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MANAGING A COMPANY'S CASH

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Techniques used to manage effectively a company's cash considering liquidity, control and investment income earned.

- o Mobilizing cash
 - Accelerated transfers
 - Lock Boxes
 - Pre-authorized check
- o Controlling cash
 - Reconciliation procedures
- o Investing cash
 - Domestic vs. foreign
- o Disbursement functions
 - Central control
 - Electronic funds transfer
 - Fees vs. maintaining bank balances

MR. ROBERT J. LALONDE: We have been talking for the last two and a half days on asset and liability matching or modeling programs for our various insurance companies. This is an interesting problem and not many of us as actuaries have had much exposure to this area. The last two days we have been coming up to speed and one thing that I've noted is that we certainly need to pursue cooperation between our marketing people, our investment people, and ourselves in reaching assumptions for models and for the administration and management of product lines. I don't believe that managing a company's cash has ever been discussed at a Society of Actuaries Meeting before, but it's a subject that is becoming more important as we come to

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understand it and the sensitivities of the market place. I have heard some people who are responsible for managing product lines say that the time delay between taking cash and actually getting it invested has been worth 5 to 10 basis points.

MR. J. RICHARD GARRETT: Bob's introductory remarks were very appropriate in today's environment with both property casualty and also with mounting losses and not being able to do much on the price side. Life companies are spread narrower on their products and very often we neglect to think about one way that we can optimize either income or expenses and that is in the cash management process by speeding up collection of premiums and controlling disbursements to have more accurate and timely short term investments. I think our role in the cash management area is very important to the whole of the company and that we can do a lot of things behind the scenes that really don't generate a lot of fanfare like the introduction of the new annuity product, but contribute to the company's bottom line. I'm going to talk on some fairly general topics of cash management such as collection techniques, disbursement techniques, and various bank reporting and information systems. I'll touch very briefly on short term investments and then I'll finish up and talk about one of my favorite topics, bank relations and bank analysis.

First of all, let's talk about collections because that's really an area where you can save a company a lot of money depending on your current collection systems and I say systems because most companies whether they are life, property casualty or both have several different systems to bill and collect their premiums. One which we have all heard of is the old lock box which has been in existence I guess since about the early 50's. There are really two sides of the lock box issue, there is a wholesale lock box and there is a retailer automated lock box. The wholesale lock box is used to collect large dollar relatively low volume receivables, premiums in our case and here the key is to take a look at the pattern of remittance, where are your premiums, where are your receivables coming from? Are they concentrated on one part of the country or pretty much national in scope? What you want to do in a wholesale environment when collecting large checks is to minimize the amount of time that that check is in the mail to yourself or a bank, the amount of time that it is being processed for deposit, the amount of time it takes to get into the bank, and the amount of time for the bank to turn around and collect it back on the paying bank. It's very key that you focus on those aspects of the collection in looking at a wholesale lock box if you want to reduce the float. The expense involved in collecting that particular check or checks is important but if you can reduce the amount of time it takes to get a \$50,000 check to your office by two or three days and multiply that times hundreds of thousands of checks you really don't care whether you are paying 25, 30, or 40 cents an item because you are picking that up on the additional investment income side. We at the Hart-

ford have many receivable and premium collection systems and our major one happens to be on the property casualty side for collecting premiums from agents. However, this also would apply to larger life companies collecting premiums from their agency. We had two banks do a lock box study for us and we sent them copies of checks and envelopes from all of our agents over a one month period.

Essentially we asked the two banks to tell us where would be the ideal locations to put one, two or more lock boxes and let them tell us independently how many we should have and where they should be. I say we had two and I suggest two although it's double cost since it is a good way to check on each bank and make sure that they are objective. It just so happens the two banks came up with almost identical results which really was in my estimation satisfying even though we did have to pay twice the fee.

There has really been quite an evolution in retail lock box services with the banks getting into some fairly expensive equipment that can read optical character recognitions and also micro coding. In a retail automated system you are looking at collecting premiums or receivables that are of a relatively low dollar and a very high volume nature. In this particular case, and some people will argue with me on this, you don't really care too much about the location of the particular lock box or the bank that is going to receive and collect these items. It is certainly important if you can reduce the mail time but since you are collecting let's say one hundred fifty or two hundred dollar premium checks from the policyholder you are much more concerned with how much it's going to cost because you've got to cut an awful lot of time in the mail and deposit float cycle in order to pick up short term investment results on a two hundred dollar check. It's important and you don't want to overlook it, but what I think you want to do is to go to a bank that is experienced in collecting this type of remittance, that has reliable equipment and also is relatively inexpensive. So in the retail automated side we are collecting the low dollar, and high volume therefore the pricing from the bank and also internal cost is very important.

A very new thing that is on the market now is image processing lock box services in banks. This is equipment that essentially takes a picture through the computer of the check and then it is not handled again by humans. What happens is that the picture of the check goes into the computer and is brought up on a CRT and you have an individual actually performing everything on a terminal that would normally be done by lock box clerical staff. Hopefully this will reduce the overall expense in a lock box area and that expense reduction can be passed on to the customer. It's a fairly new service technique that is out and most of the banks that I've talked to are very pleased with the equipment and expense reduction. I talked with one bank just the other day and they claim that they have been able to reduce the lock box staff on a combined whole sale and retail basis by 50%, a big savings. It is relatively new, I would suggest that any of you who are looking to establish a lock

box system or refine your lock box systems go to a bank that has been doing it for awhile and contact the customers that have been using a bank, for references.

