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WORLDWIDE SOCIAL SECURITY PROGRAMS

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A discussion of the similarities and differences in benefit design, indexation, and financing in Canada, the United States and other countries.

- What effects will aging of the population and other demographic trends have on the funding security of these programs?
- What incentives exist for private-sector alternatives to government-operated Social Security programs?

MR. ROBERT J. MYERS: We have a very broad field to cover here. In fact, if we really deal properly with worldwide social security, it would probably be a course that would last several weeks of six- to eight-hour days; so our panel will just cover certain aspects of the subject, the ones that we think are the most interesting and most significant at the moment. We are going to have a discussion of the similarities and differences in benefit design, indexation, and financing in Canada, the U.S., and other countries. What effects will the aging of the population and other demographic trends have on the funding of social security in these programs? What incentives exist for private-sector alternatives to government-operated social security programs?

The part of this very broad subject that we'll be covering is confined to the American continents -- North America, South America, and to three very large nations that have had very significant development. We will not attempt to cover every country in the world by any means.

Rob Brown will talk about the Canadian picture, and Frank Bayo will talk about the situation in Latin America, principally Central America, and also the English-speaking countries in the Caribbean. I want to talk a little bit about one of my favorite subjects, which is the privatization of social security in Chile. Ricardo Campbell will cover Latin American social security systems.

Rob Brown, FSA, Fellow of the Canadian Institute of Actuaries, is a graduate of the University of Waterloo, and he's been there in various academic capacities ever since. At the same time, he's gotten out of the academic ivory towers in part by having a consulting connection with a number of different firms in Canada; so he's in both the real world and the academic world. He is now an associate professor and director of the Institute of Insurance and Pension Research. In 1991, Rob was President of the

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Canadian Institute of Actuaries, and he's currently just come on the Board of Governors of the Society.

Frank Bayo is deputy chief actuary of the Social Security Administration, in charge of the long-range cost estimates. He has, over the years, had a number of assignments to give technical assistance to foreign countries and particularly, in recent years, he's gone to many Latin American countries on behalf of the U.S. Government to give them help with their social security systems. He's been with the Social Security Administration since 1960. I hired Frank after he served a term in the Army and had taken the actuarial course at the University of Michigan.

Ricardo Campbell is the economist in the Office of International Policy at the Social Security Administration. He's been in different areas of the Social Security Administration, such as the Office of Research and Statistics, for a number of years. His total federal service is about 26 years. He was with the Bureau of Labor Statistics and also with the Peace Corps. He grew up in Brazil, graduated from Lawrence University, and subsequently taught at the Federal University of Goias. His father was in the Diplomatic Corps and so he moved around often, particularly in South America. He is trilingual in English, Portuguese, and Spanish. I'm not sure which language he's going to use here, but I have hopes that it will be English.

Finally, our recorder is Steve Goss, who's been with the Social Security Administration since 1973. He's an ASA, a graduate of the University of Pennsylvania, and he has been so kind as to go over Lillian Liu's rather extensive paper.

MR. ROBERT L. BROWN: I'm going to tell you a little bit about the Canadian system. I'll start with a brief outline of what is provided in the social security system in Canada, and a brief history. Let me give you some highlights now.

We have a multitiered system. We look at the provision of retirement income security as coming from three sources: the government, employer-sponsored plans, and individual savings. The government system is also multifaceted, however. The foundation of the government retirement income security system is the Old Age Security (OAS). It is a universal democratic program with only a residence requirement. There is no needs test, no income test, or no asset test. The security benefits adjust with the cost of living. They're fully indexed and the benefit is taxable income in the hands of the recipient. OAS is paid for out of general tax revenues. There are no ear-marked contributions.

There have been some recent changes to the OAS system, which are very important for a number of reasons. The government has announced a new claw-back provision so that if, as an individual, you have income greater than $70,000 per annum, your entire OAS payment will go back to the government. So the rich don't benefit from this universal program. That's one of those interesting Canadian contradictions in terms, but this is the way we get around some of the political issues, in terms of funding ratios.

As a result of this dramatic change in the way OAS is paid out, people now realize that there's no contractual guarantee for their security benefits. If the government wants to change the system and can find a way to do it that will be supported by the voters, then something this dramatic can take place. This has not only had an impact on our attitude toward OAS, but it has had a psychological impact on people's attitudes toward the other sources of government-funded retirement income security, which are the Guaranteed Income Supplement (GIS) and the Canada/Quebec Pension Plan.

The GIS and the spousal allowance started in 1967. That's an interesting date, because 1967 also ended the baby boom. It was during the period of the baby boom that these two new tiers of retirement income security were added to the Canadian system. I point those dates out in particular because the architects of these systems assumed that the fertility rates that had existed for the 15 years up to and including the date of the introduction were going to be the funding basis for this system. It so happens, as is sometimes the case, that the day that the plans became official, the baby boom ended.

But the GIS and the spousal allowance started in 1967. They are income-tested basic benefits for those in need. These benefits are indexed to the cost of living. The benefit is not taxable income. These benefits are paid for out of general tax revenues.

At the same time in 1967, we started the Canada/Quebec Pension Plan. This is an earnings-related contributory plan. The first full benefits were paid out in 1976. The plan is set up requiring equal contributions from employees and employers, but only up to the average industrial wage.

Technically, it's called the year's maximal pension earnings, but basically it's the average industrial wage. There are no employee contributions if your annual earnings are less than 10% of the average industrial wage. There is no direct government subsidy to the Canada/Quebec Pension Plan, and the retirement income benefit that you would get with a lifetime of contributions would be a maximum of 25% of the average industrial wage. If you have earned less than the average industrial wage career average, then you would get 25% of that career average earnings record. Benefits are indexed to the cost of living.

