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REPORT ON DYNAMIC SOLVENCY TESTING RESEARCH

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The panel will inform financial reporting actuaries and other interested parties on the Society's research activities directly related to dynamic solvency testing (DST).

MR. ROGER W. SMITH: I am with PolySystems in Chicago. I am Chairperson of the Research Committee for the Financial Investment Management Practice Area.

We are fortunate to have three researchers who have some recently completed papers on various topics related to DST. Donna Claire is president of Claire Thinking. She is on the SOA Board and is on the Life Practice Council of the American Academy of Actuaries. Donna will be discussing two different papers for which she was a researcher; the first was "DST Time Frame for Analysis." The second was "Scenario Interpretation and DST Confidence Standards and Reliance Guidance." Following Donna will be Robert Fillingham, president of Fillingham & Company. He is a consulting actuary here in New York. He will be presenting his paper called "Potential Role of DST in Preventing Insolvencies of Insurance Companies." Our final speaker is Jim Ross. Jim is an associate professor of finance and insurance at Radford University in Virginia. He has been there for several years and had previously been in senior management positions at several large life insurance companies. Jim will be presenting some comments on a paper entitled, "Analysis of Health Carrier Insolvency."

MS. DONNA R. CLAIRE: This first thing I would like to do is explain about the research process at the Society. The Society puts out requests for proposals. Dr. Allan Brender and I submitted a proposal on two topics.

Allan and I did it as a joint project. He is Canadian, and as such was involved in the Canadian Institute of Actuaries (CIA) DST Rules. He has extensive DST experience in Canada. I really enjoyed working with Allan on this project. We combined our two reports into a singly released report. It is available on Actuaries Online. It is also available directly from the SOA. During the process, we had many calls with our project oversight group (POG). I am going to walk through what we considered to be the major conclusion.

DST is already a requirement in Canada. Although it is not a requirement in U.S. financial reporting, certain states, such as Colorado, will require a DST report for admission. However, both Allan and I think a DST report is more important as a management tool than a regulatory report. In this way you become part of the team that is finding out what the risks of the business are and suggesting various alternatives. However, it originally started specifically as a management report a little more than two years ago. This year it will also be a regulatory report. However, we do want to emphasize that the audience you are trying to direct it to is management.

DST is a worldwide phenomenon. In fact, when we started doing this, we contacted actuaries in countries such as the U.K. and Australia. They are all in various stages of doing some DST. The purpose of our report is that DST is a huge subject and Roger's group wanted to put it into bite-sized pieces. Our piece was to look at the generic topic and to refine what is out there and suggest topics for additional research.

One subject they asked that we comment on was what should the time frame be. A couple of years ago there were several workshops addressing this question. I know certain people in the audience felt it really should be a very long time. The CIA chose five years. The thing is, if we are looking at it as a management report, the business plan is somewhere around five years. However, Canadian reserve standards are different than U.S. reserve standards. In the U.S., we would have a minimum reserve. Therefore, in the U.S., it is probably more important to test out a longer period.

This ensures that the reserves are adequate at the end of the five-year testing. Five years may be enough to determine major trends, but it is not enough to tell you that you are fine for the entirety of the business. What you should be focusing on is the management and the trends that are developing. Probably the best thing that can be done at the end of that five-year period is to have a reasonable reserve and not necessarily the minimum reserves in your testing.

Another problem with doing DST for a number of companies is that you wind up with a lot of numbers. Management of insurance companies are familiar with numbers but you do not want to overwhelm them. You want to get the point across. So, when relating the report to them, it is important to focus on what they understand and what they really care about. It could be different for different managements.

Many companies right now are concerned about risk-based capital. That should be a major goal of the report that DST does. Other companies may be concerned about GAAP earnings. Therefore, you should be concentrating your efforts in these areas. Another question was, at what level do you do DST? Obviously the entire company, which includes holding company levels, should be considered in terms of returns on capital. Many companies measure results at profit center levels, such as the pension line of business. Therefore, you can do DST to that line.

You can consider contingency plans if there are problems. If you are testing universal life and mortality is deteriorating, you may want to test what happens if we raise our COI. The point of DST is to be dynamic and it is supposed to reflect the different alternatives for management.

The third major topic covered was the credibility of results and how much can we rely on them? Actuaries like preciseness, but no model will predict the future. No matter how many research projects we do, we are never going to be 100% accurate. The important thing is to try to be as accurate as possible. The goal is not to get numbers that look good at the end, but to put in the best assumptions you can. You should do various sensitivity analyses. Interest rates are one thing to concentrate on.

