

# The Adjustable Pension Plan: A Balanced Approach

The author describes a new pension plan design intended to avoid problems associated with defined benefit and defined contribution plans, while sharing risks between plan sponsors and employees.

by | **Richard Hudson**





**T**hanks to a variety of factors, including the more stringent funding standards mandated by the Pension Protection Act, the maturation of many pensions, volatile financial markets and the economic recession, a new kind of pension plan may be needed. Specifically, employers want a way to reduce their exposure to risk and stabilize pension costs, and participants need a secure source of retirement income.

A new plan design—the *adjustable pension plan*—deals with problems faced by current plans, mitigates risks inherent in pension plans and shares the remaining risks rather than placing the burden on one party.

Changing from a traditional career or final average defined benefit (DB) plan to a 401(k)-style defined contribution (DC) plan accomplishes the employers' goal. However, this creates significant risk concerns for participants. Of course, many employers made this change decades ago. But those that have not already done so probably balked because they are unwilling to sacrifice some essential features of the DB plan model.

In particular, employers want their participants to have a benefit program that will provide lifetime income to ensure they do not outlive their savings. Participants also need a benefit plan that accrues benefits in a manner similar to the existing pension so the benefit reduction is not as severe as generally occurs in a complete shift to the DC model.

Younger participants may be more in favor of a DC plan, as they have more time to invest and (in theory, at least) earn higher benefits over the long run. But participants are not professional investment managers and likely will not be able to earn as much as a professionally managed trust.

Additional problems with DC plans include:

- The mortality risk is greatly increased, and participants may outlive their retirement income. To counter this, they must attain a higher level of earnings or savings—or both.
- Participants' investment knowledge is not as great as that of professional pension trust managers. Experience shows the average participant earns 1% less annually when investing on his or her own, as compared to a professional manager.
- Typically, participants also will invest more conservatively, which will further reduce their investment returns and, ultimately, their retirement income.
- Changing to a DC plan from a DB plan will reduce benefit accruals for older participants by a larger amount than for younger participants. This is due to the retention value of DB plans—the value of accruals is higher in later years under a DB plan.

### Overlooked DC Plan Downsides

Some additional downsides to shifting to the pure DC retirement plan model are now starting to rise to the surface—but typically are not considered, let alone addressed, by plan sponsors when making the change:

- Participants often lack sufficient retirement income or security, so they must continue to work past the age when they typically would have retired. (This phenomenon has become particularly evident since the 2008 financial crisis.)

## Advantages of an Adjustable Pension Plan

- **Inflation risk controlled.** A career pay or fixed dollar benefit formula is used to control the plan sponsor's exposure to inflation risk.
- **Maturity risk controlled.** Using a liability-driven investing (LDI) strategy for assets backing retirement liabilities reduces the sponsor's risk of providing benefits for workers close to or within retirement.
- **Mortality risk controlled.** This risk is reduced with a pooled population, and is more predictable in a DB plan than a DC plan, from the participant's perspective.
- **Contribution stability.** Contributions are designed to be sustainable and ongoing, so no "contribution holiday" should occur. This reduces the negative cash-flow risk.
- **Older participants protected.** Benefits accrue like traditional DB plans.
- **Younger participants rewarded.** Adjustable portion earns interest and will likely provide larger benefits for younger participants.
- **Retirement security maintained.** APP participants can plan for their retirement, and retire with a secure source of lifetime income.
- **Shared investment risk.** Risk is balanced between participants and employers.
- **Professional investment management.** Assets are professionally managed to provide for better investment income with a low level of investment risk.

- In some situations, participants must work past the age where they are productive, and possibly beyond the age where it is safe for industrial workers to perform key tasks.
- The presence of older workers remaining on the job may lead to additional health care and disability claims, which will increase employers' cost of providing these benefits.
- Salary costs may also increase over time as older workers con-

tinue on in their current jobs rather than retiring and allowing the employer to hire younger workers at lower salaries.

### A New Middle Ground

The adjustable pension plan (APP) seeks to provide a middle ground and is drawing increasing interest from plan sponsors. It adjusts benefits to meet employers' need to lower their risk exposure and stabilize costs. It also provides retirement income protection for participants.

