

# **Pension Reform – the Triumph of Form over Substance?**

by

**Laurence J. Kotlikoff**

Boston University  
National Bureau of Economic Research

**Lecture Presented to**

**the Latin American Meeting of the Econometrica Society and  
the Annual Meeting of the Latin American and Caribbean Economic Association**

**Mexico City, November 2, 2006**

I thank Michelle Favre for excellent research assistance.

A quarter century has passed since Chile privatized its pay-go pension system. The Chilean “reform” has inspired similar “reforms” in developing countries far removed from Chile, such as Kazakhstan and Poland. In South America the Chilean “reform” has been particularly influential. Since 1981 ten other countries have “reformed” their pension systems along Chilean lines. The list includes major countries like Argentina, Mexico, Bolivia, Columbia, and Peru.

I’ve put the word “reform” in quotations to raise the question whether any of these so-called pension privatizations actually constituted real fiscal change or whether they simply represented a potentially very expensive triumph of form over substance. My sense is that many of the “reforms” have been basically cosmetic and that some have used the cover of “reform” to actually worsen fundamental aspects of fiscal policy.<sup>1</sup>

To evince my concern about distinguishing real policy changes from cosmetic ones, let me play Devil’s advocate and tell you about pension reform in the country of Nachos.

### ***Pension Reform in Nachos***

Nachos is a lovely country located south of the Bermuda triangle. Its president is a former insurance salesman named Chile Relleno. Chile Relleno has three close banker friends named Taco, Tortilla, and Salsa. The three bankers take Chile Relleno golfing one day. The bankers get Chile in a good mood by letting him win, and then, over a few beers, they convince him that privatizing the state’s pension system is a great idea.

Chile Relleno announces the reform the next day. He tells all workers to stop making contributions to the state pension system and instead to contribute the same amounts to one of three pension funds established by, guess who? -- Taco, Tortilla, and Salsa.

Chile’s announcement is well received, particularly his statement that Nachos’ workers will surely earn a great return on their contributions and be rich in old age. Chile Relleno also tells

---

<sup>1</sup> Tapen Sinha raises similar concerns in his book, *Pension Reform in Latin America and Its Lessons for International Policymakers*, Boston, MA: Kluwer Academic Publishers, July 2000.

Nachos' workers not to worry about the fact that Taco, Tortilla, and Salsa are charging them 2 percent of their wages to manage their money. Chile assures them that this is peanuts compared to the killing they'll make on the market.

Later that day Chile Relleno gets an angry call from Guacamole Enchilada -- the head of the state pension system. "Chile," Guacamole screams, "You idiot. You eliminated the state pension contributions, and I have no money to pay benefits to the old people who are now attacking me with their bed pans."

"My Lord," Chile says. "You're right. Let me ask Taco, Tortilla, and Salsa. They'll know what to do."

The three bankers say, "No problema. We'll be happy to lend you the money from our pension funds. And we'll even float the bond issue for you for a modest fee." Taco, Tortilla, and Salsa do precisely this later that day. So Chile instructs the Nachos Treasury to sell bonds to the three pension funds and give the proceeds to Guacamole to pay his elderly beneficiaries.

All is well until the next day when a young worker named Chimi Changas corners Chile Relleno and says "Your reform stinks. We workers were directly sending Guacamole the money to pay pensions to the oldsters. Now it's taking a trip through the pension funds run by Taco, Tortilla, and Salsa, and these three crooks are charging us 2 percent of our wages for the privilege of doing what we were doing before -- giving the government our money to give to the old timers. This is a scandal."

Chile says, "But Chimi, you're forgetting, the government bonds are paying a market return on your contributions. That wasn't the case before the reform."

"That's true." Chimi replies. "But Chile, who do you think is going to pay the taxes to cover the interest on those bonds? I will and so will my fellow workers. Once you factor in these taxes, I'm paying the same net amount now and getting the same net amount back when I retire -- with two big differences. First, I have to pay 2 percent of my salary as a fee when the money goes

into my account. And second, I have to pay an insurance company, which your three buddies have also set up, to get my money out in the form of an annuity. This entire transaction is a sham, a shell game, a deception, and a rip off.”

“Gee, Chimi. You may have a point. But I can’t believe Taco, Tortilla, and Salsa would have talked me into a sham, a shell game, a deception, and a rip off. Let me speak with them.”

