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DISCUSSIONS

ENRIQUE DE ALBA, ITAM* AND TAPEN SINHA, ITAM†

INTRODUCTION

The paper by Octavio Maupomé-Carvantes is on a very important topic. Mexico, along with many Latin American countries, has embarked on fundamental changes to its social security system, in particular to the Instituto Mexicano del Seguro Social (IMSS).

For the reader unfamiliar with the antecedents of the system of social security that existed in Mexico for over fifty years, it might be difficult to judge the merits (and problems) of the new system. Hence, we felt it was necessary to spell out briefly what the old system did and did not do.

What Did the Old Act Say?

The Social Security Act is enshrined in Article 123 of the Mexican Constitution. The IMSS started in 1943 with four basic "pillars":

- Guarantee workers a "decent" standard of living with contributions from workers, employers, and the government, by setting up a social security fund with adequate reserves
- Provide workers and their families with adequate access to healthcare
- Provide infrastructure support (in the form of child-care) to female workers to achieve equal opportunity
- Promote workplace safety and hygienic conditions in the workplace.

Thus, there are four separate sets of contributions (Table 1) necessary to achieve these objectives. We should note that these four pillars were never independent and, unfortunately, problems arose over time as the system matured: money from one pillar was used to support others contemporaneously.

What Were the Main Problems with the Old Act?

As in many countries, no large fund was actually set up. The IMSS became pay-as-you-go by default. Therefore, demographic problems started to overwhelm the system. The total fertility rate in Mexico fell from 6.75 children per woman (1950–55) to 3.00 per woman (1985–90). Life expectancy (at birth) rose from 50.8 years (1950–55) to 68.8 (1985–90). It should be noted that the rise in life expectancy at birth came mainly from a reduction in child mortality. Consequently, the number of people in the 25–65 age group per person over 65 (the so-called support ratio) fell from 13.5 in 1960 to 9.0 in 1990.

The old system of the IMSS was tied to a concept of minimum salary (that is, benefits to workers were defined in terms of minimum salary multiples). However, the minimum salary was not automatically adjusted to inflation; instead, it was adjusted piecemeal

Table 1
Sources of Financing the IMSS

Type	Percentage of Payroll
Disability, Old Age, Severance and Life Insurance*	8.5
Maternity and Health Insurance*	12.5
Workplace Insurance†	2.5
Child Care Centers†	1.0
Total	24.5

*Each of these divisions requires the government, employer, and worker to pay the following proportions of the total: 70% employer, 25% worker, and 5% Federal Government.
†Fees are paid only by the employer.

*Enrique de Alba is Dean, Division of Actuarial Science, Statistics and Mathematics at the Instituto Tecnologico Autonomo de Mexico, Río Hondo 1, San Angel, Mexico D.F. 01000, Mexico, e-mail, dealba@gauss.rhon.itam.mx.

†Tapen Sinha is Seguros Comercial America Chair and Professor of Risk Management and Insurance at the Instituto Tecnologico Autonomo de Mexico, Río Hondo 1, San Angel, Mexico D.F. 01000, Mexico, e-mail, tapen@gauss.rhon.itam.mx.

by legislation. During periods of high inflation, adjustments were not made to offset inflation. This process eroded the real value of the benefits.

In addition, it was inequitable in a number of ways:

- If a worker contributed for many years but failed to contribute until reaching age 60, for whatever reason, all benefits would be forfeited completely.
- The benefits rose until a worker had contributed 500 weeks and then did not change much. That is, benefits to a worker who had contributed for ten years and benefits to a worker who had contributed for 40 years would be virtually identical.
- Pensions were computed using the average salary over the last five years; hence they did not take into account the entire wage profile of a worker.
- There was no option of making additional contributions.

Changes in the New Law to Correct Some of the Problems

In 1995, the IMSS published a "diagnostic" document (IMSS 1995) where the true situation of the old system was clearly described. There, four main objectives were spelled out that were passed into law by the Congress in December of 1995. The stated objectives were:

- To strengthen the IMSS financially to achieve greater coverage, efficiency, and equity
- To provide higher quality service to members of the IMSS during their working lives or during disability, or to the beneficiaries in case of death
- To provide pensions indexed to the inflation rate so that their real value does not erode with high inflation
- To optimize the utilization of resources by the IMSS.

