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IMPACT OF LOW INTEREST RATES

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Recorder: PHILIP J. BIELUCH

- Are lower interest rates here to stay?
- What are the product development implications?
- What are the market share implications?
- Are we recognizing the disintermediation risk?
- How do we manage long-term minimum interest guarantees?

MR. PHILIP J. BIELUCH: We talk about low interest rates. Are interest rates low? We have excluded any discussion of equity in the general account or equity products.

I want to make you all great weather people. I want to point out that you can predict weather and be accurate two-thirds of the time. Day in and day out, year in and year out, you can predict weather to a two-thirds accuracy. All you have to do is say that today's weather is going to be true tomorrow, and you'll be right two-thirds of the time. With the billions of dollars we spend on weather, we are still only accurate three-quarters of the time. I wonder if that's really what happens when we predict interest rates.

To put this in perspective, I want to read a quote from *Barron's* Factorial Today column. "The early 1980s were marked by almost complete disbelief that Volker's policies would stop inflation. Thus, 14% CDs went begging while people hoarded hard assets. Now, 1993 seems a mirror image of those forgotten days. The majority seems to believe that America has become the land of 3% inflation for all time, so the financial assets are riskless." Again, we're predicting weather.

One other thing to set the stage: I want to quote *The Wall Street Journal* and give an example of how noninsurance types look at insurance. This is from a May 12 article on page three. "Life insurers, after big drops in returns, may cut rates paid to policyholders." I think the interesting section in that headline was "may cut rates paid to policyholders." I'd like to know how, if you do have, as they say, a big drop in returns, you cannot cut rates paid to policyholders.

Starting off the panel will be Robert Laughton. Robert is in charge of fixed-income investments at Manulife. He's going to tell you a little about investments. Mark Tullis

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is a principal at Tillinghast. He will help you develop solutions in the 1990s for at least similar fees. Finally, John Hele is the senior vice president and chief marketing officer of Merrill Lynch Insurance Group. They're the people who actually sell some of this and deal with the in-force problems.

MR. ROBERT LAUGHTON: I thought I'd basically start with a few simple explanations of how portfolio managers make these complex decisions.

There's a lot of herd mentality in the marketplace. Many people basically extrapolate trends, and they're just not as sophisticated as most people would think. I think Phil's example is good; in the 1980s, when bond yields were at 14-15%, nobody wanted to buy bonds. Everybody was convinced yields were going to 20%, 25%, or 30%, and there was no end in sight. Conversely, when yields are low, people tend to extrapolate that trend.

The basic problem in the world is overcapacity. If you go back to 1945 and look at the major players in the world, Germany and Japan were in ruins physically. Britain was not impaired but really wasn't a major force. The only intact industrial capacity in the world was the U.S. in North America. There was a world that had to be rebuilt. Basically, there had been phenomenal destruction of the infrastructure worldwide. In this environment, you basically have a typical monopoly situation: One player and many markets that want the products. The U.S. in and Canada basically benefitted by being the sole provider of that product. You could see it reflected in the equity and real estate markets. This was an unparalleled boom in economic activity and in economic wealth creation in North America.

Look what has evolved in the last 45-50 years. Japan became industrialized and the Marshall Plan worked in Germany and Germany was industrialized. Capital started moving around the world, basically looking for cheap labor. That's what's happened in Korea and now China. The southeastern industrial region of China has 15%-20% real GNP economic growth. So we now have a world saturated with industrial overcapacity and many people competing for the same markets. That's fundamental when you look at the marketplace and try and figure out why this economic recovery doesn't feel like other economic recoveries.

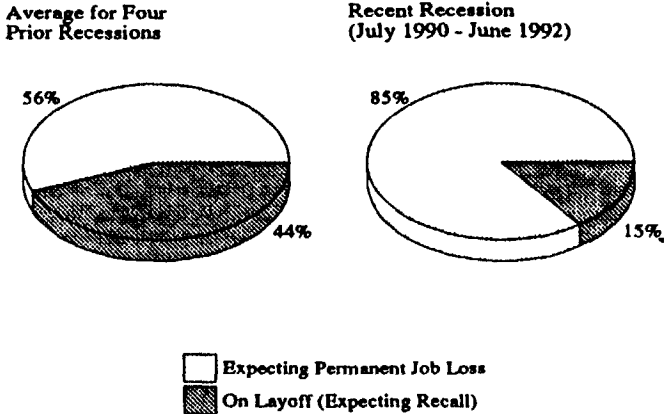
A typical economic recovery in North America or a recession-recovery scenario in North America prior to this one was based on inventory. Inventory led recession. There are too many cars in the parking lot and General Motors (GM) can't sell them so they lay off some workers. Supply and demand get back in some kind of sync, and the result is that when the recovery does occur, those workers get hired back again. This recovery is inherently different. If you look at what's happening in the U.S. and Canada, we've got probably 2-3% real growth. But it doesn't feel like a recovery.

Chart 1 highlights the great fear that's out there. If you look at the average of the four prior recessions, you can see that 56% expected that the job losses would be permanent. That number is now at 85%. This highlights what's really been going on. We've got a fairly lackluster recovery. It's about half of what it should be, but job creation is going in the opposite direction. People are being laid off. Firms are

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restructuring. They're becoming more competitive in trying to compete with this overcapacity that's present in the world.

CHART 1
The Great Fear
Most Layoffs are Now Permanent
Permanent and Temporary Layoffs



Source: The WEFA Group

Disclaimer is for Charts 1-13: This memorandum is based on or derived from information generally available to the public from sources believed to be reliable. No representation is made that it is accurate or complete. Certain assumptions may have been made in this analysis which have resulted in any returns detailed herein. No representation is made that any returns indicated will be achieved. Changes to the assumptions may have a material impact on any returns detailed. Past performance is not necessarily indicative of future results. Price and availability are subject to change without notice. The foregoing has been prepared solely for informational purposes and is not an offer to buy or sell or a solicitation of an offer to buy or sell any security or instrument or to participate in any particular trading strategy. Morgan Stanley & Co. Incorporated and others associated with it may have positions, in and may effect transactions in, securities and instruments of issuers mentioned herein and may also perform or seek to perform investment banking services for the issuer of such securities and instruments. Additional information is available on request. To Our Readers Worldwide: In addition, please note that this publication has been issued by Morgan Stanley & Co. Incorporated and approved by Morgan Stanley International a member of the Securities and Futures Authority, and Morgan Stanley Japan Ltd. We recommend that investors obtain the advice of their Morgan Stanley International or Morgan Stanley Japan Ltd. representative about the investments concerned.

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Now, the one thing that really drives bond markets and drives interest rates is inflation. Inflation is a real evil for a bond investor, because it erodes the real return in value over time. Chart 2 gives a little bit of history. It also highlights another problem our economy has. Along with overcapacity, we have a banking system and a financial industry, including the insurance industry, that made many bad loans. Regulators got really concerned in the late 1980s that the financial industry basically extended too many guarantees. There was the S&L crisis in the U.S., the banking problems, and what they could see as a looming insurance industry problem with bad quality loans; you can pick the area, whether it's the OPEC loans in the 1970s or the real estate loans in the 1980s.

The result was that the regulators basically clamped down on the banks with capital standards and tougher regulatory practices. Banks basically changed their role from being providers of credit to becoming investment houses themselves. Banks have significant holdings in securities at the moment. They're afraid to make loans and they're being encouraged not to make loans. The bottom chart shows the year-to-year growth of bank loans. You can see that there seems to be some strong correlation between the provider of credit in the economy that provides the fuel to allow for economic growth and the inflation rate.

Basically, inflation is caused if you have two inputs – capital and labor – and you run out of one of them. If the economy is growing too fast and you run out of one, the price gets bid up. That's a very simple explanation. You can see on Chart 2 that as bank loans increase the rate of economic growth goes up and the rate of inflation goes up. You can see we're in a period right now in which there is very weak bank lending. You can see that inflation seems to be petering out around the 2-3% range.

Another factor is occurring at the same time demographically. You can see consumer debt on the bottom of Chart 3. People talked about the 1980s being the materialistic generation, and now they're talking about the 1990s being the generation in which all of a sudden things have changed. People are now paying down their loans and they've changed their spending patterns. The reality of it is that it's not really what happened. The baby boomers have a huge demographic influence on the economy. Typically, people in their 20s and 30s borrowed a lot of money. Maybe this generation was a little more extravagant than most. When they get to their 40s and their 50s, they tend to pay it back, and that's what seems to be happening.

You can see that the result on the bottom is that the consumer debt service ratio is going down. People are paying down debts. They're not increasing their debts. The same thing is happening on the corporate level. As corporations try to restructure, try to be more competitive in a world environment, the result is basically less demand for debt securities. Therefore, this is another factor that would produce a lower interest rate environment.

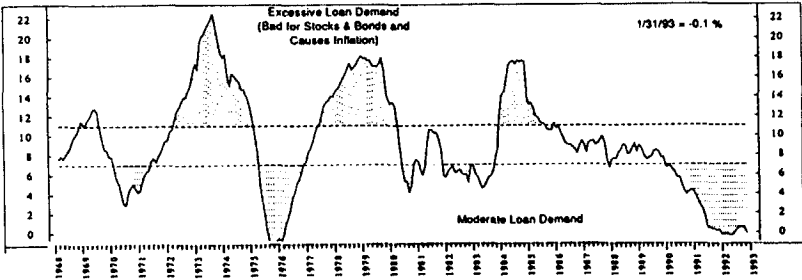
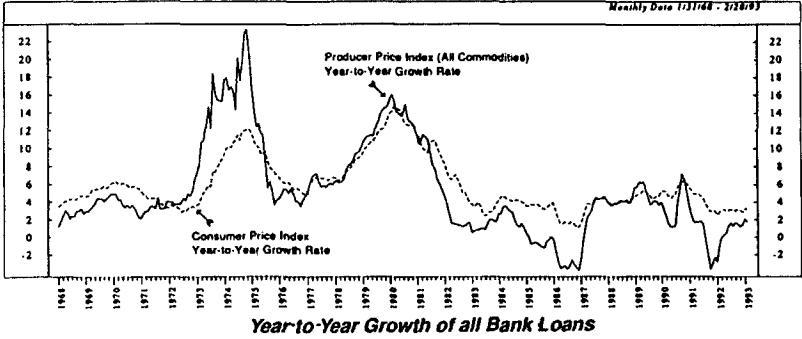
Chart 4 is a recap of commodity and service inflation. The key thing to look at in this chart on the lower line, if you come out to 1992 at the bottom, is service and wage inflation. Again, you see the same trends. You see the phenomenally high inflation rates of the early 1980s. It peaks up around 18% on an annualized basis. That has really changed a lot. What a different world! The reality of it is that people are always victims of the most recent experience. If you're driving your car and you're following too closely and you rear end somebody, you're not going to have that accident again. You might have another one.

