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## **Session 94PD**

### **Structuring of Foreign Insurance Entities in Latin America**

**Track:** International  
**Key words:** Financial Reporting

**Moderator:** JOHN O. NIGH  
**Panelists:** JOHN O. NIGH  
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**Recorder:** JOHN O. NIGH

*Summary: As the U.S. insurance marketplace becomes more mature, companies are looking for other sources of business. Latin America is one of the most underpenetrated insurance marketplaces in the world. At the same time, as significant progress is being made towards political and financial stability in that part of the world, several Latin American countries are liberalizing regulations to encourage foreign investment in the insurance industry. At the conclusion of this session, attendees will understand the:*

- *political and socioeconomic changes occurring in Latin America that affect the insurance industry*
- *opportunities for foreign insurance companies in Latin America*
- *financial reporting issues foreign insurers face by writing insurance through subsidiaries in Latin America*

**Mr. John O. Nigh:** As you can see from the program, there's been a total substitution of moderator as well as panelists. I was recruited to be a speaker so I happened to have my name listed on the program. About one week after being recruited I was asked whether or not I could also be the moderator, and I was fortunate enough to have Paul Turner and LaTisha Boothe agree to be part of the panel discussion.

I'm with Tillinghast in Atlanta. I'm responsible for our Latin American operations, which includes offices in Mexico City, Rio de Janeiro, and Buenos Aires. I will be followed by Paul Turner who's vice president and actuary with ING and currently living in Mexico. He will be speaking to you on operations involving bank

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assurance, traditional insurance, private pension administration, and annuities under the privatized pension schemes in Latin America. LaTisha will end our panel discussion. LaTisha is an actuary with Principal International Argentina, and she's currently living in Buenos Aires. She will cover financial reporting issues and touch on some asset/liability (A/L) issues, principally from the perspective of Argentina, but with some comparison to Chile.

As I indicated, I will be covering the overview of Latin America. I will speak to the insurance markets, the economies, the political and economic environments, and what I see as positive forces of change that I believe bode well for the insurance industries in those countries. My focus will actually be on the four countries of Argentina, Brazil, Chile, and Mexico, principally because those are the countries that I, personally, have the most familiarity with, but I also believe that that's where the vast majority of the interest has been focused by the international insurance scene. That's not to in any way minimize the operations or insurance markets in any of the other Latin American countries.

Table 1 gives an overview of the size of the insurance markets in the four countries. Brazil is around \$14 billion, followed by Argentina at around \$5 billion, with Mexico at \$3.6 billion, and Chile at \$2.4 billion. Chile is the smallest insurance market that we're speaking about; however, it is the only one that has life insurance premiums exceeding nonlife insurance premiums. This is driven largely by Chile's privatized social security scheme. It was privatized in 1981, and about half of the life insurance programs in that country relate to annuities that are sold as a result of the private pension scheme.

TABLE 1  
INSURANCE MARKET PREMIUMS—1996

	In U.S. Dollars (billions)	
	Nonlife	Life
Argentina	3.4	1.4
Brazil	10.1	3.9
Chile	0.8	1.6
Mexico	2.4	1.2

Table 2 gives a picture of the premiums per capita by country. Chile is the leader for life, with Argentina the leader for nonlife. Let's discuss the insurance market from a different perspective—insurance penetration as a percentage of the gross domestic product (GDP). As a baseline, in the U.S. the total insurance penetration is around 8% with roughly half of that life and roughly half nonlife. Chile has the largest total with around 3.3%; Mexico is the smallest at around 1.1%.

TABLE 2  
INSURANCE MARKETS  
PREMIUM PER CAPITA—1996

	In U.S. Dollars	
	Nonlife	Life
Argentina	95	39
Brazil	63	24
Chile	55	110
Mexico	25	13

Let's move on to the economy—or certain aspects of the economies in these countries—and look at Table 3. Mexico had the highest inflation of more than 34% in 1996 and more than 15% in 1997. This is still really a fallout from the devaluation that occurred in December 1994, otherwise referred to as the Tequila Effect.

TABLE 3  
INFLATION

	Percentage	
	1996	1997
Argentina	0.2	1.5
Brazil	16.2	5.0
Chile	7.3	6.0
Mexico	34.4	15.5

Brazil had inflation in the neighborhood of 1,400% as recently as 1993, 800% in 1994, and around 5% in 1997. That's the result of the implementation of an economic reform plan called the Plan Real, which has thus far been very successful, and, as we'll note later, has some challenges before it but probably will remain successful.

Argentina is the lowest in terms of inflation. That's also the result of a successful economic reform that was implemented in 1991 called A Dollar Plan, which requires that the Treasury holds one U.S. dollar for every peso in circulation. Again, that's facing some challenges, as we'll discuss later.

Table 4 shows the GDP growth in these four countries. They're all actually quite healthy. Argentina has the largest at 7.5% in 1997, Mexico following at 6.5%, Chile's quite strong at 5.5%, and Brazil follows at 3.4%. Brazil, of course, has the largest economy of these four countries.

TABLE 4  
GDP GROWTH

	Percentage	
	1996	1997
Argentina	4.3	7.5
Brazil	3.2	3.4
Chile	7.2	5.8
Mexico	5.1	6.5

Table 5 gives a snapshot of one demographic perspective, the population. For example, Brazil has 161 million and Mexico has 95 million. Clearly, either in combination or individually these two countries present significant opportunities for growth from not only an economic perspective but certainly from an insurance perspective. Also, these two countries combined exceed the combined population of the rest of Latin America. Nevertheless, both Chile and Argentina exhibit characteristics that are similar to what we see in the U.S. in terms of the distribution of wealth. It's much more evenly distributed amongst the population, whereas in both Mexico and Brazil the very wealthy control a very significant part of the wealth and the poor are extremely poor.

TABLE 5  
POPULATION—1997  
(IN MILLIONS)

	1997
Argentina	35.6
Brazil	161.0
Chile	14.7
Mexico	95.0

A few comments on the political environments in these countries. In Argentina we do have an upcoming election. It's not certain that the current party, the Peronist, will remain in power. There is some division. The current outgoing president, Carlos Menem, does not support the leading Peronist candidate, the current mayor of the city of Buenos Aires, Duhalde. In Brazil, President Cardoso did win his fight to get the right to reelection. The general consensus is that he will be reelected, and, of course, he is pro-reform and pro-privatization. Chile is probably the most politically stable of the four countries. It became even more stable in March with the retirement of Pinochet, the leader of the military who had previously been the military dictator of Chile. This now has allowed for the military and the governing body to work more closely together.

