

Center for American Progress



Ensuring Retirement Income Security with Cash Balance Plans

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Introduction

Airline bankruptcies and the terminations of defined benefit (DB) pension plans at United Airlines and US Airways have garnered the attention of policymakers and the media. Much of the debate focuses on avoiding a domino effect among airlines and preventing a similar future culmination of pension plan failures in other industries. In addition, the conversion of traditional DB plans to so-called cash balance plans will be on the table, too. Increasingly, firms that offer a DB plan have changed the way benefits are calculated to a cash balance plan. These plans combine aspects of DB plans – guaranteed benefits – with aspects of defined contribution (DC) plans, such as 401(k) plans – individual account balances. Cash balance plans may help a more mobile workforce accumulate more retirement savings than traditional plans, but employers may also disguise benefit cuts in the conversion. In particular, these benefit cuts may be bigger for older workers than for younger workers. This is one reason why recent court decisions ruled them age discriminatory, hence requiring congressional clarification of the existing rules.

A closer look at the evidence on cash balance plans shows the following:

- Under the right circumstances, cash balance plans can prove beneficial for workers who are more mobile. Whether they are preferable to a traditional DB plan depends on the particulars of an employer's workforce.
- As the private sector participation rates in traditional DB plans have stabilized, the coverage by cash balance plans has risen. In 2003, 24.6 percent of all participants in DB plans were covered by hybrid plans, mainly cash balance plans, up from 20.5 percent in 2001.
- Workers' retirement income security needs to be protected in the conversion of cash balance plans. Substantial transition benefits, most notably the choice between staying in the old plan and being covered under the new one, for all current workers would ensure that benefit accruals wouldn't be cut.
- Because cash balance plans offer lump sum benefits, the risk of outliving one's savings also grows. To counter this, tax incentives could be offered if people convert their lump sums into monthly benefits. Such tax incentives should be targeted towards lower and moderate income households who have few savings and they should be offered for all retirement plans.

Cash Balance Plans

Although private pensions are characterized by intricate rules and regulations, there are a few basic characteristics. For instance, the employer can decide to sponsor a pension plan or not and to exclude some employees, and depending on the type of plan, the employee can decide to participate or not. In 2003, 57.3 percent of private sector workers worked for an employer who sponsored a pension, but only 46.7 percent participated.

Traditionally, most pension plans were DB plans. Under a traditional DB plan, the employee is guaranteed a benefit upon retirement, usually based on years of service, age and final earnings. The benefit formula is designed such that employees accrue most of their benefits during their last years of service. Typically, employees are not immediately vested in their DB plan, but the maximum vesting period is five years.¹ The funding of the plan's liabilities (promised benefits) is the employer's responsibility. The employer bears the risk if the plan has too little money to pay promised benefits and requires additional contributions. Accrued benefits for private sector DB plans are insured, within limits, by the Pension Benefit Guaranty Corporation (PBGC).

Cash balance plans are another form of DB plans. Here, employees accrue benefits in proportion to their current earnings. A worker's (notional) pension account is credited with an amount equal to a fixed share of a worker's wage or fixed dollar amount each year and the account balance is assumed to increase at a pre-determined interest rate, the interest credit. In comparison, under a traditional DB plan benefits are related to final (and presumably above average) earnings. As a result, younger workers accrue higher pension wealth under a cash balance plan than under a traditional DB plan, while older workers accrue pension wealth faster under a traditional DB plan.

In important aspects, cash balance plans operate like traditional DB plans. Investments are made in one large investment pool, the investment risks are borne by the employer, accrued benefits are insured by the PBGC, participants are automatically enrolled, and employees have the option of low-cost guaranteed monthly benefits, so-called annuities, as the default form of benefit distribution. Thus, cash balance plans, like all DB plans, can reduce longevity risk, i.e. the chance of outliving one's savings.²

In other aspects, cash balance plans behave like DC plans. Employees have notional account balances that can be rolled over into other qualified retirement plans when one job ends before retirement. Cash balance plans also accrue benefits in the notional account relative to workers' current wages. Thus, with frequent job changes workers no longer lose out on larger future benefit increases that typically occur under traditional DB plans for more senior employees with higher wages.