Another relatively new phenomenon is national networks. Banks are getting very anxious to go national and they are not waiting for the various states or Federal government to allow interstate banking. They are doing a number of things which really get around interstate banking laws and are collecting checks for customers where the customer doesn't really have to open up multiple relationships with the various banks. There are a few banks on the West coast that have formed a network. The customer, the Hartford, would deal with one of the banks yet there would be four or five other banks in the West and Southwest that would provide identical service, identical information and reporting, however, you would have one relationship, one account. All of your lock box work would go into the four or five banks and then be consolidated into the one bank you have a relationship with. These banks have gotten around the interstate restrictions in that they form somewhat of a network or syndication with other banks.

Another bank in Chicago has introduced a mail intercept service. They will go in at various locations and actually intercept the mail at the post office and express it back to Chicago where they have an excellent processing service. This way again you can have remittances mailed throughout the country to several locations, several lock boxes or addresses around the country and this bank will provide a service to pick up those checks, fly them back to Chicago and process them there.

There's another large life insurance company in New York that is teamed up with the Money Center Bank and is providing a national lock box service whereby the customer would have their checks directed to the insurance company's locations as well as the bank's location in New York. The checks would get deposited in the local bank and the New York bank would draw those out and concentrate them here in New York. Again the customer has just one relationship, i.e., the bank. One thing I failed to mention in looking at whole sale lock boxes is that you wind up dealing depending on the magnitude of the receivables with many banks and this becomes administratively expensive.

Depository transfer checks is a way of concentrating funds from outlying areas where your company is collecting checks from banks throughout the country. In order to get money into one central location for investment or operating needs you simply issue a check on those locations around the country and deposit with your local bank. That's an inexpensive way of concentrating funds to one location, inexpensive compared to using wire transfers which are getting very expensive with Federal Reserve Bank charges added on.

The use of automated clearing houses with the Electronic Funds Transfer (EFT) is pretty much replacing the old depository transfer check. We at the Hartford no longer use the paper checks, we merely

input information into our local bank which generates a tape that goes through the automated clearing house to draw funds out lock boxes in ten locations around the country. We know we are going to get credit the next day and we don't have to worry about checks not reaching the bank and overinvesting or underinvesting. Also, it is much less expensive going on an automated electronic basis than it is using paper. The automated clearing house is becoming a very popular way of concentrating funds from many locations around the country into one location, again for investments or operating purposes.

I'm sure you have heard of preauthorized checks and you may use them in paying your own life insurance premiums. Preauthorized checks are where you authorize the insurance company to go in and actually cut a check against your checking account on a monthly basis or a quarterly basis. The insurance company advantage is that they don't have to worry about you mailing it in and it being tied up in the mail or collection process. They cut the checks in one day, deposit them in the bank in one day and know those funds are going to be available to them in at least one or two days for investment. Again, up to the last few years, it has largely been a paper based type of collection service. Now, the automated clearing house is becoming a very popular way to collect premiums on a preauthorized basis. It does require in most cases some systems changes and we all know in dealing with the system side of the house how expensive that can get. One of the reasons the Hartford did not switch to an automated clearing house arrangement in collecting premiums is because of the system changes we would have to go through in order to provide a bank with tapes instead of paper checks.

Concerning disbursements, insurance companies for a long time used what we call payables through drafts or checks. I like to call them checks because on the property casualty side at least, the insurance departments in the various states require that our claims be paid with a check, an instrument that a claimant or policyholder can take to a bank and receive cash for as opposed to a draft which is generally put through the bank for collection and could take 14 days or longer to collect. This irritates the claimant and the claimant then goes to the Insurance Commissioner so we use something that looks like a check and for our purposes in Connecticut, it is a check. However, we have an agreement at our local bank to treat it like a draft so that we get to see these items when they come in. We use them predominantly on the property casualty side but in our life company for our minimum premium and administrative service customers we also use a check draft type service. We want to review it to make sure that there is a proper endorsement on that instrument before we allow the bank to pay it. We relieve the bank from any responsibility for checking authorized signatures, we really don't care about the authorized signatures because if that particular instrument is not in our system we would not pay until we found out whether it was a validly issued instrument. So we really don't care who's signing it as long as it is properly input into our system, but we do care about the endorsement. We don't want to pay a check if it has gotten into the wrong hands. It's a very inexpensive way of paying claims versus the traditional checking account with a

reconciliation service provided by a bank. I think we pay probably a third for a check draft type system for paying claims for both the life and property casualty companies versus the traditional method of disbursement. Reconciliation, I encourage people to take a look at doing reconciliations in-house. It is very expensive to have a bank do a reconciliation for you. If you can get that issue data in your own systems whether it be in the life claim side or property casualty you can have the bank, and most banks can do this, present a tape to you giving you the paid information of all the checks of a given day. You can match that tape against what you have in-house a lot cheaper than what the banks are going to charge you and also you have the data in-house for immediate retrieval of either outstanding items or paid items when you get inquiries from claimants on whether checks have been paid.