REPORT ON DYNAMIC SOLVENCY TESTING RESEARCH

We said there is absolutely no way that any DST report can say 99% of the time that this company is fine. There are a lot of qualitative rather than quantitative things that go into reports. In fact, I am doing a second research study on boundaries of risk and talked to both Standard and Poor's (S&P) and Moody's. One of them said, more than 50% of their ratings are based on qualitative and not quantitative items. It depends on the relationship of many variables—interest rates and lapse rates, interest rates and prepayment rates of mortgages.

One thing that was driving the POG crazy was one sentence Allan and I loved—some things may not only be unknown, but they may be unknowable. That doesn't mean you shouldn't test it to the best of your ability. It does mean that you must recognize the limitations of your task. If you have really soft assumptions, you should reveal them to management. Just offer your best guess.

Another issue that came up often was how much can you rely on the other people in the company. Actuaries don't necessarily know all the answers, and they are not necessarily the best ones to come up with certain answers. It should be a team effort. Marketing people, investment people and senior management have to be involved, so the actuary knows the various plans to come up with, what will happen to our bottom line. Both Allan and I also felt strongly, and it did wind up in the final report, that the actuary is responsible for the document he puts out.

Specifically, the U.S. actuaries probably will stand up and notice the investment issues. The actuary is not necessarily the one to come up with all the assumptions. Nevertheless, the actuary must feel comfortable with the assumptions made in the DST. It means the actuary has to become familiar with the various types of investments out there. They need to ask the right questions of the investment people.

We did come up with many areas where we felt they will need additional work; for example, there's the interrelationship between interest and withdrawals. The SOA is already starting several projects in terms of this further research. They call one Actuarial Modeling One. Another area where we feel a lot of work can be done is in interest rate generation. Stochastic interest rate models got a lot of attention a few years ago. This is one area where we still think it's garbage in, garbage out. The investment community is doing much more work.

Much of this may not necessarily have to be done by the SOA. We should be plugged into what is happening in the world, in terms of various models that others are generating; various interrelationships between for example the stock market and inflation, can be made. In fact, both Bob and Jim will be commenting on how sometimes the DST Report can show the additional risk of insurance and solvency. We are not saying it is the only way, but it is something to be considered.

MR. ROBERT S. FILLINGHAM: This presentation covers the Society's Research Report officially entitled "The Potential Role of DST in Preventing Insolvencies of Insurance Companies, A Historical Perspective."

We will begin by recognizing the most important support provided to me in the research effort. I will discuss the backgrounds and aims of this research project, explain how

companies were chosen for the study and describe the analytic methods employed in forming opinions. Then we will end with a summary of the conclusions reached.

I greatly appreciated the guidance and support provided by Roger as Chairperson of the Society's Committee. As committee members, Nick Bauer, Doug Doll, Elliot Rosenthal, Alexander Scheitlin, and Warren Luckner were immensely helpful, as were other society staff members including Linda Delgadillo, Cecilia Green, and Pam Leonard. The Society published a request for proposal (RFP) asking for a study of the potential role in preventing insurer failures. This RFP noted that the interest in this study is due to the American Academy of Actuaries September 1992 Position Statement.

Among other things, they called for the annual preparation of a surplus adequacy report by a qualified actuary. Subsequent work involves seeking to give actuaries the necessary tools, and this is a commitment that the Society has made. As Donna had noted, there are a number of areas where further research appears desirable. Although that impression was plausible, it was an impression that should be more closely examined. The aim of the research performed and discussed here was to provide closer examination of failure for a small group of failed insurers.

The Research Project Oversight Group responsible for this study was also Roger's Committee on Financial Research. They asked for an examination of precisely six companies and specifically requested that several well-known failures be submitted. Those to be submitted were Mutual Benefit, as well as Executive Life and its New York subsidiaries. They decided, in an agreement with the POG, to employ a study published by A.M. Best in 1992. It would cover the failures of about 300 life and health insurers during the years 1976–91, as the starting point for selecting that group of six companies.

The data in that study consisted of the company, year of financial impairment and cause of impairment. We also looked at the Best ratings at the time of impairment for several prior years. The Best study treated companies as impaired at the point they first became subject to domiciliary state actions, which restricted their right to conduct business normally.

For purposes of this study, we set three criteria to obtain a group. We gave precedence to companies most recently impaired. This means that we looked at those impaired in 1991 first, with the thought that if we didn't come up with enough information we would go back to earlier years. We didn't need to do that. The cause-of-impairment categories were used to judge particular companies for which DST might have been helpful in preventing failure. These were the overstated assets category and the inadequate pricing surplus category. The overstated assets category was defined as problems with insurers' own investments. Significant declines in market value, large holdings of inappropriate or unauthorized investments, or lack of diversification result in financial impairment. The inadequate pricing surplus category was defined as product underpricing leading to significant operating losses and financial hardship.

