. We have been frustrated by the legal community and some of our firms who have been a little, in my opinion, cautious on this issue. My own view is that this will open up over the next year as people become more confident with their own plans and are willing to talk about it some more.

I think our challenge to our legal community in the securities industry is to tell us how we can go about sharing vendor information and testing information in a way that is acceptable rather than telling us not to or to be cautious about that kind of sharing.

With respect to international. SIA's own program, in addition to the testing, has done a great deal of work with its primary vendors, including the telecommunications industry and the power industry. We also are actively engaged with a Global 2000 group, which is basically a global SIA, if you will. It is made up of over 100 multinational investment banks, and they are organized in the same way that we are here in the U.S. There is a testing group, a contingency planning group, and there are also vendor groups that are working with the telecommunications companies in the major markets.

This group has been in business for about a year. It has been to London, Paris, Tokyo, Hong Kong. This week it is in Budapest. In October it will be in Frankfurt, and in December it will be in Brazil.

The way it works, there are country representatives on this group who deal with the same kind of infrastructure issues that I referred to earlier in the United States, working with the local exchanges, and depositories and so on to understand their testing programs and to give such advice as might be appropriate. Those groups are also working on a local basis with the telecom and power people in each of those markets. They report back to this Global 2000 group. We have information dissemination issues there. We do have a web site for that group, as well as for SIA.

We would like to put out country readiness reports. We would like to put out detail on the telecom industries in each of those countries. I am optimistic that we will be able to be doing that, although we have not found our way clear to do it yet.

My own view, I have heard a lot about the fact that the United States is perhaps ahead of some of the international markets. There have been distractions by the conversion to the Euro. There have been distractions in Asia due to market conditions. Our personal face-to-face work with the major exchanges, depositories and firms in these markets lead me to believe that they are very much aware of what is going on. They are committed to getting it right. They are certainly behind, and they have a lot of work to do in the next year and a half. But I feel that the commitment and the awareness are both there.

Mr. MALONEY. Senator, in the conclusion to my written submission, ERISA, and the Prudent Investor Act, and the prudent man rule, the laws under which professional fiduciaries will be evaluated on Y2K, are process-driven statutes. They are not outcome-based statutes, nor do they require clairvoyance, but they do require process. The point I made is, if you are not writing it down, and building your file, and documenting your analysis of this process, eventually you become a guarantor of the performance of the investment if your conduct was found to be imprudent.

From a corporate standpoint, we have decided we are going to communicate. There are extensive studies showing that if an investor understands risk, they are much better prepared to tolerate risk. As you know, the securities markets are where you place your capital at risk in the expectation of making a profit.

And we have urged our clients that they, in turn, need to communicate with the individual shareholder because—my comment the other day was—if you do not manage Y2K, Y2K will most assuredly manage you, and it will become a self-fulfilling prophecy. Your clients will essentially panic, and what we all are concerned about preventing will, in fact, happen, a so-called all cash over the millennium.

The lawyers, frankly, are a major problem. You have seen the predictions as well as I have, of a trillion dollars in liability, and issuers, I think, are justifiably concerned. Anything the Congress can do or the regulatory agencies can do to compel the free flow of information will be enormously helpful to organizations like ours.

I should tell you that, in leaving the firm yesterday, our investment professionals told me that they are having terrific success contacting issuers directly and having the kinds of candid discussions one needs to have to determine whether or not the issuer is, in fact, close to Y2K readiness. We have gone beyond the public documents because we have concluded they simply are not helpful. But the information is there. The investment professional simply has to role up his or her sleeves and go get it.

Vice Chairman DODD. Just the one, and maybe the chairman had, I guess, the same question maybe on this, but, Mr. Kittell, the 28 firms who participated in the beta test, and these are obviously the largest in the industry, and we have looked at information. We had an interesting meeting, and I have not had a chance to tell the chairman about it, yesterday with the Gartner [ph.] Group, their staffs. In fact, we ought to plan some means of hearing their analysis of this. But they pointed out to us that when you start looking at industries, their assessment of this, the larger industries look like they are going to be fine, and as you move down to mid-size and smaller, the expectations are not as good at all.

Mr. KITTELL. You mean the larger companies.

Vice Chairman DODD. The larger companies, yes. And their assessment, looking at their 15,000 firms in various industries in certain areas and making these assessments, The obvious question I have, if you are looking at these firms, are, by and large, the largest firms, you know, to what extent should we be concerned, one, about the mid-size and smaller firms, No. 1. No. 2, this is a voluntary, they are voluntarily participating and, obviously, a firm that voluntarily participates is more likely the one that is sort of ready. It seems to me I would be far more interested in the ones that do not want to participate. I would like to know what the hell they are up to in terms of where this is going.

It is sort of an obvious question, a layman's question here. So what degree of confidence can we have about a study that does focus on larger firms and is voluntary and, therefore, leaves open the obvious questions?

Mr. KITTELL. I think in the case of the securities industry, you can be highly confident. There are 5,000-and-some-odd broker dealers registered by the NASD. The SIA membership is about 800. We believe that the 800 in the SIA do in excess of 90 percent of the business in the industry. So you have many registered players at the NASD who are one-man, two-man kind of operations.

Second, the way the securities industry operations work, many firms introduce their business to clearing firms. In fact, within the SIA membership, if you look at let us call it 300 firms, you have covered the back office processing, the order entry, settlement and so on, of the remaining 5,000. So we envision a test being utilized by every clearing firm.

As to the mandatory issue, I never personally got too concerned about the issue on mandatory because I thought the business purposes or the business motivation for participating in a test was so high that we would have very high participation anyway. That notwithstanding, the boards of Depository Trust, and National Securities Clearing Corp, and the regulators, the NYSE and the NASD, are talking about mandatory testing. That is fine with us. I think that means that that fringe area that might not have otherwise tested will have to come in.

So I see very widespread participation in the test. Because of the structure of clearing firms and introducing firms, our coverage of the real money in the industry gives us some grounds for optimism.

Vice Chairman DODD. I should have mentioned, by the way, the SIA has had a wonderful reputation. You have done a very good job as an association, and I guess I should have begun my questions by stating that. I apologize having it come at the end. But I do respect immensely what the SIA has been doing.

Mr. KITTELL. Thank you, Senator. I will take it at the beginning or the end. [Laughter.]

Chairman BENNETT. Thank you very much for your testimony. It has been very helpful and fits into the historic pattern that we have developed in the two bodies, the subcommittee on the Banking Committee and this committee. We are grateful to you, Mr. Fink. Can we hang onto your chart? Because I think it will apply to the next panel.

Mr. FINK. Certainly, Senator.

Vice Chairman DODD. We may have some additional questions, too, we could submit to you, if that is appropriate, and if we could get some responses back, we would be grateful to you.

Chairman BENNETT. On our third panel we have Mr. Jim Wolf, who is the executive vice president for TIAA-CREF. He will explain all of that to us; Mr. Vince Brown, who is the assistant executive officer for financial administrative services at CalPERS, the California Public Employees' Retirement System; Bert McConnell, senior vice president at Fidelity Investments; John Towers, executive vice president and chief of global operations for State Street Corp.; Thomas Rowland, a senior vice president for Capital Group Companies; and Mike Waterford, the group vice president for DST Systems, Inc.

The reason I asked Mr. Fink to hang onto the chart is because each of you gentlemen represent some portion of what is up there. On this panel we have representatives of major pension funds, investment companies, and a transfer agent.

So we will start with you, Mr. Wolf, and ask you each to give your presentation. And as we said to the previous panel, we have asked you to keep your opening remarks very brief because we expect to learn most from the interaction that will come when you start talking to each other.

STATEMENT OF JIM WOLF, EXECUTIVE VICE PRESIDENT, TIAA-CREF

Mr. WOLF. Thank you and good morning, Mr. Chairman.

Vice Chairman DODD. I should point out Mr. Wolf is a constituent, and we welcome him.

Chairman BENNETT. Oh, well, then——

Mr. WOLF. Yes, I am. Thank you.

Good morning, Mr. Chairman. Good morning, Senator Dodd. I am Jim Wolf, executive vice president of Corporate Management Information Systems for TIAA-CREF. That is Teachers' Insurance and Annuity Association and College Retirement Equities Fund. TIAA is a nonprofit life insurance company that provides retirement annuities and insurance products. CREF is its nonprofit companion organization that issues variable annuities. Together, TIAA-CREF invests assets, which totalled $235 billion as of the end of June 1998, that are primarily used to fund retirement plans at more than 8,000 educational institutions that cover almost 2.3 million American educators.

As the committee recognizes, Year 2000 is a serious issue that demands our focus and attention. At TIAA-CREF it is getting that focus through the commitment of senior management's time, budgeted resources and staffing allocations.

Since 1996, we have been addressing the five-step requirements of Year 2000; awareness, assessment, renovation, validation, and implementation. Approximately, 86 percent of our application system program code has been remediated and is currently back in production. Comprehensive Year 2000 certification testing is underway and completion is anticipated for December 31, 1998.

We think keeping our public informed on Year 2000 is important and, consequently, we have communicated our Year 2000 plans and progress several times to our participating institutions, individuals and employees via corporate publications, brochures, and our Internet Web site. Our trustees and our audit committees are also kept informed on a regular basis.

Much has been accomplished, but much is left to do. For example, we are continuing to work on our PC hardware and software environments and have plans to test our external vendor interfaces as fully as possible when those vendors are ready.

Our contingency plans are being finalized with particular focus on our ability to provide monthly benefit payments to our approximately 300,000 pensioners. This would be done, for example, by ensuring that we can produce paper benefits checks should electronic payment distribution systems fail.

Year 2000 readiness is also an important topic we focus on relative to companies we invest in. During 1997, prior to the publication of any regulations, we contacted over 5,000 of our investment portfolio companies to ensure they each had a Year 2000 program. Currently, the responses to those letters are made available to our investment analysts, and this information, along with the SEC-required information, is available for their discussion and due diligence meetings with respective company management. Y2K is only one of the many factors we use to make our investment decisions.

In summary, we believe TIAA-CREF is in a strong position to meet the challenges of Year 2000. Lots of work and especially testing, both internally and with others we are dependent upon, is still left to be done. One of the most important things still to do is to participate as much as possible in that planned Wall Streetwide testing effort that is scheduled for first quarter of 1999. That test should prove whether many of us truly are ready for Year 2000.

Thank you.

[The prepared statement of Mr. Wolf can be found in the appendix.]

Chairman BENNETT. Thank you. Mr. Brown.

STATEMENT OF VINCENT P. BROWN, ASSISTANT EXECUTIVE OFFICER, FINANCIAL AND ADMINISTRATIVE SERVICES, CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

Mr. BROWN. Thank you, Mr. Chair. For the record, I am Vince Brown, assistant executive officer of Financial and Administrative Services of the California Public Employees' Retirement System, commonly known as CalPERS. I am also the executive sponsor for CalPERS' Year 2000 Compliance Project.

I would like to thank you, Mr. Chair, and members of the committee, for the opportunity to report the status of our Year 2000 Compliance Project. This hearing will make an important contribution to the Year 2000 dialog.

CalPERS began planning our Year 2000 Compliance Project in earnest in the fall of 1995. At the outset, we approached the problem as an enterprisewide business concern, not just a technology problem. To ensure compliance, we have adopted a three-pronged approach.

First, we are developing a state-of-the-art integrated corporate database to replace many of our older mainframe computer systems with Year 2000 compliance systems.

Second, we are making Year 2000 compliant those PC applications and mainframe computer systems that cannot be built as part of the corporate database project.

And, third, we have developed a comprehensive business enterprise program to mitigate any external risk to CalPERS' business operations. The CalPERS board, CEO, and senior management have made compliance the top priority for our fiscal year 1998–1999.

To date, under our corporate database project, we have implemented four major business systems; an actuarial valuation system, health system, financial system, and investment accounting reconciliation system. All four systems are Year 2000 compliant.

Year 2000 modifications have been made to our mainframe Legacy computer systems, and we are currently in the testing phase, with completion targeted for June and, after that, additional testing on an integrated basis to make sure that everything is in operation.

Compliance work on our PC applications is 45 percent complete. We are on schedule to complete this effort by December 1998. The Business Enterprise Project, which focuses on internal and external risks, is now in the mitigation phase of our Year 2000 compliance effort. We are on schedule to complete this work by April 1999 and contingency planning will occur as a result of the Business Enterprise Project.

Of paramount concern to the chair, and this committee, and our members and employers is how we are addressing Year 2000 issues relative to CalPERS' investment portfolio. We share your concern. As the chair stated in your written statement, pooling funds in an investment allows for greater diversification to reduce investment risk. CalPERS is a long-term investor with a diversified portfolio. Our asset allocation planning process anticipates market fluctuation. This reduces the risk to our portfolio and, ultimately, our members.

I should note to the committee that I am not an investment professional, and if there are detailed questions relative to our portfolio, our investment staff would be more than willing to provide additional information.

As we have discussed here with the Securities and Exchange Commission today, we will be following the disclosure requirements of the SEC. We would like greater disclosure because I think that will help our professional investment staff better analyze the portfolios.

Investment staff will also monitor the Securities Industry Association's testing to gather Year 2000 compliance information as well. In addition, our investment staff is currently researching ways of surveying the more than 2,300 public companies in our investment portfolio on their Year 2000 compliance progress. The survey information will allow them to independently evaluate companies and develop strategies to protect our investments.

CalPERS' investment staff will develop a proposal for discussion before our Investment Committee, which meets as a committee of the entire board in October. We believe these steps will assist investment staff to make informed judgments, as you noted, Mr. Chair.

In conclusion, CalPERS recognized the seriousness of this issue early and developed a comprehensive mitigation plan, and we are on schedule in completing our Year 2000 Compliance Project.

Thank you for the opportunity to report, and I applaud the chair for his leadership in this area.

[The prepared statement of Mr. Brown can be found in the appendix.]

Chairman BENNETT. Thank you.

Mr. McConnell.

STATEMENT OF BERT E. McCONNELL, SENIOR VICE PRESIDENT, FIDELITY INVESTMENTS

Mr. MCCONNELL. Chairman Bennett and Vice Chairman Dodd. I am Bert McConnell. I am senior vice president of Fidelity Investments, and I am head of the Year 2000 program for Fidelity.

Fidelity is the Nation's largest mutual fund company and one of the Nation's leading provider of financial services with total managed assets exceeding $615 billion. We are a technology-intensive company with more than 6,000 information technology professionals dedicated to meeting customer needs and through the use of state of the art technology solutions.

Early in 1996, we began to prepare all of our systems to seamlessly handle the Year 2000 problem. We recognized the issues involves more than just changing lines of code in mainframe systems. It involves extensive testing of our software and hardware, as well as testing with outside vendors.

With both the size and the challenge in mind and the strong support of top-level management, we have dedicated more than 500 people exclusively to the Year 2000 project. Our staff includes systems and business professionals throughout Fidelity, and our firmwide Year 2000 budget exceeds $300 million.

Today, we are well on our way to meeting our goal of seamless processing for Fidelity systems and are on schedule to provide uninterrupted service to our customers going into the Year 2000. In fact, we have every confidence that we will be ready well before the Year 2000. Specifically, 100 percent of our mission-critical systems have been inventoried and all internal code for these systems has been analyzed. By mission critical, we mean all of the business systems that are directly linked to our ability to service our customers. Fidelity has also already changed 94 percent of the code in these business systems. We expect to change the remainder of the code in our systems by the end of 1998.

While much is said about fixing lines of code, the real challenge of the Year 2000 project is testing the systems. This is where Fidelity is currently allocating most of our Year 2000 resources.

We are testing in three distinct phases or what we call waves. Wave 1 tests all Fidelity business systems individually using tools to simulate the Year 2000. In effect, we are making our computers think it is the Year 2000. For example, during this phase, we would test our ability to open a new customer account. To date, 86 percent of these mission-critical systems have been successfully tested, and we are on schedule to complete wave 1 by the end of this year.

In wave 2, all of the Fidelity systems are tested together in a computer that has the internal clock actually set to the Year 2000. This is sort of a time machine. In these time machines, we install only Year 2000-ready Fidelity and vendor software. For example, during this phase we would test the ability to enter orders for mutual fund shares, process the order based on end-of-day net asset value received from our pricing systems, and prepare confirmation of the transactions through our automated print systems. We are more than halfway through our wave 2 testing and expected completion is February 1999.

Finally, in wave 3, we use our time machines again to test with our outside business partners, stock exchanges, banks, broker dealers and others. During wave 3, for instance, we would test our ability to price a fund by testing the data feeds from our data service providers. And because the financial service industry does not stop at our national borders, wave 3 testing also includes vendors in the United States and abroad. Wave 3 testing started this summer with the successful participation in the SIA trial run of its planned 1999 street test, and wave 3 testing will run through September of 1999.

We are pleased to report all phases of testing are on schedule, and we have not encountered any significant problems.

Let me touch on the status of companies that we depend on. We rely on 165 technology vendors, 90 other companies who are essential to serving our customers. We have an active communication and monitoring program with these companies, and the majority have given us assurances that they will be Year 2000 ready. For those who may not be, we are developing detailed contingency plans and will move to alternate suppliers, if necessary.

In addition to preparing our own company for Year 2000, we know that the Year 2000 is an issue for companies in which mutual funds invest. As a mutual fund company, Fidelity's overriding obligation is to maximize shareholder value for its investors consistent with the investment objectives of the funds. However, we think it would be inappropriate to seek to impose on a fund manager a specific obligation to evaluate the Year 2000 risk differently from the way all other risks are evaluated.

In conclusion, we appreciate the opportunity to describe Fidelity's Year 2000 program. We welcome congressional participation to ensure the Federal Government will also be Year 2000 ready. We also encourage legislation to promote the information sharing and higher level of awareness in preparation by limiting liability of companies that work diligently to develop and implement Year 2000 programs.

This concludes my testimony. Thank you.

[The prepared statement of Mr. McConnell can be found in the appendix.]

Chairman BENNETT. Thank you.

Mr. Towers.

STATEMENT OF JOHN R. TOWERS, EXECUTIVE VICE PRESIDENT AND CHIEF OF GLOBAL OPPORTUNITIES, STATE STREET CORP.

Mr. Towers. Mr. Chairman, Senator Dodd. Thank you for the opportunity to appear before you today. My name is John Towers, and I am executive vice president for Global Operations at State Street Corp.

I will focus my remarks today on our own commitment to the readiness for Year 2000, with particular reference to the services we provide to the mutual funds industry.

State Street provides safekeeping and financial services for over $4 trillion in assets held by mutual funds, insurance companies and pension plans. We process over 50,000 trade settlements daily in over 80 markets around the world and manage over $400 billion on behalf of institutional investors worldwide.

Our Year 2000 program, Resolution 2000, began in 1996 and covers four areas of Year 2000 compliance and contingency preparations: Information technology, suppliers and vendors, counterparties and business partners, and business area operations.

Progress and impact are regularly and methodically reported at all levels of the corporation from the board of directors to every level of our staff and to our customers. Year 2000 compliance is a challenge, but State Street and other global financial firms are accustomed to constantly upgrading and recoding our software to accommodate changes in customer and/or market requirements. We currently deliver daily prices for over 1,200 U.S. mutual funds or about one-third of all funds in the country. Those prices are delivered both to our customers and to other intermediaries, and we have done so over many years, despite numerous natural disasters and extraordinary global securities market turmoil from time to time.

Today, we provide services for over 3,000 mutual funds ranging from fund accounting to daily pricing and fund administration. In the course of providing these services, we interface electronically with securities depositories, broker dealers, banks, stock exchanges and our customers, as well as providers of pricing and other investment data services to ensure that our customers receive all of the data which they require.

To date, nearly 90 percent of our 350 core corporate applications have been completed, and 97 percent of the programs specifically directed to supporting mutual funds have been renovated for the Year 2000 and are currently in various levels of testing to validate compliance.

Externally, we continue our efforts to monitor and influence the compliance of essential third parties globally and are developing strategies and approaches for testing with them. In cases where we find noncompliance, we will replace vendors, work around them, develop internal capabilities to replace them, or make necessary renovations to enable us to provide Year 2000 compliance services to our customers.

Our compliance target for all internal systems continues to be December 31, 1998, to meet the recommendations of the FFIEC. We will devote our efforts during 1999 to external testing and to developing appropriate contingency plans with key industry counterparties, customers and vendors.

Mr. Chairman, we commend your broad efforts in raising sensitivity to this issue, and we also commend the SEC, particularly, for its recent effort in coming forward and extending safe harbor protection for forward-looking statements in this area.

These are the kind of actions that are needed to encourage and create incentives for further information sharing and candid disclosure of readiness. Disclosure of technical information among all participants in the financial industry is a key ingredient in fixing Year 2000 problems, but full disclosure and information sharing is often inhibited by concerns about the risk of potential litigation, especially punitive and consequential damages.

Mr. Chairman, we urge the members of this committee to continue to find ways to create incentives for cooperation and openness among all parties. In our view, this would be the most effective assistance you could provide.

Thank you very much.

[The prepared statement of Mr. Towers can be found in the appendix.]

Chairman BENNETT. Thank you.

Mr. Rowland.

STATEMENT OF THOMAS M. ROWLAND, SENIOR VICE PRESIDENT, CAPITAL GROUP COMPANIES, INC.

Mr. ROWLAND. Thank you and good morning. My name is Thomas Rowland. I am the senior vice president with the Central Services Division of the Capital Group Companies. I am the individual with primary responsibility for the Year 2000 project at Capital. Prior to joining Capital early this year, I was an audit partner at Deloitte & Touche. I, and the entire Capital organization, appreciate the opportunity to testify before this Special Committee today and applaud your effort and that of the SEC in helping focus public attention on this very important issue.

Capital Group Companies is comprised of several affiliated entities that provide investment management-related services to individuals, corporations and institutions throughout the world. Capital Research and Management, one of these companies, is a sponsor and investment manager of the 28 mutual funds in the American Funds Group. This mutual fund complex has over $225 billion in assets and more than 9 million shareholder accounts. Other Capital Group companies have over $110 billion assets under supervision.

It may be worthwhile talking briefly about the project organization. Capital is addressing the Year 2000 challenge on a coordinated, enterprisewide basis. A significant number of people with diverse backgrounds and skills are involved, with the Year 2000 Steering Committee and the Year 2000 Program Management Office providing overall coordination and support.

Our compliance project plan applies to all Capital Group Companies, including Capital Research and its two subsidiaries companies providing services to the U.S. mutual funds; American Funds Service Company, our transfer agent, and American Funds Distributor, our principal underwriter.The plan covers all Capital Group systems and facilities worldwide and their activities undertaken on behalf of both U.S. and non-U.S. clients.

The board of directors of a number of Capital Group Companies, including Capital Research, have formally approved the project, including the enterprisewide approach and its reliance on the Steering Committee, the Program Management Office, the information and technology business areas for implementation.

Quarterly reports of our progress are submitted to the boards, as well as the mutual funds in the American Funds Group and their outside auditors. In addition, we are making information available concerning Year 2000 projects available at our corporate and mutual fund Web sites.

Capital is committed to achieving Year 2000 compliance across all of our significant business systems and operations. We have a well-defined plan, ample resources, and excellent momentum toward achieving our goal. Our progress to date indicates that we will meet our December 31st target for Year 2000 compliance for our internal systems.

Within the areas of our businesses that support mutual fund operations, as of June 30, we were substantially complete with the first two phases of our project—inventory and risk assessment and planning—and more than 90 percent complete with the remediation phase, and testing was between 70 and 80 percent complete.

While we have made significant progress to achieving compliance within our information technology infrastructure and other support areas for the mutual fund operations, our focus is now on assessing Year 2000 readiness for our significant vendors and developing appropriate contingent plans.

Where electronic interchanges and dependencies exist, we will conduct appropriate tests, including point-to-point tests with these individual firms and streetwide tests with other industry participants. Testing with third parties has already begun, and we will continue that through 1999.

We think it is important to emphasize a large number of interconnections and interdependencies present within and outside this industry and need to work diligently to anticipate and prepare for external events.

At the moment, there are many serious issues facing companies and other organizations, including central banks and other governmental agencies around the globe. Thus, the possibility exists that parties outside of our control or influence will not be as prepared as they should be and investors may suffer as a result. I am sure that Capital and other industry participants will take steps to address these risks, both in terms of their mutual fund operations and investments, but there may be no way to eliminate them entirely.

I understand the Special Committee is interested in knowing whether we are considering Year 2000 readiness of companies in our client portfolios. Although I am not an investment professional myself, I know that our research analysts and portfolio counselors are well aware of this issue. They are reviewing portfolio companies' public disclosures and making inquiries of management and, generally, receiving positive assurance. However, our people realize they are not technology experts and, in any event, they are not in a position to independently verify the assertions made by management.

On the other hand, at Capital, at least, we tend to make and maintain long-term investments in companies we believe to be well-managed and with good prospects for the future, and it may be entirely reasonable for investment professionals to conclude that a company's statements about Year 2000 readiness are solidly grounded. Well-run companies with significant resources and good prospects are more likely to address the issue in a responsible and effective manner. Clearly, the Year 2000 issue is more significant for some companies than others, and the degree of our analysts' concerns reflect this.

Finally, although our investment professionals recognize the importance of this issue, they also feel strongly that it is only one of many factors that ought to be taken into account as part of the investment process, and it would be inappropriate to consider statements about Year 2000 to the exclusion of other equally pertinent investment considerations.

Thank you very much for the opportunity to testify.

[The prepared statement of Mr. Rowland can be found in the appendix.]

Chairman BENNETT. Mr. Waterford.

STATEMENT OF MICHAEL A. WATERFORD, GROUP VICE PRESIDENT, DST SYSTEMS, INC.

Mr. WATERFORD. Mr. Chairman and Senator Dodd.

My name is Michael Waterford, and I am a group vice president of DST Systems, Inc. We appreciate the opportunity to provide testimony on the Year 2000 problem and the efforts of the mutual funds industry to prepare for it. We believe that the work of the committee is vitally important in creating public awareness of the problem and an appropriate level of corporate response.

DST Systems was founded in 1969 to address the shareholder recordkeeping requirements of the mutual funds industry and, today, we are the leading recordkeeper for shareholders in the industry. We provide shareholder recordkeeping to over 200 mutual fund companies, representing over 48 million shareholder accounts. Over the last decade, we have invested hundreds of millions of dollars in infrastructure and systems to address the growing needs of the industry.

The typical services which we provide for mutual funds shareholder recordkeeping involves maintaining records of shareholder ownership in mutual funds. DST is a registered transfer agent regulated by the SEC. Our portfolio accounting services are provided by a separate software product, the Portfolio Accounting System. These services enable mutual fund managers to record the underlying securities in the mutual fund portfolio.

Our first preparations for the Year 2000 started in 1989, when we added a century to the dates in the mutual funds shareholder recordkeeping system. In November 1996, we established a project office, headed by myself as a senior officer, to carry out day-to-day oversight of all Year 2000 activities.

DST has set a corporate goal of achieving internal Year 2000 readiness of our systems and services by December 31, 1998. At the time of this statement, we have essentially completed the remediation of our shareholder recordkeeping and portfolio accounting systems and the remediated programs have been placed into production.

Testing internally is well advanced, and we expect to complete it on schedule by the end of 1998. However, our external testing with clients, the industry, and other third parties is likely to continue well into 1999 and possibly into the fourth quarter. We are participating in the SIA testing program.

As our testing has progressed with relatively few problems, we have become more comfortable with our ability to meet our internal timeframes for readiness. That is not the same as saying that we expect to be error free. In spite of the considerable amount of testing which we have undertaken and will continue to undertake, we must expect that there will be issues requiring continuing attention when we cross into the next century.

Our program of communicating with our mutual fund clients includes monthly newsletter, as well as information on our Web site for our shareholders, our clients and the press. Additionally, our attendance is requested at mutual fund client meetings increasingly, including mutual fund boards discharging their fiduciary responsibilities with respect to the Year 2000.

As we review our readiness for the Year 2000, we are becoming increasingly aware that there is a range of risks which is almost completely outside our control and for which little information is currently available. These concern what we think of as national infrastructure, such as the basic utilities and the national telecommunications network. I was glad to hear that an electricity assessment is becoming available.

Although DST, together with other organizations in the mutual funds industry, is reasonably well advanced with its Year 2000 preparation, we believe that readiness will continue to require the allocation of significant resources of people and equipment, together with consistent management attention, at least through early 2000.

That concludes my testimony. Thank you.

[The prepared statement of Mr. Waterford can be found in the appendix.]

Chairman BENNETT. Thank you all. Let me make some general observations.

As I listened to this distinguished group, I think the lawyers had their hand in drafting the statements. You all made—not all—but most of you made the point that, of course, we are going to evaluate risk, and we are going to evaluate all risks, and Y2K is not just the only risk, and we must look at all of the rest of it. We are not suggesting in any way that any analyst should change his or her evaluation of all of the other risks.

The frustration that has come to us is that analysts are ignoring this risk. And one of the reasons they are ignoring this risk, going back to the testimony of Mr. Maloney and the previous panel, was that, A, they do not have enough information about it; B, they are afraid of possible lawsuits; and, C, they think the easiest thing to do is to say nothing and hope the problem goes away.

It is a little like, if I may, the movie "Tucker." I do not know whether the movie "Tucker" is an accurate description of what really happened with the Tucker automobile. I am old enough to remember the Tucker automobile, and I do not think it was nearly as romantic as the movie made it out to be. But in the movie, Mr. Tucker, the swashbuckling entrepreneur, promises that the automobile will be delivered at a time certain. And when the time comes for him to unveil the automobile, it is not ready. But he does not, at any point, admit that there are any problems. In the movie, the mechanics are pushing the automobile onto the stage while Tucker is making his remarks in front of the curtain. And dramatically, as the curtain opens to reveal the automobile, the mechanics are scurrying away so that they do not get caught in it. People are left with the impression that the automobile was driven up there and that everything is wonderful, and he gets away with it, even though, as I say, they had to push it up there.

I have the feeling a lot of people are saying, "We are going to say everything is wonderful with Y2K and hope we can push this onto the stage, so that when the curtain opens on New Year's Eve, it will be there and everything will, in fact, be wonderful." Whereas, a prudent investor wants to know and deserves to know in advance that the automobile has no engine and, in fact, will not run when the curtain opens and people get to see the gleaming chrome.

Now, if that is not an accurate analogy, it, nonetheless, summarizes some of the frustrations that I have had here with people saying, "Well, the industry is going to be fine. Well, everything is going to be fine. Well, gee, do not ask us to highlight this risk because we have other risks." Nobody is asking anybody to downgrade the other risks. We are just asking you to pay attention to this one in ways that, up until now, analysts have not done.

So, for me, the issue is not evaluating risk differently with respect to Y2K; the issue is disclosing where the risk is, making sure that people can evaluate it.

Mr. Rowland, I would like to focus on you for just a minute because you have, perhaps, more than the others on this panel, expertise in an area that concerns me, and I would like to take advantage of your being here.

Capital Group maintains offices in London, Geneva, Hong Kong, Singapore, and Tokyo. Information that we have developed in the committee elsewhere says that, on a country-by-country basis, we should have the most confidence in your offices in London and Singapore, with perhaps less confidence about what might happen in Geneva, Hong Kong, and Tokyo. Have you engaged in any general assessment about the overall Y2K state of readiness in those countries? I am talking about infrastructure issues that could impact your operations: Telecommunications, power, utilities, transportation, et cetera. Because I think things are going to be better in the U.K., in the United States, and in Singapore than they are in other countries, based on information, as I say, that the committee has.

What inquiries have you made about the state of readiness, beyond your own company, in the environment in which you operate and how could that affect your ability to serve your customers?

Mr. ROWLAND. I would like to answer that in two parts. The first part is our work with custodian banks. Our primary link to the foreign markets are through the custodian banks and the subcustodian networks. We deal with approximately 100 custodian banks at Capital and intensely with probably a half-dozen of them. So we are meeting frequently with the custodian banks in reviewing the activities that the custodian banks are taking in these foreign markets, as they are our primary contact in those areas.

Our experience with the custodian banks are they are taking it very seriously. They started a year ago assessing information in their subcustodian network. They have people on the ground in these countries who are very well aware of the situation and are gathering information.

The one disappointment, I would say, that we have seen is they are a little reluctant to be specific with respect to subcustodians and concerned about litigation risk, but they are providing us with in-country information with respect to this readiness.

In the second part, I had a meeting with our global research people last week, where we discussed this topic, and I believe that where we are headed with it, we have people on the ground in many of these countries, and we are looking at using our country specialists in these countries in helping us gather information with respect to the companies and the infrastructure in these countries. Now, I would have to say that that is where I think we have some sentiment to do that. We will need to develop a way to communicate that information among the investment professionals in our company.

The other aspect of gathering information is that we started probably about a year ago making inquiries of our significant business partners and vendors about readiness and, to tell you the truth, we did not get very good response. And in reflecting on it, I would have to say that, if we were asked a year ago where we were on the project, we would have to say—we could not give very substantive responses either. So I think we are entering an era where we should expect to get pretty substantive responses because, I mean, the issue has been around and people have had time to become prepared for it. So I think, as we move ahead, I think we should expect to get more substantive responses to inquiries.

Chairman BENNETT. Well, I do not want to be critical of you. Basically, I heard the answer to my question as no. You have not engaged in general assessment of this country's state of Y2K readiness. You have talked to corresponding banks, you have talked to other companies, but nobody has gone out in Hong Kong and said, "Are the telephones going to work?"

Am I wrong in coming to that conclusion?

Mr. ROWLAND. I am not aware that we have made that specific inquiry at this point.

Chairman BENNETT. Well, if I can just make a general observation. I think every company that has anything to do overseas ought to be asking those kinds of very direct questions, and they ought to be part of the analysis. I used to run a very small company that—well, yeah, before the big one. [Laughter.]

Vice Chairman DODD. I am sorry. My chronology was off there.

Chairman BENNETT. Some day I will tell you how many companies I have run. Most of them were very small.

I used to run a very small company that was dependent on—the principal item in its product—on a manufacturer in Taiwan. We could not manufacture the product in the United States as cheaply as we could get it manufactured in Taiwan. We did all of the enhancements to the product in California, and our sales force and everything else was located in the United States, but the key component came from Taiwan. If I were running that company today, I would be very, very nervous about the state of readiness nationally in Taiwan.

It was a publicly traded company, so the analysts who looked at our stock would be lulled into a sense of false security if I were to say, "All of our computers are fine. All of our billing systems are fine. All of our database for our customer mail order activity is fine. Everything is wonderful. By the way, the key product that without which we will shut down is manufactured in a country where I have no idea whether there is going to be a dial tone on the telephone, whether I can fly in because the air traffic control system is still working, in order to check on the factory, whether the factory can get any power," all of those kinds of key questions are essential to my telling my analyst whether or not I am going to be in business.

That is one of the frustrations that I have. As we talk about analysts, I do not find any that seem to be pursuing the Y2K question beyond the assurances that we are going to be OK. The supply chain I keep talking about sometimes runs out very, very far. The just-in-time inventory system that we are all dependent upon runs through computers that could break down and, again, runs overseas again, and again, and again.

I do not know, Mr. Wolf or Mr. Brown, whether your analysts have done any kind of investigation as to what the foreign exposure might be in your portfolios or whether any of them have asked these questions. I picked on Mr. Rowland because of where his company has offices, but this has to do with everybody I think.

I would just send that message, that the complexity of this thing, as we become more and more acquainted with it in this committee, is enormous. Analysts that are looking at portfolios of huge sizes—I mean, trillions of dollars, even to Washington, is a big amount of money—ought to be paying attention to all of these things. We are back to the disclosure that ought to be available to the analyst, and through the analyst, ultimately, to the investor, as to where we are on this.

Now, having unburdened myself of that tirade, does anybody want to respond? I do not want to intimidate anybody. I want to stimulate you.

Mr. WOLF. I would just say I think you are absolutely correct. If you ask the pointed question, have our analysts gone and asked the infrastructure questions of the various foreign countries, I am not aware of that answer being yes. The questions we ask are specifically of the companies and, yet, in the foreign investments that we make, I am not so sure their disclosure is any better than what we are assuming in a lot of our domestic companies as well.

Questions are being asked, I know that. The quality of the answers is a different question and whether or not we are looking at country infrastructures, I doubt we are doing that at this point, and I will carry that message back.

Chairman BENNETT. Fine. Mr. Towers.

Mr. Towers. Yes, Mr. Chairman.

I would answer it from an operational point of view. Much as we look at the vendors who support the services that we provide to our mutual fund customers and other customers here domestically, we also have that same process underway in the non-U.S. locations, where we operate either directly or through our subcustodian network. I would say we are probably not as far along on that process globally as we are here, and I think we are experiencing some of the same issues that were mentioned by other members of the panel, in that some of the infrastructure and telecommunications companies have not been as forthcoming in their responses as have been members of the securities industry. But those inquiries are underway.

Chairman BENNETT. Does anyone have any idea how big an exposure you have in your portfolios with respect to foreign investments; what percentage of your total portfolio would have this kind of exposure as opposed to an entirely domestic content, U.S. content?

Mr. BROWN. Mr. Chair, I would like to comment on the former question, as well as the latter, and I do take your admonishment constructively.

State Street Bank is our custodian, and we have had them appear before our Finance and Audit Committee two times in the last year. One of the key issues that has been addressed to them is the preparedness of the global custodians and subcustodians to be operational. We are still working on getting a satisfactory answer, but I think that is a well-placed question, and one of our board members has already asked that question of our custodian.

Relative to asking those questions, perhaps, of firms that we invest in, we have 750 equity stocks in our international portfolio. As I had indicated earlier, we are in the process of developing a survey for all of the companies we invest in. As part of putting together those questions for our investment committee, we have our investment staff working in concert with our audit staff, who is a part of this group, to provide the oversight on the business side, along with our Year 2000 staff. Those are the types of questions that I think need to be asked as well, that go beyond the normal, “Are you going to be up and operational? How is your infrastructure?”

From the standpoint of our portfolio, our portfolio, audited July 31, was approximately $143 billion. Obviously, it has fluctuated due to the market volatility recently. But of that, about $32 billion or about 22 percent is in the international market. Again, we are a long-term investor, and we have a diversified portfolio. The majority of our funds are invested internally in the United States in passive portfolios, be they fixed income or equity.

I would just like to add one thing because you are asking the questions not only about the infrastructure that need to be asked of those firms you invest in, and custodians, and third parties, et cetera, but we are asking those questions of our providers in Sacramento. We have scheduled for February a test in the telecommunications area. One of the contingencies that we are looking at is having more than one provider coming into our building.

We have already begun discussions with our major power provider relative to their status as to Year 2000. And, obviously, we are not getting the types of answers we want at this point, but I am very heartened to hear that this survey is up, and that is one of the things that I marked down that we want to try to follow-up on.

Additionally, as we look forward, we have begun—and I do not want to go to, as you put it, the Chicken Little syndrome—but as part of our disaster business recovery exercise in preparing the contingency in the event power does not come on, there is no water, et cetera. So we have been thinking along those lines, as well as our internal operations, and thrusting out externally.

Chairman BENNETT. Vice Chairman Dodd.

Vice Chairman DODD. Thank you, Mr. Chairman.

Let me just underscore again what the chairman has said and second it in terms of the concern about getting the information and the growing sense—it is not here alone we are sensing it, by the way. We have had hearings on medical issues, and utilities, and down the line. There is a sense that there is almost sort of a laissez-faire kind of notion about all of this.

I mean, we are not trying to engage in some hyperbole here, but rather, when you start listening to people who are making assessments of the situation—and, again, I mean, the Gartner Group is one group, and Mr. Wolf and I are very familiar with them because they are a Connecticut-based company, but they have done about 98 percent of the assessments for Fortune 500 companies that are doing global assessments—and you sit and talk with them, as we did yesterday, and they paint a scenario, and it is chilling in terms of where the rest of the world is, and this includes Great Britain, by the way.

They are very pessimistic, even among our European allies, let alone in the Pacific rim, and in Latin America and Africa, in their assessment of where companies are by clusters and groups. This is the company that is out making the assessments. And they are talking about 36 months as the lead time you need in order to deal with this issue.

So when we are dealing with 470 days to go here, it is worrisome to a couple of people up here, and although neither of us claim any technical expertise relating to remediation and testing. I gather it is a pretty labor-intensive set of functions that you have to go through.

Let me just ask a few questions, could you give us the percentage, and I realize this is information you may not have at the tips of your fingers, but it will be very helpful I think to us if you could forward that information to the committee and just a breakdown of to what extent your portfolios are dependent upon foreign operations being Y2K ready or compliant. I think that was the question. It might be helpful. Again, it may be difficult.

I will begin with my constituent, Mr. Wolf, if I can. In your recent survey of portfolio companies, you show a great deal of initiative, I might point out, in tackling the complex issues related to this problem. You did a survey of 5,000 companies, as I understand it, and only about 25 percent, if I read this correctly, of the companies you contacted provided information in response, and only about 10 percent of the responding firms claimed that they were 2000 compliant.

Now, the math on this one says that out of 5,000 firms you have got 125 that claim that they are ready. Maybe the other ones are, but it is troubling when they do not answer. I presume you would have the same concerns. If they are not answering, something is going on here. It is not—the level of that percentage, 1 or 2, whatever, there may be just a communications problem here.

So I wonder, one, if you are planning to contact the other 3,750 companies here, the nonresponding organizations, and ask about their current status, and do you have any information about why those firms chose not to answer your questions, and how do you analyze the 75 percent of the companies that do not respond? At this point here, you would have to draw some conclusion about that, I presume, to people who are going to make financial decisions about them.

So I wonder if you might shed some light on that.

Mr. WOLF. I will be happy to. The original motivation for our sending a letter to 5,000 portfolio companies was mainly for awareness of the Y2K issue. We did it in early 1997 and, again, it was before any regulatory involvement from the SEC requiring information to be filed that we were doing that because we were concerned as to whether or not those companies really were aware and whether they had programs.

Vice Chairman DODD. Right.

Mr. WOLF. So we wanted to know whether they had a program in place and whether their senior management was involved. We were not surprised that we did not get a much bigger percentage coming back because, in fact, we did not think enough companies were really on top of the situation in early 1997. We used it as an awareness effort. We do not intend and we have not followed it up.

We are looking to the work that the chairman is taking in this, the committee is taking, as well as the SEC. We applaud the efforts that you are pushing the SEC even more to be more demanding. But we do not feel we have enough clout to get to the level of information we need by simply going after the companies individually. We need a little bit more leverage, and I think the SEC and this committee is helping to provide that.

Vice Chairman DODD. I appreciate that. But if I were using your firm to make some investment decisions, to what extent are you letting me know, to the extent that a package or whatever of investments that I may be making are going to be in companies that have not responded to this? Is that kind of information available to people who then want to make those decisions in terms of the Y2K?

Mr. WOLF. We have not made the specific responses available to our policyholders or investors, if you will. It is available to our internal analysts, and they carry that information when they meet one-on-one with the company management. It is one of the primary questions that does get asked. Again, the quality of the responses may not be there, at this point in time, that we would like to see. But we are asking the questions.

Vice Chairman DODD. By the way, we are getting a broad spectrum of people not responding—sometimes the Federal agencies, where there are specific questions being asked of them, and they are not responding.

Again, as the chairman has said, I mean, obviously, we are dealing in risks here, and some are unanticipated risks. We do not know what happens in Japan and other places, and you have got to certainly try to factor that in. This is an anticipated risk. There is not a lot we can say with any certainty about what the world is going to look like on January 1, 2000. We know this is a problem. Now, we do not know to what extent, but we know it is a problem. There is no question. This hurricane is going to hit. Now, maybe it will blow itself out and it will be relatively minor or it could be very serious. But there is no question it is coming.

I do not think we can say about any other risk that you may be assessing with absolute certainty what is likely to happen. And it seems to me that as you talk about these risks there is a difference. Some are unanticipated and you cannot predict, but this one you can. This is pretty clear.

And I would sure want to know, if I were an investor, I would like to know that company, X or Y, is just not responding to inquiries about this issue. I may decide to go with them anyway. I mean, I may decide that I have got enough confidence in them in the other factors here, but, boy, I would like to put that one into the old mix here. If they are not answering the questions on this, that is a significant factor, I would think. Now, again, maybe we are overstating the case, but it is important.

I wonder if you could also tell us how your organization assures that responses to your inquiries about compliance all use the same definition. This is a big problem. We get companies who say they are compliant, some say they are ready. I think there are a variety of other words they use.