At the heart of the APP is the principle of risk sharing between the plan sponsor and participants, moving away from the all-or-nothing world of traditional DB and DC plans. The APP's design also takes into consideration the history of what caused many plans to fail, and seeks to address each of these concerns to ensure the APP's sustainability.

The general idea is to provide participants with a meaningful benefit that supplements Social Security and individual savings. The benefit design is based on a conservative interest rate of 5%. The employer's contribution level is determined on the basis that it will be both affordable and sustainable.

Then, the level of benefits is determined such that the benefits can be provided safely by the contributions utilizing a valuation model with conservative assumptions. This monthly benefit may be a fixed dollar benefit such as \$50 per year of service or a pay-related formula such as 1% of annual earnings. This actuarially determined benefit will then become the plan's *floor benefit*. The floor benefit accruals are accumulated each year until retirement.

### Limiting Investment Risk

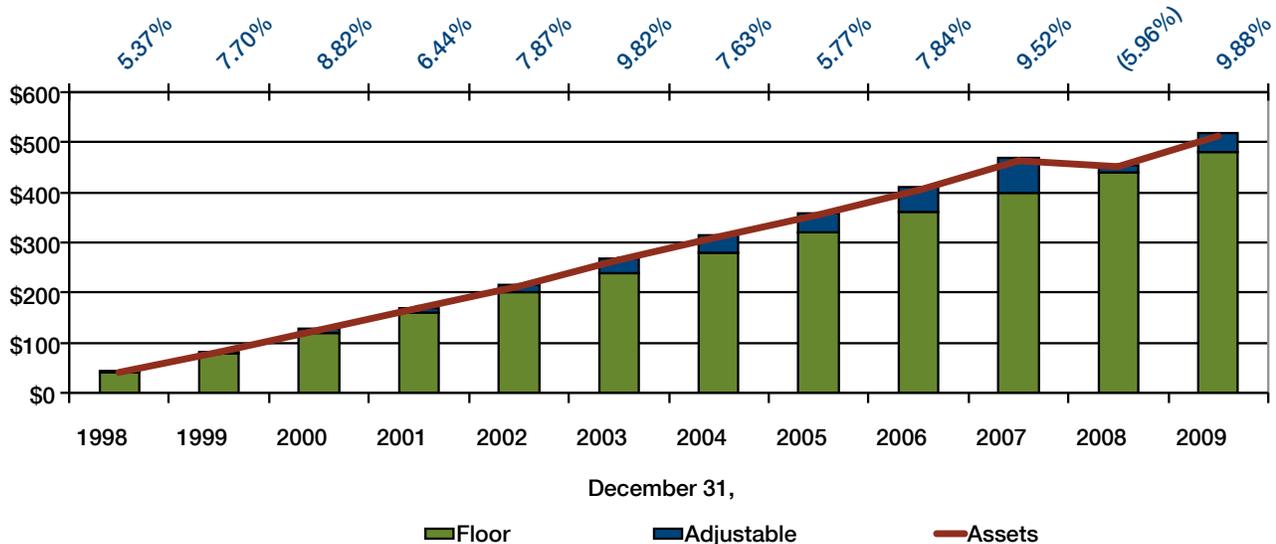
The conservative interest rate assumption allows the plan to take most of the investment risk off the table. This helps stabilize the funding levels of the plan. The higher investment risk often taken by traditional pension plans may lead to higher returns and higher funding levels, but history has shown the increased funding levels lead to increased benefit promises. So the downside risk for investments is much greater for plan sponsors than the upside. The conservative assumption ensures the plan sponsor is aware of the liability in the plan

## takeaways >>

- Employers that have resisted switching entirely to DC plans may have been reluctant to give up the advantages of DB plans.
- The APP assumes a conservative 5% investment return.
- The APP provides the higher of either a floor benefit or an adjustable benefit that depends on investment returns.
- The plan reduces the risk of unfunded liabilities or surplus returns (which can lead to increased benefit promises).

FIGURE 1

## Hypothetical APP Liability, Asset Accumulation Scenario



rather than masking the value of the liability with higher interest rates.

The benefit formulas used in the APP help control the level of inflation risk in the plan. Inflation risk is higher in final average pay plans since individuals can load up on overtime in their final years before retirement, giving participants the ability to influence the level of their retirement benefits and increase the liability to the plan.