This shows that what the financial markets are worried about and the regulators are worried about is what happened in the 1980s. They got rear ended really badly. We saw inflation get out of control. Countries like Brazil had inflation of 30% or 40% per month. So the real concern here is that this was a major crash. We don't want to have it happen again. You can see that the inflation scenario really has changed, and that what really happened in that period in 1975-85 was an aberration. This economy has basically had a low-inflation scenario, except for this period.

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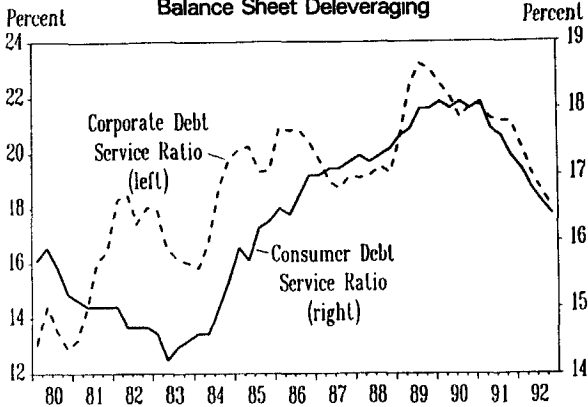
Chart 5 just shows the same story over again. It shows cost and prices, and this is year over year, and it shows the change. You can see that unit labor costs at the bottom are around 2%. Labor costs account for typically anywhere from 50% to 65% of inflation. You've got a job market in which people aren't getting hired. People are afraid of losing their jobs. Basically, all the pressure has come out on the wage front. There's no real wage inflation and that's really helping the picture.

CHART 2
Consumer Price Index & Producer Price Index (All Commodities)



Source: Ned Davis Research

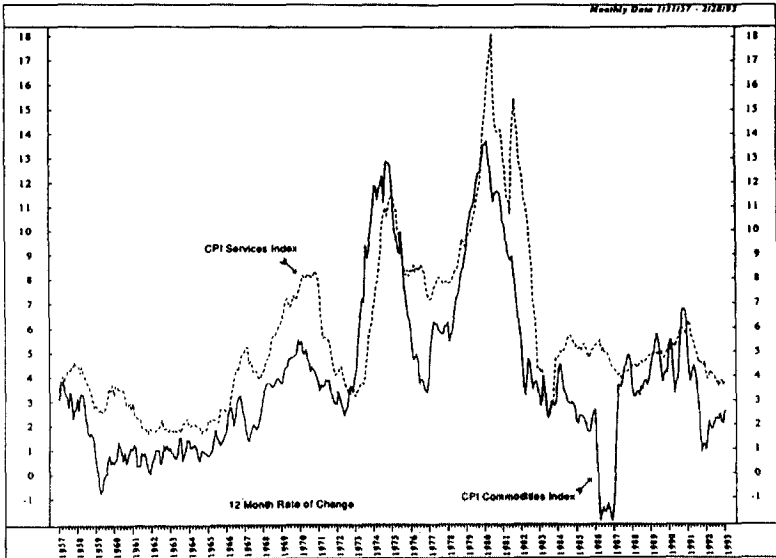
CHART 3
Why Interest Rates May Surprise Us Favorably
Balance Sheet Deleveraging



Source: U.S. Bureau of Labor Statistics, U.S. Department of Commerce and Morgan Stanley estimates

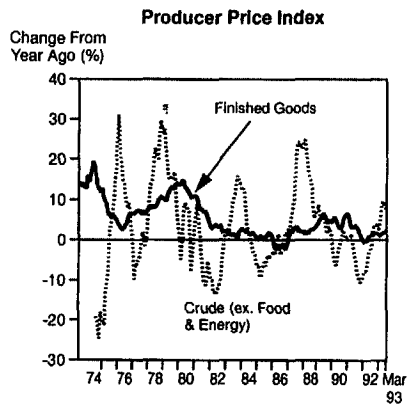
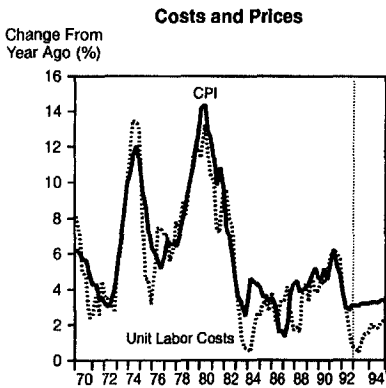
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CHART 4
Commodity & Service Inflation



Source: Ned Davis Research

CHART 5



* 1993 and 1994 Forecast.
Source: The WEFA Group, Morgan Stanley

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On the other side, you can see the raw materials index, producer prices. This number came out at zero in the most recent release last week; so basically producer prices were unchanged. When you look at the raw inputs that go into producing economic growth, either labor or capital or raw inputs and producer prices, there's really no inflation. It's well been wrung out of the system.

Are interest rates high in relation to inflation, or are they low? In the 1970s, when OPEC was formed in 1972 and inflation started becoming a real problem, nobody believed that inflation was going to get as high as it did. The bond market actually had negative real rates of return. The opposite is basically happening now. No one believes inflation is actually that low and that it's going to stay low. According to some models, interest rates are still too high and they probably have more room on the down side.

Once interest rates get on a path, there are fundamental behavioral and structural implications in the economies that produce interest rate changes and interest rate direction changes. Probably the fundamental ones now are worldwide overcapacity and the demographics that there's not going to be a lot of demand for debt.

Just for a bit of an international perspective, because we are in an international economy and what happens overseas is important, both Canada and the U.S. are both big trading countries. If you look at the U.S. GNP in round numbers, it's about \$4.5 trillion. Now, exports account for about \$500 billion of that. If you get a 10% drop in exports, you can drop almost 1% off GNP in the U.S., particularly in Canada. Canada is even more focused on trade. If our trading partners are strong, if they've got vital economic activity, they're more likely to be able to buy our products.

Japan has basically experienced the burst of the bubble (see Chart 6). Its real estate and stock market prices got way out of whack. An added danger in the Japanese economy is that banks are large holders of equities. You can see what's happened to the Nikkei. It's gone from 40,000 down to just a shade above 20,000 in three years. That's a significant shock and it's having major ramifications in the Japanese infrastructure, because firms are now being forced to realize these losses on their balance sheets. They're in a retrenchment phase. You can also see bank lending.

Japanese banks were huge lenders, even in North America, just three or four years ago. They were huge investors. They were financing some 60-70% of long U.S. government debt and now they're net sellers. So there is a major retrenchment. Japan is basically experiencing economic decline that it hasn't seen since World War II. Chart 7 shows retail sales in Japan. It is the same trend basically, but more severe. You can see that retail sales are actually shrinking at 5% a year. That's major. Production inventories are showing exactly the same thing. The solid line is industrial output heading straight down, and the dotted line is inventories heading up. So there are many inventories. They're not selling things. They're not selling products as much as they did, and their industrial output is shrinking. The same thing, again, is basically department store sales are down significantly and GNP is down significantly with domestic demand (Chart 8).