Chairman BENNETT. I have heard several.

Vice Chairman DODD. Several. And, again, I think those words are selected very carefully and, again, I am sure the lawyers are saying, "Look, when you answer these things, you better use the right word here." What does ready mean? What does compliant mean?

But do you find any difference, even in the responses you are getting, does that send any signals to you about——

Mr. WOLF. I cannot give specifics—because, again, I am on the data processing side of the house—on the specific responses we are getting. But I would have to agree with you, Senator, that we are going to get very different quality answers. Again, we are trying to use some of the SEC requirements. But at the same time, if we are looking at 5,000 companies we are investing in, we are banking on the diversity of that 5,000 relative to any particular TIAA-CREF fund in which those companies are held by our investment individuals such that we get diversification.

So, if there is not consistent answers, at least we have an opportunity from the diverse pool to get what is, hopefully, a reduced risk.

Vice Chairman DODD. Yes. I thank you for that.

Mr. Brown, you mentioned in your testimony that CalPERS is researching ways to survey its portfolio companies for the Year 2000. Now, one, when do you expect to begin that survey? And I don't need to, again, you know the clock is ticking here. We have got 470 days. Mr. Wolf's company they, back in 1997, sent out surveys or letters to 5,000 companies. You are researching ways to survey your companies, and we are closing out 1998 in a few weeks, a few months, and we are going to be into 1999. I find that disconcerting. Disabuse me of my fear here, that you are researching ways to survey, when, it seems to me, at this point, that should have happened and the survey should have gone out already. Why has that not happened?

Mr. BROWN. Senator——

Vice Chairman DODD. Am I right in that, by the way? Correct me if I am wrong.

Mr. BROWN. I think I need to clarify a little bit on that. We are a little further along than researching to do a survey. And I do not want to be premature because our investment committee has to make the decision to tell staff to go forth and do this, but as part of our annual planning process for October for shareholder issues, the Year 2000 question is going to be part of that thrust, our annual thrust there.

Internal staff, investment staff, audit staff, and Year 2000 staff has developed a number of potential questions to go into the October board agenda packet. The investment staff has already done some—I would not say survey—but researching on firms that would be out there to help us to conduct this survey. So that is where we are at this point. It is part of the board's annual planning on this.

From our standpoint, although it looks to be a little bit late, we still think we are in the prudent timeframe, given the responses that the SEC has received and the responses here. I, generally, liked the way he talked about the awareness point. Part of our planning is that the methodology that we will be using is follow-up letters essentially drafted under certain audit protocols.

Vice Chairman DODD. What are we talking about? What is the universe of portfolio companies you would be talking about CalPERS?

Mr. BROWN. At CalPERS it is 2,300-plus.

Vice Chairman DODD. Companies. So the board will make a decision in October whether or not they are going to do the survey and the kind of survey that is going to be done.

Mr. BROWN. That is correct.

Vice Chairman DODD. And then when would you anticipate, just give me some idea here, and I am not holding you to date certains, but if the board meeting is in October and the decision is made to go forward with the survey, would that more than likely begin in January or would it begin immediately?

Mr. BROWN. Senator, I really cannot answer that question. I really need to ask the investment staff, and that is something I could get back to you immediately on.

Vice Chairman DODD. Fine. I am just curious, again, about time. Again, by the time you get back that information, I am just worried about this shrinking of time. So if you get information here, then how do people react to it? What do you do? How do you respond?

You noted that you have developed a contingency plan for the worst-case scenario at CalPERS. In your scenario development, I wonder if you might share with us what did you determine would be, in fact, the most likely contingency? Now, you have identified that one of those areas would be the check writing out of the California State Controller's Office—check processing I should say.

Mr. BROWN. A couple of points. As far as the State Controller's Office, we have had the Controller's Office, along with State Street and the State Treasurer's Office, make a presentation to our board regarding their compliance efforts and all of the touch points in the State treasury system.

The Controller's Office performs a number of functions for the State of California, one of them being the check write for our retiree warrants. We are currently in testing mode with them to ensure that they are compliant. What essentially—and I do not want to get too technical—is we give them a tape and they cut the checks. For us, that is the first area that we need to determine if they are going to be able to perform or not. If not, we have begun developing a contingency plan, and the contingency plan essentially is that, by July 1, 1999, we will have a contract in place with a check processor or a bank to process those checks.

Recently, in October, we brought that to our Benefits and Program Administration Committee and were given the go ahead by our committee. We have currently on contract Moore business which is in Utah that is a potential for one of our back-ups——

Chairman BENNETT. Naturally, it will work. [Laughter.]

Mr. BROWN. We have, for example——

Vice Chairman DODD. We knew you would get that in there some way or another. [Laughter.]

Mr. BROWN. EDS in Rochester, NY, and we have another firm, LCS in Santa Clara, CA. We are in the process. We already have contract language. We have been talking to these firms about their capacity. They have been in to meet with us. And, quite frankly, we were ready to pull the trigger in October and go outside the system, but the Benefits and Program Administration Committee take a little bit longer on your planning and do it over the next several months, but we are very close to having such a system in place, so that we will assure our retirees that they get their checks.

Vice Chairman DODD. And did I hear you respond properly on the Controller's Office in terms of how you are checking about their ability to be able to——

Mr. BROWN. Yes, a couple of things. One, we have been working with them for over a year and a half, and we have already passed a data file over to them to run it through their system to test it from that standpoint.

Chairman BENNETT. We have a vote going on.

Vice Chairman DODD. We do. Let me try and move along.

Chairman BENNETT. I am going to have to leave right now, so you can carry on as long as you feel comfortable before the vote gets us.

Vice Chairman DODD [presiding]. Well, they know it is going to be relatively brief with a vote on. So I will move along pretty quickly here. Maybe you will have to send some of these in writing.

Mr. McConnell, you noted it would be inappropriate, I think, to seek to impose specific fund manager obligations to evaluate Y2K risk differently from the way other risks are evaluated and, again, the chairman has talked about this and I have, as well.

I wonder if you might share with us how our Y2K risk is integrated into portfolio managers' and research analysts'identification and evaluation of all facts impacting on a company's value. And then, second, what level of confidence is there that all mutual fund companies are educating their fund managers and analysts sufficiently to include in their portfolio evaluations and decisions?

Mr. MCCONNELL. Senator Dodd, I am probably the wrong person to answer that question for you, very honestly. The thing that keeps me up at night these days are the 1,500 applications, the 5,300 software/hardware network vendors we deal with, the 30,000 desk tops we have to get ready, and all of the interdependencies that we have within our industry.

I have met with our director of Research in Fidelity Investments. We do brief the investment analysts in Fidelity with our program and things that we look for in our own exercises. So they are very well educated on the process of what Year 2000 is all about, and they do have a series of questions that they do ask senior management when they evaluate companies.

So I can speak for the fact that our analysts are doing that process. They do ask the questions. It is not a simple yes/no answer on compliance or not compliance. It is questions about——

Vice Chairman DODD. Could you get us a copy of that? I mean, I would kind of like to see it.

Mr. MCCONNELL. We can get that for you. I do not have it handy right here, but it is questions like the size of the program, what is the nature of the program, the elements of the program, what is your expected completion dates of certain phases of the program that we are tracking ourselves internally.

Vice Chairman DODD. I would appreciate that.

Mr. MCCONNELL. Sure.

Vice Chairman DODD. Just to jump along here fairly quickly. I was sort of impressed with your wave 1, wave 2, wave 3 approach on this. Although when I started doing the math on it, I come down to wave 3, and you leave yourself about 12 weeks.

Mr. MCCONNELL. Oh, no, no, no. These are overlapping waves. That was miscommunicated probably. Wave 1 actually started probably in the middle of 1996 and is just wrapping up as we speak. Wave 2 started the beginning part of 1997 and will continue into 1999. And wave 3 we started with the street tests with the SIA, the beta street tests.

Vice Chairman DODD. So that is overlapped. All right.

Mr. MCCONNELL. That is also a continuum, yes.

Vice Chairman DODD. The area of the vendors indicated you relied on 165 technology vendors and approximately 90 other essential outside parties. Again, what kind of response have you had in evaluating their Y2K preparedness? And for those who have told you they are ready, I wonder if they—again, I go back to the definitions. Would you ask them what do you mean by ready or do you just kind of take ready as an answer?

Mr. MCCONNELL. We have a saying that we listen to everyone, we believe no one, and we test everything.

Vice Chairman DODD. Yes.

Mr. MCCONNELL. The answer to that really comes down to, of these 258 vendors that we really speak to intimately on the subject, only 6 have not given us adequate assurances at this point in time that we will be ready. We are also in the process of, part of our wave 3 testing, of putting test plans in place with every one of them. So, while they will tell us one thing, we will verify that testing in the coming months.

Vice Chairman DODD. Listen, we have got about 3 or 4 minutes left on this vote, and I have got to get over and do that. But I, certainly on behalf of the chairman, and I will submit—I apologize to you, Mr. Towers, Mr. Rowland, and Mr. Waterford, but I have some questions for you. I just did not get there, but I will submit them to you. If you can, try and respond to them for us on a couple of these other things that were raised, particularly the one involving just the percentage of exposure of some of your companies.

But we are very grateful to you. I mean it has been tremendously helpful, and I am sure there were those who probably said, "What are you accepting going to testify in front of a committee like this for?"

But I appreciate it immensely and, hopefully, it will serve as a source of encouragement to other people to come forward, so that we can sit around here in January or February of the Year 2000 and say, "Boy, what was that all about? Things worked well." I would like to think that one of the reasons it did was because, through this process, we encourage people more to share information, and to get as much out there, and to act as an incentive for those who may be dragging their feet a bit, that they ought to pick up their speed on this issue. So I am very, very grateful to all of you for your willingness to be here.

And, by the way, if you have got some additional thoughts as to how you think we ought to deal with this a bit more effectively—you are on the street, you are dealing with people every day on this, aside from the legal questions, obviously, your investors' confidence in your portfolios, in no small measure, will be determined by how well this all functions, to some degree—so any ideas you have as to how we could do a better job of moving this ball along a bit more quickly, I know the chairman will be grateful, and I certainly would be as well.

So, with that, the committee stands adjourned. I thank you all.

[Whereupon, at 12:15 p.m., the committee was adjourned.]

APPENDIX

ALPHABETICAL LISTING AND MATERIAL SUBMITTED

Prepared Statement of Chairman Robert F. Bennett

Good morning and welcome to the seventh hearing of the Senate Special Committee on the Year 2000 Technology Problem.

We will spend the next few hours exploring the Year 2000 readiness of the securities industry, in particular the topic of pensions and mutual funds. Many of you know that I first became concerned about the Year 2000 problem in my role as Chairman of the Senate Banking Committee's Subcommittee on Financial Services and Technology. Through a series of hearings in that subcommittee, I have come to understand that the Year 2000 problem creates some serious risks for participants in the financial services industry—from bank customers who want to make sure they can access their accounts at ATM machines to investors in the stock market seeking to make sound investments.

Over the past year, I have also come to understand just how important it is for customers and investors to get useful information about the Year 2000 readiness of the companies with which they do business and in which they invest. Over the past year, I have worked with the SEC to develop enhanced disclosure rules to try to ensure that they get that information. The SEC released their revised rules in July and I am looking forward to seeing more meaningful disclosure in the coming months.

In considering the subject for today's hearing, Senator Moynihan and I have chosen to focus on pensions and mutual funds because they are the primary vehicles through which most Americans access the stock market. Over 84 million Americans participate in pension plans, and the Department of Labor reports that of the $3.6 trillion in assets held by private pension plans, nearly half of those funds ($1.8 trillion) are invested in equities. Over the past decade, Americans have directed increasing amounts of their discretionary investments to the stock market—particularly funds accumulated for long-term investment goals, such as college or retirement. Since 1991, individuals have funneled $1.1 trillion into stock mutual funds and that amount has been increasing at a rate of $21 billion a month.

Americans have made these investments largely because the stock market historically has outperformed other more secure investments, leading many investment advisors to recommend that funds accumulated for long-term goals should be invested in equities. Investment advisors have also encouraged small investors to invest in mutual funds rather than the stocks of individual companies. Pooling funds in an investment company can allow for greater diversification and therefore, reduce investment risk.

Pensions and mutual funds are also investment vehicles over which Americans have little day-to-day control. Individual investors rely on fund managers to research and analyze portfolio companies as they make investment decisions. Those managers have a fiduciary duty under the law to make investments that are in the best interest of the underlying investor.

Nevertheless, it remains unclear whether and to what extent fund managers are considering the Year 2000 as they decide whether to buy, sell, or hold an equity investment and whether the fund managers are getting the information they need to make informed judgments. It is important for investors in these funds to feel confident that the managers of their pension funds and investment companies are taking the necessary steps to secure their investments for the Year 2000. Without this confidence, investors will move available funds from the stock market in anticipation of the century date change, and that movement of funds could have a dramatic impact on world markets and the global economy.

Today we hear from witnesses from the pension and mutual fund industry and their regulators. I have asked the witnesses to address two risks pension and mutual fund investors face as a result of the Year 2000 problem.

First, what are participants in the pension and mutual fund industry doing to prepare their own systems to ensure that all essential operations (such as access to funds and record keeping) continue without interruption after the century date change? In order to preserve confidence in this sector, it is important for pension beneficiaries to know that their checks will arrive on time just as mutual fund holders need to know their accounts will be managed without interruption.

Second, what steps are industry participants taking to avoid investing customer funds in companies where there are serious questions about Year 2000 readiness? Are fund managers getting the information they need to make informed judgments on this issue? While there is no such thing as certainty in investing, it is important to know what fund managers are doing in this area so investors can make their own investment decisions accordingly.

We also will hear from Don Kittell of the Securities Industry Association, who will report on the results of recent Year 2000 testing in the securities industry.

Before we get started, I would like to take a moment to follow up on our June 1 2th utilities hearing. As you may recall, we were unable to determine at that hearing whether "the lights will stay on" because there had been no industry-wide Year 2000 assessment of the industry. I am pleased to report that the North American Electric Reliability Council ("NERC") plans to release its industry assessment today. My reading of advance results suggests that there is both "good news" and "bad news."

The good news is that this is the most comprehensive Year 2000 assessment the Committee has seen to date in any industry sector. Such assessments are needed desperately in other industry sectors. NERC should be commended for this monumental undertaking. The bad news is that progress continues to be slow. One third of the electric utility companies have still not completed assessment of their computers and embedded devices—a task that should have been completed a year ago. The hard part—fixing, testing, and implementing—is yet to come. Nevertheless, the NERC study represents an excellent starting point with which to monitor Year 2000 progress over the next critical months. I assure you that this Committee will be watching closely.

Prepared Statement of Vincent P. Brown

Good morning. I am Vince Brown, Assistant Executive Of ricer of the Financial and Administrative Services Branch of the California Public Employees' Retirement System—commonly referred to as CalPERS. I am also the executive sponsor of CalPERS' year 2000 compliance project.

I want to thank you, Mr. Chairman, and members of this committee, for the opportunity to report on our Y2K compliance activities.

CalPERS is a retirement and health benefits system. We administer pension and health plans for more than 2,000 California public employers and more than a million active and retired California public employees and their family members.

Our current membership is comprised of 776,000 active members and 332,000 retired members. Roughly one-third of the total 1.1 million CalPERS membership are current and retired state employees. Another third are current and retired public agency—or local government—employees. And the remaining third are current and retired school employees.

CalPERS is administered by a 13-member Board of Administration. Six board members are elected by a segment of the membership, three members are appointed, and four are designated by statute.

We recognized the seriousness of the Y2K issue early and developed a comprehensive compliance plan. We are now in the middle of implementing the plan, making necessary system modifications, and testing those modifications. Implementation of our compliance plan is on schedule. We expect all necessary system modifications and testing to be completed by the middle of next year.

The CalPERS Y2K program began in earnest in the fall of 1995. Our board recognized the importance of the issue and directed staff to develop a comprehensive mitigation plan. In particular, Robert Carlson, Chairman of the CalPERS Board Finance Committee, has been a leading Y2K compliance advocate on our board.

I believe a large part of our success in this area is the result of the support and tenacious oversight of our board. The staff regularly provides Y2K updates at board meetings. The board regularly asks tough questions and demands that appropriate attention be given to the issue. And just as importantly, our board has been willing to provide the necessary resources to get the job done.

CALPERS YEAR 2000 COMPLIANCE OVERVIEW

From the very beginning, we approached the year 2000 problem as an enterprise-wide business concern that affects a broad range of business operations—not just information technology or computer systems.

We've adopted a comprehensive three-prong approach to ensuring year 2000 compliance at CalPERS:

—First, we are developing and bringing online a state-of-the-art Y2K compliant integrated corporate database system to replace many of our older mainframe-based business information systems.

—Second, we are making Y2K compliant those mainframe and PC applications that cannot be incorporated into the new corporate database system prior to the year 2000.

—Third, we developed a comprehensive Y2K business enterprise program to mitigate internal and external risks to CalPERS business operations. That is, we want to make sure our contractors and service providers, along with the products that we purchase, are year 2000 compliant.

Specifically, we have Y2K compliance programs for equipment, contracts, telecommunications, external interfaces, and commercial software products.

Additionally, we have nine Y2K tracking programs: for banks, environmental systems at our headquarters building in Sacramento, off-site buildings, insurance, investments, standard forms, the State Controllers' Office and the State Treasurer's Office—two of our major business partners—and State Street (formerly known as State Street Bank), the master custodian of our investments.

COMET SYSTEM DEVELOPMENT

We expect our new fully Y2K compliant integrated corporate database system—which we call the COMET System (for CalPERS Online Member and Employer Transaction System)—to replace many of our older mainframe business applications before the year 2000 arrives. Here's a brief overview of where various key COMET applications currently stand:

—Our new Actuarial Valuation System is online. To appreciate the importance of this system to CalPERS, you have to understand that CalPERS does not manage just one pension plan—we manage approximately 1,900 pension plans. That means we have to run actuarial valuations every year for 1,900 plans. An actuarial valuation places a value on the assets and liabilities of a pension plan, compares plan assets to liabilities, and determines the amount of funding needed in future years, in the form of employer and employee contributions, to properly fund the plan.

—A new Health Benefits System was brought online in August. This is the system that maintains the records of our more than 1 million health benefits members—such as personal information, their employer, and the health plan they belong to. Since our health benefits program is one of our major operational responsibilities—from administration to customer service—having a modern Y2K compliant health benefits system provides tremendous peace of mind for us, the administrators, and for our members, the customers.

—A new Financial System came online in June. We use the Peoplesoft financial system that has been customized specifically for CalPERS to handle all aspects of our internal accounting and budgeting.

—A new Investment Accounting Reconciliation System was also brought online in June. The system uses the Princeton Financial Systems investment accounting reconciliation system. This system reconciles our accounting of the $85 billion of internally managed assets with the accounting of our master custodian, State Street. Later this fiscal year, we plan to enhance our new investment accounting system by building the infrastructure to link all of our external money managers to the system.

—Later phases of the COMET project will replace our employer and member database and transactions systems after the year 2000. These are the two major business information systems at CalPERS that will continue to be handled by existing mainframe-based applications that are being modified for year 2000 compliance.

LEGACY MAINFRAME SYSTEMS UPGRADE

One of the biggest challenges of any Y2K compliance program involves the modifying of older mainframe computer systems, often referred to as "legacy" systems, to make them Y2K compliant. As previously stated, two major CalPERS systems, our employer and member databases, will continue to be mainframe based through the year 2000 and therefore must be properly modified to function properly.

We broke down the mainframe modification project into two components—what we call Level 1 and Level 2.

In Level 1, we reviewed and modified applications codes and replaced our older mainframe computer with a new unit that is year 2000 compliant.

The Level 1 coding review focused on the identification and correction of all date references. Because we started the process early, we were able to manually review 2.3 million lines of computer code instead of using a less reliable automated program. We hired consultants expert in the COBOL and Natural programming languages to review each line of code and make the necessary changes. All Level 1 code changes have been made and tested.

In addition to the coding changes, we upgraded our mainframe operating environment by migrating to a year 2000-compliant IBM MVS system. The migration to the new operating system was successfully completed this past July.

We are also employing a technique called “windowing” whereby applications are programmed to treat all two-digit year codes within a certain “window” of years to be a 2000 year rather than a 1900 year. For example, an application can be programmed to recognize all two-digit year codes from 00 to 10 as years 2000 to 2010 while year codes 11 through 99 would be treated as 1911 through 1999. This technique, combined with manual editing of exceptions, will allow us to process two-digit year codes in the year 2000 and beyond until all of our business applications are replaced by the Y2K compliant COMET System.

We are now engaged in Level 2 testing. Level 2 testing involves running the modified applications through a “compiler” program to update older COBOL coding into a newer version of COBOL that can run properly on our new operating system. Then, we run test scripts—hypothetical transactions—on the modified, updated systems to see if they are processing data accurately.

Once a system has been satisfactorily tested, it can be put back into production, or normal operation. As a matter of priority, we are starting with our mission critical systems such as the Employer, Benefits, Contribution Reporting, and Member Services systems. All of these mission-critical systems are currently in various phases of testing. The Benefits System, one of our largest, was just recently turned over for user testing.

As a result of our successful mainframe migration, beginning this month, we began accepting four-digit year data from our users. That means CalPERS employers can send us a payroll data tape with either a two-digit year code (for windowing) or a four-digit year for production use by our Employer system.

CONTINGENCY PLANNING

To further protect ourselves and our customers, we have developed a Y2K contingency plan for the worst case scenario. Our compliance plan calls for integration testing of our mainframe systems by June 1999. Integration testing involves operating our various mainframe systems and applications together, simulating normal operating conditions, to see if all system components operate properly together.

After integration testing, every program will have been unit and user tested, so we do not expect any unpleasant surprises. However, as a part of our contingency planning, and to provide an added measure of assurance, we have scheduled additional system-wide integration tests from June through August of 1999 to double check the performance of our mainframe systems in the year 2000 and beyond.

Clearly, our biggest Y2K concern is making sure our 332,000 retirees continue to receive their benefit payments on time. Therefore, another contingency plan is our development of an alternative in-house check writing and payment system, to provide us with the additional capability to service our customers in the event that the California State Controller’s Office is unable to process our checks because their systems are not Y2K compliant.

PERSONAL COMPUTERS

At the beginning of our Y2K compliance program, we identified 162 personal computer applications that are used by our operational divisions to conduct a variety of business functions. The applications ranged from single user to client-server applications that are accessed by over 600 users, such as our member correspondence tracking system and our employer training system. To date, we have completed 45 percent of the modifications and are on schedule to meet our target date of December 1998 for Y2K compliance.

In addition to the applications, all of our 1,800 desktop and laptop PCs have been checked for Y2K compliance. The PCs that failed the Y2K test are being replaced.

BUSINESS ENTERPRISE PROGRAM

Taking a broader business perspective, beyond computer systems, our Y2K business enterprise compliance project involves a comprehensive evaluation and mitigation of year 2000 impacts on business functions enterprise wide. A major emphasis of the business enterprise project focused on identifying equipment and control systems with embedded computer chips that might not be Y2K compliant.

The CalPERS Y2K business enterprise team has completed the initial phases of awareness, inventory, risk assessment, and solution design and planning. We identified Y2K risks ranging from telephones, fax machines, and building security systems to our ability to issue benefit payments to our members. All of the individual risks were consolidated into 14 basic categories of "at risk" assets or business relationships. Mitigation plans were developed for the 14 risk categories. The remaining phases of implementation, testing, and monitoring will be conducted according to the mitigation plans.

Our business enterprise risk mitigation plan is divided into two procedures—a compliance program and a tracking program. Compliance programs entail a more detailed set of risk mitigation procedures that can be controlled by CalPERS. Tracking programs entail risk mitigation procedures that seek to verify entities outside of CalPERS, but with whom CalPERS has a business relationship, are taking adequate steps to be year 2000 compliant.

The CalPERS Office of Audit Services is conducting two compliance programs (external interfaces and equipment) and all nine tracking programs. CalPERS Y2K business enterprise staff is conducting the remaining three compliance programs (contracts, telecommunications, and commercial software).

The CalPERS Y2K business enterprise project is currently on schedule with a target completion date of April 1, 1999. After that date, monitoring and ongoing program maintenance efforts will be initiated.

INVESTMENT OPERATIONS AND MANAGEMENT

Of paramount concern to this committee, and our members and employers, is how CalPERS is addressing Y2K issues relative to our investment portfolio. The following information was supplied to me by our investment staff.

Our investments are diversified through an asset allocation process and strategy determined by our Board of Administration. Our asset allocation is the starting point and most important factor in achieving sound investment returns with minimal risk.

We invest in stocks, bonds, real estate, and private equity investments, domestically and internationally. The vast majority of our $140 billion portfolio is invested in public equity and fixed income markets. As of the end of July, CalPERS had more than $92 billion invested in U.S. and international equities and more than $37 billion invested in domestic and international fixed income instruments. The remaining $12 billion was in private equity, real estate, and cash.

On a percentage basis, approximately 68 percent of our assets are invested in equities, 28 percent in fixed income, and 4 percent in real estate. Approximately 22 percent of our total holdings are invested in international markets.

The management of our assets is consistent with our investment strategy of being a long-term investor. Approximately 80 percent of our domestic stock holdings are internally and passively managed in an indexed portfolio that replicates the broader equity market. The remaining 20 percent of our domestic equity investments are actively managed by external money managers, with the goal of adding value to the fund. All of our domestic fixed income investments are managed internally by CalPERS staff.

The CalPERS Investment Office is a full participant in the CalPERS year 2000 compliance program and has taken a number of steps to ensure compliance. All PC hardware and software applications are either already year 2000 compliant or are in the process of being made year 2000 compliant by December 1998.

All new contracts and amendments to existing contracts with our investment advisors, consultants, money managers, and ancillary service providers contain Y2K compliance language requiring the vendors to certify year 2000 compliance.

As you know, the Securities and Exchange Commission is requiring all publicly traded companies to disclose their progress on Y2K compliance. The marketplace, including CalPERS, can then objectively evaluate the Y2K progress of the individual companies.

We are shareholders in more than 1,600 American companies and over 750 foreign companies. Therefore our investment staff is considering additional steps to help us protect the value of our investments. We are currently researching ways of surveying the more than 2,350 public companies in our investment portfolio on their Y2K compliance progress. The survey information will allow us to independently evaluate companies and develop strategies to protect our investments. Our investment staff is developing a survey proposal to present to our Investment Committee in October.

CONCLUSION

In conclusion, we recognized the seriousness of the Y2K issue early. As such, we developed a comprehensive compliance program to address all aspects of our business operations. Implementation of our Y2K compliance project is on schedule for completion in advance of the deadline.

Our highest priority at CalPERS is to ensure that our customers are secure in knowing that their retirement funds are safe and that they will continue to receive the same high level of service they have always received from CalPERS.

RESPONSES VINCENT P. BROWN TO QUESTIONS SUBMITTED BY CHAIRMAN BENNETT

Question 1. You mention in your testimony that CalPERS is researching ways of surveying its portfolio companies for Year 2000 compliance. When do you expect to begin that survey? (Note TIAA-CREF has already completed theirs so CalPERS in behind the curve.)

Answer. We have decided to break our survey of portfolio companies into two parts: companies regulated by the Securities and Exchange Commission and those not regulated. As you know, the SEC has come up with Y2K disclosure requirements that are quite extensive. Because these disclosures are required, we are comfortable that CalPERS can rely on them in the same way we rely on other SEC information from 10K and 10Q reports of fundamental financial information. Any survey we conduct would not be any more extensive than the SEC disclosure requirements and would likely receive a far lower response rate. Because we would not have any enforcement mechanism for response, or even for intentionally misleading information, a survey by CalPERS would almost certainly be less useful than the SEC data. Thus, unless our intent is to try to uncover proprietary information regarding Y2K compliance on a handful of companies and act on that information in our portfolios, encouraging full public disclosure through the SEC requirements and letting the markets decipher the results is our best alternative. However, we will write individual letters to all of our domestic holdings, more than 1650 companies, strongly encouraging them to fully disclose all pertinent Y2K information to the SEC. As for CalPERS being "behind the curve," we suggest you talk to TIAA-CREF. They will tell you that the response rate for their survey was very low, and that the answers they received were not very helpful. They attribute this in large part to the fact that it was sent too early, before the Y2K focus intensified. We plan to send out the CalPERS communication before the end of 1998.

The second prong of our approach is to survey those companies that are not bound by SEC disclosure rules. These are the approximately 700 companies held in our portfolios around the world that are traded on foreign securities exchanges. Since the local reporting requirements on Y2K issues are very likely to be inferior to the requirements set by the SEC, we believe a CalPERS survey may be able to gather useful information, encourage voluntary disclosure, and perhaps prompt some companies into action on addressing their Y2K issues. Our plan is to mail a short questionnaire with 4 to 5 "bottom line" compliance, cost, and potential impact questions, which we hope will encourage a higher response rate. We plan to post the survey results on our Corporate Governance Web site and will indicate this in our correspondence with the companies. We plan to send out this survey by the end of 1998 and begin posting results in February 1999.

Question 2. In your testimony, you indicated that necessary resources to get the job done have been provided. How much have you spent to date and how much is budgeted to complete the project? How able are you to absorb or respond to an increase in cost if projections turn out to be low, as so often has been the case with Y2K efforts?

Answer. Our budgeted amount for the Y2K effort in fiscal year 1997–98 was $7.1 million. For the current 1998–99 fiscal year, the budgeted amount is $8.9 million. The total amount budgeted for the Y2K effort to date is $16 million. Approximately $8 million has been spent to date. The Y2K budget is monitored closely so we can tell if we are spending more than the budgeted amount. The Y2K Project is the top priority at CalPERS, and funds will be redirected to cover any shortages incurred by the project.

Question 3. Have you completed an inventory of all of your interfaces both internal and external? Have they all been prioritized? How do you plan on coordinated testing with them and what is the schedule for it?

Answer. Our inventory of critical external interfaces was completed in January 1998. In the prioritization methodology, most external interfaces were rated high risk, so all external interfaces are being addressed. These external interfaces have since been validated by users in affected business units. During validation, the nature of the interface was clarified, determinations were made concerning the date sensitivity of the data exchanged, and testing procedures were discussed. Most of the date-sensitive data that's been exchanged is processed by systems maintained and operated by CalPERS' Information Technology Services Division (ITSD); consequently, ITSD has initiated communication with major CalPERS business partners, primarily the State Controller's Office, to identify exchanged data, confirm date formats, and schedule testing. This communication has been formalized in a memorandum of understanding (MOU), and various interagency agreements (IA's), specifying services to be provided.

CalPERS' Actuarial and Employer Services Division (AESD) has established procedures to receive and process Y2K-compliant payment contributions data from participating employers in conjunction with ITSD. The procedures are based on "windowing," a technique that recognizes the applicable century designation based on the value of the two-digit year field. Optionally, employers can submit contribution data tapes in a four-digit compliant format, provided they notify CalPERS of their intent, so that testing can be scheduled. These procedures, together with a Year 2000 compliant record layout, were sent to all contracting public agencies on May 18, 1998.

CalPERS exchanges data with various health plan carriers. We are pleased to report that data exchanged with these carriers have already been determined Y2K compliant.

CalPERS prepares income tax information (Form 1099) for benefits received by retirees, including retired judges and legislators, and reports it to the IRS. Tax data is reported to the IRS on magnetic tape, prepared to IRS specifications. The IRS specifications were recently modified to add more data storage capacity to the record, including expansion of date fields for Year 2000 compliance.

Question 4. You noted that you have developed a Y2K contingency plan for the worst case scenario? In your scenario development, what did you determine to be the most likely contingency? Have you developed a contingency plan for it?

Answer. The worst case scenario, from a CalPERS business enterprise perspective, would be if our external business partners could not provide critical services relative to payments to retirees, delivery of health care services, and execution of timely and accurate investment transactions. CalPERS management has determined the most likely contingency to involve a breakdown in one of the core functions, and is planning accordingly. CalPERS has been actively communicating with its business partners to assure optimal availability of these critical services. However, CalPERS is researching the possibility of processing payments in-house, which will provide a greater level of confidence that our retirees and health care carriers will be paid on time. Regarding timely and accurate execution of investment transactions, CalPERS funnels its investment transactions through its master custodian, State Street Bank. SSB is engaged in extensive Year 2000 readiness activities, and will likely weather any problems posed by the century change. However, in the event that the services of SSB become unavailable, CalPERS can conduct its investment activities directly with the brokerage houses. Moreover, CalPERS is currently working with SSB to provide back-up investment transaction capability through State Street's Alameda, California, facility.

CalPERS is also in the process of developing additional payment processing contingency plans. Please see our response to question 8.

Question 5. You identified providing on time benefit payments, which hinges on the California State Controller's Office check processing, as your biggest Y2K concern. What level of risk is associated with the California State Controller's Office ability to process checks?—what's their status? Is your contingency of an in-house check writing and payment system feasible? How long can you maintain it?

Answer. The concern with State Controller's Office on the Y2K issue is with their external entities. We are able to test our interface and data exchange with the SCO but must rely on their assurances that they have conducted a thorough test on the data stream process for our data. In a recent audit by the State Bureau of State Audits, SCO refused to cooperate. Recently, communications have improved and we are hopeful that the SCO will certify Y2K compliance. However, we are continuing with our efforts to develop in-house capability to produce retiree benefit payments. We are looking at a permanent capability to process, print, and mail benefit payments. The project is currently at the feasibility study stage.

Question 6. For your legacy mainframe modification project, you discussed two "levels" of components to the modification project. I did not hear anything about end-to-end testing, could you explain how you plan on conducting them?

Answer. As stated, there are two "levels" to the modification process. In Level I, a date window technique was added to all programs that had logic looking at a two-digit year. Once the modifications were done, the programs were recompiled and a baseline and regression unit test was performed. The purpose for this test is to ensure that the new output is identical to the old code before the modifications. Level II is really broken down into two parts. Part 1; legacy COBOL programs are processed through a software package called "MHTRANS". MHTRANS prepares the code for the MVS COBOL compiler that is Y2K compliant. Another baseline and regression test is performed to ensure the MHTRANS process did not alter functionality.

Part 2 of Level II is the compliancy testing of the legacy systems. As part of this testing, users will run various date scenarios through the systems to ensure it will perform in the Year 2000 and beyond. Once the testing is completed for all the legacy systems, integration testing will be performed. Integration testing at this point should go very smoothly since we have already performed a mini integration test of the individual systems. This would be our full-blown end-to-end testing.

Question 7. In Level 1 of your mainframe modification project you indicate that the focus is on the identification and correction of all date references. Have you also looked at faulty date logic that is associated with Y2K: ability to identify Y2K as a Leap Year and the use of date fields for other purposes (extended symantics)?

Answer. Data Dimensions Incorporated (DDI), a consultant firm, was brought in by CalPERS to review and make the necessary modifications to any logic that references two-digit date fields. Every line of code was manually reviewed by DDI for date hits. Any faulty date logic was fixed or brought to the attention of the analyst of that system for resolution. In many programs, a date routine is used to convert date fields to Julian dates or to identify Leap Year. The testing for Leap Year is included in Level II compliancy testing.

Question 8. You indicated that you have a business enterprise risk management plan consisting of a compliance program and a tracking program. Do you have and could you describe your business enterprise continuity and contingency plan?

Answer. CalPERS' business continuity planning targets CalPERS mission critical functions. The three core functions that CalPERS has determined to be mission critical are as follows: (1) processing benefit payments to retirees, (2) assuring the availability of health benefits for our members, and (3) maintaining investment transaction and accounting capabilities.

We have developed a plan that identifies the various objectives that must be met by each division that provides support to these core functions. Emergency response teams have been formed, and each CalPERS division maintains an action plan that supports the continuity of CalPERS business operations in the event there is a disruption in our business environment. We have an emergency site plan, an executive action plan, and an enterprise-wide plan for coordinating the entire process.

Contingency planning is in progress, and Year 2000 threats identified from the risk assessment phase must be related to the core functions to determine various Year 2000 scenarios that CalPERS may face. These scenarios will be worked into tabletop response exercises and tested. Trigger dates will be firmly established.

Question 9. Are you relying on the SEC required Y2K disclosures to assess your risk with individual companies? What is your level of confidence in these disclosures?

Answer. Yes, we intend to rely on SEC disclosures to assess the Y2K exposure of the companies we are invested in, which is discussed in greater detail in our response to question 1. Our confidence in the accuracy of these disclosures is high. Just as fundamental financial information gathered by the SEC is the foundation upon which most investment decisions are made, we feel confident that the quality of the information received by the SEC will be higher than could be obtained through any other practical means. The issues of how to analyze and interpret the SEC information and what to do about companies which fail to meet the SEC reporting requirements are much more problematic than the quality of the information received.

PREPARED STATEMENT OF SENATOR SUSAN M. COLLINS

Let me first thank you Mr. Chairman for holding today's hearing on this important topic. My position as Commissioner of the Maine Department of Professional and Financial Regulation taught me a lot about the securities industry, but mainly on who the bad actors were and what they did wrong. Unfortunately, it did not prepare me to prognosticate potential Y2K disruptions to our economy and their effect on our financial markets.

What I have always instructed investors to do is to first utilize the wealth of available information to investigate their investments.

My second suggestion has been to set reasonable goals for these investments.

But how can anyone follow my advice when it comes to investing in a Y2K climate? We have wide disparities in the estimates of what impact Y2K will have on our global, financial markets. While some are expecting a mild interruption in basic services, others believe that there is a 70 percent chance of a recession similar to what we experienced in the early 1970's. Our own Y2K committee staff has had a difficult time assessing the readiness of key sectors of our economy. The truth is, Y2K is without historical precedence, and we are left in the dark about what may happen. This is far from an optimal environment in which to invest.

The subject of our hearing today, pensions and mutual funds, is of critical importance because of what they represent to their owners—their life-savings. We often hear of the long-term fiscal troubles of the Social Security system and the increasing need, especially for young people, to rely on individual investments, pensions, and mutual funds for retirement income. Many are counting on these investments to grow and expand. Yet, what happens to these investment vehicles if something as innocuous as two digits in a computer code causes disruptions in the stock market.

I look forward to examining what pension and mutual fund managers are doing to prepare for potential economic fallout from Y2K and how we can assist investors in ensuring that they don't see their hard-earned savings drop like the big ball in Times Square when the clock strikes midnight December 31, 1999.

PREPARED STATEMENT OF CHRISTOPHER J. DODD

Thank you Mr. Chairman for holding this hearing. I am pleased that this committee continues its active review and oversight of year 2000 readiness in important industry sectors and government agencies. With each passing week and each passing hearing, I have learned more and more about the enormity and complexity of this issue, while at the same time realizing that we have less and less time to correct the problems. There are 470 days to be exact. We have 470 days to insure that planes fly, electricity flows, oil is delivered, medical devices function, financial transactions are executed, and investments are safeguarded. In short, this is a very tall order and I hope that Senator Bennett and I can be heard and that we can communicate to other Members, to industry, to the Administration, to the people and to the press that we have quite a challenge ahead of us.

There are moments that I am encouraged. Such a moment occurred yesterday when a bipartisan group of senators came together to announce a bill which will be marked up today in the Judiciary Committee. This bill will encourage companies to disclose and share vital year 2000 information by limiting their liability for such disclosures. This bill represents the considerable efforts and cooperation of the House, the Senate, the Administration and industry to quickly act on legislation that is important to our country and our people. This cooperative effort is an example of the best that we can be.

Today we come together to examine the securities industry with particular focus on pensions and mutual funds. To understand the importance of both we should remind ourselves that for most Americans the foundations of their economic security can be found in their home and their pension fund and increasingly they rely on investments in mutual funds for long term investments. Over the past decade, Americans have invested significant amounts of money in the stock market via pension funds and mutual funds. Indeed one of the great financial success stories of this decade is the very widespread access to the stock market by individuals from all walks of life.

Yet, individuals with money invested through pension funds or mutual funds have less control over these investments, * * * Relying on fund managers to invest the pooled funds. Fund managers are fiduciaries under the law and are legally obligated to safeguard assets for the benefit of investors. But what are pension fund and mutual fund managers doing to insure that their operating systems are prepared for year 2000, and more importantly what steps are they taking to assess the year 2000 compliance of companies in which they invest? Many fund managers invest by ratio in a variety of industry sectors. For example, they may have their fund equally divided among utilities, telecommunications, and financial services just to name a few. Yet if specific sectors have been identified as having potential year 2000 problems, will these sort of industries represent a sound investment?

These are very important issues and I hope that each of our panelists will give the committee their views.

PREPARED STATEMENT OF MATTHEW P. FINK

I. INTRODUCTION

Good morning. My name is Matthew P. Fink. I am President of the Investment Company Institute, the national association of the American investment company industry. The Institute's membership includes 7,288 open-end investment companies (mutual funds), 450 closed-end investment companies and 9 sponsors of unit investment trusts. Its mutual fund members have assets of about $5.092 trillion, accounting for approximately 95 percent of total industry assets, and have over 62 million individual shareholders.

I appreciate the opportunity to testify on the mutual fund industry's preparations for the Year 2000, also known as "Y2K." As members of the Committee are aware, there is concern that computer systems that are programmed to read only two-digit dates will assume that 01/01/00 is January 1, 1900, rather than January 1, 2000. Unless this problem is corrected, it could have widespread adverse consequences.

The mutual fund industry takes this issue very seriously. The industry's continued success is predicated on maintaining the confidence of investors. Thus, it is critically important that we strive for the smoothest possible transition to the 21st century.

Today I will begin by briefly describing the structure and operations of mutual funds. I will then outline the steps funds are taking to prepare for Y2K, including undertaking internal Y2K compliance efforts, working with their major service providers and participating in industry-wide testing, communicating with regulators, and communicating with shareholders. I will also discuss oversight of mutual funds' Y2K compliance efforts by regulators and others. Finally, I will cover Y2K issues related to portfolio companies in which mutual funds invest.

No one can guarantee that there will be no problems when the Year 2000 arrives—in fact, some temporary glitches are probably inevitable. When considering this issue in the context of the mutual fund industry, however, it is important to bear in mind three points.

First, mutual funds are subject to a stringent and unique regulatory regime under the Investment Company Act of 1940. For example, funds are required to price their shares on a daily basis and to offer shareholders the ability to redeem fund shares on a daily basis. Thus, in addition to the business incentives to devote substantial efforts and resources to resolving Y2K issues, which mutual funds share with other companies, funds also must undertake these efforts in order to ensure that they comply with regulatory requirements.

Second, the industry is highly automated and thus relies heavily on the use of computer systems. While this reinforces the need for the industry to take the Y2K issue seriously, it also serves to demonstrate that problems involving modifications of large-scale computer operations are not unusual for our industry. For example, changes to these systems are made on a regular basis in order to comply with new regulatory requirements [1] and to offer new or enhanced services to investors.

Thus, in general, the mutual fund industry (including its major service providers) is accustomed to modifying, re-building or re-engineering computer systems as part of day-to-day business operations. The Y2K problem differs from other instances of systems overhaul because it permeates all systems, and the need to coordinate the efforts of numerous parties presents substantial challenges. Nevertheless, based on their experience in dealing with computer systems modifications on a regular basis, mutual fund industry participants are relatively well-conditioned to address Y2K issues.

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[1] For example, in 1993, the Securities and Exchange Commission adopted rule amendments that shortened the standard settlement cycle for most securities transactions from five business days to three business days. See SEC Release No. 33–7022; 34–33023; IC–19768 (October 6, 1993). This change required extensive modifications to computer systems throughout the securities industry, including the fund industry.

A third important point is that mutual fund assets are well-protected and can be expected to remain so as of January 1, 2000 and beyond.[2] To the extent that the industry experiences any Y2K-related problems, the consequences to fund shareholders of such problems most likely would be in the nature of delayed statements or other temporary administrative glitches. It would be most unfortunate if investors and savers, including mutual fund shareholders, became fearful that their money could disappear as a result of Y2K. As the millennium approaches, it may be appropriate at some point for Congress and regulators to convey a message of reassurance to all investors and savers so as to avoid any unnecessary panic.

II. THE STRUCTURE AND OPERATIONS OF MUTUAL FUNDS

A. The mutual fund

A mutual fund is an investment company that pools the money of many investors and invests it in a wide variety of stocks, bonds, or money market instruments. An investor in a mutual fund buys shares of the fund. Most mutual funds continuously offer new shares. Each share represents a proportionate interest in the securities held in the fund's portfolio. Mutual fund shares are redeemable, which means that an investor has the right to sell his or her shares back to the fund at any time at their current net asset value.