Truncation, the Federal Reserve as some of you may know has had a program in effect the last year or two years to try to reduce the amount of float that is in the system because the Federal Reserve has essentially been paying for that float. They just started a pilot program and I believe the American Bankers Association (ABA) also had a pilot program where they attempt to take the very large dollar checks and truncate or stop them at the point where the bank is accepting them for deposit. They have the bank that has accepted those for deposit generate a magnetic tape that would be fed to the paying banks. Hence, rather than send that check back through the banking system, they send a tape through to the paying bank directly and have that item paid on an electronic basis. It doesn't do a whole lot for the customer, obviously it reduces the amount of float you've got out there and also I feel it doesn't provide at this point enough information on what the item was that was paid. It merely comes in as a \$500,000 check that was paid, but I think truncation at the point of a bank deposit is coming for large dollar checks and at the local bank for disbursements. We are designing a new disbursement system now and we hope to use truncation services whereby they will not send us the checks anymore. We don't really care if we get the check, we just want the paid information. Let them store the check and give us microfilm that we can either read or we can go and ask the bank to retrieve a microfilm item. Normally checks get destroyed now I guess after six months since microfilm in most states is acceptable for legal purposes.

We are looking at using the automated clearing houses for our corporate to corporate payments where we as a corporation are paying other vendors who are corporations. Most of the efforts in the automated clearing house electronic funds transfer (ACH/EFT) area have been with the consumer, as policyholders or annuitants or employees on direct deposit of payroll. There has been a pilot program that the national automated clearing houses had underway with a few companies and banks participating in how to handle the kinds of problems expected and what kind of information is needed in order to have corporations exchange payment information electronically. People will say we are going to give up a lot of float because these checks tend to be fairly large dollar payments. That's true, but I really believe that what you give up in float you are going to make up for on the mailing, preparation of the check and the cost of pro-

cessing that check. You also know when that item is going to be paid and can fully invest since if it goes through an automated clearing house it's going to be a day or two. You don't have to anticipate when the check is going to come back in order to provide funds for it. I think there are some advantages and disadvantages. Right now I am not terribly pleased with the banking system and the kind of information they can provide when a particular item is paid through the automated clearing house. We went to our banks concerning fees, and said that rather than send you a payment check, we want to be able to send you a tape through the automated clearing house. Not one bank has been able to accept that. They still want to get the check, yet they are encouraging people to use automated clearing houses. I don't feel the banking system is ready yet for full scale corporate to corporate payment systems.

The last thing under disbursements is controlled disbursements which grew out of remote disbursement which is a dirty word. The Federal Reserve did not like the idea that companies were using banks in Montana and North Carolina to disburse their checks which took seven or more days to get back through the system, so the Federal Reserve started setting up regional clearing houses to intercept these checks. They also did a lot of talking to companies that use remote disbursement points. We got into what the banking system calls control disbursement where a bank will have a subsidiary bank that only receives one presentation of checks a day from the Federal Reserve and will not accept checks from any other bank but only through the Federal Reserve. That presentment generally comes early in the morning so I would know as a customer that is disbursing my checks off to that bank by say 9 or 10 o'clock in the morning exactly how much I'm going to have to fund that day. I can then fund it to the penny and fully invest by a reasonable time in the morning, 10 or 11 o'clock. This is called control disbursement and does not necessarily have to be in a remote location, you want to be with a bank that can provide that early morning information as to how much you are going to have to fund your account. Well, the Federal Reserve Bank has found a way to even cut in on that little goodie. They have now said that what they are going to do is to present at noon and even later in some cases on banks around the country. If you are using a bank for control disbursement and all of a sudden you've got checks coming in at noon you are going to be charged for those, the bank is not going to cover it, so you really won't be able to fully invest and you won't be able to bring the disbursement account to zero because you'll have checks coming in after the first morning presentment from the Federal Reserve. I guess the Federal Reserve is making headway on this and it's just a matter of time before the control disbursement advantage goes away. I think if you combine the early morning presentment and if you know that 80% of your items are in and what that dollar amount is and you leave a little bit extra in the bank for those that are coming in after you have invested, that's still better than trying to guess.

Reporting and information systems first started out with a simple balance reporting system that banks provided their customers through timesharing or directly through the banks. You would essentially have a terminal in your treasurer's office and early in the morning

you would dial up a location whether directly into a bank or through a timesharing system service and get your balance information. Rather than calling up on the telephone and having to write it down you have a machine print out your balances and you know what's available for investment from yesterday and the checks that were presented. This was fairly simple and straight forward but then the banks started developing and some software vendors developed what they now call treasury management systems. Most of these treasury management systems or services that are being sold are sold in modular form so if a customer, the treasurer of the Hartford, wants merely to know his balances we would buy a balance information or reporting module. However, if I also want to do my wire transfers and all of my security clearance work I could buy other modules. There are quite a few bank vendors out there selling these treasury management systems, and I tend to think they are pretty expensive right now since we from Hartford have a highly centralized banking system and really only look at two to six banks on a given day which can be done through a simple balance reporting system. We don't have a big need for the other modules at this point but I just want to point out that this is something relatively new on the market that banks are pushing.

I want to touch briefly on short term investments even though I'm not directly responsible for short-term investments. However, we do get involved on the back office side. Short-term investments I view as really having two purposes: liquidity and yield enhancement. I think more and more companies are looking at the latter, the yield enhancement aspect of short-term investments or, what's commonly referred to as the cash alternative to bonds, stocks and real estate. For a long time at the Hartford we set liquidity targets, how much do we want to have in this particular company in short-term investments that we could use for operating purposes or funding our longer term commitments. Rapidly rising interest rates through the late 70's and early 80's made it apparent that it was a good place to park your money and earn a very favorable rate of return vis a vis common stocks, bonds or even real estate. We now at the Hartford look at our short-term portfolios for asset allocation as well as bonds, stocks and real estate. Some company treasurers are responsible for short-term investments and in some companies the treasurer is not, but I maintain that the treasurer is really responsible for the liquidity of the company making sure that there is cash either in bank accounts or investment accounts available to pay the company's bills and meet its commitments. There is no reason why the treasurer's department can't be responsible for that liquidity portion of the portfolio and have the investment department use the short-term position for yield enhancement. I'm sure that a number of problems administratively could grow out of something like that, but I really view the short-term portfolio today as two separate and distinct pieces.