CHART 6

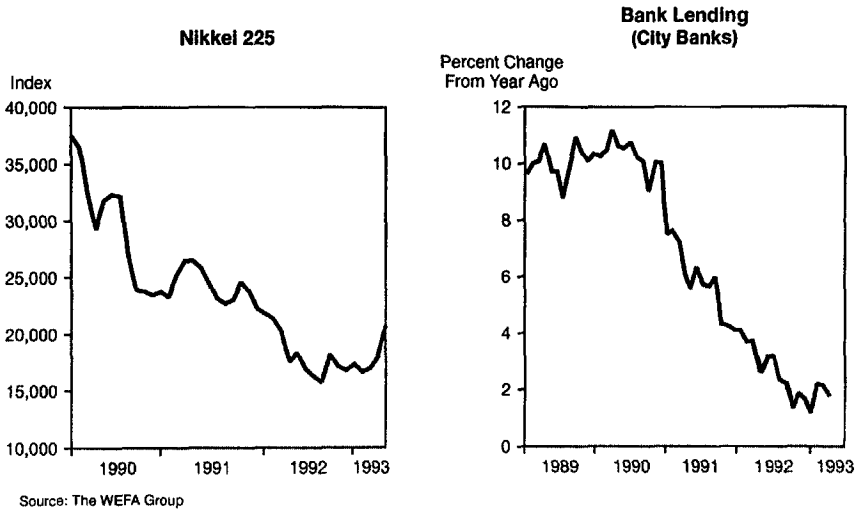
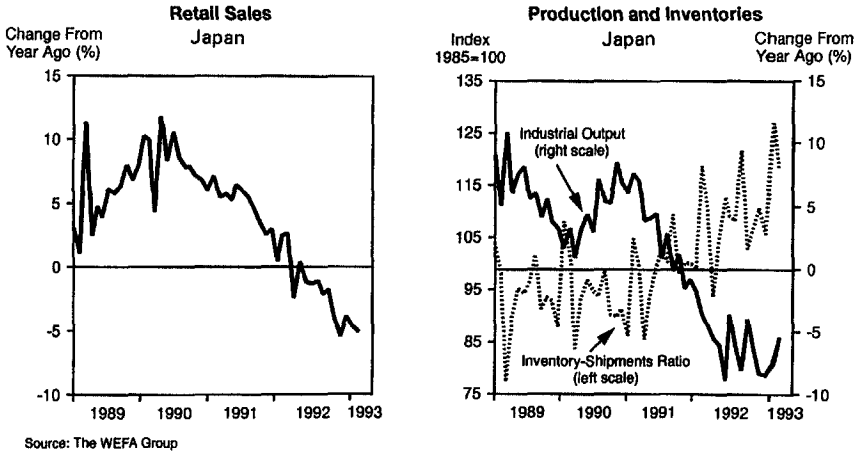
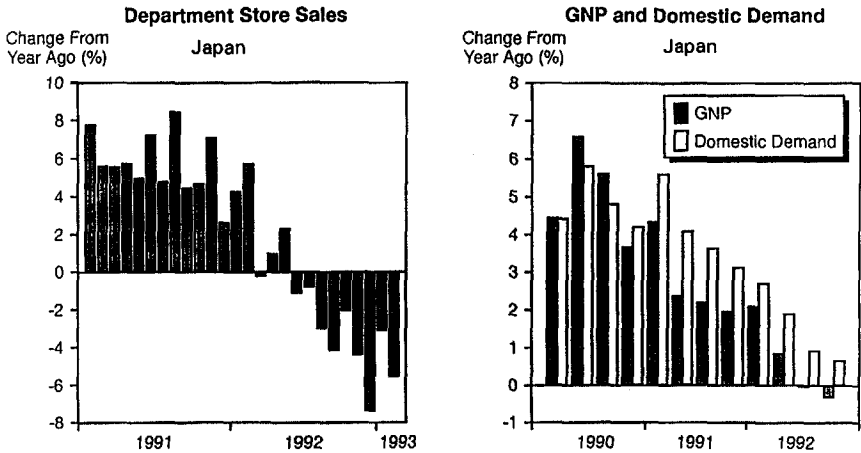


CHART 7



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CHART 8



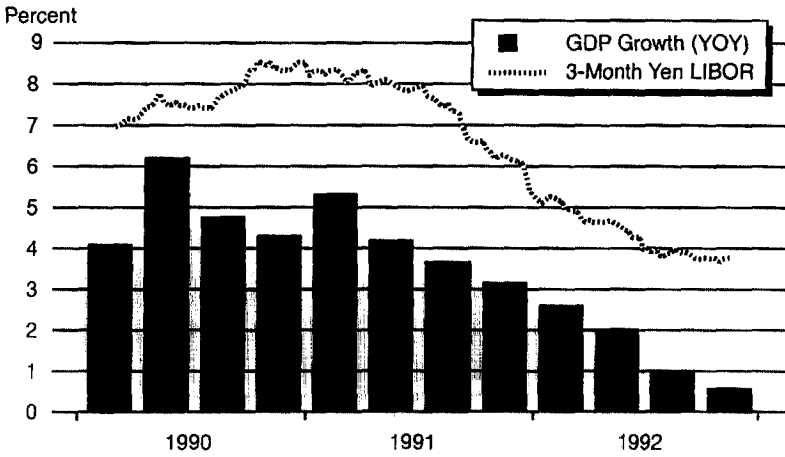
Source: The WEFA Group

Chart 9 sort of summarizes what's happened with the yen London Interbank Offered Rate (LIBOR), their short rates, and GNP. Again, there are basically two economies in the world. There's the U.S. and there's everybody else. Everybody else is about two or three years behind North America. Everybody else is going through basically trying to wring inflationary excesses out of their economies. They're in much slower growth modes. They're probably about two to three years from some kind of an upturn. When they have it, it will probably be slow again, the way ours is at the moment. There's no real inflation pressure and there's no real help for our economy from abroad.

Germany is obviously trying to absorb the reunification. It's been a much bigger headache than anybody ever imagined. It has a huge problem with refugees and that is being reflected in its economic numbers. You've got to remember that Germany was a country that suffered hyperinflation after World War I and saw its currency basically devalued. It is extremely sensitive and it actually has laws and statutes that prevent inflation from getting above certain levels, so it is very concerned about this. Manufacturing orders are collapsing and industrial production is collapsing. (See Chart 10.)

The money supply, which is a broad measure of how much juice or how much gas is being given the economy to enable it to grow, is down significantly. The cost of living is shown in Chart 11. For Germany 3% inflation is horrendous. You can see it has gone through a swing in which inflation has reached 5.5%. That's on the way down. Again, there is the same scenario; slow economic growth or shrinkage and a low-inflation environment.

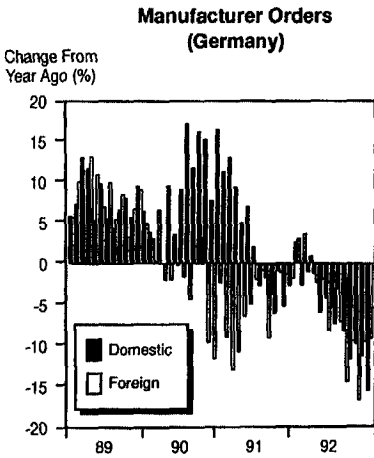
CHART 9
Japan



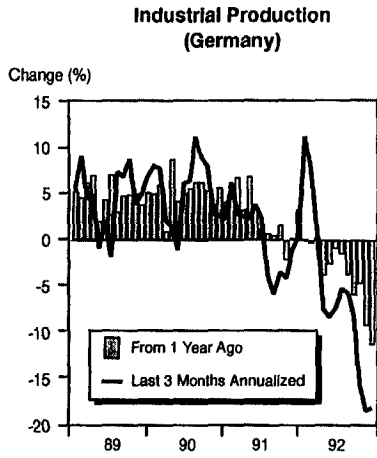
• BoJ responds to slower economy with easier monetary stance.

Source: Morgan Stanley

CHART 10



Source: The WEFA Group



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CHART 11

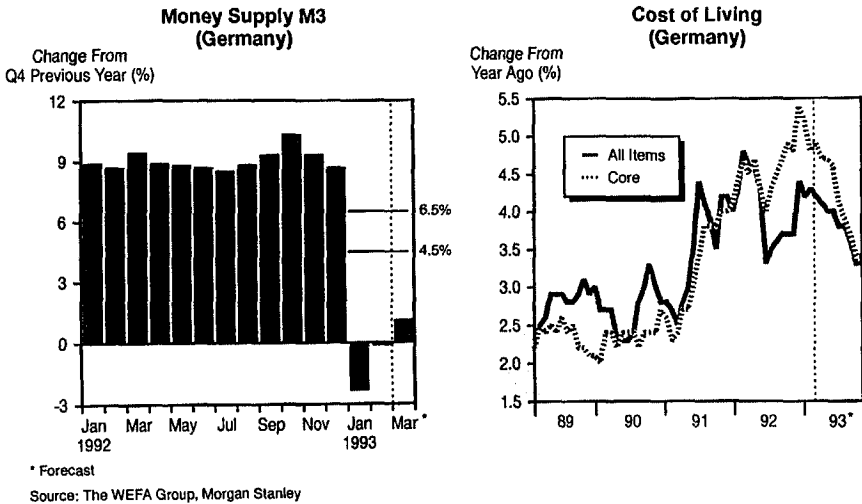
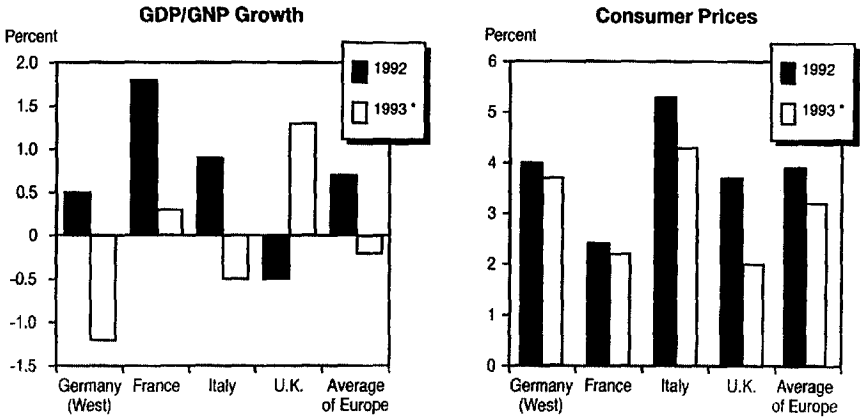


Chart 12 basically summarizes Europe. You can see the same trends. GNP growth in Germany, France, Italy, and Britain has actually gone up a little bit, but these countries had the recession a bit earlier. You can see slower economic growth or negative economic growth. Consumer prices or inflation in those economies have kind of passed their peak and they're now coming down.

Industrial production for three major countries -- Germany, France, and Sweden is shown in Chart 13. You can see them all heading downward. For the unemployment rate, it is the same problem. The unemployment rate is going up, so we have a worldwide problem. There are basically too many people in the workforce. We're too efficient. There are too many markets that have been industrialized and every new market that gets industrialized is more efficient than the last one. They're starting with newer technology and more efficient manufacturing capacity.