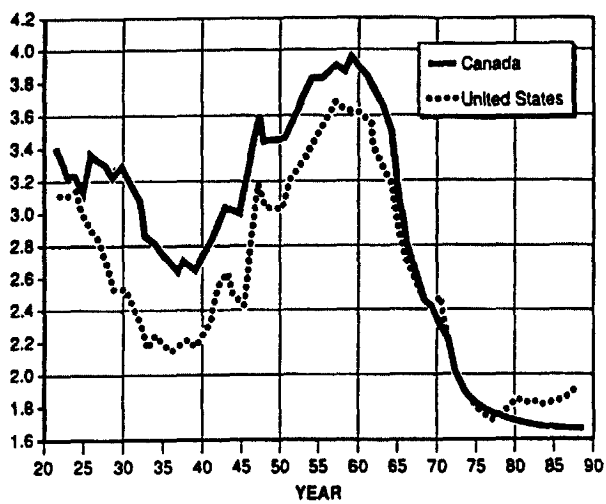
As in any pay-as-you-go system, in the early years, there were many more contributors than beneficiaries of the system; so the contributions started at a very, very low level. From 1966 to 1986, the contribution rate to the Canada/Quebec Pension Plan was 1.8% from the employee and the employer, a total of 3.6%. Because of the changing demographics, and because of the maturing of the system, the contribution rates have now started to increase. We're now at a total contribution of 4.8% of earnings up to the average industrial wage, and legislation is already in place that promises to take those total contributions to 10.1% by the year 2016.

What isn't so well known among the public, but is available if you want to read the actuarial report, is that it is now projected that the Canada/Quebec Pension Plan will require a contribution rate of 13.8% by the year 2031. That's almost three times the rate that is in existence today. It's interesting to compare the total benefit that a citizen in Canada can expect to get from the government sector versus someone in the U.S. I understand that someone working at the average industrial wage in the U.S. will retire with approximately a 40% replacement ratio from OASDI. Someone working at the average industrial wage for a lifetime in Canada would get a 25% replacement ratio from the Canada Pension Plan. The OAS at the moment would replace another 14% of the average industrial wage and it would pick up odds and sods, bits and pieces here and there; so, in fact, the total in Canada would be exactly the same – a 40% replacement ratio.

That's not enough to maintain a standard of living, so you're going to have to look to employer-sponsored plans and individual savings to make up the difference between that 40% and whatever it is you want. Of course, as you become wealthier than someone at the average industrial wage, the government sector replaces a lower and lower percentage, and you have to be responsible for more and more.

What will happen with the aging population? Chart 1 looks at the fertility rates in Canada and the U.S. from the 1920s right through to today. Here is one of the very few places where Canada is more remarkable than the U.S. Our baby boom tidal wave was higher in its peak and lower in its trough than the one experienced in the U.S. I will submit to you that there were only four countries in the world that had baby booms: Canada, the U.S., Australia, and New Zealand. This dramatic tidal wave will go through and change the demographics of the systems that will require massive reactions in the funding required for the pay-as-you-go systems that we have established. In Canada, it was established at the end of the 15-year period of the baby boom.

CHART 1
Total Fertility Rates
1922-88



To put this into an international perspective, Table 1 presents the percentage increase in the proportion of the population that is aged 65 and over. These percentages are affected both by the number of people aged 65 and over and by the number of people under age 65. If a baby bust follows a baby boom, as the baby boom reaches age 65, you actually leave behind it a much smaller age group under age 65, which makes the shift in this ratio even more dramatic. India, China, and Hong Kong will have the most rapidly increasing ratios of those aged 65 and over. But we have to keep in mind that they have not set up extremely large social security systems to date on a pay-as-you-go system. They do have some very dramatic demographic shifts, but they don't have to change many economic systems as a result.

At the other end of the spectrum, Sweden will experience a 21% increase in its ratio of aged population. If it has a system that it can afford, it should be able to handle a 21% change in the funding ratios during a 40-year period. So the question is, what country in the whole world has the biggest problem in terms of funding social security and medical care? Once again, Canada is number one.

The general public in Canada is starting to realize that there's some intergenerational inequity in the pay-as-you-go system that we established. People born in 1920 will receive benefits from the Canada Pension Plan that are seven times the actuarial value of their contributions. For those born in 1960, their benefits are 2.6 times the actuarial value of their contributions. People born in 1980 are in absolute break-even positions. But for those born in the year 2000, the ratio is actually 0.8, so they will receive benefits equivalent to only 80% of the value of their contributions on an actuarial basis.

TABLE 1
Projected Percentage Increase in Persons 65+
1985-2025

Country	Increase (%)
India	264
China	238
Hong Kong	219
Canada	135
Australia	125
Japan	121
Israel	116
United States	105
France	67
Italy	51
West Germany	36
United Kingdom	23
Sweden	21

We do have certain alternatives in terms of registered employer savings plans, registered pension plans, and individual registered retirement savings plans. Canada has created a very level playing field. It doesn't really matter whether you get your retirement benefits from your employer or through a self-funded and self-directed plan. In general, contributions within stated limits are tax deductible. The investment income on the registered fund accrues tax free. Benefits, when taken, are fully taxable. In fact, what we see is a deferred wage philosophy. If you don't take the money today, then it isn't taxed today. You pay tax in full when you do take it.

It is interesting to look at some differences between recent tax reforms in Canada and the U.S. I see the U.S. tightening up on the ability to contribute to retirement plans, as if it's really a tax dodge. At the same time, Canada has looked at the system and has greatly expanded the ability for individuals to save for retirement. We can now make an annual deductible contribution of up to 18% of earnings or $15,500; at least that's what it will be by 1996 after a short transition. These dollar limits are indexed to the average industrial wage. Not only that, if you miss a couple of years of contributions, there's actually a seven-year carryforward where you can make up for years of low or no contributions.

To create a level playing field between defined contribution and defined benefit, the maximum annual accrual allowed is a 2% accrual on the defined-benefit side. If your plan gives you less than 2%, then how many dollars can you contribute to a defined-contribution plan or a self-funded plan? Well, the answer is to take your annual accrual, multiply it by nine (a magic factor that approximates the value of an indexed annuity at age 65), and compare it to the 18% limit. Whatever room you have left, you can then contribute. For political reasons, there's also an extra $1,000 if you're in a defined-benefit plan. I won't try to explain the logic of that because there isn't any.

Also, there is a cap on benefits on the defined-benefit side that works out to be $60,275, which is about twice the average industrial wage. So the government seems to be very happy to help us to save, but only up to a benefit level of about twice the average industrial wage. In 1987, the dollars of contributions were $7 billion to the Canada/Quebec Pension Plan, $13.6 billion to employer-sponsored plans, and $9 billion to individually funded registered retirement savings plans (RRSPs). But RRSPs are growing rapidly and becoming more popular. Contributions in 1975 were at the level of $1.5 billion and they are now surpassing $12 billion a year. With the new legislation, those numbers will be even higher.