¹ Employers may use an alternative graded vesting schedule under which a worker vests gradually, with 100 percent vesting occurring as late as 7 years after the worker first becomes employed.

² Often when employees are given the choice between an annuity and a lump sum upon retirement, they tend to choose the lump sum distribution option (Cahill and Soto, 2003). Consequently, lump sum distributions are considered the typical withdrawal option under cash balance plans (table 1).

This does not mean that either type of plan is better. It depends on the characteristics of a particular workforce, especially on turnover rates and mobility across industries.³ Where mobility is greater, workers may be better off with a cash balance plan. It also depends on the characteristics of the specific plan. Often early retirement subsidies are eliminated in the conversion from a traditional DB plan to a cash balance plan, as discussed further below. While this may leave the full retirement benefits intact, it would mean a benefit cut to workers who had counted on retiring early. In industries with long tenures and physically demanding occupations, the reduction of early retirement subsidies may be especially harmful (Weller, 2005).

The commonalities and differences between traditional DB plans, 401(k) plans and cash balance plans are summarized – in a stylized form – in table 1.

Table 1
Characteristics of Typical Pension Plans, by Plan Type

Characteristic	Defined Benefit (DB) Plans		
	Traditional	Cash Balance	401(k) Plans
Participation	Automatic	Automatic	Voluntary
Contribution	Employer	Employer	Employer and employee
Investments	Determined by employer	Determined by employer	Determined by employee
Withdrawals	Annuity	Lump sum	Lump sum
Rollovers before age 65	Not permitted	Permitted	Permitted
Benefit guarantee	PBGC	PBGC	No guarantee

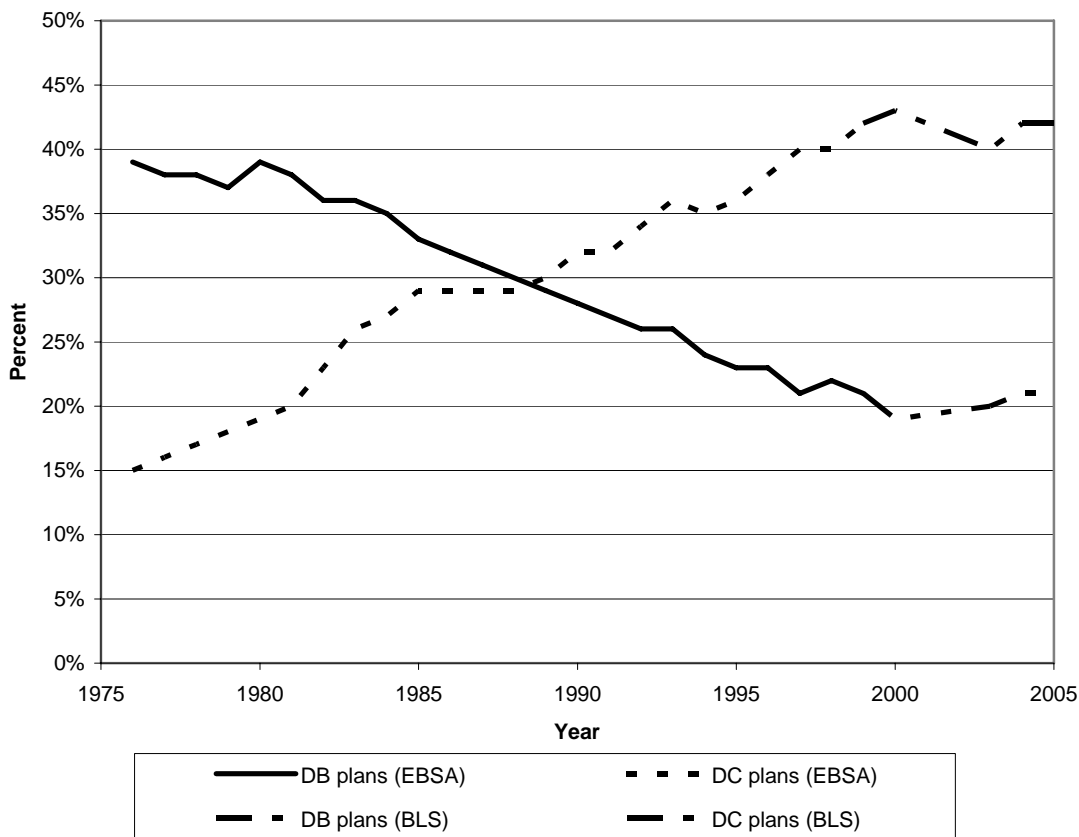
Source: Clark and Schieber (2002).