We at Hartford have I guess 30 odd property casualty companies; four or five life companies and to invest on a daily basis by 10 or 11 A.M. when you get the most favorable rates for 30 to 40 companies is really very difficult. We decided that we had to do something to streamline that process and make it easier for our short-term

traders to trade for all of these companies without having to go out and place orders with various brokers for each company depending on how much cash they had available. This isn't anything new, a number of the other companies have had this several years, but we looked at the concept of pooling, loans, trusts or a mutual fund where you'd have the 30 to 40 companies participate in a pool of short-term investments and share the return on that pool but only have one company do the actual investing. This can be set up in a number of different ways. We decided the best method on the property casualty side was to use what we call a loan where 30 odd companies loan money to a single Hartford Company on a daily basis and the Company goes out in the short-term market and invests it. The return on that particular portfolio for the Hartford Company is passed back to each company as interest paid on a loan. There are state limitations on how much you can loan between companies so we still have to maintain short-term portfolios but it has reduced by more than half the number of transactions daily. This just filters down throughout the company in the back office preparation of authorizations, wire transfers et cetera and it has worked out very well. They are now starting up on the life insurance side for the five companies a trust concept. The loan doesn't work too well because there are too many restrictions on life insurance companies. I think looking at how to handle your short-term investments is equally important as what you are investing in and one of the things we try to do on the treasurer's side is to help out in making that more efficient. We manage for 30, 40 odd companies a \$700,000,000 total short-term portfolio with one trader. Also, I think it is important in the treasurer's department that you have someone that is running your daily cash management function interface with the short-term trader. We happen to have a very good arrangement with our cash manager who knows he has to have the information available to our trader no later than 9:30 in the morning which means there is a lot of activity dealing with our banks between when he gets in and 9:30. Our cash management analyst works in the banking group and is responsible for providing the available cash for our traders so they know by 9:30 in the morning what they have to invest. I just point out that regardless of the structure in your particular companies, it is important that the treasurer's cash management function interface very efficiently with the investment side of the company.

Lastly, under bank relations and analysis I have chosen the topic of bank selection and compensation and the need for financial analysis of banks. It is very important to select the right bank for a particular service. We view ourselves as more of a consulting group than the banking side of the house. We consult with user departments within our property casualty and life companies, such as premium accounting, the controllers, group life, and the individual life when they need a banking service. Whether it's to collect premiums, collect annuities, pay claims, set up trusts, or whatever, they come to us and we have to provide them with the most cost efficient banking system available. Depending on the magnitude of the service, we would select anywhere from half a dozen to in some cases 30 different banks to bid on a particular piece of business. A quick look at the prices will allow you to weed out the banks that really are not interested in providing the services. I suggest that

as companies get into new banking services or refined existing services, that you go out to multiple banks and don't get caught in the trap of being happy with one particular operating bank and not bidding out. Banks are becoming very competitive so there is a lot of room for price negotiation. I think it is very important in bank selection to visit the banks and make sure that they have what they say they have. It is very important to get a list of existing customers and to talk to those customers about whether or not they are happy with a particular bank service. We are very candid with people who call us as are many in the insurance industry. We are not afraid to tell each other what kinds of problems we are having, or have heard about. Also, it is important in bank selection to look at your companies' future needs as to what kinds of services you are going to need from the banks down the road. We look at a particular bank not just because they are good in automated lock boxes or not just because they are good in direct deposit of payroll, but for the kinds of things we can use that bank for a couple of years from now.

The Hartford is just now getting into paying its banks partially with fees. Until a couple of years ago we compensated our banks entirely with balances. Obviously, there is an opportunity cost there for us and we don't have that money invested since it's sitting in the bank and earning what they call an earnings credited Treasury Bill rate rather than being invested in short-terms or whatever. We are now paying some of our banks by fee. The problem we have is in trying to transfer the cost of these services back to the departments particularly in the property casualty side where it doesn't help the expense ratio much. It also gives the users in the company an opportunity to provide a lot of help to the treasurer's department when you go out to look for banking services. The old line is that if we are going to pay for it we'd like to help select a bank, which is good since we would like to get our departments involved in bank selection. Therefore, you do have the opportunity of paying most banks either fees or compensating balances. We also use compensating balances for liquidity. We know that they are there and we could draw them down if we need them for operating purposes and we'll replenish them to pay for services at a later time. Also, one thing we've started, and I understand it is relatively new, is to ask for caps on bid proposals. Caps work as follows. When a bank comes in and says I'm going to charge you 10¢ an item, I'd say fine, I want you to guarantee me that you are not going to increase that price by more than x percent, whatever the inflation rate is over the next five years, because there is no reason why banks should be coming to you every year with 30 or 40% price increases as has happened. The bankers have said they don't know their costs which is probably true, but that shouldn't be my problem and banks have the tendency to come in competitive on pricing and then in a year or two say they have increased that price by 30%. Most banks, believe it or not, are willing to put a cap on price increases. If they are going to go out and buy image processing systems, they have to capitalize that equipment just like we capitalize plant equipment. There is no reason why they should have to charge their customers all in one year to repay them for that particular equipment. We look for caps on price increases and we

also try to negotiate for a minimum of one year and hopefully a two year guarantee on a particular price. We are finding more and more banks because of the competitive nature of the banking system will give a two year guarantee.