The APP's design assumes a fixed income-based, liability-driven investing (LDI) strategy will be applied for liability associated with retirees, rather than investing those earmarked assets in the equity markets. This helps ensure the plan does not run into a generational gap issue where today's generation pays for the benefits earned by the prior generation.

### Participants Have Investment Upside Potential

In addition to the floor benefit, the APP plan participant is awarded with a number of notional "shares," depending on the current share value of the plan. These imaginary shares are accumulated each year and credited with an investment rate equal to the return on the trust assets in excess of the assumed rate (5%).

The value of the shares is the APP's *adjustable benefit* component. The adjustable benefit will be increased in years when the return on the pension trust exceeds the assumed rate of 5% and decreased in years when the return on trust assets is less than 5%. There is also a cap rate of 10%; excess

returns above this rate will be used to create a surplus in the pension plan, rather than increase the liability.

The final benefit paid from the plan is the greater of the floor benefit or the adjustable benefit. This provides a layer of risk sharing within the pension plan. When investments outperform, the benefit will automatically adjust upward. When investments lag, the benefit will automatically adjust downward. This way, the participant shares, in a controlled manner, in the risk/reward attributes of the investments. The final benefit will not fall below the floor benefit, so the plan sponsor is responsible for providing this level of benefit.

### Back-Testing the APP

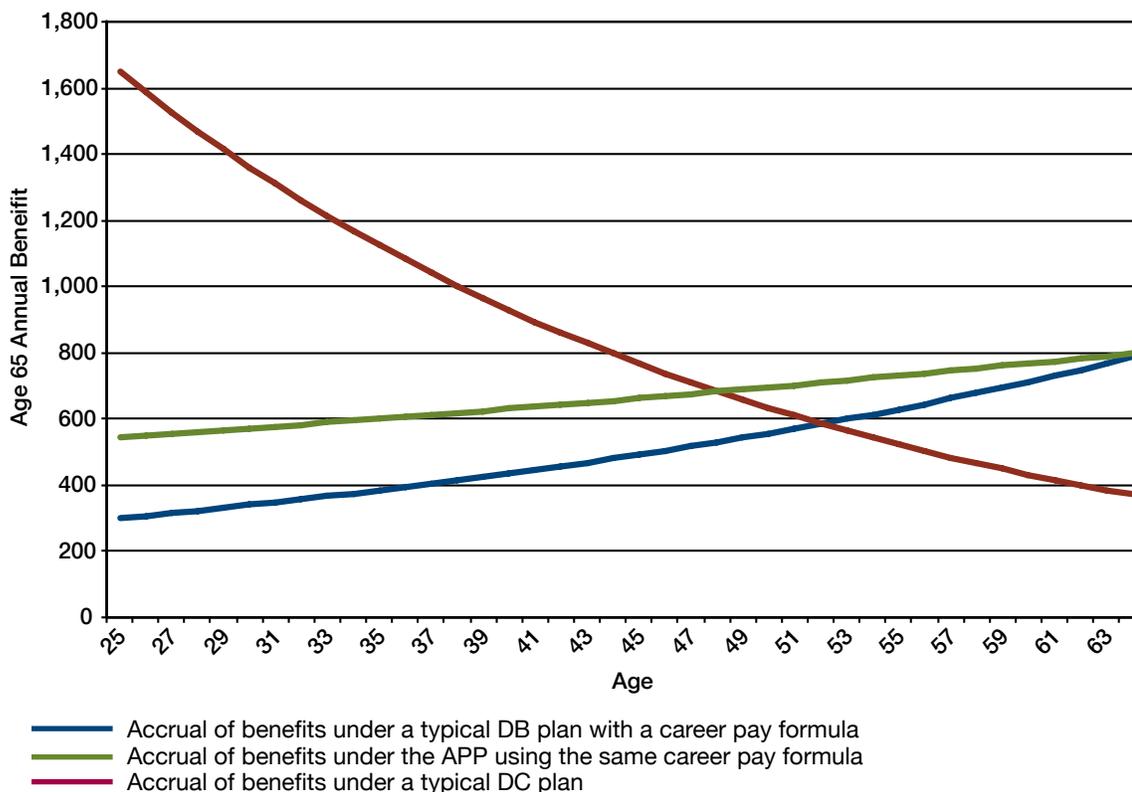
In the process of developing the APP concept, several investment management firms were engaged to see how a portfolio could be constructed that addressed the need to control risk, and seek a reasonable rate of return for the pension plan. Figure 1 shows how a sample plan would look using the parameters described above.

