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The Effects of Public Health Insurance Expansions

In the United States, public health insurance programs cover over 90 million individuals. Changes in the scope of these programs, such as the Medicaid expansions under the recently passed Patient Protection and Affordable Care Act, or in the generosity of these programs, may affect physician behavior.

In **The Doctor Might See You Now: the Supply Side Effects of Public Health Insurance Expansions** (NBER Working Paper No. 17070), **Craig Garthwaite** finds that after the 1990s implementation of the State Children's Health Insurance Program (SCHIP) — a partnership between federal and state governments intended to increase insurance coverage for low-income Americans under the age of 19 — more physicians participated in the program, but their total number of hours spent with patients declined as a result of shorter office visits. Because of the age limit for SCHIP beneficiaries, pediatricians were disproportionately affected by the new insurance program. The program expansion also increased the percentage of pediatricians that reported accepting new Medicaid patients and the amount of revenue that pediatricians received from Medicaid.

"Medicaid patients had shorter office visits after the implementation of SCHIP than before."

Garthwaite finds that there were fewer visits that lasted more than 10 minutes after this public program expansion. The evidence on shorter office visits is consistent with economic models of physician behavior in a system with both public and private payers. For a portion of the physicians who were not previously participating in the public insurance program, the implementation of SCHIP changed the identity of the "marginal patient" from one covered by private insurance to one covered by the lower-reimbursing government program.

The negative effects of reductions in physician labor supply, such as those observed in this study, may be particularly important for Medicaid patients because they are covered by a program that is increasingly not accepted by physicians. From 1996 to 2005, for example, the percentage of physicians reporting no practice income from Medicaid patients, which probably indicates no Medicaid patients were served, increased by 13 percent. Over the same time period, the percentage of physicians reporting that they were not accepting new Medicaid patients increased from 19 to 21 percent.

— Lester Picker

The Availability and Use of 401(k) Loans

Borrowing from defined contribution savings plans, including 401(k) plans, has long been permissible under Department of Treasury and Department of Labor regulations. Nevertheless, the impact of this borrowing on economic outcomes has not been studied in depth. The growth of 401(k) loans, coupled with the introduction of the 401(k) debit card, has motivated some in Congress to propose legislation that would limit the

number of outstanding 401(k) loans to three per participant and to ban 401(k) debit cards outright. The concern is that easy access to one's retirement nest egg will lead to excessive consumption in the present at the expense of future financial security.

In **The Availability and Utilization of 401(k) Loans** (NBER Working Paper No. 17118), authors **John Beshears, James Choi, David Laibson,** and **Brigitte Madrian** document the widespread availability and utilization of 401(k) loans: about 90 percent of 401(k) participants are in plans that offer a loan option. Within those plans, on average about 22 percent of eligible participants have a 401(k) loan outstanding at any given time. A much higher fraction, slightly less than half, use a 401(k) loan over the seven-year period from 2002 through 2008 that the authors study.

There are no regulatory restrictions on how the proceeds from a 401(k) loan may be used, nor are borrowers required to demonstrate financial need. Plan sponsors have discretion to impose such restrictions if desired, but most do not. Among savings plans with a loan option, 82 percent place no restrictions on how loan proceeds may be used. Of the 18 percent of plans with restrictions, most allow loans for home purchases, education, and medical expenses.

> "About 22 percent of eligible participants have a 401(k) loan outstanding at any given time.

Loan utilization rates first rise and then fall with respect to age, tenure, compensation, and plan balances. They reach peaks for participants in their 40s, those with 10 to 20 years of tenure, those earning $40,000 to $60,000 per year, and those with plan balances between $20,000 and $30,000.For those who have a loan, the loan-balance-to-401(k)-balance ratio declines with age, tenure, compensation, and 401(k) plan balance.

The authors find that 401(k) loan utilization also is correlated with the types of loan rules adopted by firms. Loans are more likely to be used in plans that charge low interest rates. For those taking a loan, loan sizes are larger when multiple loans are allowed to be outstanding simultaneously, and when the maximum loan duration allowed is long.