Mexico, I would say, is the most questionable. The current party in power which has been in power since 1928, is gradually losing its stronghold, some might say

that it is rapidly losing its stronghold. It should still win, but it will lose significant elections, and it will not have a majority over the second and third largest parties. They still need to deal with the dissatisfaction produced by the Chiapas situation. Evidence of the lack of control of the party is the Mexican Congress' rejection of President Zedillo's proposed financial restructuring plan. That just occurred within the last couple of weeks.

On the economic front Argentina has an inefficient financial system. It has more banks than are necessary. The banks are inefficient. There needs to be some reduction in the size of the financial system and an improvement in its efficiency. There continues to be pressure on the Dollar Plan and the eventual ability to maintain that is widely questioned. Many of the provincial governments are either in bankruptcy or near bankruptcy, and those issues need to be dealt with. Brazil's currency, the real, which has undergone three devaluations since its implementation in 1994, still is overvalued by approximately 10–15%. The privatization that's underway in several of the industries, including the reinsurance monopoly in Brazil, needs to be continued, and that's one of the reasons why the reelection of Cardoso is so important for Brazil to avoid renewed inflation.

Chile has been very successful in reducing its inflation. The popularity, if you will, of the country, the huge capital inflows and its growth and its GDP growth, does create some inflation risks. However, it has the highest savings rate in the region at 24%, which does certainly bode well for the economy.

Even though the Mexican peso has gone from around 3.1 to the dollar in 1994 to close to 9 currently, it's still viewed as being overvalued. And the implementation of the North American Free Trade Agreement (NAFTA), although it's not complete yet, needs to be completed in order for Mexico to have a positive chance of recovering in a strong fashion.

Notwithstanding all of this, what are the forces of change within these countries that I think bode well for the insurance markets? Well, first, we do have smaller families as opposed to the large families that historically existed in these countries. Because of the smaller families there's more need for capital accumulation for retirement protection. There's no longer the number of children who can or are willing to take care of the aged parents.

Democratic reform has taken place and is continuing to take place throughout the region. There's quite a number of trade agreements that have been entered into, such as NAFTA, which I'm sure you're all familiar with; Mercosur, which is among Brazil, Argentina, Paraguay, and Uruguay, with Chile having recently joined on an

associate basis; The Group of Three—Mexico, Venezuela, Colombia; and the Andean agreement, which includes Peru, Chile, Ecuador, Bolivia, and Venezuela. The Summit of Americas, which reconvened earlier this year, has as one of its goals a free trade environment from the tip of Canada to the southernmost regions of Argentina and Chile. Although this may seem optimistic, it's universally agreed that this is a worthwhile goal to strive for.

Regarding successful economic reforms as I've mentioned already, a Dollar Plan, the Plan Real, and others have been undertaken by other countries. And, finally, probably as significant as any of these is the trend towards privatized social security schemes. Most of the countries in the region have done so. Brazil is the last big holdout. It's widely recognized that there needs to be a privatization of Brazil's pension scheme, and it's likely that there will be some—at least a partial privatization. Of the countries that we have talked about today, all, except for Brazil, have implemented their own versions of privatizing their social security schemes, and this has created and will continue to create capital accumulation.

**Mr. Paul F. Turner:** I will talk about some of the opportunities available for foreign insurers entering Latin America. It seemed a bit ambitious to talk about all of these: bank assurance, traditional insurance, privatized pension administration, and the lifetime annuities derived from the privatized pension system. In a session yesterday I talked a bit about bank assurance. So today I'm going to talk about privatized pension administration.

Why are so many countries adopting privatized pension schemes? I doubt there are many of you out there who don't know that these systems are in vogue not only in Latin America, but in other countries as well. There's even been talk in the U.S. about adopting this idea. I have my doubts that the U.S. will ever go that way, given the IOUs we're busy writing, but there you have it. One of the main reasons why so many countries are doing this is because of demographics. There are other reasons, but the first one I'll talk about is demographics.

In Mexico people are living longer, and that's causing a shift in the percentage of population in various age groups towards the more elderly as shown in Chart 1.

The 1950 worldwide statistics stated an average life span of 46.5 years at birth. Today it's about 65–66 years. And in 50 years they're projecting it to be around 76–77 years. Pensioners are growing at a rate of about two times that of active employees. So, you can see the trends that are happening all around the world. Latin America, I think, is just realizing this sooner than countries in more developed areas like the U.S. or Europe, which should have realized that these things were

happening. The Latin American countries are doing something about it. These are disturbing trends for pay-as-you-go systems.

I think Chart 1 is interesting. It shows what's happening in Mexico between now, 1990, and the year 2030. Basically the bars show percentage of population at certain age groups, and you can see that between 1990 and the year 2030 there's a huge shift that's going to happen between what exists today of a very young population in Mexico to something that's blossoming out into the 30s, 40s, 50s, and 60s. Part of the concern is how large the 60-and-above area is getting in terms of where we are today and where things are going to be in 40 years.

There are other factors that are undermining pay-as-you-go systems, and I think some of these may apply more to Latin America than the U.S., but I think the U.S. could take some notes here as well. The first is mismanagement of reserves. I think a better question in Latin American countries and in the U.S. is, what reserves? In the U.S. we've got things called IOUs, which, unfortunately, will need to be refinanced in the future. As long as you can raise the money, that's great, but if you don't have a willing buyer, you're going to have to attract them with higher interest rates, which will drag the whole economy down.

The second factor is lack of worker confidence. There are no guarantees in many of these countries for future pensions in terms of how much there'll be. Other factors include benefits not commensurate with the work that's been performed during a person's work history, and no participation in the process. All of these factors cause lack of involvement on the part of the employee and a belief that, "Oh, this is not going to be something that will be around for me."

Finally, Latin American countries, among other countries, need desperately to stimulate internal savings. What happened in Mexico in 1994 at the end of the year, as well as in many other countries, was a reflection of the flight of capital. If confidence in your country diminishes, and foreign investment is basically supporting your economy and that money flies, you are in a world of hurt. You will not be able to refinance your debt. Basically, in Latin America this is a critical issue and something, unfortunately, that you can't solve over the short term, but implementing privatized pension systems is seen as a way to assist the country in developing its own internal savings over the long term. Government objectives for implementing privatized pension systems are to encourage internal investment and to guarantee an equitable, meaningful pension, long-term viability of the retirement systems, (respect rights earned under former systems); transparent administration, and increased participation of the workers.

I want to go through the characteristics of privatized pension systems. Whether you're talking about Chile, Argentina, Mexico, or Brazil, they have all implemented similar types of privatized pension systems. They're known by various acronyms. Basically the government allows the private industry to compete for affiliates, which are your workers, and manage individual retirement savings accounts for those workers. All the government should be doing is establishing strict supervision and segregation of the funds to add confidence in the system.