We did not include those companies Best had not been following in its own rating process and those in several so-called not applicable (NA) rating categories. In NA1–NA4, we anticipated we would have difficulty securing useful data. There were seven companies failing in 1991 that met these criteria. We had one more than we needed and, as it happily

REPORT ON DYNAMIC SOLVENCY TESTING RESEARCH

turned out, two of them were affiliates: Fidelity Bankers and First Capital. We elected to use the smaller of those two, Fidelity Bankers, bringing the total down to the required number of six.

Since there is no established standard yet for DST in the U.S., we needed the definition to conduct the study. The definition used reads as follows: DST is the measurement of a company's present and future financial condition. Through the use of modeling, we explore sensitivity to potential future events that may affect the company financially. This follows the last calendar year that the company has been in business.

The other pieces of the analytic framework employed for this research effort are basic DST evaluation standards. DST truly does share many important elements with other forms of financial analysis that are commonplace in actuarial pricing, including profit testing, for example. A basic standard was set as a tool to help evaluate the unique potential of DST in preventing the failures studied. This standard was to look to the company.

We believed that DST had the potential to make the contribution. We defined liquidity problems as the company's ability to meet cash demands without the sale of assets at a loss modeled by the DST. The standard also called for such signals to identify major causes of failure of the company in each case. There are a number of specific constraints on the potential usefulness of DST considered in forming judgments for the six companies studied. We do not have time here to cover them in detail. We should note that we assumed, in all cases, resource constraints would not have prevented the performance of DST. That was just an arbitrary, but I thought reasonable, assumption. It was also assumed that access to information would not have presented difficulties and that DST results would not have been provided to regulators.

To sum up the conclusions, we found that for two of the companies studied, DST could have played significant roles in preventing their failures. Fidelity Bankers and Inter America both were faced with problems related to investment issues and liquidity.

For three others, all of which were concentrated in individual business, it was concluded that less expensive financial analysis would have met the purpose that DST might have served. Finally, for American Financial, we concluded that other statutory financial data were available to the company at 1986 year-end. They were signaling the actions needed to prevent its failure.

I think the study lends support to the view that DST can be helpful, in some cases, in preventing failure. It suggests that less extensive analysis may serve adequately in other cases. There may be cases where, unless we heed other more obvious signals, DST has nothing special to contribute to preventing financial failure. We should not view the study as either proving or disproving the potential value of DST in preventing insurer failures.

MR. JAMES B. ROSS: We were moving from live companies to companies that died and could be analyzed to see if they had to die. I want to talk about dead ones in a somewhat different study.

RECORD, VOLUME 21

The Society funded the study, *The Analysis of Health Carriers' Insolvencies in an Historical Setting* (TSA Volume XLVII, 1995; in press), as far back as we could rationally go. Some of the most interesting findings were what we couldn't find. Donna used the expression "unknown but unknowable." We started with a number of things that were unknown and then determined in fact that they were unknowable.

I think the data limitations might be of interest to you if you have occasion to do some of those things. The research objective for this analysis of health care insolvencies was to identify health carriers that became financially impaired. This was due to the operation of their health business during a long period and to identify the reasons that each company became financial impaired. The job was made a little harder because health carriers were defined as commercial insurance companies, Blue Cross/Blue Shield plans and HMOs. We were quite sure that we could fulfill what we thought would be the most important piece, which was the commercial insurance organization. We did not know what the pitfalls of Blue Cross Blue Shield or the HMOs held, and we were to learn quite a lot about quite a little.

Part of the research included a definition of financial impairment. Financial impairment, I think, was chosen because there are two landmark studies of failed carriers overall—life insurers and then property and health insurance. Both were conducted by the A.M. Best company over extensive periods.

We saw ourselves as starting with that material and identifying the health insurance component. We spent a lot of time at the request of the committee identifying, finding and setting out definitions of financial impairment, although it turned out that it was a word peculiar to the A.M. Best studies. The real word was financial distress. Every decent financial text and insurance text contains examples of financial distress with all of the awful subdivision.

So we have provided the very extensive bibliography of financial distress for those of you who like that sort of thing. Then we talked about the methodology of how we proceeded to implement those definitions and find out what happened. We have a final section in the report which runs some 63 pages that talks about the problems encountered and suggestions we've made for future exploration.

I'd like to quote from these various items. Financial distress is the umbrella term applied to all types of business organizations. It comprises bankruptcy, insolvency, liquidation, reorganization, default, failure and other conditions. By and large, the finance literature is larded with these kinds of disasters. There's a nice straightforward one: one set of researchers in 1990 defined insolvent insurers as those declared insolvent by their respective state insurance commissioners.