Trends in DB Plan Coverage

For several years, the participation rate in DB plans declined in the private sector, while it appears to have stabilized recently. In 1976, 38 percent of private sector workers were covered by a DB plan. This proportion had been cut in half by 2000, when only 19 percent of private sector workers participated in a DB plan. In 2005, the share of workers with a DB plan had gained a little ground with 21 percent (figure 1).

³ In the case of movement within an industry, often multiemployer plans can offer a portable benefit, even in high turnover occupations, such as in the building trades.

Figure 1: Pension Plan Coverage



Notes: Sources are EBSA (2004); BLS (2005).

Among DB plans, there has been a shift toward hybrid plans. Hybrid plans made up less than 4 percent of all plans in 2001, but amounted to close to 5 percent in 2005 (table 2). Among plans with 5,000 or more participants, the share of hybrid plans rose from 22.0 percent in 2001 to 26.5 percent in 2003 (table 2). Consequently, the share of participants covered under a cash balance plan grew from 20.5 percent in 2001 to 24.6 percent in 2003 (table 2). Although cash balance plans have been in existence for some time, 60 percent of cash balance plans for Fortune 1000 companies were established between 1996 and 2000 (GAO, 2000a). This rise of cash balance plans was largely due to the conversion of existing DB plans to the cash balance plans. With the rise in cash balance plans, more workers had access to a lump sum distribution option under DB plans, 48 percent in 2002 as compared to 23 percent in 1997 (BLS, 2005; Cahill and Soto, 2003).

Table 2
Share of PBGC Insured Hybrid Plans by Plan Size (2001-2003).

Beginning of year	2001	2002	2003
Share of plans			
Total hybrid plans as share of total plans	3.7	4.2	4.9
Hybrid plans as share of plans with 5,000 or more participants	22.0	23.1	26.5
Hybrid plans as share of plans with 1,000-4,999 participants	10.4	11.6	12.6
Hybrid plans with less than 1,000 participants	2.3	2.7	3.3
Share of participants			
Participants in hybrid plans as share of total participants	20.5	23.1	24.6
Participants in hybrid plans with more than 5,000 participants as share of plans of same size	25.0	27.9	29.5
Participants in hybrid plans with more than 1,000 and less than 4,999 participants as share of plans of same size	11.5	13.1	13.8
Participants in hybrid plans with less than 1,000 participants as share of plans of same size	4.4	4.6	5.0

Notes: All figures in percent. Figures refer to single-employer program only. Hybrid plans refer to all types of hybrid plans, of which cash balance plans and pension equity plans are the most common. Source is PBGC (2004).

Employers Benefit from Cash Balance Plans in Numerous Ways

The rise in cash balance plans is largely a result of large employers converting existing DB plans into cash balance plans. One reason for the conversion may be that employers want to offer a pension that is more portable than traditional DB plans to attract a more mobile workforce. With more mobility, the wealth accrual may more beneficial under cash balance plans, all else equal, than under traditional DB plans (table 3).⁴

Table 3
Ratio of Pension Wealth at Age 62 to Final Pay, by Plan and Number of Jobs

Number of jobs	Traditional DB plan	Cash balance plan
0	3.7	2.6
1	3.9	2.6
2	2.6	2.6
3	2.5	2.6
4	2.4	2.6

Source: Cahill and Soto (2003).

