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Session 60PD
Dropping Like a Rock¾ Dealing with Falling Interest Rates and Equity Markets Outside the United States and Canada

Track: International/Product Development/ Investment

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Summary: Like products sold in the United States and Canada, products sold in many other countries have explicit and implicit guarantees. Interest rates have been falling in many countries and the extent to which they fall varies from one economic region to another. Recently, equity markets have been falling. Many regions are dealing with this economic environment for the first time. Attendees gain a better understanding of products sold outside the United States and Canada, the inherent interest/equity-based risks and the tools available for dealing with the changing economic environment.

MR. THOMAS A. JAROS: We have a very good group of speakers. We have one from Asia, Shu-Yen Liu; one from Europe, Dan DeKeizer; and one from Latin America, Jim Toole. Hopefully, we're hitting many of the major markets outside of the United States.

I thought this would be a very interesting session because of what we've seen happen in both Latin America and Asia. We've also seen similar things happen in Europe.

Customers in many countries like to think in absolute terms, rather than relative ones. Many like to think in terms such as a five percent guaranteed interest rate is

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Note: The chart(s) referred to in the text can be found at the end of the manuscript.

good. Regulatory officials in many countries also think in absolute terms, for example, six percent is the right interest rate for reserves. Whatever the case, many people like to think in absolute terms as far as interest rates.

But, there are many actuaries at this session, and it is well known that investments don't always work in the same fashion. Interest rates can jump up and down, and things are not quite as nice as some would like.

So customers and regulators are often thinking in terms of steady absolute rates, and the markets have not always been responding in this fashion. Added to this is that insurance company management techniques in some countries have not always matched up with our Western notions of how things should be managed. This all has lead to some very interesting situations in many locations.

Shu-Yen Liu will be our first speaker. Shu-Yen is from Hong Kong, and she has been in this field for a long time. She's worked both here in the United States and throughout Asia.

MS. SHU-YEN LIU: Good morning everybody. What's happening in Asia in the last couple of years, including the slowing down of the economy and declining interest rates, such as in Japan, has been really severe. We don't see any light yet, because it's very much driven by the government policy. This policy has focused on saving the banks rather than saving insurance companies.

So I'd like to share some of the things that happened in Asia. It's not so much, "Can we find a solution?" I don't think we can find a solution. This is an evolving process that we have to deal with.

Some people would say, "Falling–like-a-rock" interest rates—what's the deal, what's the issue?" Whatever goes up will come down. We should know better, right? After all, the stronger ones will survive rather than the weaker ones, so we can weed out the ones that are not that strong. The weaker ones don't have deep pockets or surplus or capital, so why can't we eliminate those and just have the survivors staying? These are some things that may be going through people's minds when they look at what has happened in Asia.

We did a similar seminar last year in Asia. I am the chairperson for the Greater China Region Committee of the Society of Actuaries. We've been doing a great deal of promotion of the actuarial profession and also have helped the Asian actuarial organizations look into the education that's needed, and provide seminars for people who are in Asia to take professional development credits. So we did a similar session last year on falling interest rates.

Let's first take a look at the U.S. situation. Then we're going to go into the G6 countries, which are the probably the most developed countries around the world. And then we'll take a look at the current situation in three Asian countries. This will include a look at the short-term interest rates in Asia and the impact on companies in Asia. Finally, I'm going to talk about the recent responses in Asia, not so much in terms of whether they're doing the right thing or not, but more simply, what their responses have been.

Let's look at the average interest rate earned by U.S. life insurers (Chart 1). We could only get data up to 1995. The interest rates swing up after 1945 and tag along with the economic growth. So the point that I'm trying to make is that the life insurance business is heavily impacted by the growth of the economy. And, when the economy goes up to a certain level and starts to decline, often it will impact the insurance companies quite a bit.

It is possible that China is going to face something similar to this, as China is one of the few countries in Asia that's had recent significant growth. Many countries in Asia have been impacted by the financial crisis since 1997 and are struggling.

Let's look at the "average interest rate earned on new investment" (Chart 2). Often when we talk to local companies in Asia, they don't look at investment returns in terms of new, old or whatever. Every dollar that comes in gets invested, and that is as far as their concern goes. Many of the Asian insurance companies don't have investment specialists. They may not have an investment department. They simply buy bonds, or perhaps do some of the traditional stuff. As they were doing this, interest rates started to come down suddenly in Asia. This has had a big impact on them. Some survived, some didn't.

Japan is in a situation where the low interest rates have been prolonged, longer than anybody was expecting. It's eating up much of insurance company surpluses. This is impacting the policyholders in addition to the shareholders.

New money rates seem to fluctuate up and down a little more. Just take a look at the G6 (Chart 3). The G6 includes the United States, Canada, the United Kingdom, Japan, Germany and France. As you can see, the trend for all of them has started to come down. So this is a reality that we're facing today.

Now, let's look at government bonds in three countries—Malaysia, Taiwan, and Hong Kong.

Hong Kong

Hong Kong has been faced with problems that they've never faced before. Hong Kong used to be the gateway to China. Hong Kong has seen growth in the last 40 or 50 years, while never seeing anything decline. When things begin to decline, they didn't know how to cope with it.

Fortunately, Hong Kong is a very open market, so it's very open in terms of regulations. It is possible to file returns based on U.S. GAAP or using European methods. There are not many restrictions on such things. The regulators basically leave it to the insurance companies to compete with each other, and follow accounting standards based on something that's acceptable generally.

That's why, even today, with the declining interest rates, the impact has not been great on insurance companies in Hong Kong. This has happened when declining interest rates have hit other segments, such as the real estate market. The impact has been minimal, because the insurance companies have been operated very openly, rather than leaving it to the regulators when they cannot find a solution.

We can take a look at the Hong Kong interest-rate situation. Growth was very high, up to almost 11 percent in 1997. And the reason is that, in October 1997, Hong Kong was returned to China. The British government, whether it was right or wrong, pushed things up quite a bit before the handover. This made the British government look very good.

When the Chinese government took over, all of a sudden, things started to come down. The land policy was changed. They released more land for building and all of a sudden the real estate prices started to tumble down, which impacted the economy quite a bit.

Also, Hong Kong is no longer a window into China—one can enter directly into China anywhere—such as through Shanghai or Beijing. Many ports are open. Hence, Hong Kong is losing one of its advantages.

Malaysia

For Malaysia, all I could get was two or three years' worth of numbers. Before that, it was not available. Perhaps the government didn't want to release that information. We could only get information since late 1999.

For Malaysia, the situation was pretty bad. At the beginning of the year, the pricing interest rate was fixed for insurance products at 5.75 percent.