In conclusion, Canada has the fastest aging population of any of the Western nations that have significant pay-as-you-go social legislation. We include in our concerns health care costs and our pay-as-you-go social security costs, both of which are impacted by an aging population. Our citizens now realize there is no contractual guarantee on the pay-as-you-go system, and whatever changes a voter will support can potentially be made. Individuals are now realizing that they must take more responsibility into their own hands. With the new legislation on RRSPs, the government is providing significant incentives for that to happen.

HISTORY OF THE CANADIAN-GOVERNMENT-SPONSORED OAS SOCIAL SECURITY

A universal democratic program with a benefit paid to all who reach age 65 after meeting residency requirements, regardless of their earnings or income, it started January 1, 1952 with universal pensions and without a means test. It paid $40 a month to those aged 70+. The Act was modified in 1967 when the Canada/Quebec Pension Plans started. It introduced the GIS and spousal allowance, and the commencement age was progressively lowered to age 65. Benefits are adjusted quarterly to changes in the CPI. In the future, payments are made in full upon attainment of 40 years of residency after age 18, and are pro rated for those with fewer years of residency. Reciprocal agreements with several countries allow for the payment of OAS (i.e., the pensioner receives a partial benefit from each country). There is no income or means test; the benefit is taxable income. It is paid for on a pay-as-you-go basis out of general tax revenues; there are no ear-marked contributions. In 1991, OAS cost 3.60% of total employment earnings; this will rise to 4.75% in 2030. A special claw-back tax was introduced in 1989 to take effect in 1991.

For an individual with net income exceeding $51,765 in 1991, there is an extra 15% excise tax on OAS benefits. For someone with net income exceeding $70,000, one's OAS benefits are effectively taxed back in full. The $51,765 rises more slowly than the CPI. This shows that there is no contractual guarantee on social security benefits and it makes OAS a second-tiered income supplement only. The monthly benefit for June 1992 was $374.44.

THE GIS/SPOUSE'S PENSION ALLOWANCE (SPA)
It was introduced January 1, 1967 along with the Canada/Quebec Pension Plan. Income-tested benefits are payable to eligible spouses, widows and widowers aged 60-65. It is indexed to the CPI, with quarterly adjustments. It is not taxable income. Benefits are paid on a pay-as-you-go basis from general tax revenues. The supplement reduced $1 for every $2 of other monthly income over and above the OAS pension. It was meant to be a temporary supplement while the Canada/Quebec Pension Plan matured, but it has been greatly expanded. About 55% of OAS recipients receive at least a partial GIS. A GIS is payable to those who receive a partial OAS, so as to achieve the same minimum guaranteed income across the board. The maximum GIS monthly benefit payable June 1992 was $444.98 for a single person and $289.84 each for a married couple.

The SPA is payable to those aged 60-65 who qualify as to residency and income. The SPA reduces $3 for every $4 of the couple's income from sources other than OAS, until the amount of the reduction is equal to the OAS pension; then the reduction is $1 for every $4 of income. The maximum SPA monthly benefit payable for June 1992 was $664.28 for a married spouse and $773.37 for a widow or widower. Some provincial supplements also exist in six provinces.

CANADA/QUEBEC PENSION PLAN
It came into effect January 1, 1966. The first retirement benefits were in 1967; the first full retirements were in 1976. Equal contributions from the employer and employee are made on wages up to the average industrial wage. There is no employee contribution if wages are less than 10% of the average industrial wage. There is no government subsidy. Benefits include retirement pension, disability pension, death benefit, and survivors' benefits. The target for the Canada/Quebec Pension Plan fund is two years of benefits. The retirement pension is roughly equal to 25% of eligible earnings, capped at a maximum of 25% of the average industrial wage. Benefit accruals are indexed to the AIW; benefits are indexed annually to the CPI. From 1966-86, contributions were 3.6% of eligible earnings: 1.8% from the employee and 1.8% from the employer. In 1992, the contribution rate was 4.8%: 2.4% + 2.4%. Contributions are scheduled to rise to 10.10% in 2016. The contribution rate is expected to rise to 13.8% by 2031. Virtually all of the labor force earning more than 10% of the average industrial wage participates in the Canada/Quebec Pension Plan. There is little to no 'double-dipping' between and

among programs in Canada. The retirement pension benefit is based on the best 40 years of earnings (adjusted for shifts in the average industrial wage) between age 18 and retirement. The 40 years can be reduced for years of disability or absence from the labor force to raise children under age 7. The retirement pension benefit is payable at age 60-70, with a 0.5% adjustment for every month before or after age 65 (i.e., from a 70% benefit at age 60 to a 130% benefit at age 70). For someone not taking the benefit at age 65, earnings between ages 65 and 70 can be substituted for lower earnings prior to age 65. There is no minimum contribution requirement for the retirement benefit. The maximum monthly retirement benefit in 1992 was $637.50. Contributions to the Canada/Quebec Pension Plan are tax-deductible; benefits are taxable income in full (and always have been). This is completely consistent with any registered retirement savings plan (within the set contribution and benefit limits).

MR. FRANCISCO R. BAYO: I will be speaking to you with respect to Spanish-speaking America and the English-speaking Caribbean. Before getting into the summary of the overall structure, I think it will be a good idea to improve the understanding of the development of social insurance in these countries. We can visualize them, to a certain extent, as being Spanish-speaking and English-speaking, because there is a different perception of what social insurance is. For most of us in the English-speaking countries, social insurance turns out to be mostly pensions, although some countries do have some kind of health program or other type of noncash programs. In most of the Latin American countries, social insurance is understood to be primarily health coverage, and the pension is a secondary item. The emphasis is more on health.

This is the first distinction that will help us understand the structures of these social insurance systems in the Americas. The second element that will help us also get a better understanding of the development of these countries is that the structure of the systems tends to depend on their age – how long ago they started. The longer they have been in existence, the more complex the systems become. More things are added; they become more extended. Usually, a very simple system at the beginning covers the biggest city or industrial census and then slowly extends to smaller towns or to different areas. For example, the island of St. Vincent in the Grenadine that started a system in 1987 is now at the stage that St. Lucia, which is a neighboring country, was five years ago. St. Lucia started its system five years earlier than St. Vincent. They go through stages.

