401(k) plan

Asset Allocation of Defined Contribution Plans in Japan

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In defined contribution (DC) plans, the asset allocation decisions of plan participants can significantly affect benefits at retirement. Compared to their U.S. counterparts, participants in Japan tend to allocate a large portion of account balances to principal-guaranteed investments. But looking ahead, their allocation to risky assets could increase depending on stock market trends and the growing prevalence of DC plans.

In defined contribution (DC) plans, participants make asset allocation decisions on long-term investments whose performance can significantly affect income at retirement. If they allocate a large proportion of account balances to principal-guaranteed assets, they can lock in a minimum return equal to the initial investment, but the expected return will be low. Moreover, not all risks are eliminated—for example, exposure to inflation risk would be high compared to a stock mutual fund. Looking ahead, plan sponsors need to know the asset allocation patterns of participants to provide the best possible financial education.

With regard to DC plans for which Nippon Life Insurance Co. is the provider, Exhibit 1 shows the asset allocations of participants by age and gender (based on contributions). The most prominent characteristic is that 66% of account balances are allocated to risk-free assets (such as deposit accounts and GICs) compared to 34% for risky assets such as stock mutual funds. This result is consistent with a 2006 survey by the Pension Finance Association, which found that DC plan participants allocate 64% of account balances to risk-free assets. Thus in general, Japanese participants appear to prefer less risk.

The opposite is true of DC plan participants in the U.S. According to the *2007 Investment Company Fact Book*, only 21% of account balances are allocated to risk-free assets, with the other 79% going to risky assets (calculated from data in Figure 7.13 on page 84; includes bond funds, money market funds, and one-half of hybrid funds).

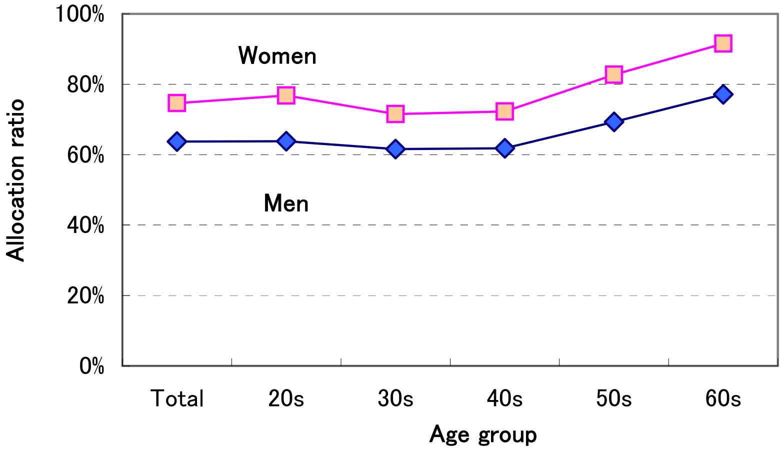
Several explanations exist for this sharp difference between the two countries. One states that investors in the U.S. and Japan have different levels of risk aversion. However, studies have found that such differences decrease when tangible assets are added to financial assets.

A more plausible explanation emphasizes the impact of historical stock prices on investor behavior, in particular the way that investors tend to be market followers when stock prices trend upward. Despite recent market turmoil from the subprime mortgage crisis, the robust long-term performance of the U.S. stock market has presumably encouraged participants to allocate a larger portion of account balances to stocks. Conversely, participants in Japan have shied away from stocks due to the prolonged post-bubble slump. If so, the preferences of plan participants could shift in the future depending on the stock market's performance.

In addition, DC plans in Japan are relatively new and still in transition from traditional retirement allowance and defined benefit plans. Since transferred balances are allocated to risk-free assets by default, participants tend to be conservative and stay invested in risk-free assets, at least temporarily. Indeed, many participants say they need more time to weigh options, but are content with their present allocation for now. This suggests that the large allocation to risk-free assets may decline as participants become more familiar with DC plans.

A second characteristic of asset allocation is the gender difference—Japanese men allocate 64% of account balances to principal-guaranteed investments, compared to 75% for women. Thus similar to studies in the U.S., women in Japan show a stronger preference for

Exhibit 1 Allocation to Principal-Guaranteed Investments in Japan's DC Plans (based on contributions)



principal-guaranteed investments than men. According to the *Survey of Investment Management of Defined Contribution Plan Participants (2007)* by the NPO Defined Contribution Plan Investment Association, the biggest investment concern among a large proportion of women is loss of principal. Numerous studies have found gender differences in asset allocation, and many of them characterize women as being more risk averse than men. Aside from risk aversion, another factor unique to Japan may be the employment conditions that prompt earlier retirement among women. The shorter tenure of women may accentuate their preference for principal-guaranteed investment.

Third, asset allocation tends to vary by age. For both men and women, the allocation to principal-guaranteed investments rises approximately 10-percentage points as age increases from the 40s to 50s. Moreover, at age 60 and over, the allocation ratio rises another 10-percentage points, indicating an even greater safety preference. A similar correlation is seen in the U.S. In both countries, this tendency can be attributed to the income decline at retirement, which makes it difficult to compensate for a future decline in financial asset holdings. Thus as retirement approaches, participants become more risk averse to loss of principal. Moreover, amid the current transition to DC plans in Japan, results are also affected by the large account balances of participants in their 50s. Presumably, they want to wait and see how risky investments perform before putting a large amount at risk.

The current allocation to principal-guaranteed investments would be less troubling if it gave careful consideration to the risk-return tradeoff or balance with other financial holdings. However, we suspect the likely cause may be a widespread lack of interest and tendency to procrastinate. Plan sponsors thus need to stimulate more interest by upgrading their continuing education programs. In particular, if asset allocation decisions are swayed by stock market trends, it is vital that participants be taught to look past short-term volatility and adopt a longer horizon.