I was in Malaysia in June talking to the Ministry of Finance (MOF), which acts as the insurance authority. I said, "I heard rumors that the MOF is going to lower the pricing interest rate." It said, "No, no, there's no such thing." It even announced in the newspaper that it was only a rumor. A month later, the MOF cut rates from 5.75 percent to four percent. So many insurance companies were wondering what to do next. For a one-month period, companies did not have any products in the market.

The regulator said four percent. This meant that insurance companies had to redesign products appropriately, and then send them to the MOF for approval before they could bring them to the market. All of a sudden, there were no products available. Many agents were thinking, "Well, during this period, we'd better sell all of the high interest rate ones, because it's easier to talk to the clients and easier to talk to the policyholders to sell those products."

This turned into a "last empire" saga, with the rate of growth of policies skyrocketing in the month that they didn't have any low-interest-rate products. This left the high guarantees to be dealt with later. So that's what happened in Malaysia.

Short-term Interest Rates

Let's look at historical short-term interest rates, for China, Japan, South Korea, Malaysia, Singapore and the Philippines (Chart 4). For insurance companies, many of the interest rates utilized are still controlled by the government. Regulatory authorities will give a threshold—the maximum interest rates that an insurance company can use. And if an insurance company wants to be in the market, it goes to the high end. Many of the companies are doing that actually, because there are not many professionals, for example, actuaries, available.

The whole industry of Asia can actually be placed into three segments. The first segment includes the massive giants. They built up a business over the last 30 or 40 years, and they're huge. They take up maybe 80 percent of the market.

Then there is the second segment, the second piece, which includes the foreign companies that went into the market about 10–15 years ago. This segment is tiny, maybe five percent or 10 percent at the most for the market.

The last segment includes domestic players who joined in at the same time the markets opened up to foreign players. This happened when local people felt that, with the opening of markets, they too should have a chance at the business. So these players were able to come in as well. All of a sudden, markets were opened, allowing foreign companies to come in and allowing the domestic companies to put together the capital and come in as well. But the problems revolved around not having sufficient human resources, the proper people, to support the management of insurance companies.

For example, in China, for all material purposes, there were no actuaries before 1995. Today China has about 200 actuarial-related people. Many of these people are in their early 30s and 20s. Much of their work involves pricing, net premium plus loading-type of work. They're not really inside the management; they're just mechanics doing the supporting work. They're calculating the reserves and all that stuff. But they have not really taken the next step to influence or be part of the management.

This may be because, in some cases, management is still made up of the political leadership types. They were there before, and they're not actuaries. They didn't need actuaries before, so why do they need them now? This mentality is still common.

Short-term interest rates are pretty low right now. I think the lowest ones are for Japan and Singapore at the moment. Now, because of all the lower interest rates, what's happening? I think everybody here knows without me saying what the impact will be.

Let's take a look at the problem in Asia. During the peak growth period, when the economies were growing, the interest rates were high. Companies didn't have actuaries to help them to manage the situation. They helped them to price a long-term interest rate—but they were not really managing it. Because regulators were heavily involved, they posted many rules and regulations on the life insurance companies and even property/casualty. The regulators were taking responsibility, rather than the insurance companies.

So, if companies are in trouble now, they can go back to the regulators and cry on their shoulder. And the regulators may not want to deal with the problem, because if a company goes bankrupt, it looks bad for the regulators. So some regulators do not take the responsibility, letting things just go on. This is done with the hope that, if the problem isn't dealt with, the problem will go away.

Some History on the Culture and Business

We have significant blocks of in-force business with high guaranteed interest rates from when the economies were growing. That has happened in Korea, Japan and Taiwan.

Actually many Taiwanese companies were complaining that American companies came in with a high guarantee. Their old high guaranteed interest rate was approximately 6 percent before 1989. All of a sudden, foreign companies came in and offered 8 percent. So they distorted the market. There were some complaints about that as well.

But the Western companies have been managed differently. They have made use of better investment vehicles. They have had better knowledge and know-how. And they have been better equipped to deal with the problems.

A high proportion of the business has been savings-related. Many Asians love to buy savings products. Many don't like to buy anything that's doesn't have a return. Many who give you money for a product want something back in some form.

They haven't been interested in term insurance products. Many have wanted that money back, saying, "What do you mean? With 10-year term insurance, after ten years, after all the money that I've given you, I get nothing?" They don't like that kind of product. So it has been very difficult.

Many of the companies were selling anticipated endowments or heavy-savings types of products. So the interest risk was and is quite high.

Unit-linked type of products have been talked about, but they're not yet popular. People don't understand them, and the capital markets are not ready. The capital markets in Asia are mostly speculation-driven. Some people believe there is a lot of insider trading. It is possible to make a lot of money, and it is possible to lose a lot of money.

Insurance policies typically carry very little investment risk transfers back to a policyholder, because most are guaranteed-interest products. New products with low-interest guarantees may have low-interest spreads, but how these going to sell in the market? That's the issue.

In Japan, many companies have gone bankrupt. The regulators are not actively resolving that problem, even as we speak today. It's driven by the government policy. It's bad when Asian regional actuarial meetings are held. When the Japanese show up, many are really depressed. They're actuaries, but they probably didn't anticipate this. Being an actuary in Japan is a very high-profile job. It takes many years to take exams and then, all of a sudden, after a person becomes the chief actuary for a giant company and loses his job, he is on the verge of a nervous breakdown. It's very difficult.

Japan only has approximately 1,000 actuaries. So you can see the professional development is not linking well with the industry.

Regulators Partly to Blame

Many regulators were too slow to react to the interest rate declines. Many times in countries in Asia, regulators stipulated interest rates for a life insurance product. They would come out and say, "OK, you can price this product at a certain percentage." So if they were very slow to react to changes in interest rates, there was nothing the insurance company could do. They don't tell you, "Anticipate that we're going to change the interest rate." Or they never say to the industry, "You guys better prepare and be ready do something." It's like the situation that I just mentioned earlier in Taiwan—that's a typical example.

I said earlier that, in Japan, governments were trying to save the banking industry, so they lowered the interest rate trying to save them. But they also harmed the insurance business.

Responses to Falling Rates

Now I'm going to move on to responses to the falling interest rate. From the company side of it, there have been an increased number of merger and acquisition (M&E) opportunities. All of a sudden, surplus for Asian companies has been lower, and policy margins have been lower. So they have had to look for capital injections and are trying to sell the company.

Problems with Implementing Variable Products

There's a lot of talk about unit-linked variable products in Asia. Some still have minimum guarantees. Many people in Asia don't understand the no-guarantee business. It is believed that some guarantee is needed, even though it's a lower interest rate.