In 1987 a study of property and casualty (P&C) companies conducted by the General Accounting Office (GAO) had 140 under financial distress connecting them to the state guaranteed funds. The ACLI in 1990 did a study of insolvent life insurers from 1985 to 1989; 68 were found to suffer from financial distress. Again, what's interesting is the study was limited to those whose Best rating triggered the guaranty funds. That's a very powerful trigger. There are all sorts of modest disasters short of triggering the guaranty fund, as

REPORT ON DYNAMIC SOLVENCY TESTING RESEARCH

perhaps many of you know. The thought that pushed the question of failing insurers on the national stage was a study by a House Subcommittee entitled "Failed Promises, Insurance Company Insolvencies."

Now the study, for the most part, was on property and liability companies. However, if you read that, it doesn't read quite like a novel. It has many interesting items, especially if you are not in the business and had no idea that went on. So many people, including journalists, read that and wrote articles that made people focus some attention on the guaranty funds. Then A.M. Best put out its two studies. In 1992 the life study covered 290 insolvencies over 15 years up to 1991 and the P&C study covered 372 insolvencies from 1969 to 1990.

Here's what A.M. Best did, and we did the same for commercial companies. A.M. Best dated a financially impaired company as of the first official action taken by the insurance department in its state of domicile. The reason for the state action may have been due to the company's insolvency or financial impairment. State actions included: involuntary liquidation, receivership, conservatorship, cease and desist order, suspension, license revocation, an administrative order, supervision, or any other action that restricted a company's freedom to conduct business normally. That's not insolvency in a highly technical sense, but that was the operational definition for Best. We chose it for ours.

Quoting some more, we emphasize that the financially impaired company might not have been declared technically insolvent. Its capital and surplus could have been deemed adequate to meet legal requirements, but there was concern regarding its general financial condition. The latter includes solvent companies against which actions were taken to protect them from financially weakened affiliates. They are going to say that if you look at all their companies a year after the study was completed, 50% had been liquidated, 40% were still under some form of supervision, 6% are back in business free of any restrictions, and 4% have been merged into other companies.

You can't kill some of these marginal kinds of financial impairments with a stick. We have several companies in our study that appear twice. Blue Cross/Blue Shield plans were interesting in the sense that there was only one insolvency. At the time we were doing this research, there was a huge commotion in the general press about the financial condition of major Blue Cross/Blue Shield Plans. They had not seized lots of pictures and shaded maps and all of that in the East, but they hadn't failed, or hadn't been insolvent. There really is only one, West Virginia.

Last, when we came to HMOs, we found that there was no common database and no common definition. There were practically no studies with respect to financial distress, impairment, insolvency or failure. There were a couple of interesting academic studies of which I want to make you aware.

When it came time to back into a definition, we had to do so. There used to be a company and now there isn't one. It didn't merge; it didn't change its name; it just exited some other way, it had to have failed. It's not very satisfying I might say from this side, and not very satisfying from your side either. Roughly what we did as a matter of interest possibly to you, A.M. Best defined the universe. It was our job to identify which were accident and health carriers. The Oversight Committee said 50% of premiums are a satisfactory

yardstick for considering a company to be an Accident and Health Company, a health insurer.

Well it turns out that Best's have listed 232 companies. They identified the company as having been financially impaired, but we could not find the supporting evidence to determine whether it was an Accident and Health Company. For a substantial list of carriers, we wrote to the NAIC, we flew to Kansas City and sat down in their offices. They pulled a tremendous number of statements for us. We went through them all and were able to make the determination for a surprisingly large number of recently failed companies.

Flushed with success, we sent them a list of companies that failed not so recently and it turns out that the NAIC does not keep records sent to it for more than 11 years. Best knows that the company has failed, but the NAIC won't have any records. Furthermore, not everyone has to send their records to the NAIC. I am quite sure that is entirely a correct statement but a lot of companies don't.

The ones we are most interested in are the ones that appear to be failing but don't. It's a very frustrating kind of exploration and we could not find a significant number. In the end, there were 65 companies, I am using the words loosely here, known to have failed and we could not determine their accident and health carriers. So they are missing. They are primarily in the earlier years. The Society asked us to include some cautionary statements.

When you look at Charts 1-5, the numbers of failures and solvencies in the earlier years have to be understated, but perhaps not a lot. The first five charts relate to this study of health insurers. They represent the same data for the 117 identified failures sorted by the various characteristics. In Chart 1, the number of insolvencies by total assets is small for the most part.

Chart 2 shows the financially impaired health companies by percentage of health business written. If a health insurance company fails to have more than 50% of premiums in health insurance lines, are they really health insurers? Well, they're mostly health insurers and many are in the 90-100% category.

When did they fail? Chart 3 is a bar chart that shows that insolvent carriers peaked in 1989-91.

