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Participation Is High Among 401(k) Eligible Groups

Between 1981 and 1989, the number of workers with "defined contribution" pensions — typically plans to which both employer and employee contribute and which employees are free to take when they leave the company — as their primary pension plan increased from 6 million to 15 million. Some policymakers have worried that workers who fail to contribute to their 401(k) plan will face a sharp downturn in income at retirement.

In **Abandoning the Nest Egg? 401(k) Plans and Inadequate Pension Saving** *(NBER Working Paper No. 5568)*, **Andrew Samwick** and **Jonathan Skinner** put this problem in perspective. They show that workers who are eligible for a 401(k) plan but do not contribute and have no alternative pension plan make up only 2 to 4 percent of the workforce. By contrast, those who are not eligible for any kind of pension plan represent a whopping 50 percent of the workforce.

In this study, Samwick and Skinner estimate the effect of a hypothetical law requiring workers eligible for 401(k)s to save at least 3 percent of their income in such plans. They assume that workers aged 42 in 1989 who earned $32,863 in 1989 dollars — the average for such workers — would invest one third of their 401(k) savings in each of short-term bonds, long-term bonds, and stocks. Using historical capital market data, the authors show that the worker at the 5th percentile of pension income — that is, who receives a higher pension income than the bottom 5 percent but a lower pension income than the top 95 percent of workers — would save enough to retire with an annual pension of $4,570 (in 1989 dollars). The same worker would have saved nothing without the mandate. However, the effect of the mandate fades rapidly for workers further up the distribution of pension incomes. For example, a worker at the 10th percentile of pension income would receive an annual pension of $6,637, only a modest $1,332 above the pension without a mandate. A worker at the 25th percentile would receive $11,002 annually with the mandate versus $10,693 without, only a 3 percent increase.

These estimates assume that employers and employees do not change their behavior in response to the mandate. But the mandate could cause some employers to drop their 401(k) plans, either to avoid additional contribution costs or because their employees feared that their aftertax wages would decline. If such a response were to occur, then the mandate would have even less impact on pension income for former noncontributors and low contributors.

Assuming that employers respond so as to keep total contributions to their pension plans constant, Samwick and Skinner estimate, a 3 percent mandate would have an even smaller impact on the pension income of those who otherwise would not contribute. Workers at the 10th percentile of pension income, for example, would have a pension income of $6,087, only $782 more annually than if there were no mandate.

Samwick and Skinner also estimate the effect of a requirement that at least half of each lump-sum distribution from a pension plan be rolled over into an IRA or similar plan. Assuming that in the absence of such a requirement, half of the workers

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would roll over the whole amount and half spend all of it (and hence roll over nothing), the authors show that a 50 percent rollover requirement would raise pension income by 24 percent for someone at the 10th percentile and by 12 percent for someone at the 25th percentile. If, on the other hand, the mandate causes a 5 percent reduction in coverage by defined contribution plans, the pension income of workers at the 10th percentile and at the 25th percentile would increase by only 6 percent.

Samwick and Skinner's results suggest that mandated contribution rates for eligible employees would have only small effects on retirement saving. On the other hand, mandating that some part of the 401(k) be rolled over (rather than spent) when a worker changes jobs is likely to have a larger positive effect on retirement income. Still, both of these effects pale in comparison to the effect of increasing pension coverage among the 50 percent of the population that is not currently covered. DRH

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Recessions May Be Good for Your Health

Studies of the relationship between economic conditions and health typically have focused on psychological factors, theorizing that higher rates of joblessness create increased stress and risky behavior, ultimately resulting in deteriorating mental and physical health. But a recent NBER study by **Christopher Ruhm** finds that unemployment rates are related negatively (and significantly) to both total mortality and nine specific causes of death. He finds that a one percentage point rise in joblessness is associated with a 0.5 percent decrease in the total death rate.

"...a one percentage point rise in unemployment lowers the predicted death rate of 20–44 year olds by 1.3 percent..."