System costs may be high for very small players. Like I said earlier, we can divide the insurance industry into three segments—the local giants, the foreign companies, and the domestic companies—who all feel they know very well how to run the business.

They have been running the business for seven and eight years, and all of a sudden they realize the shareholder is still in the negative, and they don't like that. And, if a consulting actuary mentions that to implement this unit-linked product, the software is going to cost, like, $1 million–$5 million, there's no way they can do it. So we've been talking about that.

Another thing is that companies in Asia like to do their own things. For example, let's look at software for the valuation system or administration system. Many Asian companies wanted to write their own code. So they hired a bunch of IT programmers and tried to build something that may not be understood—insurance—and it's very difficult to deal with.

I know of small clients that actually hired somebody who used to work for a vendor. They pirate-copied the software, brought it in-house, and implemented it for the company. They created something using somebody else's groundwork. It's really amazing to me.

Anyway, the cost is too high for a lot of companies and there's been a lot of discussion about that. They need investment talents, but, like I said, most of the investment people in Asia are speculation-driven.

The other thing I wanted to share with you is an example of how regulations are avoided. Regulations typically have a limitation on how much of the assets can be held in real estate, for example 35 percent of the assets. Some insurance companies have gotten around this issue by following the rule as of the year-end date only. This is the only point at which some regulators check. "As long as my balance sheets show on December 31 that I'm meeting the standards, I'm OK." The rest of the year they go play. And the regulators are too busy to challenge them.

Agent training is definitely necessary. Most of the agents in Asia are women and part-time workers. There's quite a bit of difference from country to country. When they knock on a door and try to sell products, they're not very sophisticated. So, for companies selling a unit-linked product, there is a definite need for business training.

Developing distribution channels has been talked about at many Asian companies. Bank insurance is a hot subject. Direct marketing is also a hot topic. Building pricing and projection models, using vendor systems—those pretty popular now. Even the domestic small companies are looking at these items.

Some companies have looked at asset/liability modeling (ALM) techniques, but mostly for the regional office, rather than for the companies that have a very small presence in the local market. If a company only has 50,000 policies, what is it going to do with ALM?

Regulators' Responses

Responses from the regulators, such as lowering guaranteed interest rates, have been pretty slow. They've reduced taxes to help the insurance companies out. They have deregulated or stipulated dividends for par policies. Some governments have injected capital into insolvent companies. In South Korea, there was a company that went bankrupt, and the government was trying to put money into it.

China and Taiwan are opening up a little more to allowing a higher percentage of the asset investment. Governments need to set up basic requirements for initial public offerings (IPOs). In China and South Korea, it is important to know about the IPO issues. In China, the government actually states, "Here are the rules that you have to do."

Attracting foreign investments and know-how—that knowledge transfer is desperately needed in many Asian countries. In China, the government actually is trying to promote and help out on this, especially now that the World Trade Organization arrangement has been signed and sealed.

Proposing risk-based capital (RBC) to be used as solvency requirements has also been a hot subject. And I think it's going to start to come in, maybe in a year or two in some Asian countries.

The government should be encouraging companies to merge and operate more cost-effectively. That seems to be difficult, though. Some local companies have this mentality of "I'm losing control. I'd rather give it to the foreigners, because they have know-how. If I give it to my next-door neighbor, they don't really know better than I do."

We're trying to promote an increase in actuaries' role in responsibilities and also help to increase the standards of practice in Asia. The Society of Actuaries China Region Committee and the Southeast Asia Committee have been trying to do as much as possible.

Consumers' View

From the consumers' point of view, they rushed to purchase the high interest rate products, so there's an "ending era" syndrome. Agents actually were trying to write as much business as possible. The media also publicized the interest rate implications, so all of a sudden there were all these newspapers announcing that the lower interest rates were coming. Hence, many people were going out and buying high interest rate products.

Policyholders often purchase unit-linked products with high return illustrations. There's a lack of illustration regulations in Asia.

If anybody is interested in coming to Asia, please let us know. A lot of times we're looking for speakers to come to Asia; the Society does support us for that, and we do a regional meeting every year now, a regular meeting in July. This year we're going to take the whole product symposium to Asia and show it to all of the people there.

MR. JAROS: Our next speaker will be Dan DeKeizer. Dan comes to us from Madrid, Spain. His company's regional office is in Madrid, so he does operate throughout Europe. He's been living in Spain for the last four years.

MR. DANIEL A. DeKEIZER: How many of you are satisfied with the interest rate you're getting on your current checking account? How many of you refinanced your mortgage in the last five years?

You can see that a falling interest rate is something that affects us all. Individually we react to it; we manage our own little company that's our family in response to those changes. And we're going to see, in this presentation, following up on the one we've just seen about Asia, how some companies, consumers and regulators are responding to that in the markets around the world.

Happenings in Europe

Bonds. This is what happened in the market in Spain. The southern European market—Italy, Greece and Portugal—all have graphs that look very similar to this (Chart 5). In Germany, it's not so much.

Not that long ago, back when I was taking exams, interest rates were quite high, well in excess of 10 percent. And these were Treasury yields. If you were going to buy a corporate bond, you could get some basis points above that. Now, we're living here underneath five percent.

Stocks. What happened in the stock market? Well it looked good for a while, but then again, this happens to be the Madrid stock market. It follows the same pattern that you've seen in everything except the NASDAQ—NASDAQ just goes down a lot steeper in the end. But the stock market is moving in a similar direction.

Money. Let's talk a little bit about the money that we have available in Europe right now. We've introduced the Euro, and in 1999 it became the legal currency, although we didn't have money in our pockets. We got money in our pockets in 2001.

This is really good for the European financial markets—it eliminated a currency risk and allowed us to invest. Excluding currency risks, we can invest in a much larger market—the French and German bond markets are very large. So now we have a bond market that is about half the size of the United States, including corporate and government issues. It's the second most-active derivative market after the United States.

This is a situation that, for the European companies, gives us significant advantages in managing the situation, compared to the Asian or Latin American markets, where they're forced into a situation in which they have a limited number of assets available to them and very short durations in their assets. At least in the European market, we have a range of asset solutions like you might find in the United States.

What Have People Done?

The market's been falling, so what have people done?

Borrow. Well, the first thing they did was borrow money to buy stuff. That's a pretty typical thing to do. They moved their investments into stocks, then realized that stocks can go down, and they ran back into guarantees.

Let's look at increasing household debt. This comes from Spain, and this is quite a change in just a few years. From a household debt standpoint, there was 44 percent of the GDP in '95; we're up to almost 60 percent now. So people are just borrowing more money.