REPORT ON DYNAMIC SOLVENCY TESTING RESEARCH

CHART 1
NUMBER OF INSOLVENCIES BY TOTAL ASSETS
IN MILLIONS

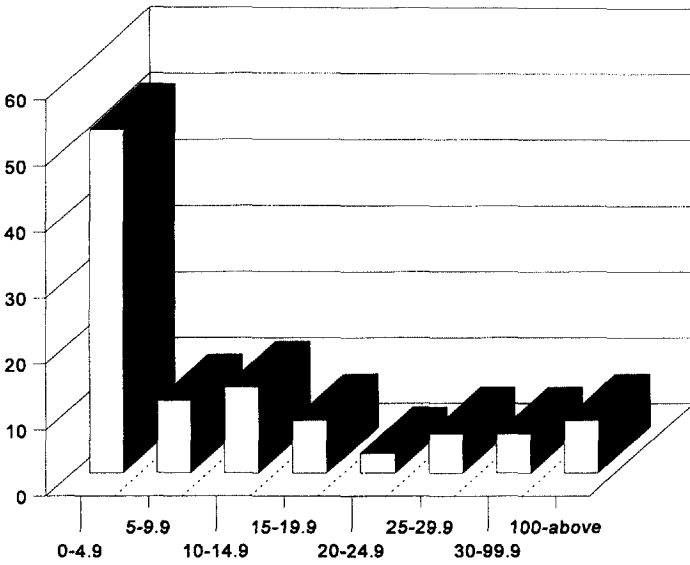


CHART 2
NUMBER OF INSOLVENT CARRIERS, PERCENT HEALTH

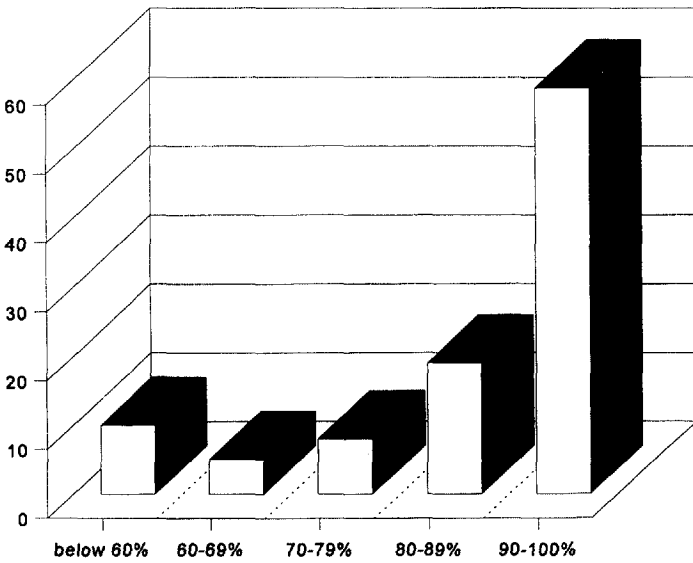


CHART 3
NUMBER OF INSOLVENT CARRIERS BY YEARS
1973-92

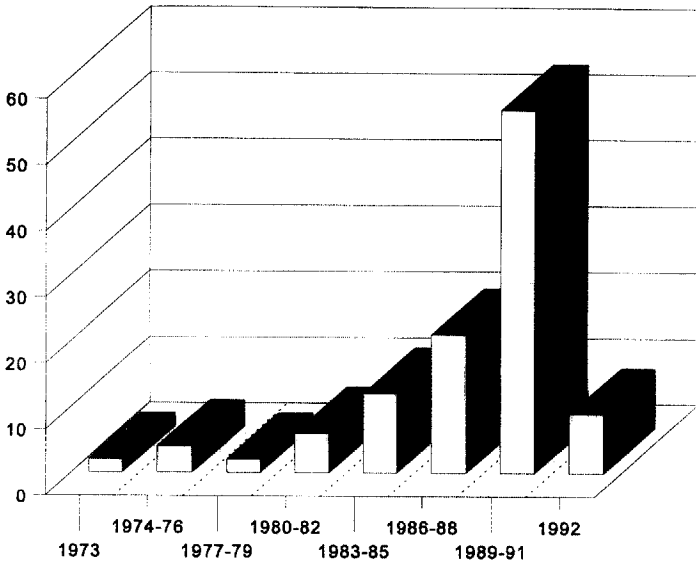
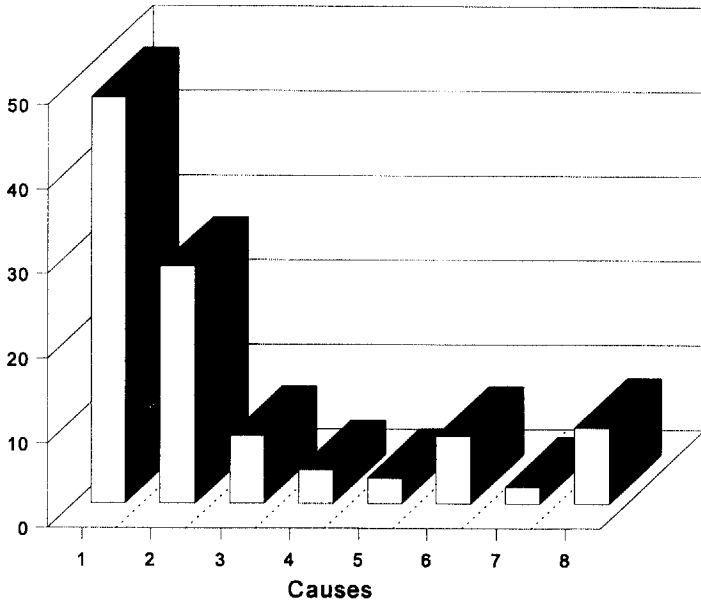
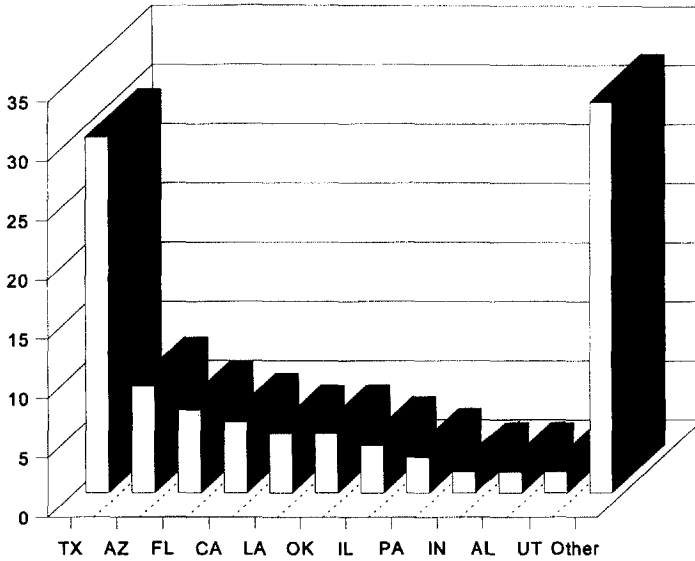