In Figure 1, the rates across the top are the investment earnings for the plan in that year. The bars represent the liability in the plan (blue bar is the liability attributable to the floor benefit, red bar is the liability attributable to adjustable benefit). The green line is the value of the plan assets.

As is evident, there is one negative year (2008) where the assets lost almost 6%. The adjustable benefits were therefore reduced

FIGURE 2

## Annual Benefit Accrual Pattern for APP, Traditional Pension and DC Plan



and absorbed the shock of this economic crisis. This compares to typical funds where investments during this period were flat and most plans lost 25% or more during 2008. The fact that the model pension portfolio lost “only” 6% of its value in 2008 reflects how the conservative policy tempers big swings in the market.

### Accrual of Benefits

The value of benefits accruing in a traditional DB pension plan is much higher for older participants than for younger participants. This is due to the plan accruing a benefit in the form of an annuity. The closer the participant is to retirement, the more valuable the benefit is.

A DC plan accrues a benefit based on a specific contribution amount each year, usually expressed as a percentage of pay. Typically, the amount of the contribution is the same regardless of the participant’s age, though the plan may provide contributions that increase with a participant’s age and/or service. Due to the IRS accrual rules, even the “graded” DC formulas cannot match the back-loaded accrual pattern of a DB plan.

The APP is different. It is a DB plan and has the same accrual pattern of typical DB plans. The adjustable portion allows the value of benefits accruing for the younger participants to earn additional value through investment performance. The result of that combination is a more level benefit accrual pattern as participants age (see Figure 2).

The APP’s benefits design provides financial stability for the employer by allowing the adjustable benefit to decrease during times of poor investment return. This safeguard, combined with conservative investment assumptions and a correspondingly conservative investment approach, reduces the likelihood of an unfunded liability occurring in the plan.

### Converting to the APP Model

Converting from a DB pension plan to an APP is a more equitable solution than converting to a DC plan. Converting to a DC plan often reduces the expected retirement benefit of long-service participants by a larger percentage than for younger participants. The pension benefits earned by older participants

in their first years of a traditional pension are of lower value. As they approach retirement and expect to earn benefits of higher value, they are switched to a DC plan where the value of accruals is lower. Converting to an APP avoids these issues because the accrual pattern is the same as a DB pension plan.

### Balancing Assets, Liabilities

In a DB plan, pension liabilities grow each year and are directly affected by interest rates, growing more rapidly when rates decline. Equity investments are volatile, and the returns are not correlated to the movement of liabilities as interest rates change.

The structure of the APP mitigates the investment mismatch between assets and liabilities by immunizing the retired life liability and structuring a significant portion of the assets to be synced with the liability, using the LDI strategy.

The notional share values are determined by asset investment performance, and benefits are determined by reference to the underlying share values. Accordingly, there will be a closer match of assets and liabilities than has been done in the past.

If investment experience results in a significant asset loss, the amount of liability attributable to the adjustable benefit that exceeds the floor benefit will be reduced first. If the plan still has an unfunded liability, then the employer would be required to provide additional contributions. However, the employer could temporarily freeze accruals to offset the cost of these additional contribution requirements.

By reducing the risk of unfunded liabilities or surpluses, the APP provides:

- More stability in contribution requirements
- More stability in accounting expense
- Reduced probability of Pension Benefit Guaranty Corporation variable premiums or 4010 filings
- Reduced probability of participant notifications regarding underfunded status
- Higher probability of providing benefits over the long term.

### Long-Term Sustainability

The value of an employer-sponsored retirement plan comes from the long-term view of the plan and the ability to provide affordable benefits. A DB plan invested in a traditional portfolio with equity investments may appear affordable, but the risk associated with an aggressive investment posture has caused many plans to fail. The APP retains the

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efficiencies of the DB promise, while sharing the investment risk with participants and mitigating the various other hazards that have caused so many plans to fail. 

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- Gene Kalwarski, president and CEO of Cheiron
- David Lee, vice president of Strategic Income Security Services.

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