Governments do not always guarantee minimum pensions if those funds are not sufficient, and that's expected to be more of a short-term stopgap as the employee is able to build sufficient funds in his or her IRA. Upon retirement, affiliates can choose what are called programmed withdrawals, which are a series of payments over a person's expected life span. As people keep living longer, the payments keep getting recalculated, but it's not something that's necessarily going to provide someone with a stable pension over the long term, whereas a lifetime annuity is a product that's purchased by an independent insurance company and is what we know as an immediate annuity.

What are the variations between countries? Participation may be mandatory or it may be optional. In Mexico it depends on what employee category you fall into and whether you're covered yet under this system, but basically if your employee group is covered, you have to participate. Contributions can vary in terms of the percentage of your salary and where the money actually comes from, whether it comes from your employer, employee, or government. Employees are able to change from one privatized pension company to another with varying degrees of freedom.

This has been an issue in Chile where privatized pension companies were subjected to quarterly withdrawal rights from their affiliates and at very little effort or cost on the part of the affiliate. What you found is that companies have had to maintain large sales forces to not only try to retain who they had but also to try to attract new people, and it's a very costly way of doing things. In terms of an objective of freedom of choice it's on the high end, but in terms of the actual end-of-the-day benefit that a retiree might get, if the costs are so high to manage the system, it could lower your benefits.

Mexico has struggled with how to actually do this, and it appears that the final plan is that they'll have an annual turnover of employees. Employees are able to choose a new Administradoras de Fondos para el Retiro (AFORE) every year but not before notifying the old AFORE of their intent to leave and obtaining a letter from their old AFORE that acknowledges this information. With the bureaucracy involved in

going down to your old AFORE, having them have the chance to keep you longer, an entire day has essentially been wasted. If you've ever been to Mexico, you can easily do that standing in lines. It's expected that the turnover rate in Mexico will be much lower than what's been seen in Chile up to this point.

In terms of Mexico's program, here are some specifics. Employees individually choose their own AFORE. Although we're all adults here, many unions and other active groups sometimes are able to sway people to go en masse to one AFORE or the other, but legally everybody has a right to choose. The employer doesn't have any extra administrative burden by their employees choosing among the 17 or so different AFOREs because they just collect the money from all of their employees no matter where it's being sent to. They send it on to the Central Bank, which then has to deal with a centralized processing company, which determines which AFORE each of the contributions go to. So, it's not an administrative burden either. Voluntary contributions are permitted in Mexico. There's some debate right now over exactly how much can be put in, how much is tax-deferred and all that, but it's an attempt to get people to save above and beyond what's put in on their behalf.

The government guarantees a minimum pension, which is a stopgap measure until the people have enough time to generate savings within their own retirement savings account. In the first few years you're not going to see many people able to get a significant retirement benefit from their AFORE savings. The government will have to chip in and complete their benefits at least to a minimum pension level. At retirement they choose between a traditional government benefit or what they can purchase with their AFORE funds, which could be a programmed withdrawal or a lifetime annuity.

Some evidence is mounting. Chile implemented a plan in the early 1980s. It's had approximately 15 years of results, and I thought it would be interesting to show you what's actually been achieved over a reasonable span of time. There's mounting evidence in Chile that privatized pension programs are achieving the aims that I spoke about earlier in terms of internal savings within the country, participation of workers, and so forth. Chart 2 shows an increase of zero in the 1980s up to about 35 billion U.S. dollars in 1997 in the privatized pension system. This money is invested in Chile.

Chart 3 shows in terms of the percent of GDP how large the savings pool has grown in Chile. A quick rule of thumb is that about every 10 years you can get about 15–20% of GDP additional growth. That may not be a hard-and-fast rule for a hundred years' time, but for the first 20 years it seems to work right. So after about, say, 15–

20 years Chile's at about 45% of GDP with internal savings. That's a significant number.

I have the most familiarity with Mexico. In the early part of 1997 Mexico had about 17 AFOREs that had passed their certification to affiliate members. In February 1997 troops of salespeople from all of these AFOREs went to all of the major population areas of Mexico City and grabbed everyone they could find to try to get them affiliated with their AFORE.

There are no real surprises who the major players are in Mexico—the major banks and a major insurance company. Bancomer is, by most accounts, the largest and most successful bank in Mexico. Santander is a Spanish bank that purchased a bank in Mexico called Banco Mexicano. Profuturo is the second largest insurance company. Other major players include Garante, Bital, and Conifa. Then you have eight remaining AFOREs that combined don't add up to a significant number of players.

Because we're talking about foreign entrants into Latin America, it would probably be interesting to tell you that most of these large AFOREs and many of the small ones have foreign partners. Bancomer not only has a relationship in the AFORE, but they also have a lifetime income annuity company, a bank assurance company, and a direct or traditional insurance company with agent brokers. Santander, the Spanish bank, has been very successful in Latin America with privatized pension programs. Profuturo has a Spanish bank, BBV. And Provida, which is a Chilean AFORE-type company, is very successful in Chile as BBV's partners. Garante has Citibank, which you know well. Bital has ING. ING has an AFORE-type company in Peru that has been very successful and helped Bital set up their AFORE company in Mexico. Confia and Atlantico-Promex is associated with The Principal. The Confia part I think is now official. The Atlantico-Promex, a merger, is either official now or almost official. Other foreign players that have been involved are AIG; Bank of Boston; Bank of Nova Scotia; Generali, which is Italian; GE Capital; Metropolitan; and Allianz/Dresdner. There are a few others, but those are the main ones.

Why are so many foreign companies interested in Mexico or in Latin America in general for privatized pensions? I think there's so much interest because of the number of affiliates. If you can go out and within one year's time develop a business that has over a million customers, that would be interesting to most people. Mexico is no exception. It's a big market, and the AFORE business is going to be very large. John referred to per capita spending on insurance products in Mexico; I think the number was around \$40. Already in one year the AFORE

business generates that magnitude of revenue for the AFORE on a per capita basis in Mexico. So, in one year, basically, you have a business that's the size of the existing insurance industry.

You also have the spin-off effects of lifetime income annuities, which will happen in the short term for workers who die or become disabled. Their widower/ widow/ beneficiary will get a pension product for the rest of their life. In the longer term, as people in the AFOREs get to retirement age, they'll be converting their AFORE savings into lifetime annuities. So, this is a very long-term business. It's a very attractive business for many foreign entrants.