CHART 4
CAUSES OF INSOLVENCIES



REPORT ON DYNAMIC SOLVENCY TESTING RESEARCH

CHART 5
NUMBER OF INSOLVENCIES BY STATE
1973-92



Consistent with Best (1992), we define the primary reasons for financial impairment: (1) inadequate pricing or inadequate surplus; (2) rapid growth; (3) affiliate problems; (4) overstated assets; (5) fraud (which turns out to be one that the commissioners can help identify. Determining it from the raw records way after the fact is very hard. So we were not able to add to the fraud totals.); (6) significant change in business; (7) reinsurance failure; and (8) unable to determine the cause. They couldn't determine it and we couldn't either.

Chart 4 shows these causes by number. Chart 5 shows the number of insolvencies by state. Charts 6 and 7 relate to the precursor study by A.M. Best; that's why it says Life/Health, financially impaired companies. They show that if you are looking at life and health carriers and not trying to make a subset, the peak is 1989-91. Best provides something which we could not provide, the number of life and health companies. It runs up to a little more than 2,300 and turns down a little in 1991; then I think the trend continues. We would have had to count each company and make that determination. We had enough money to return a slight surplus to the Society, but not enough money to cover all the companies. We elected to be the first people in history to return a surplus to you.

CHART 6
NUMBER OF LIFE/HEALTH FINANCIALLY IMPAIRED COMPANIES BY YEARS
1977-91

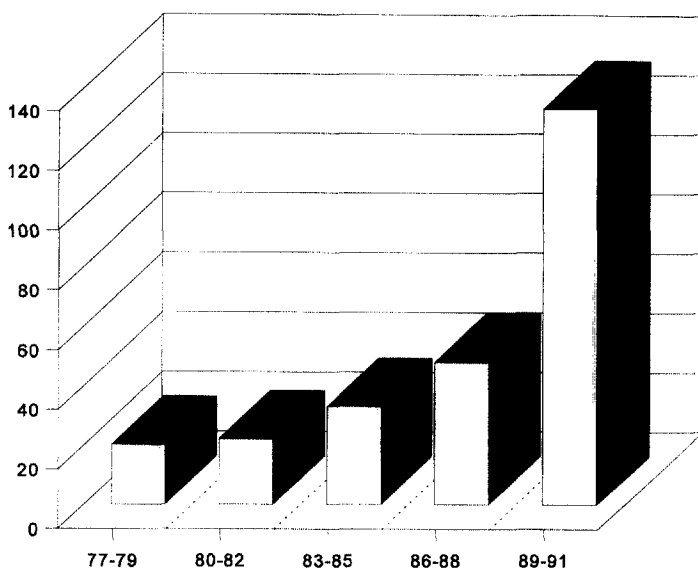
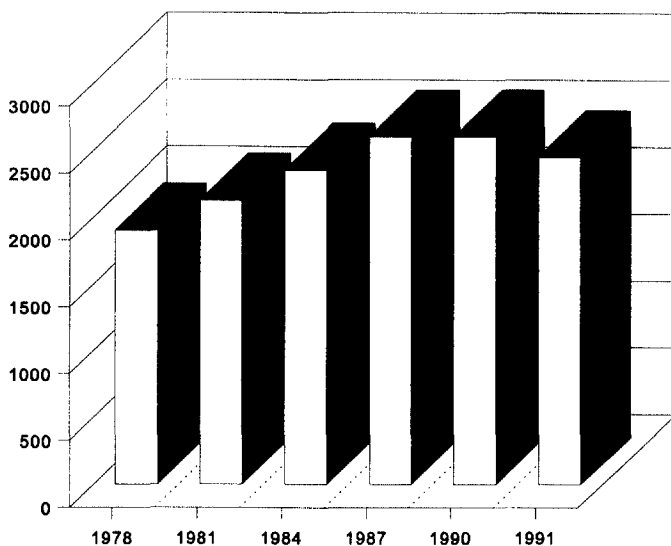