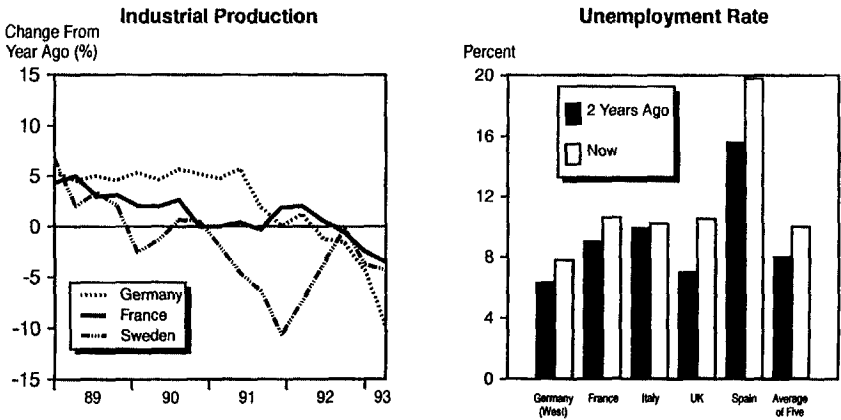
If I were going to venture a prediction, all the fundamental factors are in place to see a continuation of the low-interest environment that we've seen. Probably the real risk, and something that Phil pointed out, is that rates actually might go lower; because it's all relative to where you've been. People think rates are low now. We might be in an environment three or four years from now in which rates peak up to 7.5% and people might consider that high and you might see annuity sales booming again. It's sort of sticker shock at the moment. People are trying to readjust to this new environment.

CHART 12



* Forecast
 Source: The WEFA Group, Morgan Stanley

CHART 13



Source: The WEFA Group

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MR. MARK A. TULLIS: I'll concentrate on the impact of low interest rates in four areas: (1) the effect by product line on different kinds of business, (2) the effect on merger and acquisition activity, (3) the interaction with tax, and (4) the interaction with recent regulatory changes. First, what effect does our current interest rate environment have on in-force business? Is it good news or bad news? As with most questions, the answer is that it depends on both the type of in-force business and the type of investments. First the good news.

For most of you, the current environment should be providing increased realized spreads for some of your in-force business, with credited rates falling faster than earned rates. To a limited degree, it should have provided you with an opportunity to dress up your balance sheet, subject to reporting restrictions in both the U.S. and Canada on passing through capital gains. Basically, summarizing the good news, we can say the winners in the current environment are companies with products that have short-term or no credited-rate guarantees, particularly those companies that have been quick to ratchet down credited rates relative to market rates and new money rates.

On the other hand, the bad news is that if you've been selling products with existing credited-rate guarantees for some products, or you've been investing in callable securities, you probably haven't done very well. So the losers have generally been companies that have been selling products with longer-term rate guarantees or companies that have been investing in callable instruments or have not been matched very well on the short side.

I'd like to talk about several popular products, examine the effect of the low interest rate environment on each of these products, and maybe determine who the winners and who the losers have been. Before I do this, you must realize that some products are winners and some are losers. Part of management's job and your job as advisors to management is to minimize risk by balancing your liability portfolio. I hope for most of your companies you participated in both some of the gains and some of the losses.

Most of the recent growth in the insurance industry, at least in the U.S., has been in the annuity area; and most of the annuity growth has been in single premium deferred annuities (SPDA). So, how have these products fared? Subject to two major caveats, in-force SPDAs and in-force blocks of SPDAs have fared quite well in the current environment. For the typical in-force SPDA block, credited rates tend to be more in line with new money rates and have come down faster than the invested assets. Generally, if you have in-force blocks of SPDAs and have not been making money on them during the past few years, it's hard to conceive of a situation in which you ever would make money on your in-force SPDA blocks.

The two important caveats I mentioned earlier are that if you have business with long-term initial rate guarantees, such as maybe two or three years ago you sold a lot of product with five-year initial guarantees, you probably haven't done very well, or at least you've lost out on the opportunity for gains. The second major caveat is that more and more companies are developing blocks of SPDA business with little or no surrender charge remaining. For a number of companies, this is creating quite a

problem in keeping the assets matched with the steep yield curve to offer any sort of attractive credited rate and maintain the business in force.

Moving to traditional nonpar and zero cash-value life, generally these products have been losers because the companies have no way to change the deal that the policyholder gets; they're locked in at issue. Most of these products were priced with much higher interest rate expectations than what was realized, and it's impossible to perfectly match your assets, because with both types of products you get ongoing streams of cash in the future. As a general rule, if you've been heavy into these products, you've been a loser in the current environment.

An interesting discussion I had recently, particularly on the zero cash-value side, is that a number of these contracts have experienced significantly lower lapses than were originally anticipated. With the low interest environment, the new products are being repriced with larger and larger premiums, which runs you into a vicious cycle on the in-force block. With the new versions of the products being less and less competitive, it's going to drive lapses even further down. Since these tend to be lapse-supported products, it consequently makes it that much harder for companies to make money on in-force blocks.

Similar to the zero cash-value products, payout annuities have not been winners in the current environment. Payout annuities would comprise structured settlements, terminal funded annuities, and traditional immediate annuities. These have the potential to be very large losers, particularly if assets have either not been well matched, or have been mismatched particularly on the short side, or have been invested in callable instruments. Note that these liabilities can be very long, particularly structured settlements, so that it might be impossible to fully match your assets. It's very difficult not to have lost in the current environment.

In extreme cases, for those of you operating in the U.S., Actuarial Guideline IX B requires that when you certify reserves or look at reserves for these types of annuities, particularly structured, you have to be able to support the underlying interest rate with your assets. For example, for 1985 issues, the statutory rate for immediate was 11%. My guess is that most companies with in-force structured bring forward the 11% rate and don't think about it too much, but there is an actuarial guideline out there that says you have to be able to justify the 11% rate with the assets that actually underlie the block. If your assets have been called or traded for capital gains or whatever, then, at least in theory, you're supposed to be strengthening your reserves to an interest rate that is supportable by the assets that you actually have.

Regarding GICs, there should be little impact in the current environment if they're closely matched. Of course, the big question with GICs is how well matched your GIC portfolio is.

Regarding corporate owned life insurance (COLI), there should be little impact, particularly with the spreads generally locked in on the loan funds. As Phil would be quick to point out, the end result to the buyer is worse, because much of this COLI tends to be tax leveraged and actually is a worse deal to the buyer in the lower interest rate environment, because he or she receives less tax leverage.

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With vanishing premium and other nonguaranteed premium business, vanish years have gone way up in the recent years, leading the policyholder to dissatisfaction and potentially higher lapses and negative things like that. The big question is if, as I suspect, most companies have not decreased their interest rates as fast as the market has decreased, the vanish years have to continue to lengthen, and policyholder dissatisfaction has to continue to mount. Whereas this product may not have been a loser in the strict sense because you can pass on the lower rate to the policyholders, you do have to deal with the policyholder dissatisfaction issue as you manage the block.

The big question with participating business and universal-life-type business is the portfolio-versus-new-money issue. Let's say you are a company that issues primarily participating business and you determine your dividend interest rate on a portfolio basis. One thing you have to keep in mind is that the new money rates now may be in the 6% range and your portfolio may be earning 8% or 8.5%. Let's say you are crediting dividend interest rates consistent with what your portfolio is earning. The implication is that if it's not conservative to be crediting interest at your portfolio rate and, in fact, if new money rates stay level, you will be forced to decrease your dividend interest rates in the future as the portfolio rate comes down. That's something to keep in mind as you manage these blocks.

Chart 14 relates to universal life (UL) business. The dashed line is an average UL crediting rate and the solid line tracks the five-year U.S. Treasury rate. The spread has widened somewhat during the period of time it's tracked. However, I would contend that, if anything, the spread should have narrowed for a couple of reasons. One is that the spread of corporate bonds to treasuries is quite tight right now and has actually narrowed. Of course, most companies aren't investing in treasuries; they're investing in corporate bonds. If we had tracked the UL crediting rate versus the double-A corporate rate, the spread would have widened even further.

The second reason I would contend that the spread should have narrowed, at least theoretically, is that in a lower interest rate environment, to make the same profit margin, it's necessary to make a slightly bigger spread because you have less of an asset base building up to contribute to your profitability. I would say that the net effect of this with the spread widening is that market pressures have not really allowed companies to drop their rates as much as maybe they could have theoretically justified, based on new money rates.

Although UL has generally been a winner in the current environment, I would say that this effect has limited earnings from in-force UL blocks more than it has limited earnings from in-force annuity blocks. It's made it extremely difficult for new entrants or for companies not on a portfolio base to begin selling universal life.

It's always easy to look at SPDAs analytically because there's less going on. What I have here is an example in which we took a vanilla SPDA issued January 1, 1990 with one-year interest crediting guarantees and tracked what would have happened under two investment strategies. Table 1 shows what was expected at issue; so under whatever assumptions this company used, this was the anticipated profit margin for this particular SPDA block. Now what we're going to do is plug in actual

history for the period January 1, 1990 through December 31, 1992 (Table 2) and see what happened. We see that actual profitability for this in-force block has been better than expected because of the phenomenon that we discussed in which you can depress the credited rates on the one-year business more than what would strictly be called for by the underlying investments.

CHART 14
 Universal Life Crediting Rate versus
 Five-Year U.S. Treasury Rate

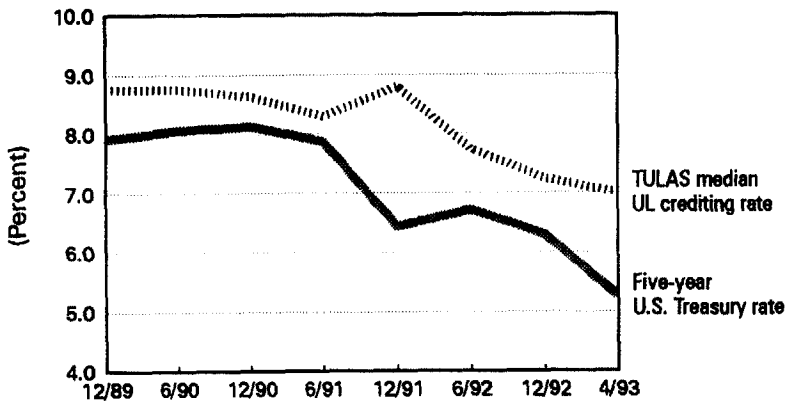


TABLE 1
 Expected Profitability (Allowing for Target Surplus) at
 Issue Assuming Level Interest Rates

	Internal Rate of Return (IRR)	Present Value of Future Profits (PVFP) at 12.5%
7-year BAA bonds	15.1%	0.8% of premium
B-tranche CMO	18.9	2.0

Because the assets were locked in and the company invested long for the liabilities, the actual profitability exceeded what was projected at issue and the company won the bet. In the U.S., tax reserves are based on what is called the applicable federal interest rate (AFIR).