Mutual funds are organized under state laws as corporations or business trusts and are governed by a board of directors (or trustees).[3] The directors of a mutual fund have oversight responsibility for the management of the fund's business affairs. They must exercise the care that a reasonably prudent person would take with his or her own business. They are expected to exercise sound business judgment, establish procedures and undertake oversight and review of the performance of the investment adviser, principal underwriter and others that perform services for the fund.

B. The mutual fund organization

Most mutual funds are externally managed by a separate entity. Thus, they do not have employees of their own and all of their operations are conducted by third parties that include affiliated companies and independent contractors. Mutual funds' primary service providers include: the investment adviser, the principal underwriter, the transfer agent and the custodian.

In most cases, the fund's investment adviser and its principal underwriter are part of the same overall organization as the fund or funds they serve.[4] The transfer agent to a mutual fund may be either an "internal" transfer agent that is part of the mutual fund organization, or an "external" transfer agent that provides substantially all transaction processing and shareholder services to unaffiliated mutual fund clients.[5] The fund's custodian is usually an unaffiliated bank.

Other important mutual fund service providers include various intermediaries that sell fund shares, institutional broker-dealers through which investment advisers purchase and sell fund portfolio securities and pricing services.

A diagram depicting a typical mutual fund organization, including the fund's key service providers, is attached as Exhibit A.

C. Mutual funds' principal service providers

The functions performed by the principal service providers to mutual funds are outlined below. Each of these entities performs services pursuant to a contract with

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[2] For example, as discussed below, the Investment Company Act of 1940 requires that a qualified custodian (usually a bank) hold custody of mutual fund assets. The arrival of Y2K will have no impact on this and other protections afforded to shareholders under the Investment Company Act and related rules.

[3] The Investment Company Act of 1940 requires that at least 40 percent of a fund's board of directors be independent of the fund's investment adviser or principal underwriter. Where the principal underwriter is affiliated with the investment adviser, which is typically the case, a majority of the directors must be independent. In fact, virtually all fund boards have a majority of independent directors. Independent fund directors serve as watchdogs for shareholder interests and protect them against potential conflicts of interest.

[4] In some cases, funds employ unrelated investment advisers, sub-advisers or principal underwriters.

[5] In some cases, a mutual fund employs an external transfer agent but the mutual fund organization itself performs limited shareholder servicing functions such as telephone communication, written correspondence, or account research. In addition, internal transfer agents include both the "remote" transfer agent that contracts with an outside service company for use of its data processing system, and the "captive," or fully internal, organization that utilizes its own computer resources and shareholder accounting system.

the fund. All of the entities listed are subject to federal regulation either by the SEC or by bank regulators.

1. Investment adviser

An investment adviser to a mutual fund is responsible for selecting portfolio investments consistent with the fund's investment objectives and policies, as described in its prospectus.

2. Principal underwriter

As noted above, most mutual funds continuously offer new shares. Fund shares are offered to the public at a price based on the current value of fund assets (plus a sales charge, if applicable). Mutual funds usually distribute their shares through a principal underwriter. The principal underwriter arranges for the sale of fund shares to the public. Fund shares are sold to investors primarily in two ways. In some cases, investors purchase fund shares directly from the fund or its principal underwriter. In other cases, fund shares are distributed through a sales force, which may be employees of the fund's principal underwriter or of independent firms (as discussed further under "Independent Sales Force," below).

3. Transfer agent

Fund transfer agents maintain records of shareholder accounts, which reflect daily investor purchases, redemptions, and account balances. Transfer agents typically serve as dividend disbursing agents, and their duties as such involve calculating dividends, authorizing payment by the custodian, and maintaining dividend payment records. They also prepare and mail to shareholders periodic account statements, federal income tax information, and other shareholder notices. In many cases, transfer agents also prepare and mail statements confirming transactions and reflecting share balances. In addition, transfer agents maintain customer service departments that respond to telephone and mail inquiries concerning the status of shareholder transactions and accounts.

4. Custodian

The Investment Company Act of 1940 requires mutual funds to keep their portfolio securities in the custody of a qualified bank or otherwise protect them pursuant to SEC rules. Nearly all mutual funds use bank custodians. The custodian's primary responsibilities are safekeeping of the fund's portfolio securities and cash, clearing and settling transactions, collecting and distributing income, and reporting and processing corporate actions.

The selection of custodians for foreign securities is governed by special requirements designed to ensure that fund assets held by those custodians are adequately protected.[6] Mutual funds typically rely to a significant extent on the expertise of their U.S. custodians in selecting foreign subcustodians.[7]

D. Other important service providers

The service providers described below typically contract with the principal underwriter (in the case of an independent sales force) or the adviser (institutional broker-dealers and pricing services), rather than directly with the fund.

1. Independent sales force

As mentioned above, some mutual funds distribute their shares through an independent sales force. Such a sales force may include employees of broker-dealer firms, financial planners, bank representatives and insurance agents.

2. Institutional broker-dealers

The investment adviser purchases and sells securities for the fund's portfolio through institutional broker-dealers.

3. Pricing services

In order to price their shares daily, as required by the Investment Company Act, mutual funds must determine the value of their portfolio holdings each day.[8] Many

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[6] See Rule 17f–5 under the Investment Company Act of 1940.

[7] We understand that the major U.S. custodian banks are performing due diligence with respect to the Y2K status of foreign subcustodians within their global network. The U.S. custodian keeps its mutual fund clients apprised of these efforts.

[8] See Rule 2a–4 under the Investment Company Act of 1940, which provides that a mutual fund must calculate its net asset value by valuing securities for which market quotations are readily available at their market value and other securities and assets at their fair value as determined in good faith by the fund's board of directors.

funds use independent, third-party pricing services to assist in this process. Pricing services often collect and transmit market prices of portfolio securities to funds and also provide prices for those portfolio securities for which market quotations are not available.

III. MUTUAL FUND INDUSTRY PREPARATIONS FOR THE YEAR 2000

Specific steps that mutual fund firms are taking to prepare for Y2K are described below. The information provided below is based on, among other things, a recent Institute survey of the status of members' Y2K compliance efforts ("1998 survey"),[9] discussions with members at Institute committee and other meetings, and informal conversations with members.

A. Internal Y2K compliance efforts

All available indications are that Y2K compliance is a very high priority matter for mutual fund companies and it is receiving attention at senior management levels. Many firms have dedicated staffs working on Y2K compliance, have established separate budgets for Y2K compliance, and provide periodic reports to their mutual funds' boards of directors concerning the progress of Y2K compliance efforts.

The Institute's 1998 survey indicates, among other things, that 89 percent of the firms responding had planned to complete a risk assessment for Y2K issues by July 1998. Over 96 percent had expected to have performed an inventory of software applications by that time, and 95 percent of firms had planned to have established a comprehensive methodology to become Y2K compliant as of July 1998. According to our survey, over 75 percent of the firms completing the survey plan to be Y2K compliant by December 1998.[10]

B. Working with major service providers

As discussed above, mutual funds themselves are pools of assets whose operations rely on various service providers. The fund itself typically does not have its own computer systems. Rather, the system that runs mutual fund operations is usually that of the fund's sponsor (which may be its investment adviser or another organization). This system, in turn, typically is linked to those of the custodian, transfer agent, broker-dealers, pricing services and other service providers.

Consequently, mutual fund firms have been assessing their interdependencies with these various parties with whom the funds (or their investment advisers or principal underwriters) exchange critical data. Fund groups routinely request information and assurances from such parties regarding their Year 2000 compliance status.[11]

Mutual fund firms are conducting private testing of their interfaces with major service providers. In addition, for over a year, the Securities Industry Association and the National Securities Clearing Corporation have been coordinating plans for "street-wide" Y2K testing designed to ensure that securities transactions clear and settle among all parties after January 1, 2000. The overall effort encompasses nine "product settlement groups;" mutual fund investor transactions (i.e., transactions in mutual fund shares) constitute one of the groups. Several Institute members, as well as the Institute, participated in the development of the Mutual Fund Test Plan. The plan was issued on April 1, 1998 and called for initial tests to be conducted in July and October 1998. The overall results of the July test were very positive. The few, minor problems that did arise were not related to Y2K issues but rather involved issues associated with using newly-established test environments and coordinating test scripts. They were quickly resolved. Comprehensive street-wide testing is scheduled to take place in March 1999.

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[9] A copy of the survey is attached as Exhibit B. The Institute distributed the survey to members in March 1998. To date, we have received responses from 82 firms, representing 67 percent of industry assets. Many firms' Y2K compliance efforts have further progressed since they responded to the survey. The Institute expects to conduct another survey in April 1999.

[10] We note that Morningstar recently conducted an informal survey of several mutual fund firms' Y2K compliance efforts. Based on the 15 responses received, Morningstar concluded that "[m]utual fund companies appear to be hard at work readying their computer systems for problems associated with the Year 2000 * * * ." Valerie Putchaven, "Squashing the Y2K Bug," at http://www.morningstar.net/news/Ms/BehindTheScenes/Year2000/intro.msnhtm.

[11] The Institute and ICI Mutual Insurance Company will be co-sponsoring a conference on Y2K issues for mutual funds in October. A copy of the preliminary conference program is attached as Exhibit C. Among those who have agreed to speak are representatives of several of the major independent suppliers of mutual fund transfer agency and custody services. This forum will provide additional opportunities for mutual fund firms and these third party service providers to exchange information and coordinate compliance efforts.

Most of the major users of central clearing facilities for transactions in mutual fund shares have participated or will participate in these initial tests. Virtually all of such users will be participating in the March 1999 testing.

Institute members also are monitoring the Y2K compliance progress of intermediaries that sell the members' funds (where applicable), institutional broker-dealers through which fund portfolio securities (as opposed to shares of the fund) are purchased and sold, and pricing services that supply price information for fund portfolio securities.

C. Communicating with regulators

An important part of the industry's Y2K compliance efforts is keeping regulators informed about the status of these efforts. Some avenues through which this information has been or will be communicated are described below.

1. Institute surveys

In April 1997, at the request of the SEC staff, the Institute surveyed its members regarding their Y2K compliance plans. The Institute forwarded the survey results to the SEC for use in responding to a Congressional request for information about the Y2K readiness of the securities industry. As noted above, the Institute surveyed its members again this year and provided the results to the SEC for use in its June 1998 report to Congress. The Institute has regular contacts with SEC staff members that provide opportunities to discuss Y2K and other issues.

2. SEC reporting requirements

The SEC recently adopted rules requiring certain registered transfer agents and broker-dealers to file Year 2000 readiness reports with the SEC.[12] Under the transfer agent rule, all covered transfer agents must complete Part I of Form TA-Y2K, which is a check-the-box style report on the status of the transfer agent's Y2K remediation efforts. Non-bank transfer agents must also complete Part II of the form, which requires a narrative discussion of efforts to address Y2K problems. Similarly, the broker-dealer rule requires all covered broker-dealers to complete a check-the-box style questionnaire, and larger broker-dealers must also provide a narrative discussion of their efforts to prepare for the Year 2000. Each rule required an initial report to be filed with the SEC by August 31, 1998; a second report is due by April 30, 1999.

The SEC also has proposed, and is likely to adopt, Y2K reporting requirements for registered investment advisers.[13] As proposed, Part II of Form ADV-Y2K would require information about the Y2K compliance status of any mutual funds advised by an adviser completing the form.

The information provided in these various reports should help give the SEC a clearer picture of the mutual fund industry's Y2K compliance status and identify organizations that may need to accelerate their progress in order to meet the challenges of the new millennium.

D. Communicating with shareholders

As mentioned above, the confidence of investors is critical to the mutual fund industry's success. Many mutual fund organizations are taking steps to keep investors informed about Y2K issues in an effort to preserve their confidence. Institute members are communicating with their shareholders about Y2K issues through several means.

First, in accordance with SEC guidance regarding the disclosure obligations of investment companies and investment advisers with respect to the Year 2000,[14] mutual fund prospectuses typically contain disclosure that alerts investors to possible Y2K issues, briefly describes the steps that are being taken to address them, and notes that the fund is unable to guarantee that no Y2K problems will arise.

Second, many mutual fund organizations have posted information about Y2K issues on their websites. Third, mutual fund organizations have used newsletters, statement inserts or other publications to keep shareholders informed about Y2K

[12] SEC Release No. 34–40163 (July 2, 1998) (transfer agent requirements); SEC Release No. 34–40162 (July 2, 1998) (broker-dealer requirements).

[13] SEC Release No. IA–1728 (June 30, 1998).

[14] See Statement of the Commission Regarding Disclosure of Year 2000 Issues and Consequences by Public Companies, Investment Advisers, Investment Companies, and Municipal Securities Issuers, SEC Release No. 33–7558; IA–1738; IC–23366; International Series Release No. 1149 (July 29, 1998).

issues.[15] Fourth, many fund groups have telephone representatives who respond to investor inquiries about the organization's Y2K compliance status.

Mutual fund firms thus are making efforts on several fronts to keep shareholders informed and to assure them that all reasonable steps are being taken to address Y2K issues. Well-informed shareholders are less likely to panic or take irrational action such as redeeming their mutual fund shares when the Year 2000 draws nearer.

E. Oversight of mutual fund industry Y2K efforts

Mutual fund firms have every incentive to address Y2K issues in a thorough and responsible fashion. Their efforts—quite appropriately—are being subjected to scrutiny by a variety of interested parties.

For example, as part of their general oversight responsibilities, mutual fund boards of directors routinely are requesting (and receiving) periodic reports from fund advisers or other responsible parties concerning the status of Y2K compliance efforts. Fund shareholders likewise are requesting assurances that appropriate steps are being taken to address any potential Y2K problems.

In addition, the SEC has focused on Y2K compliance in recent inspections of mutual funds, investment advisers and transfer agents and, as discussed above, is requiring certain of these entities to file Y2K readiness reports. Also, earlier this year, the National Association of Securities Dealers, Inc. required its members (which include almost all mutual fund principal underwriters) to complete a questionnaire concerning their Y2K compliance status.[16]

Moreover, ICI Mutual Insurance Company, the captive insurance company that provides fidelity bond and directors and officers'/errors and omissions liability insurance coverage to participants in the mutual fund industry,[17] is requesting detailed information from policy holders about Y2K remediation efforts in connection with its ongoing insurance underwriting process.[18] Thus, yet another body is focusing on the efforts that fund organizations are engaging in to become Y2K compliant. As a result, fund organizations have an additional incentive to keep their Y2K efforts on track—it may help them avoid the possibility of exclusions, higher premiums or other consequences based on Y2K risks when renewing their insurance coverage.

Similarly, Comdisco, a major supplier of disaster recovery services for the mutual fund industry, recently issued guidelines for customers wishing to participate in its "Ready Y2K Program." Only those firms meeting the guidelines will be eligible for certain disaster recovery services in the event of a Y2K related failure.

IV. PORTFOLIO COMPANIES

Just like mutual funds and their various service providers, many of the issuers of securities in which mutual funds invest rely on computers in carrying out their businesses and could experience problems if those computer systems are not Y2K compliant. The risk that the value of securities in which a fund invests could be affected by the Y2K compliance status of the issuer is one of many factors that a mutual fund's investment adviser may need to assess when determining which securities to buy, sell or hold for the fund.

Thus, in many cases, as part of their normal research process, mutual fund investment advisers are reviewing issuers' efforts to address potential Y2K problems. This may include, for example, interviewing company officials and gathering other available information (such as reports that public companies file with the SEC). The results of the adviser's research are considered along with all of the other factors that the adviser deems relevant to making an appropriate investment decision.

In certain other cases, however, this type of analysis may not be done because it would be inconsistent with the fund's investment objectives and policies, as disclosed in the fund's prospectus. For example, index funds typically have as their objective seeking to match the performance of a securities index. Therefore, it is not necessary and, in fact, would be inappropriate for the manager of such a fund to consider the issuer's Y2K risk exposure as an investment criterion.

In all cases, it is important that the investment adviser retain the discretion to evaluate this factor in the manner and to the extent that it deems appropriate in the particular circumstances (including, among other things, prospectus disclosure

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[15] Examples of information on Y2K issues that some fund groups have sent to investors or made available on their websites are attached as Exhibit D.

[16] See Special NASD Notice to Members 97–96 (December 1997).

[17] ICI Mutual's member insureds include over 3,800 investment companies with assets of approximately $3.3 trillion, representing over 60 percent of the industry's total assets.

[18] A copy of the Y2K questionnaire that ICI Mutual is requiring its insureds to complete as part of this process is attached as Exhibit E.

concerning the fund's investment objectives and policies and concerning how the adviser selects securities for the fund's portfolio). This is precisely what shareholders (through the fund) pay the adviser to do on their behalf. And, due to the competitive nature of the mutual fund industry, fund advisers have a very strong incentive to make good judgments so as to maximize shareholder value consistent with the investment objectives and policies of the fund.[19]

Where portfolio companies' Y2K readiness is a relevant consideration, the adviser's ability to make sound judgments is enhanced by the availability of reliable information about such companies' readiness.[20] We applaud the efforts of Committee Chairman Bennett and SEC Chairman Arthur Levitt to promote meaningful Y2K disclosure by securities issuers.

V. CONCLUSION

The mutual fund industry is deeply involved in efforts to identify and remediate computer problems that could otherwise occur with the arrival of the Year 2000. These efforts encompass both internal systems and programs and systems and programs that interface with those of third parties. The industry is keeping regulators and investors informed about Y2K issues through a variety of means, and the industry's efforts are subject to oversight by regulators and others. Finally, where appropriate, investment advisers are reviewing the Y2K readiness of companies in which they invest on behalf of mutual funds.

Thank you for the opportunity to participate at this hearing on Y2K issues. We commend the Committee for its strong leadership in this area. We would be pleased to provide any additional information that the Committee might request.

[19] Moreover, mutual funds typically have broadly diversified portfolios. Thus, the risks of holding any single security can be offset by the different risk/reward characteristics of other securities in the portfolio. It is well-recognized that it is not appropriate to judge the performance of an investment adviser by focusing on individual securities in isolation.

[20] As information about companies' Y2K readiness becomes available in the marketplace, stock prices should begin to reflect that information (to the extent it is material).

EXHIBIT A—Mutual Fund Service Providers

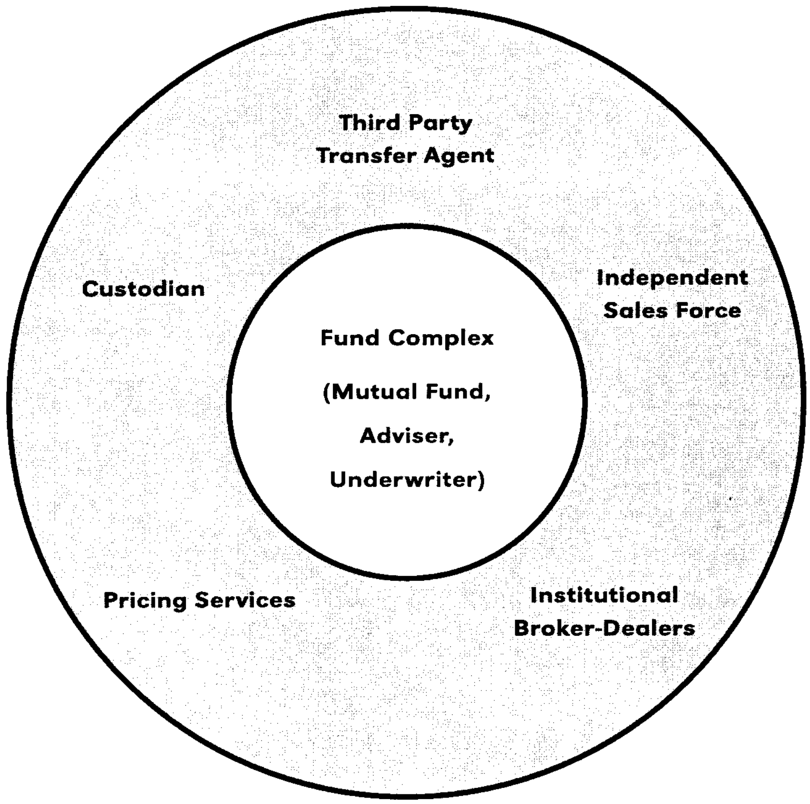


Exhibit B

INVESTMENT COMPANY INSTITUTE

YEAR 2000 SURVEY

March 1998

1. WHICH BEST DESCRIBES YOUR INFORMATION TECHNOLOGY ENVIRONMENT?
   a) ☐ PREDOMINANTLY NEWER TECHNOLOGIES
   b) ☐ MIXTURE OF NEWER AND OLDER TECHNOLOGIES
   c) ☐ PREDOMINANTLY OLDER TECHNOLOGIES

2. HAS YOUR FIRM PERFORMED A RISK ASSESSMENT FOR YEAR 2000 ISSUES?
   a) ☐ COMPLETED
   b) ☐ NOT PLANNED
   c) ☐ IN PROGRESS --
      PLANNED COMPLETION DATE: ____________

3. HAS YOUR FIRM PERFORMED AN INVENTORY OF SOFTWARE APPLICATIONS?
   a) ☐ COMPLETED
   b) ☐ NOT PLANNED
   c) ☐ IN PROGRESS --
      PLANNED COMPLETION DATE: ____________

4. AT WHAT LEVEL ARE YOUR FIRM'S YEAR 2000 OBJECTIVES AND DIRECTIONS BEING DEFINED AND MONITORED?
   a) ☐ CIO
   b) ☐ CEO/COO
   c) ☐ CFO
   d) ☐ GENERAL COUNSEL
   e) ☐ BOARD OF DIRECTORS
   f) ☐ OTHER (Please specify.) ______

5. HAS YOUR FIRM ESTABLISHED A COMPREHENSIVE METHODOLOGY TO BECOME YEAR 2000 COMPLIANT?
   a) ☐ YES
   b) ☐ NO
   c) ☐ IN PROGRESS --
      TO BE ESTABLISHED BY (Date) ____________

6. HAS YOUR FIRM CREATED A SEPARATE BUDGET(S) FOR YEAR 2000 EXPENDITURES?
   a) ☐ YES
   b) ☐ NO
   c) ☐ UNDER CONSIDERATION

7. INDICATE BELOW THE PROJECTED LEVEL OF EFFORT
   a) ☐ LESS THAN $1,000,000
   b) ☐ FROM $1,000,000 TO $9,999,999
   c) ☐ FROM $10,000,000 TO $19,999,999
   d) ☐ MORE THAN $20,000,000
   e) ☐ PREFER NOT TO DISCLOSE
   f) ☐ NOT SURE

8. HAS YOUR FIRM PURCHASED, OR DOES IT INTEND TO PURCHASE, CONVERSION SOFTWARE PRODUCTS?
   a) ☐ YES
   b) ☐ NO
   c) ☐ UNDECIDED

9. IS YOUR FIRM USING (OR INTENDING TO USE) CONSULTING SERVICES?
   a) ☐ YES
   b) ☐ NO
   c) ☐ UNDECIDED

10. HAS YOUR FIRM ASSESSED THE IMPACT OF DATA INTERDEPENDENCIES WITH OTHER FIRMS WITH WHICH DATA ARE EXCHANGED?
    a) ☐ YES
    b) ☐ NO
    c) ☐ IN PROGRESS --
       TO BE COMPLETED BY: (Date) ____________________

11. IS YOUR FIRM AWARE OF THE PLANS FOR "STREET-WIDE TESTING" BEING DEVELOPED BY SIA AND NSCC?
    a) ☐ YES
    b) ☐ NO

12. IS YOUR FIRM CURRENTLY PARTICIPATING IN THE PLANNING FOR "STREET-WIDE TESTING?"
    a) ☐ YES
    b) ☐ NO

13. IF NOT, DOES YOUR FIRM WISH TO PARTICIPATE IN "STREET-WIDE TESTING?"
    a) ☐ YES
    b) ☐ NO

14. IS YOUR FIRM PARTICIPATING (OR INTENDING TO PARTICIPATE) IN A FORMAL TESTING PROCEDURE WITH OTHER FIRMS OTHER THAN THE "STREET-WIDE TESTING" BEING COORDINATED BY SIA AND NSCC?
    a) ☐ YES
    b) ☐ NO
    c) ☐ TESTING TO BE COMPLETED BY: (Date) ____________

15. WHAT DATE IS YOUR FIRM USING AS A GOAL FOR BECOMING YEAR 2000 COMPLIANT? ____________

16. DOES YOUR FIRM BELIEVE THE ICI SHOULD ORGANIZE A YEAR 2000 COMPLIANCE CONFERENCE?
    a) ☐ YES
    b) ☐ NO

17. WOULD YOUR FIRM SEND A REPRESENTATIVE(S) TO AN ICI CONFERENCE ON YEAR 2000 COMPLIANCE?
    a) ☐ YES
    b) ☐ NO

NAME ____________________ FIRM ____________________

TEL. NO. ____________________ FAX NO. ____________________

Please send this completed form not later than April 3, by fax to Agnes Thomas at 202-326-8314. Thank you.

Exhibit C

preliminary program

1998

Mutual Fund Industry Year 2000 Conference

October 26-27, 1998

Capital Hilton

Washington, DC

CO-SPONSORED BY THE
INVESTMENT COMPANY INSTITUTE® AND
ICI MUTUAL INSURANCE COMPANY

Preliminary Program

Capital Hilton
Washington, DC

MONDAY, OCTOBER 26

7:00 – 8:25 am	**Registration and Continental Breakfast**
8:25 – 8:30 am	**Welcoming Remarks** **Donald J. Boteler** *Vice President—Operations & Training* Investment Company Institute
8:30 – 10:30 am	**Industrywide Testing Process** **Robert Giambrone, *Moderator*** *Senior Vice President* Morgan Stanley Dean Witter Advisors Inc.

Representatives from the NSCC, SIA, mutual funds and broker/dealer organizations discuss the status and participation of funds in the industrywide testing program, as well as the testing of other security types, such as equities, bonds and foreign securities.

10:30 – 10:45 am	**Refreshment Break**

10:45 am – 12:15 pm **Mutual Fund Custodians**

Jeff Sargent, ***Moderator***
Vice President
PIMCO Funds

Global custodians discuss the status of their Year 2000 readiness and program completion plans, including their impact on:

- ► Clearance and settlement process
- ► Fund accounting
- ► NAV calculation and dissemination
- ► Sub-custodian networks

12:15 – 1:30 pm **Luncheon**

1:30 – 3:00 pm **Concurrent Sessions:**

Panel A

Transfer Agents and Shareholder Servicing Issues

Andrew Wasser, ***Moderator***
Vice President & Chief Technology Officer
The Dreyfus Corporation

Major providers of mutual fund transfer agent and shareholder services discuss the status of their Year 2000 readiness and program completion plans and their effect on:

- ► Transaction processing
- ► Shareholder servicing
- ► Banking and third-party administrator interfaces
- ► Data transmission/support of connected services

1:30 – 3:00 pm **Concurrent Sessions:**

Panel B

Market Data Services

John H. Deane, *Moderator*
Senior Vice President, Chief Technology Officer
AIM Management Group Inc.

Market data vendors discuss the status of their Year 2000 readiness and program completion plans, addressing both real-time and end-of-day pricing feeds, and the coordination of interface testing with exchanges and other data sources.

3:00 – 3:15 pm **Refreshment Break**

3:15 – 4:45 pm **Concurrent Sessions:**

Panel A

Portfolio Trading/ Operations Systems

Timothy Hudner, *Moderator*
Vice President, Information Technology
Janus

Portfolio trading/operations systems vendors provide an update on Year 2000 readiness and program completion plans, focusing on the flow of data from trade entry through trade settlement.

3:15 – 4:45 pm **Concurrent Sessions:**

Panel B

Portfolio Accounting Systems

Alan D. Greene, ***Moderator***
Senior Vice President
State Street

Portfolio management and accounting system providers address Year 2000 readiness and program completion plans, discussing their impact on:

- ► Domestic and international securities
- ► Income and expense accruals
- ► Performance reporting
- ► End-of-day pricing

6:00 – 7:30 pm **Reception**

TUESDAY, OCTOBER 27

7:30 – 8:30 am **Continental Breakfast**

8:30 – 10:00 am **Contingency Planning**

Daniel T. Steiner, ***Moderator***
Vice President and General Counsel
ICI Mutual Insurance Company

An examination of the development and design of contingency plans for addressing anticipated and unanticipated disruptions that may result from Year 2000 problems. Discussions include strategies for allocating resources to meet Year 2000 contingencies, identifying "mission critical" operations and developing alternatives to minimize the effect of Year 2000 disruptions on such operations.

10:00 – 10:30 am **Status of Industry Readiness**

Gary Carrai, *Speaker*
Underwriter
ICIM Services, Inc.

The status of the mutual fund industry (on a non-disclosed basis) on various Year 2000 corrective issues:

- Strategic planning
- Identification and assessment
- Remediation
- Testing and implementation
- Contingency planning
- Communication and disclosure

10:30 – 11:00 am **Refreshment Break**

11:00 am – 12:30 pm **Legislative and Regulatory Developments**

Craig S. Tyle, *Moderator*
General Counsel
Investment Company Institute

A discussion of current regulatory and legislative issues and concerns, featuring representatives from the SEC, NASD, congressional staff and the mutual fund industry.

12:30 – 1:30 pm **Luncheon**

1:30 – 3:00 pm **Legal Liability Issues**

Diane C. Blizzard, *Moderator*
Associate Counsel
ICIM Services, Inc.

A discussion on the various types of Year 2000 litigation risks for mutual funds, their directors and officers, and affiliated service providers, including identification of potential plaintiffs and theories of recovery. Documentation, disclosure and other mechanisms and strategies that may assist in reducing litigation risks will also be addressed.

EXHIBIT D—MUTUAL FUND COMMUNICATIONS REGARDING THE YEAR 2000 CHALLENGE

THE AMERICAN FUNDS GROUP AND THE YEAR 2000 CHALLENGE

The American Funds Group, along with the various companies that serve the funds and their shareholders, including American Funds Service Company, American Funds Distributors, Inc., Capital Research and Management Company and their affiliates in The Capital Group Companies, Inc., have made Year 2000 compliance an extremely high priority.

We are committed to achieving Year 2000 compliance on a timely basis across all of our significant business systems and operations. We have a well-defined plan, ample resources, and excellent momentum toward achieving that goal. We remain on track for reaching compliance with our internal systems by December 31, 1998. During the remainder of this year, we will develop appropriate contingency plans. Testing with business partners, vendors and other industry participants will continue through 1999.

A WORLD-CLASS TEAM AND METHODOLOGY

Associates from all Capital Group Companies are involved in the effort. The Year 2000 Steering Committee and Year 2000 Program Management Office provide overall coordination and support. Capital is also using its Disaster Recovery resources to help with contingency planning. The entire project is subject to oversight by a number of corporate boards and securities and banking regulators.

All business areas are examined using a five-stage process:

—*Inventory and Risk Assessment.*—identify hardware systems, software applications and crucial vendors throughout the companies and assign risk and business-impact ratings.

—*Planning.*—examine all high-and most medium-risk systems to see how they can be modified, retired or replaced to create Year 2000-compliant components.

—*Remediation or Construction.*—replace hardware, upgrade software and modify custom application code to ensure dates will be handled correctly in the year 2000.

—*Testing.*—test individual components, test with their related parts and then review entire systems in user acceptance tests. Once a component has passed all these, we designate it "Year 2000 ready."

—*Implementation or Close.*—document the Year 2000-ready component and place it back into actual working environment (production).

Separate, additional testing may be performed on essential Year 2000-ready computer applications, using our Time Machine Test Environment. A functionally-complete replica of our internal mainframe, mid-range computers and networks, this system runs with all dates set ahead to simulate Year 2000 conditions. When a system has been completely tested using these 21st century dates, we designate it "Year 2000 compliant."

We are also working closely with business partners and vendors, conducting extensive tests of each system that shares information outside the companies. This ongoing effort will continue through 1999. The American Funds Group will also participate in a Year 2000 test organized and conducted by the Securities Industry Association.

PROGRESS HIGHLIGHTS

We have substantially completed the first two phases of our process—Inventory and Risk Assessment and Planning—for all business and technology areas of The Capital Group Companies worldwide. We have also made significant progress in the modification, retirement or replacement of those systems presenting Year 2000 risks.

We have also made excellent progress in applying the five-stage process to our Information Technology Infrastructure. All areas, from the mainframe to midrange computers, file servers to desktop machines and data, voice and video networks are on schedule to be Year 2000 compliant by December 31, 1998.

Vendors have been identified and categorized by the nature of the business relationship. Critical vendors with high business impact have been contacted to determine their Year 2000-compliance progress.

CONTINGENCY PLANNING

We know that some vendors will not be ready with Year 2000-compliant products when we are ready to test. Some have declared that they will not update their products. This means that we must develop contingency plans to ensure we retain critical business functions.

Our plans take into account how much the organization relies on the vendor or business partner and how critical the product or service is to our business. In some cases vendors are being replaced in advance of potential problems. Through the end of 1998, we will be actively planning for the possibility that a number of our business partners and vendors will not have Year 2000-compliant products and services available on a timely basis.

Capital Disaster Recovery resources are working together with the Year 2000 Program Management Office to reduce the likelihood that we will suffer business interruption due to Year 2000 problems. We expect these plans to be substantially complete by December 31, 1998.

THE CAPITAL GROUP COMPANIES AND THE YEAR 2000 CHALLENGE

A LETTER FROM OUR PROJECT MANAGERS

On behalf of each of The Capital Group Companies, we are pleased to report that we continue to make steady progress toward achieving Year 2000 compliance across the entire organization and in all office locations around the world. This newsletter is an integral part of our communications program and is designed to provide you with the information you need to understand our compliance goals, methodology and progress through June 30, 1998.

Capital is committed to achieving Year 2000 compliance on a timely basis across all of our significant business systems and operations. We have a well-defined plan, ample resources, and excellent momentum toward achieving that goal. We remain on track toward achieving compliance with respect to our internal systems by December 31, 1998. During the remainder of this year, we will develop appropriate contingency plans. Testing with business partners, vendors, and other industry participants will continue through 1999.

In addressing the Year 2000 challenge, we have adopted an approach which is consistent with the way our operating subsidiaries manage assets—a significant number of people with diverse backgrounds and skills are following a disciplined, yet flexible process in pursuing our compliance goals. Associates from throughout the Capital organization are involved, with the Year 2000 Steering Committee and the Year 2000 Program Management Office providing overall coordination and support. Our progress is being monitored by a number of corporate boards and regulators.

Inside this report you will find a brief description of the Year 2000 problem and what constitutes "Year 2000 compliance." We also review the methodology we are using to achieve compliance—including the five different phases of work we apply to each project component. The Capital Group Companies track and report progress in each significant technology and business area in relation to the level of completion of these five phases. Within a given area, overall completion levels for each phase reflect actual progress achieved with respect to individual project components, with each component's contribution to the overall figure weighted according to its potential impact on our business.

In addition to an overview of recent activity, the report presents an in-depth look at our progress as of June 30 in the following areas: Information Technology Infrastructure, Time Machine Testing, Core Investment Management and Reporting Systems, Administrative Business Applications, American Funds Group' Accounting and Reporting Systems, Desktop Applications, Business Partner/Vendor Compliance and Facilities. The report summarizes progress achieved and work remaining in each area.

The report also touches on a subject we expect to report on in greater detail in the future—Contingency Planning. Although we are already engaged in this activity to a limited degree (in relation to specific vendors and business partners), we plan to significantly expand this effort in coming months. Although some issues go well beyond the financial services industry, the large number of interconnections and interdependencies within this industry require us to work diligently to prepare our internal systems and anticipate external events.

Thank you for taking time to learn more about The Capital Group Companies Year 2000 Project.

THOMAS M. ROWLAND
L. EDWARD PRICKARD

PROJECT OVERVIEW—METHODOLOGY

The Capital Group Companies are following a five-phase, iterative, interactive methodology for the Year 2000 Project. The approach is thoughtful, thorough, and diligently applied.

The first phase is *Inventory and Risk Assessment.* Survey forms were completed by information technology and business area managers within each company, business function and location. These surveys identified information technology usage, business flows, and external vendors that could be impacted by two-digit date processing. A risk assessment was used to categorize each component into high, medium, or low business impact and processing risk.

The second phase is *Planning.* All high- and most medium-risk components are examined to determine if the component should be remediated (fixed), retired, or replaced with a component which is Year 2000 compliant.

The *Remediation or Construction* phase is where the Year 2000 problem is solved for each component. Computer hardware chips are replaced, purchased soft-ware is upgraded, custom application code is modified, and/or vendor processing is revised to ensure that dates will be handled correctly in the Year 2000.

The fourth phase is *Testing.* Each component is individually tested, and then tested again with related components in a system test. Finally, the entire system is reviewed in a user acceptance test. When the component has passed the complete series of Year 2000 date tests, it is described as "Year 2000-ready."

During the *Implementation and Close* phase, the Year 2000-ready component is documented and placed back into production.

Separate, additional testing may also be performed on Year 2000-ready computer applications. Because of the complex interactions between multiple hardware and system soft-ware components, our critical business systems also undergo time machine testing. This is a full-scale operation run with system dates set forward and rolled through several dates. When these business-critical systems have been completely tested with these dates, we designate them "Year 2000-compliant."

More testing is being done with business partners and vendors. Critical external interfaces are subject to point-to-point testing; this is currently underway and will continue through 1999 with business partners. In addition, The American Funds Group will participate in an industry-wide Year 2000 test organized and conducted by the Securities Industry Association.

YEAR 2000 PROGRESS REPORTS IN SPECIFIC AREAS

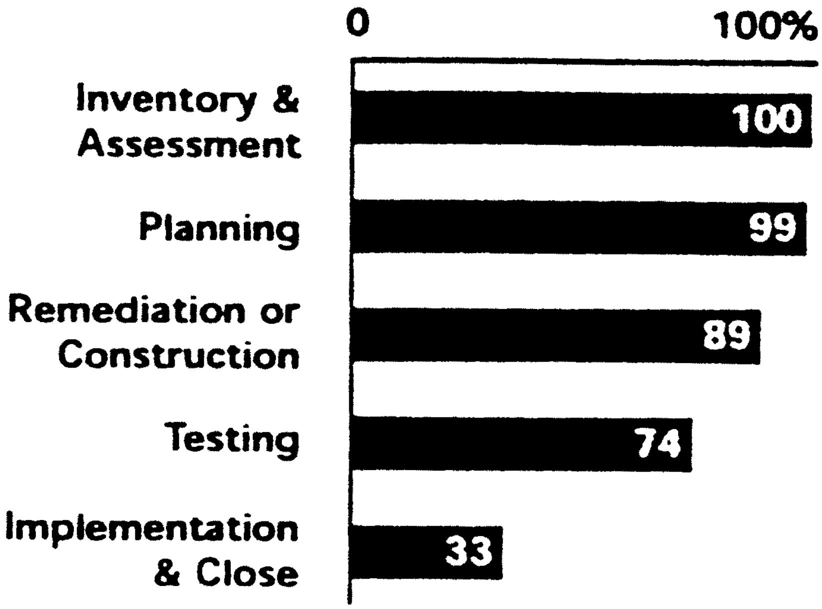
Information Technology Infrastructure

This fundamental technology area supports offices throughout the United States, London, Geneva, Hong Kong, Singapore, and Tokyo. Components of the infrastructure include: computer platforms and operating systems, database software suites, network topologies, and data center operations and support.

The foundation computer infrastructure consists of an S/390 mainframe environment, a midrange environment including an AS/400 and several HP/UNIX platforms, and a distributed desktop environment consisting primarily of Compaq and IBM Windows NT platforms.

More than 500 vendors provide in excess of 1,200 products that form the infrastructure. The path to compliance begins with the introduction of Year 2000-ready components into the environment following established upgrade procedures. Once determined stable in the current environment, each Year 2000-ready product is tested for compliance by setting system clocks and calendars to several key dates in late 1999 and 2000. Following successful compliance testing, Year 2000-compliant components are implemented consistently over the infrastructure.

The following chart indicates overall completion levels for each phase of compliance work undertaken in the Information Technology Infrastructure area.



Time machine testing

The Capital Group Companies have constructed a complete mainframe time machine test environment which replicates the production environment. All project components that rely on system clocks are tested for Year 2000 compliance. both individually and in combination, with system dates and data set forward and rolled through a number of critical dates. This environment uses only those hardware and software components which our vendors have designated as Year 2000-compliant versions.

Except for database releases from two software vendors and an upgrade release from a print services vendor, the time machine test environment construction was completed on schedule (June 30, 1998). Work-around solutions are in place for the delivery delays of these software components, and the performance of these vendors is being closely tracked.

Although some systems have been tested in the client-server time machine environment already, the bulk of our time machine testing will occur in the third and fourth quarter of this year.

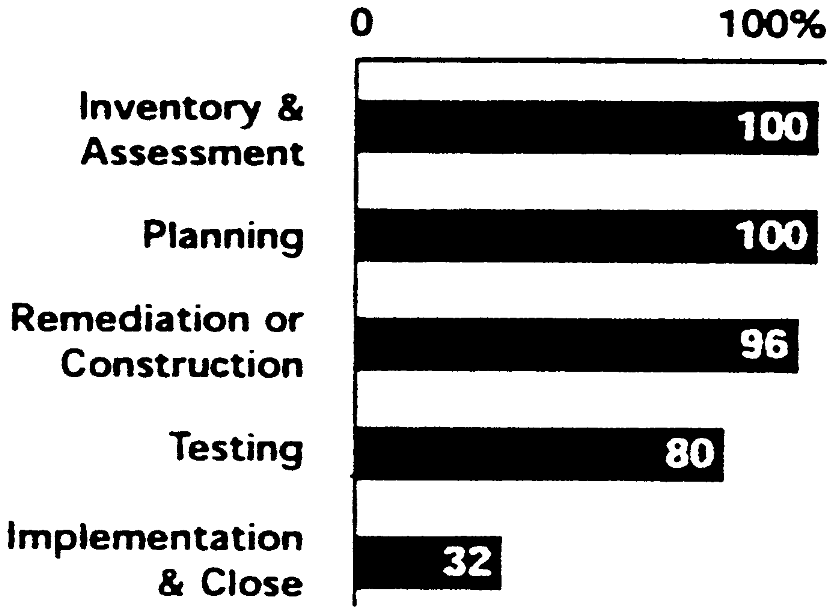
Core investment management and reporting systems

Excellent progress has been made on the Investment Management and Reporting Systems. There are twelve integrated systems which address most of the investment analysis and administration business cycles. These are newer systems that run on midrange client-server computers. They were tested in a client-server time machine test environment from March through May, and have been placed back into production. Final documentation of the Implementation and Close Phase is underway. Following completion of this process, these major business systems will be deemed Year 2000-compliant.

The mainframe-based system for portfolio accounting and record-keeping is on schedule to achieve Year 2000-ready status. Remediation will be complete by July 31, with time machine testing complete by August 31, 1998.

Our non-U.S. portfolio accounting and recordkeeping systems are provided by a third party service provider in Geneva, Switzerland using a mainframe-based system. All Inventory and Assessment, Planning and Remediation of these systems has been completed, and final Testing and Implementation is underway.

Overall completion levels for Core Investment Management and Reporting Systems are indicated in the following chart.



We have substantially completed the Inventory and Risk Assessment and Planning phases for all business and technology areas of The Capital Group Companies world-wide. In addition, we have made significant progress in the remediation, retirement or replacement of those systems components presenting Year 2000 risks.

Progress within our Information Technology Infrastructure has been excellent. All aspects from the mainframe to midrange computers, file servers to desktops, and data, voice and video networks are on schedule to be Year 2000 compliant by December 31, 1998.