Chart 4 shows what's expected to happen in Mexico over a ten-year time frame as a percent of GDP. You can see we're in that 15–20% range expectation over a ten-year time frame, which is practically where Chile was in ten years as well. Chart 5 shows just in terms of fund size, how much is expected to be saved in these AFORE companies over the next ten years. It's expected to reach over \$80 billion. As you'll recall, in Chile the number is much smaller, although it's still a significant number. The reason, as John was pointing out, is that Mexico has a much larger population than Chile. With that, I'll turn it over to LaTisha.

**Ms. LaTisha L. Boothe:** We've heard about Latin America in general. I'm going to tell you a little bit about Argentina and some of the financial reporting issues. You could look at this as a case study. Some of the problems we've encountered in Argentina and some of the specifics of Argentina are not going to be as important in the other countries. We're not going to run into the same problems. But I think the things to keep in mind are the reasons driving some of those decisions.

The market practice in all countries, I think, is heavily influenced by the financial reporting practices. Everybody's concerned about how their books look. We'll look at some of the implications of the statutory financial reporting in Argentina. I think one of the things that will come through is that the insurance industry and the regulatory authorities are both relatively inexperienced in Argentina.

We'll look at the company organization and structure as it is dictated by regulations and some of the details of the statutory financial reporting in Argentina. We'll look at some of the investment market history, as that has an implication, as you'll see. When we get into the statutory financial reporting, I'll discuss a few examples of where a lot of the regulation that comes through is somewhat arbitrary. The rules need to be decided one way or another. And we'll look at a few of the examples, both good and bad, of recent changes that have come from the superintendency that the insurance industry has had to deal with.

Let's discuss the company structure and organization. According to regulation we are required to have separate companies that are separate entities for the Administradoras de Fondos de Jubilaciones y Pensiones (AFJP) companies, the life company, and the retirement insurance company. That, in itself, has tax implications because you cannot use the losses from one company to offset the gains on the other. So sometimes you have tax losses expiring without being used. Also there's an implication for transfer pricing. Many of these companies, I think, work as one company. But you cannot have, for instance, a service center that's billing another company because you'll be charged taxes on that, an economic value-added tax, which adds 21% to everything. So, that's a significant financial reason not to do that.

There are also implications because your assets actually have to be split for each company, which I'll explain shortly. Really, it's the market value versus book value issue.

Let's look at statutory reporting. The assets are market-valued for all of the companies or quasi-market-valued for the AFJP company, whereas the superintendency publishes the values that are roughly market-valued, which are the values you must use. Twenty-five percent of your assets are allowed to be marked as an investment fund; you can record them at book value. And the realized and unrealized gains are not separated. They both flow through the income statement.

Getting back to what I mentioned on the other implications, because your assets are split, you might have a liability that is more market-valued, such as a variable universal life (VUL) product. You might not care to use the "investment" fund and book value those at 25%. Whereas an annuity in your retirement company is more of a book value product. If you could, you'd like to use the 25% from your VUL block, but that's not allowed because they are separate entities.

On the liability side, typically the reserves are high by U.S. standards. For whole life products, net level premium reserves are held. No Zilmer-type reserves or modified reserves are allowed. For universal life-(UL) type products, it's typically account value. And for the immediate annuities the reserves held are 4% using static mortality, which is typically the Individual Annuitant Mortality 71 tables.

Regarding expenses, you are allowed to defer the first-year commissions over five years for the life companies, which is somewhat similar to U.S. GAAP. However, this is only an income statement effect because the deferred commissions are a nonadmitted asset on your balance sheet. Also, the statutory minimum solvency

margins are set by company. There's an absolute minimum dollar amount that is required, and there's also a formula based on your reserves or your net amount at risk; you must hold the greater of the two.

As our assets are market-valued, it's important to realize what our investment history is like in Argentina. In general, the markets are more volatile than they are in the U.S. You're both subject to investors who are worried about things in Argentina but also in Latin America in general. Typically, Latin America gets kind of lumped together. So if there are problems in Mexico, that causes problems in Argentina and vice versa. This has direct implications because the assets on your statutory reporting are mostly market-valued. You could run into a problem where the market drops, and basically you are insolvent.

The next couple of charts are illustrations of the stock prices, but it's worth mentioning also that the bonds are similarly as volatile. Chart 6 is the stock index versus the Dow Jones Industrial (DJI) average. In good times the Merval tends to follow the Dow Jones very closely. You can see it does take some dives, the most obvious towards the end, which is the start of the Asian crisis. This chart reflects the last two-and-a-half years experience, and there's nothing magic to that time frame. I just chose that because I had the data easily available.

Chart 7 examines the change in those markets. You can see that the Dow Jones typically stays better behaved within the plus or minus 10% range. Chart 7 shows a 30-day change in the index, whereas the Merval has taken some large jumps in both directions with the biggest and most obvious being a 30% drop. I think this illustrates that there are significant risks when our assets are market-valued and our liabilities aren't.

As I mentioned, there are somewhat arbitrary decisions that the superintendency makes that are both good and bad for the market. A recent example is the absolute statutory minimum solvency margins that change, and this may have actually been instigated because of bad market practice, because some companies weren't operating with enough capital. I think the property & casualty side has had more problems, but it's still an issue. And so this has actually had a good effect for the industry as a whole. The thing that was surprising is that it came about with very little warning. Earlier this year, I think in March or April, it was passed, and it will be effective on October 1, 1998. As I mentioned, the objective was to make the industry financially stronger, which I think it will do. They did also make new licenses available. So there's very little value in having a license as there has been in the past.

For the individual and group life companies the minimums have increased. They go from \$275,000 up to \$750,000. For the provisional insurance, which is the insurance on the AFJPs, on the privatized pension, it goes from \$1.5 million up to \$3 million for existing companies. For companies that become licensed after October 1, 1998, it will be \$5 million. And for retirement insurance it's gone from not quite \$900,000 up to \$2 million for nonprovisional. Again, this is for kind of voluntary annuities that are not part of the AFJP system, or \$3 million for the provisional system for existing companies. For companies that get their license after October 1, 1998, it will be \$5 million for both.

Let's look at immediate annuities. This is an issue for the retirement insurance companies. Generally, the immediate annuities in Argentina are priced at 4%, which is the technical rate currently mandated using static mortality. There are no loads allowed. So you take your premium and divide it by the purchase rate at 4%. Any excess interest earnings in excess of 4% are credited to a fluctuation fund. So it's a retrospective interest crediting. From this fluctuation fund nonguaranteed benefits will be paid each month. With good investment returns it increases your benefit. Periodically, some of the fluctuation fund is moved to the guarantee side. So your benefit cannot decrease. You are subject to what they call a Tasa Testigo as a minimum credited rate, and the thing that's important to note about this is that it's kind of an arbitrary index that has been defined, but it's not necessarily tied to investments that a retirement insurance company would be investing in. As I mentioned, there's no load in the initial premium. However, you can deduct the excess interest earnings. The risk, of course, is the market value fluctuations of the supporting assets because those are market-valued, but the liabilities are not.