Spend. What are they doing with it? They're buying cars. That's maybe not so bad if you're in the auto insurance industry. Most of us here probably work in the life side of the market, so maybe that's not so good for us. But nonetheless, they have been buying cars, and they have been buying houses.

These figures are the yearly change in new construction (Chart 6). Something strange happened in 1996, there's a lot of building. If you go to Spain or Italy right now, you might suspect that our national bird is the crane, the big metal one that hangs up there to build things.

Save. What's happened in the individual life market? Let's look at savings products, which are a big part of the market, just like in Asia. The number of people buying guaranteed interest rate products has been falling over this time, and the money was flying into unit-linked contracts.

The contracts we have in Spain are true unit-linked. This means that, if there is not a zero percent floor or anything, when the assets lose money, the client loses money. All of those policies began losing money in the year 2000. And a typical consumer response has been to buy high and sell low. Many sold out in 2000 and ran back into the guaranteed products.

Regulator Response

What have the regulators done about this situation? In this type of environment, when interest rates were 13 percent, it was very easy to guarantee eight percent or even 10 percent. And a six percent guarantee left your agents calling their actuaries every day complaining about how hard it was to sell policies.

So you might have had a portfolio with guarantees of 8 percent. You were earning 14 percent in the market, so you could skim off two or three percentage points of your assets. It was a very happy situation—you could pay good compensation to your agents and cover all of your overhead expenses in the home office. It looked good.

Then, all of a sudden, your new money rate is five percent and your bonds are expiring, you need to buy new stuff, your spread has gone negative and you're in trouble. So the regulators looked at this and the first thing they said is, "We're going to make companies go bankrupt faster." It wasn't really a bad response to companies in this situation, rather than just letting them slowly bleed and bleed and bleed for five or 10 years.

FROM THE FLOOR: These are high interest rates for what types of products?

MR. DeKEIZER: Savings products and typically endowments.

FROM THE FLOOR: Is that coupled with two or three payouts?

MR. DeKEIZER: They have five, 10, 15, 20, or 35-year endowments. Many companies offer not only a 35-year endowment wherein, for example, someone at age 30 buys an endowment to mature at age 65. They also have periodic premiums; so you have new money coming and a product that allows policyholders to dump in cash. You have an eight percent guarantee, and if the client is smart enough, he comes to you and says, "You know, I like that eight percent guarantee, here's a million dollars." The insurance companies really get hurt.

So the regulators said, "Let's take these companies and make them recognize today the impact of those decisions they've made in the past." They set up a dynamic interest rate formula and said, "You have to reserve your entire portfolio with these new dynamic interest rates." So, you might have been guaranteeing eight percent, and then all of a sudden you need to reserve at three percent. You take a 35-year endowment, run it out at eight percent and discount it back to three percent. If you use the old Exam 140 rules, you get a big reserve.

In some situations, they put in cash-flow testing requirements. Across Europe there's a solvency margin review going on right now, what we call the Solvency Margin Two. This is a move toward a type of RBC formula. It recognizes that the simplified solvency margin rules of just using 4 percent of reserves and 30 basis points, multiplied by your net amount at risk, is not an adequate amount of solvency margin for every company in every situation. So we're looking at that.

Consumer Ombudsman. They also introduced a consumer ombudsman, someone who is responsible to support the rights of the consumer. Why did they do this?

Let me talk about one company's response that was an interesting decision. The Spanish market is heavily driven by bank assurance—about 80 percent of the new business is done through bank assurance operations.

Those are typically structured where the bank will establish an insurance company. It might be a joint venture or an alliance, or it might be wholly owned. But when they create an insurance company, the insurance company signs a contract with the bank to distribute the business.

They create a product, normally a group insurance product with open enrollment or an association-type group insurance product in which the bank is the policy owner. Then they sell to the bank's clients and, in this fashion, they can give the client just a certificate; they don't have to give an illustration, they don't have to give six pages of legal language to the client, they just give them a certificate. They say that the official policy language is on file with the group policy owner, which happens to be the bank.

It worked reasonably well because it was a cost-effective way to sell business. But, in this environment of collapsing interest rates, there was at least one company that had the bright idea: "You know, legally, in a group insurance contract, the insurance company and the policy owner can agree to change the conditions. All they have to do is sign it." So they said, "We think the insurance company proposed a great change. We need to get rid of the eight percent guarantee and put in a four percent guarantee."

And I'm sure all the actuaries were going, "Yeah that's a great plan, that's a great plan." So the group policyholder signed—why not? Sure. And they went to all these clients who had enrolled in this open group and said, "Your interest rate is now four percent." This is an interesting professional ethics question for the next Fellowship Admissions Course.

What's the actuaries' responsibility? Legally, that was OK. The insurance company and the policyholders signed an agreement to change the conditions, so why not? However, it's sort of an incestuous circle of the policyowner also being the owner of the insurance company and the distributor of the products. This one company didn't seem to care. So the regulators said, "We don't want that to happen anymore." They outlawed these open-group-enrollment types of contracts and established this consumer ombudsman to respond to these situations.

Cash Flow Testing

I'll talk about the reserve regulation and the cash-flow testing requirement. You probably don't care what Regulation 33 is. But at any rate, if you go to work in Spain, that's the regulation that establishes this dynamic interest rate formula.

It's similar to the one we have here, except that it applies to all of your in-force. They take the last three year's' Treasury yields and use the weighted rolling average of those yields, currently 3.11 percent.

FROM THE FLOOR: Do they have any form of exceptions for people to say, "Our bonds are greatly hedged—you know, I've got bonds or something?

MR. DeKEIZER: There are two exceptions to this rule. If you don't qualify under these exceptions, you have to use this rate no matter what. And the rate can change.

I had a big argument about this. Notice the rate that we're using right now, 3.11 percent. I had an argument with the regulator just last year. The rate used to be 3.15 percent, and the formula changed for this year to 3.11 percent. So I called him up and said, "You're not seriously going to change the rate to 3.11 percent, are you? I mean, why do all this work to reprogram our systems for four basis points?

This is what the law says, and I want you guys to know that I'm going to apply the law. But at any rate, it's 3.11 percent. Obviously my influence classes didn't pay off very well there.

First Exception. The first exception has to do with your in-force block of business. The first exception is allowed for business that was sold before 1999, which has a dedicated portfolio of assets backing the reserves, and it has to be segregated in your annual statement. If those assets are yielding a rate in excess of this mandated rate and in excess of the policyholder guarantee, you can use the rate that was used in your guarantees.

So that's one exception that allows companies that have done some sort of job of dedicating their assets to at least delay the date at which they need to increase the reserves.