⁴ While the U.S. has a fairly mobile labor force, it is unclear whether mobility has increased over time (Munnell and Sunden, 2004). In fact, differences in turnover rates between women and men appear to have diminished over time as women's employment histories have become more stable (Royalty, 1998).

However, the potential benefits for more mobile workers may be offset by the loss of early retirement benefits for long-service workers. Traditional DB plans often offer an early retirement subsidy. While early retirement benefits are reduced from full retirement benefits, e.g. at age 65, this reduction is less than what it should be when the fact that people who retire early also receive benefits longer is fully taken into account. Employers often eliminate this early retirement subsidy in the conversion to a cash balance plan (Clark and Schieber, 2002).⁵

The conversion to a cash balance plan is a convenient way to eliminate the early retirement subsidy. In a traditional DB plan, benefits are expressed as monthly benefits at full retirement age. If a worker retires early, the plan will inform the participant of a reduction in benefits. In comparison, the benefits of a cash balance plan are expressed as lump sum amounts in a notional account. Should a worker choose to retire early, the reduction in benefits as compared to the amount that the worker would receive if she waited until reaching full retirement is hidden in the conversion of the lump sum to a monthly lifelong payment (McGill et al., 1996).

Eliminating early retirement benefits may be a redistributive policy instead of or in addition to a cost cutting measure. Clark and Schieber (2002) estimated that most hybrid plans reduced benefits by less than the cut that would have resulted from eliminating the early retirement subsidy and maintaining the existing DB plan. Put differently, plan sponsors appeared to have passed on part of the savings from eliminating the early retirement subsidy to beneficiaries. Since benefit accruals under a cash balance plan favor younger workers, this may be a redistribution of benefits.

Another shortcoming is the fact that plan sponsors often do not lower the vesting requirements of participants. GAO (2000b) found that 72 percent of Fortune 1000 companies surveyed that converted their pension plans to a cash balance plan maintained the five-year cliff vesting. If, for example, vesting stays at five years, mobile workers are unlikely to benefit from a DB plan, regardless of its type, since they often leave the employer before qualifying for the benefit.

A recent proposal, the *National Employee Savings and Trust Equity Guarantee Act of 2005*, introduced by Sen. Charles Grassley (R-IA) and Sen. Max Baucus (D-MT), addresses this shortcoming by proposing a maximum vesting requirement of three years for any hybrid plan.

Furthermore, the conversion to a cash balance plan appears to improve the predictability of pension contributions for plan sponsors. Employers are mainly concerned with unpredictable demands for outlays for their pension plans (Hewitt, 2003). Changes in pension contributions arise when the funding status of a plan changes. A deterioration of a pension plan's funding status would increase the financial demands on employers by requiring additional contributions and higher insurance premiums to the PBGC. The chance of additional contributions depends on how well employers can forecast a number of economic factors, most notably interest rates and stock prices, but also turnover rates

⁵ While this does not constitute a cut in full retirement benefits, it is nevertheless a reduction in promised benefits, especially since most people tend to retire before reaching the full retirement age, typically 65.

and wage growth (Weller, 2005b). Because benefit accruals in a cash balance plan are more closely tied to current earnings, i.e. they are more evenly spread out over an employee's career than in a traditional DB plan, employer contributions to cash balance plans are somewhat more predictable than under traditional DB plans (Schneider, 2003; Savitz, 2005; Graff, 2003).

Policy Issues in the Conversion to Cash Balance Plans

Although there may be advantages to some participants from a conversion to a cash balance plan, depending on their individual circumstances, it is important that public policy addresses potential pitfalls that could arise in the conversion.