I guess there are a few options for how the industry could deal with this. You could minimize your investment risk by investing very short; not necessarily the best thing to do as far as financing your liabilities, but you'd be less susceptible to those swings. One thing to note, too, you have your fluctuation fund that is building for the insured with excess interest earnings. If there's a drop, you can charge that to the fluctuation fund. However, this fluctuation fund cannot go negative. So if there's no money there, it's not going to do you any good. This shifts a lot of the risk to the annuitants. Because of the whole product structure there's really very little advantage in matching your assets and liabilities, and, in fact, it's an advantage to the company to invest in stocks, which is what many of the retirement insurance companies are doing because there's a potentially higher return. This allows the companies to take a larger spread without it being as noticeable and without it being as big of an issue.

In contrast, I thought I would tell you a little bit about the Chilean model for the immediate annuities. Much of Latin America, as we've talked about, has followed the Chilean model for the privatization of the pension funds. However, I don't think many of them are following the immediate annuities yet.

In Chile the assets are market-valued also. The key difference, however, is that the reserves are also market adjusted with market rates. They're not completely market-valued. The reserves are based primarily on how well your assets and liabilities are matched according to a calce rule which I'll explain shortly. Basically, two reserves are calculated. First, the *reserva técnica financiero* is based on the updated calce formula, and this is what is held as the actual liability. This is calculated each time you do your reporting and the *reserva técnica base*, which is also based on the calce formula but done at issue. If this is in excess of the *reserva técnica financiero*, then this is held in the equity as allocated equity. What this does, in contrast to the Argentine market, is that it strongly encourages, or basically forces, the market practice of A/L matching as best as possible.

The calce rule is how they determine reserves. This rule determines the interest rate used to discount your cash flows for reserve calculations. Both the asset and liability cash flows are partitioned into ten different time periods, and what they call a Cpk factor is calculated for each period, which is the ratio of the asset cash flows divided by the liability cash flows, never to exceed 1. So if your asset cash flows are greater than your liability cash flows in any period, then you use the factor of 1. The discount rate that is used, in this case, if you were perfectly matched, would be 80% of a market rate plus 20% at 3%. Obviously, if you're not as well matched, you will be penalized for using a lower discount rate.

The problem that the companies run into in Chile is that there are no assets to match the cash flows at the tail. The last few Cpk periods, for example, are 22–28 years, and then 29 years and on, and when you cannot match that you're going to end up with a very low Cpk factor. This is still a very capital-intensive industry in the way they handle it. However, it does promote better market practice, I think, than the Argentine system currently does.

Along the lines of the annuities, life insurance companies also run into a situation like the UL product where it is book-valued whereas your assets are market-valued. So it's not unique to the retirement insurance companies.

A third example of something that is somewhat arbitrary from the superintendency and has had a huge impact on market practice is related to the investment return requirements.

In Argentina the AFJPs have a minimum and maximum investment return that is allowed to be credited. This is calculated on a 12-month running average, and it is the greater range of 70–130% of an asset-size weighted average return or plus or minus 200 basis points of the asset-size weighted average return, whichever of those is larger. What that really is saying is that if returns are greater than 6%, then the 70–130% will be the limits. If the returns drop below 6%, then the 200 basis points will kick in. The problem, however, is that the smaller AFJPs are basically forced to index to the large AFJPs. Because the large AFJPs are so large and because of the asset-size weighted average calculation, they in themselves basically are the average. So they're nearly unrestricted, other than the fact that there are regulatory limits for asset type. This is also influenced by the valuation rules of the various assets which I'll discuss. It results in an investment horizon of one month rather than 20 years, which is a very large disadvantage to the affiliates of the AFJP. Along those lines it's also worth noting, I think, that the law requires the AFJPs to be managed for the exclusive benefit of the affiliates, and it also states that the main role of the superintendency is to protect the affiliates' interest.

Depósitos de interés variable (DIVA) is a relatively new asset that came about approximately two years ago. DIVA is a long-term variable rate time deposit, up to two years, I believe. It's really just a combination of a zero coupon discount certificate plus an option strategy on an underlying asset—nearly any option strategy—but, the callable spread is the most common. The problem is the prior valuation according to the superintendency was very favorable. It essentially accrued all of the future income and a time deposit at the settlement date. There were also other problems with the valuation. It should be possible to have a DIVA with a maximum maturity rate or maturity value of, say, 114, but, according to the valuation rules, it would actually be valued at 120. So you'd be valuing it more than it could ever possibly expire at, which overinflated the returns of the AFJPs.

What are the problems related to the DIVAs? In less than one year, as of January 1997, there were no DIVAs in the AFJP portfolios, but by March 1998, I believe, when they changed the valuation, 26.5% of the market was invested in DIVAs; 28% is the maximum allowed for time deposits, which is the category of assets that DIVAs fall under. The biggest problem is that DIVAs are very poor investments; the majority of the underlying assets can be purchased outright by the AFJP. The options on those assets are very expensive as it's not a very liquid market, so the DIVAs are yielding much less than the underlying asset itself.

An additional problem is that you could invest in unauthorized assets because there's no restriction on the DIVA's underlying asset. A company could have a

greater exposure than allowed to a certain stock or index. It also allowed for the opportunity for insider trading. I mean there was no limit. You could have a DIVA based on a company that was basically related to your AFJP. It is worth noting that Argentina doesn't have the insider trading laws as we do in the U.S.

Another problem that people are facing now is that these are very illiquid assets. The superintendency will not allow them to be sold. The problems with the initial valuation were recognized by the superintendency, but it took close to a year to actually react and to change that. Since the valuation change, which was earlier this year, not one DIVA has been purchased by an AFJP. So I think this greatly illustrates that people were buying them because it was an attractive way to inflate the returns. Something else that I think is illustrated by the superintendency's reaction is that there are many pressures on the superintendency because prior to the privatization of the pension funds they had control of all the assets going into those retirement savings, and now that has been somewhat eliminated. So there's still some pressure to control the assets and to direct those to the things, and DIVAs, for example, were very good for the banking industry which, as was mentioned earlier, is probably too large and probably needs to be cut down. So, to a degree DIVAs were helping to subsidize that.

In summary, we looked at the company structure and organization, the specific statutory reporting in Argentina, and a few examples of how this has impacted the market practice both for good and bad. I don't think that they're going to create a DIVA in country XYZ, but the practices of the industry and of the superintendency in not understanding certain issues are important and are applicable to some of the other countries. Are there any questions?