CHART 7
NUMBER OF LIFE/HEALTH COMPANIES
1978-91



REPORT ON DYNAMIC SOLVENCY TESTING RESEARCH

Chart 8 is the number of Blue Cross/Blue Shield plans in business at selected year-ends over the 1973-94 period. The number of failures is one which occurred in 1990. Chart 9 shows the number of HMO failures by year. Chart 10 is the number of HMOs. Both charts appear to peak out in 1987 or 1988.

CHART 8
NUMBER OF BLUE CROSS/BLUE SHIELD COMPANIES
1973-94

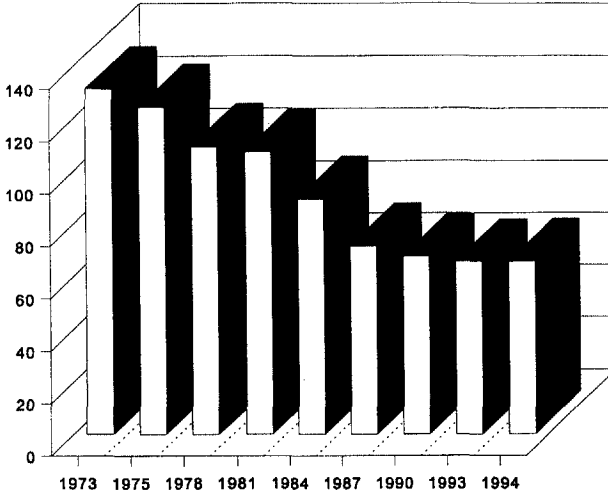


CHART 9
NUMBER OF HMO FINANCIALLY IMPAIRED COMPANIES BY YEARS
1977-90

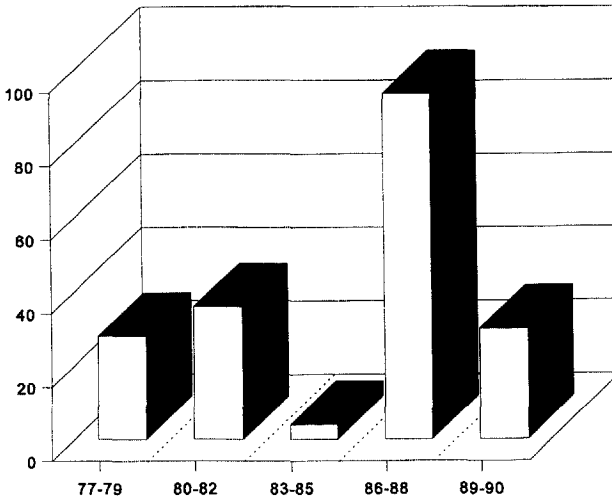
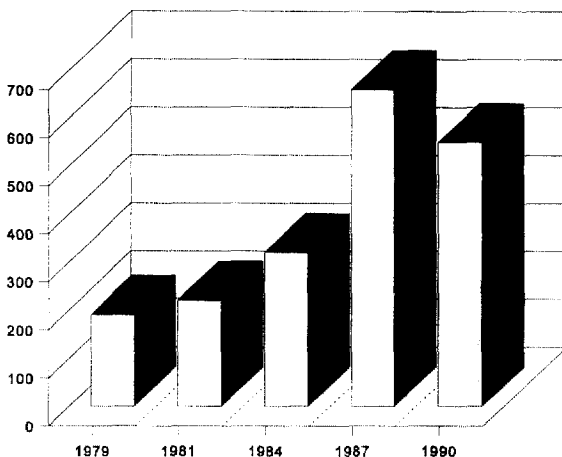


CHART 10
NUMBER OF HMOS
1979-1990



I would like to make two more comments. One is with respect to the HMOs. There was no central source. We found several sources of data, each of which had its own peculiar disability, which is detailed in the report. Best's has managed care reports it's cranking up but they are not very comprehensive. The Group Health Association of America puts out a national directory of HMOs and works very hard to include everybody, including companies that are not members of the association. It's voluntary, so we don't know how complete it is.