Usually you find that a third element is the view of what social insurance was at the start of the particular system; that is, when the first law on social insurance was established in that country. There are, for example, old systems in countries on the southern tip of South America: Argentina, Chile, Uruguay. They were the pioneers of social insurance in the Americas. At the time they started, just after the turn of the century, there was not a clear concept of social insurance. There were many different pension schemes for different groups that were just emerging, without any kind of a structure or policy established to make sure that this was what was wanted. Each group was trying to establish whatever it could manage to finance.

Once a system gets started, it's very difficult to modify it significantly and the system evolves very slowly. Chile is an exception, in that Chile did make a significant change about a decade ago from what it had before to what it is today. But this is the exception rather than the rule. Most of the systems slowly evolve and stay very close to what their beginning was. For example, in Central America, systems that started much later, or systems in the English-speaking Caribbean that started just in the last 10-15 years, are more centralized single systems, and there is usually an additional pension scheme for the government employees.

Let's start with Uruguay and Argentina. Their systems are still splintered. Chile has already established a fairly well-thought-out procedure for programming what it would like to have in social insurance. But still, it is not a single unified system. It's just a series of different asegura doras, as they are called, which are associated. It's not a centralized system, but it's well structured. Argentina has a whole series of systems. It's not like what we have in the U.S. or in Canada. We have a main system and we even stratify it.

In Argentina there is a system for industry, a system for the jobless, a system for the bank, etc.; so many different systems that it's sometimes very difficult to keep track of really what social insurance is in that particular country. You find that, in general, these three countries have done more than anybody expected with respect to the structure of the system. They provide benefits that they cannot finance. Sometimes it is almost impossible to draw the check to pay the benefit. You may sometimes read in the newspaper that this month's check will be paid next month because the money isn't there to pay this month's check.

To a very large extent, the whole country is having financial difficulty, not only with social security. When one asks for a loan from an international bank, the international bank will have to look not only at the structure of the economy, but also at social insurance, because it takes a sizeable portion of the gross domestic product. The actuarial work in these countries is very significant and very important.

In the future, we expect a lowering of benefit levels in both Argentina and Uruguay. Currently they cannot afford to pay all the benefits that they have promised. The situation in Chile is somewhat different. Because its system has been privatized, it is very close to being fully funded. So many funds are being generated that now it's very difficult to find where to invest them. So Chile already has started to invest outside of its own borders.

For any country that covers almost 100% of the population and tries to be fully funded, the amount of money that will be accumulated will be roughly equivalent to 150% of the gross domestic product. For the U.S., this would be equivalent to something like $9 trillion. Where would we go to invest $9 trillion? Do we have the capacity to invest $9 trillion? Do we have the entrepreneurship to use all that money? For countries that have not had the kind of experience that we have in the U.S. or in Canada, it's difficult to use all that money effectively. Chile will, in the future, be more concerned with how to handle all of the money that it is going to accumulate. In the rest of South America, systems developed later than in the Southern tip are generally not extended to the entire population. They need to extend the system to cover a higher proportion of their population. They still are really more in the health field than the pension field. Most of them can no longer afford to finance the system as a whole because health costs keep going up faster than the income. Most of them talk in terms of finding ways to finance the health costs. They still do not understand that there's no way to finance health costs. The problem is not on the left-hand, income side of the equation. The problem is in the expenditures. You have to work on the expenditures and not look at how to finance it, but how to control the costs. This really is the role of the government. It's not so much finding a way to finance health; it's finding ways to control the utilization and the unit cost of health. The same thing has happened now in the Caribbean, although the Caribbean doesn't cover health. It covers more pensions. This is a problem that we're having in South America and in Central America.

When you look to Central America, you find that most of the systems are of much, much later vintage. They started in the 1950s and 1960s and still cover mostly health. With respect to pension, most of them are still on the first rung of the scale premium. The scale premium in the U.S. started with a 1% contribution rate from the employer and 1% from the employee, and then we went to 3% and so forth. Now we are at 6.2% each. But in those countries, they're still at the first rung. They're still accumulating money in the pension area, but the money is not really being accumulated, because it's needed in the health area. Money is being borrowed from the pension area for the health area. For how long? Soon they'll have to go to the second step in the pension area, and then both the health portion and the pension portion will be underfinanced.

This is expected to happen in the near future. It's already very close to happening in the Honduras and in Guatemala, but not yet in Costa Rica because it has been able to control its costs. All health services now are being provided in Costa Rica through the Social Security Institution. The so-called Ministry of Health has almost disappeared in the country of Costa Rica.

In the Spanish-speaking Caribbean, particularly the Dominican Republic, it is very difficult to maintain the system. The system is slowly going out of existence because there is a fixed limit on earnings subject to contribution. The limit is 184 Dominican Republic dollars and 12.5 of the dollars are equivalent to one of our dollars. The contributions on this fixed base are too low to cover all health, pension, and worker compensation benefits.

In addition, for permanent employees, if the earnings of the employee go above this limit, the employee and employer are completely exempt from the system. It's not like in the U.S. where we cover up to a certain level and any earnings above that level are exempt from Social Security. A large amount of permanent employees' earnings are not covered by social security. As time goes by, a smaller and smaller proportion of workers are covered by the system. Those covered by the system are the ones with the lowest earnings. It is now getting almost impossible to change that because those who do not have coverage through the social security institution have managed to get coverage through private plans. Particular interest groups have developed that have enough political power to stop the social security institution from ever becoming really relevant to the needs of the country. That's the situation in the Dominican Republic.

With respect to the English-speaking Caribbean, most of these smaller countries, including Belize in Central America and Guiana in South America, were possessions of

England. They used to obtain practically all of the services through the crown. They became independent in the last 20 years. Most of them have developed their own social security system. The British Virgin Islands, Anguilla, which is still part of the U.K., Antigua, Dominica, St. Lucia, Trinidad, and Tobago all are used to obtaining free health services from the government. They are still getting free health service from the government, and it's very difficult for the governments now to cover the cost of the free health services. The governments are now looking to the social security institutions, because they are accumulating money in their pension plans. The original cost estimate prepared by the actuaries turned out to be somewhat on the high side. The first rung of the scale premium will be enough not only for 20 years, but also for 30 or 35 years. So they are now accumulating funds that will be needed later. But the accumulation of funds is causing two types of problems. The first problem is that they believe that there is no need to increase the earnings limitation because they are still accumulating funds. But the earnings limitation establishes the level of benefit that will be payable. Benefits are now very low, because covered earnings have been kept low in response to the continued accumulation of funds.

