401(k) Plans Raise Total Saving

In The Transition to Personal Accounts and Increasing Retirement Wealth: Macro and Micro Evidence (NBER Working Paper No. 8610), authors James Poterba, Steven Venti, and David Wise explore the evolution of U.S. retirement savings over the 1980s and 1990s. In 1980, 92 percent of private retirement saving contributions were to employer-based plans and 60 percent of all contributions were to defined benefit (DB) plans. Today, defined contribution (DC) savings plans — 401(K)s and similar employee-controlled retirement plans — account for about 85 percent of private retirement saving contributions. The shift from defined benefit to defined contribution plans reflects several factors, including changing regulations on DB plans and greater worker demand for pensions that are portable from one job to another.

The authors argue that the growth of 401(k) plans has raised national saving. On average, the combined employer and employee contribution per active participant to 401(k) plans has been about twice as large as the employer contribution per participant to DB plans. This suggests greater wealth accumulation under DC plans. The researchers estimate that between 1984 and 1997, total contributions to all pension plans of people with a 401(k) plan were three times as great as they would have been in the absence of the 401(k) program.

Poterba, Venti, and Wise find no evidence of strong substitution between 401(k) participation and participation in other retirement plans. They point out that the growth in defined contribution assets has been so large that it is unlikely that all of this asset growth has come at the expense of what would otherwise have been defined benefit plans.

There are potentially important differences between accumulating retirement assets in defined contribution and defined benefit plans. Saving in a 401(k) plan is transparent and the individual largely decides how much to contribute, how to invest, and how and when to withdraw the money. This contrasts with far more opaque DB plans in which the employer makes these decisions, and in which the employee may not understand the accruing value of retirement assets. Individuals with 401(k)s are also likely to work longer and contribute for more years than those who rely on DB pensions, since many DB plans include provisions that make it financially attractive to retire early.

Assuming that current defined contribution pension coverage rates persist for the next three decades, the average 401(k) balances of people who will reach retirement age in 2035 will be roughly as large as the present value of their Social Security benefits. The precise value of DC plan balances will of course depend on asset market returns over the next thirty years.

The retirement plan contribution rate is much greater than the personal saving rate reported in the National Income and Product Accounts (NIPA) in recent years. The treatment of retirement plan contributions and retirement payouts in the national income accounts contributes to the very low measured personal saving rate.

“The combined employer and employee contribution per active participant to 401(k) plans has been about twice as large as the employer contribution per participant to DB plans.”

— Andrew Balls
Why Don’t Americans Hold More Foreign Stock?

The fact that domestic companies represent 90 percent of the holdings in an average U.S. investor’s stock portfolio — even though U.S. stocks represent only 49 percent of the world market — has prompted a range of theories, but no generally accepted explanation for this so-called “home bias.” Some analysts have blamed market barriers. Others view U.S. investors as lacking sufficient information on foreign equities. And then there are those who see in this imbalance overly optimistic expectations about the performance of homegrown assets.

But in Corporate Governance and the Home Bias (NBER Working Paper No. 8680), authors Lee Pinkowitz, Rene Stulz, and Rohan Williamson assert that at least some of the oft-noted tilt is not a bias at all but simply a reflection of the fact that a sizeable number of shares worldwide are not for sale to the average investor. They find that comparisons of U.S. portfolios to the world market for equities have failed to consider that the “controlling shareholders” who dominate many a foreign corporation do not make their substantial holdings available for normal trading.

Take this into account, the authors argue, and as much as half of the home bias disappears. A more accurate assessment of globally available shares, they say, would show that about 67 percent of a properly balanced U.S. portfolio would be invested in U.S. companies.

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Pinkowitz, Stulz, and Williamson observe that controlling shareholders are not interested in selling off their stocks at the mere market price. The authors point to previous studies demonstrating that “the benefits from control are substantial in most countries,” placing the value of such holdings above those of ordinary shares and thus not practical for the typical foreign investor.

Therefore, the authors believe efforts to make foreign stocks more attractive to domestic investors need to move beyond the current focus on market barriers. They conclude that considerably more attention must be given to how corporate governance repels investors who might otherwise replace some of their domestic stocks with foreign equities.

“With our results, the removal of barriers to international investment cannot make the home bias disappear,” the authors conclude. “For the home bias to disappear it is necessary for investor rights to improve across countries where firms are mostly controlled by large shareholders...”

Pinkowitz, Stulz, and Williamson also believe their insights should prompt a re-evaluation of the notion that foreign investors sell their stocks more frequently than domestic investors. Such a conclusion, they state, is flawed because it includes in the equation controlling shareholders, a unique class of domestic investors who as a rule do not trade their stocks. Comparing their selling habits to foreign investors gives a misleading impression that foreign investors trade more frequently, when in fact the opposite may well be true.

Finally, Pinkowitz, Stulz, and Williamson note that stock holdings of controlling shareholders could explain why foreign investors seem to show a bias toward purchasing stock in large firms. They authors note that in the United States, the smaller the company, the more likely a large amount of its shares are controlled by “inside ownership.”