Finally, I want to talk about the need for financial analysis of banks. We have all been reading the paper about the problems the major banks are having and I maintain that you should analyze your banks as they would you. There is no reason why the treasurer of a company should be sitting there with a few million dollars in deposits, letters of credit received from banks, short-term investments, or whatever of a bank that is all of a sudden found to be financially unstable. You have to do your homework. You have to take a look at a bank as if you were lending them money. Don't forget only \$100,000 is insured by the Federal government, so for anything over that you are at risk with a particular bank and we do analyze our banks. Those banks where we have a lot of money we analyze quarterly, others on a semi-annual basis. We use our equity analyst, our bond analyst, our traders and our assistant treasurer for bank analysis. There are a number of very good broker services available that will provide information, financial ratios, et cetera on banks that you can use if you choose not to do it in-house. I stress this as a very important aspect of bank relations so you are not embarrassed when all of a sudden your money is tied up.

MR. LALONDE: Thank you very much for that overview of your situation in cash management. I have a quick question for you Rich. How do you decide what your minimum bank balance ought to be, that is, how do you meet your day to day cash needs?

MR. GARRETT: The assistant treasurer who is responsible for banking at the Hartford works with the cash management analyst in determining the target balances in a particular bank. Remember I said that we use compensating balances to pay some banks and fees for others, so if we are going to pay an operating bank in balances we target x dollars to be left there on an average daily basis and that number certainly is going to fluctuate. Above that you try to stay fully invested. One thing that is very difficult to do is to compensate our banks 100% in fees because it is very, very difficult to keep balances at zero. So with a combination of fees and balances you want to target with specific banks exactly how much you are going to leave with them. Also the cash forecast side which I did not get into will tell you what you are going to need on a daily, weekly or monthly basis to pay your operating expenses, investments and commitments so it is a formal targeting approach to balances.

MR. NEIL BERGER: You were mentioning the system of using preauthorized checks. Would that also include anyone who wants to, let's say, pay a bill by telephone or home computer?

MR. GARRETT: That's a good question and is one thing that we are looking at on both our property casualty and life insurance side of collecting premiums. There are a number of banks that are offering telephone bill paying services but we have very little at

the Hartford and it does present a problem when they come in because generally there is not enough information provided with that particular payment. Very often you might just get the name of a particular person and the dollar amount that is paying through a bank and the bank will send you a list and a check and say here it is. Well, I don't know about the rest of you, but our systems work off of policy numbers, not names and it is very difficult if you don't have a cross reference file to track down that kind of information. We are sensitive to telephone bill paying, credit cards and home computers therefore as we design and refine our systems, we are trying to be flexible enough to allow that type of input into our receivable system.

MR. BRUCE W. REITZ: In general I'm going to talk about electronic banking. How many people here have heard of the automated clearing house? Okay, we have one. The automated clearing house (ACH) is a nationwide clearing house and is a way of moving money and information electronically. Whereas Rich was talking in general about cash management, I'm just going to stay on electronic aspects. Now in the 70's everybody was talking about electronic banking, a cashless, checkless society and things of that nature but that really hasn't happened the way everybody said it would. Concerning ACH, Equitable is one of the leaders. In the early 70's, it began in electronic banking as one of the first companies involved in the preauthorized debit side and today is considered one of the leaders, one of the innovators in the insurance industry which, in the world of electronic banking, is the leader. One of the big reasons is because we are cash machines. We collect a lot of money and disburse a lot of money. We pay a lot of money to consumers, we pay a lot of money to corporations and we collect a lot of money from both consumers and corporations. Payments coming in are both small and large but there's a lot of money going back and forth. One of the big reasons electronic banking is so interesting and why the insurance industry is an innovator is because when you are processing one hundred thousand or five hundred thousand items a month and can save a couple of pennies on each, it adds up.

I intend to talk about what Equitable is doing both currently and what some of our plans are for the future. Concerning disbursements, the first thing we got into was group pension credits. We started this in September of 1980 and we make about 300,000 pension payments a month. These are going to retirees or individual people like you and me that are retired and are recurring the same amount of money that's due on the first of the month. We started this as I said in 1980 and there are several reasons we did it, the biggest was money. We figured that we save between 17 and 20 cents for each item that we send out electronically over cutting a check and mailing it. The main reason for the cost savings is

postage. We no longer have to put a stamp on anything, plus there are some other savings involved, such as handling, stuffing and things of that nature. The 17 to 20 cents does take into consideration the float loss which is something that Rich mentioned. We took that into consideration because you do lose float here since the money is in the annuitant's bank account on the due date as opposed to the float you gain when the annuitant cashes the check and it is coming back to you. Hence, there is an all inclusive savings involved which is very important. There were a couple of other reasons, though. I think the second most important reason was competition. We were the first insurance company to go nationwide with this and there were a lot of our pension people who were interested in being number one. Near the end of preparation to implement they were a little afraid some of their competitors were ready to go so they pushed it up a couple of months in order to claim they were number one. The next reason we got into this was the contractual obligation to have the payment in the annuitant's bank account by the first of the month. This relates to the last aspect, the postal system. We did not realistically know when money was going to get places, therefore, we had to start sending out our payments several days in advance of the due date segregated based on the part of the country where the payment was going. Some of the payments would get there before the due dates and even though our check was dated for the first and we told the annuitants not to cash the check before the first, as soon as they got it, they cashed it. Consequently, checks were coming back before the due date so there was a negative float loss. Right now 30% of all our payments are being done by Electronic Fund Transfers (EFT). There was an extensive campaign in order to talk to both the annuitants and the corporations and try to get more people on this over the course of the last four years. We were able to get 30% which is a little less than the government has on their Social Security but we are satisfied with where it is so far.