The second problem is that most of the money that has been accumulated is needed to pay for the increasing cost of health services. There is political pressure from the government, particularly those social security institutions that have to report to the ministeries of health. There is political pressure for them to become responsible for providing health care. The situation is going to be very difficult in the future.

Some, for example St. Lucia and Dominica, are already sharing part of the social security money. That is, they are collecting social security money and diverting part of it for health services, which is not supposed to be provided.

In South America, Central America, and the Caribbean, we have not had the problem of a baby boom and the resulting shift in the population that would cause significant problems in the future. We do have, and probably will continue to have, an aging of the population, so costs will continue to be increasing in the future. I believe that technical assistance will continue to be needed in these countries in the Americas. Some of the assistance will need to go much beyond the actuarial estimates. It has to go into the programmatic area. There is not enough knowledge, plus there is not a clear understanding of what the program is supposed to do. There is clearly not a good understanding of the need to have a balance between private programs and public programs. The majority of them think that it should be either one or the other, and there is not a mutual sense of cooperation between private and public programs.

Finally, I think that a few countries -- for example, Argentina, Uruguay, Costa Rica, and Panama -- that are having financial difficulties not only with social security but in the whole country, are going to international banks and trying to borrow money from them. These banks are also going to need some kind of actuarial assistance, because a good portion of the gross domestic product is involved in the social security institution.

MR. MYERS: I should like to speak briefly about the situation in Chile, where a radical reform turned a traditional social insurance system into what amounts to a defined-contribution plan that is privately operated. In other words, social security was privatized. Many countries throughout the world are looking at the Chilean experiment and very frequently are not understanding it completely.

The Chilean system is the oldest national pension plan on the American continent. The system started in 1923, well before the programs in North America. It was a traditional system. It was supposed to be largely funded, but it ran into great difficulties in the 1970s. For one thing, all of the investments were lost, in essence, because they were in fixed-income obligations and there was high inflation. Coverage compliance was poor and many people didn't contribute what they were supposed to. The administration was poor, and the government had to pour huge sums of money into it to keep paying monthly pensions.

Chile was able to make a very abrupt change to a privatized system, in part, because, at the time, it had a military dictatorship. The nature of its present system seems very simple on the surface. It's a defined-contribution plan with a 10% contribution rate for pensions, plus about 3.5% to provide disability and survivor benefits; the latter being necessary for cases where the accumulation of the defined contributions for pensions will be insufficient for premature loss of income.

One of the things that deceives people is the fact that the entire contribution rate is paid for by the employee. At the time the plan was put into effect, however, about 12 years ago, the government dictated that every employer would give a 17% increase in pay to all employees, at the same time that employers were exempted from any social insurance contributions. So we get back to the often-raised question, who is really paying for it? On the surface, it appears to be an employee-pay-all case, but it really is not. Now, all people who work for wages or compensation in the country are compulsorily covered, but the armed forces has its own pension plan, which is very rich, as might be expected under a military dictatorship. The self-employed can come in on a voluntary basis.

People in the United States who for years have opposed the Social Security program and have said "we should privatize it," "the government shouldn't be in this activity," "there should be strict individual equity," and so forth, look at the Chilean experiment and say "look how great it's working, we ought to privatize as Chile did."

Another thing that is not well known about the Chilean system is that besides the defined-contribution plan, there are governmental subsidies or payments for people with respect to prior service. When the new plan went into effect, it applied to all new workers. All people in the old plan could shift, and about 95% of them did because there were certain advantages in doing so; lower contribution rates and so forth. When people who had service under the old plan retire under the new system, the government puts up very large lump-sum grants to buy prior-service credits. Thus, the pensions that result from this defined-contribution plan tend to be quite meaningful.

Another factor that is often not pointed out is that there's a very high guaranteed minimum payment of 70-80% of the legal minimum wage in the country. The government puts up the necessary money to build each pension up to that level.

Currently, therefore, huge amounts of general revenues go into the system and it is by no means an individual equity IRA-type plan. These government contributions will go on for many, many years, particularly with the relatively high minimum. Those who propose privatization for the U.S. or for other countries often fail to recognize that these large amounts of general revenues are needed, and very frequently, the government doesn't have these general revenues.

The new system has certain strengths. On the whole, I concluded that Chile has probably done a good thing. There might have been other ways to do it within the existing traditional system, but what it did works out quite well. The plan is administered by some 13 pension insurance companies. They seem to be operating very efficiently. They have computers. Three times a year they send out statements to people. This helps build confidence in the system. The people see that they have accumulations building up in their own individual names. The whole thing is on an indexed basis. Chile still has a fair amount of inflation, roughly 15% a year, but the system is operated in units that are indexed.

On the weakness side, there's a question of whether the 10% contribution rate will, over the long run, provide adequate benefits. If the real interest rate is 7%, which it has been, or even better than that in the last 10 years, it will provide quite adequate pensions. But it's my belief that, over the long run, in a country that develops economically, you're not going to have real interest rates as high as 7%. Another weakness of the system has to do with great coverage noncompliance. Only about 45% of the labor force is currently contributing. Many self-employed people are not contributing. There can also be coverage noncompliance because people underreport their earnings as a result of the high minimum benefit. Many lower-income, low-earnings people will not contribute on their full salary. They'll connive with their employer to report a lower salary, because all they want is credit for years of coverage and thus qualify for this relatively high minimum benefit.

It's going to be interesting to see how the Chilean system makes out. Many people are promoting this approach throughout the world, particularly those who are interested in the economic side of it. As Frank Bayo said, there's always going to be the question of what will be done with these huge sums of money when they build up. Are there that many economic opportunities for investment on an efficient and successful basis? I somewhat doubt it, because just the actuarial arithmetic of it shows that, over the long run, a fully-funded system builds up more money perhaps than can reasonably be used by the national economy.

At the moment, a bit of smoke and mirrors are involved; they're sort of recycling much of this money and lending it to the government. The government is then using the money to pay for these prior-service benefits and the buildup to the minimum benefit level. So not all of this money is being used to increase national productivity.