Age discrimination

A primary reason for Congress to act is a court decision regarding IBM's cash balance conversion in 1999. Long-time employees argued that they would receive 20 to 40 percent fewer benefits than under the then existing DB benefit (Schultz and Mulkeley, 2003). In the case of IBM's conversion, workers within five years of retirement were given a choice between the old and the new plan, but workers who had been with the company for a long time but were more than five years away from retirement were not given that choice. IBM eventually broadened the choices to allow workers with 10 years of tenure who were 40 years or older to remain with the traditional DB plan. However, IBM employees mounted a broader challenge to cash balance plans, claiming that they violated prohibitions against age discrimination under the Employee Retirement Income Security Act of 1974 (ERISA). In a decision by the U.S. District Court for the Southern District of Illinois, the court ruled that IBM did indeed violate the age discrimination prohibitions of ERISA with its cash balance plan. The court's decision, though, had wider ramifications since it effectively ruled that all cash balance plans are age discriminatory under ERISA and not just those converted from traditional DB plans.⁶

It has been argued that the District Court's ruling that cash balance plans per se and not just the conversion from a traditional DB plan was a result of the fact that cash balance plans did not exist when ERISA was established. Over the years, DC plans, which cash balance plans are designed to mimic, do not violate age discrimination rules because the accrual in a DC plan is the contribution in a given year, with no forward projection future earnings on the accrual. Consequently, it has been suggested that cash balance plans should be evaluated under the same rules guiding DC plans, such as 401(k) plans, to avoid age discrimination charges (Purcell, 2005). The threshold question in this comparison is how to define the benefit accrual that is evaluated under the age discrimination rules. Specifically, is the accrual of the annuity payable at normal retirement age based on additional years of service – the traditional DB standard – or is it pay credit in the current year – the DC plan standard? The accrual rate of an annuity

⁶ The ruling in *Cooper v. IBM Personal Pension Plan*, Southern District of Illinois, No. 99-829-GPM, July 31, 2003, argued that cash balance plans are age discriminatory because if benefits are measured as monthly pensions at the plan's normal retirement age, the rate of accrual decreases with a participant's age.

based on normal retirement age would actually decline over time with each year of service, because participants could count on fewer years of interest credit.

At this point, Congress can change or clarify the age discrimination rules, such that cash balance plans would not be considered age discriminatory as long as they meet certain criteria. In introducing the *Pension Protection Act* (H.R. 2830), Rep. Boehner (R-OH) tried to clarify current law with respect to age discrimination requirements under ERISA on a prospective basis. A plan would meet all age discrimination tests if a worker's benefits are equal to or greater than that of any similarly situated, younger individual in the plan. It prohibits employers from reducing or cutting any vested benefits workers have already earned, including benefits in a conversion to a cash balance plan. More specifically, the *National Employee Savings and Trust Equity Guarantee Act of 2005* introduced by Sen. Grassley (R-IA) and Sen. Baucus (D-MT) attempted to clarify the age discrimination rule by proposing that it is not age discriminatory that younger workers receive the interest credit for longer period of time as long as the interest credit or the pay credit of the cash balance plan does not decline with age. While such an approach may help to clarify the age discrimination rules and hence help in the case of the creation of new cash balance plans, it does not help to prevent against the erosion of benefits in the conversion to a cash balance plan.

Early retirement subsidy

The elimination of early retirement subsidies is a crucial aspect of the conversion to cash balance plans. Given that health improvements for older workers, especially in physically demanding occupations, are only slowly forthcoming, early retirement should remain a financially viable option for workers who have it.

Cash balance plan conversions can create additional hurdles for people to retire early by eliminating the early retirement subsidy. This is an issue for policymakers to address since the elimination of early retirement subsidies can create situations, where participants will work under the new cash balance plan for a period of time without accruing any additional benefits, so-called “wear-away” – discussed below.

Wear-away

An issue of concern in the conversion from traditional DB plans to cash balance plans is the so-called wear-away of benefits, a period of time during which participants do not earn additional benefits. There are three ways wear-away can arise: by plan design, from the elimination of early retirement benefits, and from interest rate fluctuations.

Wear-away due to plan design arises if the employer sets the opening balance of the cash balance notional account at a level below the amount that a worker would need today to have, with interest, enough money in the future to purchase already accrued monthly retirement benefits, the so-called present value of the accrued benefits. This occurs because there are few limits on the calculation of the opening account balance.