Taco, Tortilla, and Salsa meet with Chile at the country club and defend themselves by saying “This is true, yes. But thanks to the reform we now have a competitive pension system and a vibrant annuity market. Chimi Changas and all the other workers have private accounts. We’ve developed our capital market. We now have new institutions trading in government bonds. When Chimi and his co-workers retire, they’ll buy annuities. This will deepen our insurance markets. The invisible hand is working. So stop worry.”

Based on his extensive experience in the insurance industry, Chile Relleno knows when he’s being taken. So he says to Taco, Tortilla, and Salsa. “Listen guys. You know and I know that what you just said is total BS. Your pension companies aren’t competing. They are all investing in the same thing – government bonds. And forcing people to buy annuities at the fees you’re going to charge is yet more highway robbery. Yes Chimi and others have private accounts. But they can’t do anything with them, so what’s the point. And having three companies buy government bonds is not much of a capital market.

“This situation looks bad and is bad. If Chimi Changas experiences nothing more than higher costs associated with shipping his money to the elderly and receiving his own retirement income, all the other workers will as well. They aren’t as dumb as you guys think. Isn’t there something else you can do to get me off the hook?”

Taco, Tortilla, and Salsa huddle. “Yes, there is.” they say. “We know that Chimi Changas and his co-workers own stock. So we’re going to sell some of our government bond holdings to Chimi and his pals and use the proceeds to buy up some of the stock Chimi and his co-workers now hold. Our pension funds will end up with a mixed portfolio of stocks and bonds. Moreover, we’ll be able, over time, to report a much higher average return on our pension funds

than would otherwise have been true. This will make the workers feel good about the privatization. And the beauty of this is that no one – not even Chimi -- will likely realize that this is still a sham, a shell game, a deception, a rip off.”

Chile Relleno looks puzzled. “Gee, you lost me. Why is this still a sham, a shell game, a deception, and a rip off?”

“The answer,” says Taco, “is that Chimi and his pals are currently the real/ultimate owners of both the bonds we hold and the stocks they hold. This transaction will just move some of their stock into our pension funds, meaning they’ll still own this same stock, but indirectly. And the transaction will also move some of our bonds, which Chimi, et. al. currently own indirectly, into their direct ownership. Think of it this way. Chimi has stocks in his left pocket and bonds in his right. We’re just moving some of the bonds from his right pocket to his left and some of his stock from his left pocket to his right.”

“Ok,” says Chimi, “I see your point. But I still got you.” “You’re right that Chimi and some of his pals are rich and own stock. But most of his co-workers are poor and don’t. So in swamping stocks for bonds with Chimi and those of his co-workers who own stock, the pension funds effectively make the workers who don’t own stock part-shareholders in the stocks that they purchase. So this reform has a real effect after all.”

“Well,” says Tortilla, “I agree with what you said. But you’re still not thinking hard enough. To ensure that nothing real actually changes and that this policy remains a sham, a shell game, a deception, and a rip off, all you need to do is to cut taxes on the rich (i.e, on Chimi and his pals) when stocks do well and raise them on the rich (Chimi and his pals) when they do poorly. If you do this right, you’ll give Chimi and his stock-owning buddies *exactly* the same real income as they’d have absent the “reform” both in situations in which stocks do well and in situations in which they do poorly. Nothing will have changed except the language being used to label the government’s transactions.”<sup>2</sup>

---

<sup>2</sup> See <http://people.bu.edu/kotlikof/General%20Relativity%206-10-061.pdf> for a general proof of the invariance of fiscal policy to its labeling.

“Wow. You guys are good. This beats universal life insurance when it comes to a good scam.” yells Chile. “And since I need Chimi and the other workers to reelect me, I’ll forgo raising taxes to pay the interest on the debt you just floated. Instead, I’ll just leave a bigger official debt to my successor, and he can hit up today’s kids for the bill. So the policy won’t be a shame, a shell game, a deception, and a rip off. It will be worse!”

### *Distinguishing Form and Substance*

In relating this tale of pension “reform” in the country of Nachos, I don’t mean to necessarily imply that the Chilean reform or any other reform modeled after it was or is a sham, a shell game, a deception, or a rip off. The only way we can judge what these reforms have really done is to consider whether they’ve been associated with changes in the four fundamental features of fiscal policy. These are the level of government consumption, the distribution of resources across generations, the distribution of resources within generations, and the structure of incentives to work, save, and make other economic decisions.