Suicides are the important exception, Ruhm concludes in **Are Recessions Good for Your Health?** *(NBER Working Paper No. 5570)*. He also finds that cyclical fluctuations in mortality are larger for those aged 20–44 than for older individuals. Controlling for personal incomes and demographic characteristics, Ruhm estimates that a one percentage point rise in unemployment lowers the predicted death rate of 20–44 year olds by 1.3 percent, while having no effect on persons aged 45–64, and reducing the fatalities of individuals 65 and older by just 0.3 percent.

When personal income is not held constant, the estimated employment effect rises to 1.8 percent for 20–44 year olds, but remains essentially unchanged for the others. This is because income is strongly positively correlated with death rates for the youngest group, but unrelated to or negatively associated with mortality for the others: a $1000 rise in incomes increases the predicted fatalities of 20–44 year olds by 3.4 percent, while decreasing those of persons aged 45–64 and 65 or older by 0.6 percent and 0.1 percent.

Ruhm's analysis uses state-level data from 1972–91. The ten causes of death he considers are: malignant neoplasms; major cardiovascular diseases; pneumonia and influenza; chronic liver disease and cirrhosis of the liver; motor vehicle accidents; other accidents and adverse effects; suicide; homicide and legal intervention; infant mortality (deaths within the first year); and neonatal mortality (deaths within the first 28 days). These ten specific sources account for more than three quarters of all deaths.

Naturally, deaths from most causes are concentrated among the elderly; in particular, deaths from heart disease, cancer, and influenza/pneumonia. So, deaths from those causes are expected to be associated relatively weakly with economic conditions. Conversely, stronger relationships are anticipated for fatalities from liver ailments, motor vehicle accidents, suicides, and homicides. But Ruhm confirms that many aspects of health deteriorate as the economy *improves!* For instance, a one percentage point increase in the state unemployment rate is predicted to reduce fatalities from motor vehicle crashes, other accidents, homicides, and liver ailments by 2.4 percent, 1.7 percent, 1.5 percent, and 0.8 percent respectively. Deaths from cardiovascular disease, malignant neoplasms, and influenza fall by just 0.2 to 0.5 percent, and infant and neonatal mortality decline 0.5 and 0.8 percent respectively, per one percentage point increase in unemployment. In contrast, suicides increase by 0.7 percent for each percentage point rise in unemployment, Ruhm finds.

He concludes that cyclical fluctuations may play an important role in the "time costs" of medical care or healthy lifestyles, and that employment itself may have adverse effects on health. For example, employment may involve hazardous working conditions or job-related stress. Further, individuals who are not working may find it easier to schedule medical appointments for themselves or their dependents. Similarly, it may be easier to work exercise and other healthy lifestyle choices into periods of reduced work hours. And finally, low-income persons losing jobs that lack employer-provided health insurance may become eligible for Medicaid, lowering their costs of medical care.

Tax Policy Affects the Behavior of Multinationals

Tax reforms in the United States and around the world often represent reactions to changing economic conditions. The globalization of the U.S. economy is one such change; in response, recent U.S. tax reforms considerably modified the foreign provisions of U.S. tax law. But public discussion of international tax issues seldom reflects modern thinking and evidence.

In **Tax Policy and the Activities of Multinational Corporations** *(NBER Working Paper No. 5589)*, **James Hines** evaluates the effects of international tax rules on the financial and real behavior of multinational firms. The evidence that he reviews indicates that high tax rates discourage foreign direct investment (FDI) while influencing corporate borrowing, transfer pricing, dividend and royalty payments, R and D activity, exports, bribe payments, and location choices of multinational firms.

Recent studies show that taxes exert a powerful effect on the location and magnitude of FDI. Countries with 1 percent lower tax rates attract up to 3 percent more investment from the United States than they otherwise would. Yearly fluctuations in aftertax returns appear to affect both FDI in the United States and U.S. direct investment abroad, with 1 percent higher aftertax returns associated with 1 percent greater investment. A similar pattern appears even at the subnational level: U.S. states with low tax rates attract significantly greater investment from foreign investors who pay state corporate taxes than high-tax states do.