A private firm called Health Care Investment Analysts (HCIA) in Baltimore provided the most extensive information and very good coverage built on some previous amateur work.

Our conclusions were that definitions weren't standardized; with the data deficiency that we have, we couldn't have a uniform definition. We started with those that were in force, identifying all other methods of exit except failure. We saw that the residue was failed companies. We were surprised at the records retention practice of the NAIC.

If you have something else that is a function of annual statements, you're not going to be able to go back a long way; state departments don't keep them. They have their own record retention program. The NAIC does not keep annual statements for more than 11 years and part of the records were completed based on the memories of state insurance commissioners still in office. Despite varying organizational forms and different definitions, the results had much in common. Poor management, poor pricing, weak financial controls, improper reserving, slow response to changing economic and competitive conditions, insufficient capital and surplus to carry the insurer through lean times are all common reasons for insolvency to the three types of organizations. When there are stressful times, all three types of insurers are stressed and the results clearly show this. We had some recommendations that I'll share with you.

REPORT ON DYNAMIC SOLVENCY TESTING RESEARCH

After some conversations with the oversight group, we finally went with the A.M. Best definition. That is we used it the first time the state impaired the companies' free ability to operate as a working definition. So much data was already available and that's not a bad definition either. If you are talking about preventing and gathering data for preventing insolvencies and you don't do DST, you collect some other items about companies and then you perhaps regress.

Using the information about those who failed as regressors and those who didn't and trying to find the discriminate function is of some interest. Maybe those are true Harbingers of the trouble to come. Look at carriers that were merged or acquired by stronger market factors; they may have been failing, but didn't make it. Or look at carriers with below stipulated ratings from selected commercial rating services. All of those offer more predictive value than perhaps examining the dead ones. Still, our experience tells us that there are very definite data limitations. If we plan to do another study like this in 15 years, we might consider starting to collect the data ourselves, in another subcommittee today.

MR. SMITH: Maybe I can ask a question of Donna. I found several things interesting about your conclusions that DST does not yield a confidence interval. Many assumptions are very difficult to know. How does that fit with what many users would like to have from DST?

MS. CLAIRE: The users would like to know if they are going to have a job five years from now as president of the company, but we cannot provide that answer to them. What they are provided are indications that if you continue to grow at this rate, there is a good probability that you may have capital problems in the future. If you are in that situation, one thing DST can do is source outside capital by figuring that into this testing. For example, if you go to the market, you're going to have to pay X for it, give the pros and cons, alternatives and, in effect, help management manage the company.

FROM THE FLOOR: One issue that I haven't heard addressed is the frequency with which this testing may need to be done. As I understand it, in Canada it's done annually; however, it can entail a lot of effort. In situations where not much has changed over a year, one wonders whether that effort would need to be redone. Is there any thought or discussion with regard to the frequency that this testing would need to be done?

MS. CLAIRE: Canada decided on the one-year interval, but when we were looking at it, we were coming up to the same thing you're talking about. In effect, there is some static business, for which you probably want to at least review annually. There is also other business causing rapid growth and you may even want to review it quarterly. So it really depends on the business you're in and the resources available because legitimately resources can be contained.

FROM THE FLOOR: Donna, please comment on whether there should be a report as it currently is in Canada. Would you include an opinion of the actuary that will be required in Canada this year or next year? What's the impact on the liability of the actuary?

MS. CLAIRE: The Canadian legal system is different from the U.S. system and we strongly think it should be a report, and again, a report to management. However, the

problem is, that's the way it started in Canada. The actuaries were originally uncomfortable with having to do the report. This year, when it became a regulatory requirement, there were not that many complaints. I would see a major difference between the U.S. and Canada because of the legal system. It's something to be concerned about, but at this point, the regulators feel comfortable enough to let it at least start as a management report.

The Dynamic Financial Condition Analysis Handbook is currently available on Actuaries Online and also available at a modest cost from the SOA. It contains excellent work done by a number of people. Jim Reiskytl is the major editor. It also contains a lot of bibliographies for further research.

MR. SMITH: I would encourage you to get these papers and study them. There are a number of ideas that could be spawned that would generate additional research topics that could be very important to all of us in the future. Sometimes you do research not just to find that you can do something, but also perhaps to find that you cannot do something. For example, Donna commented on the lack of a confidence interval. It might be worthwhile trying to demonstrate why that is an invalid thing to do or to try to express.