In the long run, I think some other countries may adopt this approach. Mexico has adopted something like this, but as a supplementary plan on top of its traditional social insurance system with a relatively low contribution rate. Thus, the Chilean experiment is a very interesting one, but whether its approach should be adopted by every country is another matter. Each country has to consider it for itself. For some of the reasons I gave as to the disadvantages of the Chilean system, other countries probably should not adopt it. But we'll see what happens. Anybody who is interested in more details of the Chilean system can refer to an article I wrote recently for the periodical *Contingencies.*

MR. G. RICARDO CAMPBELL: It seems nowadays that all the roads do lead to Chile, and I cannot help but tread over some of the territory already covered by Mr. Myers and Frank Bayo. One of the reasons why there is so much interest in Latin America, in the Chilean system, is that social security is an unmitigated mess. There's a great deal of tax evasion, and this is due to many structural defects. By structural defect, I mean systems that base benefits on only the average earnings in the last five years before retirement. Many people evade paying taxes in their midcareers, paying only in the early years with low earnings to meet the minimum-coverage requirements. Also, there are serious demographic problems throughout Latin America. In Chile, demographics greatly changed when Chile changed the pay-as-you-go system to the privatization system. The number of working people has fallen since 1960 from 11.5 to 2.2 per retiree. Other governments with similar problems are just simply desperate to find relief and are seeking alternatives. Chile seems to be the alternative.

Mr. Myers mentioned Mexico. Mexico started its supplementary privatization system in July 1992, and already it has created over 10 million new savings accounts. The contribution rate to the Mexican system, known as Summary Annual Report (SAR), is 2% for pensions and an extra 5% for mortgage aid. If the 5% is not used for mortgage purposes, it may be withdrawn once every 10 years, tax free.

The creation of the two-tiered system seems to be the most popular means of employing the Chilean paradigm. This is being argued now in Argentina and Uruguay, with actual legislation pending, and pending, and pending in Argentina. Peru has adopted the Chilean model lock, stock, and barrel. I don't see how it is going to be able to afford it. Colombia has sent forward legislation and President Gavilia believes it the most important initiative of his government.

These governments are trying to get out of the pits that they have dug the social security programs into. As Mr. Bayo pointed out, many of the programs have been bent out of shape and are made to do duties they were not intended for; in that I refer to health care. Another reason is that the Chilean experience and its apparent success is seen as a means of economic development. In other words, social security should be made to be a two-engine train: one to provide pensions and another to bolster and develop the economy. Many social security thinkers believe this is a very, very poor idea or concept. They argue that social security is purely a program of social solidarity and should have nothing to do with being an engine of economic development. I could not disagree more.

The Chilean experience has proved that the development of these individual capitalization programs and economic development can go hand in hand. The total value of the accrued funds in Chile currently equal in excess of 40% of the gross domestic product and will probably exceed 125% in the very near term. They see Chile taking in an average of 13.5% in real growth terms and ask why they can't do that, too. Well, I think the Chileans would be the very first people to say "cuidado," caution. It requires a very extensive change in the social culture to develop a program like this.

Frankly, the culture of Latin America is not one that has been of, how would one say, excessive personal responsibility, which is definitely what's required. Mr. Myers referred to the evasion in a program. Well, evasion has been a way of life ever since social security started. To sum up, I would like to say that I believe that if the governments approach adopting the Chilean system, they should take the Chilean caution and do so with a great deal of care. They should make sure that they communicate to the public what it is that is trying to be accomplished and develop a program of great transparency. Total lack of transparency is a problem that deeply affects the current pay-as-you-go systems. Hence, there are problems with trust in the system and loyalty to the system on the part of the public, and to the taxpayers' duties.

MR. STEPHEN C. GOSS: As Bob said, I will present the remarks that Lillian Liu put together for us to hear here. The focus of Lillian's presentation with regard to Japan, China, and the former Soviet Union is on reform processes and options of social security in three different sets of political, social, and economic environments.

She illustrates how Japan, an industrialized country with well-established social insurance programs, and two countries in the so-called transition economies, namely China and the former Soviet Union, cope with social security reforms. A reexamination of the pros and cons of different forms of income security, including social security, employer-liability programs and compulsory savings plans, is taking place, especially in the transition economies.

On the eve of the reforms in Japan, Japan had a comprehensive social insurance program. Both the pension and health insurance programs are contributory programs with universal coverage. The impetus for reform grew from concerns of accelerating increases in the cost of health and pension programs, a rapidly aging population, and a growing reliance on public health and pension programs.

In 1985, persons aged 65 and over made up 11.3% of the total population in the country. This proportion is estimated to rise to 21.3% by the year 2025. The public pension program for the private sector had a reserve equal to about 7.8 times the annual expenditures in Japan in 1985. Government planners, however, estimated that without the reform, the combined employer/employee contribution rate would have to have risen from 10.6% in 1985 to 28.9% in 2030, almost tripling.

From 1982-86, the Japanese government introduced three major reforms to reduce social security expenditures and ensure program stability. Among other changes, these laws curtailed the general-revenue subsidies, raised patient copayments for health care, initiated a preventive health program to monitor the physical well-being of persons over the age of 40, and introduced resource pooling among all health insurance programs to cover expenditures for the elderly. It also made substantial benefit cuts, as much as 34% for single pensioners, which were to be phased in over the next 20 years. The ruling liberal Democrat party was so strong that it was able to push through these proposals with little opposition. The populous was also receptive to these changes to ease the grim, long-term prospects.

What Japan achieved in the 1980s was both typical and unprecedented among the industrialized nations. These reforms were typical in that they were reaffirmations of the social insurance principle. They were unprecedented, however, because the reforms were not limited to mere incremental fixes, but represented systemic and long-term-oriented changes to forestall an anticipated social security crisis about 30 years in the future.

Turning to China and the Soviet Union, social security reform processes take on an entirely different dimension. Before China launched its political and economic reforms in the late 1970s, it had a social security system covering pensions, health care, and workers' compensation for civil servants and workers in state-run enterprises. The state sector constituted some 15% of the total labor force and about 90% of the urban labor force. Throughout the 1980s, social security policies and developments in China followed the overall strategy of liberalization and a decentralization on the economic front and did the utmost to maintain political stability.

Central government regulations have continued to protect and enhance the minority of privileged state-sector employees to ensure their loyal support. As a result of decentralized finances, local governments are now primarily responsible for social security financing as we move into the 1990s. Local governments at the provincial, municipal, and county levels have, in the meantime, engaged in experiments in income-security policy-planning for expanded quasiprivate and private sectors in urban areas.