Chart 15 tracks the AFIR versus the SPDA valuation rate for vanilla SPDAs. Again, you can see what has happened is that the spread has widened between the two

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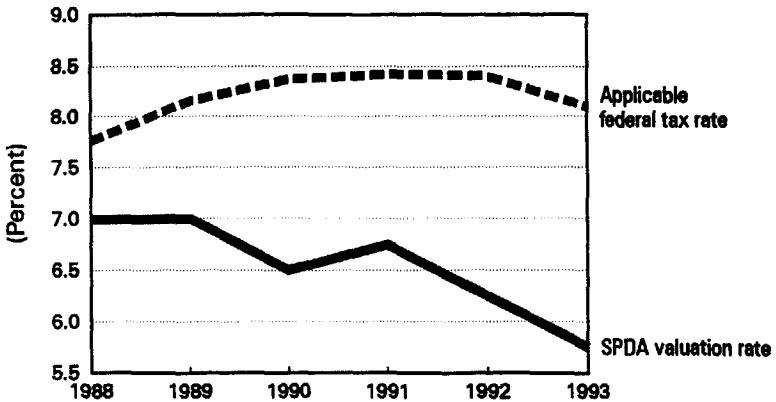
lines. The reason is because the AFIR is the greater of a current rate or a trailing average rate and is not as reactive in a falling-rate environment as is the SPDA valuation rate. In any decreasing environment, the AFIR is going to tend to lag the statutory valuation rate.

TABLE 2
In-force SPDA Profitability Has Increased From Issue

Investment Strategy	Projected		Actual to Date	
	IRR	PVFP	IRR	PVFP
7-year BAA bonds	15.1%	0.8%	31.3%	5.4%
B-tranche CMO	18.9	2.0	33.5	6.2

What's the effect of this lag? It has a fairly disastrous effect on new issues. It can eat one-third or more of profits, and in fact, it can eat more than 100% of profits in an extreme case.

CHART 15
Applicable Federal Interest Rate versus
SPDA Valuation Rate



One extreme case is structured settlements or any kind of immediate annuities. In fact, a number of companies in the U.S. have exited the structured or immediate-annuity arena specifically because of this. The problem is, because all the money is received up front and, of course, you get monotonically decreasing reserves or generally decreasing reserves anyway, small differences in the statutory and tax reserve rates are magnified. When you get very large differences, such as we have currently, it makes it extremely difficult to price those products reasonably on an

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after-tax basis. Whereas that may be the most extreme case, if you are pricing any sort of product with either high surrender charges or any type of payout annuity, or products with bonuses or future enhancements or anything like that, it's very difficult to come up with decent after-tax profits in today's environment.

However, that's from the new business point of view. As you look at in-force blocks, this can have an opposite effect, depending on the type of business. For in-force blocks, if you're a few years into it, you have a statutory and tax-reserve difference which, if you get to the point in which it's starting to decrease, you can actually get a boost to the value of an in-force block. It makes it difficult to price new business but, depending on how aged the block is, it may or may not be a problem for an in-force block.

Just a comment on a similar Canadian situation. In Canada, the tax reserve is fixed at issue, but it's possible under the policy premium method (PPM) that the statutory reserve would have to be restated after issue, depending on how events unfold with interest rates. For certain types of products – and, again, maybe the most extreme example is the zero cash-value product in which it's impossible to match exactly because you have the future premiums coming in – you may be in a situation in which you're locked into a tax reserve. But as interest rates become depressed, you may be forced to look again at your statutory reserves, and it could create a similar situation to the one in the U.S. in which you get the big tax/statutory difference.

Now from the policyholder point of view – again, we're looking at an SPDA because it's the easiest thing to look at. The same thing would be true for a life product either in the U.S. or Canada, although the SPDA example really only works in the U.S. SPDAs have a tax advantage and people tend to think of the tax advantage in terms of an interest rate advantage, but you can translate it into an equivalent front-end load. What we've basically done in Table 3 is calculate the front-end load equivalent, which equates to the tax advantage of an SPDA in a 10% interest rate environment. The way this works is if you invest in an SPDA and the thing rolls up and you're taxed at the end, you come out the same as if you had purchased taxable bonds and the SPDA were loaded at 7.8%. What this is saying is that the tax advantage of the SPDA in a 10% interest rate environment is worth about 7.8% of an expense load.

TABLE 3
At 10% Interest, Tax Deferral Covers a 7.8% Expense Load

Amount	Invested in	At	Grows to	Less 35% Tax on Gain	Net Proceeds After 10 Years
\$ 922 1,000	SPDA Taxable bonds	10.0% 6.5	\$2,391 1,877	\$514	\$1,877 1,877
78	Expense load allowable				

However, if we go through the same numbers in a 6% interest environment (Table 4) rather than a 10% environment, you see that the front-end load equivalent is only

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3.2%. One of the consequences of the current interest rate environment is that tax deferrals on many of our products are not worth as much to the policyholder. With the industry's large, fixed, up-front marketing expenses, which tend not to vary with interest rate environments, one of two things must happen. Either this situation will make the industry less attractive relative to alternative financial investments or profitability will suffer. I would contend on a new business basis that both of those things are happening to some degree.

TABLE 4
At 6% Interest, Tax Deferral Only Covers a 3.2% Expense Load

Amount	Invested in	At	Grows to	Less 35% Tax on Gain	Net Proceeds After 10 Years
\$ 968	SPDA	6.0%	\$1,733	\$267	\$1,466
1,000	Taxable bonds	3.9	1,466		1,466
32	Expense load allowable				

Relative to the current environment on merger and acquisition activity, when companies look at other companies to purchase or at blocks of business, they typically will do actuarial projections and discount future cash flows at their desired discount rate. In theory, with the lower interest rate environment, companies should be using lower discount rates to look at blocks. To some degree that's happened, but I think that the discount rates haven't really fallen as quickly as in the general interest rate environment.

Many of the acquisitions of the 1980s were financed through debt. Of course, with interest rates falling quite a bit, people who bet on those in the 1980s have tended to do quite well with the lower debt costs and we are currently seeing a lot of refinancing and recapitalizations.

You could ask the question, how does the current rate environment affect valuation actuaries? I've got three points. The first is Robert's point: Most of you have this knee-jerk reaction that rates must go up, because they've been down for so long. Whereas that may be true and I can't predict interest rates, you must at least be aware of the fact that rates could go down. To give you sort of a real situation, let's say you're the valuation actuary for the company and you feel it's necessary to do additional analysis beyond the standard seven scenarios. So you believe that you need to do some kind of stochastic testing.

The question is, do you put any bias into your interest-rate-generating function? Let's say you use some kind of mean reversion-type interest rate generator. Do you assume mean reversion rates that are higher than the current rate, or that are at the current level, or that are exactly where? I would contend, based on discussions I've had with a number of you, that the tendency is to use mean reversion rates that are greater than the current rate. Of course, that has an implicit bias that rates are going to go up, and that may or may not be true. I guess my point to you is, just be

aware of the fact that if you're at a company or you're evaluating a company that is susceptible to downward rate pressure, it's not necessarily true that rates will go up before they'll go back down.

The second point is, it's been my observation that most companies tend to be long on assets. If you elect such a strategy, you need to carefully evaluate the effect that would have on future cash flows in the current environment.

The third is just something to be aware of, and it's kind of a nice little story. I know of a company that is doing its cash-flow testing, and its state of domicile has been fairly interested and involved in that process. The state of domicile came back and said, "Well, we like these seven scenarios that are required, but we'd kind of like to see two additional scenarios." The two additional scenarios were the following:

One was to take the current yield curve and run it backward during the past 15 or 20 years. The other was to go back 15-20 years when, coincidentally, rates weren't much different than they are now, and actually move forward over the past 15 or 20 years. I can tell you that those two scenarios were by far the worst scenarios that the company looked at. The company had also done some stochastic testing, and I believe it was either worse or near the bottom of all the scenarios, including the ones that were generated stochastically. My point here is, if you are the valuation actuary and you do stochastic testing or whatever – and oftentimes you'll say that this scenario is ludicrous and there's no way anything that bad can happen – you should think in terms of what has happened historically and what exposure you would have. Oftentimes you will find that actual history has been even more "ludicrous" than your generated scenarios.

I would contend that the impact of these things taken as a whole has been compounded by the current rate environment in that these types of actions have tended to limit investment choice either by mandate or in practice and have tended to limit the strategies available. In some cases, such as with both risk-based capital (RBC) and an interest maintenance reserve (IMR), they have tended to have a bigger effect in a low interest environment than they would have had in a medium-sized interest environment. Recent regulatory trends have tended to multiply the effect of the current low rates.

If I could just leave you with one thought, it would be that, as you plan for the future, rates may go up or they may go down, but try not to minimize the possibility that rates actually do go down before they go back up.

MR. JOHN C.R. HELE: I'm going to keep my comments focused on the customer perspective. First, let me give you a bit of background. I work in the private client division at Merrill-Lynch. Unlike the capital market side you may be familiar with, we in private client serve over five million individual investors in the U.S. We also manage \$500 billion of those clients' assets. That's half a trillion dollars of assets. We reached this milestone through a corporate strategy of being "all things to some people." Life insurance fits that strategy. We sell life insurance and annuities as part of an overall client financial plan. Because insurance is one of many products that we sell, we have to evaluate it versus other financial products that are available.