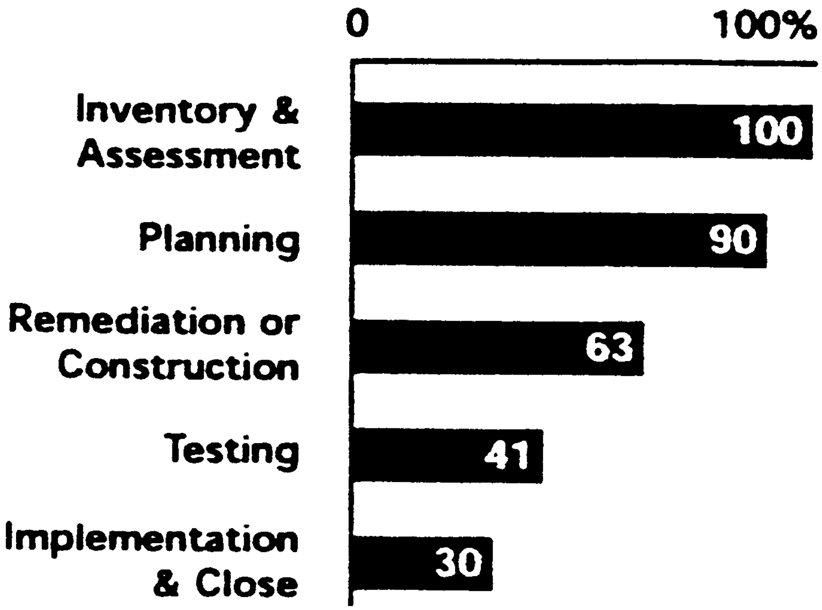
We have made rapid progress with third parties in the last quarter. Vendors have been identified and categorized by the nature of the business relationship. Critical vendors with high business impact have been identified and contacted to determine their Year 2000 compliance progress.

We have constructed a separate time machine test environment with dedicated mainframe and midrange computers, network connections and operating systems software mirroring our production environment. Within this test environment we are able to set both computer clocks and test data forward to simulate the turn of the century. This environment is being used to thoroughly test Year 2000 date processing for our major business systems.

Administrative business applications

There are several business applications important to The Capital Group Companies, even though they do not directly affect the core investment management process. These administrative areas include Payroll, Human Resources, Finance and Accounting, Tax and Treasury, Investment Administration, and other similar systems.

As indicated in the chart, Inventory and Assessment and Planning phases are substantially complete for many of these applications. The Remediation, Testing and Implementation Phases are on schedule to be complete by October 1998. The same high standards for Year 2000 compliance are being adhered to for these and all other Capital Group applications.



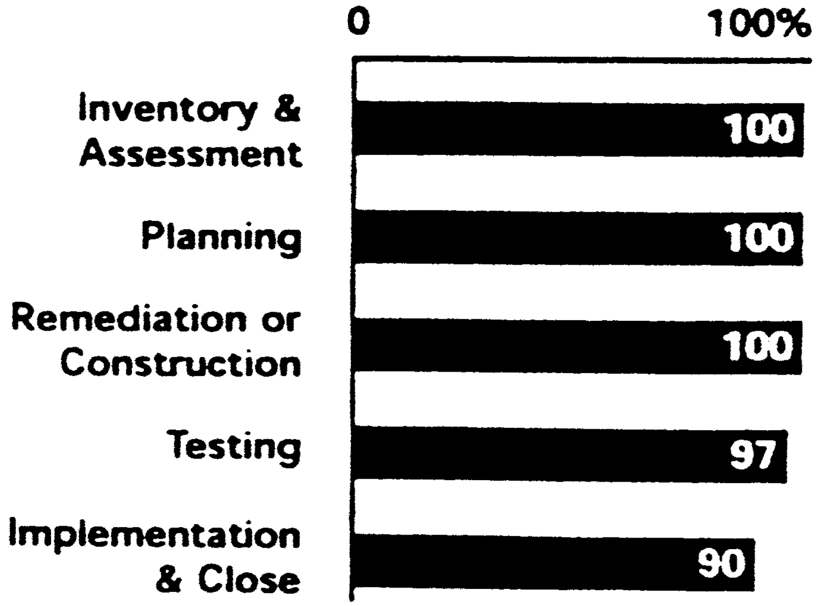
American Funds Group accounting and reporting systems

Applications utilized by The American Funds Group consist of 29 systems supporting both dealer activities and shareholder accounting and reporting. Virtually all of the systems supporting these business areas were Year 2000 ready as of June 30, 1998. This means they have been through the Inventory and Risk Assessment. Planning, Remediation or Construction phases, undergone unit, system and user acceptance Testing, and, during the Implementation and Close phase, are being put back into production.

Our core shareholder recordkeeping system is provided by a third party service provider. American Funds Group associates have maintained a close working relationship with this service provider during its Year 2000 remediation project. All Inventory and Assessment. Planning and Remediation of this system has been completed.

In September–October 1998, all systems within this area will be tested in the time machine test environment. These tests will include a series of integrated, industrywide tests sponsored by the Securities Industry Association and involving, among others, the primary service provider supporting shareholder transaction activity in The American Funds Group. Point-to-point testing with other business partners is planned over the next twelve months.

Overall progress in this important area is shown in the following chart.



Desktop applications

In addition to shared Information Technology systems, many office productivity, spreadsheet, and local databases reside on network file servers accessed by associates' desktop computers.

We have licensed the use of a software tool to identify potential Year 2000 date processing problems in desktop applications and to classify those problems by severity level. A process was developed to scan every network file server, flag the potential problems for manual inspection, correct the problems, test, implement into production, and re-scan to make sure the corrections are complete. The process was tested in a pilot group, validated, and is now being rolled out to all Capital Group locations worldwide. All desktop applications are scheduled to be Year 2000 compliant by December 31, 1998.

Business partner/vendor program

Perhaps one of the most challenging Year 2000 areas is assessing the Year 2000 compliance efforts of our business partners and vendors. The Capital Group relies on hundreds of hardware and software vendors for its Information Technology Infrastructure. We also rely on dozens of custodian banks and hundreds of brokers to process financial transactions accurately and quickly. Our ability to continue managing client assets through the Year 2000 depends not only upon our own organization's ability to achieve internal compliance, but also on the ability of our business partners and vendors to deliver Year 2000-compliant products and services.

The Capital Group has identified all of its significant business partners and vendors and categorized each one by the type of service relationship. This approach enables us to tailor our business partner/vendor compliance plans to match the services provided and to enlist our business area associates in the evaluation process.

Risk assessments of each business partner have been completed: A "most critical" list has been identified, and Capital Group associates with relationship responsibility for Year 2000 compliance have been designated. During the next quarter, we will begin "point-to-point" testing to confirm our ability to transact business with these parties in the year 2000. Testing with a number of business partners will continue through 1999.

The Capital Group methodology requires all significant vendors to be contacted and their Year 2000 compliance efforts evaluated by December 31, 1998. Where contingency planning is appropriate, plans must be established by the same date.

Facilities

The office facilities utilized by The Capital Group Companies are also being examined for possible Year 2000 problems. Building security systems, clock-controlled lighting and temperature controls, elevators and power grids all present a risk to normal business operations. The Inventory and Risk Assessment of Facilities is complete. Each office location was reviewed and prioritized based on its computer dependencies and contribution to overall business activities. Visual inspections are being conducted and approximately 80 percent of all required testing is being performed at that time. All critical systems are scheduled to be tested in 1998. Critical business vendors have been identified and are being addressed through the vendor management program. We are developing contingency plans for high-impact utility companies. The expected completion date for Year 2000 compliance of Capital Group Facilities is December 1, 1998.

Contingency planning

Our early experience shows that some vendors may not be ready with Year 2000-compliant products when we are ready to test. In fact, some vendors have already declared that one or more of their products will not be made Year 2000 compliant. This means we must develop contingency plans to ensure we retain certain business functions.

Our contingency plans take into account the level of reliance we have for each business partner and vendor and how critical the product or service is to our business operations.

In some cases, vendors are being replaced in advance of potential problems occurring. During the next six months, we will be actively planning for the possibility that a number of our business partners and vendors may not have Year 2000-compliant products and services available on a timely basis.

Capital is using its Disaster Recovery resources in concert with its Year 2000 Program Management Office resources to reduce the likelihood that we will suffer business interruption due to Year 2000 problems. We expect these plans to be substantially complete by December 31, 1998.

YEAR 2000 PROJECT ORGANIZATION

Capital is carefully tracking the progress of the Year 2000 Project. The program is being overseen by a number of internal and external groups, including the Year 2000 Steering Committee, the Program Management Office, associates in information technology and business areas, a number of boards of directors/trustees, and securities and banking regulators. The role of each of these groups is described below.

Year 2000 Steering Committee

Who has primary responsibility for implementing the Year 2000 Project?

Capital's Year 2000 Steering Committee, comprised of 15 senior-level managers representing key business and technology areas, has primary responsibility for implementing the Year 2000 Project and achieving its goal of timely compliance across the entire organization.

How does the Steering Committee fulfill its responsibilities?

The Steering Committee provides oversight, including strategy and direction, sets priorities and applies resources across all Capital Group Companies and office locations worldwide. The Steering Committee facilitates the development and execution of compliance strategies and efforts in specific information technology and business areas. The Steering Committee meets twice each month to review progress and discuss issues.

Program management office

Who implements decisions, strategies and procedures established by the Steering Committee?

Capital began work on the Year 2000 Project in the first quarter of 1997. In June 1997, the Year 2000 Program Management Office (PMO) was formed with a dedicated manager, staff, and budget. External consultants were engaged to initiate the Year 2000 Project definition and evaluation. A leading consulting firm was engaged to establish the methodology, provide documentation tools, and supplement and advise PMO staff. The PMO leads Capital's comprehensive, enterprise-wide Year 2000 compliance effort. The PMO provides guidance, management, coordination, tracking and support as it assists associates in each of Capital's information technology and business areas with each phase of the project, including conversion of their systems, applications, and services.

What are some of the PMO's specific responsibilities?

The PMO established compliance guidelines, a testing and certification infrastructure, and an overall process for managing the Year 2000 Project. The PMO establishes and tracks project deliverables, facilitates compliance decisionmaking and priorities, and coordinates, monitors,and integrates multiple compliance projects. The PMO also plays an important role in monitoring the progress of outside vendors and other service providers in achieving Year 2000 compliance. The PMO works closely with the Steering Committee and serves as a liaison among various working groups and with outside parties and regulators.

Information technology and business areas

What are the roles of the information technology and business areas in relation to the Year 2000 Project?

Information technology area managers are responsible for ensuring that technology infrastructure, hardware, networks and operating systems are all Year 2000 compliant. They must replace non-compliant hardware and systems, and remediate applications used across the entire Capital organization. The information technology area is also responsible for establishing and supporting a Year 2000-compliant test environment in which hardware and software systems and applications are tested in a replica of the production environment.

Business area managers have supplied the PMO with inventories and risk assessments of applications specific to their areas. They are also responsible for ensuring that project plans and activities are comprehensive and meet required implementation deadlines. Associates in the business areas also participate in the development and execution of Capital-wide application testing, and vendor/service provider assessments and monitoring.

Board oversight

How involved are the boards of directors affiliated with The Capital Group Companies in overseeing the Year 2000 Project?

The Boards of Directors of The Capital Group Companies, Inc. and each of its principal operating subsidiaries have formally approved the Year 2000 Project, including its enterprise-wide approach and its reliance on the Steering Committee, the PMO and the information technology and business areas for implementation. Regular reports are submitted to these Boards of Directors, at least quarterly, on internal corrective efforts as well as the ability of Capital's major vendors and service providers to provide Year 2000-ready products and services. A number of Steering Committee members also serve on these Boards.

Similar reports will be submitted at least quarterly to the Boards of Directors and Trustees of the mutual funds managed by Capital Research and Management Company as well as the funds outside auditors.

Regulatory oversight

How are Capital] Year 2000 efforts being monitored by regulatory agencies?

A number of Capital Group Companies, including Capital Research and Management Company, American Funds Service Company, American Funds Distributors, Inc., Capital International Limited (United Kingdom), Capital International K.K. Japan) and Capital International, Inc. (United States), are subject to governmental oversight in the jurisdictions in which they operate as a result of their securities-related activities.

In addition, the California- and Nevada-based operations of Capital Guardian Trust Company undergo regular examination by state banking authorities. Moreover, self-regulatory organizations play an active role in monitoring the activities of certain Capital Group Companies. Regulators in all three categories are very much interested in determining whether we (and other firms in the financial services industry) will be ready for the Year 2000. As a result, we have discussed the status of the Year 2000 Project with a number of these regulators and submitted written reports upon request. We expect regulatory activities to increase in frequency and scope as the year 2000 approaches.

THE NATURE OF THE PROBLEM

The Year 2000 problem, although conceptually simple, is a serious business challenge for all companies, financial and otherwise. rather than a narrow technical issue. The problem arises from the fact that many computer and other office systems were designed using a shorthand approach to dates, often to conserve valuable memory resources.

Unfortunately, even though systems capabilities improved considerably over the years, many programming professionals continued to employ the practice of using only two digits to indicate the year—for example, "98" instead of "1998." As a result, a significant number of existing software and certain hardware and other systems will require upgrading or replacement to avoid date-related errors.

Systems that will recognize the change of century and operate properly when doing comparisons, calculations or other date-related operations in both the 20th and 21st centuries are known as "Year 2000 compliant."

SELECTED CAPITAL GROUP COMPANIES

U.S. Mutual funds

Capital Research and Management Company
American Funds Distributors, Inc.
American Funds Service Company

Global Institutional Group

Capital Guardian Trust Company
Capital Guardian Trust Company, A Nevada Corporation
Capital Group International, Inc.
Capital International S.A. (Switzerland)
Capital International Limited (United Kingdom)
Capital International K.K. (Japan)
Capital International, Inc. (United States)

FIDELITY INVESTMENTS AND THE YEAR 2000

WHAT IS THE "YEAR 2000" ISSUE?

Computers use dates in calculations. Many software programs were written using 2 digits for the year (e.g. 98), rather than 4 digits (e.g. 1998). These systems automatically assume that the first two digits of a year are "1" and "9", which means they'll misinterpret all dates after December 31, 1999. This situation would make an infant born on January 2, 2000 appear to be 100 years old and a credit card bill due on the same day 100 years overdue.

Known as "Y2K" or the "millennium bug", this problem is inherent in billions of lines of computer programming. Left unchecked, this could cause unpredictable results. The software and hardware of systems spanning all industries could be affected. Global financial institutions, air traffic systems, defense networks, and life support equipment are just some of the areas this glitch could disrupt. The Y2K challenge is particularly complex for the financial service industry, which is heavily dependent on technology for operations that rely on date-sensitive calculations for automatic deposits, retirement benefits, stock trade settlements, and other financial transactions.

HAS FIDELITY INVESTMENTS BEGUN CONVERTING ITS SYSTEMS TO BE YEAR 2000 COMPLIANT?

Yes. Fidelity Investments launched its enterprise-wide Year 2000 program in early 1996. The program is sponsored by executive management, and actively engages business line presidents and other executive management The mission of the Fidelity 2000 project is to achieve seamless processing for all Fidelity systems and applications, resulting in uninterrupted business operations and service to Fidelity customers.

In addition, the Year 2000 project has extensive involvement from all Fidelity business units. Members of the non-technical community participate in several working and steering committees which help guide the project. Fidelity Investments is aiming to achieve seamless processing and meet the Y2K challenge. How many people at Fidelity are working on the Year 2000 project? Fidelity has over 500 employees and Year 2000 specialists working on the project, consisting of three dedicated teams, each with a unique responsibility to the success of the project:

—*Aware:* Responsible for raising awareness of the Year 2000 issue and the project itself within Fidelity Investments. This team facilitates communication and disseminates information firmwide.

—*Assure:* Provides guidance and oversight to all Fidelity business units through an assessment process developed with internal audit and through monitoring the progress of each business unit. It is also responsible for tracking the efforts of Fidelity's vendors and business providers.

—*Technology Center:* Charged with analyzing and modifying the millions of lines of code throughout Fidelity. The Technology Center also tests and evaluates all of Fidelity's enhanced systems—from the mainframe to the desktop—to attain the goal that Fidelity Investments will be ready for the Year 2000.

WILL ALL OF FIDELITY'S SYSTEMS BE CHECKED?

Yes. All of Fidelity's internal applications, vendor products, and business partner systems have been inventoried and are maintained through an internal tracking system and reporting database. These systems are then analyzed for Year 2000 deficiencies, and corrected as necessary. In the cases where a vendor or a business provider cannot provide Fidelity with Year 2000 compliant products in time to test, Fidelity is developing plans to move to another product.

HOW IS FIDELITY TESTING CONNECTIONS TO OUTSIDE COMPUTERS FOR Y2K PROBLEMS?

Fidelity has implemented a strategic plan to verify systems will function in the Year 2000, not only for its internal systems and applications but for its external business provider data providers, and other organizations in the financial services industry. This inter-dependence makes it imperative that Fidelity participate with industry trade groups to respond to the Year 2000 issue. Fidelity is taking a lead in assisting these firms, through industry trade groups, in developing the ability to process their business correctly into the Year 2000.

WHAT IS THE IMPACT OF THE YEAR 2000 ON FACILITIES' EQUIPMENT, SUCH AS ELEVATORS, HEATING EQUIPMENT, AIR CONDITIONING EQUIPMENT, TELEPHONES, SECURITY AND ALARM SYSTEMS, AND FAX MACHINES?

Fidelity has a dedicated team of facilities experts focusing on this machinery, so that it will be functional in the Year 2000. All machinery has been inventoried, and is being evaluated and tested to sustain operability.

WHEN WILL FIDELITY BE FINISHED?

Fidelity is well on its way to completing the conversion of its core systems by the end of 1998. These systems will then be tested throughout 1999, including participation in the Securities Industry Association test, which is a test of the exchanges and utilities (e.g. New York Stock Exchange) and the financial organizations that communicate with them electronically.

In addition, all new software developed at Fidelity is being developed to execute properly in the Year 2000.

WHAT HAPPENS IF FIDELITY INVESTMENTS IS NOT ABLE TO MEET THE YEAR 2000 CONVERSION ON SCHEDULE?

Fidelity is currently on target for meeting the Year 2000 milestones. However, we are creating backup plans so that critical business functions continue to operate through the Year 2000.

WHAT DO I NEED TO DO?

Fidelity continues to be proactive in addressing the year 2000 issue. We'll update this information accordingly. Watch for statement inserts and more information on www.fidelity.com as we get closer to December 31, 1999. If you have further questions about Fidelity and the Year 2000 Project, please e-mail.

FRANKLIN TEMPLETON COMBATS THE YEAR 2000 PROBLEM

(By Charles B. Johnson President, Franklin Resources, Inc.)

As we near the 21st century, Franklin Templeton is taking important steps to tackle the computer glitch dubbed the Year 2000 Problem, Y2K, or the Millennium Bug. The problem originated from software designers' attempt to save memory by recording years in a two-digit format—"98" instead of "1998," for example—but didn't take into account that the year 2000, or "00," could also be interpreted as 1900. Uncorrected, this problem could prevent computers from accurately processing date-sensitive data after 1999.

Franklin Templeton's Information Services & Technology division established a Year 2000 Project Team that has already begun making the necessary software changes to help ensure that our computer systems, which service the funds and their shareholders, will be Year-2000 Compliant. As changes reach completion, we will conduct comprehensive tests to verify their effectiveness. We will also require all of our major software or data-services suppliers to be Year-2000 Compliant.

In addition, with an estimated 80 percent of businesses facing the Year 2000 Problem, mutual fund portfolio managers must be aware of the impact it could have on companies in their portfolios. That's why Franklin Templeton portfolio managers consistently keep this issue in mind while selecting investments and managing their portfolios.

PUTNAM INVESTMENTS—NEWS & OUTLOOK

THE YEAR 2000

You have undoubtedly read headlines and heard news reports about the impact of the year 2000 on computer systems around the world. And while some reports' "doomsday" scenarios may be overly dramatic, it's important to recognize that the change from 1999 to 2000 could cause serious disruptions for businesses whose computer systems aren't prepared. Fixing the problem is complex and requires diligent analysis, reprogramming, testing, and retesting of computer systems well in advance of the new millennium. Unlike the media—which have only just begun to pay close attention to this issue—Putnam has been working on it for many years. In fact, our comprehensive year 2000 (Y2K) strategy was established in 1995.

—What exactly is the problem?
—An overview of Putnam's strategy
—Staffing the project
—Testing is key
—External systems and contingency plans
—Auditing

WHAT EXACTLY IS THE PROBLEM?

When computer software programs were being developed in the 1970s, the programmers didn't anticipate that their software would still be in use 25 years later and that the programs would need to process dates after 1999. Therefore, programmers set aside only two spaces to identify the year in computer code—the year 1970, for example, was entered as 70. If this software is not adjusted, computer systems will interpret the year 2000 as the year 1900. While the problem is simple to understand, its solutions are incredibly complex. Once a computer system misinterprets a date, it has the potential to spread the wrong information to many other computer systems. In addition, the erroneous information could come from within a company's computer system or from external computer systems.

AN OVERVIEW OF PUTNAM'S STRATEGY

Putnam's Y2K strategy is designed to ensure that all of Putnam's systems are Y2K compliant, which means they will be able to accept and process a four-digit year and will continue to function in the year 2000 and beyond as they do today. In addition, if Putnam receives external data that are not Y2K compliant, Putnam's systems will be able to expand the date to a four-digit year.

Putnam has completed a comprehensive review of all technical areas that play a role in our ability to perform necessary business functions. These include hardware, software, vendor feeds, and interfaces. The results of this review indicate that we will be in compliance with all Y2K requirements well before 2000. Already, a number of Putnam systems have been enhanced to handle dates into the 21st century.

STAFFING THE PROJECT

Putnam hired several consulting firms early in the process to conduct inventory and impact analysis of every system and to identify the appropriate strategy for bringing each system into compliance. Putnam also has an internal team of technology professionals dedicated to implementing our Y2K strategy. Because we established consulting partnerships quite a while ago, we were able to obtain reasonable rates for the service. Recently, the availability of Y2K consultants has become limited and costs have risen accordingly. As major conversions are completed, we are able to decrease the number of consultants, managers, and developers working on the project.

TESTING IS KEY

Testing the systems well in advance of 2000 is a vital part of Putnam's Y2K strategy. Putnam's testing is rigorous and extensive; we are working on more than 380 separate systems and are developing a specific strategy for each. Because these hundreds of systems vary in size and complexity, the timeline for testing varies as well.

Putnam has developed a two-phase approach for testing its converted systems.

Phase I: Century compliant.—The objective of this phase is to verify that there is no negative impact on the functioning of our computer systems when their codes are converted to display a four-digit year.

Phase II: Year 2000 compliant.—This phase of testing is designed to ensure that all systems will continue to function in the year 2000 and beyond in the same way that they function today.

Putnam plans to complete testing by December 31, 1998. However, a few replacement projects and vendor upgrades will not be completed until the first quarter of 1999.

EXTERNAL SYSTEMS AND CONTINGENCY PLANS

Another critical component of our Y2K plan is to ensure that any data we receive from outside our organization are also compliant. Putnam maintains a comprehensive inventory of all third-party systems on which we are dependent. We have been in contact with every vendor and we are working with each organization to determine its status and preparation for Y2K. We are also working with clearing houses, banks, and sub-custodians to conduct external tests of our systems. In cases where vendors have unacceptable target dates, we have developed contingency plans. And, by mid 1999, we will have a plan in place to deal with any system failures that might occur in 2000.

AUDITING

Putnam's Y2K plan and progress are being monitored by FDIC auditors as well as by auditors of our parent company, Marsh & McLennan, and by our external auditors, PricewaterhouseCoopers. Each review has been documented and all issues are being addressed. A project detail report, which tracks every phase of the conversion and implementation process, is maintained as each system undergoes the internal Y2K certification process. The report is available for review by internal and external auditors.

VANGUARD PREPARES FOR THE YEAR 2000

HOW IS VANGUARD ADDRESSING THE CHALLENGE?

To meet the Year 2000 Challenge, Vanguard has more than 85 computer experts dedicated to fixing every affected computer program well before January 1, 2000. In addition, we have retained top-quality outside consultants for portions of this project.

All Year 2000 compliance changes to Vanguard computer programs are scheduled to be completed by the third quarter of 1998—well in advance 0f 2000, enabling us to conduct business as usual through the turn of the century. This early completion will permit full-scale testing of all programs, plus continuous monitoring of computer systems as 2000 approaches.

As a Vanguard shareholder, you do not have to do anything to prepare for the year 2000—and you will not have to change the way you do business with Vanguard.

EXAMPLE OF THE YEAR 2000 CHALLENGE

Say you were born on May 11, 1929. The government says you have to start withdrawing money from your retirement plan by April 1, 2000—the year after you reach age 70½. You've chosen to receive the required minimum distribution as a monthly check, starting in January 2000. But now it's January 4, 2000, and nobody has prepared the retirement plan's computer system for years past 1999. The computer determines that you are—29 years old (the current year, 00, minus your year of birth, 29). Obviously, this is not a valid retirement age, so the computer bypasses your distribution. If you fail to realize that the checks aren't arriving, you could become subject to a 50 percent penalty tax on the amount that should have been withdrawn.

WHAT IS THE YEAR 2000 CHALLENGE?

The Year 2000 Challenge ("Year 2000") stems from the fact that countless computer programs use a two-digit shorthand for calendar dates. Many existing programs will assume that 01-01-00 is the first day of 1900, rather than 2000. If not corrected by January 1, 2000, this glitch could disrupt the calculation of bond interest payments, stock trade settlements, retirement benefits, and other financial transactions.

Some have mistakenly assumed that the Year 2000 issue is a problem merely for older systems. In fact, many new applications are also vulnerable—especially those that interact with or use data stored in older applications. The interconnected nature of today's computer systems means that a single tainted application could have sweeping repercussions in an organization.

FREQUENTLY ASKED QUESTIONS

How important is Vanguard's Year 2000 project?

Providing superior investment performance and related financial services to our shareholders is the sole mission of The Vanguard Group, and information technology is absolutely vital to that mission. Quite simply, it would not be possible to run a modern mutual fund company without reliable computer systems. We believe it is critical that we protect these systems—and, by extension, our clients—from problems that could arise when the calendar reaches the Year 2000.

To ensure that the Year 2000 Challenge does not create problems for shareholders, Vanguard went to work early to address the changes required. We plan to complete the changes necessary to our computer systems by the third quarter of 1998, leaving ample time for rigorous testing and monitoring.

Houw many people at Vanguard are working on the Year 2000 Challenge?

Vanguard has committed more than 85 seasoned computer experts to identifying and eliminating any computer-programming problems related to the Year 2000. For some portions of analysis, renovation, and testing, top-quality outside consultants have been brought in.

A full-time Program Manager for Vanguard's Year 2000 project was appointed in 1996. Reporting directly to Vanguard's Managing Director of Information technology, this Program Manager is responsible for ensuring that Vanguard's systems—as well as those of clients, partners, and providers—are properly modified and tested.

A Year 2000 advisory committee—composed of Vanguard's senior Information Technology staff and a representative of each major internal business group—meets every other week to track progress.

The Year 2000 team includes ten experienced systems managers and more than 75 programmers, software engineers, quality assurance specialist, and compliance testers.

Are all of Vanguard's business areas included in the project?

Yes. Our businesses and services include Vanguard Brokerage Services, Retirement Programs, Personal Financial Services, Institutional Investor Service, Vanguard Variable Annuity Plan, and Individual Investor Services. The Year 2000 project encompasses every record or process that is dependent on computers at all Vanguard locations: The main campus in Malvern, Pennsylvania, as well as offices in Philadelphia; Phoenix, Arizona; Charlotte, North Carolina; and Melbourne, Australia.

Are all Vanguard's systems being checked?

Yes. The systems being examined include all accounting systems for institutional and individual shareholders, online access systems, telecommunication systems, custon-built software, imaging systems, mail room equipment, and more. In addition, the Year 2000 team will verify that the systems that control elevators, heating and air conditioning, lighting, and security systems at Vanguard will not pose any threat to our ability to provide service. We are committed to completing Year 2000 changes on internal applications by the third quarter of 1998 to allow ample time for rigorous testing.

Who will be affected by the Year 2000 Challenge?

Potentially, the challenge could affect everyone who uses a computer. The use of two digits instead of four for calendar years is so embedded in software language that most businesses, agencies, institutions, and individual users risk problems when the calendar turns to 2000.

Why are dates so important?

Computers use dates in all sorts of calculations, including those involving dividend payments, automatic deposits or exchanges, retirement benefits, control of inventories, and money transfers—particularly across time zones.

Why can't we just switch all the dates from two digits to four?

Sheer volume makes it all but impossible to expand every date in the millions of lines of computer code that companies use. Furthermore, any change must be compatible with every program and file that can be linked to it. Although dates will be expanded to four digits where essential, many organizations (including Vanguard) will use "windowing," a technique that assigns the correct century to any given two-digit year date.

Is this a hardware problem or a software problem or both?

It is a software problem affecting applications, operating systems, and utilities. But it also involves hardware—some computers cannot work properly with dates beyond 1999 and must be replaced.

Why do some people call this problem a bug or virus?

Like a virus, the problem could cause unwanted, unpredictable, and sometimes damaging results that would spread through linked computers. However, the two-digit shorthand for dates was not started as a prank or as sabotage. It was used by programmers who had to be frugal with their allocation of resources in days when computers had little memory and storage capacity.

How widespread are dates in an information system?

Dates are everywhere. If a database did not contain dates, it would mean that the information recorded had no relation to time—which is never the case. Consequently, the problem cannot be simplified. It potentially involves all programs and all applications.

What does it mean to be "Year 2000 compliant"?

An information technology product or service is Year 2000 compliant only if it will accurately process data before, during, and after the calendar change from 1999 to 2000—and if it can do so even when data is exchanged with other systems.

Vanguard is poised to meet this challenge. Renovations to Vanguard's internal systems environment is planned for completion by the third quarter of 1998. Full-scale testing will follow renovation, and continued compliance monitoring will maintain our environment through the turn of the century.

How can Vanguard be sure it won't have problems with connections to outside computers? How will Vanguard minimize risk?

We are dedicated to working with our many clients, business partners, and providers. An assessment of Year 2000 risks is being performed for each external relationship. Vanguard will strive to accommodate those with compliance schedules that vary from our own timetable, but Vanguard will also develop contingency plans for cases of noncompliance.

For the past few years, all new systems at Vanguard have been required to retain four-digit years, and they have been carefully reviewed for Year 2000 compliance. A set of compliance guidelines has been established for use by all information technology developers and software engineers at Vanguard. Methods of enforcing compliance in information technology development have also been established.

The integrity of electronic data exchanged with our clients, outside portfolio manages, banks, financial advisers, and other providers will also be verified. Vanguard's intention is to complete the project well in advance of 2000 and to conduct "business as usual" as the 21st century approaches. Our team of dedicated information technology professionals expects to provide uninterrupted, high-quality service to shareholders through the turn of the century.

What would happen if the Year 2000 challenge was not completed?

It could lead to incorrect results in any arithmetic calculations, comparisons, or data-field sorting that involved years later than 1999. The worst-case scenario is computer failure. Vanguard started early and is moving aggressively to thwart that unacceptable outcome.

Exhibit E

ICI MUTUAL INSURANCE COMPANY
YEAR 2000 UNDERWRITING QUESTIONNAIRE

This questionnaire must be completed and returned with your scheduled 1998 renewal application for ICI Mutual Investment Company Blanket Bond and/or Directors and Officers/Errors and Omissions Liability Insurance coverage. Please note that the completed questionnaire will be deemed to be a part of your renewal application, and will be subject to the declarations and provisions of the Signature Page thereof.

* * *

NAME OF COMPLEX: ________________________________

I. STRATEGIC PLANNING

A. Preparation of Y2K Corrective Plan

1. Has the proposed Insured prepared a written Year 2000 corrective plan ("Y2K Plan")? -- YES __ NO__

   a. If not completed, when is the Y2K Plan scheduled to be completed? _________ (month/year)

2. Is the Y2K Plan regularly updated or amended in light of developments? -- YES __ NO__

3. Have outside experts/consultants been retained to prepare, review and/or comment upon the Y2K Plan? -- YES __ NO__

4. Does the Y2K Plan take into account the fact that the year 2000 is a leap year and that dates prior to the year

2000 (e.g., 9/9/99) may be used by certain program codes as "infinity" or "blank" dates? -- YES__ NO__

5. Does the proposed Insured's Y2K project provide for identification and remediation of non-compliant systems and programs that may be acquired through the year 2000? -- YES__ NO__

6. Has the Y2K Plan been reviewed and/or approved by:

   a. Senior management -- YES__ NO__
   b. Board(s) of Directors of proposed insured Funds -- YES__ NO__
   c. Board(s) of Directors of proposed insured service providers -- YES__ NO__
   d. Outside auditors -- YES __ NO__.

B. <u>Staffing and Budgeting</u>

1. How many individuals have been assigned to assist in completing the Y2K compliance project?

   a. Internal personnel (full time equivalents) -- _____ (number)
   b. Outside consultants or other external personnel (full time equivalents) -- _____ (number)

2. Is there a specific budget for the Y2K compliance project? YES __ NO__

C. <u>Oversight</u>

1. Has the proposed Insured established a Y2K oversight/steering committee? -- YES __ NO__

2. Who is responsible for directing the Y2K compliance project?

   a. Full-time Y2K project manager -- YES __ NO__
   b. Part-time Y2K project manager -- YES __ NO__
   c. Other (please list) -- YES __ NO__

3. Does the proposed Insured regularly measure its overall progress towards Y2K compliance? -- YES __ NO__

4. Are the Boards of Directors of proposed insured Funds and proposed insured service providers regularly apprised of the status of the complex's progress towards Y2K compliance? -- YES __ NO__

II. IDENTIFICATION AND ASSESSMENT

A. Identification/Assessment of Internal Systems and Programs

1. Is there an inventory process for identification and assessment of all internal systems and programs currently in use by the proposed Insured? -- YES __ NO__.

   a. Does the inventory process include identification of vendor software and hardware products? -- YES __ NO__.

2. Does the inventory process include a "data flow chart" analysis or other analysis to identify possible undocumented programs in use by the proposed Insured? YES __ NO__.

3. Have the results of the inventory process been evaluated to determine the Y2K compliant status of identified systems and programs ? -- YES __ NO__.

4. If Y2K non-compliant vendor hardware and software products have been identified:

   a. Has the proposed Insured reached agreements with its vendors as to who is responsible for Y2K compliance? -- YES __ NO__.

   b. Has the proposed Insured evaluated the legal responsibility of such vendors for any adverse impact to the proposed Insured that may result from a failure by vendors to bring their products into Y2K compliance? -- YES __ NO__.

5. In assessing Y2K issues, has the proposed Insured evaluated the potential Y2K issues that may be presented by any of its foreign operations? -- YES __ NO__.

6. Have "mission critical" non-compliant systems/ programs been identified and prioritized? -- YES __ NO__.

B. Assessment of Third Party Systems and Programs

1. Has the proposed Insured identified all systems and programs of "mission critical" third parties (e.g., "mission critical" business partners, service providers, clients) that interface with the proposed Insured's systems and programs? -- YES __ NO__.

2. Has the proposed Insured evaluated the responsibility of such third parties for any adverse impact to the proposed Insured that may result from a failure by the third parties to bring their systems and programs into Y2K compliance? -- YES __ NO__.

3. Has the proposed Insured evaluated the potential Y2K issues that may be presented by any clients, business partners or service providers located outside the United States (including, but not limited to, foreign custodians and depositaries)? -- YES __ NO__.

C. Assessment of Facilities and Communications Systems

1. Has an inventory been completed of facilities and communications systems that may employ date sensitive embedded chips (e.g., HVAC, elevators, telephones)?-- YES __ NO__.

III. REMEDIATION, TESTING AND IMPLEMENTATION

A. Remediation

1. Have determinations been made as to how each identified non-compliant system/program will be remediated into compliance (e.g., through recoding , upgrade, replacement)? -- YES __ NO__.

a. Approximately how many lines of code are expected to require remediation? -- __________

2. For internal systems/programs to be recoded or upgraded, has the proposed Insured confirmed that all source codes for programming applications within identified systems and programs will available to the proposed Insured? -- YES __ NO__.

3. For "mission critical" third party systems/ programs, has the proposed Insured agreed with the providers of such systems/programs as to the dates by which such systems/programs will become Y2K compliant? -- YES __ NO__.

B. Testing

1. What types of testing will be employed to ascertain Y2K compliance?

   a. Testing of individual programs and systems: YES __ NO__. If "yes," provide estimated date of completion: __________________

   b. External testing of programs and systems with external partners and providers: YES __ NO__.

      If "yes," provide estimated date of completion:

      ____

   c. "Streetwide" or industry-wide testing: YES __ NO__.

      If "yes," provide estimated date of completion:

      ____

   d. Year-end 1999 Final Testing: YES __ NO__.

2. Will testing be designed to identify whether implementation of Y2K compliance solutions has inadvertently introduced new errors into systems or programs? -- YES __ NO__.

C. Implementation

1. When is implementation of Y2K compliant systems and programs scheduled to be completed (month/year)? ______

IV. CONTINGENCY PLANNING

A. Has the proposed Insured completed contingency plans to address potential Y2K system failures or disruptions? -- YES __ NO__.

Please describe these plans briefly: ______________________
____
____

V. STATUS

A. Please identify the (1) month and year when each of the following phases of the proposed Insured's Y2K compliance project is scheduled to be completed, and (2) the estimated completion percentage of each phase as of the date this questionnaire is being completed:

		Scheduled Date for Completion	% Now Completed
1.	Strategic Planning	______	______
2.	Identification/ Assessment	______	______
3.	Remediation	______	______
4.	Systems Testing	______	______
5.	External Testing with external partners and providers	______	______
6.	"Streetwide" or industry testing	______	______
7.	Implementation	______	______
8.	Contingency Planning	______	______

B. What is the status of the proposed Insured's Y2K compliance project with respect to the schedule developed in its Y2K Plan? -- AHEAD ___ BEHIND ___ ON TRACK ___

VI. <u>COMMUNICATIONS AND DISCLOSURE</u>

A. Is the proposed Insured consulting regularly with its auditors regarding the necessity for, and scope of, financial reporting disclosure regarding Y2K? -- YES __ NO__

B. Is the proposed Insured consulting regularly with outside counsel regarding the necessity for, and scope of, prospectus/SAI or other public filing disclosure regarding Y2K? YES __ NO__.

C. Is the proposed Insured communicating directly with its shareholders regarding the status and scope of its Y2K compliance project?-- YES __ NO __ UPON REQUEST ONLY __

D. Are all Y2K communications and disclosure controlled and directed by a specified authority at the proposed Insured? -- YES__ NO __

Date Questionnaire Completed: ______________________________

By: ______________________________
Authorized Representative

____
Title

RESPONSES OF MATTHEW P. FINK TO QUESTIONS SUBMITTED BY CHAIRMAN BENNETT

Question 1. You indicate in your testimony that "where appropriate" investment advisers are reviewing the Y2K readiness of companies in which they invest on behalf of mutual funds shareholders. Can you estimate what percentage of fund managers are reviewing their portfolio companies for Y2K readiness, and what percentage of companies within their portfolios would typically be reviewed? How are such reviews conducted; are the reviews usually based on the SEC quarterly filings or are they more rigorous? What does "where appropriate" mean; when would it not be appropriate to review companies for Y2K readiness?

Answer. The Institute has not formally surveyed its members to ask whether they review the Y2K readiness of portfolio companies. Accordingly, we are not in a position to state precisely what percentage of fund managers perform such reviews, or what percentage of companies within their portfolios would typically be reviewed. We have discussed these issues with a number of our members, however, and it is our understanding that in general, fund managers are reviewing the Y2K readiness of portfolio companies and considering it as one element of risk when determining which securities a fund should buy, sell or hold. While some fund managers are reviewing the Y2K readiness of all portfolio companies, other managers tend to focus on issuers of securities in which they hold, or may acquire, relatively large positions, or which they believe may be particularly vulnerable to Y2K issues (e.g., because of heavy reliance on computer systems).

Members have told us that their portfolio managers or analysts review issuers' periodic and other SEC filings but that this is just one source of information about Y2K readiness. In many instances, fund managers are circulating Y2K questionnaires to portfolio companies and/or interviewing management on Y2K issues. In addition, in some cases, fund managers or analysts review information generated by third parties concerning companies' Y2K readiness, where such information is available. Of course, even the most thorough due diligence efforts cannot assure that no Y2K problems will materialize. For example, an issuer whose own systems are Y2K compliant may be affected by infrastructure failures. Obviously, it would be impossible for fund managers to investigate and evaluate every potential Y2K-related risk that possibly could impact each issuer. Thus, as with other factors that fund managers consider in making investment decisions, with respect to issuers' Y2K readiness, fund managers take reasonable steps to permit them to make informed judgments.

Additional information about whether fund managers consider the Y2K readiness of portfolio companies will soon be available in reports required to be filed with the Securities and Exchange Commission. The SEC recently adopted a proposal that requires every registered investment adviser that either has at least $25 million of assets under management or is an adviser to a registered investment company (e.g., a mutual fund) to file Y2K readiness reports with the SEC. An initial report must be filed by December 7, 1998 and a follow-up report is due by June 7, 1999. Investment advisers will be required to indicate in these reports whether, in formulating investment recommendations for clients, they take into account the extent to which the issuer has prepared for Y2K and, if so, where the adviser obtains information about issuers' preparedness.

As indicated in my testimony, there are instances in which it may not be appropriate to review portfolio companies for Y2K readiness because this consideration is irrelevant to the fund's investment strategy. For example, so-called index funds typically seek to match the performance of a specified index (such as the S&P 500 Index) by investing in the issuers (or a statistically selected sample of the issuers) that are included in the index. These funds employ a passive approach to investing that does not involve any fundamental analysis of the issuer. Thus, in the case of an index fund, it would be inconsistent with the fund's investment objective and strategies, as disclosed in its prospectus, for the adviser to use information about an issuer's Y2K readiness as the basis for determining whether to buy, sell or hold the issuer's securities. The same could be true for other types of funds whose stated investment strategies involve selecting securities according to a formula or other specified criteria and do not involve fundamental analysis.

Question 2. We have reason to believe that many companies understate the seriousness of the Year 2000 problem in their public disclosures fearing the potential negative impact on the company's stock position if significant problems are disclosed. Do you believe the quarterly filings correctly characterize the impact of the problem on publicly-traded companies? Will the Y2K safe harbor legislation, being marked up in the Judiciary Committee this morning promote better disclosure or is it simply a business decision?

Answer. Based on our discussions with members, we understand that the disclosure in public companies' quarterly SEC filings tends to be general. This is understandable to some extent; many companies' computer systems are interdependent with other systems that they do not control, and as to which they are not in a position to assure compliance. Concerns about potential liability also may discourage more specific disclosure. We are hopeful that the pending Y2K safe harbor legislation, as well as the SEC's recent disclosure guidance, will promote better disclosure. In addition, disclosure may improve as companies get farther along in their Y2K assessments and testing efforts. As noted above, however, periodic and other filings often are just one source of information about issuers' Y2K readiness that fund managers consider. Moreover, many of our members invest in companies based in large part on the quality of corporate management, and it is believed that well-managed companies would be more likely to address Y2K issues in a diligent fashion.

Question 3. You indicate in your statement that the Investment Company Institute represents 95 percent of the mutual fund industry. Our Committee has found in other industries that large companies will generally be better prepared for the Year 2000 than medium and small companies. Do you think this will also be true of mutual funds, i.e. will large funds be better prepared than small funds?

Answer. In contrast to other types of companies, in the case of mutual funds, there are several reasons why the size of a fund (or fund complex) will not necessarily correlate with the level of its Y2K preparedness.

For example, as I indicated in my testimony, mutual funds themselves are merely pools of assets; their operations typically are conducted by external service providers. Because of this dependence on service providers, a critical determinant of funds' Y2K readiness will be the Y2K readiness of their key service providers. This is true regardless of the size of the fund or fund complex.

Moreover, in general, smaller fund complexes may be more likely to outsource functions to large, third party service providers such as transfer agents and custodian banks. For example, a large fund complex may encompass its own, affiliated transfer agent because this structure can make sense where there are numerous funds within the complex requiring transfer agency services. In contrast, a smaller fund complex may be more likely to contract with a third party transfer agent for these services. A relatively small number of well-established organizations provide mutual fund transfer agency and custodian services. The prevalence of outsourcing may tend to enhance smaller complexes' Y2K readiness and put them on a par with large fund complexes.

In addition, some smaller fund complexes might have fewer, and/or newer, computer systems. As a result, their exposure to Y2K problems could be reduced.

For these reasons, it would be inappropriate to assume that medium and small fund companies will be less well-prepared for Year 2000 than large fund companies.