When an employer decides to convert a traditional DB plan, the benefits that workers have already earned and that are usually expressed as monthly benefits are translated into lump sum account balances. This is done in two steps. First, the future expected monthly benefits under the old DB plan are translated into a lump sum amount needed today, which would, together with interest, give beneficiaries the same amount of benefits in the future. For this calculation, pension plans assume one interest rate. This is the money that the pension plan owes the beneficiary for benefits earned under the old plan. Importantly, the higher the assumed interest rate is, the smaller the initial account balance will be. At the same time, though, the pension plan does the same calculation for the new plan, i.e. how much money the beneficiary needs to have to reach the same level of monthly benefits in the future. Wear-away arises because plans can use different interest rates for the two calculations. If the interest rate for the old plan is larger than for the new plan, the beneficiary ends up with a larger amount from the old plan than is necessary to reach the same amount of benefits under the new plan. Beneficiaries may work under the new plan for some time without earning additional benefits, until the two amounts are equal. For instance, the present value of a worker's accrued benefits is \$25,000, but her opening balance under the cash balance – by plan design – is only \$20,000. If she left her current employment, she would still receive \$25,000, but she would not earn any additional benefits to this lump sum until the balance in her notional account due to new pay and interest credits equaled \$25,000.

Wear-away can also occur due to the elimination of early retirement subsidies. If the old plan provides for early retirement subsidies and a beneficiary becomes eligible for early retirement benefits, wear-away can start to set in. Because of the early retirement subsidy, the present value of the early retirement benefits can surpass the notional account balance. The worker would continue to work under the new plan without accruing any new benefits until the notional account balance equals the present value of the accrued benefits under the old plan.

Lastly, wear-away can occur due to interest fluctuations. This can happen even if the opening balance and the present value are identical. If the interest rate falls after the date of conversion, the present value of the participant's accrued benefits will rise above the opening balance. Again, a worker will work without accruing additional benefits until the notional account balance equals the present value of the already accrued benefits.

The important policy lesson is that beneficiaries should be protected from wear-away in any conversion to a cash balance plan. This can only occur with substantial transition benefits. In fact, in a recent survey of 55 large companies that had converted to hybrid plans, the consulting firm Watson Wyatt Worldwide (2005) found that most employers – 89 percent – already provided transition benefits. For instance, 31 percent grandfathered workers under the old plan, 33 percent offered a choice between the old and the new plan, 13 percent of plan sponsors offered a “greater of” benefit, whereby benefits are calculated under both formulas and participants receive the greater of the two, and the rest offered transition credits of one form or another. GAO (200b) found similar trends, with only 14 percent of plan conversions among Fortune 1000 offering no protections. Although not all transition benefits offer the same level of protection for participants – GAO (2000b)

calculates that the majority, 68 percent, offered only partial protections – it seems that most employers are willing to offer those benefits to some degree.

Because of the range of transition benefit options, policymakers need to establish a minimum standard for acceptable transition benefits. Ideally, this should be a choice between the old and the new plan. As a first step in the right direction, the *National Employee Savings and Trust Equity Guarantee Act of 2005* introduced by Sen. Grassley (R-IA) and Sen. Baucus (D-MT) provides three options for substantial transition benefits. They include a choice for all participants of the old or the new plan, additional credits under the new plan that would avoid wear-away and be substantially the same as staying under the old plan, or no wear-away and a choice between the old and the new for five years or for workers 40 and older and with at least 15 years of service. The combination of age and service requirements, though, would exclude numerous participants from the transition benefits.

Whipsaw effect

Another issue arises from the Internal Revenue Code. It requires that the actual value of a lump sum of a DB plan be the actuarial equivalent of an annuity at normal retirement age. To make this calculation at any given point in time, the plan has to first project the balance in the notional account to retirement using the assumed interest credit. It then has to convert the calculated account balance at retirement into an annuity. Next, it has to calculate how much money a worker today would need to afford, together with interest, the same annuity upon retirement. Because the law requires that the calculation in step three generate a lump sum no less than would be generated by using the Treasury rate, which is typically lower than other interest rates and lower than the interest credit used in many cash balance plans, the whipsaw means that participants may receive a lump sum payment that is greater than their notional account balance.