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How have we done during the past few years? Well, this year we expect to sell more than \$2 billion in annuity products, and we expect to sell \$50 million in annual premium life insurance: traditional life insurance, whole life, universal life, survivorship. This volume ranks us as one of the largest life insurance agencies in the U.S. We also have our own "private label" (if you will) life insurance company, which sells variable products as well as SPDAS. And we now rank as the 26th largest life insurance company in the U.S. by assets (\$12 billion). So we have many clients who have bought insurance from us.

I'm going to speak about issues concerning traditional annual-premium life insurance or "universal life," not single premium whole life or "investment style" life insurance that you may associate with stock brokerage distribution. Our real question then is, what will the long-term projected return be of these life insurance policies sold and of those sold in the past few years? Obviously, you don't need me to tell you that policies sold in the 1980s will be less valuable. In other words, from a customer's perspective, they're going to cost more. That's the bottom line for all these reasons.

Now, in addition to these reasons, there are some other things going on that our panelists referred to – prepayments, calls of bonds and mortgage-backed securities, and mortgages being refinanced – that are having an impact on crediting rates. In addition, narrower spreads on quality investments, overall spreads narrowing, and policies that have internal leveraging all have an impact on cost. I don't know how many of you are familiar with "Sign Vanish," but when you borrow from your cash value to reduce the number of payments that you have to pay, it is really internal leverage. Well, when you leverage these policies, as rates drop they become very sensitive, and the clients can see a much greater increase in terms of their cost.

In addition to industry concerns, companies have many of their own problems going on. Maybe they have high minimum guarantees in contract that are causing constraints on surplus, or they aren't quite meeting their expense projections. Not only interest rates but other factors are also not working in the client's favor. So dividend scales and credited rates, we think, will continue to decline. Many insurers have already begun to reduce their rates. Many of the major mutuals have crediting rates in the 8-9.5% range, though the reductions have varied a lot company by company.

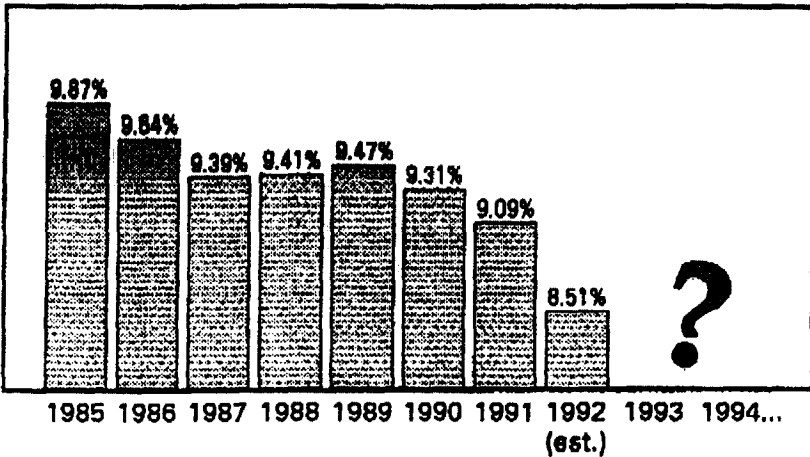
I saw a study of 20 of the leading companies and their history of credited rates on dividends since 1987. Company A, a leading major mutual, had a 300-basis-point decline since 1987. Company B's decline was 65 basis points. Now, either Company B has geniuses managing its investment portfolio or there's something else going on. Perhaps it hasn't fully reflected to its customers what's going on yet!

Recent press have reported that the overall investment earnings rate has declined in 1992-93. A crucial question then is, how low will rates go? What is going to be the ultimate rate that will determine the value to the client and how much the client will end up paying? The other question is, how fast? Relatively quickly. Is that six months? Is that a year? Is that two or three years? At Merrill Lynch we are attempting to quantify this, to prove our thesis, to substitute facts for impressions.

Let's see what has happened to the industry. Chart 16 shows the earnings rates of life insurance companies. I believe these are the top 100 life insurance companies in

the U.S. You can see that things were generally going along okay, but there was a substantial drop in 1992. Really, 58 basis points in one year has a big impact. When you consider how companies compete, 58 basis points makes a dramatic difference in the long-term cost of that policy. Buying decisions have been made on 20 basis points, so 58 is a significant drop. What's going to be the impact of this on customers, and how low will earnings rates go?

CHART 16
Dividend Scales and Credited Interest Will
Continue to Decline



I'd like people who work with or who have had experience with individual life insurance, in terms of pricing, or marketing, or valuation, to raise your hands. (That's almost everybody here.) Now, since 1980 who has purchased an individual life insurance policy, universal life, whole life, survivorship, not term but whole life in that form, traditional life insurance?

This is our market research here. By the way, for those of you who did not, you should thank these people, because they're helping your day-to-day employment. You can think of some analogies like working at GM but owning a Lexus, but for these people, an increase in cost will have a real impact. So when you see a headline that it's going to cost more, look at these people. They are going to be paying more.

I'll ask each of you who did purchase, "Do you know how much more you're going to have to pay? What is your expectation in terms of paying more premiums, and how do you feel about it?" How does your policy provide good customer value?

Now, as an industry, we have all the right disclosure. We've got those 10-page illustrations with all sorts of fine print. When you think of the average age of people

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buying survivorship insurance, who are sometimes in their 60s, you wonder how they can read all that; but they probably won't be surprised if they have to pay more. Customers really understand that interest rates have come down. "I know my policy's performance was based on the dividends or the interest rates or how well the company did. That's not really a surprise. I can get used to that." It's really the magnitude. Did customers really appreciate when they bought this policy that, instead of nine easy payments, under in-force illustration it could be 14? That's certainly not uncommon in any way. We say it's "just" 14 years instead of nine. To the customer that's a 50% price increase!

For all the people who purchased life insurance since 1980, how do you feel about paying 50% more for something than you originally thought? When did you know? When did the interest rates come down? When did the companies really know that it was going to cost more and when did they tell you? That's very important from a customer's perspective. The product design really doesn't matter. What the customers care about is that they were told typically that for a certain amount of insurance, they were just going to make nine payments of \$X for a total cost of nine times \$X, based on current assumptions (BOCA).

Has anybody here seen Barry Kay? Ever heard of Barry Kay? Barry Kay is one of the leading distributors of life insurance in the U.S. You see his ads in *Forbes* and he says you can solve your estate tax liability for ten cents on the dollar. Ten easy payments of just \$10,000 a year will buy you a million dollars of life coverage BOCA. It's printed on every page, so he's done his disclosure, but clients really don't have an appreciation for what a 1% drop in the policy rate would do. One or two percent just sounds small. Fifty percent price increases are dramatic, and clients, we believe, need to know.

The relationship with our clients is the most valuable thing that we have, so we owe it to them to start telling them what they've bought and how it works in a way that they can understand; not in terms of legal disclosure, but in a way that they can really grasp. We have retained Tillinghast to study this situation for us. In fact, we're going to model a policy sold in 1985, an average policy with the average company portfolio, bring it forward, look at that same average company and see what it would be illustrating. We'll then project forward with the current Merrill Lynch economic forecast, taking into account losses on real estate, whatever it may be, what's happened to its portfolio, capital gains, capital losses. We'll then try to estimate where we think things will end up, because we may be illustrating at 100 basis points less now or even 150 basis points from current scales. But is that really the right number? We just want to have a bench mark so we know what rates to use in illustrations.

We are going to study only interest rates and keep other variables constant in this study. We're not going to look at changes in taxes or RBC. We're studying mutuals and stock companies, both UL and whole-life policies; so we understand the complexity of both. Interestingly enough, if you speak to many agents who have been trained by mutual companies about universal life, you'll find that many of them think there's a dramatic, fundamental difference between UL and whole life in the value to the consumer and the conservatism built into the policies. UL rates have come down faster than whole-life dividends because of the crediting style of "portfolio" versus

"new money," but many agents think there's a real difference. Over the long haul, they'll ultimately be quite close. So there's a lot of misunderstanding really, perhaps from many agents, on what's going on.

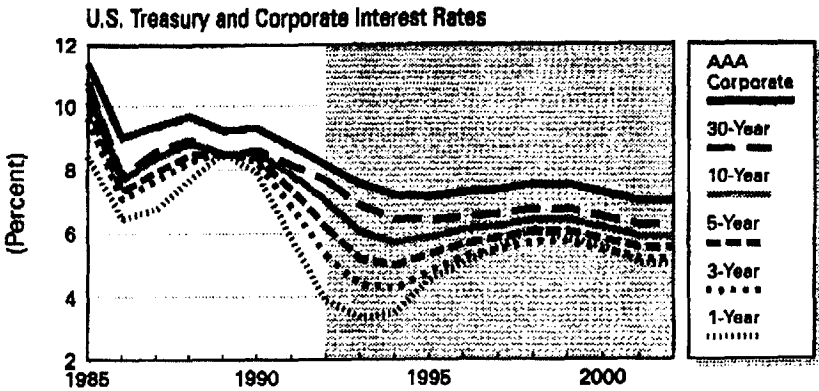
Let's overlay, if we can, what we think the Merrill Lynch economic forecast is. This is provided by Merrill Lynch economics, and we serve institutional investors and individual investors worldwide with this forecast. We're very happy to say, when we put this panel together, that Bob and I are quite in agreement on many of these things; so I think there is a consensus as to where rates may be headed, not a total consensus, but I think quite a good one among the investment community.

For many of the reasons that Bob outlined, we see interest rates falling. The top line on Chart 17 is a triple-A corporate, and the next line, which is really the core bench mark, is the 30-year treasury.

We see them dropping on the long end a little more. In fact, the 30-year treasury is currently trading between 6.5% and 7%. It's been up and down a little bit this year.

Every time it tweaks up to 6.8%, everyone gets excited and then it comes back down again; but we really see it in the trading range of 6.5-7% for the remainder of this year. We then see it going lower to 6-6.5% and pretty much staying that way for the rest of the decade.

