

# Pension Rate of Return Guarantees in a Market Meltdown

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# Why Guarantees?

- Concern has been raised as to the amount of risk that workers bear in defined contribution (DC) plans.
- Rate of return guarantees are one way of reducing that risk, but they also generally reduce the expected rate of return.

# Market Meltdown

- Since the year 2000, there have been two major stock market declines:
  - 2000-2003
  - 2007-2009

# Meltdowns and Guarantees

- These two periods are particularly good opportunities to evaluate the functioning of rate of return guarantees.



# Types of Guarantees

- The two main types of guarantees are:
  - “fixed” rate guarantees
  - relative guarantees tied to an index.
- not a dichotomy but a continuum because “fixed” guarantees are often fixed for a limited time period.

# Fixed Rate Guarantees

- Fixed rate guarantees can be:
  - a flat rate, such as 4% per year, or
  - a minimum rate, such as a minimum of 4% per year, with the participant receiving part or all of the excess if a higher amount is earned.

# Fixed Rate Guarantees

- A flat rate guarantee can be provided in a plan that initially was a DB plan or that initially was a DC plan.
- In either case, the plan becomes a hybrid plan, like a cash balance plan.

# Relative Guarantees

- Relative guarantees are tied to an index.
  - For example, in Chile the guarantee is relative to the average earned by all pension fund management companies.



# Fixed Guarantees

- This presentation focuses on fixed rate guarantees because they can potentially be expensive during a market meltdown.
- Our previous work:
  - Mandatory DC plans (Turner and Rajnes 2001)
  - Voluntary DC plans (Turner and Rajnes 2003)

# This Presentation

- The focus is on:
  - How durable are fixed guarantees?
  - What changes have been made to these guarantees?
  - How have generous fixed guarantees been financed?
  - What are the characteristics of guarantees started since 2000?

# Features of Fixed Guarantees

- The next section discusses various features of fixed guarantees, including:
  - the length of time over which the guarantee applies,
  - the level of the rate guaranteed



# Guarantee Period

- A fixed rate of return guarantee can be fixed for a set period, such as a year or six months, or can be fixed indefinitely, but changed as needed.
- The more frequently it is changed, the more it takes on the characteristics of a relative guarantee.

# Low Cost Guarantees

- A guarantee can insure against catastrophic losses, and only guarantee return of principal.
- This is a zero nominal rate guarantee.
- With inflation it is a negative real rate guarantee.

# Risk-Free Real Rate Guarantee

- A guarantee at the risk-free real rate of return can be provided at no cost by investing in risk-free indexed government bonds.
- The risk-free real rate in the US is about 2.5% real (above inflation).

# Experience with Guarantees

- The next section discusses experience since 2000 with fixed rate guarantees, first in the US, then in other countries.



# US Guarantees

- Private sector DC plans governed by ERISA pension legislation must credit to participants all investment earnings.
- Thus, they cannot provide a guarantee based on setting aside earnings in good years into a reserve fund.



# Government and Church Plans

- In the US, rate of return guarantees are found in the pensions of state government and some non-profit organizations, such as churches.
- DROP Plans – Deferred Retirement Option Plans -- offered by some state government plans, provide a guarantee for a limited period, such as 3 - 5 years

# Guarantees of Return of Principal

- State of Louisiana offers a DROP plan that guarantees that each year the participants will receive at least zero percent nominal.
- In the 2000 recession, the plan learned less than that for three years running, but the state guaranteed the rate.

# Guarantees Above Real Rate

- The State of Oregon has provided a guarantee of 8.0% for employees hired before 1996.
- It has cut back on the guarantee in two ways.
- First, it has changed the 8% guarantee to a flat rate 8% guarantee rather than a minimum guarantee in 2003.
- Second, it closed the guarantee to new participants.

# Other State Guarantees

- Indiana: 6% reduced to 3.5%
- Montana: 6.7% reduced to 6%
- Ohio: 7.75% reduced to 6.5%

# Methodist Church

- The Methodist Church for many years provided a rate of return guarantee.
- In 2000, it reduced the guarantee to zero percent, then in 2003 ended it.

# Guarantees in Other Countries

- Rate of return guarantees are found in plans in a number of other countries.
- In some countries, such as Germany, Switzerland, and Belgium, the guarantee is mandated.
- In Japan, the guarantee is mandated as an option that must be provided in voluntary plans.

# Return of Principal

- Germany and Slovak Republic mandate a guarantee of the return of principal.
- Since instituted in the early 2000s, it has not been changed.

# Switzerland and World Bank

- Switzerland has a fixed rate guarantee, but it periodically adjusts it, so that the guarantee takes on the characteristic of a variable rate guarantee.
- World Bank provides as an option a 3 percent real rate of return guarantee, in effect since 1998.



# Conclusions:

## Durability of Low-Rate Guarantees

- Guarantees at a low rate, such as return of principal, are inexpensive to provide and seem to be durable.
- They seem to be increasingly popular with the market turmoil of the 2000s.

# Durability of Generous Guarantees

- Guarantees above the risk-free rate of return can be expensive to provide, and in a number of instances the provider has reduced them, closed them to new members, made them flat rate instead of minimum guarantees, or eliminated them.
- These types of guarantees have been provided by state governments in the US for their employees, and by the World Bank.

# Financing Generous Guarantees

- Generous guarantees have been maintained through subsidies by the provider – such as state governments in the US.

# Trend

- There is a trend toward more countries mandating low-rate guarantees, such as guarantee of nominal principal.

# Not Found

- We have not found any countries or plans providing a guarantee of the real value of principal, but some of the countries with low-rate (but positive) guarantees approximate that.

# Thank you

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