Question 4. Other than loss of public confidence, what potential Y2K problems are your members most concerned about?

Answer. Loss of public confidence is an overarching concern. One specific issue that Institute members anticipate they may face as Y2K approaches is an unusually high volume of phone calls from investors. Many firms have contingency plans in place designed to ensure that they will have the capacity to handle this situation. Our members also are reviewing possible infrastructure issues and developing contingency plans for back-up power supplies, for example. Another potential concern is the ability to receive prices for portfolio securities from pricing services or other outside sources. Fund groups are testing their interfaces with these sources to seek to avoid problems of this type.

Question. 5. What percentage of the total dollar investment in mutual funds are in IRA's, 401K's, or other retirement or pension programs? Are fund managers taking any special action to ensure that these funds are protected from Y2K-related problems?

Answer. Institute data show that the share of mutual fund assets held in retirement accounts (including IRA's and employer-sponsored accounts) was approximately 35 percent in 1997.

In response to the question of whether our members are "taking any special action to ensure that these funds are protected from Y2K-related problems," it should be noted that our members' Y2K compliance efforts do not distinguish between different types of fund shareholders (e.g., those who hold shares of a given mutual fund directly versus those who hold shares of the same fund in an IRA or through an employer-sponsored retirement plan). Thus, all fund shareholders (and, indirectly, plan participants) benefit equally from these efforts. Another important point to keep in mind is that ERISA generally imposes on plan sponsors (and not service providers such as the fund's investment adviser) a fiduciary duty with respect to plan participants. That being said, many of our members are communicating regularly with plan administrators and sponsors about the fund group's Y2K compliance efforts. In some cases, members have prepared letters or other special publications for this purpose. Some samples are attached to this letter. In addition, many fund groups are systematically testing their interfaces with all third parties—including administrators and sponsors of retirement plans.

ATTACHMENT—SAMPLE LETTER ON OPPENHEIMERFUNDS, INC. YEAR 2000 PREPARATIONS

AUGUST 14, 1998.

Attention

Vice President

DEAR

We have received your recent letter and in answer to your questions, we wanted to take this opportunity to make you aware that as the next century approaches, OppenheimerFunds, Inc. is aware of the potential problems associated with the advent of the Year 2000. In order to address the potential problem associated with the Year 2000, OppenheimerFunds, Inc. has developed a very detailed Year 2000 project plan that incorporated all facets of our business.

The Plan: Our Year 2000 project plans highlight 365 individual milestones spread across 18 categories of areas that might potentially have Year 2000 problems. These include categories for dependencies (including bank partners), client/server application software, client/server and LAN system software, client/server and LAN hardware, commercial off the shelf software, mail room software and hardware, telecommunications equipment and services, firmware, potential early failures, validation, transmissions, and interfaces. Each category of effort further encompasses the following major tasks and deliverables: Inventory—What do we have? Assessment—Does it have a Year 2000 problem? Test Prioritization—How important is the product and when do we test it? Contingency Planning—What will we do if it doesn't work? Communication Plan—How do we let everyone know the status? Test Plan Development—How do we test the product and who needs to be included in the test? Implementation—Correct any Year 2000 problem or if not possible or feasible, replace the product with a product that is Year 2000 compliant. Testing—Test any implemented changes in a test environment with aging processes.

The Year 2000 Team: OppenheimerFunds, Inc. has had a dedicated project loam in place working on the Year 2000 issue since l995. This team now includes 25 people including existing employees, persons hired specifically for the Year 2000 effort, and consultants hired became of their expertise in this area. The Year 2000 team is supported by employees in the rest of the organization through help in testing, implementing changes and preparing contingency plans.

Inventory and Assessment: To date, the Year 2000 team has completed the inventory and assessment of all of the hardware and software currently utilized by OppenheimerFunds, Inc. They have also created a sophisticated repository which is continually updated and that includes a vast array of information about critical inventory data. This repository allow OppenheimerFunds, Inc. to track the progress of the Year 2000 effort as well as verify the Year 2000 readiness of any particular system. Additionally, the Year 2000 team has completed a comprehensive PC test plan which was used to test every type of PC used at our facilities. After completing the tests, recommendations were developed for replacing or correcting all non-compliant PC's.

As part of the Inventory and Assessment, OppenheimerFunds, Inc. has worked to locate and evaluate any systems that may encounter Year 2000 problems before the Year 2000. A plan is being formed to deal with these potential early failures.

Implementation: As of the date of this letter, we have completed 248 out of 365 milestones in our project plan. This includes all inventory, assessment, communication and contingency plans and test prioritization of all categories. Other milestones such as test plan development, implementation, and validation are well underway with significant progress expected to be made the last half of 1998.

OppenheimerFunds, Inc. is well aware that the success of its Year 2000 plan relies on the readiness of many of its outside vendors and with our business partners with whom it exchanges information on a daily basis. To that end, we have a dedicated group in the Year 2000 team working with all known outside vendors and business partners to establish testing plans and implement changes as necessary. OppenheimerFunds, Inc. sent letters to vendors and business partners requesting information regarding their Year 2000 readiness. All vendors of hardware and software except two have responded positively that their products are either compliant now or will be made compliant by early 1999. We have also hard from most of our business partners. The Year 2000 team is now working on contracting any outside business penner who has not yet responded to our request for information. When necessary, OppenheimerFunds, Inc., will work with our outside business partners and vendors to develop testing plans to help ensure that services are not interrupted because of Year 2000 issues.

Testing: The internal testing of software to address the Year 2000 project is a large part of the OppenheimerFunds Year 2000 project plan. To facilitate the testing, OppenheimerFunds, Inc. established a specific test environment including separate Logical Partition on our IBM mainframe system, client/server database, and Local Area Network. The Year 2000 team coordinates test plan development and actual testing of both internal and third-party applications with business developers and technical support areas. At this point minor problems were uncovered with two internal applications and these were corrected and retested. Two third-party software packages have been found to be non-compliant, vendors were notified, and we are awaiting corrections. We have also uncovered four problems win hardware including one on a PC where we will correct the BIOS, and three on telecommunication hubs that we will either work around or the vendor will replace the components. OppenheimerFunds, Inc. continues to work with various vendors to implement compliant software as soon as it is available. The majority should be available for testing by the end of 1998 with the remaining completed in 1999. Our project plan includes continued validation efforts for software through June 1999.

Industry-wide testing: OppenheimerFunds, Inc. recognizes the value of the industry-wide testing designed to address Year 2000 problems. As a part of the Year 2000 project plan, OppenheimerFunds, Inc. will have a dedicated team focusing on the scheduled industry testing by the end of 1998. In order to be prepared to fully participate with the point-to-point industry-wide testing, members of the Year 2000 team attended the SIA conference earlier this Year and will attend the conference to be held in October of this Year. Our industry testing teem will include Year 2000 team members, user testers and technical personnel. We will participate in other industry wide tests scheduled to be performed in third or fourth quarter of 1999. Additional, we are working directly with various business partners to test specific applications and transmissions.

Implementation of tested software: OppenheimerFunds has started adding enhancements where necessary to allow for appropriated date processing to accommodate the change of century and work towards full century compliance. We have implemented a significant amount of the software that we believe is Year 2000 compliant and we are currently in the process of testing that software.

Contingency Plans: An important part of our Year 2000 project plan is to develop contingency plans for any problems associated with the Year 2000. These contingency plans include plans for early failures, mainframe software and hardware, client/server applications, mail room products, telecommunications equipment, firmware and off the shelf products. Plans were established for dealing with potential failures of business partners, service providers and we have also, when possible, developed contingency plans for any problems with utilities or facilities.

Management Involvement: All levels of management at OppenheimerFunds, Inc. have some responsibility for addressing potential problems associated with the Year 2000. The management in each business was directly involved in the assessment and identification of the various products utilized by OppenheimerFunds, Inc. Additionally, many of the business units are assisting the Year 2000 team in implementing changes necessary to accommodate the change of century. The management of each business unit will also be involved in developing and performing testing of products in their areas for Year 2000.

Additionally, OppenheimerFunds, Inc. has also established an executive steering committee for the Year 2000 project as well as an operational steering committee at each of its offices. Both executive and operational Year 2000 steering committees meet regularly to review progress of the Year 2000 project and resolve high level or company wide issues.

In addition, formal presentations are given to other management staff quarterly and to Boards of Directors for the Oppenheimer funds. We also strive to provide updated information to all of our officers, managers, and employees. A newsletter specifically devoted to Year 2000 awareness is published for all employees on a semi-annual basis. Additional information is also included on our Internet site at oppenheimerfunds.com.

As you know, this is a world-wide problem and we want to assure you that we here at OppenheimerFunds, Inc. have been actively wording on changes to our computer systems to help ensure that our systems will be adapted in time for Year 2000. As a company, we have placed a very high level of importance on the Year 2000 project. We hope this information addresses your concerns. Should you have any further questions, please feel free to call me at (303) 768–2935.[1]

Sincerely,

GEORGE C. BOWEN,
Senior Vice President & Treasurer.

[1] The document "The Vanguard Guide to Year 2000 Compliance" can be obtained by contacting The Year 2000 Program Officer at either: P.O. Box 2600, VM310, Valley forge, PA 19482 or 1–610–669–2000 (Toll-free) 1–800–230–2000. To send e-mail online@vanguard.com

PREPARED STATEMENT OF DONALD KITTELL

INTRODUCTION

Senator Bennett and Members of the Committee. My name is Donald Kittell, and I am Executive Vice President of the Securities Industry Association ("SIA").[1] I appreciate the opportunity to testify today on Year 2000 testing in the securities industry. I ask that a copy of my statement be included in the record.

The Year 2000 effort is the largest business and technology effort the financial services industry has ever undertaken, with a cost projected to range between $4 and $6 billion. In 1995, SIA's Data Management Division[2] organized a project team to address this issue. As past of this effort, SIA, its member firms, and a cross-section of other organizations (including clearings corporations, depositories, exchanges, custodians, and self-regulatory organizations), formed a workings committee to develop a plan to fix the problem. From the beginning, our primary goal has been to protect the U.S. investing public by ensuring a successful transition to the Year 2000. Developed by several industry committees, the project plan is simple in concept but extremely complex in implementation. It is continuously updated, but the key tasks include: (1) inventorying all date-related conditions within the industry's hardware and software; (2) remediating all date-related conditions to the Year 2000 environment; and (3) testings industrywide all hardware and software to determine whether the remediation was successful. Each of these tasks must be performed by every securities firm, exchange, bank, clearance and settlement organization, service bureau, and vendor that supports the industry since each interfaces with the other.

SIA has played a major role in promoting awareness of critical Y2K issues in the United States and abroad, sharing our expertise with other industries and the public sector. Specifically, we have:

—Increased awareness within the industry about the millennium bug and the need to resolve the problem;
—Surveyed the financial services industry to determine Y2K readiness;
—Organized industry conferences, symposiums, and other forums to update industry and government on the progress of the Y2K initiative;
—Briefed Congress, the Administration, and other government agencies on the industry's Y2K efforts;
—Supported U.S. government efforts by speaking at government and industry forums and educating Congressional staff; and
—Maintained a web site designed to provide the securities industry and others with the most up-to-date information on Y2K.

Additionally, SIA is a founding member of the Steering Committee of the Global 2000 Coordinating Group, whose efforts parallel the goals of SIA in creating awareness and assisting in Y2K readiness activities around the world. Currently, the group includes commercial and investment banks, insurance companies, industry associations, and others. Efforts are focused on sharing best practices, testing methodologies, and generating dialogue on issues concerning global linkages.

SIA'S YEAR 2000 COMMITTEES

Year 2000 Steering Committee

Early on it became clear to us that the Year 2000 required the attention of senior management. In older to raise Y2K awareness to the highest levels in the firms, SIA created a Year 2000 Steering Committee to serve as a liaison to senior industry management. Over time, the Committee has established several subcommittees concerned with identifying and reducing risks associated with the Y2K conversion.

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[1] The Securities Industry Association brings together the shared interests of nearly 800 securities firms to accomplish common goals. Accounting for 90 percent of the securities business done in North America. SIA member-firms (including investment banks, broker-dealers, and mutual fund companies) are active in all markets and in all phases of corporate and public finance. The U.S. securities industry manages the accounts of more the 50-million investors directly and tens of millions of investors indirectly through corporate, thrift, and pension plans. The industry generates approximately $270 billion of revenues yearly in the U.S. economy and employs more than 380,000 individuals. (More information about SIA is available on its home page: www.sia.com.)

[2] SIA divisions are composed of individuals engaged in specialized areas of activity who work together in addressing issues and problems in their spheres of expertise and educate their constituents via seminars and conferences throughout the year. The divisions maintain close liaison with other elements of SIA through the Operations Committee of the SIA as well as other committees, but are autonomous in their operations.

Vendor subcommittees

The securities industry relies heavily on financial information and services supplied by outside vendors. Data providers, such as Bloomberg and Telerate, are critical to the smooth functioning of the U.S. capital markets. Third party vendors, such as IBM, Microsoft, Oracle, AT&T, and Lucent, supply the industry with computer hardware, software, telecommunications, and other critical products and services. The Data and Service Providers and Third Party Vendor Subcommittees were created to address issues specifically related to outside vendors. They have been working with data providers and vendors to define common industry testing schedules and to assess their level of Year 2000 readiness.

Physical facilities subcommittee

We are well aware that our conversion efforts will be meaningless if we cannot access our buildings and open for business on January 3, 2000. The Physical Facilities Subcommittee was established to assess and encourage Year 2000 readiness among utility companies, landlords, and vendors. The subcommittee is particularly concerned about the state of the building facilities, as well as security systems.

TESTING

The most important element of the conversion project is a comprehensive testing program. Before going into detail about testing, I want to highlight the tremendous progress we have made over the last six months and say that we are strongly encouraged that Wall Street will be ready when Year 2000 arrives.

Testing is a multi-step process. First, each individual industry participant must test its own critical systems. Then, participating firms must test with their key processing partners, including banks, clearance organizations, and third patty vendors. Finally, industrywide testing must occur. This testing must simulate trading from order entry through the settlement and clearance process or, to use the jargon, "end to end."

The securities industrywide testings program will begin in early 1999. In July 1998 we conducted a rehearsal, or so-called "beta test." This "test of the test" gave the industry a chance to review the testings plans and gauge the readiness of the firms, markets, clearing films, and depository organizations. SIA has devoted considerable time over the last two years defining the critical issues and developing a testings methodology that would best serve the securities industry. Workings groups were formed to analyze the conditions and sequence of events for each test product and to create sample trades, which are known as "test scrips."

Twenty-eight films (the "control regroup") participated in the testing, along with 13 exchanges and utilities. These firms handle about 50 percent of the total U.S. daily trading volume. Six products were tested (equities, options, corporate bonds, municipal bonds, unit investment trusts, and mutual funds): money market installments, government securities, and mortgage-backed securities are being tested separately. Each firm, depending on the specific tests in which they participated, input approximately 500 hypothetical trades on each of the testing days. Test scripts included specific conditions such as canceled trades, good-till-canceled orders, and other types of transactions that occur on a normal day. Firms were able to process the complete cycle of a trade in the days between the time 1900 "ended" and the year 2000 "began."

The purpose of the beta test was to validate the methodology for the upcoming industrywide test rather than to determine specific information on each firm's level of preparedness. We wanted to know whether the test concept worked and if it could be applied to the entire securities industry. From this perspective, we believe the test was a major success. Additionally. we have compiled the following conclusions from the beta test that will assist the industry in preparing for the industrywide testings:

—By and large the results strengthened our confidence in the extent to which the industry has marshaled the resources—manpower, expertise, money—to be ready for the Year 2000.

—The beta test showed us that we have improvements to make in the testing methodology, but these chances are relatively minor. These include:

1. Developing a method whereby we can communicate simultaneously with a group of hundreds of participants.
2. Spending more time educating participants about the testings procedures and what they must do to prepare for it. This means, for example, getting the test script to firms as soon as possible.
3. Having an extensive "help desk" on testing days to field questions quickly as the test unfolds.

INDUSTRY WIDE TESTING

With beta testing complete, we are using the knowledge we gained to prepare for the industrywide test starting in early 1999. Similar to the beta test, industrywide testings will simulate a trading cycle and will include broker-dealers, exchanges, and utilities. Most self-regulatory organizations (SRO's) are imposing some level of required Year 2000 testing. SIA is striving to ensure that the SROs' testing parameters are included in SIA's test. To participate in the SIA test, firms will register via our Web site. They will be required to complete a set of prerequisites as stipulated by the exchanges, clearing organizations, and depositories. If during the test a firm successfully processes hypothetical trades through the full transaction cycle—trade through settlement—with the appropriate internal balancing of the trades to the cleating organizations, then they would have demonstrated that their systems can interact with Wall Street's infrastructure. Successful completion of the test is not an indication that a firm is totally Year 2000-ready. Other internal systems not affected by trade processing systems will still have to be properly remediated and tested.

To facilitate the industrywide test, SIA, in conjunction with PricewaterhouseCoopers, developed a "How To Test Guide" for participants. The document is in its final steps of preparation and will be released at SIA's upcoming Year 2000 Update Conference on October 2, 1998. It will include:

—A preliminary in-house check list to prepare for the test;
—Point-to-point testing requirements;
—Reference to the requirements of the individual exchanges or utilities;
—Required setups for participation in the test;
—Fixed testing schedules;
—Links to an up-to-date contacts list;
—Input and output time frames; and
—Frequently-asked questions or problems, and their respective answers or resolutions.

CONCLUSION

I think it is important to note that our approach to the Year 2000 conversion is unique and has served as a model for other industries. Additionally, because of the securities industry's early start, it is well along and on schedule in its preparations for a smooth transition to the new millennium. Indeed, our successful beta testing efforts indicate that our concept is working and we are looking forward to the much bigger challenge of industry testings in 1999.

We have experienced great success so far, which we attribute to the massive and unprecedented effort by industry volunteers. We certainly hope that the teamwork demonstrated throughout the Year 2000 project becomes the foundation for all future industry efforts. SIA would like to acknowledge the cooperation of regulators, exchanges, depositories, and broker dealers in makings our efforts successful to date. We will continue to draw upon that cooperative effort throughout next year and into 2000. We intend to keep you fully apprised of our progress and results as we go forward in our efforts. As always, the SIA Web site is a current source of all related activities. The address is www.sia.com.

EXHIBIT A.—SECURITIES INDUSTRY ASSOCIATION: FREQUENTLY ASKED QUESTIONS ABOUT TESTING

Question. What is a beta test?

Answer. The beta test is a "dress rehearsal" for the industrywide testing that will begin early in 1999. It is a test of the test, but more than that, it will give us the chance to review the testing plans to date and gauge the readiness of the firms, the exchanges, clearing firms, and depository organizations to proceed.

Question. What is actually going to be tested?

Answer. Testing will begin on July 13 for equities, options, municipal bonds, corporate bonds, Unit Investment Trusts, and mutual funds.

The test will simulate a trading cycle—from order entry to settlement—in a Year 2000 environment. Product Focus Groups, consisting of volunteers from members firms, have reviewed the scripts to incorporate product-specific characteristics in the material.

The test for government securities will begin July 1998, and be conducted Monday through Thursday of each week during the month. The first round of testing of mortgage-backed securities for the Mortgage Backed Securities Clearing Corporation began on June 6, and will continue on June 13, 24, and 27. The futures industry beta test is scheduled to start Saturday, Sept. 12. The remainder of the test will be Saturday, Sept. 26, 1998.

Question. How many organizations are participating in the beta test? Which firms are involved?

Answer. In addition to the 29 firms, 12 exchanges, markets, utilities, and depositories will participate. A complete list of the organizations participating in each test is included in the material provided.

The beta test firms have been members of SIA's Year 2000 Testing Subcommittee, and have been involved for more than a year in developing the testing plans and have satisfied the prerequisites.

Question. What are the prerequisites to participate in beta testing?

Answer. To participate in the beta test, a firm must have a separate Year 2000 testing environment, dedicated test communication lines, and have satisfactorily completed point-to-point tests with the appropriate counterparty. In addition each exchange, utility, and depository has its own set of prerequisites for testing.

Question. How will the testing process be managed?

Answer. Coopers & Lybrand has been retained to oversee the testing process. The firm will handle information tracking with participants in the beta test, maintain lists of contacts at participating firms, and act as an information resource for firms.

The SIA has set up the following communication links for the testing: a toll-free number (888–925–4742) and an e-mail address (Y2Khelp@sia.com).

Question. How thorough are the tests?

Answer. The scripts test the most common orders for each product in an average trading environment. Firms should internally test conditions not covered in the industry test, such as high volume periods, and any other specific products that are an integral part of their business.

Question. Who is evaluating the results? What will you be looking for?

Answer. The SIA Year 2000 Project Team and Coopers & Lybrand, the testing project manager, will analyze the test data.

We will be evaluating the thoroughness of the testing scenarios, to see if additional steps need to be added. We will also evaluate the preparedness of the participants—firms, exchanges, clearing firms, and depositories—and make appropriate recommendations to enable them to proceed on schedule with industrywide testing.

Question. What if the results show that the test scripts need to be revised? That firms aren't ready?

Answer. The purpose of the beta test is to uncover any problems or areas that have been overlooked in the original testing scripts. We are anticipating a certain amount of modification of the scripts, based upon the results. A second beta test may be scheduled in September or October to test the revisions.

Firms that need to do more work on their systems will have time to correct the problem and participate in the subsequent round of testing. If no further testing is scheduled, they will work one-on-one with the securities markets and utilities to test their interfaces with them.

Question. The test is being run during the regular work week. Will the firms be able to continue regular operations?

Answer. The firms in the beta test have the capability to run separate communication lines and equipment or logical partitions (a portion of the computer) dedicated to the test. By testing during regular business hours, when all parties involved in will be fully staffed, the test will receive maximum support.

*Question.*Many firms may find the cost of becoming Year 2000-compliant burdensome. What can they do?

Answer. There are a number of options available to smaller firms that are behind schedule or underbudgeted for the conversion. They can prioritize their systems based on their criticality to the functioning of the business and focus the resources on ensuring that those systems are compliant. The sooner these firms begin addressing the issues, the more options will be available to them.

Question. Are some firms totally replacing their systems?

Answer. Many firms have discovered during the inventory process that replacing their systems now offers not only Year 2000-compliance but increased efficiency. Management at these firms is seeing this process as an opportunity to invest in state-of-the-art software.

The Information technology platforms that result from the entire Year 2000 remediation process will be well documented and well tested, more powerful and more disciplined than ever.

Question. With decimalization, OATS, ACATS, and a host of other projects on the table, is it possible for firms to get the necessary work done in time?

Answer. SIA commissioned The Tower Group to study the technological resources of financial services firms and their ability to complete nine significant projects between now and the year 2000. The respondents expressed confidence that the necessary resources would be committed to the projects, but emphasized that those projects that must be completed by December 31, 1999 should not be compromised by projects that can be deferred.

RESPONSES OF DONALD KITTELL TO QUESTIONS SUBMITTED BY CHAIRMAN BENNETT

Question 1a. First, let me commend the Securities Industry Association ("SIA") for being a leader in its approach to Year 2000 problems. The Committee has often cited the SIA industry-wide or "street-wide" testing approach as the model for other industries to emulate. You say in your statement that SIA's recently completed beta test "by and large" strengthened your confidence in the industry's Y2K preparedness. Can you elaborate on the basis for that confidence?

Answer. Our level of confidence improved with the successful completion of the Beta test. We learned that the participating firms were able to input trades in a simulated Year 2000-environment, send them to the appropriate market for execution, and the appropriate financial utility for confirmation and clearance. The markets and financial utilities demonstrated that they were also able to process the trades and rout them to the appropriate parties and counter-parties. In addition, the majority of the software that was remediated and used by the exchanges and financial utilities in the Beta test is in use today.

Question 1b. Didn't you experience some unanticipated interface problems among participants in the test?

Answer. Many of the incidents reported resulted from the Beta test prerequisites which included establishing a separate Y2K testing environment that duplicated the firms' production environment. The resulting Beta test set-up and configuration issues were resolved as the test progressed. For example, early in the test some firms had problems communicating with the exchanges and utilities. In addition, some reports and files were not successfully transmitted to the participants.

Question 1c. Did the testing reveal any other unanticipated problems?

Answer.

BETA TEST PROBLEMS, COMMENTS

—Test scripts required some minor corrections. For example, not all test cases were executable on all of the regional exchanges. These scripts are being reviewed and revised specifically by regional exchange.

—Some firms requested more differentiation in the scripts with respect to prices, symbols, etc., to facilitate internal balancing.

—Some minor problems occurred because security information was set-up inconsistently in the master files of the markets, utilities, or participants. These problems were resolved as the test progressed.

—Coordination of the beta test required constant communication among the participants, and the markets, and the utilities. We are reviewing our communication strategy for the industrywide test.

LESSONS LEARNED

—Pre-testing for connectivity and passing data between participants and the markets and utilities must occur before the industry test. A new focus group was formed to develop the pre-test requirements for each participant.

—It appears as though some participants will have difficulty utilizing production systems for the industrywide test due to the amount of time required to complete their normal weekend processing and then complete the proper set up for the Year 2000 environment. In addition, the window of time on each weekend allocated for the industry test may not be sufficient for all participants to prepare their systems for Monday morning production processing. As a result, the strategy for industrywide testing is being reviewed and will require additional work.

—The scripts need to be streamlined for the industry test.

—More differentiation is required in the test scripts with regard to test symbols, prices, and quantities to facilitate the checkout process for participant firms.

—Reporting of test results needs to be modified. The current web-based application is being reviewed to streamline the reporting of results.

The input received from participants will be incorporated as SIA refines the testing scripts and procedures in preparation for the industrywide test in March 1999. SIA will be developing a method to provide for ongoing communication among participants throughout the testing cycle.

Question 2. You indicate in your statement that 28 firms participated in the recently completed beta test, and that these arms represent 50 percent of the total daily trading volume. The Committee has found without exception that the largest firms in each industry sector have been the most aware and generally best prepared for Y2K. Since the 28 firms who participated in the beta test are obviously the largest in the industry, do you have confidence that the others are similarly prepared?

Answer. We share your concern about the level of readiness amongst the medium and smaller size firms. Now that the Beta test is over we are focusing on education, SIA and the committees are concentrating on the firms that were not part of the Beta test. We recently held a Year 2000 Update Conference in NY on October 2, with over 700 attendees. The program was quite extensive and it featured an overall update on our project. In addition, on February 2&3, 1999, we have scheduled a testing seminar whereby we will devote the entire two days to explaining the test with representation from our committees, and the exchanges and financial utilities.

Question 3. According to your testimony, the recently completed beta test was just the beginning of an extensive course of "street-wide" testing to be conducted next year. Do you anticipate more problems and more complex problems as you add more and more arms to the testing process?

Answer. We have taken several steps to address the anticipated problems which may result in broadening the participation in the test. After the Beta test, a testing strategy committee was formed to analyze the results and recommend how we can scale the test up for 300–400 participants. It was decided to proceed with our original plan with the test starting on March 6, 1999. In addition, we will enhance our web application for broadcast messaging and test registration. We have planned regional educational seminars for the first two weeks of November.

Question 4a. Isn't it true that firms participate in SIA's testing on a voluntary basis? If so, won't the firms most prepared be the only ones that will participate and, thus, miss the firms that could most benefit from testing?

Answer. Firms are participating in the SIA test on a voluntary basis. However, most exchanges and financial utilities are in the process of implementing a mandate that will require their members engage in some form of Year 2000 testing. We are working with them to ensure that the SIA test satisfies their requirement. SIA has sent a letter to its membership requesting that all clearing firms register for the test.

Question 4b. What percentage of firms are opting out of the testing process?

Answer. We do not have the percentage of firms that have opted out of the testing process as yet. However, my opinion is that firms not participating in the test would be limited to those who would be placing their production operation in jeopardy. An example of this may be a firm with only one processor and does not have the resources to participate. SIA will address this issue if it becomes necessary, and will suggest an alternate testing solution.

Question 4c. What steps will you take to ensure that non-participants will be Y2K ready?

Answer. The SEC has joined the SIA's Year 2000 Steering Committee. We will provide the SEC with a list of firms that have registered for the test.

Question 5a. You indicate in your statement that successful completion of industry-wide testing is not an indication that a firm is totally Year 2000 ready. What else must firms do to demonstrate that they are "totally" Y2K ready?

Anwer. The SIA test allows a firm to test with the rest of the street's infrastructure. We are simulating a true trading cycle from trade date through settlement date. Therefore, only the internal systems that interact with the trade processing portion of the business will be tested. Firms are responsible for testing other systems such as payroll and accounts payable/receivable.

Question 5b. From SIA's perspective, what do you view as the most significant Y2K problems facing the securities industry?

Answer. Our biggest Y2K concern would be any outside provider that is beyond our capability to test such as power, telecom and water.

Prepared Statement of Alan D. Lebowitz

Mr. Chairman and Members of the Committee, thank you for the opportunity to testify about the steps the Pension and Welfare Benefits Administration (PWBA) is taking under the Employee Retirement Income Security Act, or "ERISA," to assist employers and others responsible for managing employee benefit plans in addressing the Year 2000 problem. I am Alan D. Lebowitz, Deputy Assistant Secretary for Program Operations for PWBA.

PWBA is the agency of the U.S. Department of Labor responsible for administering and enforcing ERISA, the primary Federal statute that governs employment-based pension and welfare benefit plans. ERISA establishes comprehensive fiduciary standards to govern the conduct of those responsible for management and administration of employee benefit plans. Among other things, a plan fiduciary must discharge his or her duties with respect to a plan solely in the interest of the plan's participants and beneficiaries. In addition, a plan fiduciary must discharge those duties with "the care, skill, prudence and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims." A fiduciary's failure to comply with ERISA's fiduciary responsibility requirements may result in personal liability for losses incurred by a plan or its participants and beneficiaries. In accordance with these standards, plan fiduciaries, such as plan administrators, trustees, and investment managers, are responsible for ensuring that plans and their participants and beneficiaries are protected. Such protection includes the establishment and implementation of a prudent procedure for ensuring that the plans' own computers, and, to the extent possible, those of the plans' service providers are Year 2000 compliant.

Because the Year 2000 or "Y2K" problem could have a substantial impact on plan investments, benefit payments and other essential plan operations, plan fiduciaries are responsible for establishing and implementing a strategy to evaluate and ensure Year 2000 compliance. Given the complex and technological nature of this problem, plan fiduciaries may need to hire competent outside consultants and experts to inventory, review, assess, convert and test the computer systems relating to the plan. The plan fiduciary's selection of Y2K service providers is subject to the same fiduciary considerations as the selection of other plan service providers.

In addition to addressing the Year 2000 problem as it relates to computer systems under their control, plan fiduciaries have an obligation to determine whether the plan's critical operations will be endangered by the computer systems of individuals and organizations that provide services to the plan, such as third party administrators. In this regard, plan fiduciaries are responsible for obtaining information sufficient to evaluate the Year 2000 compliance of all of the plan's existing service providers and determining what action is appropriate to ensure that the interests of the plan and its participants and beneficiaries are protected. In addition, when selecting service providers, plan fiduciaries should include Year 2000 compliance among the factors to be considered. The plan fiduciary is also responsible for monitoring as appropriate service provider operations to ensure ongoing compliance and protection of the plan's interests. Finally, due to the pervasive nature of the Year 2000 problem, it may not be possible to prevent a disruption of computer operations. In recognition of that possibility, a plan fiduciary must determine how best to protect the plan and its participants and beneficiaries through the establishment of a contingency plan that will be implemented in the event the plan's essential operations are affected.

While in many instances, service providers to plans may have responsibility under existing licenses, agreements or maintenance contracts to participate in solving the problem and developing contingency plans, in the end it is the plan fiduciary's responsibility to be certain that their service providers are on top of the problem.

PWBA has implemented a comprehensive national outreach program to help fiduciaries responsible for the over 700,000 pension plans and more than 4.5 million other employee benefit plans offered by America's private sector employers be as prepared as they can be to address the Year 2000 issue:

—PWBA has issued two national alerts to the employee benefit community warning plan administrators about the Year 2000 software problem and calling for immediate action. Those alerts received widespread coverage by the trade and national press.

—PWBA has developed an extensive question and answer brochure designed to give employers and other plan officials an understandable explanation of how the Year 2000 problem impacts their employee benefit plans and what steps they need to take to address the problem.

—PWBA has posted all its Year 2000 materials on its Internet site at www.dol.gov/dol/pwba, and has made those materials available to the public through our toll-fee publication hotline at 1–800–998–7542.

—PWBA has provided technical assistance in response to hundreds of telephone inquiries on the issue both at the national office and at the 15 regional and district offices.

—During the past year, senior officials from PWBA's national and regional offices have engaged in and will continue to engage in a grass-roots education campaign to raise the ERISA fiduciary implications of the Year 2000 problem in speeches, lectures and other presentations to groups of plan sponsors and employee benefit plan professionals, including actuaries, accountants, attorneys, institutional investors and plan administrators.

—PWBA's Office of the Chief Accountant has worked with the AICPA in ensuring that the AICPA's 1998 Audit Risk Alert for the employee benefit plan industry contains a section that gives guidance to employee benefit plan auditors on informing clients about Year 2000 preparedness.

—PWBA's investigators have already been reviewing the Year 2000 problem in the course of new and ongoing investigations.

Just as with the selection of service providers, fiduciaries of plans must also consider Year 2000 preparedness in selecting investments and assessing their current portfolios. The obligation to consider Year 2000 compliance is especially important for employers providing retirement benefits through 401(k) plans. Over 25.2 million American workers are active participants in 401(k) plans. Workers who participate in 401(k) plans contribute part of their salary towards their retirement savings and may, in many instances, assume responsibility for directing their own investments from investment options selected by the plan fiduciaries.

PWBA strongly encourages plan administrators to disclose to their participants and beneficiaries the extent of the plan's Year 2000 preparedness and the steps being taken to ensure that the Year 2000 issue does not interrupt the operation of the plan or participants' and beneficiaries' access to their individual accounts. In addition, because information regarding Year 2000 compliance may be necessary to make an informed investment decision, participants and beneficiaries in 401(k) plans who have responsibility for directing their investments, like plan fiduciaries, should consider Year 2000 issues when determining how to invest their retirement assets.

I want to emphasize that PWBA is itself attending to its own Year 2000 matters. PWBA, of course, processes data—including submissions from employee benefit plans—for public disclosure and to safeguard these benefits. Following the practices and schedules through the Federal Government, PWBA is working to ensure that the Year 2000 problems will not impair use of these important data.

As is shown by the other regulatory agencies and private sector associations that are participating in this hearing, employee benefit plans are getting assistance from various sources in assessing and dealing with the Year 2000 problem. For example, the Securities Exchange Commission and the Comptroller of the Currency as part of their regulation of financial institutions, such as mutual funds, banks, and insurance companies, and the Small Business Administration in connection with small businesses, have also instituted Year 2000 initiatives. We believe those efforts also provide additional protections to participants and beneficiaries with regard to the computer problems and solutions faced by participants and beneficiaries making investment decisions with regard to their retirement accounts.

Finally, I would note that, like the rest of the Federal government, PWBA takes Year 2000 matters seriously and is taking steps to make sure its systems continue to work correctly after December 31, 1999.

Thank you.

RESPONSES OF ALAN D. LEBOWITZ TO QUESTIONS SUBMITTED BY CHAIRMAN BENNETT

Question 1. Would you give us more detail on how the PWBA is guiding and leading pension fund fiduciaries to be on the look out for Y2K problems in their investment decisions?

Answer. PWBA's efforts to guide plan fiduciaries in addressing Year 2000 problems with respect to plan investments and other fiduciary decisions have focused primarily on educating fiduciaries regarding their duties and responsibilities in this area. In this regard, PWBA has made public announcements aimed at alerting plan fiduciaries to their potential liability and issued guidance both in print and on the Internet that was designed to aid plan fiduciaries in identifying, analyzing, and evaluating Y2K problems in all aspects of plan operations, including investment decisions. PWBA's public outreach and education approach also includes the Y2K reviews being conducted by PWBA's field office the course of all new and ongoing civil investigations. When a problem or issue is identified, the field office staff will notify the plan fiduciary of the findings and issue a warning that requests voluntary action to comply with ERISA's fiduciary requirements. PWBA will soon be issuing additional guidance for evaluating fiduciary liability which will include sample questions used by field office staff in the course of conducting Year 2000 reviews.

Question 2. What is the scope of your outreach?

Answer. PWBA's Year 2000 outreach efforts are aimed at the broad spectrum of individuals and entities that represent or provide services to employee benefit plans. To reach such a large number of diverse individuals and entities, PWBA has sought to employ the Internet and presentations to groups representing major constituent groups, such as employee benefit plans as well as plan service providers such as attorneys, accountants and actuaries. By using these means PWBA has capitalized on the "multiplier effect." For example, the items published on the Internet have been republished in trade journals and individuals attending the group presentations have distributed the materials to their own clients. The types of groups to which PWBA officials have made recent Y2K presentations have included the American Bar Association, the American Institute of Certified Public Accountants, the American Society of Pension Actuaries, the International Foundation of Employee Benefit Plans, and the U. S. Chamber of Commerce.

Question 3. How often is your web page and "1–800" line utilized to obtain help on making Y2K investment risk decisions?

Answer. Although the Department's web counting system does not track the actual number of "hits" on PWBA's Y2K materials, other available information indicates there have been about 2,000 hits on the material since July 1998. In addition, the Y2K brochure which was published on the Internet to answer questions relating to plan fiduciaries' potential liability in connection with Year 2000 issues was also printed in hard copy.

Approximately 2,300 copies of the Y2K brochure were initially printed and all have been distributed. In response to demand, an additional printing of 25,000 brochures has been ordered and, when completed, will be available to the public through PWBA's "800" document request number.

Question 4. Would you tell us what you are finding at this moment on how Y2K is impacting fund administration and operations?

Answer. Information obtained from PWBA's field offices indicates plan fiduciaries are generally aware of the Year 2000 problem, however, at the present time, we cannot conclude that this awareness has resulted in the necessary corrective actions being taken. In conducting their Year 2000 reviews, the field office staffs are notifying plan fiduciaries of their obligations and potential liability with respect to the Year 2000 problem and of the need to take appropriate measures to protect the plans' interests. Such measures include the plan fiduciary evaluating a plan's administration and operation for Year 2000 compliance. Because the Year 2000 problem is not expected to adversely impact the fund's administration and operations until after December 31, 1999, to date, the PWBA field office staffs have not identified any losses resulting from the Year 2000 problem.

As noted above, the focus of the PWBA field office staffs at this time is on educating plan fiduciaries regarding their obligations to address the problem before such losses actually occur. In those cases where field office investigators have determined plan fiduciaries have not taken appropriate action to protect the plans' interests, the field offices have been directed to conduct appropriate follow-up measures. Commencing October 1, 1998, field office staffs will be using a list of sample questions to conduct more in-depth reviews of the Year 2000 issue. As indicated above, the detailed guidance and accompanying sample questions will soon be made public.

Question 5. How about strategic investment decisions?

Answer. As noted above with respect to fund administration and operations, little information is available to evaluate how the Year 2000 problem is impacting strategic investment decisions by plan fiduciaries. PWBA's efforts have focused on informing plan fiduciaries that they have an obligation under ERISA to consider the impact of the Year 2000 problem when making investment decisions. Like other investors, however, plan fiduciaries can only base their investment decisions on information available in the marketplace. Accordingly, the SEC's requirements relating to the disclosure of Y2K information by publicly-traded corporations, investment advisers and mutual funds are important because these rules are designed to ensure that all investors have access to the type of Y2K information needed in making investment decisions. To the extent such information is available, plan fiduciaries are obligated under ERISA to consider it in the course of making their plan investment decisions.

Prepared Statement of Eugene F. Maloney

Good morning. My name is Eugene F. Maloney. I am Executive Vice President and Corporate Counsel with Federated Investors in Pittsburgh, Pennsylvania. I am also a member of the Board of Directors and the Executive Committee of the firm. For the last eleven years I have also been a member of the faculty of Boston University Law School where I teach a course in the Masters Program on the Trust and Securities Activities of Banks.

Federated Investors is a New York Stock Exchange listed company which, through various subsidiaries, sponsors, manages, administers and distributes a family of mutual funds used primarily by financial intermediaries. As of the close of business yesterday, assets under management or administration exceeded $150 billion, which places us in the ranks of the top ten asset managers in the United States. A substantial majority of the assets in our funds represent investments made by over 1,500 bank trust departments acting in the capacity of either a personal trustee or ERISA fiduciary.

Since the beginning of May, our firm has focused significant resources on the Y2K issue as it relates to the investment management process. Briefly, I will take you through what we have done to date, and what we intend to do in the future. At the present time, our investment professionals are assembling information from both primary and secondary sources which will allow them to apply traditional analytical tools to the process of evaluating which securities to buy, hold or divest as the case may be as the millennium approaches. We have retained counsel skilled in Y2K matters to assist us as we move forward. We have also consulted with members of the accounting profession who have experience in reviewing and opening on the financial statements of public companies. This dimension has been useful and will continue to be such as the regulatory agencies, particularly the Securities and Exchange Commission, require more forthright disclosure from issuers as to Y2K readiness in their public filings.

Modern Portfolio Theory operates on the premise that everything that is known or knowable about the price of a publicly-traded security is already fully reflected in its price. Professional securities analysts are thus largely limited to interpreting information in the public domain and available to other analysts. This process is just beginning to take shape, and we detect a growing awareness on the part of the analyst community of the need to broaden their evaluation of the securities they follow, to include Y2K preparedness in the context of the ability of a company to continue as a going concern over the millennium. This will require an adjustment of sorts on their part in that conventional wisdom holds that the price of a security represents the present discounted value of its future earnings.

In May of this year when I became involved in the Y2K issue, it was clear that the analyst community had not focused on the issue of business risk as it relates to Y2K and were content with the vague statements made by issuers as to expenses incurred to date and their self-evaluation of their Y2K readiness. I expect this to change dramatically as issuers begin to comply with the disclosures required by the Securities and Exchange Commission in their recent release.

Working with counsel, we have written to the majority of companies whose equity or fixed income securities are owned by the funds we manage. In the domestic equity area, to date we have received a 23 percent response rate, the quality of which is very uneven. Follow-up mailings have been made to those companies or issuers which did not respond to the initial mailing. A Y2K file has been opened on each security we own, and our analysts have the responsibility of tracking issuer readiness going forward. Each of our investment areas has a Y2K coordinator, and all activities relating to determining Y2K readiness of issuers or efforts made to increase our understanding of Y2K and its impact on the capital markets is documented in a central file.

Shifting to the whole area of money management, we think that it is critical that Y2K be kept in a proper context. One of the principal responsibilities of the professional fiduciary is to manage risk. The prism through which his conduct vis-a-vis Y2K will be viewed is the Prudent Investor Act (the "Act"). The Act requires a trustee to diversify the assets of a trust, unless the trustee reasonably determines that because of special circumstances the purposes of the trust are better served without diversifying. Mutual funds have been identified as the ideal instruments for achieving the degree of diversification required by the Act. One then has to ask if the prospective impact of Y2K on the capital markets in general is the "special circumstance" [1] contemplated by the Act which would permit or require a fiduciary to underdiversify a portfolio by going to all cash, for example, while at the same time recognizing significant capital gains with the attendant tax liability. The justification for not requiring diversification is Andrew Carnegie's: "Put all your eggs in one basket and watch the basket." A court that accepts Modern Portfolio Theory is likely

[1] The official comment to the Act identifies two situations in which resisting diversification might be appropriate: first, when the tax cost of selling low-basis securities would outweigh the gain from diversification; and second, when the settler mandates that the trust retain a family business.

to regard diversification as mandatory except upon a showing of special insight by the trustee. No such insight has become apparent to us which would countenance a fiduciary abandoning a strategy of broad diversification as a way to successfully counter any issuer risk presented by Y2K.

Many articles are starting to appear which predict a global "technology winter." While some level of turmoil is to be expected, some people say it will be temporary in nature. No credible source has predicted a permanent impairment in the value of the securities of publicly traded companies either as a group or by industry.

Time is one of the most important dimensions of the money management process. In that the investment horizon of a corporate fiduciary tends to be long term, the Prudent Investor Act functions as a deterrent to those tempted to liquidate highly appreciated securities to deal with the consequences of a short-term event. We feel that it is important that our clients begin the process of ensuring that their clients in turn have a proper understanding of time horizon to put Y2K in proper context.