This is not a cash-flow matching test; it's not a projection of any kind. Last quarter, I had a guarantee of 6 percent, my assets are yielding 6.25 percent, so I can still support a 6 percent guarantee on this block. As time has gone on since this date, more and more of these little blocks of business have fallen into the need to reserve them at 3.11 percent.

Second Exception. There's another exception for new business, new sales since 1999. You have to demonstrate that you've done cash-flow matching or you can do key-rate duration matching.

When I read this in the law, I was scratching my head since I've never even heard of key-rate duration matching. I had to dig back into my old actuarial books and, sure enough, it was there on one of those exams. But I don't do that; I do cash-flow matching instead, because it's easier for me.

You have to do it at least on a quarterly basis with internal documentation, which the DGS can ask for, and the regulators can ask for anything. On a quarterly basis, you have to prove that your investments are still reasonably well matched.

If you sell at three percent, you're not going to win the business. If your offer for the close out is at a five percent interest rate, and you have to reserve it at three percent, you might win the business, but then you have to call your shareholder and say, "By the way, can you send me $20 million dollars? I need some more capital." You don't like to do that either. So a lot of cash-flow matching goes on in the group pension market.

We talked a little earlier about the solvency margin review. It's going to take a long time, as the governments all have other things to do. But it's likely to be something like an RBC formula, with asset factors, liability factors and restrictions on the kind of assets you can use.

I know our local Spanish regulator is not very happy with some of the bank assurance operations, which do cash-flow matching by creating another bank subsidiary (sound like Enron?) where you stuff whatever assets you want into that subsidiary; then that subsidiary issues debt, which just happens to have an interest rate and a cash-flow pattern that matches your liabilities. So asset restrictions are likely to come into place.

What Has the Industry Done?

What are some things that the industry has done?

No More Guarantees. Well, we've gotten rid of guarantees, in great part. There is a big push for unit-linked business, just because we're running scared of guarantees. And a number of companies, including mine, are using index guaranteed rates. Now we just put in the contract a guarantee formula, because it's a little awkward to be issuing a guarantee now that you know, three years from now, you will need to reserve at a rate that could be one percent, instead of three percent.

So we just put in our contracts that we're guaranteeing 60 percent multiplied by the weighted average of the government bonds, etc.

Cash Flow Matching Tools. There have been big pushes to introduce cash-flow matching tools and processes. These are what I call the normal responses to lower margins—you try to cut commissions, and then your agents can't sell, so you try to figure out another way to compensate them. You lay people off— things that people do when their margins get squeezed. I don't need to explain about those.

Bankruptcy. And then there's going bankrupt. M&E activity is growing rapidly in Spain. Over the past few years, the smaller companies just couldn't respond to this situation, and they've looked to get taken over, either by an American company or another European company, or even their next-door neighbor.

A Look Ahead

What's going to happen going forward?

More Disclosure. These are just some of my guesses, but one thing that I expect to happen is more disclosure. Like in Asia, we don't have any illustration regulation in Spain. In Italy they have illustration regulations. It says illustrations are outlawed. That's their regulation. You can't tell people what their product might be in 20 years. You can see there are probably some advantages to that, but there are some disadvantages as well.

I think we're going to see more disclosures. The United Kingdom and Portugal have disclosure regulations in which you have to talk about what the costs are within the product, what commissions are being paid, what is a likely performance and what is an unlikely performance. I think we'll see more of that as regulators try to educate consumers—force companies to educate consumers—as to how their products might behave in the future.

Tax Incentives. I think we're going to see growing tax incentives to promote long-term savings vehicles.

When you had those really high interest rates, the tax incentives were not that necessary. Just the fact that you could issue a long-term guarantee to your client would give you something that was attractive in the market. That's not so much anymore, and changing demographics, which are not really part of the scope of this session, are forcing the governments to look for ways that their populations can be insured against longevity risks.

Integrated Risk Assessment. In the winning companies, the ones that don't get taken over, I think we'll see more integrated risk assessment. The wave of people right now who are looking at interest rate risk and cash-flow testing, and who are concerned about whether their asset portfolio is appropriate for their liabilities, represents only the first stage of this wave of risk assessment.

Thinking more about how they're creating the liabilities and what risks they are generating for themselves through things like sales practices or the design of their products is going to be coming out in the future.

MR. JAROS: Our next speaker will be Jim Toole. Jim currently is living in the United States, but he has lived in Mexico and worked throughout Latin America. He's fluent in Spanish and knows a little Portuguese, as well.

MR. JIM TOOLE: Good morning, in addition to talking about falling interest rates, I'm going to put out a primer on my favorite insurance market, and I hope some of my enthusiasm will transfer through to you guys and keep you awake.

Mexico to me is very exciting. In listening to some of the problems in Asia and Europe, I'm thrilled to say there isn't bad news in Mexico yet, other than the currency. There are other challenges in Mexico, but we're not running into some of these problems.

I'd say we're perhaps ahead of the curve on that process, but the regulation in Mexico is quite good. There haven't been any major insolvencies since I've been in the market since '94. And I'd say that's a compliment to the folks there.

First I'm going to give you a perspective on the macroeconomic history in Mexico. And then you'll get a perspective on the insurance industry in Mexico and where we are today—the current macroeconomic environment over the past seven years since NAFTA, the response of consumers to the falling interest rates, the response of regulators and impact on insurers.

Mexican Macroeconomics

When I think about Mexico, I think about before NAFTA and after NAFTA.

Before NAFTA, all I really know is there were boom-bust cycles. From my perspective, it doesn't matter anymore, because everything that happened in the past isn't affecting what's going on today. But the people who live in Mexico are well aware of that, and see things in the perspective of, "Every six years something bad is going to happen." We're going to see if we can break out of that cycle with [President Vicente] Fox.

NAFTA happened in 1994. What does that do? It ties Mexico to the United States and Canada. Any country with a trading partner that's tied to the United States is automatically elevated above other nations. That gives such an advantage to Mexico. Not just in the region, but globally.

In 1995, right after NAFTA, there was the peso crisis. There were a lot of repercussions around the world, but you're going to see it wasn't as bad as some of the previous ones. And the quick action of the U.S. government, with the Brady Bond stepping in and saving that process, made all the difference in the world. And Mexico paid off those bonds two or three years earlier than it had to.

Privatization of social security. What happened? Chile has a model social security system; instead of being run by the government, the system says that you pay money in, and then you retire. You get a single-premium annuity that's paid out over your lifetime. What does that do? It creates long-term savings. And it changes the landscape of what types of assets are available.

Mexico used to be short term—a long-term bond was two, three, four or five years. Your average company was invested 30 days in cash—that was asset management.