The evidence also indicates that the financing of multinational corporations is quite sensitive to its tax treatment. High foreign tax rates generally raise the cost of equity-financed investment, and American firms respond by financing higher proportions of their investments with debt instead of equity. U.S. "interest allocation" rules that reduce the tax deductibility of interest expenses for certain U.S.-based multinationals appear to discourage borrowing and investing by the affected firms. The tax situations of American parent firms influence the rate at which their foreign subsidiaries repatriate their profits as dividends. And American-owned subsidiaries in high-tax foreign countries report significantly lower profit rates than those in low-tax foreign countries do. The difference may reflect tax incentives to adjust capital structures as well as tax incentives to adjust the transfer prices used in transactions between related parties.

The clear implication of the quantitative evidence is that the investment, financing, and other activities (such as R and D) of multinational corporations are highly sensitive to their tax treatment. This in turn carries implications for tax policy, the most basic being that governments compete with each other to offer firms ever-lower tax rates to attract activities that are believed to be beneficial to their economies. Another implication is that, while countries can develop rules that constrain the activities of firms enough so that they can be taxed at moderate levels without driving economic activity abroad, such tax structures can become very complex and inefficient. RN

"...high tax rates discourage foreign direct investment while influencing corporate borrowing, transfer pricing, dividend and royalty payments, R and D activity, exports, bribe payments, and location choices of multinational firms."

Some Industries Are Persistent Losers with Current Unemployment Insurance System

The unemployment insurance (UI) system subsidizes certain industries by providing benefits to their workers when they are laid off, even if only temporarily and regardless of how frequently. In a recent study, NBER Research Associate **Bruce Meyer** and co-author **Dan Rosenbaum** — using administrative records from five states for the five years between July 1979 and June 1984 — find that almost 40 percent of UI claims (measured in years received rather than number of claims) are attributable to repeat recipients of UI who made claims in at least three of the five years examined.

Further, over half of these UI recipients are laid off by the same employer each time, indicating a pattern of temporary, and in some cases, predictable layoffs that help firms to deal financially with the ups and downs in their businesses while maintaining a pool of qualified workers to call upon. More than 80 percent of the workers who made claims in at least three of the five years studied were laid off by the same one or two employers during the five year period.

The construction and manufacturing industries account for more than three-quarters of those workers who received UI in three or more of the five years studied. But those industries account for less than one-third of overall employment. In **Repeat Use of Unemployment Insurance** *(NBER Working Paper No. 5423)*, the authors note that high rates of repeat use of UI occur in: agriculture; forestry and fishing; mining; construction; food; tobacco; apparel; lumber; leather; and transportation equipment. In contrast, retail trade, financial, insurance, real estate, services, and the public sector have low rates of repeat use of UI benefits.

Some industries with high repeat use — including construction, mining, agriculture, and fishing — have seasonal variations in employment levels, the authors find. However, while not seasonal, the apparel industry alone represents 12.5 percent of the recipients with three or more benefit years, and employs only 2.3 percent of the workers covered by UI in the five states examined: Georgia, Idaho, Missouri, Pennsylvania, and Washington. In Georgia, the apparel and textile industries alone account for almost half of the recipients with three or more benefit years.

There is also surprising evidence, Meyer and Rosenbaum write, that those workers who repeatedly receive UI benefits tend to have good jobs. Employers and employees may reach an understanding that allows workers to return to their former employers after a layoff. Some workers may prefer to be laid off and to receive benefits for part of the year. Others may have trouble holding onto a job. Nonwhites, married women, and workers with less education are likely to be repeat UI recipients, the authors find. So are senior workers and those with high earnings.

> "...a substantial portion of UI resources subsidize certain firms and industries rather than provide true insurance."

"Overall," Meyer and Rosenbaum write, "a substantial portion of UI resources subsidize certain firms and industries rather than provide true insurance." Those firms with less seasonality or other ups-and-downs in their businesses in effect subsidize firms that make frequent use of the system. In the five sample states, the cost of UI in payroll taxes for firms making frequent layoffs is less than the value of the unemployment benefits paid to their workers.

Meyer and Rosenbaum suggest that "tighter experience rating," that is, setting the payroll tax level in a more detailed manner so that firms pay more of the cost of the benefits their workers receive, would both reduce the number of layoffs that prompt repeat use of UI and reduce the subsidies to firms and industries engaged in these temporary layoffs. DRF

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