If the client's risk perceptions are inaccurate, he cannot make wise decisions. Our task is to provide a frame of reference that enables the client to correctly perceive risks within the context of his situation. Surprisingly, a client's risk tolerance can change within a rather broad range, based on an improved understanding of the investment management process. The informed modification of risk tolerance is one of our major responsibilities to our clients, and represents a great opportunity to add value. The modification of risk tolerance is often in the direction of helping clients to become more comfortable with equity investments for long time horizons.[2]

In an article written for the Iowa Law Review, John Langbein, the author of the Prudent Investor Act, provides the fiduciary community with the rosette stone to decipher the Y2K riddle:

"Efficient market theory instructs us that it is impossible to outsmart the market by predicting which securities will do better or worse. Owning many securities enhances the chances of offsetting losers with winners.

"In the literature of Modern Portfolio Theory, a telling expression has been coined to describe what is wrong with underdiversification: uncompensated risk.

"Diversification tends to push the investor toward very large portfolios. Although much of the benefits of diversification can be achieved with a carefully selected smaller portfolio, optimal diversification probably requires a portfolio containing hundreds of issues. Relatively few investors, or for our purposes, relatively few trust funds have that much money to invest. Accordingly, an investor who seeks to eliminate the uncompensated risk of underdiversification will usually need to invest in some form of pooled investment vehicle, such as mutual funds * * *"[3]

Neither the Prudent Man Rule nor the Prudent Investor Act are predictive nor outcome-based statutes. A corporate fiduciary is not required to be clairvoyant; rather, the prudence or imprudence of an act will be evaluated based on the process which was utilized that resulted in a particular course of conduct. As Y2K comes into sharper focus, it is incumbent on the fiduciary to create a record that its implications on how a portfolio is managed were considered.

It was not shown in any instance that the losses to the trust fund resulted from imprudence or negligence. There was evidence of attention and consideration with reference to each decision made. Obviously, it not sufficient that hindsight might suggest that another course would have been more beneficial; nor does a mere error of investment judgment mandate a surcharge. Our courts do not demand infallibility, nor hold a trustee to prescience in investment decisions.[4]

RESPONSES OF EUGENE F. MALONEY TO QUESTIONS SUBMITTED BY CHAIRMAN BENNETT

Question 1. You have reported several things in your [written] testimony that give me great pause. First, you said that as of May of this year, "it was clear that the analyst community had not focused on the issue of business risk as it relates to Y2K * * * ." You said that you expected that this would change dramatically as issuers begin to comply with SEC disclosure requirements. I feel it is already quite late for analysts to begin focusing on this issue.

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[2] Roger C. Gibson, "Asset Allocation: Balancing Financial Risk," Richard D. Irwin, Inc.. 1990, p. 98.

[3] John A. Langbein, "the Uniform Prudent Investor Act and the Future of Trust Investing," Iowa Law Review, March 1996, Vol. 81/No. 3. pp. 648–649.

[4] In Re Kemshe Trust, 305 N.W.2d 169.

—Can you give this committee and the American public any assurance at this time that attention to Y2K risk is actually occurring now in the investment analyst community?
—How soon is this likely to happen?
—What will be the surefire indications that analysts are taking Y2K risks seriously?

Answer. It is the opinion of our Investment Research Department that the analyst community is now viewing Y2K in a business risk context as well as its implications for current and future earnings. It is our opinion that the stock market will begin to factor Y2K readiness, or lack thereof, into the price of an issuer's securities early in the first quarter of 1999, if not sooner. In conversations with two brokerage firms, I have been given to understand that analysts who have been given specific responsibility for understanding and articulating Y2K in a capital markets context will make statements in behalf of their firms in the late fourth quarter of 1998 or early first quarter of 1999. I further understand that the statements will be delivered in the context of business risk as opposed to the impact Y2K might have on issuer earnings.

Question 2. Mr. Maloney, you mentioned that working with counsel you wrote to the majority of companies whose equity or fixed income securities are owned by the funds you manage and you only received a 23 percent response rate. Why do you think the response rate was so low? You characterized the responses as uneven. Could you elaborate on what you mean by this?

Answer. It is our view that the 24 percent response rate we received as a by-product of our writing to a majority of the companies whose securities we own is based on a lack of understanding by senior managers of the respective organizations that Y2K risk can very quickly get translated into shareholder value or lack thereof. Furthermore, it is not presently understood by senior officers of public companies that at some point a lack of candor on Y2K readiness will be translated into a decision by institutional investors not to buy or hold their company's securities. We see this attitude changing based on the disclosure required by the Securities and Exchange Commission in the next generation of financial statements public companies are required to file. Responses that we did receive ran the gamut from elaborate personalized letters within which the authors went into considerable detail to explain their company's Y2K readiness to handwritten notes on our inquiry letter that were of no value. In our view, the unevenness is a further reflection of the lack of understanding by senior officers of publicly-traded corporations of the impact the lack of Y2K readiness is going to have on their company's shares and, hence, shareholder value.

Question 3. At what point should a prudent investment adviser begin to divest their ownership interests in companies because they are not able or are unwilling to answer questions about their Y2K readiness?

Answer. Our company and I suspect the vast majority of other money management firms are still in the information gathering phase of Y2K preparedness. We have not formally decided at what point we will sell shares of companies who are either unwilling or unable to respond to our inquiry concerning Y2K readiness. On a very preliminary basis, we have concluded that a lack of candor in response or no response at all will, in all likelihood, require us to divest.

Question 4. Mr. Maloney, you make the point in your testimony that (1) Y2K is just one of many risk factors that an investment analyst should consider and (2) that by "helping clients to become more comfortable with equity investments for long-term horizons," investment advisers can help investors feel more comfortable about the Y2K problem. Also, you conclude your written testimony with, "Our courts do not demand infallibility, nor hold a trustee to prescience in investment decisions." I must say that I find this position very cavalier. Y2K is very much like a hurricane forming off the Sahara and heading toward U.S. shores. It is a known threat rather than an unknown possibility. Would it be responsible for the U.S. Government to advise coastal residents that hurricanes are just one risk we must face and that anyway, in the long run, things will be all right overall? Besides, one can't hold the Government responsible since the Government can't predict exactly where the storm will hit?

Answer. It was not my intent either in my oral testimony or written submission to suggest that Y2K presents risks that are similar to other risks that an analyst might factor into his recommendation in the ordinary course of business. We have concluded that Y2K presents unique risks to issuers. As a result, an analyst, in order to make an informed decision as to the circumstances of an issuer, needs to make every effort to develop protocols on how to ascertain issuer readiness beyond what a company might say in a public filing. In all likelihood, conversations will probably have to take place between the analyst and information technology officers or Y2K project managers at the companies they cover. This is not familiar territory for an analyst who is trained to evaluate a company's prospects based on present estimates of future earnings. The money management community is subject to the provisions of ERISA, the Prudent Man Rule and the Prudent Investor Act, all three of which are process-driven statutes. They are not predictive nor do they require the money manager to be clairvoyant. The point I wished to make in my testimony was that a financial intermediary that does not adequately document the steps he has taken to ascertain the Y2K readiness of an issuer runs the risk that at a future point in time, he will become the guarantor of the performance of the security. I did NOT mean to suggest that Y2K is in any sense of the term an ordinary risk and should be treated as such.

PREPARED STATEMENT OF BERT E. MCCONNELL

Mr. Chairman, Mr. Vice Chairman and other distinguished members of this special committee, thank you for the opportunity to describe Fidelity Investments' program to address the Year 2000 problem. My name is Bert McConnell. I am a Senior Vice President at Fidelity Investments and head of the Fidelity Year 2000 program.

First let me tell you who we are. Fidelity Investments is the nation's largest mutual fund company and one of the leading providers of financial services. We are also the No. 1 provider of 401(k) retirement savings plans and one of the largest discount brokerage firms in the United States, with total managed assets of over $615 billion. Fidelity is a technology-intensive company, with over 6,000 information technology professionals dedicated to meeting customer needs through the use of state-of-the-art technology solutions. Our Year 2000 program includes our technical professionals in all of our sites, including Boston, New York, Covington/Cincinnati, Dallas, and Salt Lake City, as well as our international locations.

In early 1996, we recognized the need to begin preparing all of our systems to seamlessly handle the change of year from 1999 to 2000. We also recognized that the issue involves more than changing lines of code on mainframe systems; it involves extensive testing of our software and hardware platforms, from the mainframe to client server systems to the desktop, as well as testing with outside vendors.

With the size of our challenge in mind and with the strong support of top level management, Fidelity began its Year 2000 project in March 1996. We currently have well over 500 people dedicated exclusively to the Year 2000 project, including systems and business professionals across all areas of Fidelity's operations who are overseen by our Fidelity 2000 team. Each Fidelity business unit is involved in our extensive company-wide communications strategy and awareness campaign and has direct responsibility for managing its Year 2000 effort.

Fidelity's firm-wide budget for this project is in excess of $300 million. Fidelity today is well on the way to meeting our goal of seamless processing for all Fidelity systems and applications, and we are on schedule to provide uninterrupted business operations and service to our customers going into Year 2000. In fact, we have every confidence that we will be ready well before the year 2000.

More specifically, 100 percent of our mission critical systems and supporting products have been inventoried, and all of Fidelity's internal code for these systems has been analyzed. By mission critical we mean all business systems that are directly linked to our ability to service our customers. In addition to analyzing all of our internal code, Fidelity has already made code changes to over 94 percent of these business systems. We are on track for fixing the remainder of these mission critical systems by the end of 1998.

Although we hear a lot about fixing lines of code, the real challenge of the Year 2000 project is, in large measure, testing the systems. This is where we are currently allocating most of our resources. Fidelity's testing involves three distinct phases we call waves.

Wave 1 tests all Fidelity business systems individually using tools to simulate the Year 2000. In effect, we make our computers think it's the Year 2000. During this phase we test, for example, our ability to open a new mutual fund account. We have already successfully tested 86 percent of our mission critical systems and are on schedule to complete Wave 1 by the end of this year.

In Wave 2, all of our systems are tested together. Wave 2 takes place on computers that have had their internal clocks actually set to the Year 2000, a sort of "time machine." In the "time machine" we only install Year 2000-ready Fidelity and vendor software. During this phase, for example, we test the ability to enter a buy order for shares of a mutual fund, process the order based on the end of day net asset value received from our pricing system and prepare a confirmation of the transaction through our automated print system. We are more than halfway through our Wave 2 testing cycles and are on track to complete the last cycle in February of 1999.

In Wave 3, we're using our time machines to test with our outside business partners, such as stock exchanges, banks, and broker dealers. During Wave 3, we will test, for example, our ability to price a fund, by testing the data feeds from our data service providers as well as posting fund activity and money movement through outside banks. Because the financial services industry does not stop at our national borders, Wave 3 testing includes vendors in the U.S. and abroad. We are proud to take a leadership position with the Securities Industry Association's (SIA) successful industry-wide Year 2000 test this past July. We will take a similar leadership role in the SIA's final industry-wide Year 2000 test next Spring. Wave 3 testing will run until September 1999.

We are pleased to report that testing is on schedule and no significant problems have been encountered.

I've just finished describing how our corporate systems are being fixed and tested for the Year 2000. Now I'd like to describe our program for fixing and testing desktop personal computer hardware and software. The desktop program includes analyzing, fixing, and testing desktop software and hardware for over 30,000 employee workstations. Due to continual changes and upgrades in personal computer hardware and software, we intentionally launched this program early this year and expect to complete it by June of 1999.

Up to this point, I've been talking about all of the work that we've been doing internally. However, Fidelity knows that the investment business is global. We interact daily with a large number of companies, both in the United States, and internationally, that provide services to Fidelity. For example, in order to process a stock trade, we communicate with broker dealers, transfer agents, and stock exchanges. We recognize that our success is not only dependent on our being ready, but on these major business providers—especially the utilities and telecommunications industries—being ready as well.

We rely on approximately 165 technology vendors, and approximately 90 other outside parties who are essential to serving our customers. We maintain an active communication program with these vendors and outside parties and are encouraged that the majority of these companies has given us assurances that they will be Year 2000 ready. We monitor these companies and work with those who may not be Year 2000 ready. We are developing detailed contingency plans and will move to alternate suppliers if necessary.

Fidelity's contingency planning for the Year 2000 is part of our normal disaster recovery and risk management contingency planning. Contingency planning has been broken down into three key areas. The first would be for those events which affect everyone across the industry and have no viable alternative, for example if we were without power, telephones or water for an extended period of time. The second is more reactive contingency planning, i.e. what to do if there are selective outages. We are identifying and developing alternatives that would be instituted for a limited of period of downtime. The third key area involves being more proactive. We are conducting readiness assessments of our vendors and business service providers and are validating interface testing as part of the Wave 3 effort. We have more than 150 business contingency planners across Fidelity focused on identifying, testing and, where needed, implementing appropriate contingencies.

In the midst of our Year 2000 testing, we receive letters, phone calls and electronic mail messages daily from our customers about Year 2000 issues. They want to know that we are taking appropriate actions so that on Monday, January 3, 2000 their money will be available to them, their statements will reflect accurate balances, and they will be able to execute transactions with Fidelity. This is what we call "seamless processing" and Fidelity has committed the time, the money, and the expertise to achieve this level of processing. In addressing these concerns, our continued focus and commitment is to stay on track in our plan to achieve Year 2000 readiness. We are also addressing our customers' concerns by communicating with our customers through our Year 2000 statement on our website, fidelity.com, and responding to customer inquiries.

For Fidelity, Year 2000 readiness is an ongoing process, not a result that can be achieved in 1998 or 1999. We know that our efforts cannot stop once our systems are fixed, or on January 1, 2000. It will be a continual effort to maintain Year 2000 readiness throughout the organization and to minimize risks to seamless processing for Fidelity systems and our customers.

That concludes my brief description of Fidelity's Year 2000 technology program. We also know that the Year 2000 is an issue not only for financial services companies, but also for the portfolio companies in which mutual funds invest. Fidelity agrees with Mr. Fink's statement. As a mutual fund company, Fidelity's overriding obligation is to maximize shareholder value for its investors consistent with the investment objectives of the funds. We think it would be inappropriate to seek to impose on a fund manager a specific obligation to evaluate the Year 2000 risk differently from the way that other risks are evaluated.

Fidelity continues to use a bottom-up approach in its research. Our portfolio managers and research analysts seek to identify and evaluate all facts about a company that may have an impact on the value of a company. Our analysts and fund managers have been briefed on the Year 2000 issue and equipped with appropriate questions to ask senior management of these companies. The information on Year 2000 that we receive is only one piece in the mosaic of information we consider in making investment decisions. Evaluation of Year 2000 risk for a given portfolio company cannot be made in isolation but rather must be weighed in the total mix of information that bears on the investment merits of that company. In addition, no single investment is viewed in isolation but is evaluated in terms of its place within the portfolio of a given fund.

We appreciate the opportunity to discuss with you Fidelity's Year 2000 program and we welcome Congressional participation in ensuring that the Federal government will also commit the necessary resources to prepare for the Year 2000. We also welcome Congressional support for legislation that will encourage information sharing and a higher level of awareness and preparation by limiting the liability of companies that work diligently to develop and implement Year 2000 programs.

This concludes my testimony. Thank you.

RESPONSES OF BERT E. MCCONNELL TO QUESTIONS SUBMITTED BY CHAIRMAN BENNETT

Question 1. In your testimony, you outlined a very comprehensive Year 2000 Project, however I did not hear you address embedded microchips. On your WWW page, you note that a team of dedicated facilities experts is addressing this issue. Would you please describe their efforts and progress. What kind of response are they receiving from device/system manufacturers? Are you performing additional testing to verify claims/statements of compliance? If so, how would you characterize the results of your tests? How are embedded device/systems integrated into your contingency plans?

Answer. Although Fidelity's mission critical systems do not depend upon embedded microchips to the extent that systems operated by other industries, such as manufacturing, do, we have inventoried our physical infrastructure products, and have contacted the appropriate manufacturers regarding these products' Year 2000 readiness. Manufacturers have been responsive to our queries and have provided assurances that they are Year 2000 ready. However, whenever we encountered these embedded microchips, we are verifying the manufacturer's information by testing these products, and replacing or upgrading them if necessary. Moreover, we are also focusing on owned and leased facilities occupied by Fidelity employees. We are working with landlords of leased buildings to determine the status of their Year 2000 programs. In addition, Fidelity is conducting detailed contingency planning for equipment as necessary. These detailed contingency plans include alternative plans for substituting, replacing, or switching to other sites or equipment if there were a problem with an embedded microchip.

Question 2. You note that it would be inappropriate to seek to impose specific fund manager obligations to evaluate Year 2000 risks differently from the way other risks are evaluated. How are Year 2000 risks integrated into portfolio managers' end research analysts' identification and evaluation of all facts impacting on a company's value? What level of confidence is there that all mutual fund companies are educating their fund managers and analysts sufficiently to include it in their portfolio evaluations and decisions?

Answer. Fidelity communicates company-wide information about Year 2000 risk and the status of our own internal Year 2000 remediation plan at internal business briefings, articles in employee newsletters, company-wide e-mails, and the company's intranet site. In addition, we have specifically communicated Year 2000 risks and issues to our analysts and portfolio managers and have furnished them with questions to consider in evaluating companies.

Fidelity cannot speak for all mutual fund companies. However, our experience with our business providers, data suppliers, and the participants in the SIA Beta street test indicates that significant attention and resources are being focused on this problem.

Question 3. How are the 500+ people exclusively dedicated to the Year 2000 project spread among your three dedicated teams: Aware, Assure, and the Technology Center teams? How is responsibility and accountability for Year 2000 efforts fixed throughout these teams?

Answer. The number of people that Fidelity applies to the Year 2000 project will vary over the life of the project. We began staffing the project and dedicating resources early in 1996. We are currently peaking with well over 500 people in late 1998, with plans to reduce the project staff by year-end 1999, as coding and testing are completed. In addition, Fidelity has over 6,000 information technology professionals that can be reassigned to play a role in this project if necessary. When the clock rolls to the Year 2000, all of our technical professionals will become "Year 2000" support technicians, able to address problems that may arise.

Fidelity has hired contractors and consultants to augment its staff for the Year 2000 project. All contractors and consultants are under the supervision of full-time Fidelity employees. The Fidelity 2000 project includes the following functions:

—*Awareness/Communications:* Year 2000 communications efforts are broken out into two groups. The first, Aware 2000, is responsible for internal communications—raising awareness of the Year 2000 issue and the project itself within Fidelity Investments. This team facilitates communication and disseminates information firmwide. For example, an extensive Desktop Compliance awareness program has been put in place to communicate to Fidelity employees through corporate-wide electronic mail campaigns, articles in internal newspapers, and participation at Fidelity's internal technology presentations. A second team, Communicate 2000, is responsible for coordinating and facilitating external communications to customers and external parties. As of September 24, 1998, these communications teams consisted of 10 dedicated professionals working in conjunction with Corporate Communications and the business units.

—*Assurance:* Assure 2000 provides guidance and oversight to all Fidelity business units through an assessment process and through monitoring the progress of each business unit. It is also responsible for disseminating internal guidelines among the business units, tracking the efforts of the organization's vendors and business providers, and coordinating the external industry-wide Securities Industry Association "street test". As of September 24, 1998, this team consisted of 52 professionals.

—*Technology Center:* Brokerage Build 2000, Build 2000, and Test 2000 are groups of technical experts with significant Fidelity financial systems experience, as well as expertise in mainframe, midrange, and client server technologies. These groups are responsible for: remediating a significant percentage of Fidelity's systems; providing specialized Year 2000 technical services to Fidelity business units; and coordinating the test efforts for all of the applications that are undergoing system testing, integrated regression testing, and testing with external third parties. Additional activities include reviewing test strategies, providing environments, and accomplishing test objectives. As of September 24, 1998, this team consisted of 227 professionals.

—*Business Unit Year 2000 Teams:* Each Fidelity Investments business unit has assigned a Year 2000 project manager and necessary staff consisting of technical experts with significant Fidelity financial systems experience. They are responsible for remediating Fidelity's systems, defining test strategies, test plans, test cases and installing the completed system back into a full production environment, all as components of the overall Fidelity 2000 project. As of September 24, 1998, these teams together comprised over 225 individuals.

Question 4. How long did it take to inventory all of your systems? In the process of conducting your systems inventories, how did you address and inventory the issue of system interfaces? In your testimony you indicated that you are more than halfway completed with "Wave 2" and scheduled to complete it in Feb1999. What issues have arisen that may give you pause in anticipation of scheduling "Wave 3" testing into September 1999? Is three months enough for any unanticipated problems with "Wave 3?" What types of contingency planning are being done for this possibility?

Answer. The process of performing the inventory of applications was the first step in our Analysis activities. This phase began in 1996. All systems, other than desktop systems, were inventoried in 1996, and a refined inventory was completed by the middle of 1997.

In the course of inventorying systems, we conducted an additional inventory of each core interface by querying the application experts concerned, and creating a database of these interfaces so they could be monitored, fixed and tested. When systems interfaces were identified and required remediation, we remediated our own systems, or contacted the data provider or other interface owner to initiate planning for the Wave 3 testing effort.

The Wave 2 and Wave 3 testing phases overlap in time. Wave 3 involves interfaces with external parties such as financial services business providers and data suppliers, all of which will not be available to test with others until late 1998 or early in 1999. The Wave 2 and Wave 3 test phases overlap because many applications will have completed Wave 2 testing at separate times, and external providers are ready to test with us at different times. As a result, we begin Wave 3 testing as soon as both parties are ready to test.

Wave 2 began late in 1997 and will continue into the first quarter of 1999. Wave 3 began in mid 1998 with the SIA Beta industry-wide test, and will continue through September 1999. However, critical aspects of Wave 3 testing, such as the full SIA Street test, the market data industry-wide test, and certain major client testing is expected to be completed by June 1999.

We believe there will be ample time to test with the remaining third parties between June and September 1999. We are developing detailed contingency plans in the event that any of these external parties do not meet Fidelity's standards for Year 2000 readiness.

Question 5. As a leader in the Securities Industry Association's July industry-wide Year 2000 test, what lessons can you share with us? How are the results of this "pre"-test being integrated into the planning for next Year's final industry-wide testing?

Answer. The SIA industry-wide Year 2000 test, which involved leaders in the financial services industry, was by and large a very successful test. Problems detected were not directly related to the Year 2000, but were logistical connectivity problems between the participating firms and the Wall Street exchanges and utilities. The major lessons learned were the involvement necessary to create the communications between these organizations. To simulate the majority of transactions, simplified and streamlined test scripts should be developed that reduce the time spent in communications coordination in the test environment. Complex transections' testing can also be made more efficient by streamlining the test scripts.

To prepare for next year's test, Fidelity and other SIA member firms will be conducting additional pre-tests, to test the final approved scripts and connectivity via test and production systems.

Question 6. In your testimony you indicated that you relied on 165 technology vendors and approximately 90 other essential outside parties. What kind of response rate have you had in evaluating their Year 2000 preparedness? For those that have assured you of that they will be Year 2000 "ready", do they provide you with their definition of "ready?" What is your level of confidence in their response? Are you performing independent testing to confirm their assurances?

Answer. Of over 250 core vendors, all but six have provided quality responses to our Year 2000 inquiries. The Assure 2000 group performs assessments of the core products that Fidelity depends upon. As we do not rely exclusively on any one's statement, we are testing all critical systems interfaces. We do ask vendors how they intend to become Year 2000 ready (windowing, expansion, other) and we test for Year 2000 readiness consistent with their responses.

Prepared Statement of Senator Daniel Patrick Moynihan

Over the past decade, Americans have invested increasing amounts of money in the stock market. The vast majority of individuals invest their funds in pension plans and mutual funds. Eighty-fve million Americans participate in pension plans that accounts for $3.6 trillion in assets, about half of which is in the stock market. There are 6,889 mutual funds in the United States with total assets of $4.9 trillion, of which 55 percent is invested in stocks. Pension plans and mutual funds are a vital part of the economy, and it is essential that fund managers fix their computers and make sure that the companies they invest in are Year 2000 (Y2K) compliant. Failure to do so could be catastrophic.

At today's hearing, our distinguished panel will talk about how pension plans and mutual funds are progressing on the Y2K problem. I remind some of our witnesses today that as fund managers they are fiduciaries under the law and are legally obligated to safeguard assets for the benefit of investors. As part of their fiduciary duties, fund managers are obligated to make sure their computers, as well as the computers of the companies they invest in, are Y2K compliant. As for our government witnesses, I remind them of John Locke's conception of government as a fiduciary trust with the obligation to act in the interest of the people. They, too, need to address the Y2K problem to fulfill their fiduciary responsibilities.

On July 6, 1998, Senator Robert F. Bennett (R–UT) and I held a hearing on Wall Street to see how the financial service sector was progressing on the Y2K problem.

At the hearing, the Senior Vice President and Chief Technology Officer of the New York Stock Exchange, William A. Bautz, said that the Y2K problem is the "biggest business-technology effort that the world has ever experienced." *The biggest business-technology effort that the world has ever experienced.*

The Securities and Exchange Commission (SEC) and the securities industry are working hard to tackle this challenge. In fact, I was most pleased to see that the securities industry conducted an industry-wide test this past summer and the results were positive. One of the keys to solving this problem is testing. At the hearing in New York, the First Vice President of the Federal Reserve Bank of New York, Ernest T. Patrikis, said that "he does not think it is possible to over-emphasize the importance of testing to help improve readiness."

While the U.S. financial service sector is making good progress on Y2K, I am concerned about the reluctance of companies to share information on Y2K. In their SEC filings this past summer, the top 250 largest companies did not release adequate details on their progress on Y2K. Most companies, in fact, avoided specifics, leaving investors and analysts uncertain about how vulnerable they are to the bug.

We must encourage companies to share information on Y2K. It is for this reason that I joined with Senators Robert Bennett and Christopher J. Dodd (D–CT) on July 30, 1998 in introducing President Clinton's "Y2K Information Disclosure Act"—legislation that promotes the opening sharing of information. Yesterday, the White House and members of the Y2K and Judiciary Committees reached a compromise on the bill. The Judiciary is expected to mark up the bill today. I cannot stress the importance of passing this legislation.

There are now just 470 days until the year 2000 and just a few months before the government and the private sector must start their testing. No time to waste. I am hopeful that we will have this problem in check come the year 2000, but, as the Duke said of Waterloo, it will be "a close run thing."

Prepared Statement of Thomas M. Rowland

I. INTRODUCTION

I am Thomas M. Rowland, Senior Vice President—Central Services Group, of The Capital Group Companies, Inc. (CGC). I am the individual with primary responsibility for the Year 2000 Project at The Capital Group Companies. I and the entire Capital organization appreciate the opportunity to testify before the Special Committee today on our efforts to prepare for the Year 2000. The Special Committee (and the Securities and Exchange Commission, our principal regulator), should be commended for their leadership in helping focus attention on this issue—one with broad-reaching implications for the public, including those who invest in U.S. mutual funds.

As background, The Capital Group Companies provide investment management and related services to a diverse client base, including individuals, corporations and institutions. Capital Research and Management Company (CRMC) is the sponsor and investment manager of the 28 mutual funds in The American Funds Group. The funds are sold through independent broker-dealers and currently have more than $225 billion in assets and more than 9 million shareholder accounts. CRMC is also the investment manager of the 10 variable subaccounts in the American Legacy variable annuity. The Global Institutional Group, including Capital Guardian Trust Company and four other management companies, provides global institutional investment management services to clients throughout the world. Overall, the Global Institutional Group manages more than $110 billion in institutional assets.

CGC provides centralized administrative and information technology services to the entire Capital organization (which is owned by employees and traces its roots back more than 65 years).

II. CURRENT STATUS AT CAPITAL GROUP

Capital is committed to achieving Year 2000 compliance across all of our significant business systems and operations by December 31, 1998. We have a well-defined plan, ample resources, and excellent momentum toward achieving that goal. Our progress to date indicates that we will meet the December 31, 1998 target for Year 2000 compliance of our internal systems. While we have made significant progress toward achieving compliance within our information technology infrastructure, our focus is now on assessing the Year 2000 readiness of our significant vendors and development of appropriate contingency plans. Where electronic interchanges and dependencies exist, we will conduct appropriate tests, including "point-to-point" tests with individual firms and "street-wide" tests with other industry participants.

Testing with third parties has already begun and will continue through most of 1999.

III. CURRENT STATUS WITHIN THE MUTUAL FUND INDUSTRY

Although the Investment Company Institute is probably the best source of information about the mutual fund industry as a whole, we thought we might offer some additional observations based on our own situation and experience. We think there is room for some general optimism, for a couple of reasons. First, we have within this industry a number of large investment advisory firms that for many years have relied on computers to deliver high quality services to their clients, including mutual funds. They have developed and operate quite sophisticated computer systems, and have large technology infrastructures (including personnel) that are capable and available. Even for the smaller advisers, who may not have these resources inhouse, typically they have chosen to rely on outsourced services provided by large, well-established companies with similar resources. The past decade has been a good one for the industry as a whole, and so most firms have been investing in newer technology which is less susceptible to Year 2000 issues. Moreover, to the extent they have exposure to the problem, they should have the necessary financial resources available to get the job done right and on a timely basis.

Nevertheless, we think it is important to emphasize the large number of interconnections and interdependencies present within and outside this industry—and the need to work diligently to anticipate and prepare for external events. At the moment, there are many serious issues facing companies and other organizations (including central banks and other governmental agencies) around the globe—thus, the possibility exists that parties outside our control (or influence) will not be as prepared as they should be and investors may suffer some inconvenience or even losses as a result. I am sure that Capital and other industry participants will take steps to address these risks, both in terms of their mutual fund operations and investments, but there may be no way to eliminate them entirely.

I understand that the Special Committee is interested in knowing whether we are considering the Year 2000 readiness of companies in our client portfolios. Although I am not an investment professional myself (I was an audit partner at Deloitte & Touche LLP prior to joining Capital in January 1998), I know that our research analysts and portfolio counselors are well aware of this issue. They are reviewing portfolio companies' public disclosures and also making inquiries of management—and generally receiving positive assurances. However, our people realize that they are not technology experts, and that in any event they are not in a position to independently verify assertions made by management. On the other hand, for Capital at least, we tend to make and maintain long-term investments in companies we believe to be well-managed and with good prospects for the future—and thus it may be entirely reasonable for our investment professionals to conclude that a company's statements about Year 2000 readiness are solidly grounded. Well-run companies with significant resources and good prospects are more likely to address this issue in a responsible and effective manner. Clearly, the Year 2000 issue is more significant for some companies than others, and the degree of our analysts' concern reflects this. Finally, although our investment professionals recognize the importance of this issue, they also feel strongly that it is only one of many factors that ought to be taken into account as part of the investment process—and that it would be inappropriate to consider statements about the Year 2000 to the exclusion of other, equally pertinent, investment considerations.

The testimony which follows concerns itself primarily with our internal preparations for the Year 2000, as well as our efforts to ascertain the readiness of our business partners and vendors.

IV. PROJECT SCOPE, ORGANIZATION AND OVERSIGHT

Capital is addressing the Year 2000 challenge on a coordinated, enterprise-wide basis. We are doing this work in a manner which is consistent with the way our operating subsidiaries manage assets—a significant number of people with diverse backgrounds and skills are following a disciplined, yet flexible process in pursuing our compliance goals. Associates from throughout the Capital organization are involved, with the Year 2000 Steering Committee and the Year 2000 Program Management Office providing overall coordination and support.

Our written plan for achieving Year 2000 compliance applies to all Capital Group Companies, including CRMC and its two subsidiary companies providing services to U.S. mutual funds—American Funds Service Company (transfer agent) and American Funds Distributors, Inc. (principal underwriter). The plan covers all Capital Group systems and facilities worldwide, and activities undertaken on behalf of both

U.S. and non-U.S. clients. Although it is difficult to provide a meaningful figure for Year 2000-related expenses (in light of accelerated systems and application upgrades and the large number of associates working part-time on the project), we expect our aggregate direct costs of implementing the plan to be approximately $30 million over the three fiscal years ending on June 30, 2001.

As indicated above, several groups of Capital associates have significant responsibilities for achieving Year 2000 compliance. The Year 2000 Steering Committee, comprised of 15 senior-level managers representing key business and technology areas, has primary responsibility for implementing the Year 2000 Project and achieving its goal of timely compliance across the entire organization. The Steering Committee sets priorities and applies resources. The Committee meets twice each month to review progress and discuss issues.

The Program Management Office (PMO) was established in June 1997 with a dedicated manager, staff and budget. Consultants were engaged to help initiate the project, and establish its methodology, provide documentation tools, and supplement and advise PMO staff. The PMO staff, which currently consists of 15 full-time associates, provides guidance, management, coordination and tracking of project deliverables as it assists associates in each of Capital's information technology and business areas with each phase of the project, including conversion of their systems, applications and services.

The PMO established compliance guidelines, a testing and certification infrastructure, and an overall process for managing the Year 2000 Project. The PMO establishes and tracks project deliverables, facilitates compliance decision-making and priorities, and coordinates, monitors and integrates multiple compliance projects. The PMO also plays an important role in monitoring the progress of outside vendors and other service providers in achieving Year 2000 compliance. The PMO works closely with the Steering Committee and serves as a liaison among various working groups and with outside parties and regulators.

Information technology area managers are responsible for ensuring that technology infrastructure, hardware, networks and operating systems are all Year 2000 compliant. They must replace non-compliant hardware and systems, and remediate applications used across the entire Capital organization. The information technology area is also responsible for establishing and supporting a Year 2000-compliant test environment in which hardware and software systems and applications are tested in a replica of the production environment.

Business area managers have supplied the PMO with inventories and risk assessments of applications specific to their areas. They are also responsible for ensuring that project plans and activities are comprehensive and meet required implementation deadlines. Associates in the business areas also participate in the development and execution of Capital-wide application testing, and vendor/service provider assessments and monitoring.

The Boards of Directors of The Capital Group Companies, Inc. and each of its principal operating subsidiaries (including CRMC) have formally approved the Year 2000 Project, including its enterprise-wide approach and its reliance on the Steering Committee, the PMO and the information technology and business areas for implementation. Regular reports are submitted to these Boards of Directors, at least quarterly, on internal corrective efforts as well as the ability of Capital's major vendors and service providers to provide Year 2000-ready products and services. A number of Steering Committee members also serve on these Boards.

Similar reports will be submitted at least quarterly to the Boards of Directors and Trustees of the mutual funds managed by Capital Research and Management Company as well as the funds' outside auditors. In addition, we are making Year 2000-related information available at the following Internet websites: www.capgroup.com and www.americanfunds.com.

CAPITAL GROUP TECHNOLOGY OVERVIEW

The computer systems that support investment management and accounting operations at The Capital Group have been managed, developed and operated internally. We have a large information technology staff—in excess of 500 associates. Most of our core investment management systems were developed within the past five years and operate in a modern, client-server environment. Our mainframe (legacy) applications were also developed internally—but now are of lesser significance. We do rely on a limited number of third party service providers—however, these are large, well-run organizations with which we have had good working relationships for many years.

VI. PROJECT METHODOLOGY

The Capital Group Companies are following a five-phase, iterative, interactive methodology for the Year 2000 Project. The first phase is *Inventory and Risk Assessment.* Survey forms were completed by information technology and business area managers within each company, business function and location. These surveys identified information technology usage, business flows, and external vendors that could be impacted by two-digit date processing. A risk assessment was used to categorize each component into high, medium or low business impact and processing risk.

The second phase is *Planning.* All high-and most medium-risk components are examined to determine if the component should be remediated (fixed), retired, or replaced with a component which is Year 2000 compliant. The *Remediation or Construction* phase is where the Year 2000 problem is solved for each component. Computer hardware chips are replaced, purchased software is upgraded, custom application code is modified, and/or vendor processing is revised to ensure that dates will be handled correctly in the Year 2000. The fourth phase is *Testing.* Each component is individually tested, and then tested again with related components in a system test. Finally, the entire system is reviewed in a user acceptance test. When the component has passed the complete series of Year 2000 date tests, it is described as "Year 2000-ready." During the *Implementation and Close* phase, the Year 2000-ready component is documented and placed back into production.

Separate, additional testing may also be performed on Year 2000-ready computer applications. Because of the complex interactions between multiple hardware and system software components, our critical business systems also undergo time machine testing. This is a full-scale operation run with system dates set forward and rolled through several dates.[1] When these business-critical systems have been completely tested with these dates, we designate them "Year 2000 compliant." More testing is being done with business partners and vendors. Critical external interfaces are subject to point-to-point testing; this is currently underway and will continue through 1999 with business partners. In addition, The American Funds Group will participate in an industry-wide Year 2000 test organized and conducted by the Securities Industry Association.

VII. REPORTING METHODOLOGY

The Capital Group Companies track and report progress across our infrastructure and different groups of applications in relation to the level of completion of these five phases. Within a given area, overall completion levels for each phase reflect actual progress achieved with respect to individual project components, with each component's contribution to the overall figure weighted according to its potential impact on our business. We believe that organizing Year 2000 progress information in this manner (and presenting it in relation to specific functional areas) presents a meaningful picture of readiness, particularly since systems vary in importance and are often utilized by associates affiliated with different companies in multiple locations. Finally, because we prepare reports on our progress on a quarterly basis, the information below reflects progress achieved through June 30, 1998.

VIII. PROGRESS IN SPECIFIC AREAS

The *Information Technology Infrastructure* area supports Capital Group offices throughout the United States, London, Geneva, Hong Kong, Singapore and Tokyo. Components of the infrastructure include: computer platforms and operating systems, database software suites, network topologies, and data center operations and support. The foundation computer infrastructure consists of an S/390 mainframe environment, a midrange environment including an AS/400 and several HP/UNIX platforms, and a distributed desktop environment consisting primarily of Compaq and IBM Windows NT platforms. More than 500 vendors provide in excess of 1,200 products that form the infrastructure. As of June 30, 1998, within this area completion levels were as follows: Inventory and Risk Assessment, 100 percent complete; Planning, 99 percent complete; Remediation or Construction, 89 percent complete; Testing, 74 percent complete; Implementation and Close, 33 percent complete.

Core Investment Management and Reporting Systems. This group of applications consists of three main components. The first subgroup, consisting of twelve integrated systems supporting most of the investment analysis and administration business cycles, are newer systems that run on midrange client-server computers. They

[1] The dates to be tested include: December 31, 1999; January 1, 2000; January 3, 2000; January 7, 2000; January 31, 2000; February 28, 2000; February 29, 2000; March 1, 2000; December 29, 2000 and January 2, 2001.

were tested in a client-server time machine test environment from March through May of 1998, and have been placed back into production. Final documentation of the Implementation and Close Phase is underway.

The second subgroup consists of a mainframe-based system for portfolio accounting and recordkeeping. This system achieved Year 2000-ready status at the close of August. The third subgroup, our non-U.S. portfolio accounting and recordkeeping systems, are provided by a third party service provider in Geneva, Switzerland using a mainframe-based system. All Inventory and Risk Assessment, Planning, and Remediation of this subgroup of systems has been completed, and final Testing and Implementation is underway.

The relevant figures representing the combined progress for all core investment management and reporting applications as of June 30, 1998 were as follows: Inventory and Risk Assessment, 100 percent complete; Planning, 100 percent complete; Remediation or Construction, 96 percent; Testing, 80 percent; Implementation and Close, 32 percent.

Another group of applications of particular relevance to mutual fund investors is *American Funds Group Accounting and Reporting Systems.* They consist of 29 systems supporting both dealer activities and shareholder accounting and reporting. Virtually all of the systems supporting these business areas were Year 2000 ready as of June 30, 1998. This means they have been through the Inventory and Risk Assessment, Planning, Remediation or Construction phases, undergone unit, system and user acceptance Testing, and, during the Implementation and Close phase, are being put back into production.

Progress within this area at June 30 was as follows: Inventory and Risk Assessment, 100 percent complete; Planning, 100 percent complete; Remediation or Construction, 100 percent complete; Testing, 97 percent complete; Implementation and Close, 90 percent complete.

Our core shareholder recordkeeping system is provided by a third party service provider. American Funds Group associates have maintained a close working relationship with this service provider during its Year 2000 remediation project. All Inventory and Assessment, Planning and Remediation of this system has been completed. In September–October 1998, our systems within this area will be tested in the time machine test environment. These tests will also include a series of integrated, industry-wide tests sponsored by the Securities Industry Association and involving, among others, the primary service provider referred to above. Point-to-point testing with other business partners is planned over the next twelve months.

Our *Administrative Business Applications* are important to us, even though they do not affect the core investment management process. These applications include those supporting Payroll, Human Resources, Finance and Accounting, Tax and Treasury, Investment Administration, and other similar systems.

Progress within this group of applications at June 30 was as follows: Inventory and Risk Assessment, 100 percent complete; Planning, 90 percent complete; Remediation or Construction, 63 percent complete; Testing, 41 percent complete; Implementation and Close, 30 percent complete.

IX. BUSINESS PARTNER/VENDOR PROGRAM; CONTINGENCY PLANNING

Perhaps one of the most challenging Year 2000 areas is assessing the Year 2000 compliance efforts of our business partners and vendors. The Capital Group relies on hundreds of hardware and software vendors for its Information Technology Infrastructure. We also rely on dozens of custodian banks and hundreds of brokers to process financial transactions accurately and quickly. Our ability to continue managing client assets through the Year 2000 depends not only upon our own organization's ability to achieve internal compliance, but also on the ability of our business partners and vendors to deliver Year 2000-compliant products and services.

The Capital Group has identified all of its significant business partners and vendors (including hardware and software vendors) and categorized each one by the type of service relationship. This approach enables us to tailor our business partner/vendor compliance plans to match the services provided and to enlist our business area associates in the evaluation process. Assessments of potential business impact have been completed; a "most critical" list has been identified, and Capital Group associates with relationship responsibility for Year 2000 compliance have been designated. We are currently contacting third parties to obtain information regarding their Year 2000 compliance efforts and we are in the process of making initial confidence assessments. During the third quarter of 1998, we will begin "point-to-point" testing to confirm our ability to transact business with those parties with which we share information electronically. Testing with a number of business partners will continue through 1999. The Capital Group methodology requires all significant vendors to be contacted and their Year 2000 compliance efforts evaluated by December 31, 1998.

Our early experience shows that some software vendors may not be ready with Year 2000-compliant products when we are ready to test. In fact, some vendors have already declared that one or more of their products will not be made Year 2000 compliant. This means we must develop contingency plans to ensure we retain certain business functions. Our contingency plans will take into account the level of reliance we have for each business partner and vendor and how critical the product or service is to our business operations. In some cases, vendors are being replaced in advance of potential problems occurring. During the second half of 1998, we will be actively planning for the possibility that a number of our business partners and vendors may not have Year 2000-compliant products and services available on a timely basis. Capital is using its Disaster Recovery resources in concert with its Year 2000 Program Management Office resources to reduce the likelihood that we will suffer business interruption due to Year 2000 problems. We expect these plans to be substantially complete by December 31, 1998.

X. FACILITIES

The office facilities utilized by The Capital Group Companies are also being examined for possible Year 2000 problems. Building security systems, clock-controlled lighting and temperature controls, elevators and power grids all present a risk to normal business operations. The Inventory and Risk Assessment of Facilities is complete. Each office location was reviewed and prioritized based on its computer dependencies and contribution to overall business activities. Visual inspections are being conducted and approximately 80 percent of all required testing is being performed at that time. All critical systems are scheduled to be tested in 1998. Business vendors critical to operating our facilities have been identified and are being addressed through the vendor management program. The expected completion date for Year 2000 compliance of Capital Group Facilities is December 1, 1998.

RESPONSES OF THOMAS M. ROWLAND TO QUESTIONS SUBMITTED BY CHAIRMAN BENNETT

Question 1. In your statement, you note that your testing of mutual funds operations support systems is 70 percent to 80 percent complete. What have the results of such testing indicated to date? Can you identify any specific problems that arose during this testing?

Answer. In general, the results were satisfactory. Most of the problems arose as a result of shifting from the production environment to a separate, time machine testing environment, where applications were system clocks and data are set forward in time to simulate the change in century.