For its part, Chile seems in much better overall fiscal shape in this, the 25<sup>th</sup> anniversary of its pension reform, than it was in 1981. But how much the pension reform contributed to its fiscal health is hard to say and may never be fully resolved. Jose Pinera, the architect of the Chilean reform, gave me one example of how the reform impacted government consumption. Jose told me that he was able to keep the Chilean Navy from buying a used U.S. aircraft carrier by pointing out to the admirals that the pension reform had raised the government explicit debt and limited the country’s ability to borrow.

My sense is that in determining the size of the Recognition Bonds to be paid to existing workers, the Chilean reformers made sure to protect the interests of future tax payers by using conservative actuarial and economic assumptions. I also think that the Chilean reform improved work incentives and that it may have improved intragenerational equity.

But the fact that it’s now 25 years after the reform and that no one has examined the reform in terms of these four fundamentals is telling. The only way we can possibly assess the true

economic impact of a pension reform or, indeed, any reform is to measure these four fiscal fundamentals on an ongoing and systematic basis. I speak here of accurately measuring government consumption, doing very careful generational and intragenerational accounting, and documenting the structure of total effective marginal net tax rates.

Since none of the fiscal fundamentals is being properly and systematically measured for the U.S. let alone any other country in the world, it's very difficult for economists to pass informed judgments on particular pension reforms.

### *Low Hanging Fruit*

Having said this, it's clear that the Chilean-type privatizations suffer from some obvious design flaws. These flaws, many of which are now being discussed as part of a comprehensive pension review in Chile, include

- exorbitant AFP fees that can range from 1 to 2 percent of lifetime earnings
- the failure to exploit scale economies in contribution collection and record keeping
- the failure to exploit scale economies in investing
- the inability/failure of pension funds to diversify their domestic investments
- the inability/failure of pension funds to invest abroad
- the failure to enroll large fractions of informal-sector workers
- the failure to ask current generations to pay transition costs
- the failure to exploit scale economies with respect to annuitization
- the failure to address adverse selection with respect to annuitization

Let me weigh in on these issues by presenting my ideal privatization policy, which, one can quickly see, obviates or mitigates each of these concerns. But before doing so, let me point out something that should be at the forefront of any discussion of a state-sponsored pension system, including one that's "privatized." This something is that in compelling people to save in a system that the state has designed, the state, whether it wants to or not and whether it says so or not, is taking responsibility for the performance of the system and, more concretely, for the economic well being of workers when they retire. In particular, the state is effectively saying "If

you, Chimi Changas, contribute to the system we've set up, you'll be ok in retirement. And if you don't end up ok, we'll come in and bail you out."

### *Paternalism – Yesterday, Today, and Tomorrow*

This paternalism explains why states are in the retirement saving supervision/provision business. No pension reform has changed or will change this paternalism. Once we accept this point, many things follow.

- The government cannot permit two workers who make the same contributions to end up with wildly different retirements because one makes better investment decisions.
- The government cannot permit two workers with the same account balances to receive very different pensions/annuities because one has the bad fortune to have a long life expectancy.
- The government cannot permit a cohort of workers who contribute faithfully to a privatized pension system to end up with very low retirement income because the market preformed very badly over key years in their workspans.
- The government cannot permit the financial industry to charge workers excessively high fees.
- The government cannot let retiring workers spend their accumulated assets right away and end up broke.
- The government cannot let the insurance industry charge retirees exorbitant premiums for annuities or survivor benefits.
- The government must provide the poor with a better deal than the rich.
- The government must provide basic income support for people that don't participate in the system.
- The government cannot let investments be too risky.
- The government cannot let non-working spouses have a materially worse retirement than their partners.

These paternalistic requirements underlie much of the design and regulation of Chile's pension system and of Chilean-type pension systems. Take, for example, Chile's regulation requiring pension companies (AFPs) that significantly underperformed their competition to kick in the

difference. This is an attempt to satisfy the first of the above listed requirements. As another example, note that the current impetus for reform of the Chilean system is that the current system is violating several of the above postulates.