Individual annuity credits are the same concept as group pension, i.e., recurring payments for the same amount of money each month, only here we're sending it to people who have individual annuity contracts. We just started this and in January, 1983 the first payment went out. The reasons we got into EFT were the same. These people were a little more conservative than the group pension credits people, that's why it took them three years after group pension started to get into it but they are very pleased now. They have about 10% of their file or about 10,000 to 11,000 going out a month. It's growing slowly, and should continue to grow. Once again, the big reason here was cost savings.

September of 1981 was the start of our direct deposit payroll. There are several aspects or several parts of this payroll that we have going right now. We started in 1981 with payment to salary employees. We have a money market account attached to our company and the next thing we started was to offer it to our employees so that if they wanted to, they could have part of their check or all of their check go into their money market account within our company. We have about 1,000 payments a month going from Equitable employees into their money market accounts. This means they don't

have to cut a check to deposit it, it automatically goes in and they start earning interest on their money right on payday. We offered it to our salaried agency force in August of 1982 and early this year we started a pilot where we were offering direct deposit of payroll to our regular agency sales force so we've expanded it over the entire company now. The acceptance hasn't been that great. One of the reasons is because of law you can't force it on everybody and a lot of people like to see their check, they don't trust the bank or they don't understand it. Some people bank with banks who are not members of the electronic world so we only have about 27% of our salary force on direct deposit of payroll now. The major reason we got into this was the treasurer wanted it. He liked electronic banking so he was really pushing for direct deposit of payroll. It really didn't save the company a whole heck of a lot of money back in 1981 when we started it. Yes, it is maybe a penny cheaper than a paper check; yes, you do away with a little bit of reconciliation but there wasn't a whole lot of cost savings plus you lost float. The big difference here versus the other two is you still have to send out a statement so you don't reduce any postage cost whereas in the other two we were able to stop sending a statement account on a monthly basis and we started to send an annual statement. We are starting to see now that there are some savings involved since if you were going to our company and I'm sure any of yours on payday, you would see the lines twirling around the branch bank in the lobby where employees from our company spend 20 to 40 minutes in line. It's a social gathering and that's why a lot are on direct deposit payroll. It's also a free break that's socially acceptable at Equitable. Additionally, banks are now starting to find out that they don't want to be in the check cashing business. They are trying to get people out of branches and the only people they want in branches are people who have a lot of money in the bank, not those who just cash checks and leave. Some banks in New York City have told companies they are not going to cash checks anymore for people who don't have accounts. Another thing, some that do cash checks are now starting to charge to the treasurer for it. The last reason we got into this was because of mail problems, weather problems, strikes and things of that nature when sending agency commissions all over the country.

Electronic depository transfers are a way of concentrating money in a company which is cheaper than wire transfers and paper checks. Equitable doesn't do a lot of them but I think it will grow in the future. Check safe keeping which is my terminology for what Rich called truncation is what we do for those people who still want checks. There are a lot of people who are not going to electronic no matter what we do, therefore we wanted to get involved with something whereby the checks would be stopped before going all the way through the banking system. The banks told us that it would be cheaper in the long run by 10 or 15 cents per check so we have one of our checking accounts included in a safe keeping file run by the ABA. We really haven't generated any significant savings yet but we got into it because we think that eventually there will be savings and wanted to try to be a pusher and get things moving.

The last thing I have is corporate trade payments. Corporate trade payments are a way of sending money and information from one corporation to another. Unlike some of the other vehicles we talked about, you can send a substantial amount of information along with the payment so it is really money and information together. This is the wave of the future and will probably replace some wire transfers and some checks. We wanted to get experience in corporate trade payments so we looked to using them to pay bank fees for our line of credit. We have about 60 banks in our line of credit and we got about a third of them to accept their fee by corporate trade payments. We made the first payment at the end of the first quarter of 1983. So far we haven't saved any money but it's the wave of the future and we wanted to gain some experience with it. The last thing I have on corporate trade payments is corporate trade payments from the receipt standpoint. We have been in the direct placement business where we are lending money to other corporations and it has been written in the contracts for years that the money would come back to us via payment quarterly, semi-annually or whatever in the form of wire transfers. Wire transfers are expensive to originate and to receive. Origination probably would cost between 10 and 20 dollars to send to a company like us and for us to receive it, about five dollars. We had a couple of our large companies come to us and ask to send to us through the corporate trade for payment and we said fine, we'll figure out a way to do it. We had some problems in that we didn't find out about the first payment until about two months after it got in. The money was invested, but it was a reconciliation difference for two months. The banks have a long way to go here but we are getting a very small volume, and it's going to happen more and more as companies replace wire transfers.

Concerning collections, we've got preauthorized debits which we started using in the late 70's before there was an automated clearing house network. This saves us money. We have about 600,000 preauthorized debit payments a month and about 72% of that is done electronically now. The main reason is that it's about 3 cents per item cheaper. Second, the availability of money is a little better. We get one day money on all preauthorized debits that we send out whereas if we were cutting a check it would be split between one and two day money.