CHART 17
Interest Rates Have Declined Significantly
Since 1985, with Further Declines Projected



We see rates for triple-A bonds dropping down a little bit more and, if you put other yield curves on top of here, you would see narrower spreads than the historic highs back in the 1980s. On the short end, we see quite a low right now. That will inch up slowly over time as the economy improves to have a slightly less steep yield

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curve; still the traditional yield curve, but a little less steep. Why is all this happening? Well, clearly for all the reasons that Bob outlined earlier.

We see gross domestic product growing about 3% every year during the next ten years. Productivity is the engine to growth and prosperity. In the 1980s, it grew at about 2.7%, a key number. Unlike the 1980s, in the 1990s we see quite a different growth; we see productivity growing at 2% a year. We see a producer-led, technology-sector-driven growth instead of consumer-driven growth. It's not going to be consumers buying things in a general way driving this growth. It's will be companies becoming more efficient. They have to be in a global economy.

Efficiency will be the key word in the 1990s. We're already seeing it in the financial services sector. There are dramatic structural changes going on and there are intense competitive pressures, because people are looking for value. They're looking for value versus quality at any cost. You can pick many good examples – Wal-Mart versus Sears, Lexus versus Mercedes – and all sorts of areas in which people are looking for value, with good quality at a good price. Inflation in this economy is not really a dramatic factor.

By the way, we've had this forecast at Merrill Lynch since 1990. We haven't changed it. We've told our clients to buy long, to invest long. In 1989, when rates were at 9%, annuities used to be at 8-9%. Now, not every Merrill Lynch client followed this advice. Many haven't really understood or grasped this fall in rates yet, so they're still waiting. All those CD buyers, all those people who rode through the 1980s, are having a hard time moving out even three years on the yield curve to pick up a dramatic increase in yield. They're looking at their money market balances of 2% and 3% and wondering what to do. When you put taxes and inflation on top of it, it's almost a negative return. We see interest rates much lower compared with what they were in the 1980s certainly, and really much more like the 1960s.

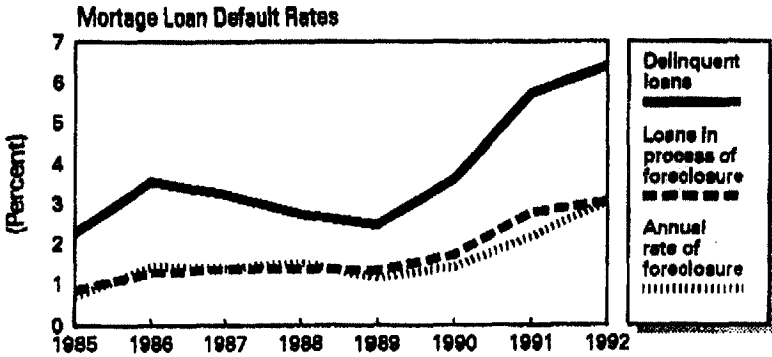
Now if you were to overlay this on our actual pricing models for products, you'd get quite a different value, a different cost structure to clients versus one based on 14% earnings. But this is not the only story, because if it was only for this it wouldn't be such a large change coming. The story is called commercial mortgages. The boom in commercial real estate happened in the 1920s, the 1950s and the 1980s. So the good news is, the next boom will be in the year 2010, in 18 years. Some people tell me that they think that commercial real estate has bottomed out and, yes, that's true. People are buying up some real estate at terrific prices, for less than the cost of building. But the bottom will be here for a while, because there are so many changes going on within the white collar economy.

I've got a list here of the top vacancy rates in the country. This is as of September 1992, so it's a bit outdated, but it makes the point. These cities are Oklahoma City, 33% vacancy; Atlanta, 31%; Dallas, 28%; Tampa, 28%; Fresno, 27%; Phoenix, 25%; Kansas City, 25%; Miami, 25%; Tucson, 24%; Austin, 23%. I haven't even mentioned New York or Chicago or southern California. Lots and lots of space is available. There's also a lot of hidden vacancy. Look at how much excess space you may have within your own company. Think about all the reductions happening in the professional workplace. This is the efficiency going on that I spoke about earlier regarding the changes in the economy.

Yes, the bottom may be here, but this is a very long cycle. We expect this bottom to be here for a long time. Banks may have lost 30-40% on commercial real estate through their portfolios.

Insurance companies haven't quite realized the magnitude of this yet and, yes, they will have better experience than banks. But the dramatic impact of commercial mortgages has a huge long-term effect on the investment portfolios. You can see on Chart 18 that the delinquency rates are rising. So companies are starting to realize what's happening with commercial mortgages.

CHART 18
Mortgage Loan Defaults Will Continue to Reduce Portfolio Earnings



As an example, if the average insurance company has 18% of its invested assets in commercial mortgages, if the rate of foreclosure is 3-5% a year, and if the industry has experienced a 20-40% loss at foreclosure, that's a 10-36-basis-point decrease on its whole portfolio (Table 5). The drop will materialize as companies realize that these commercial mortgages coming due in the next three to five years are not paying off.

TABLE 5
Mortgage Loan Defaults Will Continue to Reduce Portfolio Earnings

Life Insurance Company Mortgage Default Costs

Average percent of invested assets	X	Rate of foreclosure	X	Percent loss at foreclosure
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$18\% \times 3\%-5\% \times 20\%-40\% = 10 \text{ bps to } 36 \text{ bps.}$

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Real estate, which was a no-lose situation in the 1970s and the 1980s, has been a loser lately. It would be cheaper to tear down some buildings now in Manhattan than to keep them unoccupied and pay the taxes. Some developers are currently thinking about doing that. Real estate is probably not going to be that big of a factor on a portfolio, with only 3% of the average companies' portfolios, but again it speaks a lot to commercial mortgages.

Our question then is, how low will rates go? When I agreed to be on this panel, we were going to have the results of our study for you, but the models and the work is a little behind schedule, so we expect to have it done toward the end of August. If any of you would like a copy of the study, we are going to publish a formal actuarial paper on it, and you can write to me at my Yearbook address. I would be happy to send you a copy of it when we're done.

The results could be quite interesting if the study shows say a 6% credits rate for dividends. If you run current products at 200 basis points off these 8-9% scales, you get a very different cost-value analysis. I'm not saying it's a bad deal. Quite the contrary. Life insurance provides a very valuable product. It fills a great client need. The key is we have to set the right client expectations. We have to tell them what to expect. Great companies set client expectations and do better. They surpass the expectation. Think about great companies that you deal with. Is the life insurance industry setting client expectations? Are we really going to outperform what clients think they're going to be getting?

The results of our study will go to our in-force Merrill Lynch clients, to communicate to them what they should expect. Because even if it is going to cost more, it's better to know now than in year ten, when the unexpected premium notice arrives.

MR. BIELUCH: With all this focus on doom and gloom, I want to point to some of the practical realities facing us all. I think one of the comments I heard was that interest rates were not working in the client's favor. Frankly, I think if you look at it, the inflation is working in the client's favor. The actual death benefits projected during the last ten years or so, if you work those out in the inflation rate versus the inflation rate when the policies were bought, you will find much better value for the client even at significantly reduced interest rates.

I guess part of the problem is that we're reacting in a society that had built-in inflation and we enjoyed it. We had our interest rates and we felt good about it, but we didn't really look at what we were losing on our in-force asset.

The same thing with life insurance. With inflation, we generated these huge returns on life insurance, and oh, by the way, the fundamental death benefit was eroding and causing the need for the client to buy more life insurance.

I think we also need to focus on what the policyholders are buying from us. To the degree that they are buying a death benefit, let's make sure they understand the death benefit. Also, what did the policyholders buy when they bought it day one versus what they are receiving now? Did they buy the vanish proposal that was sold? Did they buy the base death benefit? Or did they buy the workings of how it bought paid-up additions for this period of time and then the paid-up ads were then

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surrendered to reduce the premium? Try to focus on what you were selling bottom line in the past as opposed to how your actual proposal worked.

Also, on your new policies, talk in terms of what honest policyholder expectations are. If you go back to your Schedule Ms, how many of you would be willing to publish Schedule Ms to both your current and prospective policyholders? To the degree that your Schedule Ms are saying your dividends are not supportable at current rates, do you go out and actually tell your policyholders that? If yes, congratulations. If no, why not? Now that we know we have a problem here, maybe the industry as a whole should look at what the policyholder expectations are and try to manage those before the sale, which will create less problems long term.

I want to also point out one thing Manulife has started doing. We have put out a new brochure, *In Search of a Better Way*. As of July 1, 1993, a proposal on each new business case will need to be run at our index rate of 7.3%. The brochure includes a discussion of historical yields, a discussion of a representative portfolio, and we're focusing the buyer on the fact that, yes, an 8.5% dividend rate may not be representative of the next 50 years and to the degree the buyer is funding a death benefit, he or she should look at how much it would cost, assuming a reasonable long-term rate of return.

MR. JAMES A. MURTAUGH: A previous chart showed the reduction of consumer and commercial debt during the last two years. You did not mention government debt outstanding during that period. Would you please comment on that together with the withdrawal of Japanese banks from the U.S. Treasury market?

MR. LAUGHTON: Obviously, government debt is a huge problem and it's ballooned quite a bit, but the one thing that's kind of encouraging, in Canada and the U.S., is that it's now become politically popular to say that we have to reduce deficits. That obviously has filled the void quite nicely. I think the first step in deficit reduction is convincing politicians that they can do it and get away with it. To follow through the discussion, as real economic growth has deteriorated, governments in North America have basically borrowed to keep the standard of living constant or increasing; and that's what we're seeing right now. Finally, it's become politically acceptable to say we have to cut deficits. So you're right. That has been a big problem, but I think the mood is changing there as well, and so I think that will be solved at some point.

MR. MARTIN R. CLAIRE: My understanding is that the federal definition of life insurance forces a 4% guarantee on universal life products. Do you know of any movement to get that changed and linked to an index? What are people doing about it to get it changed?

MR. BIELUCH: The federal definition of universal life used a 4% interest rate for purposes of premium levels needed to fund a death benefit. It is not an absolute that you cannot guarantee anything less. It just says you can't put in any premiums in excess of those that would fund the death benefit at 4%.