In '99, all of a sudden Mexico had a transition of power from what was then PRI (a political party in Mexico), which had ruled for 71 years without change. Somebody new was in power—that tells people that Mexico is progressing more into the democracy that we're familiar with.

Here is another success story: What happened with the Argentinean crisis? In Mexico, nothing happened. In fact, Mexico got stronger. Why? Because all of the capital that was in Argentina flew to Mexico. It's the best developing country around now.

What does that mean? Well, too much capital can bring other risks that people are overpaying for assets; so there are other things you've got to be aware of. But it's the best investment, certainly in Latin America, and I think in the developing world. But that can change.

It's important to note, in '77, '83, '89 and '95, there were peaks. What were those peaks? They indicate the boom-bust cycle, and every transition from one elected president to another. "Oh, I'm leaving. By the way, I'm taking a couple hundred million dollars with me!" That's what that's all about.

The period of the '80s' high-inflation environment damaged the psyche of the Mexican people. How do you invest while dealing with an environment like this? So, another minipeak occurred in '98—that was the Asian crisis. While the spread between the risk-free rate increased, the inflation rate did not. And then quickly the risk-free rate went back down. So they handled that well.

I would like to mention that the Mexican insurance companies have cleaner balance sheets on average than those you'll see in Asia. There's less cross-holding, less reliance on real estate and fewer problem assets—they really are invested more in cash. There is more stock and more real estate that you'll find in the United States. But it's an easier balance sheet to deal with.

Insurance History

Here is a quick overview of the insurance industry's history. Before 1970, it's just not an issue. If you saw those inflation rates in the '80s, anything that was issued in 1970, if for whatever reasons it's still around, it's worth nothing today. So nobody is paying. If they are paid up, you'll have a hard time finding the person to pay it to, so the pre-'70s are not an issue.

In the '80s, we started getting into some indexed products. And the indexes are managed in different ways—some are on inflation, some are geometric—so they're really tricky. Each company has its own approach to it.

Distribution. In the past, you had career agency, tight agency, very conservative, very expensive. The expenses were covered by inflation. You didn't really have to manage inflation, because if you just waited a month, what you'd pay was less than what you owed. Lapse rates were very high; they sold the products, and you were lucky to keep them around for more than a couple of years.

Market competitiveness. This was a closed marketplace. In the '80s up until '94, the market was closed. There weren't many, if any, international players—so not a lot of competition.

Here is something to be aware of: Even in those periods of high inflation, when the guarantees were only eight percent, they changed it to 6 percent back in '95 or '96. And, because of the duration of the products and the lapse rates, there's very little eight percent guarantees left. The six percent is running off, except certain products are hanging around longer. They're changing the law and reducing even further.

Currencies. Here is another thing to keep in mind: Mexico they has three currencies. They have a peso currency, the inflation indexed currency, and dollar-denominated debt as well, which is linked to the U.S. dollar but backed by the Mexican government.

Current Environment. The new economy is looking to the North, not to the South. What happens in Brazil and Argentina is much less important to Mexico than what happens in the United States; and, as interest rates fall in the United States, of course they fall in Mexico.

Mexico has much less dependence on oil as an export to keep their economy afloat and pay off their debt. That's why Mexico got an upgrade in their Standard & Poor's (S&P) debt ratings. So they're doing very well.

Mexico also has a strong peso, low inflation, investment grade bonds and much more foreign investment recently. It has access to capital, but there are some pains around the border as the recession in the United States hits the border towns. And of course 9-11 had a big impact on trade.

Impact on Asset Markets. What had been the impact on these decreasing interest rates on the asset markets? The government is trying to shift to a fixed-rate debt. It's trying to move everything that was variable and indexed into longer–term, fixed-rate debt, which is good; but because of the memory of the Mexican people, the insurers don't want to buy long-term fixed rate debt. They want something that's going to move, because they feel, in the next six years, there's going to be another cycle. So there's a little tension there.

And yields have gotten less rich. But there is a demand for longer-term investments, in particular, the new—not the life insurance companies, but the AFORES (a mandatory defined contribution system), the social security companies, and the annuity companies.

Consumer Loans. A big impact and big change since I've been working there is that there are now consumer loans available. You never used to be able to get a car loan—you had to pay in cash. If you wanted to buy a house, you paid in cash or you traded. You took two $5,000 turtles and bought a $10,000 house. That's how it worked because nobody had cash. And that was in part due to the banking crisis. In '94, the crisis that happened affected the banking sector, but not the insurance sector. So the insurance sector had been sound, while the banks have been floundering by comparison.

This is a very big change: Up until now only the Mexican federal government could issue debt. So, whereas in the United States, if a municipality wanted to put in a new road, the municipality could levy bonds or taxes or borrow money and pay it back by your tax base.

You still can't do that in Mexico, but they're working to try to get that implemented. And I believe that's going to happen in the next couple of years. One major Mexican city has been rated AA in Mexico by S&P, but they can't issue debt, because the laws haven't been passed yet. But that's going to happen.

So this is the picture in the last seven years, and obviously this scale has changed dramatically. But looking at the inflation rate in '75, or '95, you had a steady decline in inflation, you had the bump in the Sepas when the Asia crisis occurred. The inflation and yields are below 10 percent, but still above the guarantees.

You still have to respond to that, because your consumers are saying "Uh-oh, my interest rates are changing, what's going on?" Recent sales of insurance are down. So they're doing other things with their money. Up to 90 percent of new sales—and this is the big kicker—are in U.S. dollar-denominated products, basically because the laws changed to allow them to do that. This is not using U.S. Treasuries to back the policies, but Mexican government debt issued in U.S. dollars.

There were laws restricting the amount of assets that insurance companies could keep in U.S. dollars; it was under 50 percent. But those have all been waived because that's what people want to buy.

What people are looking for are returns on investment versus protection. The banks have been having trouble. Banks do not pay good returns, so people look to the insurance industry to provide them a better value. It is no longer a protection-based sale. We're looking at endowment policies and just starting to get into unit linked. It's not there yet, not at all. But there are other types of endowments people are looking for.

They're looking for value. Mexico has young country demographics. It was Spain, I believe, that was looking to age and a decline in population. In Mexico, they're booming. There are 90 million people down there. And a lot of them are moving into middle-class demographics.

Regulator Action

What have the regulators been doing? You've got three different currencies—how is it managed? You have to match your assets and your liabilities to your currency. In my experience there is not a currency risk, which is not to say that you shouldn't be looking at that. But if you did cash-flow testing, which next to nobody does, you

could look at each product base and currency base separately, and you wouldn't have to be looking at interchanges between the two.
There are regulations and limitations on investment types, how much you can put in any specific asset class. And those do change with some frequency in response to changes in the economic environment. The Mexican government is responsive to that.