— Lester Picker

Mortgage Subsidies Affect Home Ownership

In **How Do Mortgage Subsidies Affect Home Ownership: Evidence from the Mid-century GI Bills** (NBER Working Paper No. 17166), **Daniel Fetter** studies the sharpest increase in U.S. home ownership over the last century, which occurred between 1940 and 1960 when the rate of U.S. home ownership rose from 44 to 62 percent. He determines that the shift was primarily the result of a decrease in the age at first ownership, which meant that more young households became homeowners during this period than in earlier decades.

Although there were a number of government programs that might have contributed to this change, Fetter specifically studies the effects of veterans' home loan benefits provided under the postwar GI Bills. He uses the differences in the rates of military service between men whose ages made them likely to serve in World War II, those whose ages made them likely to serve in Korea, and men of other ages to estimate the impact of veteran status on home ownership. He finds significant, positive effects of veteran status on the probability of home ownership in 1960 that do not appear to be due to other veterans' benefits or military service itself, suggesting that veterans' home loan programs were consequential.

> "Veterans' home loan programs were consequential."

Furthermore, the effects are larger for younger veterans than for older veterans, which one would expect if a household's need for credit declines with age, and they diminish in 1970 and 1980 as the groups of men get older. In 1960, the youngest men who had been eligible to serve in World War II were 32 years old, and about 53 percent of them owned their homes. Comparing them with men who were slightly younger, and who were much less likely to have ever served in the military, Fetter estimates that military service was associated with a 13 percentage point increase in the homeownership probability.

The youngest men who were eligible to serve in the Korean War were 26 years old in 1960, and about 28 percent of them were home owners. For these men, the estimated effect of military service on homeownership was 18 percentage points.

— Matt Nesvisky

Employment, Wages, and Voter Turnout

A number of studies have shown that voters' participation in elections is proportional to the amount of exposure they have to campaign advertising, media coverage, and other forms of election information. In **Employment, Wages, and Voter Turnout** (NBER Working Paper No. 17270), **Kerwin Kofi Charles** and **Melvin Stephens, Jr.** demonstrate that following political campaigns is largely a leisure-time activity. As a result, the amount of time that citizens devote to work may well affect the degree to which they participate in elections. Using data from the American National Election Study (ANES), Charles and Stephens confirm that increases in employment lead to less use of the media and to reduced political knowledge.

The researchers analyze the relationship between county-level wages, employment, and voter turnout. They focus on state gubernatorial and presidential elections, for which voters in all counties in a state can participate, but which likely receive vastly different amounts of media attention. Charles and Stephens find that increases in wages and employment reduce voter turnout in gubernatorial elections by a significant amount. However, they have no effect on presidential turnout, although they raise the share of persons voting in a presidential election who do not vote in the House of Representative election on the same ballot — an indication of lack of information about that electoral contest. The authors argue that these patterns can be fully explained by access to campaign information, rather than by such factors as citizens' motivations to vote in good versus bad times, changes in the opportunity cost of voting, or transitory migration.

"Increases in wages and employment reduce voter turnout in gubernatorial elections by a significant amount."

— Matt Nesvisky

What Option Markets Imply About Sector-Wide Government Guarantees

During economic downturns, governments seek to mitigate the risk and repercussions of financial disasters by providing guarantees to financial institutions that are deemed integral to the stability of the financial system. In **Too-Systemic-To-Fail: What Option Markets Imply about Sector-Wide Government Guarantees** (NBER Working Paper No. 17149), co-authors **Bryan Kelly, Hanno Lustig,** and **Stjin Van Nieuwerburgh** analyze equity option markets to study the size and the effect of these too-systemic-to-fail government guarantees.

Because guarantees only kick in during a financial crisis, their effect should be the most visible in the prices of assets that mainly reflect "tail risk", such as put options. (A put option on a particular stock pays an investor the difference between a pre-specific strike price and the price of the stock on the date when the options expire, provided that the stock price is below the strike price. Thus, the payoff to the holder of a put option rises as the stock price falls.)

The results of this study show that investors in option markets price-in a substantial collective government bailout guarantee in the financial sector. This removes part of the sector-wide risk, by putting a floor on the equity value of the financial sector as a whole but not on the value of the individual firms, thus not reducing the individual firm risk. Therefore, the government guarantee makes put options on the financial sector index "cheap" relative to put options on its member banks.