The ACLI has focused on the issue. It has started the discussions and it certainly is in the code section, so Congress would be needed to change it. As I say, it doesn't stop what you do in product development as much as it then says that over the long

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run those guideline premiums may not fund the contract based on contract guarantees. But to the degree you pay anything close to a 4% interest on a current basis, you still have lifetime funding.

MS. KRISTINE M. HENDERSON: Are you aware of companies having lowered their hurdle rates for pricing in light of the new environment? In the 1980s, pricing was for a 20% return on investment. Is it now dropping to 15% or anything?

MR. TULLIS: Let me mention a few things. You've put it in the time frame of the 1980s. I'm certain that if we had looked at the early 1980s and mid-1980s, few companies, if any, would have been pricing with required surplus. I'm fairly confident most companies now do that and most companies price after tax. To some degree, to compare a pricing objective of 1993 with one of 1980, even under a level scenario, you would expect, other things being equal, for the targets now to be lower. People are now explicitly including required surplus and tax, whereas they were buried before. That's one thing.

We periodically do pricing surveys and we just completed one maybe a month ago. I think the answer to your question is, there has been some downward movement. Again, my comments would be similar to the acquisition point. There has been some downward movement, but not as much as one would expect, based on the lowering of interest rates in general.

MR. JOHN D. DAWSON: You both talked about some real structural differences, why interest rates are probably going to stay level or decrease a little bit. Neither of you mentioned the Clinton administration. Is it really not a factor?

MR. HELE: How much time do we have to talk about President Clinton? The view from Merrill Lynch on the Clinton administration is that what he's putting forward in terms of higher taxes will help with the deficit, and something will be passed, probably not quite what he had wanted, but something will go through. Certainly there will be higher taxes on millionaires, who are now defined as persons having \$200,000 in income. I think he's going to have a very hard time putting through any spending increases. It's quite surprising. You would never have believed it even a year ago that the President would put forth a budget that was trying to reduce the deficit and the House and the Senate were calling for more reductions. The public is really calling for it. Perot was a factor in terms of defining what's going on.

But the real challenge will come not so much with the current difficult proposal but with health care. More than 50% of the government outlays are entitlement programs -- Medicare, Medicaid, Social Security, pension plans -- and they're all indexed. Some very large structural changes are needed. They will seem small but will make a huge impact over time. We think that those changes will begin to be addressed during the next few years. If these changes don't come to pass and the deficits continue to widen, it will become much more of an issue in the mid-1990s. We think that the forces are in place that will cause the difficult to become partly under control in terms of the relative force on the economy.

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MR. LAUGHTON: If I could just add one other thing. It might just be my own personal opinion, but I view politicians as followers and not leaders. It's very rare to see a politician who will actually do something that might cost him not being re-elected or that might hurt the party's chance in reelection. I don't think Clinton is a major factor. He's a short-term variable. He is going to follow the popular perception. He is going to follow the trends that are already in place. At this point, if it wasn't politically popular to talk about deficit reduction, I doubt he would be mentioning it. I just think he's a follower. If you look back over history, the major economic structural changes and the mood of the public has been more significant than actually the leaders. They're more followers than leaders.

FROM THE FLOOR: Regarding your comments about interest rates, do they take into account the exchange rate? I guess there are external factors that affect the level of interest rates in the states and in Canada. I'd like to hear your comments on that.

MR. LAUGHTON: If the Japanese are placing money in the U.S., they would obviously want to make money on the foreign exchange situation. That's actually quite favorable right now. What's really more important right now is, and you can see it in Canada particularly, there's been a lot of press recently about whether we are managing our economy properly; are we making the right moves as far as reducing the deficit and reducing spending?

When you're a net borrower, as Canada and the U.S. are right now, the real risk is that if you don't manage your affairs, and don't appear to be going in the right direction toward deficit reduction, it won't be a matter of paying more for money. You won't be able to get it. In an extreme situation, if that happened, the International Monetary Fund would have to step in and manage your affairs for you. It's very extreme. The debt problem in Canada is actually quite low; but the real concern and the way the investment community looks at it is, are you marginally going in the right direction, are you cutting spending, are you making an effort to narrow that gap? That, of course, would be reflected in the future value of the currency you're investing in. They're sort of tied together.

The view is if the local governments are running their economies and are going in the right direction, then you have access to foreign capital and you have access at lower rates. I think they're sort of tied in. They're both one and the same. If you're not running your financial house properly, the value of your currency vis-à-vis the other currency is going to go down; but right now it's probably very favorable. The U.S. currency has really gotten hit in the last two to three years and that's probably a positive.

FROM THE FLOOR: Regarding the Merrill Lynch interest rate projections, you mentioned that the level to lower interest rates projected during the rest of the decade is partially on a 3% annual increase in GNP compared with, I think you said, 2.7% during the 1980s. What would happen to the interest rate projection if the GNP during the 1990s were equal to or slightly lower, say 2.5%, relative to the 1980s?

MR. HELE: Not being a professional economist by training, we didn't get many different scenarios run. Many factors would cause that to happen, so I don't really know.

IMPACT OF LOW INTEREST RATES

MR. LAUGHTON: Well, I'm not a professional economist either, which is good. It gets in your way a lot of the times. Basically, at 2.5% or 3% the structural things are still the same. They're still the same major influences on the economy. I thought you were going to ask, if we have 3% growth now and we had just about the same in the 1980s, why isn't the employment situation looking the same and why aren't the financial markets reacting the same? Their rate of growth is not as important as what's happening worldwide and the factors your corporations are facing because, as was mentioned earlier, it's how you get your growth. It's not going to be consumer led. It's going to be productivity led. You could have two economies with identical growth rates, but what's happening in those economies can radically differ. I don't think it would change. You'd have to have some significant variation from that to change it.

MR. HELE: The key is we don't see 6%, as in southern China, or 8% or real depression or anything coming. We've examined this for many of our individual investors, and the 1990s will be the boring decade. Interest rates are going to just hover around where they are. The markets will go up and go down, but generally move along. You'll have to really search around for some good opportunities. It's not going to be real easy to throw your money in financial investments and make a killing.

MR. JONATHAN M. POLLIO: You didn't address the effect that interest rates would have on life policy features, like loans in a life insurance policy or benefit payouts in a GIC. Am I to assume you assume there's no effect of that?

MR. BIELUCH: Frankly, I'd like you to take a policy loan, because I get a nice yield of 8.5% on my policy loan versus 6.5% on new money going out.

MR. POLLIO: But you would assume a certain loan. Couldn't loans go down, making your liability duration longer?

MR. BIELUCH: Yes, I guess they could, but I don't think the policyholder necessarily relates as much to the interest rate. He's just happy to have the money.

MR. TULLIS: With many of these product features, there may be changes, but what causes the change? Is it tax driven or whatever? There are a few trends that I've noticed that I would attribute to the decreasing spread. There's been a tremendous interest in variable contracts, primarily variable annuities, but to a lesser degree variable life. I would say some of that is because of the low interest rate environments. You've got low rates to illustrate and the product doesn't look hot, but some of it is also lower RBC related for variable contracts.

There's also been a big trend for SPDA writers to shorten their initial interest guarantee rates and drop the guarantee, like the five-year contracts that were common a few years ago. Very few companies sell it, and for those that sell it, very few push it currently. The typical rate now is more like a one-year rate and it is also typical to lengthen surrender charges. It seems like companies with six-year surrender charges are going to seven-year surrender charges and companies with seven-year surrender charges are going to eight. Whereas five or ten years ago the most common pattern may have been linear downward, now they tend to have cliffs or humps in the middle or something like that. I would say the lower interest rate has caused companies to

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move more toward equity-based products and to deepen surrender charges on annuity contracts and to lower initial guarantees.

MR. BIELUCH: Some of the increase in surrender charges on annuities has to do with the fact that you're not going to make your profit. There is very little interest skim. You need to get your profit from somewhere.

MR. RODNEY A. KEEFER: I think you made the comment that the winners in the current environment are companies writing things like SPDAs, products with short interest guarantees.

MR. TULLIS: May I state that more carefully? I think that winners have been those companies which, in the past, have written SPDAs. My impression is that companies currently writing SPDAs find it difficult to make spreads at rates at which they're forced to issue to write new business. I didn't mean to say that those companies writing new SPDAs are reaping all sorts of money. I meant to say that companies that wrote SPDAs two to six years ago, that have the block in force, which they more than likely invested long and have now rolled into the one-year guarantee period, are the ones making money. That's just to clarify.

MR. KEEFER: The other half of that was, you were saying the losers were companies writing nonpar traditional business or something like that, right?

MR. TULLIS: Again, it would be the same thing; those companies that had written it a few years ago. My comments would be completely different if they were applied toward currently issued business.

MR. KEEFER: Maybe the question is mute then. I worked with a company that recently had its rating lowered by a major organization, in spite of a significant surplus position. One of the reasons cited was a shift away from traditional products toward annuities and SPDA-type products. Do you see that tying in with what you're saying? Or do you see a conflict there? How do we resolve that going forward as far as future product development efforts?

MR. TULLIS: This is the sort of thing on which you could have a session. Many companies have been downgraded very recently. At the risk of alienating rating-agency members, there are many reasons given for the downgrade. If you compare them across company, they're not always entirely consistent. I think that there's a lot of pressure to downgrade medium-sized companies. I don't know anything about the types of annuities you sell or what your annuities are, but I think annuities are generally considered, to some degree, hot money. I don't know to what degree.

I meant to say there's a bet. Anytime you sell business, you make a bet. If you sell nonpar whole-life or zero-cash value, you make a bet. If you sell annuities, you make a bet. What my comments were intended to address is that the people who won their bet several years ago were those who wrote the SPDAs. What the rating agencies may be saying to you is they're not concerned with whether you're going to win or lose, but what your standard deviation is.