**Mr. Dale R. Kelly:** There's been quite some debate recently in Indonesia about introducing a currency board. You mentioned that there was some danger in Argentina that the peg may go. I'd like you to expand on that a little bit and the circumstances under which the currency could devalue.

**Ms. Boothe:** I'll cover that a little bit. I think John had actually mentioned that. But there is some risk of that. I have another chart that I didn't bring that covers the difference between the investment returns on peso-denominated bonds and stocks versus dollar-denominated bonds and stocks. The peso-denominated bonds and stocks consistently earned a higher value during the Asian crisis and some of the other spikes that you saw on some of my graphs. There's a very large spread. It's very much a political decision, I think, at this point. The government has said that they are committed to maintaining that peg, and they're doing that basically by putting in capital reserve, which they've said will be maintained. I think that it's

probably very important to their economic plan, at least at this point and for the next few years. Beyond that, it's anybody's guess.

**Mr. Nigh:** We seem to be logistically challenged today. I think the other thing that will contribute to some pressure on the lifting of the Dollar Plan in Argentina is some of the consequences of the plan. In particular, we have unemployment largely related to the government's decision to maintain a Dollar Plan in excess of 15%, and that's potentially disruptive to the economy in ways that we all know. So it is a political decision. It is also a discipline decision, if you will, for the government to maintain the plan.

I have a question for Paul. Because of your recent activity in Mexico, I'd like you to speak a little bit about bank assurance and the formation of bank assurance operations in Mexico and, if you can, beyond Mexico. What's happening in Mexico, and what has been the success of those operations?

**Mr. Turner:** Let's see how narrow or broad I can make this answer. I've been involved in Mexico for the last three years, and in that time frame, since 1994 there's been a lot of foreign interest in entering Mexico via the bank assurance channel. The major banks have all joined up with a foreign investor at this point in the form of a 51% local/49% foreign joint venture bank assurance company underneath the financial structure of the financial service group holding company level. From a foreign standpoint bank assurance is seen as a very interesting way of getting into a country like Mexico.

Without having John's statistics I'll have to try to do some of this from memory, but I think what you should recall is that per capita spending on insurance is very low in Mexico. There's also a very uneven distribution of income in Mexico, and so you have a lot of people earning very little and a very few people holding much of the assets. The question is, how do you get some of these other people, 90% of the population, let's say, involved in insurance when they've never been involved in insurance before? Many people, not only the local banks, but also the foreign investors, have seen bank assurance as a way to do this. It's very difficult, very costly, to distribute insurance to people who aren't going to buy very big policies in general. Also, you have an insurance culture that's very low. You need some way to grow that. And bank assurance is seen as a way to efficiently distribute insurance to those who formerly didn't have insurance.

It's not uncommon in Latin America to find many people who go to bank branches several times a week and stand in line for hours. Frankly, the banks have a close relationship with a majority of the population that insurance companies just don't

have through traditional agency or brokerage style of distribution. That's an overview of what's been happening during last few years in Mexico.

**From the Floor:** The words I heard here about the privatized pension schemes, they sound so positive. Can you describe some of the downsides of those schemes?

**Mr. Turner:** From my personal viewpoint I don't see very many downsides, except you hear certain criticisms of the systems that they're expensive to administer, and if you look at it in certain ways, they do look very expensive. For instance, in Mexico the typical person is earning what they call three minimum salaries, let's say. That's somewhere between good average and maybe two-and-a-half, three minimum salaries. The way these AFORE companies are charging their commissions it works out that the worker has a total of about 8–9% of salary being contributed to the AFORE, and the AFOREs are charging them 1.5%, 1.7% of salary for commissions. Notice I said the word salary, not 1.5% or 2% of their contribution but of their salary. So when you do the math, you find out that perhaps as much as 20% of someone's contribution is going to pay commissions. That sounds bad, and it doesn't play very well in the press.

If you look at Chile, which is a country that has the longest history of these systems, though, you'll find out that the pensions that are being paid are some 30–50% higher than what were being paid before under the government, and the cost of contributions have also come down in that time period. Although these systems may sound expensive on certain levels it appears that private industry is doing a better job than the government in terms of administering retirement benefits.

I guess in some ways people have looked at this as a very expensive way of doing it. On the other hand it's very transparent, and maybe what you know now is what you didn't know before—that the government basically was squandering away the savings that were supposed to be in these public retirement plans. Actuarially it's very hard to say that it's not expensive when you view it on some bases, but when you're talking in Mexico, for instance, about someone who's earning three minimum salaries, that person is making about \$3,000 a year. Well, how inexpensive can a system be when contributions are \$200 a year or \$300 a year for that person? There's just a certain amount of fixed cost that goes into administering any kind of program for people earning that level of salary.

So you have to look at it in various ways to see how you feel about it, but I think the results are undeniable in Chile, for instance. Internal savings are being generated. People are participating. In Mexico, for instance, some 90-plus percent of the people who are economically active and affiliated with the old government system

have already affiliated with an AFORE. So that either says that they wanted to affiliate or the AFORE did a good job of going out and canvassing the streets and signing up people, but either way there seems to be participation. And in Chile internal savings are growing at a very rapid rate.

**Ms. Boothe:** I'll just briefly add that in Argentina—I can't speak for the other countries—it seems to be a very good deal for the pensioners, for the affiliates. It can be very expensive, and it may not be necessarily a business that a company wants to get into because there are very small margins. You need to have good mass in order to cover those fixed expenses and to really make it a worthwhile business because, in general, the contributions are lower, and there's some expense to it, particularly as far as the commissions. Furthermore, there's still a lot of stealing of affiliates among the AFJPs.

**Ms. Anna M. Rappaport:** On the issue of the privatization it seems to me that a big question is what your goals are for the system because the systems are very redistributive. That is a terrible thing if you don't want to redistribute. On the other hand, if you think that the purpose of the system is to provide floor benefits, care for family members, and provide disability benefits, then it's very important. So it just seems to me that the question is, is a good or a bad thing? What are your goals and how do you match them?

**Ms. Boothe:** I think one thing that's important, too, is that from the U.S. perspective we tend to relate this to a 401(k) type plan because it's similar, but really you have to keep in mind that this is kind of the first leg of the pension stool. I mean this is kind of what we equate to our Social Security. It's the base. It's not everything.

**From the Floor:** Did you say that 100% of the money in Chile is invested within the country?

**Ms. Boothe:** That is the case in Argentina . You're not allowed to invest overseas.

**From the Floor:** So I was just wondering is that really in the best interest of the participant, to not allow any international investment?