Indeed, the basket-index put spread rose fourfold, from 0.8 cents per dollar insured before the financial crisis to 3.8 cents during the crisis, for deep out-of-the-money options. An increase in the spread between the basket and the index means that financial sector index options became cheaper relative to the individual firm options. The spread peaked at 12.5 cents per dollar, or 70 percent of the value of the index put. The rise in the put spread cannot be attributed to an increase in individual firm risk because the correlation of stock returns increased during the crisis. The correlations for financials were invariably higher than for non-financials, and the volatility risk premium for financials decreased during the crisis. That was yet another indication that index put options on the financial sector were cheap during the crisis.

"Investors in option markets price-in a substantial collective government bailout guarantee in the financial sector."

The authors provide evidence that the dynamics of the basket-index spread during the crisis were closely tied to government announcements directly related to the collective bailout. Their results suggest that the market was not initially reassured by the TARP program and its implementation, which consisted mostly of cash infusions from sales of preferred shares. Only when the Treasury and the Federal Reserve explicitly announced programs to purchase toxic assets such as mortgage-backed securities did the collective bailout guarantee become valuable.

— Claire Brunel

Disability, Pension Reform, and Early Retirement in Germany

Even as the average life span has crept up in West Germany, the labor force participation of the elderly there has historically declined, according to **Disability, Pension Reform, and Early Retirement in Germany** (NBER Working Paper No. 17079) by **Axel Boersch-Supan** and **Hendrik Juerges**. In 1966, labor force participation among 60- to 64-year-old men stood at more than 80 percent. By the 1980s and 1990s, it had fallen to less than 35 percent, and has only started to increase very recently.

The bulk of that change in retirement occurred between 1973 and 1979, when pension reforms dropped the effective retirement age from 65 to 63 and introduced an old age pension for disabled workers, lowering the eligibility age for that program (eventually) to 60. Germany's public pension system became more generous with a 1972 reform, but was trimmed back in the mid-1980s and starting again in 1992 because changing demographics made it unsustainable. Rising life expectancy was the main reason for the cutback: in 2006, a 73-year-old man or woman had the same probability of dying within the next year as a 65-year-old had had in 1960.

In terms of disability insurance — which all developed nations have — governments face a difficult balancing act. They want to insure that people who can't work because of their health don't fall into poverty, while at the same time not creating undue incentives for the healthy to retire early. European nations have struck widely different balances in this regard. In Sweden, Denmark, and Norway, the percentage of 50- to 64-year-olds retiring early and collecting disability benefits stands above 12 percent, while in France it is less than 2 percent. Germany falls somewhere in-between at 6.5 percent. The authors of this study investigate whether changes in disability programs in Germany — and in social security programs, more generally — have had an impact on participation in disability insurance and exit from the labor force.

> "Being born during wartime and times of hunger may have had long-term effects on health and ability to work."

Mortality is not necessarily a good proxy for disability, which might begin with the onset of a long disease. The authors find that with the exception of cancer, serious physical challenges such as cardiovascular disease or back problems have become much less prevalent as the reason for receiving a disability pension over time. Instead, the relative importance of mental illness as the basis for disability benefits has quadrupled for men and quintupled for women since 1983.By the same token, workers aged 50 to 59 have seen their health improve.

For groups born between 1906 and 1943, early retirement (before age 55) shows no clear trend among the men, hovering around 12 to 16 percent, and there has been a decline among women (from 14 to about 8 percent). In contrast, among both men and women born between 1914 and 1918 there was a noticeable rise in early retirement rates, going from 12.7 to 17.2 percent among men and from 9.8 to 12.7 percent among women.

Why this spike? It could be the health shock of World War I and its aftermath, which caused the long-term health of those groups to deteriorate. "In particular the last two years of war (1917 and 1918) have been characterized by widespread hunger among the civilian population," the authors write. "Being born during wartime and times of hunger may have had long-term effects on health and ability to work, and the effects of World War I appear to show in the retirement behavior of German cohorts."

— Laurent Belsie

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