There have been reserve rate reductions, particularly to life and annuity policies, the ones with long-term benefits. The peso was reduced to 5.5 percent or five percent, and if you can demonstrate a certain amount of sufficiency—and it has not been written how you demonstrate that, so companies are exploring with their regulators how they can demonstrate that—you can have a higher interest rate for reserving.

There is duration testing for annuities, but it's not what we would do. It's not as complex as cash-flow testing in the United States, but you do have to match your asset patterns with your liability patterns, and that affects your rate. And they split life companies from property and casualty (P&C) companies. In the past, life and P&C could operate together, but they changed that.

Product Offerings
The whole market is moving more toward savings and endowments. The big shift is, insurers are moving from mortality and risk managers to asset managers. And this is what scares me the most—management is just starting to say, "Oh my gosh, look at all those assets." So I don't know how that's going to play out.

Distribution
Distribution is changing; they're looking at alternative channels. Tied distribution is very expensive to sell savings products, so they're looking at other ways of doing that through banks. And they've been very successful with bank assurance startups, but not as successful as in Spain and Europe.

Expenses
Expenses are no longer covered or hidden by inflation, so companies are having to pay more attention to the efficiency of the way they're operating.

Lapse Rates
Lapse rates are coming down, and there are some products that are actually lapse–supported. Management wasn't really aware that they were, because they never had to test for that before; now all of a sudden, consumers are sticking around. So, there is some possibility of risk there, but nobody has been bitten by it yet.

Market Competitiveness
There are more values going to the consumer, which means the possibility of increased sales, but also pressure on commissions and expenses.

Investment Strategy

Companies are paying more attention to investment strategy, whereas they didn't use to. Risk management is starting—the companies are paying attention to looking at a more holistic approach to risk. There are companies in Mexico that are doing more risk management analysis from the operations standpoint, as well as the mortality and other risks, than I've seen in U.S. companies.

Reserve Testing

They're just starting to look at reserve testing, either a GAAP adequacy or something like that, a net premium analysis.

Cash-Flow Testing

Cash-flow testing is just getting started, and people are talking about it but, in Mexico, the assets are so short that its almost more trouble than it's worth.

And there are the questions about how do you sell. What are the Mexico seven scenarios, similar to the New York required seven interest scenarios? There aren't any, and you go to 200 percent up and down.

So these are all things that individual companies would have to deal with. And because regulators aren't requiring it, it's a lot of effort to go through unless you're perceiving added value from a managerial standpoint, or if you have a home office owner—I mean a shareholder in another country who will support you on that.

But going it alone is very difficult, because nobody has ever done it. Nobody knows how to do it. But I'm looking at the opportunity.

MR. JAROS: At this time the floor is open for questions.

MR. GEORGE SILOS: I have a question about the accounting, especially in Mexico. Is there a dual system like in the United States with statutory and GAAP?

MR. TOOLE: In Mexican accounting, the statutory and GAAP and tax are on the same basis. The United States is the only market that I'm aware of that's so weird.

MR. JOHN HELE: You mentioned that, in Asia, several regulators were lowering interest rates. How much have they lowered them, what's the trend, where are they ending up and how are they thinking about it today?

MS. LIU: It varies from country to country. For example, in Taiwan, they lowered the 5.75 percent to four percent within about seven months. So, at the beginning of the year, they were looking at 5.75 percent, and then all of a sudden in June and July, when there were rumors everywhere, they just came out. They denied the change at first in the newspaper. And that was pretty hard for the insurers. And then they came out and just said, "On Sept. 1, this is what you have to do." So all of a sudden, people didn't have that new product to sell. That's in Taiwan.

In China, they did it about two years ago. They lowered it from, I believe, seven percent or something to 2.5 percent. Now 2.5 percent is the maximum in China. But, given that the majority of the market share is controlled by the state-owned companies, the government basically backs it.

Other than the state-owned companies, which is 80 percent of the market, the rest of them are competing with each other. Those are the ones that really need money, and those are the ones that have foreign investments.

FROM THE FLOOR: We didn't talk very much about participating products. We talked about the guaranteed products. But I would like to share with you the impact in Asia, especially for participating products, a whole life endowment where we have a bonus of cash dividends.

We talk about shareholder capital injection, but many of the companies' reaction in Asia is to screw the policyholders, meaning they will reduce the bonus and dividends. So when they bought the policies 10 years ago, they were hoping they would get so much return after 10 years or 20 years. And now they see the cash values reduced by up to 20 percent or 30 percent. That happens to be the case for many companies in Asia.

Then we talk about reserve adequacy and all this other stuff. But what the regulators have done is set a ceiling for the maximum yield you can use in the pricing. But, surprisingly, the yield is still a lot higher than what the companies are earning, by about 200 basis points.

So most companies just use the maximum rate, even though its two percent higher than what they're yielding on their current asset. And these are multinational companies, often having offices in the United States and Europe.

And we are talking about all these management techniques in managing the insurance company. But in Asia, obviously, you're guided by completely different standards, mainly because most companies want to gain market share. That's all they care about—market share, sales. We want to be No. 1.

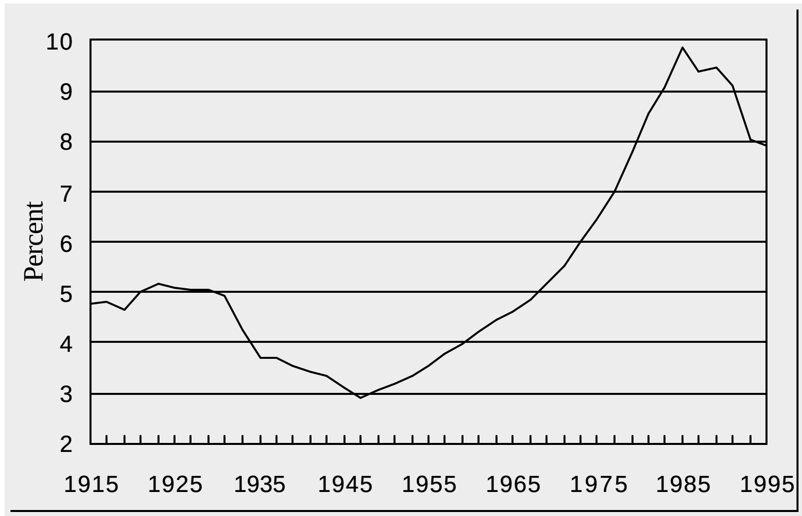
Who cares about reserve adequacy? If that's not enough, we'll just cut the bonus some more and the policyholders will get even less. That seems to be the strategy. It's shocking to see quite a different practice on the other side of the world, compared to what we do here in the United States or Europe.