Clearly some of these were "motherhood" kind of statements: they sound good but do not amount to much. However, indexation of pension plans is a real move forward. In the past, this has been a big problem.

We have several comments on the paper starting with its title. Others have to do with statistical or conceptual inconsistencies.

Problem with the Title

The stated purpose of the article is to critique the IMSS's new laws. In fact, almost all of the discussion is devoted to only one of them: the retirement system. However, as mentioned, the IMSS has four pillars. If we look at the financing of the IMSS, it becomes clear that retirement accounts for less than 35% of its budget. Thus, the title of the paper is misleading.

Bigger Issues that Have Not Been Emphasized

There are several issues that the author has not dealt with adequately or has neglected completely. We discuss these issues in some detail below.

Transition Costs

Workers who joined the labor force before July 1, 1997 have a choice at retirement. They can choose benefits according to either the old system or the new law. It turns out that for most workers (over 80%), the option of the new system is useless. In other words, they will be better off taking the old system option (see, for example, Hernandez 1997). As a result, the government has to pay the difference—that is, if under the new system they have accumulated 100 pesos and the old system promises a sum with a present value of 150 pesos, the government has to pay the difference of 50 pesos. The Mexican government has not adequately addressed this implicit cost for the "transition generation." There has been vague mention of issuing bonds. If the government does that, these bonds have to be paid for by some later generation, effectively increasing their tax burden.

Long-Term Bonds Are Not Being Taken Up

One of the goals of the government for the AFOREs is to introduce long-term investment into the capital market (Banco de Mexico 1996). Money in the bank cannot be invested in long-term bonds if there is large uncertainty in the financial sector. However, a pension fund does not have that problem because most of the money in a pension fund will be there in the long run (until a person retires; of course, there will be a small percentage that will die earlier). This gives pension funds an opportunity to invest in long-term financial instruments. This process gives capital markets a depth that is otherwise not available. For example, Mexico does not have any market for 25-year bonds. The most actively traded government bond is the 28-day CETES (equivalent to Treasury Bills). One goal is to develop a long-term market for government bonds. However, what is actually being done by the AFOREs? Are they investing much in long-term bonds? The answer is no. The average maturity for bonds in which AFOREs invested in August 1998 is 274 days (CONSAR data, privately communicated). In this

sense, AFOREs have failed to produce the depth that we expected from them. Of course, the system has only been in existence for a year. Therefore, in the future, things might change. If, for example, we look at the history of Chilean AFPs, they too were initially reluctant to hold large proportions of assets in long-term instruments. It took four years before bond markets in Chile displayed enough depth.

Churning in the System Leading to High Transactions Costs

There is an inherent problem with privately operated pension schemes and the author alludes to it. This problem is that transaction costs (such as the costs of management, advertising, payment to the agent, and so on) eat up an enormous part of the funds in the system. It has been estimated that the total cost will be about 25% of workers' contribution in Mexico during the initial years (Sinha et al. 1999). In Chile, where the system has been in existence for almost two decades, costs still hover around 20%. This cost is ultimately borne by the workers. There are two ways to avoid such costs: (1) institute a state monopoly (as in Singapore) or a private monopoly (as in Ecuador), or (2) introduce an employer-based fund. This approach has been followed in Australia and Switzerland (see, for example, Sinha 1998).

Problem of a Large Informal Sector

All Latin American countries have very large informal sectors. In 1990, 18% of GDP for Chile, 22% for Argentina, 35% for Colombia, 58% for Perú, and 66% for Bolivia came from the informal sector (Loayza 1996). In terms of employment, the informal sector is even bigger. Thus, with the Chilean model, the benefits really do not spread to the entire population, but only to the formal sector. However, there is some evidence that in Chile the relative size of the informal sector is decreasing. Some economists have argued that this shrinking of the informal sector may be a direct result of the privatization of the public pension scheme (Schmidt-Hebbel 1997).

What to Do?