### ***Getting It Right***

Economists are into constrained maximization. The above-listed dictates of paternalism can, as demonstrated momentarily, be satisfied with a very simple, transparent, and extremely low-cost system that involves very little role for bankers, insurance companies, brokers, investment companies, and other players in the financial sector. The fact that such a simple, straightforward, and inexpensive system, which I dub *The Personal Security System*, has yet to be adopted by Chile or any other country in the world is testimony to the degree to which government officials are in bed with the bankers and other financial players in their countries.

### ***The Personal Security System***

My proposed reform, which could be implemented by Chile, the U.S., or any other country, has the following features:

- Single workers would contribute 8 percent of pay to their PSS accounts.
- Married or legally partnered workers would contribute 4 percent to their accounts and 4 percent to their spouse's account.
- The government would contribute for the unemployed and disabled and match the contributions of workers on a progressive basis.
- All account balances would be invested by the government in a low-cost, market-weighted global index fund of stocks, bonds, and real estate securities.
- In retirement, each worker's account balance would be gradually sold off by the government and transformed into an inflation-protected annuity.
- Prior to annuitization, the government would top off any account balance that didn't equal what the worker contributed, adjusted for inflation.
- Workers who died before their assets were fully annuitized would bequeath their non-annuitized assets to their survivors.

- In addition to receiving their PSS annuities in retirement, all retirees would receive a basic subsistence pension from the government.

Note that this system has a guaranteed minimum benefit that will protect workers in the informal sector who choose never to participate in the PSS. It also offers individual accounts, private property, transparency, market investment, low costs, progressivity, downside protection, compulsory diversification, inflation-protected annuitization, and equal investment returns in any given year to all participants.

If the government chose, it could auction off to private firms the jobs of collecting contributions, maintaining records and distributing reports, and investing in the global index. This would throw a bone to the private financial interests and also protect the system from corruption on the part of government officials.

### ***Could Chile Move to the PSS System?***

From what I gather, the Chilean government is considering a number of reforms that would reduce costs and raise the basic benefits available to non-participants. Surely it makes sense to achieve scale economies by having a single contribution collection and record keeping agency. By the same token, it makes sense to have a) a single investor, be it the government or a private company selected via an auction, do all the investing and b) a single annuity insurer, be it the government or a private company selected via an auction.

The Chileans should abandon the charade that different AFPs are offering different investors different choices. That's not been the case and is not desirable were it the case. As indicated above, paternalism denies the possibility of having two workers end up with very different retirements because one "chose" this portfolio (this AFP) and another chose that portfolio (that AFP).

A market-weighted global index fund would entail very little investment within Chile. This seems the first best from the perspective of risk diversification. But if Chile decides to limit international investments to the current, roughly 30 percent figure, it could do so by simply defining its global index fund as one that holds 70 percent of its assets in diversified Chilean securities and 30 percent in diversified foreign securities.

The Chilean system provides spousal pension benefits. But sharing contributions would seem more appropriate than sharing benefits given that spouses may separate or divorce.

### ***The Pending Chilean Reform***

The Chilean government appears poised to introduce a relatively high basic/welfare benefit and to implement a pension benefit formula that effectively taxes the pension a worker generates based on his own contributions until the worker's pension exceeds some threshold. This proposed feature of the new reform appears to provide somewhat better incentives for informal sector workers to participate in the pension system. But the emphasis should be on "somewhat." Under this plan, most informal sector workers will still have a strong incentive to stay in the informal sector, not save, and take a relatively generous minimum benefit in retirement.

Rather than effectively tax low-income, informal sector workers on their contributions to their private accounts, the PSS would subsidize such workers on the first peso contributed and every peso thereafter. But to afford this subsidy, the PSS would provide a less generous minimum pension benefit.

### ***Conclusion***

When it comes to pension reform, we need to keep our eye on fundamentals. In particular, we need to ask the following questions.

- Did the reform help limit government consumption by, for example, making implicit debt explicit?
- Did the reform increase the fiscal burden on young and future generations by, for example, making these generations pay more interest on the explicit debt than they were implicitly paying on the implicit debt.
- Did the reform help the poor relative to the rich within a given generation?
- Did the reform improve the incentives to work, save, and join the formal market?
- Did the reform transfer resources from workers to the financial interests of the country?

As far as I know, economists have yet to systematically scrutinize pension reforms in these terms. It's high time we did so.