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ISSUE BRIEF
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The Value of Defined Benefit Plans

Defined benefit (DB) and defined contribution (DC) plans are both components of a broad examination of retirement security. However, there are a number of distinct differences between these types of retirement plans. The American Academy of Actuaries' Pension Committee has created this issue brief to discuss these differences, what they mean to long-term retirement goals, and ways to achieve parity between DB and DC plans.

Definitions

Defined benefit plans (DB) specify the benefit employees will receive when they retire from employment. DB benefits can be of any amount, calculated according to a formula and defined in a legal document. For example, a traditional DB formula might be 1 percent of average compensation for every year worked. Thus, an individual who worked for 30 years would get 30 percent of his average compensation when he retires (on top of Social Security). Because the benefit is defined, employees know what benefit payout to expect when they retire, thus enabling them to plan ahead.

Defined contribution plans (DC) specify the contribution the employer pays into the plan each year for the employee. The amount that employees get at retirement depends on investment choices and market trends. In 1978, Congress enacted section 401(k) of the Internal Revenue Code (IRC) to allow employees to make pre-tax employee contributions to certain DC plans and allow employers to match them. In a typical private-sector 401(k) arrangement, an employee might contribute 6 percent of wages (pre-tax), and the employer might match it 50 cents on the dollar, for a total employer contribution of 3 percent of that employee's wages. Thus, private sector employees sometimes contribute more than their employer.

Hybrid plans: Retirement plans are called hybrid plans if they combine both DB and DC elements. For example, in a hybrid known as a cash balance plan, the employer promises both the contribution to an account (e.g., 5 percent of pay) and

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the investment return (e.g., 6 percent or the 30-year Treasury bond yield). It is a DB plan because the employer guarantees the return even if the underlying plan assets don't perform well. Hybrid plans provide flexibility in terms of how much is contributed each year and where the funds are invested. They also have some flexibility in design and can improve benefits quickly when needed. While it is often argued that traditional DB plans are not as valuable for an increasingly mobile workforce, the design of a cash balance plan alleviates those concerns without sacrificing the benefits of a traditional DB plan. Other examples of hybrids include pension equity plans (PEPs), which in effect often provide an investment return equal to the increase in the employee's pay.

Just after ERISA was signed into law in 1975, 40 percent of the labor force participated in a DB plan, and 16 percent participated in a DC plan. Today, however, the reverse is true — only 20 percent participate in a DB plan, while 43 percent participate in a DC plan.[1]

Advantages of DB plans versus DC plans to employees

Retirement security: DB plans provide employees with predictable incomes for life, no matter how long they live.

Risk: DB plans can more effectively reduce the different types of risk for employees than DC plans.

- *Investment risk* – In a DB plan, the employer generally assumes the investment risk, so employees will not suffer if they retire in a down market. While declines in the stock market and low interest rates affect DB plans, and may potentially cause underfunding, those declines affect DC plans as well. With DB plans, the employer has some time to bring the plan up to a fully-funded status. If the employer is in bankruptcy, the PBGC provides a guarantee, which does not cover DC plans. In a 401(k) arrangement, older employees experiencing a down market may have to delay retirement – or even worse, tighten their belts, if markets decline after they've made an irrevocable decision to retire.
- *Longevity risk* – The DB plan assumes the employee's longevity risk by paying a pension for the life of the worker, no matter how long that may be. Employees in a 401(k) can do this by buying an annuity after they retire, but few do. Most 401(k)s do not even offer an annuity payout option, and people are reluctant to buy their own annuities in the market.
- *Inflation risk* – The employer often assumes the inflation risk until the employee quits or retires. In addition, most government DB plans (and a handful of private-sector DB plans) provide inflation indexing after retirement. Some people have suggested that a 401(k) invested in stock can compensate for this risk, but stock returns do not correlate well with inflation over the short run.
- *Contribution risk* – DB plans generally cover all employees, except temporary and some part-time employees. However, in a 401(k) arrangement, even with tax advantages and employer matches, many workers will not or cannot contribute, leaving them without a benefit when they retire. Another large group of employees may contribute, but not enough to provide an adequate retirement income, because they don't know how much is needed.
- *Leakage risk* – Many DB plans still pay only annuities. In all 401(k) arrangements, however, employees can easily withdraw their money and spend it before retirement. The loan option in a 401(k) arrangement can also serve to deplete savings, because loans are usually deducted from account balances when an employee leaves active service.
- *Disability risk* – Many DB plans pay pensions upon disablement. DC plans are not as good at providing disability benefits as DB plans, particularly at young ages when the account balance is small. Some large 401(k) arrangements allow participants to elect a group long-term disability coverage that will make up their own contributions and matching contributions while disabled, but the participants will have to pay for the coverage.
- *Survivor risk* – DB plans pay survivor pensions to spouses upon the death of the employee (both before and after retirement) and the employer self-insures this risk. In 401(k)s, retirees often spend their money too quickly so that there is no money left for the survivor.
- *Early retirement risk* – In some DB plans, employees who retire early can receive a subsidized early