MS. LIU: Yeah, most of the companies in Asia are actually focusing on top-line growth, rather than bottom-line profits, because if you know the history of insurance in Asia, it's still very premature. It started to boom in the last 10 years when all the foreign companies went in and set the standards of practice to Asia. Before that, owners made decisions.

In Japan, it's so typical that policyholders all get haircuts, because the regulator would rather bankrupt the company first, unless somebody came in and bought it. The foreign companies came in and bought them. Then everybody gets like a 70 percent discount. So that's happening. They actually made the law to do that. It's pretty amazing, but it's getting better.

Chart 1

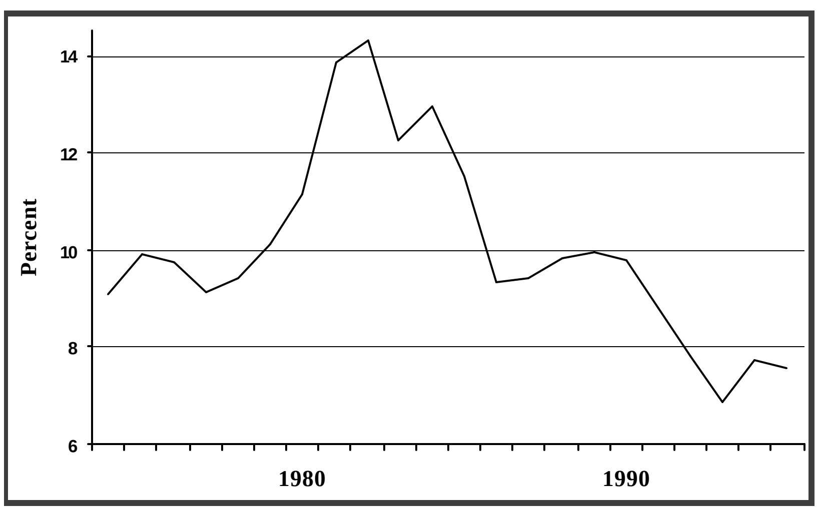
Average Interest Rate Earned by US Life Insurers



Source: SoA CRC Regional Seminar 2001
Provided by David Atkinson from RGA

Chart 2

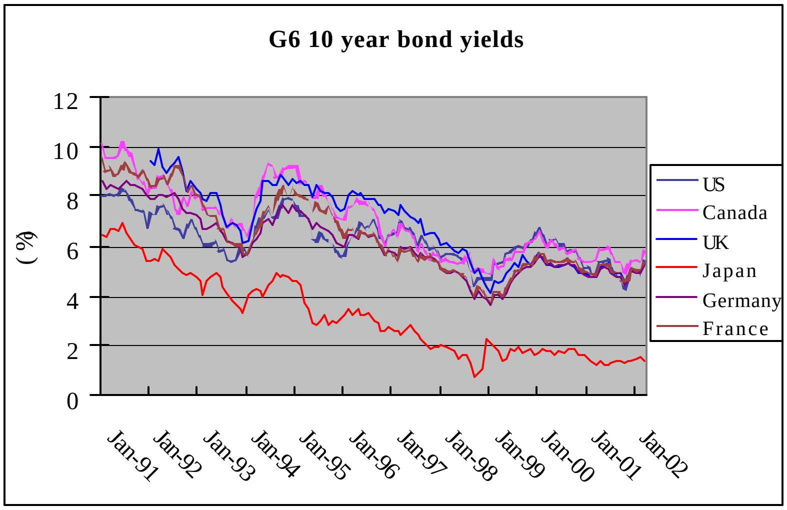
Average Interest Rate Earned on New Investments by US Life Insurers



Source: SoA CRC Regional Seminar 2001
Provided by David Atkinson from RGA

Chart 3

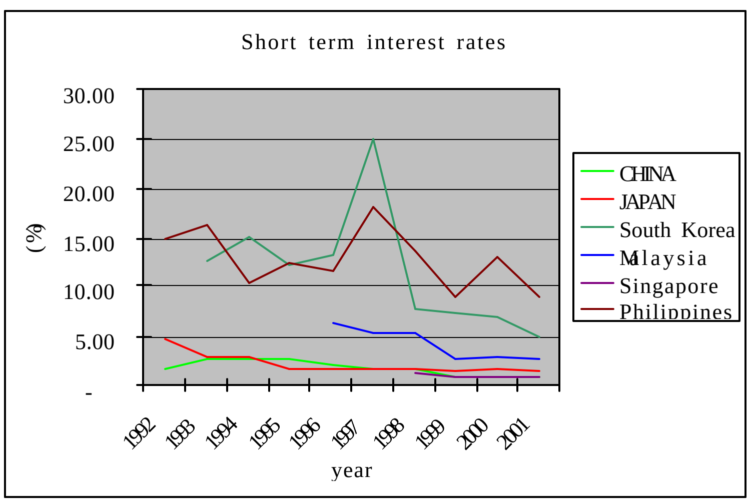
Interest Rates on 10-year G-6 Government Bonds



Source: Bloomberg

Chart 4

Historical Short Term Interest Rates



Source: Bloomberg

ERNST & YOUNG
FROM THOUGHT TO FINISH

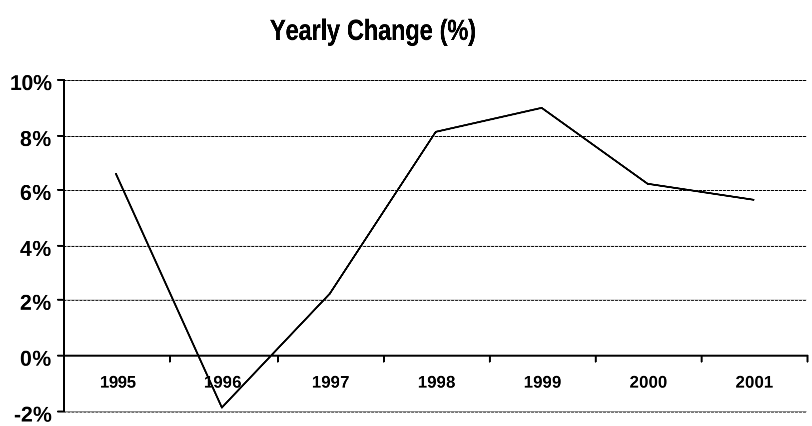
Chart 5

Treasury - Yield on 5 year bonds

Source: Ministry of Economy

Chart 6

Investment in New Construction



Source: Banco de España