“If this fact for the U.S. holds across countries, then the fraction of shares available to foreign investors is likely to be proportional to (a company’s) size,” they conclude.

— Matthew Davis
In the past two decades, a surge of new drugs aimed at treating rare (or “orphan”) diseases has increased the life expectancy of the average American by about two and a quarter months, according to NBER Research Associate Frank Lichtenberg. In his study, Lichtenberg notes that, before Congress passed the Orphan Drug Act in January 1983, very few new drugs designed to treat rare diseases — diseases affecting fewer than 200,000 Americans — came to market. The average annual number of drugs for rare diseases brought to market after the Act was passed (during 1983-99) was 12 times as great as it had been during 1973-82.

The Orphan Drug Act and its subsequent amendments were meant to encourage the development of drugs that otherwise might be uneconomic by guaranteeing the developer of such products seven years of market exclusivity following their approval by the Food and Drug Administration. The Act also provided a tax credit, and established a clinical research grants program whereby researchers could compete for funding to conduct clinical trials that might support the approval of these drugs for rare diseases.

Lichtenberg’s study indicates that these new drugs did reduce mortality rates from rare diseases. Prior to the Act, mortality from rare disease grew at the same rate as mortality from other more common diseases. In the five years after the Act, mortality from these rare diseases — such as Huntington’s disease, myoclonus, ALS, Tourette’s syndrome, and muscular dystrophy — grew more slowly than mortality from other diseases. One additional orphan drug approval is estimated to have prevented 211 deaths in the subsequent year, and ultimately prevented 499 deaths from rare diseases. The 216 orphan drugs approved since 1983 thus are estimated to have ultimately prevented 108,000 deaths from rare diseases. Deaths from rare diseases occur about five years earlier than deaths from common diseases.

Lichtenberg batches all the orphan drugs together in reaching his conclusions because the data does not allow for separating out the impact of each individual drug on the sufferers from a specific disease. Nor does it indicate whether a specific drug actually cures a disease or just prolongs the life of a victim.

In a similar vein, the average annual number of drugs brought to market to treat Human Immunodeficiency Virus (HIV) during 1994-8 was three times as great as during 1987-93. In the case of HIV, the increase in drugs occurred after AIDS (first reported in 1981) was identified as being caused by HIV in 1984. In the 1990s, the average length of time required to develop a drug that was approved was about 15 years. These new drugs played a key role in the post-1995 decline in HIV mortality, Lichtenberg’s evidence indicates.

Each additional HIV drug approval is estimated to prevent 5,986 deaths in the year subsequent to that approval and ultimately 33,819 deaths in total. The average life span of an individual infected with HIV has been about 40 years; that compares with an average life expectancy for Americans of about 73 years. Lichtenberg’s work indicates that the life expectancy of HIV victims has been prolonged by the drugs, but it is too early to indicate by how many years.

— David R. Francis
Buying a Car on the Internet

In Cowboys or Cowards: Why Are Internet Car Prices Lower? (NBER Working Paper No. 8667) and Consumer Information and Price Discrimination: Does the Internet Affect the Pricing of New Cars to Women and Minorities? (NBER Working Paper No. 8668) authors Fiona Scott Morton, Jorge Silva-Risso, and Florian Zettelmeyer explore whether people buying new cars through the largest U.S. online car buying service pay lower prices, how much lower those prices are, and whether women and minority buyers disproportionately benefit from transacting business online. They conclude that buyers do gain from using the Internet — they save approximately 2 percent on average — and Hispanic and African-American buyers save an additional 1.5 percent by using the Internet.

Combining data from J. D. Power and Associates and Autobytel.com, the authors are able to compare the online prices — paid by 3.1 percent of the dataset of 671,846 — and the remaining purchase prices, while at the same time controlling for characteristics of the cars and transactions. When the authors further control for who chooses to use Autobytel.com, the estimated causal effect of buying via the Internet increases to over 2 percent. This suggests that the consumers using this service disproportionately dislike bargaining and would have done poorly through the traditional channels; in other words, those who choose to use the Internet have the most to gain from it. The authors conclude that online buying could save Autobytel customers alone as much as $240 million per year.

The second paper examines the prices paid by different demographic groups using the buyer's last name as an indication of ethnicity and the buyer's first name as an indication of gender. The authors also use census data for race and ethnicity data at the neighborhood level.

They find that African-American and Hispanic buyers pay about 1.5 percent more for their cars than the equivalent white buyer. Within this dataset, that result holds even for relatively well-educated or high-income buyers, or those who did not get financing from the dealer. The result is not driven by minorities purchasing at higher-cost dealerships, but is explained partially by

“Those who lack information about cars, or have personal characteristics that put them at a disadvantage in negotiations, benefit the most from the information and the low search costs provided by the Internet.”

— Linda Gorman