We were a little afraid of telephone bill payment systems back in the late 70's because all the banks were telling us we were going to be inundated with them. We were used to getting a little piece of paper back with all the information we needed to run through machines and update our records. All of a sudden we thought we were going to get little listings instead that might have the name, or might have the policy number and amount, but we wouldn't have anything to run through our machines. We set up a pilot program whereby some banks that had telephone bill payment systems would send us the money and the information electronically through the automated clearing house to a concentration bank of our choice. They would give us a tape which we would run against our system. Well, it really has never materialized since the 300 or 350 banks around the country that offer telephone bill payments only about 15 were in the pilot because they were the only ones that could do any-

thing automatically while the rest of them would prefer to cut a check. The reason being, they get float on a check. If they do it through the ACH they lose the money as soon as they send it to me, so banks aren't really interested in getting involved here even though they talk about electronic banking. It's electronic in the beginning but boy, it's slow paper in the end.

Regarding the future, I'll start with disbursements. Group health claims are one of the biggies that I think you'll run into because there are so many of them. Equitable sends out about 15 million group health claims a year. That's a check, a piece of paper that is mailed out with a stamp on it. I don't know how many of these have gone to hospitals and doctors in addition to people like ourselves, but I think of corporate trade payments as a good way to start paying doctors and hospitals on group health claims. You probably won't be able to pay people like me right away because there is a statement of account that goes along with it, but then again, maybe you can because with a corporate trade payment a lot of information can be included. There is a stamp on each one of these checks that goes out which is expensive and yes, you do lose a lot of float but one of the big things in this industry is prompt payment of claims. We spent a lot of money at our company to come up with an on-line claims system. We also have a couple of big facilities to turn out checks and we have made arrangements with the post office for quick delivery. Service seems to be more of an issue with this industry than the float, but I think this is one of the biggies coming up. There is a group called National Electronic Information Corporation (NEIC) which is a company formed by some large insurance companies to start getting information from hospitals electronically rather than mailing claim information. We in the treasurer's department found out about this and said since you are getting the information electronically why cut a check on the back end, rather, pay the money electronically. They never thought about that and it has been two and a half years and they still haven't thought about it because they are having so much trouble getting the first part to work. Once they get their act together on the front end, they are going to start looking at the other and pay the money electronically. It's not going to happen tomorrow, but it is going to be there. Corporate trade payments are going to grow. Rent, group insurance, pension payments, freight payments, all types of things like that will be going out electronically in the corporate trade payment format and with enough information so that whoever you are sending money to knows why it is coming there.

I mentioned before that a wire transfer is very expensive. We are looking in the future to electronic wire transfer alternatives to send out payments in a format similar to corporate trade payments but possibly a little cheaper and without quite so much information. The main one we have going on right now is for our pension clients. We make a lot of wire transfers to pension and are supposed to start a pilot today where we are making our pension payments through the ACH. This is a lot cheaper and you can do it a day ahead of time and the money is guaranteed there as opposed to getting lost in the wire system.

A possible future enhancement which I talked about before is check safe keeping. You'll never get ACH for all the checks going out so we see that almost all the checks you can't get ACH for or sent out electronically will at least be stopped at the bank of first deposit.

Lastly, I'll treat the future of EFT collections. Customer initiated entries is the first thing and here we are considering telephone bill payment, automated teller machine, home banking, point of sale and anything like this. Customer initiated entries are just that, those that customers initiate. A lot of people have given us the authority to take money out of their bank account but a lot of people don't want to do that. They want to have the right to initiate the payment whenever they want. One of the big things that we have to get used to is being able to handle that payment when it comes in without the little piece of paper that we've become so attached to. Therefore, customer initiated entries could be in any one of those formats. I know that home banking is the buzz word now but it's probably going to come and people who have home computers are going to want to pay their bills through them so that's why we set up for telephone bill payments. ATM, point of sale, all of this is going to grow more in the future. The banks are going to start pricing checks the way they should and it's going to be very expensive for people.

Concerning collection, corporate trade payments shows its head again as do the wire transfer alternatives since we are going to get money from people who owe us via these two mechanisms. I know in the relocation business we are looking at doing client billing, sale proceeds and things of that nature by both of these alternatives because you eliminate mail time and it is cheaper than wire transfers.

Payroll deduction is probably something to be interested in for individual retirement accounts (IRA's), money market accounts and things of that nature. Payroll deduction is a good and cheap way to get all your information on tapes to update files. It hasn't taken off yet, but I believe that it will.

The last thing is truncation of initial deposit. I don't know if it is going to happen for about 10 years but that is when a check comes in which I process through a lock box. I keep the check but send the magnetic tapes back through the system and charge the bank.

This has been a summary of what we see as future considerations in trying to change with the times and serve the needs of people as economically and cost efficiently as possible.

MR. FRED COHEN: Since my co-speakers covered the domestic side very well, I will switch gears and take us overseas to cover the international aspects of cash management and more specifically, exposure management in the context of the insurance industry. I'm sure all the activity in the Persian Gulf has highlighted for all your companies the international insurance market and probably some of you as actuaries have thought about the currency exposure aspect that is associated with all these multi-currency risks that are being insured overseas. Working with corporate clients in other industries, I try to convince them that foreign exchange exposure is a manageable risk. I think it definitely is and I think there is a role for the actuaries to bring foreign exchange exposure into your overseas calculations. Doing that requires an understanding of how the typical insurance company makes its investments overseas and what their primary concerns are in managing cash flows.