1. Department of Labor/Employee Benefits Security Administration: Abstract of 2001 Form 5500 data tables A2 & D3 (February 2006). Also from Workers from BLS statistics: employed (full and part time) and unemployed wage and salary workers (table E4).

retirement benefit in order to manage the transition into retirement. A 401(k) cannot provide subsidized benefits.
- *Company solvency risk* – If a company goes bankrupt, most accrued benefits would be guaranteed by the PBGC[2], whereas in a DC plan any assets invested in company stock would lose all value.

Higher returns: DB plans have been more efficient at investing one large pot of funds, which means they can fund larger benefits with the same contribution, or the same benefit with a smaller contribution. According to the Department of Labor, there is a much higher level of risk for employees in their 401(k) arrangements, particularly those investing in their employer's stock.

Advantages of DB plans versus DC plans to employers

Flexibility of DB plans: The DB plan is as flexible and creative as the ideas of its designer.
- *Contribution flexibility* – Employers have some flexibility in the amount of contributions they make to DB plans each year – in good years they can put in more, and in tough years, they can put in less. A 401(k) does not have this flexibility. If an employer commits to a 50 percent match, the employer must pay it whatever the amount of employee contributions. If an employer desires, he can reduce or eliminate the match, but he must announce it before the beginning of the plan year. In a DB plan, the employer can adjust contributions within the minimum to maximum range, which will affect the funding ratio but not the participant's immediate benefits. In a DC plan, though, any changes to contributions will have a direct and immediate impact on participant benefits.
- *Investment flexibility* – Employers with DB plans can invest more in experimental asset classes, hard-to-value assets and non-liquid assets. Because many other investors (including DC plan participants) will not or cannot do this, DB plans may better manage risk or earn a higher premium for the amount of risk taken using these investments.
- *Design flexibility* – DB benefit formulas can be amended easily. For example, an employer can: open a retirement window to encourage some quick retirements and pay for it gradually, increase benefits when the labor market is tight, and provide an ad hoc COLA to retirees if inflation has been high and/or the pension plan's investments have done well. A 401(k) could not make these design changes.

Workforce management: DB plans help employers better manage their workforce.
- *Retirement windows* – Companies can use early retirement windows in DB plans to mitigate the negative financial effects of workforce reductions on employees. A 401(k) arrangement cannot provide early retirement windows.
- *Retire older employees with dignity* – Retiring older employees is easier when one can give them a pension from a DB plan. If the employer had only a 401(k), the older employee may not have enough funds to retire because of a number of reasons, including drops in the stock market, jumps in inflation, poor investment returns, leakage, etc.
- *Create promotion potential for younger employees* – Employees in DB plans can retire with more regularity, allowing employers to promote and keep younger employees. With a 401(k), employees are more likely to retire in large numbers when the markets do well, and not retire when markets decline, which makes workforce management more difficult.
- *Retain employees* – DB plans provide stronger incentives than 401(k)s for employees to continue with the company.
- *Recruit employees* – DB plans, like 401(k)s, can provide good benefits to young employees if the employer desires to use such a plan for recruiting purposes.
- *Satisfy collective bargaining considerations* – Unions are more likely to bargain for DB plans.