The whipsaw raises some concerns. It may be age discriminatory, since younger workers would benefit from a longer period of interest rate differentials than older workers; it may provide an incentive for employers to be less generous in their interest credits; and it may increase the funding burden for plan sponsors (AAA, 2003). On the other hand, the use of the whipsaw method may ensure that participants receive at least some of the arbitrage gains that pension plans will enjoy over time by promising participants a lower interest credit than they expect to earn on the plan's investments. Ultimately, the goal of policy reform should be to allow employers to pay out the account balance as long as the interest credit is set within well defined and reasonable limits.

Lump sum distributions and annuitization incentives

Research has found that when beneficiaries are offered the choice between a lump sum and an annuity, they typically choose the lump sum (Brown, 1999; GAO, 2000b). Consequently, the conversion to a cash balance plan would mean that more beneficiaries would take lump sum distributions than annuities, thus giving rise to a growing longevity risk if participants outlive their savings.

Another problem arising from the lump sum distribution option is asset leakage. Often participants may choose the lump sum distribution upon terminating employment with one employer, but then may not rollover their retirement savings into another qualified plan. Instead, the distributed assets may be used to pay off debts, to pay living expenses, or to finance purchases of consumer durables (GAO, 2000b). The savings intended for retirement are no longer available for that purpose.

The goal thus is to get people, especially those who are more likely to face longevity risks than others, to reduce this risk at least in part by converting their lump sum savings into lifetime annuities. Lower- and middle-income people who often have comparatively low retirement savings are more likely to experience longevity risk.⁷ Consequently, incentives for people to convert lump sums into annuities should be targeted towards lower- and middle-income families. Furthermore, any incentive to do so should treat all retirement savings equally as not to disadvantage one group of families over another.

Two proposals have attempted to address this issue. Rep. Johnson (R-CT) introduced the *Retirement Security for Life Act of 2005* (H.R. 819) to exclude up to 50 percent of the amount otherwise taxable if savings are converted into an annuity, up to \$20,000 in 2007 and inflation-adjusted thereafter. Further, Rep. Pomeroy (D-ND) proposed the *Lifetime Pension Annuity for You Act of 2005*, which would have a deductible limit of 25 percent up to \$5,000 for DC plans.

The proposal for tax exemption of annuity income fails on targeting low- and moderate-income savers. To qualify for the full tax benefits, beneficiaries would have to have substantial retirement savings. For instance, to get the full tax benefits of the Johnson proposal, a beneficiary would have to have an annuity of about \$120,000. Two-thirds of such an annuity would be tax exempt, because the money has already been taxed. The other third is taxable, but only half is deductible, i.e. one-sixth of the total annuity equals the deduction amount. To purchase such an annuity, beneficiaries would have to have approximately \$1.5 million in savings. Moreover, because the tax incentives are tied to the marginal tax rates of beneficiaries, higher-income beneficiaries would receive disproportionately higher tax benefits than low and moderate income beneficiaries.

In addition, the current proposals explicitly exclude DB plans. This would put DB plan beneficiaries at a disadvantage over DC plans and further the demise of DB plans, thereby reducing retirement income security. In addition, it would, by definition, not address the growth in longevity risk under cash balance plan conversions.

⁷ The problem is especially pronounced for single women nearing retirement, who have disproportionately lower retirement savings than single men and married couples and who tend to live longer than men (Weller and Wolff, 2005).

Conclusion

Cash balance plans offer an alternative road to retirement security, especially in cases of a more mobile workforce. However, since cash balance plans are typically created by converting traditional DB plans, it is important to protect participants' benefits to ensure that their retirement income security does not decline in the switch to a new type of plan. This does mean that plan conversions do not violate age discrimination rules and that workers' already earned benefits are protected from being worn away under the new plan. Both can best be accomplished by offering current workers a choice between the old and the new plan. In addition, attempts to encourage people to convert lump sum distributions into annuities need to be targeted towards low- and moderate-income households and need to put all retirement plans on a level playing field.

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