It is easy to point out problems with the system, but it is much harder to come up with solutions. One suggested solution has been put forth forcefully by Modigliani and Muralidhar (1998). They argue that for reducing management cost and increasing replacement rate (the ratio of retirement benefits to preretirement income), a defined-benefit scheme is much better than a defined-contribution scheme. Therefore, they argue that Latin American countries would be better off taking the defined-benefit route; eventually the cost to the government would be lower. They miss one crucial point, however. In Latin America, faith in government-run systems (as opposed to government-mandated systems) has eroded over the years. Therefore, any attempt by the government to keep control of the system would be met with skepticism.

The other interesting suggestion has been provided by Shah (1997). He argues that it is a mistake to let only the newly formed pension funds (AFOREs) operate in the market. He suggests that government should let banks and other financial institutions compete in the market. The banks have a built-in advantage in that they already have the distribution channels and information-processing infrastructure in place. Hence, they will help reduce the cost of operating such accounts, especially for people with small account balances.

ADDITIONAL COMMENTS

The author mentions other schemes of social security but not PEMEX. If one wants to be rigorous it should be mentioned that there are actually three federal and 34 state social security systems in Mexico. He indicates that the IMSS covers less than 50% of the population; it would be more accurate to say less than 50% of the economically active population, which is not the same thing. The author says 70% of workers earn less than three minimum-wage salaries. The *median* salary of workers in Mexico is about three minimum-wage salaries.

The author indicates that Keynesian principles go hand in hand with pay-as-you-go schemes. However, Keynesian economics says nothing about intergenerational transfer. In fact, the first pay-as-you-go system was instituted in Germany in the 1880s, at least fifty years prior to the popularization of Keynesian theory.

He points out that the current IMSS has a huge actuarial deficit. This is misleading. No pay-as-you-go system run by government in the whole world is in that sense actuarially balanced—that is not the purpose of the system. For example, government finance is run on a pay-as-you-go basis: this year's tax revenue is used to finance this year's liability. Nobody would say that the existence of future committed liabilities implies that a government is bankrupt. All discussions revolve around deficits on a year-to-year basis.

The author confuses two issues on individual capitalization systems (ICSs). There are two very distinct

kinds of ICSs possible. In the first, individuals are left to their own devices to save for the future; in this case, the question of myopia will arise. This is the model of New Zealand. Second is the model of Mexico, where government mandates compulsory saving and leaves the actual investment to the private sector. In this situation, the question of myopia does not arise. In addition, he states that "ICS contributions are completely independent of fertility behavior and are quite affected by mortality rates." This makes no sense. Each individual has his or her own account. How can the general mortality rate affect it? Furthermore he says, "We found no research that proves that the ICS actually works in the long run." This is incorrect. It has been shown that ICS works very well in Singapore. The key difference between the Singaporean system and the Chilean system is of course the fact that the Chilean system has individual accounts in a decentralized setting, whereas the Singaporean system is completely centralized. This has resulted in a vastly lower cost structure for the Singaporean system (Asher 1995).

Mr. Maupomé-Carvantes claims that there is an inherent contradiction between a high interest yield to give account holders a high retirement nest egg and a high interest rate that prevents investment by business, and thereby prevents economic development. It is perfectly possible to have a low yield and a high balance in the retirement account. The source is, of course, a high-wage growth rate. For example, in Singapore, the real wage of an average worker has grown at a rate of over 7% per year for a period of 30 years. Thus, even without high yields, the retirement nest egg (as a proportion of wages) has been substantial for the average worker.

The author says that the domestic savings rate is a key factor in economic growth. In fact, research in Mexico suggests that the savings rate in Mexico lags behind economic growth and does not lead it in the sense of Granger causality. For example, Gavin et al. (1997) investigate the issue for a group of Latin American countries and Sinha and Sinha (1998) show it for Mexico using time series data.

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KENNETH G. MANTON* AND KENNETH C. LAND†

Mr. Maupomé-Carvantes discusses the relative merits and consequences of the shift from a "pay-as-you-go" (PS) funding scheme for social security in Mexico to an individual capitalization system (ICS) on

*Kenneth G. Manton, Ph.D., is Director and Research Professor at the Center for Demographic Studies, Duke University, Durham, North Carolina 27708, e-mail, kgm@cds.duke.edu.

†Kenneth C. Land, Ph.D., is John Franklin Crowell Professor in the Department of Sociology and Senior Research Fellow in the Center for Demographic Studies, Duke University, Durham, North Carolina 27708, e-mail, kland@soc.duke.edu.