Increased productivity: Like 401(k)s and other DC plans, DB plans can improve employee morale and reduce

2. The PBGC insurance can allow weak companies to avoid paying for all their accrued liabilities. It is hoped, however, that pension reform legislation will reduce this problem in the future.

employee fears about retirement, which can increase employee productivity. When communicated well, DB plans are more effective in reducing retirement fears among older employees because DB pension benefits are more predictable.

Advantages of DB plans versus DC plans to the nation

DB pension plans are broader based: Generally, a higher percentage of an employer's workforce is covered in a DB plan than in a 401(k), where the employee's contribution is voluntary. Thus, low-income workers are much more likely to get a benefit from a DB plan and thus less likely to depend on government assistance programs in retirement.

The trillions in DB assets promote national saving, economic efficiency, and certain markets that 401(k)s cannot: As shareholders, DB plans have been leaders in promoting better corporate performance, which reduces the cost of providing DB plan benefits, while DC plans have conflicts of interest that inhibit this role. In addition, DB plans can provide these funds to the real estate sector, and other less liquid and hard-to-value assets. 401(k) and other DC plans generally do not or cannot invest in these areas.

Reduces the nation's dependence on Social Security and government assistance programs: Both DB and DC plans reduce the nation's dependence on government programs, but DB plans are more effective because participants are more likely to receive a stable, predictable benefit for life.

DB plans reduce poverty rates for the elderly: Lifetime pension benefits from DB plans are more likely to help reduce poverty rates where they are the highest (e.g., amongst very elderly women), because of the level income for life and joint and survivor requirements.

Achieving parity between DB and DC plans

At one time, DB plans covered 40 percent of the workers in the U.S. Now, they cover less than half that percentage. The disparity in treatment of DB versus DC plans set by law has contributed to this decline. Below are a few of the rules that create a disadvantage for DB plans.

- DC plans can have pre-retirement distributions, tax-deferred employee contributions and employer matches, while private-sector DB plans cannot.
- DB plans must provide annuities and elections for spousal survivor benefits, but DC plans and regular savings are not subject to this requirement; and most DC plans do not provide any annuity options at all. Because this is a valuable requirement, one option would be to require DC plans to offer annuities.
- Private-sector DB plans are generally required to pay for PBGC insurance, which increases benefit security, but DC plans have no requirement to insure benefits.
- DC plans (and regular savings) can provide partial phased-retirement benefits to older employee who are still working part time, whereas DB plans cannot.
- Low-income employees can get the IRC Sec. 25B tax credit match from the government in DC plans and IRAs, but not in DB plans.
- Small employers can get a tax credit for DC plan start-up costs, but not for new DB plans.
- DC plans can easily pass on higher rates of investment returns than Treasury rates to employees, but cash balance DB plans cannot do this without running into difficulty with other pension rules.
- Rules for determining lump sums in DB plans tend to discourage participants from choosing annuities, diluting one of the key advantages of DB plans.
- Some proposals require a DB plan to be maintained for five years after converting to a cash balance formula. DC plans would not be subjected to a similar requirement.

Some of the disadvantages DB plans encounter can be alleviated through a more equal treatment of DB and DC plans. In fact, an Academy issue brief on the concept of DB-K, a retirement plan that could combine valuable features of DB and DC plans, discusses several approaches to providing more parity between these two types of plans. Some of the restrictions imposed on DB plans are quite important, so consideration of whether to apply them to DC plans is crucial now that 401(k)s are becoming the sole or primary retirement plans for millions of workers.

Defined benefit plans play a valuable role in retirement security. They not only provide a guaranteed benefit for life, they also manage risk more effectively than defined contribution plans. While personal savings through 401(k)s or other savings vehicles is an important component of retirement planning, the value of a stable, secure income should not go unrecognized.

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