Moving applications from a production environment on the company network to the time machine test environment presents a number of challenges. System node names are different, printer names are different, interfaces to other systems don't exist, JCL (job control language) and scheduling programs must be rewritten. These types of problems are properly characterized as environment problems. Other problems encountered due to two digit years vs. four digit years, leap year problems, or other date related problems are characterized as Year 2000 problems. Since a great deal of time was spent in remediating the applications prior to testing, a large number of problems were not anticipated. The following is a summary of the Year 2000 problems which were encountered.

Core Investment Management and Reporting Systems—A few instances were found where the implicit century date (19) was hard-coded into applications causing sort problems, or report heading problems. There were also a few cases where the century date was expressed as one digit (1 or 2); in these instances, we moved to a more user friendly convention (19 or 20). There were a few cases where dates were expanded in the data base and the application, but the field allocation was not similarly expanded. Other errors included leap year not recognized, incorrect date calculations, not recognizing dates in year 2000. In addition, in a small number of cases the implicit century date (19) was hard-coded into applications for use in creating log names, file names or default century dates. Another error was found with date conversion after January 1, 2000. All noted exceptions have been or will be addressed and retested and verified by users.

American Funds Group Accounting and Reporting Systems—The majority of problems were associated with report formatting or display problems in changing from two digit to four digit dates or hard-coded century dates. In a case where a single digit was used to denote the century (0, 1 or 2), the wrong digit was used in the application. In several applications, date information is manipulated to produce various date formats. Some problems were encountered with creation of these date formats. In the process of remediation and testing, several hundred applications were identified that were no longer used in production. These have been documented and will be removed from the production libraries.

Question 2. What is your expected timetable for completing "point-to-point" and "streetwide" testing? How will this testing be conducted?

Answer. Point-to-point testing incorporates Capital Group's strategic business partners, banks and electronic services. It is scheduled on an individual basis. Testing will include electronic services such as Bloomberg, Merrill Lynch, NASDAQ, Reuters, and OASYS. Also, banks (e.g Chase, Wells Fargo, State Street Bank & Trust) and service providers (e.g. DST, SKI, ADP, ERTI and BISYS) who exchange information electronically with Capital will be included. The point-to-point testing is underway and will continue through mid-1999.

The Securities Industry Association (SIA) has orchestrated testing of many firms who are involved in securities trading. They have taken the lead to schedule the testing periods, facilitate the creation of testing scripts, coordinate activities with the securities clearing houses (NSCC) and generally make this industry wide testing a reality. There are a series of tests which lead up to the final industry wide testing in March of 1999.

For the American Funds, DST will act as our agent for the "streetwide" tests. AFS has developed test scripts to validate the transactions involved in shareholder transactions involving these mutual funds. These scripts have been forwarded to the testing partners assigned to DST for the American Funds. These include ADP, Waterhouse, Smith Barney and Baird. These broker/dealers will initiate the transactions which will be processed through their systems and on to the NSCC. From there, the transactions will go to DST systems. Output from the DST transactions (in the form of reports) will go to AFS on a daily basis to verify the results.

This is the process which will be followed during the October mutual funds test. This process will also be repeated in March if deemed necessary.

Question 3. In your written statement, you discuss "time machine testing". Can you describe what this type of testing is and how it is conducted?

Answer. The Capital Group Companies have constructed a complete mainframe time machine test environment which replicates our production environment. All project components that rely on system clocks are tested for Year 2000 compliance, both individually and in combination, with system dates and data set forward and rolled through a number of critical dates. This environment uses only those hardware and software components which our vendors have designated as Year 2000 compliant versions.

The mainframe time machine consists of three major pieces; a lab in Brea, a lab in San Antonio and a mainframe computer in San Antonio. Additionally, during some of the testing, the time machine extends out to include DST's time machine environment and the Brea and San Antonio printing centers.

Before its use, the time machine required months of IT Infrastructure preparation. Testing is the most time consuming, resource-intensive phase, comprising 50–70 percent of the project effort. The combined efforts of the mainframe systems group, telecommunications, UNIX, server, desktop, networks and many other organizations were required to assemble and test the environment. This was no small task, considering these same teams also had to plan a data center move in addition to supporting daily production operations.

The purpose of mainframe time machine testing is three fold. First, it provides for complete integration testing with hardware, operating systems, utilities and applications that are all Year 2000-ready. Second, it provides complete isolation of the test environment from Capital's production environment. Third, it gives the applications a test platform where they can uncover any Year 2000 errors that were not fixed during the software remediation phase. Although the number of errors uncovered is small compared to the number of changes made during remediation, testing provides the final check to ensure that these applications will run correctly into the new millennium.

The process for building and running the time machine is as follows:

First, an infrastructure must be built which mirrors or closely simulates the existing production environment. This environment includes a mainframe, UNIX workstations, Microsoft Windows NT workstations, Novell servers and a private network (including various printers). This infrastructure must then be loaded with Year 2000-compliant versions of operating systems, utilities and middleware applications. Once the environment is ready, a complete image of the production environment is then copied into the test environment. Data sets that have been aged (dates changed to simulate future transactions) are then loaded into the test environment.

Applications and JCL are modified where required to run in the isolated environment. When checkout is complete, the system clocks on all the components are moved forward to the first test date. Test scripts which had previously been written and verified are then entered. Test cycles are run and the resulting screens and reports analyzed to see if they match the expected results. When a single cycle is complete, the system clocks on all the environment components are then advanced (warped) to the next test date. The cycle is then rerun for each required test date. The application user community develops the test scripts, enters the data, and verifies the accuracy of the output.

Question 4. Capital Group also maintains offices in London, Geneva, Hong Kong, Singapore, and Tokyo. Has the company engaged in any general assessments about overall Y2K state of readiness regarding other key areas of infrastructure in those locations which might impact operations? (Telecommunications, Power Utilities, and Transportation)

Answer. The Capital Group's offices in Europe and Asia are leased, and we are working with local building management to assess the Y2K state of readiness for each facility. Telecommunications Y2K readiness is being assessed by direct contact between Capital Group Information Technology operations and local telephone service providers. Beyond direct usage, Capital has not attempted to assess the general infrastructure readiness of our five non-U.S. sites.

Question 5. Describe Capital Group's Disaster Recovery program and how it would interface with the Year 2000 Program Management Office as part of Capital's contingency planning?

Answer. The Capital Group has a comprehensive Disaster Recover program which emphasizes a physical site being down due to disaster, and addresses the needs of specific departments for each site. The strategy includes a response phase, a recovery phase, and a restoration phase.

The Capital Group has Recovery Notification phone calling tree lists in place which are exercised without warning at least quarterly. Alternate meeting sites, emergency alert stations, and emergency hotlines are established for each department, and associates have handbooks with instructions for use.

The Year 2000 Program Management Office is working with the Disaster Recovery team closely in order to take advantage of existing planning and resources, including the identification of key associate and vendor contacts, departments and sites. This includes specific responses to Information Technology Infrastructure system disruptions. Building upon that, the Year 2000 team is identifying potential external business disruptions which could arise from a vendor or business partner's failure to perform due to date processing problems. A key factor in this planning is the identification of high-risk business partners and vendors that supply a critical business requirement. The readiness of these critical third parties is assessed through direct contact with members of their Year 2000 team. Following one or more meetings, each party is assigned a level of confidence. Low confidence levels require more intensive contingency planning.

Prepared Statement of John R. Towers

Mr. Chairman, members of the committee, thank you for the opportunity to appear before you today. My name is John Towers, and I am executive vice president for Global Operations at State Street Corporation in Boston where I oversee securities, cash and data processing operations.

I would like to congratulate you, Mr. Chairman, for the attention and sense of urgency this committee has brought to the issue—a sense of urgency that we fully share.

I will focus my remarks today on State Street's own commitment to readiness for the Year 2000, with particular reference to the services we provide to the mutual fund industry—both as custodian and investment manager.

I will also suggest areas of possible action that could be of great assistance to the industry and our country in preparing to meet the challenges posed by the Year 2000 issue.

State Street's Resolution 2000 Program

State Street Corporation and its principal subsidiary, State Street Bank and Trust Company, provides safekeeping and financial services for over $4 trillion in assets held primarily by mutual funds, insurance companies and pension plans.

Our custody systems process over 50,000 global securities trade settlements daily in over 80 markets around the world. State Street is also a major global asset manager, investing over $400 billion on behalf of institutional investors worldwide.

State Street began its assault on the Year 2000 challenge early. In the first quarter of 1996, we developed Resolution 2000, a comprehensive program to identify and resolve our Year 2000 compliance issues. The demands, impact and progress of Resolution 2000 are regularly communicated throughout our organization, from the board of directors and senior level management to every level of our professional staff.

The program covers four areas of Year 2000 compliance and contingency preparations: information technology, suppliers and vendors, counterparties and business partners, and business area operations.

Year 2000 compliance is a challenge, but technological change is basic to our business. State Street and other global financial firms are accustomed to constantly upgrading and re-coding our software to accommodate changes in customer and/or market requirements.

State Street is absolutely committed to the precise, seamless and timely delivery of all aspects of the information our customers need and to the ability of our systems to cope with all conceivable contingencies. And we will be thoroughly testing all aspects of our technology both internally and with our counterparties to ensure this is the case well before the year 2000.

Indeed, our day-to-day support of the mutual fund industry is predicated upon operating our technology infrastructure. Not only do we have state-of-the-art processing systems, but state-of-the-art backup as well.

We deliver accurate daily prices for over 1,200 U.S. mutual funds, about ⅓ of all funds in the country, representing nearly $3 trillion in assets, to our customers and other intermediaries. And we have done so over many years despite hurricanes, floods, blizzards, fires, power failures and extraordinary global securities market turmoil.

STATE STREET SERVICES TO MUTUAL FUNDS

State Street provides several key services to mutual funds—for which we are the single largest custody service provider. Our commitment to these customers dates back to 1924, when we were appointed trustee of the first U.S. mutual fund, Massachusetts Financial Services.

Today, we provide services to mutual fund companies ranging from fund accounting, to daily pricing and/or fund administration for over 3,000 mutual fund portfolios.

In the course of providing these services, we interact electronically with securities depositories, broker/dealers, banks, stock exchanges, and our own customers, as well as all the providers of pricing and other investment data services, such as Reuters and Telekurs, to ensure that our customers receive the data they need.

To date, nearly 90 percent of our over 350 core applications corporation-wide have been renovated for Year 2000 and are currently in various levels of testing to validate compliance. Nearly 150 of these core applications support the services we provide to the mutual fund industry, and of these particular applications, 97 percent have been corrected already.

Externally, we continue our efforts to monitor and influence the compliance of essential third parties globally and are developing strategies and approaches for testing with them.

In cases where we find non-compliance, we will replace vendors, work around them, develop internal capabilities to replace them or make necessary renovations to enable us to provide Year 2000 compliant services to our customers.

Our Resolution 2000 compliance target for all internal systems and application software continues to be December 31, 1998 to meet the recommendations of the Federal Financial Institutions Examination Council and allow for a full year of external testing in 1999.

We will devote our efforts throughout 1999 to external testing and developing appropriate contingency plans with key industry counterparties, customers and vendors. In the area of Year 2000 compliance, our policy with counterparties resembles President Reagan's arms control slogan: "Trust but Verify."

Throughout our own Year 2000 efforts, State Street has taken very seriously our responsibility to communicate our progress toward Year 2000 compliance to our customers and shareholders—and we have done so on a quarterly basis since June 1997.

We believe we have made significant progress, but we are neither complacent nor comfortable. And we are committing the necessary financial and human resources, and the top-level management attention needed to reach our readiness goals well in advance of the turn of the century.

FIDUCIARY RESPONSIBILITY OF INVESTMENT MANAGERS

As you requested, Mr. Chairman, I would like to address the issue of fiduciary responsibility of investment managers to evaluate the Year 2000 compliance of the companies in which they invest.

Fiduciaries—including retirement plan managers, mutual fund advisors and other trustees—must manage assets in the best interest of plan participants and beneficiaries.

When a fiduciary exercises investment discretion, it is responsible for evaluating the range of risks and opportunities presented by a company before investing fiduciary assets in the company's stocks. One of those risks is the possibility that the company's performance will be impaired by the Year 2000 problem.

The Year 2000 issue—or at least widespread recognition of it—is new, but the fiduciary's obligation to consider Year 2000 questions is not.

Fiduciaries who have management discretion have an ongoing obligation to consider all factors that may increase risk to participants and beneficiaries. As with previous developments such as environmental liability, the Year 2000 issue may significantly increase the risk inherent in some assets, and fiduciaries must respond appropriately.

While proposed legislative or regulatory action may be intended to reduce the potential Year 2000 risk faced by fiduciaries, there is a hazard that these proposals may, in fact create additional risks.

Singling out the Year 2000 issue for special treatment may obscure or subordinate other risks to the detriment of participants and beneficiaries. It may also prevent a fiduciary from responding to the Year 2000 challenge in the manner that best serves the interests of such participants and beneficiaries—such as by diversifying their portfolios.

In addition, specific Year 2000-related requirements could generate questionable litigation. Where the fiduciary does not have investment discretion—such as with a 401(k) or index mutual funds—a specific Year 2000 obligation for the fiduciary could be inconsistent with the purpose of the investment or may, in fact, be outside the fiduciary's discretion.

State Street believes that recent guidance issued by the Federal Financial Institutions Examination Council (FFEC) should serve as a model for an appropriate governmental response to the particular Year 2000 risks faced by fiduciaries.

The guidance recognizes that the extent of a fiduciary's responsibilities is determined by applicable law, such as the Employee Retirement Income Security Act of 1974 (ERISA) and state trust and estate laws, as well as by the particular goals of a retirement fund, mutual fund or trust instrument.

Significantly, the guidance states that fiduciaries with investment discretion may consider Year 2000 issues as part of their ongoing review of each account's portfolio.

State Street acknowledges that the Year 2000 problem can be addressed as part of the overall management of fiduciary assets, and not as an isolated or unique issue. But we also recognize that fiduciaries must be able to rely on public disclosures of Year 2000 readiness to make their assessments—just as they rely on public disclosures already in the investment decision process.

HOW CONGRESS CAN ASSIST

I congratulate you, Mr. Chairman, not only for raising the nation's awareness of the seriousness of the Year 2000 challenge, but also for your support for S. 2392, the Year 2000 Information Disclosure Act.

And I heartily praise the SEC for coming forward with its recent interpretation of the application of a safe harbor from private securities lawsuits for forward looking statements with regard to the predicted costs and exposures related to the Year 2000 problem.

These are exactly the kinds of actions that the financial industry needs to encourage and create incentive for further information sharing of full and candid disclosures of readiness.

Disclosure of technical information among all participants in the financial industry is a key ingredient in fixing Year 2000 problems. But full disclosure and information sharing is inhibited by concerns about the risks of potential litigation, especially punitive and consequential damages.

Far from serving as a prod to action, undue fear about such liability risk discourages the information-sharing we need—particularly about areas of difficulty—to achieve Year 2000 readiness.

State Street's reputation and future business success—as well as that of our industry peers—dictates that we successfully address the date change problem. We have tremendous incentives to succeed. And we depend upon the readiness of dozens of intermediaries to achieve that success.

We recognize that success in meeting our goals depends heavily on the joint responsibility and cooperation of all industry players—and of vendors outside our industry such as telecommunications and utility companies.

Mr. Chairman, we urge members of this committee to continue to find ways to create positive incentives for cooperation and openness among all parties. In our view, this would be the most effective assistance you could provide.

Thank you. I welcome any questions you may have.

RESPONSES OF JOHN R. TOWERS TO QUESTIONS SUBMITTED BY CHAIRMAN BENNETT

Question 1. What specific problem areas have you identified in regard to the global operations of State Street Corporation?

Answer. The most problematic area involves monitoring the compliance of third parties with whom we work to provide our services globally. Our ability to provide compliant products and services to the market requires that we take reasonable steps to validate the compliance of all the third-party products and services on which we depend. State Street has over 1,800 vendors that provide us with over 6,000 products worldwide. We have 29 business partners and relationships with over 100 subcustodian banks in 83 markets. We face off with a number of organizations such as the Federal Reserve and the securities depositories, and we interact with thousands of customers daily.

We begin by assessing the readiness of the products and services that these organizations provide us. We also assess the readiness of the providers themselves if their compliance is essential to a critical State Street function. These assessments are particularly difficult to perform in countries outside the U.S. where we have found the general lack of information a real barrier to making these evaluations. Thus, our greatest concern regards information sharing of essential third parties globally.

Pension plan sponsors and mutual fund companies expect global custodians like State Street to assess Year 2000-related market risks around the world. We understand our customers' investment decisions may, in part, be based on these assessments. These assessments should include an evaluation of the readiness of numerous links in the investment-processing infrastructure in which all participants in a given market operate, such as utilities and telecommunications. The general lack of information sharing by these participants, however, has seriously hampered our ability to monitor and evaluate these other links in the investment chain. Moreover, we cannot exercise the same level of influence over such participants, which are outside of our direct control, as we can, to some extent, here in the U.S. And we have found that influencing the readiness of those entities is largely beyond the control of local market participants as well.

Notwithstanding the tremendous challenges and barriers on the international side of this process, we are actively performing critical assessments of our foreign counterparties. As an example, I will focus on our in-depth program of evaluating the readiness of our subcustodian network. We rely on these subcustodian relationships for the settlement, safekeeping and servicing of assets in those non-U.S. markets. Our subcustodians also serve to give us—and our customers—a critical interface with other local market participants.

In general, our findings show that these institutions are actively engaged in comprehensive Year 2000 compliance activities both internally to their organizations and externally in the markets where they operate, however, preliminary responses with respect to general market planning reveal a wide range of variation in readiness.

Some markets have revealed little information, and some have highly developed programs. Others are more occupied with the introduction of the Euro or addressing recent market downturns. Moreover, we have found significant variation in regulatory oversight within markets. Virtually all markets view attainment of compliance as a fundamental prerequisite for post-Year 2000 survival. Some even regard the non-compliance of their market peer group as a competitive advantage and thus are not sharing information even among themselves. However, while many institutions are undertaking compliance programs, we have less information on the development of contingency plans for post-Year 2000 failure.

Our primary concern with respect to compliance efforts is the inconsistent regulatory approach and general lack of "information sharing" globally, as I mentioned. Many market participants are taking action—ministries of finance, central banks, government regulatory agencies, central depositories and banking associations. But the scope of their work varies. In some markets, the Central Banks are overseeing the Year 2000 compliance for financial institutions in their respective markets. Their deadlines and standards are very similar to those established by our Federal Reserve Bank. In other markets, a single regulator has oversight and enforcement responsibilities for all financial institutions and participants in the market including banks and brokers. In many new and emerging markets, from a subcustodian standpoint, participants are already operating with new systems that are compliant. It is important, however, that these markets and systems be fully tested to validate compliance. Furthermore, the low levels of investment and capitalization represent a lower risk relative to larger markets.

In our direct contact with the market, there is some good news. Target dates are being established, and many of our subcustodians are targeting compliance by December 31, 1998. There also appears to be universal acceptance that companies without effective plans risk severe consequences. By and large, participants recognize that "information sharing" would empower Year 2000 efforts. But financial institutions face a dilemma. If they are too candid in their disclosure, markets may over-react and investors may retreat. If they disclose too little, they may face litigation in the case of an unsuccessful Year 2000 transition.

In this regard, we commend Congress and the Administration for working together to enact the Year 2000 Information Act—an important step in encouraging companies to be more open in discussing Year 2000 issues. And we commend the SEC, particularly for its recent effort in coming forward and extending safe harbor protection for forward looking statements in this area. These are the kinds of actions that are needed to encourage and create incentive for further information sharing and candid disclosures of readiness. Once this information sharing begins to happen, as we believe it must, there are a number of international bodies in existence capable of promulgating this information, including the following advisory organizations:

—Basle Committee on Banking Supervision
—Bank for International Settlements
—International Association of Insurance Supervisors
—International Organization of Securities Commissions

Question 2. Have you done any specific assessments of State Street's foreign trading partners?

Answer. We have in place a comprehensive Counterparty Assessment Process which monitors the assessment of all significant and material funds takers, fund providers and counterparties (e.g., global banks, broker/dealers)—both domestic and foreign—throughout our operations. Our Resolution 2000 risk management team is leveraging expertise from State Street's Credit and Risk Policy area, which will continue to play a pivotal monitoring role. Trained loan officers in each business area and corporate credit and risk officers are performing assessments to check the readiness of our funds providers, funds takers and capital market/asset management counterparties worldwide.

As previously noted, State Street is taking a number of steps to assess the readiness of our subcustodian network that consists of over 100 subcustodian banks in 83 markets. We have incorporated Year 2000 compliance into the existing comprehensive due diligence that is performed today to see that these subcustodians are well prepared to represent us in the markets they serve on our behalf.

An assessment performed by our team of global custody professionals provides us with essential information regarding the subcustodians' programs and progress, their readiness to validate compliance with State Street and the market, and the readiness of the markets themselves. Our reviews evaluate their testing efforts and assess the progress of other local market participants—including securities depositories, central banks and clearing houses. Our evaluations also address how these participants are preparing contingency plans for potential points of failure after the millennium.

To date, we have issued two formal questionnaires. The first was designed to assess the subcustodians' understanding of the impact Year 2000 will have on its operations, focusing on their Year 2000 readiness programs, planning and internal impact review. We received a 100 percent response rate that is assisting us in determining if the subcustodians' systems are already compliant, and if not, their plans to make them so.

The second questionnaire addresses our subcustodians' ability to test with us as well as their plans to test with their external relationships. State Street is reviewing all of the responses to determine the scope of testing that will be required. We have already received over 97 percent of their responses to the second questionnaire and will begin testing with our subcustodians commencing in the fourth quarter 1998 through the end of the second quarter 1999.

In addition to the formal questionnaires to assess each subcustodian's internal Year 2000 compliance program, we initiated a third inquiry in May of 1998 to address "market readiness." Using our subcustodian bank network as an information source in the local marketplace, we focused this query on our subcustodians' view and understanding of the market infrastructure readiness for the Year 2000 as of this point in time. This information will assist us in assessing further "market readiness" and whether it may have an impact on our subcustodians' ability to effectively provide consistent service to State Street. We plan to conduct the same exercise in 1999 in order to assess changes from our last market review.

The results from each aspect of the assessment program are evaluated against our custody models and compared across the other markets to verify consistency of conclusions. A database serves to control, track, monitor and document this process and enables us to monitor each subcustodian's Year 2000 progress toward meeting the established milestones of our plan. Management reporting is generated from the database to support the project management and assessment teams in their compliance efforts. We also provide our customers with statistical reporting on our progress.

Further, as part of our approach to evaluating the markets, State Street participates in the Global 2000 Coordinating Group. This is a group of multi-national financial institutions that have gathered to assess the Year 2000 readiness of the international marketplace. The scope of their review has been grouped into three major categories:

—Multinational infrastructure readiness (payment systems, central depositories, exchanges, global depositories)
—Financial industry readiness (agents, nostros, depots); and
—Vendor and other third-party service provider readiness (technology firms, telecommunications, public utilities).

Question 3. Describe the potential negative impact that failures in the preparedness of foreign financial markets and foreign-based financial institutions could have on the American financial market and U.S. based financial institutions. What is being done, both technically and from a strategic business perspective, to mitigate the risks in these areas?

Answer. The current state of global markets has made us all very much aware of the interdependencies among markets throughout the world. Fundamentally, any institution, either here, or abroad, whose primary systems are non-compliant faces the potential of eventual financial failure. Smaller non-compliance breakage within a firm could yield problems with a lower or more localized impact.

A failure to be Year 2000 compliant could mean many things based upon the conditions of non-compliance. Non-compliance could range from a most critical condition of not being able to offer financial services, to a minimal situation of perhaps one component of a provider's systems not being compliant. Recognizing the variability of potential non-compliance events that could occur, we are monitoring each of our banking relationships on their efforts to address the impact of post-Year 2000 points of failure.

In the worse case scenario, State Street would need to find another fully-compliant provider in the marketplace. In a lesser case, State Street would need to work with our relationships to define an alternative process that would continue to provide consistent service levels. In anticipation of encountering a wide range of issues, we designed our program to support early identification of issues and timely response and to provide optimal time frames in which to invoke contingency efforts as situations may dictate. These contingency efforts may involve operational workarounds or Requests for Proposals to identify an alternative service provider.

On the corporate level, State Street maintains a set of "red and yellow alert" procedures developed to provide guidance to our management team when we are confronted with a potential or actual crisis situation—whether Year 2000-related or otherwise. The goal of these procedures is to centralize the critical decision makers, provide them with the data needed for decision making and thus closely coordinate our corporate level response and prevent major disruption of our business and consequent financial loss.

Examples of such crises include:

—a liquidity problem
—upheaval of an economy or financial market where we play a major role as principal or agent
—the failure of a major counterparty or intermediary
—significant delays in the availability of market information
—the failure of a critical internal or external system

These “event management” procedures are designed to provide guidance to State Street personnel confronted with a potential or actual crisis. State Street has perfected these procedures and proven their effectiveness through significant disruptions in domestic and international securities markets—including the 1987 U.S. stock market crash, the 1994 Mexican currency and financial crisis, and the recent series of destabilizing events in the global financial markets.

Question 4. In your statement you make reference to back up systems used by State Street Corporation. How do these systems work, and what role would they play in mitigating Y2K risks?

Answer. State Street has multiple data centers, running mirror images of many of its most critical applications. Each data center is equipped with an uninterrupted power supply as well as in-house motor generators to ensure its ability to operate in the event of an extended power failure. In the event of a localized failure in one of our data centers, we are able to shift workloads for these critical applications.

More specifically, State Street's backup systems and recovery plans include:

—Two data centers located in Quincy and Westborough, Massachusetts, 40 miles apart, and our “hotsite” vendor, IBM located in Maryland. These facilities support recovery of critical data processing and data communications functions across multiple system platforms (Tandem, DEC, IBM and Client Server).

—Critical software and data file backups performed at scheduled intervals. These backups are then stored at secure off-site facilities.

—Data processing recovery tests conducted for each system at least once a year. During 1997, forty-five (45) data processing recovery tests were conducted to validate the effectiveness of our recovery plans.

—Established processing capabilities from alternate locations for each major business unit. During 1997, sixteen (16) tests were conducted at these alternate recovery sites.

In the event of a failure, State Street has a standardized three-tier escalation procedure in place to support event management. Each type of processing problem has a clear escalation path with primary and secondary manager contacts documented for problem identification, notification and resolution. State Street's Command Center Help Desk maintains a contact database for communicating with our business areas and clients about network and system-related problems.

State Street's current backup systems and recovery plans (data processing and business recovery) coupled with its event management discipline have positioned the Company to respond effectively should Year 2000 failures occur. However, a large-scale public utility or telecommunications failure would leave all companies exposed, State Street included.

Question 5. In your statement you also referenced your company's ability to maintain operational stability despite the occurrence of natural disasters and other basic service interruptions. In what ways are the Y2K risks your company faces similar to those you have encountered in the past and in what ways are they different?

Answer. The similarities are that over the years, State Street has experienced and worked through complex incidents and failures. From a data center infrastructure or facilities standpoint the problems tend to be localized to a particular data center or operations site. A good example was when severe ice storms paralyzed Quebec last winter. State Street was able to maintain operational performance by executing its business recovery plans. More recently, when our Luxembourg office experienced a power failure, State Street was able to implement its recovery plans and had that operation up and running within three hours.

The differences are that although State Street is experienced with large-scale technological change, never before have such a volume of internal changes been put to the test at one point in time. There is also potential for having to manage multiple large-scale internal failures as well as those resulting from interfaces with external parties. Finally, the potential exists for simultaneous large-scale public utility, telecommunications and market infrastructure failures to occur as well.

Realizing this, in May of this year State Street initiated the Year 2000 contingency planning element of its Resolution 2000 program. State Street's Year 2000 contingency planning strategy is to leverage the existing corporate contingency planning program to respond to potential Year 2000 failures by using it as the foundation for future plans that may be required. All business areas must evaluate current business contingency plans and identify Year 2000 program elements that must be added to the plans to ensure the mission critical business functions are performed within acceptable service levels (i.e. impact of a vendor or service provider failure).

Question 6. In your statement you say that in cases where a fiduciary does not have investment discretion, such as with a 401(k) or index mutual funds, a specific year 2000 obligation for the fiduciary could be inconsistent with the purpose of the investment or may, in fact, be outside the fiduciary's discretion. What does this mean in practical terms and what impact does it have on your potential legal liability?

Answer. Under applicable law and the terms of the contract appointing an entity as fiduciary, a fiduciary's responsibility may be limited to those services delineated in the contract. For instance, in the case of an index fund, the fiduciary's liability is limited to tracking the stated index. If the fiduciary buys the securities in the index in the same proportion as the index, it is fulfilling its duty.

Imposing on such a fiduciary an additional obligation to verify that the issuer of a stock in the index is going to be year 2000 compliant forces an additional level of review upon the fiduciary, one that neither the fiduciary nor the client wants the fiduciary to take. Such a regulation would make tracking an index virtually impossible and prohibitively expensive, and could force certain fiduciaries to breach their contracts. Similar considerations apply to investor-directed plans such as 401(k)s and IRAs.

For example, if the fiduciary determines that a certain issuer of stock in the index ("Issuer A") may not be in a position to achieve Year 2000 compliance, the fiduciary would be forced into the position of violating one of two conflicting duties. It would have to either (i) buy the securities of Issuer A and continue to track the index as mandated by the client (and hence violate its new year 2000 duty); or (ii) not buy the securities of Issuer A and carry out its year 2000 duty (and hence violate its duty to track the index).

Question 7. Describe in more detail your assertion that some proposed legislation or regulatory action intended to reduce the potential risks faced by fiduciaries may in fact create additional risks?

Answer. I am referring here to legislation that would amend ERISA to require fiduciaries of employee benefit plans to ensure that the companies in which plan benefits are invested are year 2000 compliant.

As I stated above, a fiduciary's liability to act in the best interests of plan beneficiaries is currently limited under ERISA and by the terms of its contract. We are concerned about any legislation that could be interpreted to expand that responsibility by holding the fiduciary liable for losses to beneficiaries resulting from Year 2000 failures of a securities issuer or exchange.

By contrast, the proposed guidelines for fiduciaries recently issued by the FFIEC are drafted so that they clearly do not expand that liability. They recognize the fiduciary's existing duty to plan beneficiaries under ERISA and acknowledge the extension of that responsibility to include considerations of Year 2000 readiness of the companies in which the fund invests.

I also think it is important to note that this task would be, for all practical purposes, impossible for a fiduciary to perform without being able to rely completely on companies' public disclosures of Year 2000 readiness. In addition, as noted, there are some types of plans, such as self-directed 401(k)s and IRAs, in which the fiduciary has no investment discretion.

Finally, this question focuses on investment managers reviewing the year 2000 compliance of issuers whose securities they will be purchasing. The Committee should also bear in mind that another risk, which certainly would affect any investment manager but over which no investment manager has control, is the more "systemic" risk of a major exchange or clearing facility shutting down operations as a result of their own Year 2000 failures. Obviously, this would have a huge effect on investment managers' ability to manage their clients' accounts. However, it would be impossible and illogical to hold investment managers to any sort of liability as a result of these forces completely outside of the managers' control.

Prepared Statement of Laura S. Unger

Chairman Bennett and Members of the Committee: I am pleased to be here today to testify before the Special Committee on behalf of the Securities and Exchange Commission ("Commission") on matters relating to the Year 2000 technology problem. My testimony focuses on one of America's most successful and important businesses—the mutual fund industry—and its progress in addressing the Year 2000 challenge. I also will outline the considerable number of steps that the Commission is taking to promote Year 2000 preparedness by mutual funds.

As you well know, mutual funds play a key role in the economic life of many Americans. Over one-third of U.S. households now own shares of mutual funds.[1]

[1] The Investment Company Institute, 1998 Mutual Fund Fact Book (May 1998).

Mutual funds have more than $5 trillion in assets,[2] over a third of which are estimated to be retirement plan assets.[3]

Through the efforts of this Special Committee and others, most people are aware by now that a large percentage of the world's computer systems will need to be modified to ensure that they recognize the year 2000. Mutual funds and their investment advisers and other service providers, like most other securities-related enterprises, are heavily dependent upon computer systems. If their computer systems are not Year 2000 compliant, mutual funds and their investment advisers could face difficulties performing various functions such as calculating net asset value, redeeming shares, providing account statements and other information to their shareholders, and communicating with fund custodians, transfer agents, and distributors. As I discuss below, the Commission has actively considered and taken steps to address the Year 2000 problem for funds, and will continue to do everything that it reasonably can to ensure that funds correct any potential Year 2000 concerns before the turn of the century.

THE COMMISSION'S RESPONSE

The Commission has approached the Year 2000 problem from many directions in recognition of the potential for adverse consequences to so many investors if funds do not act and act soon to address the Year 2000 problem.[4] Early on, the Commission took steps to raise industry awareness of the Year 2000 problem and to collect information about mutual funds' readiness for the Year 2000. Commissioners and staff have addressed the Year 2000 issue in virtually every recent major speech to the fund industry.[5] The Commission and its staff have issued extensive guidance to issuers, including mutual funds, regarding their Year 2000 disclosure obligations, and have established a Task Force to monitor compliance with the Commission's disclosure directives. Over the past three months, the Commission's Office of Compliance Inspections and Examinations staff has conducted nationwide examinations that are dedicated to obtaining information on the Year 2000 problem. Most recently, we announced a moratorium on the implementation of new Commission rules that would require major reprogramming of computer systems by, among others, investment advisers and funds.[6] The moratorium is designed to facilitate and encourage securities industry participants to allocate sufficient resources to remediation of the Year 2000 problem. In the next few weeks, the Commission expects to take final action on a proposed rule that would require all registered investment advisers, including advisers to mutual funds, to report on the funds and the investment advisers' readiness for the Year 2000.

The information that the Commission staff has gathered to date shows that the mutual fund industry is quite aware of the potential problems that the Year 2000 presents and is preparing to meet this challenge in a timely manner. As we approach the millennium, the Commission will continue its Year 2000 program, taking any actions we believe will help ensure that the mutual fund industry is prepared for the Year 2000. We will continue to raise the industry's awareness of the Year 2000 issue, gather information about Year 2000 readiness, and evaluate the status of the industry's readiness. If we find deficiencies, we will aggressively address them with the funds and their investment advisers, conduct further examinations and, as appropriate, bring enforcement actions.

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[2] The Investment Company Institute, Current Statistical Releases, Trends in Mutual Fund Investing (April 1998).

[3] The Investment Company Institute, Retirement Statistics, Retirement Plans Hold 35 Percent of Mutual Fund Assets (Oct. 14, 1997).

[4] *See, e.g.,* Revised Staff Legal Bulletin No. 5 (pub. avail. Jan. 12, 1998); Statement of the Commission Regarding Disclosure of Year 2000 Issues and Consequences by Public Companies, Investment Advisers, Investment Companies, and Municipal Securities Issuers, Investment Company Act Release No. 23366 (July 29, 1998); Investment Adviser Year 2000 Reports, Investment Advisers Act Release No. 1728 (June 30, 1998) ("Form ADV-Y2K Proposing Release").

[5] *See* Remarks of Chairman Arthur Levitt at the Investment Company Institute (May 15, 1998); "Mutual Fund Consolidation and Globalization: Challenges for the Future"—Remarks by Barry P. Barbash, Director of the Commission's Division of Investment Management, Mutual Funds and Investment Management Conference, Sponsored by the Federal Bar Association and the ICI Education Foundation (Mar. 23, 1998); "Remembering the Past: Mutual Funds and the Lessons of the Wonder Years"—Remarks by Barry P. Barbash, Director of the Commission's Division of Investment Management, 1997 ICI Securities Law Procedures Conference (Dec. 4, 1997); "Mutual Funds in the New Millennium: The Opportunity To Invent Their Future"—Remarks by Barry P. Barbash, Director of the Commission's Division of Investment Management, 1997 ICI General Membership Meeting (May 16, 1997).

[6] Commission Statement of Policy on Regulatory Moratorium to Facilitate the Year 2000 Conversion, Investment Advisers Act Release No. 1949 (Aug. 27, 1998).

We believe that, in addition to the Commission's actions and other government initiatives, the disciplining effect of market forces and self interest will promote Year 2000 compliance in the mutual fund industry. Mutual funds and their service providers have compelling business incentives to expend the resources necessary to protect themselves, their clients, and their investors. We believe that strong and effective government oversight together with market forces will foster widespread Year 2000 compliance in the mutual fund industry.

EDUCATION AND INFORMATION GATHERING

One of the Commission's top Year 2000 priorities has been to educate mutual fund industry participants about Year 2000 issues and to gather information on their progress in becoming Year 2000 compliant. Since 1996, Commission examiners have raised Year 2000 concerns during adviser and fund examinations to increase awareness of the problem and encourage corrective action. In 1997, Chairman Levitt sent a letter to all registered investment advisers, including advisers to mutual funds, warning of the consequences of not being Year 2000 compliant, and urging them to make preparations for the Year 2000 their highest priority.

The Commission staff has been working with the Investment Company Institute ("ICI"), the mutual fund industry's principal trade group, to obtain data to monitor the progress of the industry in addressing the Year 2000 problem. The Commission staff has met regularly with the ICI to promote Year 2000 readiness and discuss the status of the industry's Year 2000 assessment, remediation, and disclosure efforts. A recent ICI survey indicates that 80 percent of funds responding to the survey plan to complete their Year 2000 programs by the end of this year.[7] The ICI also has urged its members to participate in the Securities Industry Association's industry-wide testing program, which is scheduled to begin in March 1999. Several major mutual fund complexes participated in the Association's initial round of beta testing this July, which involved simulating a trading cycle (i.e., from order entry to settlement) for various types of securities, including mutual fund shares. The funds that participated in this testing experienced no significant problems.

DISCLOSURE

The Commission has taken a number of steps to promote useful disclosure about Year 2000 issues by mutual funds. To impress upon mutual funds their disclosure obligations, the Commission's Division of Investment Management jointly issued a Staff Legal Bulletin with the Division of Corporation Finance in 1997. Under the bulletin, funds and advisers must disclose any material effect that the Year 2000 problem may have on their businesses, including the cost of remediation, the consequences of incomplete or untimely resolution of the problem, and the risk that the problems of third parties will affect their business.

After the bulletin was issued, the Division of Investment Management formed a Year 2000 Disclosure Task Force to assess the quality of Year 2000 disclosure being made in disclosure documents. The Task Force was directed to assess the disclosure not simply through the eyes of a regulator, but also through the eyes of an investor. When appropriate, the Task Force instructed funds to provide disclosure in plain English, and more user friendly, terms. The funds selected for review by the Task Force represented over 50 fund complexes and over 59 percent of mutual fund assets.

The Task Force found that the number of mutual funds that are disclosing Year 2000 information has increased substantially in the last year. During 1997, few mutual funds made any Year 2000 disclosure. In contrast, through May 1998, 81 percent of the new or amended registration statements filed by funds during 1998 contained Year 2000 disclosure. In addition, 24 of the 25 largest mutual fund complexes have made Year 2000 disclosure to their shareholders.[8]

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[7] Data provided by the ICI. This information reflects responses to the ICI's questionnaire dated March 16, 1998. Responses were received from 77 investment company complexes between March 16 and June 3, 1998, and represent 66 percent of industry assets. Two of these firms did not provide a response to the question by the completion date. The program completion date for funds broke down as follows (percentage of funds): 1998 2d Q or earlier—3 percent, 1998 3d Q—5 percent; 1998 4th Q—72 percent; 1999 1st Q—8 percent; 1999 2d Q—11 percent; 1999 Post 2d Q—1 percent.

[8] The remaining fund complex informed the staff that it believes that Year 2000 issues will not materially affect its ability to provide the services described in fund registration statements. The complex has been working on Year 2000 corrections since 1996, reports frequently to the fund boards, and continues periodically to review the need for disclosure. In addition, the fund complex is considering providing supplemental communication to shareholders about Year 2000 issues.

In the course of its reviews, the staff became concerned that, while more funds were discussing Year 2000 issues in their disclosure documents, the documents in many cases could be made more useful to investors seeking to understand the Year 2000 readiness of their funds. In attempting to improve the quality of Year 2000 disclosure, the Commission issued an Interpretive Release on Year 2000 disclosure requirements in July 1998. The release sets forth the factors that the Commission expects all mutual funds to address in providing Year 2000 disclosure. In particular, the release states that if mutual funds determine that their Year 2000 risks are material, they must disclose these risks in their registration statements and other public documents. According to the release, a fund should consider, in assessing its potential Year 2000 risks, whether Year 2000 issues affect its own operations, its ability to obtain and use services provided by third parties, or its portfolio investments. The Task Force will continue to evaluate industry compliance with this guidance, and will direct funds to improve their disclosure, as needed.

EXAMINATIONS

The Commission believes that one of the most effective means of directly evaluating the readiness of mutual funds for the Year 2000 is through the examination process. Beginning in 1996 and continuing through 1997, our investment management examination program focused on awareness: getting the message out to funds and their investment advisers that they needed to address the Year 2000 problem. In 1996, the Commission's Office of Compliance Inspections and Examinations sent a letter to the ICI alerting it to the seriousness of the problem and that remediation efforts would be reviewed during on-site examinations. Reviews of mutual funds and their advisers at that time were designed to alert them to the problem and to gauge whether they had plans to remediate their computer systems that were not Year 2000 compliant. Of the 757 investment advisers and mutual funds examined in 1996 and 1997 of which Year 2000 inquires were made, 93 percent (731) were aware of the Year 2000 problem, and 83 percent (627) had already taken or planned corrective actions. During late 1997, our examiners conducted in-depth reviews of selected advisers' remediation programs. The staff generally found that these advisers were taking the Year 2000 problem seriously, had plans in place to deal with Year 2000 issues, and were actively working on implementing their plans.

Beginning in the spring of this year, our examinations began determining the extent of each fund's reliance on third parties to ensure Year 2000 compliance, whether the fund has a written plan to deal with Year 2000 issues, the date that the fund expects to complete systems testing, and whether the fund plans to participate in testing with outside parties or in industry-wide testing. Our examiners have collected information concerning, for example, progress on meeting completion dates and testing for a significant percentage of registered advisers. The information gathered through this process serves both to identify specific areas of potential difficulty that will need close monitoring and to validate information provided from other sources. As of this past August 31, our examination staff had conducted inspections of mutual funds representing over one-third of fund assets. Our data show that most funds plan to have any Year 2000 problems corrected by the end of 1998 or during early 1999, which is generally consistent with industry statements that corrections should be completed by December 1998.[9] Only a small number of funds indicated that they did not expect to complete their corrections until mid-1999. The staff is treating those advisers and funds with late completion dates and those not planning to conduct internal testing as potentially requiring additional action. We will be asking them to explain any problems that we find, and we may follow up with on-site examinations of some of these entities in the future.

Thus far, data that we have collected show that funds are making significant progress in addressing their Year 2000 problems. Ninety percent of funds indicated that they were taking steps to correct their Year 2000 problems. Of the remaining funds, some had already completed their corrections or indicated that they had identified no problems.[10] We found that 77 percent of funds have written plans to address Year 2000 compliance, and that 95 percent of the funds have made inventories of all of their computer systems affected by the Year 2000 problem. Only 1 percent of funds had neither a plan nor conducted an inventory.

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[9] See ICI Survey supra note 7.

[10] Some advisers that answered that they had identified no problems explained that they either had new systems that were Year 2000 compliant or had contracted with third parties for virtually all of the services that might be affected by the Year 2000. The Commission staff will send letters to other funds that provided this response asking them to explain whether their responses indicate that they need to take additional steps to address their Year 2000 readiness.

PROPOSED REPORTING REQUIREMENT

In recognition of the urgency of the Year 2000 problem, the Commission intends to take every reasonable step to encourage the mutual fund industry to address the Year 2000 challenge. To supplement our examination program, the Commission has proposed to require that all registered investment advisers, including fund advisers, report their progress on making their systems Year 2000 compliant.[11] The reports would be similar to our recently-adopted reporting regulations for broker-dealers and transfer agents. If the advisers have mutual funds as clients, the advisers also would be required to provide information about the readiness of the funds for the Year 2000, as well as their own readiness. As proposed, the reports would address the scope and status of the advisers and funds' Year 2000 plans and their commitment of resources and personnel to address the problem. Advisers to funds would report on the systems that may be affected by the Year 2000 problem and the progress that they have made in addressing these problems, including the extent to which they have conducted internal and external testing of their systems. The reports also would include information on contingency plans in case of system failures and the readiness of third parties upon which the adviser or fund relies for its critical systems.