In rural China, however, where 70% of the total population resides, communes have disappeared since the early 1980s and so has the public health network and communal protection for those vulnerable groups, the only source of social insurance they had available in the past. Only the very well off villages could afford to offer localized social security benefits to their residents. Thus far, there is no initiative above the village level to encourage pooling of resources.

In comparison to China, social security in the pre-Gorbachev Soviet Union was much better developed than in prereformed China. There was free universal health care, and coverage for pensions and workers' compensation was extended to both the urban and rural labor force. By 1991, the Gorbachev reformers had promulgated new pension legislation with built-in cost-of-living adjustments and a new employment law to provide income security to those who would be losing their jobs as a result of the privatization of state-run enterprises.

As the political and economic restructuring accelerated through 1991, however, and led to the eventual break-up of the Soviet Union in December of that year, all former republics had adopted their own legislation but kept intact the general social insurance principle of the Gorbachev social security reforms. The radical economic reform adopted in the Russian Federation by President Yeltsin, however, has resulted in partial benefit compensation only for price rises and other consequences that are disruptive to the income security of the beneficiaries.

More recently, the Russian government proposed further income-security reforms, such as replacing free universal health care with compulsory universal health insurance and introducing pension insurance with independent insurance companies as an option to the existing social insurance program. It is believed that contributions paid to such companies can generate investment capital for economic growth, notwithstanding the lack of an insurance industry in a stable financial market in the USSR.

MR. ROBERT M. KATZ: I have a question on the financing, particularly in South America. What inflation rates and real rates of return are you assuming when you do these financial projections?

MR. BAYO: It is essentially impossible to project beyond just a few years into the future, so it wouldn't make sense at all to provide units of money figures like we do in the U.S., going 75 years into the future. In general, in countries with a high level of inflation, the calculation must be made on the basis of the value of the currency at a specific time; not a year, but a specific date. For example, I did an evaluation of the system in Peru based on the value of the inti as of the first of October 1988; everything else is assumed to move at the same rate. If anything is wrong, then naturally you have to convert it to the valuation or whatever has happened with inflation. But it is impossible to prepare projections when you have inflation that is sometimes more than 100%, or 200%, or even higher. In Argentina, it's gone higher than 1,000%, so there's no point in doing calculations on the basis of the specific rate of inflation that is being assumed.

MR. CAMPBELL: Frank makes a very good point there. The inti no longer exists. It went out of business about six months ago and the sol is back in again. The Chileans estimate that their system must have a real rate of return of at least 4% per year. Isn't that right, Bob?

MR. MYERS: Seven percent as I understand it.

MR. CAMPBELL: Well, I know the law requires at least 4%.

MR. MYERS: Yes, but to produce adequate benefits, they say they expect to have a real rate of return of 7%. Of course, in the last decade, they say they've had 12%, so they're doing fine.

MR. CAMPBELL: Yes, so far.

MR. MYERS: So far.

MR. CAMPBELL: We have to point out the Achilles heel here, though, in the Chilean system. The system is no more secure than the the capital markets that support it.

MR. GOSS: The difficulty with projecting real rates of return is by no means restricted to nations south of our border. Over the past 40 years, when we've analyzed real rates of return on long-term federal securities at the Social Security Administration, for the past 10 years they've averaged about 5% real. For the prior 30 years, they averaged less than 1% real. So it's a little bit up in the air here, too.

MR. JOHN M. BRAGG: Frank, there seems to be much evidence of tremendous improvement in mortality at the very old ages, at all ages for that matter. But I think it might be particularly dramatic at the older ages. Frank is the expert on this subject for sure and I would like for him to comment on that. Do you think it's happening worldwide? A comment about the States, too, by the way; it would obviously have tremendous implications, perhaps even devastating implications, on any pension plans or health care plans.

MR. BAYO: Naturally, we here in the U.S. are taking into account what we consider to be the most likely improvement in mortality in the future, so the projection of the cost of the U.S. Social Security system is based on a projected improvement in mortality.

For the countries that we're talking about in Central America, South America, and in the English-speaking Caribbean, there has been significant improvement in mortality. I must say, however, that the economic factor is of such overwhelming importance that, in general, when I work with them, I try to stay within 5-10 years of what is expected in the future. I wouldn't dare go further than that. Sometimes I don't even go ten years. I stay with five because the economic elements are so overwhelming that any level of mortality improvement would yield about the same result.

As you are aware, in the case of pensions, it's not so much how many die but how many survive, because we pay for survival. If you have a change in mortality from the older rate of 5% per year to, say, 10% less than that, there will be still 4.5% mortality. So instead of 95 surviving, you have 95.5 surviving. So the error for the first five years is not going to be significant. In the economic sense, you could have a significant change in productivity or a downturn in the economy that would really do a lot of harm to your projected estimate.

MR. RONALD L. HANEBERG: This is for Mr. Brown. I guess I've blinked over the last few years and wasn't aware of the rather dramatic changes in Canada. We have had political suggestions down here, from Ross Perot in particular, with regard to cutting off benefits for the higher paid. I'm also interested in your comment concerning Canadians recognizing that social insurance can really change. I wonder if you could elaborate a little bit more on the political consequences when that was being done, how much dispute there was, how much screaming and things like that, because they sure seem like solutions we'll be talking about down here in the next ten years.

MR. BROWN: That's a really fascinating area and one that we could spend the rest of the week talking about. The government has attempted a number of means of cutting back on the social security benefits over the last few years. In particular, they've been attacking the OAS system. The guaranteed-income supplement is there very much as a social net, and I think it's going to stay at that level. But a lot of money is going out of the OAS system, many people complaining that it wasn't going to the "right people."

The initial attempt to cut back on OAS was minor. They were not going to index it to the full cost-of-living changes; they were going to take the cost of living and subtract around 3%. This was in the days of 9%, 10%, and 11% inflation, so OAS was going to slowly diminish in importance. It's fascinating to note that the reason that didn't happen was because of quite a remarkable elderly lady who literally lambasted the prime minister with a placard on Parliament Hill. It was captured by the national media and played for days. That whole idea immediately disappeared.