There are probably three very distinct aspects in a company's involvement overseas. First there is the multinational or the insurance company that wants to become multinational which either establishes or purchases a foreign insurance company. Their first exposure requirement is to manage the return on the equity that they have sent over, therefore if they are buying an insurance company in France, their U.S. dollars quickly get converted into French francs that are being used in the operation of the company. They have to make sure that the translation of the French franc returns is in fact giving them an acceptable return based upon the initial dollar contribution. Secondly, when the subsidiary gets into operation it has generated its own cash flow and there is a need to manage the cash flow. Again, if you bought into a French subsidiary you are dealing with the same issues in France that my colleagues discussed dealing with here in the United States. You have the same collection, disbursement bank relationship issue for the French subsidiary and the management of French franc resources that you have over here with the U.S. banks in managing U.S. dollar collections and U.S. dollar disbursements. Finally, you have what I call the consolidated economic currency exposure where a worldwide company with multiple subsidiaries in all different countries writes risk around the world and has an underlying, somewhat unidentified potential exposure of paying out in currency that they don't expect to pay out in. There is the potential of writing a policy in one currency and having somebody else come up and say we want to get paid in a different currency from that of our premium. That becomes a contingent currency requirement on your part that needs to be identified.

The following are ways of looking at these cash flows and identifying major concerns. First, is identification. Identification is the key to currency management. I think that it is possible to develop methods and systems to identify transactions and to identify the currency exposures that are tied to those particular transactions. A lot of companies don't think it is manageable so they don't even look at it. I contend that it is both identifiable and manageable. Once you come up with the identification, you are going to have to evaluate the risks and once you have evaluated the

risks, you can go through a process of evaluating and identifying different management scenarios. That is clearly where the actuaries come in and look at the contingencies involved in exposure management. Identification has us concerned with the currency of a transaction, and the timing of that transaction, for example, when will the premium be collected, when are we expecting to pay the claim associated with that insurance risk and what will be the magnitude. We might have a large dollar premium come in and the claim magnitude in dollars might be relatively small but we might pay amounts in French francs, Deutsche marks, or British pounds sterling in much smaller magnitudes and at different times so you have the need to identify for each transaction the potential magnitude and timing of disbursements.

We are all familiar with premium income, investment income, expenses, claims et cetera that need to be identified, but I hope and think you will see that the key to managing all this comes in structuring the investment portfolio and managing the investment income. The market is pretty much going to determine for you what you can charge for premium, it's going to tell you what the insureds want in terms of claim payment flexibility and it is up to the insurance company to manage that reserve pool effectively and optimize the income for the company as a whole. Illustrating our alternatives in currency reserve and investment management, we'll go back to our French investment in a French life insurance company and assume we are now writing policies. We are going to write the policy in France and we are going to denominate the premium in French francs and the death benefit is also going to be paid in French francs. The beneficiary is not going to want to be paid in another currency so we have no change in the currency and we feel we can maximize the return on our portfolio by keeping our reserves exclusively in French francs. We have another alternative which would be a basket of currencies. Assume we are insuring a steamship cargo line and it is going up and down the coast of Europe and we are contingently liable to repair that ship if it is ever damaged and we know that the ship is going into one of the European ports. We might want to come up with a basket of currencies. Therefore, we can accept from the shipper a U.K. sterling premium and we can pay in the currency in the country where the ship is repaired. A total loss will be paid in sterling. We might want to set up a reserve to cover that particular policy in multiple currencies, so we might have a little bit of French francs, a little bit of Deutsche marks, and a little bit in Spanish pesetas to reflect the risk of that ship breaking down and needing to get repaired in any of the major European ports and the bill being paid in any of the major European currencies. The other possibility might be the very aggressive policy of having a totally managed portfolio. This is where you have a currency dealer who is daily interacting with the market as you see at some of the major U.S. oil companies, the major worldwide oil companies, and the major multinational companies. You have somebody actively and aggressively managing the reserves of that particular company. You are going to have other situations where you might want a basket of currencies and you want to optimize the reserve. The example I use is that of writing Brazilian automobile insurance. We are going to collect premium in Brazilian cruzeiros,

we are going to pay out claims in Brazilian cruzeiros, therefore obviously we will keep our reserves in Brazilian cruzeiros. You might, however, look at the Brazilian economy and look at their substantially higher inflation rate and say that if we were allowed to, we wouldn't keep those reserves in Brazilian cruzeiros. An alternative would be to put that reserve in perhaps U.S. dollars, Swiss francs, Japanese yen or some other harder currency that might not depreciate as much. This is where you get a little more sophisticated because even though the risk in terms of paying the currency out does not exist since you are matching cruzeiros to cruzeiros, you might want to bring in another currency and improve your returns. A lot of insurance companies have begun to diversify their portfolios into the international market for just general purposes without a specific transaction behind it.

Some of you might remember that AIG had a very big campaign on a particular policy called the whole earth policy. They described the policy as a single premium policy that covered all risks for multinational companies worldwide and they had one statement in the advertisement that said there was no currency risk to the insured. My interpretation of the advertising was that it meant that some ABC U.S. multinational company could go to AIG and insure all their operations, i.e., property casualty for all plants around the world, group life and health benefits for all employees around the world and pay one premium in U.S. dollars. This presents the problem of collecting the dollar premium and paying out multiple foreign currencies around the world. Therefore, I think foreign currency management is a growing concern as insurance companies look for other markets. There are two ways the companies are going about it. Some have kept the exposure management and the currency management activity with the local subsidiaries. Therefore the finance director of the subsidiary has been given a certain amount of equity and has created his budgets and is responsible for managing that return. Other companies have become very centralized. They have said, for example, that France will only keep reserves in French francs and the parent company will manage these multi-currency exposures. Where they don't have enough flexibility in the local insurance market, they will write the premium in different locations where by do have access to the full range of currency markets and manage these exposures centrally to improve the return to the insurance company on a worldwide basis.