The Commission believes that the proposed Year 2000 reports will further encourage advisers to proceed expeditiously in preparing for the Year 2000. We expect that advisers will be required to file the reports in early December and again in June 1999. The Commission has proposed to make the reports available to the public on our website and will use the information gathered in the reports, among other things, to fulfill Congressional requests for information regarding the securities industry's readiness for the Year 2000 problem. The Commission staff intends to use the reported information to obtain a more complete picture of the industry's overall Year 2000 preparations and to identify firm-specific problems. Advisers that report questionable or inconsistent information will be asked to explain any problems that we find and could be subject to follow-up compliance examinations. Information in the reports, in conjunction with information obtained from industry groups and through the examination program, will enable the Commission staff to target its efforts for the rest of 1998 and 1999 on particular industry segments or firms that appear to pose the greatest risk of non-compliance. The Commission is currently reviewing staff recommendations on the proposed rule and expects to take final action on the rule by the end of the month.

MUTUAL FUND PORTFOLIO INVESTMENTS

Thus far, I have discussed the Year 2000 to the extent that it presents potential operational risks to mutual fund shareholders. Such a risk would be, for example, that a fund's computer systems may fail at the turn of the century. I understand that the Special Committee also is examining the important issue of the Year 2000 to the extent that it presents potential investment risks to mutual fund shareholders. These risks would include, for example, the risk that the operations of a company in which the fund invests would be adversely affected by the Year 2000 problem.

The Year 2000 risks presented by the companies in which mutual funds invest, like any other investment risk, will be a factor that investment advisers to mutual funds may consider as part of their investment decision-making process. In discussions with major fund complexes, we have learned that their investment advisers are increasingly considering companies' Year 2000 compliance when they evaluate the merits of the particular companies as potential investments. One major fund complex advised us that its analysts ask standard questions about all prospective portfolio companies' Year 2000 readiness, including questions about the priority assigned and assets committed to the companies' Year 2000 program, the companies' consideration of risks posed by third parties (e.g., suppliers), and the current status of their progress in identifying and eliminating Year 2000 problems. Another major fund complex reported to us that its investment adviser's portfolio managers systematically address Year 2000 issues by carefully reviewing publicly available information about a company's Year 2000 readiness, and then following up with on-site visits for further fact gathering.[12] Fund complexes generally advised us that they

[11] Form ADV-Y2K Proposing Release, supra note 4.

[12] Public information about the Year 2000 exposure of some portfolio companies only now is becoming widely available. *See, e.g.,* Statement of the Commission Regarding Disclosure of Year 2000 Issues and Consequences by Public Companies, Investment Advisers, Investment Companies, and Municipal Securities Issuers, Investment Company Act Release No. 23366 (July 29, 1998).

expect Year 2000 analyses to become more refined as more information about Year 2000 becomes available. We believe that this kind of Year 2000 due diligence is, or will become, typical of the investment decision-making process used by many funds' investment advisers.[13]

The Commission will continue to develop a more complete picture of the steps that funds' investment advisers are taking to address Year 2000 investment risks. The Commission staff has recommended to the Commission that the Year 2000 reports discussed above require fund advisers to indicate whether and how they consider Year 2000 investment risks in making investment decisions. This requirement will provide us with more information about the role of Year 2000 issues in fund advisers' investment decision-making process, and help focus advisers' attention on this issue.

We believe that, based on the information that we have collected to date, no further action by the Commission is needed at this time to address fund advisers' consideration of Year 2000 investment risks. The role that Year 2000 investment risks should play in advisers' investment decision-making process depends heavily on the particular context. Fund advisers are legally required to manage their portfolios consistent with their stated investment objectives and strategies. In some cases, it may not be consistent with a fund's investment objectives (e.g., to invest in the S&P 500) or strategies (e.g., to rely exclusively on quantitative analysis) for the fund's adviser to take a companies' Year 2000 readiness into account in making investment decisions. The Commission believes that, because of the fact-specific nature of the investment decision-making process, imposing specific obligations on fund advisers regarding their consideration of Year 2000 investment risks would likely be impractical and potentially inconsistent with the way in which shareholders expect their funds to be managed.

THE ROLE OF INVESTORS

One of the Commission's primary goals historically has been to apprise investors of the importance of understanding the risks of the investment vehicles in which they invest. Toward this end, the Commission has sponsored numerous public meetings to educate investors about the importance of understanding their investments. The Commission also has published on its website a list of eight questions that investors should ask their mutual funds about the Year 2000, including a question regarding the Year 2000 exposure of the portfolio companies in which funds invest. Anecdotal evidence that we have gathered to date suggests that investors are aware of this issue and many of them are contacting their advisers and funds to ask about Year 2000 issues. One major fund complex, for example, reported to us that it had received over 600 questionnaires from investors asking, in part, about steps that the fund's investment adviser was taking to incorporate Year 2000 considerations into its investment decision-making process.

CONCLUSION

We believe that the mutual fund industry is well aware of the potential problems that the Year 2000 presents, and is preparing to meet this challenge in a timely manner. Funds and advisers generally appear to be expending the effort and resources necessary to ensure Year 2000 compliance. The Commission will continue to actively evaluate the industry's readiness on Year 2000 issues, and will take further action as necessary against those advisers and funds that appear to present problems. Many fund shareholders and advisory clients are aware of this issue, requiring funds and advisers to view the Year 2000 problem not just as a regulatory issue, but as a business issue. In this regard, although we at the Commission will continue to monitor progress and do everything that we can to address the Year 2000 issue, funds and advisers will ultimately have to answer to the market and their clients if they are not ready for the coming millennium.

RESPONSES OF COMMISSIONER LAURA S. UNGER TO QUESTIONS SUBMITTED BY CHAIRMAN BENNETT

Question 1. You have testified that of the mutual funds you have examined to date (representing approximately ⅓ of assets held in mutual funds), only 1 percent

[13] Our view is confirmed by a recent article, which outlines the decision-making process of the advisers to a number of larger fund groups. Fund Managers Hunt for Clues, Morningstar (June 16, 1998) (reporting fund portfolio managers efforts to obtain information about companies' Year 2000 readiness) (available at http://www.morningstar.net).

had failed to prepare a written plan and conduct an inventory of their systems. These are promising results. Nevertheless, what action do you plan to take against those 1 percent and others you identify in future examinations?

Answer. The Commission's staff is following-up with "for-cause" examinations of the mutual funds that failed to prepare a written plan and conduct an inventory of their systems. The Commission's staff will continue to monitor mutual funds that appear to be at risk. Specifically, the staff intends to use investment advisers' disclosures in newly adopted Form ADV-Y2K to identify advisers and fund complexes that appear to not have addressed their Year 2000 problems.

The staff also expects the private sector to play a role in monitoring the mutual fund industry. The staff expects interested parties—investors, clients, business partners and vendors—to use the ADV-Y2K disclosures to form their own conclusions about advisers' and funds' readiness. Firms lagging behind the industry should expect to feel the effects of business, as well as regulatory, discipline.

Question 2. It is very important that both individual investors and investment advisers have reliable and complete information on the companies in which they invest, including information about Year 2000 risks. Do you have any sense of whether individuals and investment advisors are getting the Year 2000 information they need to make informed investment decisions and recommendations?

Answer. The Commission is making every effort at making sure that reliable and complete information about the Year 2000 preparedness of companies is available to investors. Based on the Commission's recent interpretive release regarding public company disclosure, the vast majority of companies should be providing details of their Year 2000 readiness each quarter in their Commission filings. We cannot be sure to what extent individual investors use this information in their investment decisionmaking. To encourage investment advisers to use this information, the Commission recently asked all advisers whether they took into consideration Year 2000 preparation of companies whose securities they recommend to clients. Based on the number of questions the staff of the Division of Investment Management has received, this question has attracted the attention of investment advisers. When investment advisers submit their Year 2000 readiness reports to the Commission in early December, we will have a better indication of whether advisers are considering Year 2000 issues when they make their investment decisions.

Question 3. The Special Committee staff has spoken in confidence with individuals who assert that a very high percentage of Year 2000 disclosures filed to SEC requirements are misleading and outright wrong. The argument goes that a company has more risk in exposing Y2K problems since at this time there is independent auditing in place to challenge their Y2K statements and there are no fines for misstatements. In contrast, Mexico is auditing the statements being made by their banks. Please comment on these allegations? What actions is the SEC prepared to take against companies that file misleading reports?

Answer. At this time, the Commission has no basis to believe that a very high percentage of Year 2000 disclosures are misleading. If the Commission finds that any Year 2000 disclosures are materially misleading, appropriate action will be taken. The Commission takes the Year 2000 problem seriously and intends to vigorously enforce the federal securities laws relating to this disclosure issue. As I testified, the Commission's interpretive release on Year 2000 disclosure may form the basis of Commission enforcement actions against companies that fail to disclose material information regarding their Year 2000 issues.

At this time, the Division of Corporation Finance staff continues to seek better Year 2000 disclosure by raising issues through the comment process for company filings that it reviews. More egregious deficiencies will be referred to the Division of Enforcement for investigation. The Commission intends to be proactive and take any warranted enforcement action before the Year 2000 for misleading Year 2000 disclosure.

Recently, the Division of Enforcement brought actions against 37 brokerage firms for failing to file required Year 2000 related reports. As part of this coordinated effort, the National Association of Securities Dealers charged another 59 brokerage firms for filing their reports late. These actions reflect the Commission's recognition of the magnitude of this issue and willingness to promptly bring enforcement actions for federal securities law violations.

The Commission's Office of Chief Accountant has worked with the accounting and auditing profession to establish appropriate guidance for auditing procedures in the Year 2000 context. The Commission itself does not directly conduct audits of public companies since our statutory authority is limited to eliciting disclosure. For broker-dealers, over which the Commission has more direct authority, the Commission recently adopted a rule that requires a broker-dealer to file with the Commission and the broker-dealer's designated examining authority a report prepared by an independent public accountant regarding the broker-dealer's process for preparing for the Year 2000. In conjunction with adopting this requirement, the Commission indicated that the independent public accountant's report can be prepared in accordance with agreed-upon procedures promulgated by the American Institute of Certified Public Accountant's Auditing Standards Board.

PREPARED STATEMENT OF MICHAEL A. WATERFORD

INTRODUCTION

Mr. Chairman and Members of the Committee, my name is Michael Waterford and I am here on behalf of DST Systems, Inc. We appreciate the opportunity to provide testimony on the Year 2000 Problem and the efforts of the mutual funds industry to prepare for it. We believe that the work of this Committee is vitally important in creating the necessary climate of public awareness of the problem and an appropriate level of corporate concern and response.

DST'S ROLE IN THE MUTUAL FUNDS INDUSTRY

DST Systems, Inc. is a publicly traded company based in Kansas City, Missouri, and listed on the New York Stock Exchange. Our revenues in 1997 were $650 million and we employ approximately 6,000 people worldwide. Our company was founded in 1969 to address the shareholder record-keeping requirements of the mutual funds industry, and today that is still our primary business. We have other businesses which provide products and services to the financial services and other industries; however, this testimony is in respect to our U.S. mutual funds business only.

DST has grown rapidly with the mutual funds industry and is the leading record-keeper for shareholders in that industry. We provide shareholder record-keeping to over 200 mutual fund companies, representing over 8,000 funds or fund classes and over 48 million shareholder accounts, with assets in excess of $1.6 trillion. A shareholder account represents one holding by one person in one fund or fund class. A person who invests in a dozen funds or fund classes would have twelve accounts maintained by us. We estimate that an investor has on average two or three accounts, so 48 million shareholder accounts can be translated into 15–20 million investors. We also provide portfolio accounting services to 33 mutual fund companies with over 2,000 portfolios.

Our shareholder accounting system and portfolio accounting system are large proprietary systems which we own and operate at our own data center in Kansas City, Missouri. We make our services available to clients and shareholders over our own private telecommunications network. We do not sell these systems.

The software product which we use to provide shareholder record-keeping to the mutual funds industry is called TA2000.™ The typical services which we provide for mutual fund shareholder record-keeping involve processing transactions, such as maintaining shareholder records of ownership in mutual funds. This means performing transactions such as purchases, redemptions and exchanges; account maintenance such as changes of address or bank account information; processing incoming mail, responding to phone inquires from shareholders and financial intermediaries such as brokers; sending out confirmations, statements, checks, letters and tax forms. If a client (i.e. a mutual funds management company) elects to have us perform all of those services employing our own staff, we consider the client to be a "full service" client. Clients who wish to perform all of the functions themselves, accessing our systems in our data center but employing their own staff, are considered to be "remote service" clients. Remote service clients may decide that they wish to perform all the services themselves. Alternatively, they may choose to perform only some part of the services themselves and outsource the remainder to us. Thus the full service and remote service options should be regarded as a spectrum along which clients may choose whichever combination of remote and full services best suits their needs. Just over 40 of the 200 management companies we service have chosen DST to perform their shareholder record-keeping on a full service basis. In respect to both full service and remote service activities, DST is a registered transfer agent regulated by the Securities and Exchange Commission. Since some of our clients are banks, we are examined by the Federal Financial Institutions Examination Council (FFIEC) on behalf of the Federal Reserve, the Federal Deposit Insurance Corporation and the Comptroller of the Currency in connection with their regulation of our client banks. The work of all these regulatory bodies is important in furthering awareness of the Year 2000 Problem, and in assisting with coordination of efforts by industry members.

Our portfolio accounting services are provided by a separate software product, the Portfolio Accounting System or PASTE, and are available only on a remote service basis. These services enable mutual funds managers to record the underlying securities in the mutual fund portfolio, to track portfolio changes as well as to record corporate actions such as dividends and stock splits. The most critical function of PAS is to calculate the daily net asset value (NAY) of the fund which is published in the newspapers and used in the calculation of the prices at which shareholder purchases, redemptions and exchanges are made.

Increasingly, we handle shareholder inquiries and transactions via automated interfaces. The single most important interface is the data transmission from the National Securities Clearing Corporation (NSCC), which offers trade placement and settlement services for mutual funds transactions originating primarily from broker/dealers. We process over 50 percent of the NSCC's daily mutual funds volume. The numerous interfaces which we handle in TA2000 also include direct transmissions from mutual fund clients and financial intermediaries. Additionally, we receive direct transactions and inquiries from shareholders using our Interactive Voice Response (IVR) systems, which enable the shareholder to conduct business from a touch-tone telephone, 24 hours a day, 7 days a week. We also provide Internet access for shareholders through a secure Web site. This is not currently a significant part of our total volume of transactions and inquiries, but is growing rapidly.

In line with developments in the mutual funds industry, the types of funds and accounts which we service have grown significantly during the 1980's and 1990's. Tax-qualified accounts in particular have grown as a percentage of total accounts and total assets in all types of funds. An increasing percentage of tax-qualified shareholder accounts which we service are Individual Retirement Accounts (IRA's) and a further large number of accounts represent individual investment choices in 401 (k) plans. Some 401 (k) plans are serviced directly by DST using our TRAC–2000 system, which is offered to our clients as part of TA2000. In that case the number of participants in the plan is known and all the participant information is recorded on our system. Other 401 (k) plans are administered outside of TRAC–2000 and TA2000 by other companies or administrators using their own software. In that case, for each fund in the plan which we service, the plan administrator maintains a single account on our system representing all of the plan's assets in that fund.

Over the last decade, DST has invested hundreds of millions of dollars in its infrastructure and systems to address the growing needs of the mutual funds industry. We have invested in the development of proprietary image-based systems to manage high-volume workflow (letters, faxes, phone calls) in a clerical environment. We have invested in large increases in data center and telecommunications network capacity to handle increasing volume, and we have invested in major systems development to meet our clients' needs as their mutual funds products have evolved. Today, well over 1,500 of our staff are in technology roles in information systems development and support as well as computer and network operations.

DST's PREPARATIONS FOR THE YEAR 2000 PROBLEM

DST's first preparations for the Year 2000 started in 1989. In that year, we undertook a large project, known as "Flex," at a cost of $12 million to re-engineer the data in our TA2000 mutual funds shareholder record-keeping system. This involved both the relief of certain constraints which had come about as a result of rapid growth in the 1980's as well as the expansion of data capacity to handle anticipated growth over the next two decades. A key element of this project was the addition of the century to all dates in the TA2000 data bases and we also upgraded the date fields in those work and interface files where DST was able to determine the format of the file. We were not able to upgrade the formats of date fields where those were determined by clients or other organizations. Thus, since 1990 when the re-engineering project was completed, our mutual funds shareholder records have generally carried the full four-digit year.

At the same time, we established a central data architecture group to control the data architecture for our future systems development. This group established a full four-digit year requirement for dates in data bases and work files. The result has been a consistent standard across all of our proprietary systems for approximately ten years which has been a major factor in reducing the size and cost of the task of preparing for the Year 2000. In spite of those actions, the work of verifying our readiness has required the allocation of significant resources, of which the majority have been deployed in our test efforts both internally and with the outside world.

In 1994 through 1996, we conducted a review of our TA2000 system to assess its Year 2000 status. We chose that system since it is the largest system we operate, consisting today of approximately 15,000 programs, and represents the largest part of our overall business. We identified certain areas with trans-century issues and carried out several projects to address those issues. At the same time, we also reinforced our systems development processes. These projects provided us with key insights into the methodology of systems remediation and maintenance in large highly active systems which have been important to our Year 2000 readiness program. DST's standard for the Year 2000 is that data bases and work files will contain, where possible, the full four-digit year, and that any data bases or files which did not include the full four-digit year will be expanded to do so. There is a technique, called "windowing," which can be used to deal with data bases with two-digit years. This involves creating a virtual century e.g. from 1950 to 2049, and programming the computer system to treat years 50 through 99 as 20th century, and years 00 through 49 as 21st century. There are many variants of windowing, but the basic concept is the same and requires program changes. DST's standards limit the use of windowing, because the technique is not as reliable as field expansion in many circumstances . There are two kinds of situations where, even with four digit years in the data base, some windowing is required. The first is in the acquisition of date information from workstations, where, for operational efficiency, the operator is required only to enter a two digit year. The second is in data interfaces with third parties where the third party has specified a two-digit year format and does not wish to upgrade it.

In November 1996, we established a Project Office, headed by a senior officer and staffed by qualified senior technical staff and experienced outside consultants, to establish methodologies, processes, and standards and to carry out day-to-day oversight of all Year 2000 activities. The organization of Year 2000 projects is based on DST's business structure. For each software product or other area of the organization undertaking Year 2000 remediation activities, the executive in charge of the area is responsible for the provision of resources and is accountable for timely and successful completion of the work. Within the area, technical and business staff working in project teams headed by experienced managers are responsible for carrying out the work, including communication with clients and organization of point-to-point testing where applicable. These managers report directly each month to the Project Office. The Project Office reports to a Year 2000 Oversight Committee, headed by DST's Executive Vice President together with key operating executives as well as legal and internal audit representation. The Oversight Committee meets monthly to review the work of the Project Office and to ensure that DST's Year 2000 program is completed in a timely manner.

DST has set a corporate goal of achieving internal Year 2000 readiness of our systems and services by December 31, 1998. By "Year 2000 readiness," we mean that the system will operate in accordance with its specifications or other functional description regardless of the century with respect to which date data is encountered by the system.

We set our timeframe for achieving readiness as an internal timeframe because we recognize that internal readiness and external readiness (i.e. readiness involving testing and interaction with clients and other third parties) involve two very different sets of issues. One of the lessons learned from our re-engineering experiences with the Flex project in 1989 and 1990 was that internal re-engineering projects where we have complete control of the project elements can be executed in a structured and predictable manner on pre-determined schedules, even if the projects are large and complex. Projects involving external organizations to whom we provide services are susceptible to scheduling and co-ordination difficulties and are less predictable in terms either of the effort required to complete them or the probable timetable for doing so. It is important for timely achievement of internal Year 2000 readiness that it be kept separate from external readiness activities.

Our decision to choose December 31, 1998 as a goal for internal readiness was motivated by two considerations. The first was simply to allow time for recovery in the case of project delays. The second was the expectation that adequate staffing would have to be allocated in 1999 to testing with clients, the industry and other third parties. At the time of this submission, this still appears to be the likely course of events.

CURRENT STATUS OF DST's YEAR 2000 READINESS PROJECT

The readiness program established by the Project Office began in early 1997 under veteran project managers. To a large extent, we have undertaken these efforts with our own staff, and always under our own control, which we consider to be appropriate for timely completion of these activities. The process for Year 2000 readiness of a system consists of taking an inventory of everything which might be affected, determining its readiness status (assessment), carrying out the necessary repair or replacement, testing and implementation. The complexity of the Year 2000 Problem lies not in each individual project. It lies in coordinating and sequencing all projects across a large organization, and beyond the organization to numerous third parties with which any organization communicates as part of its normal business activities. In other words, it is not a complex technical problem. It is a complex logistical problem.

To support its test requirements for Year 2000 readiness, DST has created two different kinds of test facilities. The first kind is a date-simulated environment. In the date-simulated environment, we are operating multiple test systems for ourselves and our clients. These test systems use data bases which are separate from our normal test facilities and from each other, and contain test shareholder and fund information which has been "rolled forward" until it appears to be 1999 or 21st century data. When tests are run, special tools create the appearance of a 21st century environment even though the underlying software/hardware platform is the same platform we use for current test and production. The advantage of this is that it is highly flexible, easy for our clients and ourselves to access and permits large amounts of testing in widely different situations in relatively brief time periods.

The second kind of test facility is a "time machine." This is a segregated hardware and software platform which is actually operating as if it is in the 21st century. It is the full readiness platform where all third party hardware and software is brought together with our own systems to be sure that they all work together properly. The time machine is very important, but is used more sparingly than the date-simulation facilities because: (1) it is difficult to access due to the need for complete isolation to avoid contamination of current platforms; and (2) it is being built on an on-going basis as third-party software becomes available. So the date-simulation facilities do most of the work of testing each product, and the time machine is used for final integration and testing of our systems.

As of the time of this testimony, we have essentially completed the remediation of our TA2000 and PAS software systems, and the remediated programs have been placed into production. Testing both internally and with our clients is well advanced. Internal testing of TA2000 has been on-going for over a year, and will continue through the end of 1998. Internal testing of PAS began this year and will be completed this year. The tests consist of "cycles" addressing specific system functionality in a specified range of 1999 and 21st century dates. Testing of these systems has uncovered a small number of issues, all of which we consider to be minor and were promptly addressed. We expect to complete our internal testing on schedule by the end of 1998. Readiness of the time machine is less advanced, partly due to time frames for acquiring third-party software and partly due to the time frames for assessing certain "in-house" software which support our operations. However, the time machine is in successful operation at the moment and we anticipate that it will be complete for mission critical elements by the first quarter of 1999 with testing continuing throughout that year.

We expect our testing with clients, the industry and other third parties to continue well into 1999, and possibly into the fourth quarter. Our testing with clients started on TA2000 in November 1997, and for PAS in June 1998. Testing with clients is organized in cycles, like internal testing, and has also uncovered only a small number of issues which have all been promptly addressed. DST has many interfaces with third parties other than its clients. One of the primary interfaces, as noted earlier, is with the NSCC. DST has worked with the NSCC to ensure that the interface formats are appropriate for the transition into the next century, and is a participant together with many other organizations in the financial services industry in the industry-wide testing organized by the Securities Industry Association. The SIA is to be commended for its leadership role in organizing and overseeing the "streetwide" testing which is being carried out in 1998 and 1999. DST participated as a service provider in the "beta" test which was carried out in July of this year. Although this was only a limited test in terms of volume, it afforded the opportunity to test the interfaces between brokers, stock exchanges, mutual funds companies and other organizations with a range of financial transactions. DST received approximately 1,200 transactions, which it processed with no Year 2000 problems. We will participate both in an additional mutual funds test in October 1998, as well as the full streetwide test in March 1999.

As our testing has progressed with relatively few problems, we have become more comfortable with our ability to meet our internal timeframes for readiness. That is not the same as saying that we expect to be error-free. The state of the art in software development unfortunately does not permit the creation of large defect-free software products. Therefore, in spite of the considerable amount of testing which we and other organizations have undertaken and will continue to undertake, we must expect that there will be issues of various kinds when we cross into the next century.

In terms of expenditure of resources, DST currently has the equivalent of over 100 persons working on Year 2000 for its mutual funds business, including TA2000, PAS, and infrastructure projects. Our estimates for the effort still to be expended are subject to fluctuation, because of the difficulty of estimating the extent to which clients will test with us and the timeframes in which they will do so. Our recent filing with the SEC indicated total budgeted costs for our regulated business in 1998 and 1999 of $5 to 10 million per year, with some residual cost of $1 to 2 million in 2000.

As described earlier, our mutual funds business is regulated by the SEC and examined by the FFIEC. With respect to the SEC, we filed a new report, Form TA-Y2K, on August 31, in response to the new SEC Rule 17Ad–18, and will file a further report as required by the rule on April 30, 1999. Filings of Form TA-Y2K are public documents. The FFIEC maintains a program of quarterly visits to service providers with respect to Year 2000 readiness, and has published a considerable amount of guidance to financial institutions and service providers. It has visited DST regularly since November 1997. (The FFIEC does not permit us to disclose its findings.)

We have put in place a program of communicating with clients to ensure that they are kept abreast of our efforts. We publish a monthly newsletter designed to provide an overview of our progress which is intended for our clients' business management. We put the same information on the Internet via our web site together with some general material about our program designed to provide basic information to inquirers, for example our shareholders and the press. We also provide detailed information about the status of our products through a series of readiness reports which are also updated monthly. These are intended for our clients' operational and technical management. We deal with a constant flow of information and inquiries from clients to our Year 2000 teams concerned mainly either with status requests or with the numerous details of organizing and executing client tests. Additionally, our attendance is requested at mutual fund client meetings increasingly including meetings of mutual funds boards discharging their fiduciary responsibilities with respect to the Year 2000.

It is too early to make any categorical statements about the industry's preparedness. However, the confidence of the public in the ability of the mutual funds industry to function normally as we cross the century should have been bolstered by the success of the beta test conducted by the SIA in July. DST's experience in testing with its clients is that so far, it has been mainly the larger clients with significant information technology investments and resources who have been proactive. The pace of client interest and involvement is steadily increasing. However, DST believes at the moment that numbers of clients will seek to test only in 1999, possibly because of a current preoccupation with internal readiness. We have also not yet experienced a large demand from third parties for testing facilities. These include organizations such as financial intermediaries and banks who have been chosen by our clients to provide information and transactions to us outside the arrangements offered by the NSCC. We are continuing to contact such third parties, and expect that over time we will be able to conduct point-to-point tests with many of them. Many of the interface formats which we use for these third parties were designed by us to have full four-digit years in dates. However, there is a significant number of formats which were not defined by us and may only have two-digit years. In all cases, tests have to be conducted since it is not only the formats which are being tested, but the ability of the third party or DST (for information flowing back after processing) to have its computer systems provide the correct information and to ensure that the interface connects appropriately for both parties.

We have also been working with our hardware and software suppliers. As noted in our SEC filing, we have 85 suppliers or vendors which we consider mission critical. All have responded positively in terms of their ability to provide Year 2000 ready software. All the software which they provide has to be tested and integrated into our time machine and then deployed into our production facilities. Much of this software will be upgraded one or more times by our suppliers in the normal course of business between now and December 31, 1999, which means that additional testing will be required.

Because of the nature of the problem, and the normal amount of change in hardware and software platforms as well as our own software systems, we have scheduled a number of regression tests in 1999 and have allocated significant resources to do so. The exact extent of regression testing will be determined in 1999 by the test results already obtained and the amount and nature of changes which have occurred since the tests were performed. The objective of the regression tests is to satisfy ourselves that no issues have been introduced to our platforms and systems since they were tested.

DST has in place a contingency plan which addresses the requirements for business continuation in a range of risk scenarios. We are in the process of reviewing that plan and expanding it to address risks which are particular to the Year 2000 Problem. As we do so, we are becoming increasingly aware that there is a range of risks which is almost completely outside our control and for which currently little information is available. These concern what we think of as national infrastructure, which means those technology elements which are normally taken for granted but which are critical to the ability of organizations to function. These include the basic utilities, such as electricity, gas and water, the transportation infrastructure, which includes road and rail signaling systems, national telecommunications networks, emergency services and national banking systems for payment and check clearance. Our inquiries of organizations on which we depend for such services have typically elicited responses of the form that they believe they will be ready in time, but they are dependent on third parties whose readiness may not be known. Since the assessment of risk is critical to appropriate contingency planning, the inability to assess that risk within a relatively wide range creates difficulties for adequate planning. It is possible that, like many other Year 2000 issues, this will resolve itself over time as the readiness efforts of infrastructure organizations progress but with less than sixteen months to the next century, it is not possible to be sure that the necessary information will be available. The sooner it is available the better our opportunity will be to address business continuation in the event of infrastructure problems.

In summary, we believe that DST, together with other organizations in the mutual funds industry and the financial services industry in general, is reasonably well advanced with its year 2000 preparation. We also believe that readiness will continue to require the allocation of significant resources of people and equipment, promptly augmented as circumstances require, together with consistent management attention at least through early 2000.

That concludes my testimony. Thank you, and I would be glad to answer any questions you may have.

Responses of Michael A. Waterford to Questions Submitted by Chairman Bennett

Question 1. You state in your written testimony that since some of your clients are banks, you are examined by the Federal Financial Institutions Examination Council (FFIEC) on behalf of the Federal Reserve, the FDIC, and the Comptroller of the Currency. What efforts has FFIEC made to assess the Y2K compliance level of DST Systems? While we recognize the fact that under its own regulations, you are not allowed to disclose its findings, it should be possible for you to at least discuss the process it applies in making its assessments.

Answer. After consulting with the Office of the Comptroller of the Currency, we can say that the FFIEC program currently has two phases. Phase I was completed for DST in 1997. The Phase II program will be completed in 1998, through an onsite examination starting November 30. Additionally, the FFIEC has undertaken review activities quarterly during 1998 through what they term "off-site visits." These may include meetings with DST personnel. DST has also provided additional information from time to time as requested by the FFIEC. The details of the program are available from the FFIEC web site, and DST is attaching printed copies of that material for the Committee's reference. As we understand it, the Phase I program is described in the document entitled "Year 2000 Examination Procedures."

Question 2. You noted in your statement that testing uncovered a small number of issues, all of which were considered minor and were promptly addressed. Can you specify what these issues were? Are there other financial organizations which might be subject to these same problems?

Answer. With respect to DST's mutual funds and portfolio accounting record-keeping systems which were the subject of the statement made to the Committee, the total number of Year 2000 issues raised by internal or client testing is less than 100. This is in 18 months of testing the mutual funds system and 9 months of testing the portfolio accounting system. The majority of these issues were found in DST's own internal testing process, and less than ten have been found during client testing. This number is considered by DST to be low when viewed against the size and complexity of the two systems, which together contain over 20 million lines of COBOL program code. The issues are a range of programming mistakes which do not constitute any particular pattern. None of them would have resulted in inaccuracies in the mutual funds or portfolio accounting data bases.

The issues relate more to the use of the COBOL programming language than specifically to a given application. There is no reason to believe that these issues are more or less prevalent in financial services than any other industry, and since the incidence of error is small and diverse, it is not really possible to draw any conclusions about any other organization or any other DST system.

Question 3. You identify the National Securities Clearing Corporation as the single most important data transmission interface, and that you process over 50 percent of their transactions. What efforts has DST systems taken to assure interoperability with this vital link?

Answer. DST has maintained regular contact with the NSCC for years to facilitate the operations of both organizations. These contacts take place both at the management level and on a daily basis between the operations staffs. Although DST is not a member of the NSCC, we are invited to attend relevant NSCC meetings and provide input to them. At the beginning of 1997, DST requested that the NSCC provide fully remediated date fields in its transmission formats, which it has done. The new formats were successfully tested internally by DST in May, 1998, and point-to-point with the NSCC in June. In July, we participated in the streetwide beta test organized by the SIA, and no Year 2000 issues were noted in that test. In October, we will participate in the mutual funds test to verify more fully the new remediated formats, and in March 1999 we will participate with the industry in the full streetwide test. The full and beta streetwide tests and the October test all involve DST clients.

Question 4. You mention in your testimony that you have not experienced a large demand from third parties for testing facilities. What is the status of your attempts to contact third parties about "point to point" testing?

Answer. DST's third parties consist of a number of different groups and DST's contacts with them are tailored to the characteristics of each group. For both mutual funds and portfolio accounting record-keeping systems, the most important effort at the moment is directed towards testing with clients. DST maintains contact with its clients on a regular basis through its client services groups. In addition to publishing newsletters, web site material, and providing specific information packets on testing facilities, DST uses operations and other meetings to create client awareness of the facilities we offer and to organize test schedules. As of the date of this response, there has been a significant client uptake of our dedicated client test facilities on both systems.

For mutual funds record-keeping, additional third parties are viewed by DST as two groups. The first is large multi-client service and transaction providers. These include major custodian banks, the NSCC and major broker/dealers who conduct transactions on behalf of many mutual funds companies. DST is working actively with the large providers to organize point-to-point testing, much of which is under way or being scheduled for 1998. The second group consists of smaller broker/dealers, independent financial advisers etc. generally conducting low volumes of transactions. In all cases, these service and transaction providers are chosen by DST's clients, not by DST. Our approach for these smaller organizations is to work through our clients to encourage them to test, since a direct approach to each organization has not been generally productive.

Much of the data interchange between DST and its mutual funds third parties takes place using standard full-year formats of either the industry or DST. For data interchange using unremediated formats, DST has written to the transmitters of such data requesting that they update their formats for full four-digit years, and stating that if they are unable to do so, we will be obliged to using "windowing" techniques.

For the portfolio accounting record-keeping system, approximately half the clients are actively engaged in testing. Other third parties consist of approximately two dozen service providers, nearly all of whom are custodian banks or providers of pricing services generally chosen by the client. These service providers have been contacted and we have obtained firm or provisional testing schedules from all of them. These schedules begin in October 1998, and continue through June 1999 with approximately half of the tests scheduled for completion by March, 1999.

DST will conduct a review of third-party testing in the fourth quarter of 1998 to determine what additional actions may be necessary to increase point-to-point testing coverage with clients and other third parties.

PREPARED STATEMENT OF JAMES A. WOLF

TIAA-CREF (Teachers Insurance and Annuity Association and the College Retirement Equities Fund) is pleased to respond to the Special Committee on the Year 2000 Technology Problem's invitation to assess the impact of the Year 2000 problem on retirement funds and mutual funds. We welcome and support the efforts of this committee and eagerly look to contribute to this effort in our role as a major retirement services provider.

TIAA is a non-profit life insurance company that provides retirement annuities and insurance products. CREF is its non-profit companion organization that issues variable annuities. Together, TIAA-CREF invests assets, which totaled $235 billion as of June 30, 1998, that are primarily used to fund retirement plans at more than 8,000 educational institutions that cover almost 2.3 million American educators.

TIAA-CREF's Senior Management and Trustees have identified preparing for the Year 2000 as one of our overarching corporate goals. We acknowledge the serious nature of ensuring that all aspects of our business and investment programs incorporate Year 2000 critical functionality. We recognized early on the impact that a failure to address the Y2K problem could potentially have upon our customers and the business community in general. We welcome and support the work of this Committee and would like to contribute to your efforts as a major retirement services provider.

The process of preparing TIAA-CREF for the challenges presented by the Year 2000 began as a major corporate initiative in late 1996. The overall scope of our efforts is enterprise-wide and includes every business function in the company. For example, our scope includes not only all internal systems interfaces but also all external interfaces, such as bank balance reporting systems and equity pricing services, that need to be addressed and Year 2000 certified. Year 2000 is not just a systems issue at TIAA-CREF, it is a corporate challenge.

The process of ensuring that TIAA-CREF is prepared for the Year 2000 begins with our Trustees who are kept apprised of our plans and progress on a regular basis. All of Senior Management, especially our Chairman and Chief Executive Officer, John Biggs, play an active role in monitoring and preparing our organization for the Year 2000. Our internal auditors continually monitor our progress and our ability to meet key Y2K deliverables. They report their findings independently to our Audit Committee which is comprised of leading business and educational representatives.

Our preparations for the Year 2000, although significant, are being conducted without compromising our development and introduction of new products and services. TIAA-CREF employees are actively involved in the Y2K process from analysis to certification while also discharging their normal day-to-day responsibilities. This commitment will continue throughout the Year 2000.

We have followed what we believe are industry standards for preparing any organization to meet these challenges. We began our process in 1996 with an inventory and analysis of all our application systems. This effort was supported by the use of automated analysis tools that highlighted potential Y2K date field problems. After analysis, a program code remediation process was begun utilizing our own management and internal resources supported by additional temporary employees and outside consultants. This approach has enabled us to avoid dependency on external companies and their priorities and resources. Once code is remediated, we conduct regression testing and place the program code back into production. This process ensures that the remediated code does not present any problems with our current systems and environment. We then prepared for our Year 2000 certification process which is currently underway.

Initially, we examined approximately 19.2 million lines of program code. We have projected that our cost for remediating the affected code is under the per line costs which are often quoted in the trade journals. We feel that beginning the process in 1996 allowed us to get an excellent jump on the effort needed and contributed to our ability to already be conducting our certification process. Currently, 86 percent of our application systems have been remediated and are undergoing final certification testing. Included in this process is the testing of all our external interfaces which is the only way we can ensure that our business partners have achieved full Year 2000 compliance.

Our Y2K certification testing process began on March 2, 1998, and is being conducted in a separate Year 2000 compliant environment. In our test plan we are including nearly 20 different date scenarios which take us from September 9, 1999 through March 31, 2000. We anticipate that all of the testing required for dates up to Monday, January 3, 2000, the first business day of the new year, will be completed by December 31, 1998. Testing for dates beyond January 3, 2000, including tests for leap year processing and quarter end should be completed by March 31, 1999.

Most recently, we completed our initial test utilizing January 3, 2000 simulated test data. The test proved successful and we will continue to repeat this process using actual interfacing files later this month. Included in our initial test was the processing of our monthly retirement income benefits payments which we recognize as one of the most critical aspects of our readiness to our customers. This test was successful and produced test benefits both in physical check form and electronic credits. Over 75 percent of our retirees have elected Electronic Funds Transfer as their preferred method of payment.

Currently, we are focusing attention on our critical external interfaces. We have written to all of our external vendors to determine whether products or services being used at TIAA-CREF are compliant. Regardless of their response, we included all of these vendors in our testing process.

We have followed a similar approach when contacting our software vendors on their Year 2000 compliance plans. In letters to our software vendors we requested that they complete an agreement indicating whether the software being used at TIAA-CREF was compliant and if not when it would be. Most vendors did not complete these agreements but instead provided us with their own documents indicating their status and plans for compliance.

At TIAA-CREF, as with any other organization today, the personal computer plays a major role in day to day operations. We are replacing our PC computer desktop hardware with equipment we know to be compliant. Our PC replacement process is currently underway so that potential PC equipment shortages or significant price increases can be avoided during 1999. We have also established a Year 2000 PC laboratory in which we allow our employees to test various PC configurations to ensure compliance. This facility is also used for the testing of PC software in a centralized environment.

We have examined all of our other equipment (elevators, telephone switches, copiers, security systems, air conditioning and heating systems, etc.) as part of our Year 2000 efforts as well. As part of this process, we have conducted in depth discussions with our vendors and have requested and received written certification of each one's compliance.

In 1997, prior to the issuance of any regulatory requirements, we began the process of contacting over 5,000 of our investment portfolio companies as well as the brokers utilized by TIAA and CREF to ensure that they each had a Year 2000 program. The questionnaire we sent requested information on whether a Y2K program was underway, whether senior management was involved, whether funds were allocated to the effort and whether or not the company was already compliant. Approximately 25 percent of those portfolio companies contacted responded. Most of those that did indicated a program was underway and that senior management was involved in the process. About 10 percent of the portfolio companies responded indicating that they were already compliant. While we recognize the importance of Year 2000 compliance, it is only part of the criteria used by our analysts in evaluating portfolio companies. The results of our survey have been made available to our investment analysts and this information along with SEC required information, is available for their discussions and due diligence meetings with the respective company's management. In addition to the SEC's Y2K compliance requirements, we are also subject to the regulatory oversight of the Insurance Department of the State of New York.

The success of any organization's Year 2000 effort requires a considerable amount of ongoing communications to its customers. We have continually kept our participating institutions, as well as individual customers informed regarding our Y2K plans and progress to date. Recently, we sent all of our participating institutions our written assurance that they will not be required to make any modifications to data they are presently sending TIAA-CREF. We stated that our "systems will, under normal use and service, record, store, process and present calendar dates falling on or after January 1, 2000, in the same manner, and with the same functionality, data integrity, and performance as TIAA-CREF's systems record, store, process and present calendar dates on or before December 31, 1999."

To our individual customers we provide periodic updates through our corporate publications and our website at www.tiaa-cref.org. In addition, we recently developed an informative brochure which discusses our approach to addressing the Year 2000 and answers some frequently asked questions. The brochure is available to all individuals who contact us regarding Y2K.

We provide our employees with a regular newsletter describing our efforts and insight on how the Year 2000 might impact them as individuals and consumers. We anticipate continuing all of our periodic communication processes right through the beginning of the Year 2000.

We are presently working on completing our contingency plans for any service disruptions during the transition to Year 2000. These plans include having critical staff on site during the weekend of December 31, 1999 and on January 3, 2000. In addition, we plan to identify any external service providers which have not satisfactorily evidenced Year 2000 compliance and initiate steps for seeking alternative vendors by December 31, 1998. Our contingency plans will also identify and establish procedures for manually completing critical processes. This task will be an extension of current procedures. We also anticipate being involved in the Wall Street-wide financial testing which is planned for the first quarter of 1999. Interface testing, both internal and external, will be continuing and plans are in place to complete all these processes during the early stages of 1999.

In summary, we believe TILA-CREF is in a strong position to meet the challenges of the Year 2000. We have addressed the five step requirements of awareness, assessment, renovations, validation and implementation and all are well underway and on schedule. Although we still have a lot of work to do, we anticipate that Monday, January 3, 2000 will be a normal processing day at TIAA-CREF.

RESPONSES OF JAMES A. WOLF TO QUESTIONS SUBMITTED BY CHAIRMAN BENNETT

Question 1a. Are you planning to contact the 3,750 non-responding organizations and ask about their current status?

Answer. Yes, we plan on contacting all our current portfolio companies that failed to respond to our initial survey. We plan on sending another survey including a strongly worded cover letter regarding Y2K compliance which would include references to the more stringent Y2K guidelines developed by the SEC. This letter would be signed by a TIAA-CREF Investment Executive.

Question 1b. Do you have any information about why those firms chose not to answer your questions?

Answer. We currently do not have any information regarding why firms chose not to answer our questions. We suspect companies did not respond due to liability concerns.

Question 1c. How will you analyze the 75 percent of companies that did not respond?

Answer. Response For companies that do not respond to our follow-up survey, we plan on conducting discussions regarding Y2K programs as part of our periodic meetings or telephone calls with their managements. We would also review their individual company filings with the SEC including their 10K and 10Q reports.

Question 2. Starting in 1996 has enabled your organization to understand and fix your internal problems. However, you mentioned that you were currently trying to contact all of your external interfaces. How many external interfaces do you have? And what will you do if you receive a 25 percent or less response to your inquiry?

Answer. We have identified 60 critical external vendors that we work with very closely. The response to our early written requests for information regarding Y2K compliance was nearly 100 percent and those that did not respond were contacted directly by telephone. We plan on testing each of these interfaces as part of our Y2K certification test. In addition, we have established December 31, 1998 as the date when we need to decide whether a particular vendor should be replaced. Currently, we are contacting each of these vendors to establish a Y2K test plan.

Question 3. In your outreach to the portfolio investment companies, brokers and the external interfaces did you send a letter asking about their compliance or did you use a survey?

Answer. We sent a letter outlining our concern for ensuring that the respective organization had a Year 2000 program underway and we included a survey which asked for particulars on their Year 2000 program.

Question 4. How did your organization ensure that the response to your inquiries about compliance all used the same definition of compliance?

Answer. While we did not provide each organization with a definition of compliance, we did inquire about their ability to conduct business on January 3, 2000 and thereafter. While we recognize that “compliance” may have different meanings, overall it should be viewed as achieving a level of performance that enables the organization to meet ongoing business obligations as the Year 2000 unfolds.

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