When you have something that you think needs to be done you have to find the politically palatable way to get it accepted. What they found, maybe with polling or maybe just by floating the legislation, was to claw-back the OAS from the relatively wealthy. It met with no political opposition or a whimper. It's awfully difficult to argue that people who have income of more than $70,000 a year should get the OAS. Not too many letters to the editor are written, and armies of people are not marching to Parliament Hill to defend those who make $70,000 a year.

Let me just finish this off by making two more points. Number one, the $70,000 is not indexed, so every year more Canadians will hit the claw-back. In the long run, OAS will slowly disappear. It's already just a second tier to the GIS. Second, I think there's going to be a need for more changes. The point that I've been trying to put across to a vacuum of interest is that the sooner that we can make the changes and the longer the period of time over which we can have a transition period, the more politically palatable those changes could be. The particular model that I think we should be looking at in Canada is the one that you have adopted in the 1983 Amendments here, and that is slowly raising the age of entitlement. With the vastly improving mortality, the retiring Canadians are collecting their benefits for ever-increasing periods of time, and we continue to leave the normal retirement age at 65. I can't find anybody who's interested in it, because the problem is after the next federal election.

MR. MYERS: If I might add just a few comments to that, I think it's as Lillian Liu brought out. Japan raised the retirement age and, unlike us, there was no crisis. We were able to raise the retirement age on a deferred basis because of a financing crisis at the time. Japan did it by careful advance planning of seeing what was coming down the road. On another point, I've followed with interest what the various political candidates have said about Social Security in this campaign, which is precious little, except for Perot, who originally said we ought to have something like the Canadian claw-back. In other words, high-income people shouldn't get Social Security at all. Well, for reasons that I don't know, he changed his approach and went to what I think is the better one, of saying that Social Security benefits should be, in essence, fully subject to income tax so that high-income people will be paying income taxes on it, but they won't be losing all of their benefits.

I think Clinton sort of hinted at this, too, that the present partial income taxation of Social Security benefits should be more complete. So that may be something coming down the road. But personally I wouldn't like to see the Canadian claw-back enter into the U.S. system. The claw-back in Canada applies to a flat benefit paid out of general revenues. Our system has a flat benefit that most people don't realize is there, plus a graded benefit. So our integrated system perhaps prevented that approach.

MR. CHARLES M. KRAMER: This may be a very simplistic idea, more than people want to see their government getting involved with. But as I understand it, one of the things that helped fuel the boom in the Japanese economy was a high savings rate, with few consumer goods to spend the money on. You talked about the

Chilean model being a defined-contribution plan, in effect, that's required for savings, although it's being invested in the health care plan, unfortunately.

MR. MYERS: No, not in Chile.

MR. KRAMER: Oh, not in Chile.

MR. MYERS: It's being invested in the government subsidies to the people currently retiring with smaller defined contributions.

MR. KRAMER: Right, but it's not being invested in the private sector.

MR. MYERS: Part of it is, and part isn't.

MR. KRAMER: Have any of these countries considered using these mandatory plans as a means of fueling the economy, as Japan did?

MR. CAMPBELL: One of the basic elements of the Chilean changeover was to develop a capital pool.

MR. MYERS: They're talking about that in Eastern Europe. The World Bank missions are going out and many of them are biased toward the Chilean approach, because they say this way we can build up pools of money and privatize the economy and have the economy grow. There's still the question of whether they can really do this in an efficient manner, but at least that's in the thinking of some people. The fact that there are social security benefits payable to people at some time later is of little interest to them.

MR. BAYO: I think that increasing the level of savings is good, per se. It's a really very good objective, particularly right now in the U.S. It would be a very good idea. The problem comes from not knowing exactly how much money is going to accumulate and then not having a definite plan of what to do with it. That's the problem really -- what to do after receiving the money. You have to plan that very carefully and estimate it well so that you do not attract money from the economy and then have to invest it in somebody else's economy, which sometimes happens. You have to export your money because you did not know what to do with it internally.

It has to do with the culture, too. Here in the U.S., we know what to do with practically every additional dollar that we get. There are plenty of people with many ideas and with no money. In some of those countries, they have no ideas and no money either.

MR. THOMAS F. WILDSMITH: I understand some of the major problems with the Chilean program, such as what to do with this huge pot of money after fully funding everyone's benefits. It seems to me, however, that we need to have a basic safety net, and that's one of the fundamental purposes of social security programs, but there's also a strong flavor of individual equity in most of these programs.

I'm wondering if any countries are looking at using a pay-as-you-go program or a flat-dollar social-safety-net program and then using a privatized Chilean approach for a second layer on top of that for supplemental individual equity amounts. If you do that, it occurs to me that you're talking about a much smaller pot of money to invest and, if you set it up right, you might be looking at an amount that could give your economy a healthy kick without making it the proverbial snake that swallowed the pig.

MR. CAMPBELL: Yes. Using the Chilean model as a supplementary benefit is in the works in Argentina. Uruguay attempted to legislate it but failed to get the bill through. Of course, the Mexican system is exactly that. It's a second tier over the basic social security safety net.

MR. BROWN: That is my view of the Canadian system. It may not strike you as being true at first glance, but the GIS and OAS are paid out of general tax revenues as a basic safety net, a 25% replacement ratio system funded on a pay-as-you-go system for a little bit of income stability, and then the government sponsors a system through tax concessions -- tax deducibility and the inside buildup tax free -- of a fully funded system, where every individual chooses the assets in which he or she will invest. Individuals are employee/employer plan sponsors. Isn't that really what you want?

MR. JOHN H. GRADY: I'm curious, Mr. Myers, as to why you preferred the taxability of Social Security benefits over the claw-back for the U.S.

MR. MYERS: I very much prefer that because for years I've always thought the benefits should be subject to income tax, just like private pensions are, and it seems to be equitable. I don't like the idea of absolutely no benefits whatsoever for the highest paid. I just want a system where there's social solidarity, where everybody is going to get some benefits, that is not a two-class society such as what Frank Bayo said exists in the Dominican Republic, where some people are in the system and the high-income people are not. I think it's desirable to have the highest-income people in the system so they have an interest in it; and there's some feeling of a certain mixture of individual equity in it, and its not just merely a social-adequacy system.

MR. BROWN: Also, much of the security in Social Security is psychological. If you change the system with the claw-back, you've dropped universality. But if you pay everybody the check and then tax it back, the rich pay back much more than the poor, but you haven't changed that solidarity; so you haven't weakened the psychology of the Social Security.