**Mr. Turner:** Not necessarily, but these countries have such low internal savings. In one sense maybe it is in their best interest. It provides for a more stable system in their country over the long haul. Obviously, year in, year out there may be better markets to share the investments around, but, on the other hand, if one of the goals is to develop your own country, that's a government decision to do that. In a sense, what their government has decided is in their best interest. But I think what is

important is this is transparent. I had someone ask me before why do you say it develops more internal savings than another type of savings program? I think because this is transparent. You can tell without a doubt where the money is and how it's being invested. If you don't redistribute the money from a few pockets into funds that are for every employee out there, there's much chance that a lot of that money is not being invested locally, and this is one way to make certain that happens.

**Mr. Nigh:** Yes. I think an overriding reason very, very long term is the stabilization of the currency, which has been accomplished in Chile because you do have significant savings generated internally. Short term, as LaTisha mentioned, and we can mention the same for the returns in Mexico—short term. If you were able to invest in foreign equities, you could achieve better returns. Long term the government's perspective that this is to build internal savings and build up the economy, and by and large that's been successful.

**Ms. Boothe:** I'll just add that in Argentina recent experience has shown that AFJPs have earned a higher rate than probably they would have had they been invested in more international type instruments, but at the same time they are taking more risk with that.

CHART 1  
MEXICO POPULATION DISTRIBUTION

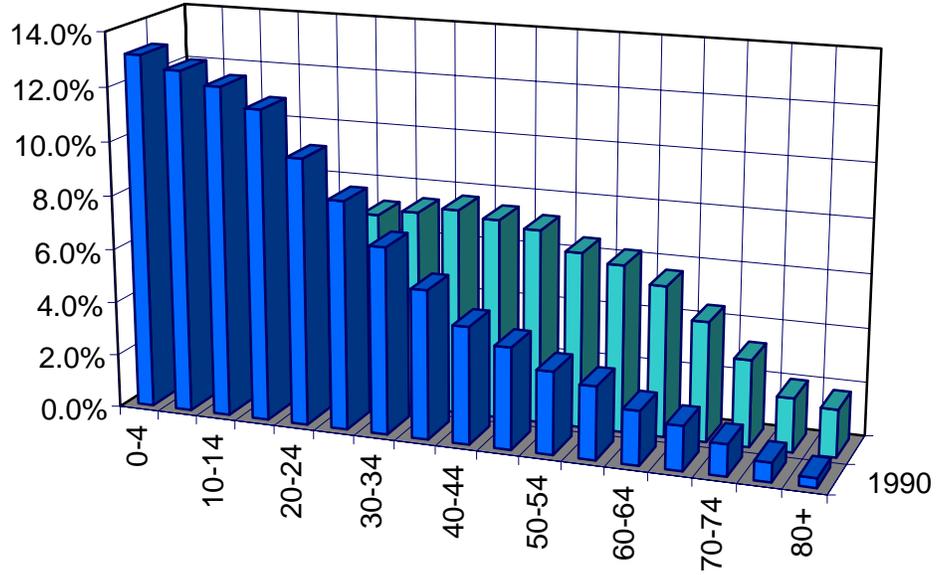


CHART 2  
CHILEAN PENSION FUND VALUE IN US\$ BILLIONS

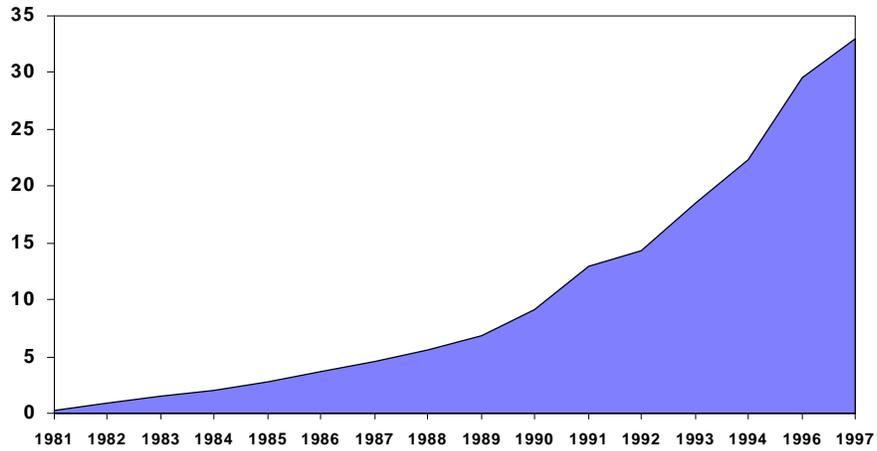


CHART 3  
EVOLUTION OF PENSION FUND AS PERCENTAGE OF GDP

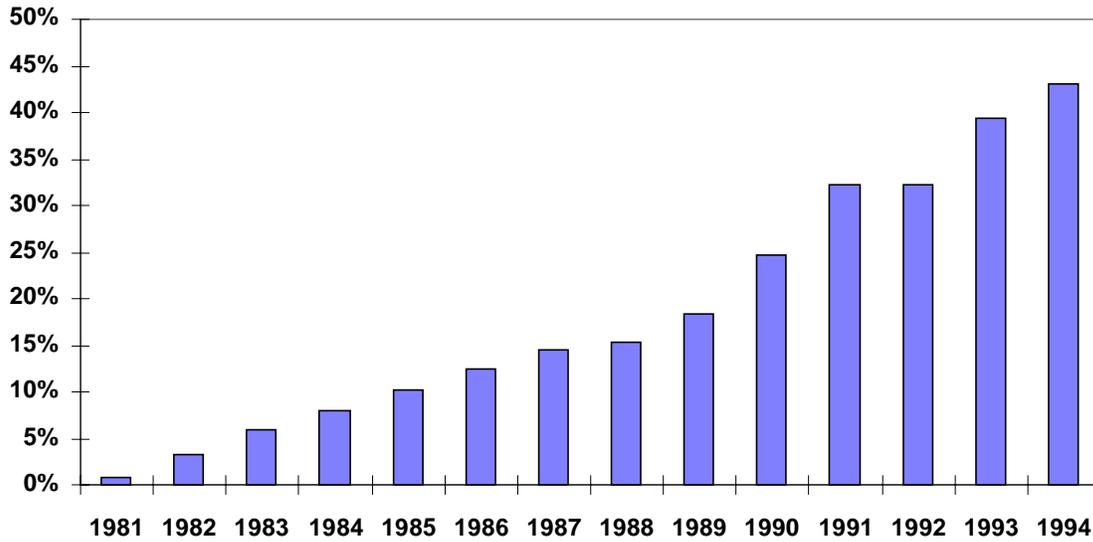


CHART 4  
MEXICAN PENSION FUND AS A PERCENTAGE OF GDP

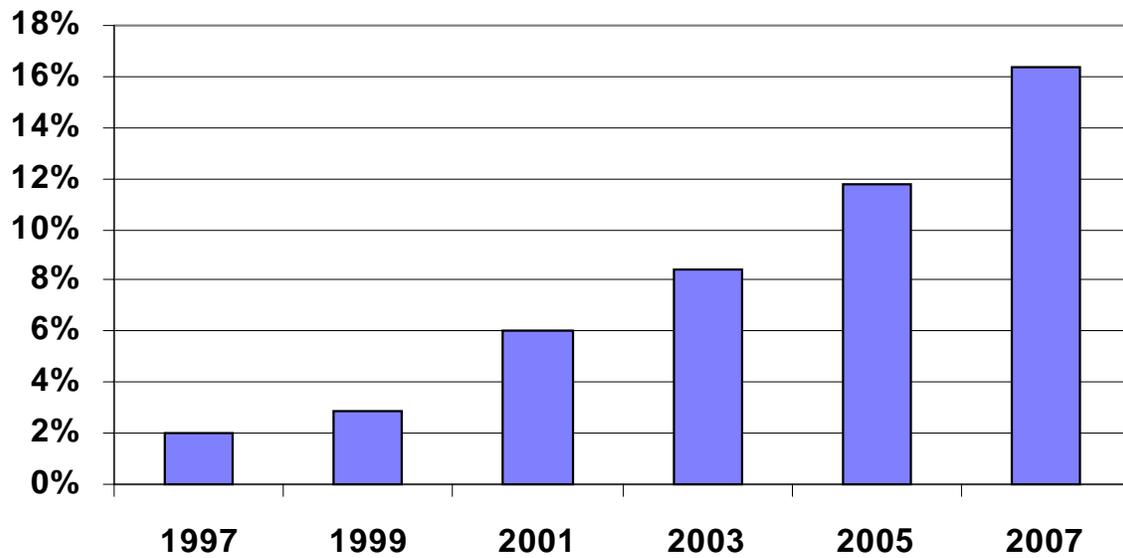


CHART 5  
MEXICAN PENSION FUND VALUE IN US\$ BILLIONS

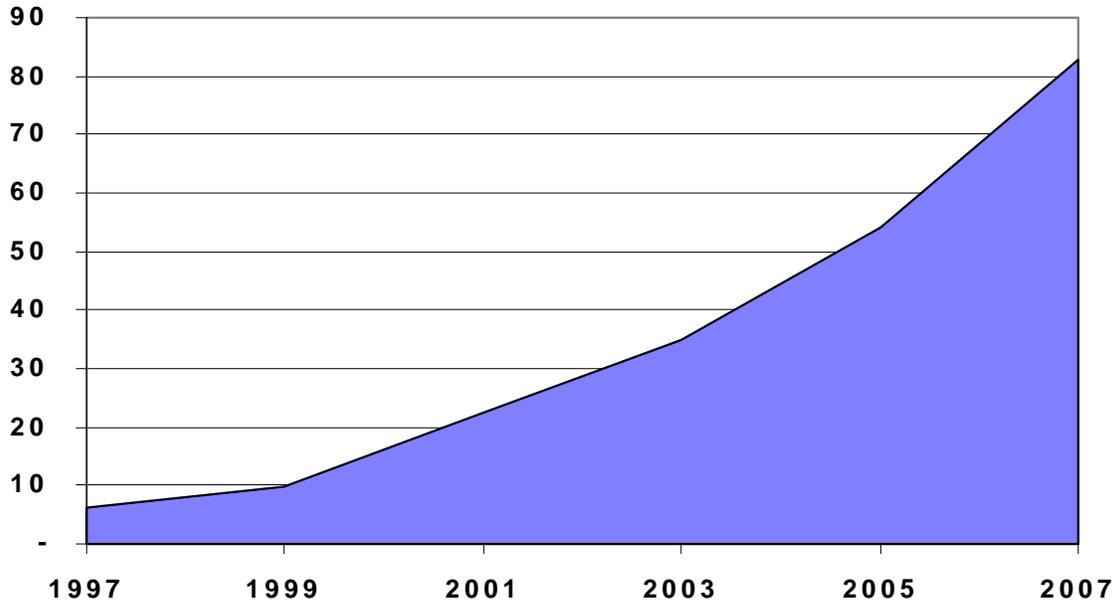


CHART 6  
DJI VS. Merval (SCALED): 1996-MAY 1998

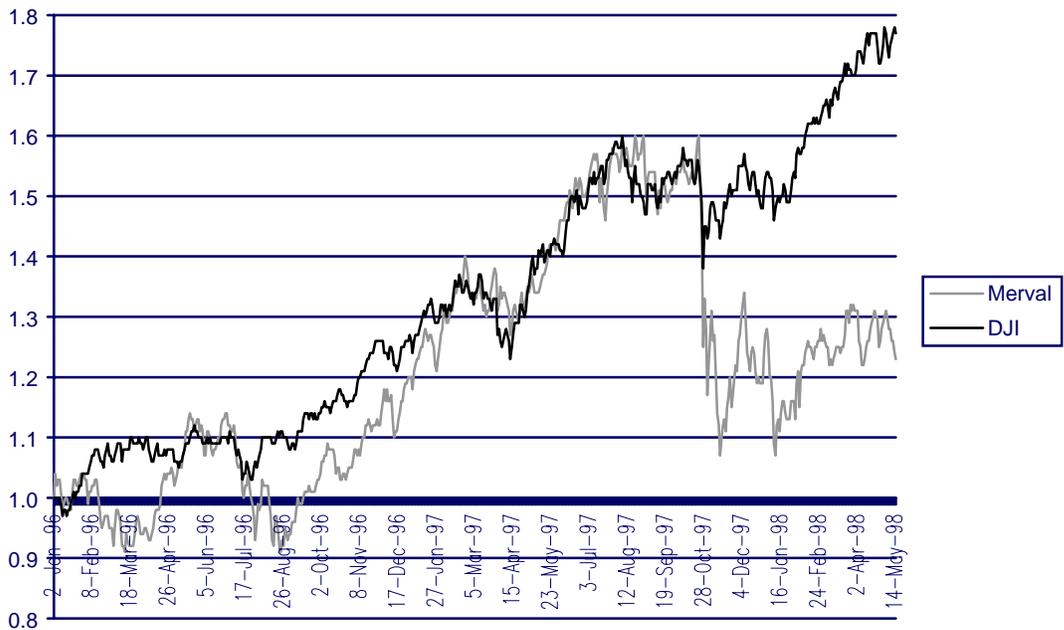


CHART 7  
30-DAY CHANGE IN INDEX: DJI VERSUS Merval  
(1996-MAY 1998)

