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Medicare and Its Impact

In **The Aggregate Effects of Health Insurance: Evidence from the Introduction of Medicare** (NBER Working Paper No. 11610), NBER researcher **Amy Finkelstein** challenges the belief that the spread of health insurance played only a small role in contributing to the dramatic rise in health care spending over the last half century. In a related study prepared with colleague **Robin McKnight** (NBER Working Paper No. 11609), Finkelstein asks: **What Did Medicare Do (And Was It Worth It)?**

At an annual cost of $260 billion, Medicare is one of the largest health insurance programs in the world. Providing nearly universal health insurance to the elderly as well as many disabled, Medicare accounts for about 17 percent of U.S. health expenditures, one-eighth of the federal budget, and 2 percent of gross domestic production. Medicare's introduction in 1965 was, and remains to date, the single largest change in health insurance coverage in U.S. history.

Finkelstein estimates that the introduction of Medicare was associated with a 23 percent increase in total hospital expenditures (for all ages) between 1965 and 1970, with even larger effects if her analysis is extended through 1975. Extrapolating from these estimates, Finkelstein speculates that the overall spread of health insurance between 1950 and 1990 may be able to explain at least 40 percent of that period's dramatic rise in real per capita health spending.

This conclusion differs markedly from the conventional thinking among economists that the spread of health insurance can explain only a small portion of the rise in health spending. This belief is based on the results of the Rand Health Insurance Experiment (HIE), one of the largest randomized, individual-level social experiments ever conducted in the United States. The HIE compared the spending of individuals randomly assigned to different health insurance plans. Based on these comparisons, the estimated impact of health insurance on hospital spending was at least five times smaller than Finkelstein's estimates of the impact of Medicare on hospital spending.

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Finkelstein suggests that the reason for the apparent discrepancy is that market-wide changes in health insurance — such as the introduction of Medicare — may alter the nature and practice of medical care in ways that experiments affecting the health insurance of isolated individuals will not. As a result, the impact on health spending of market-wide changes in health insurance may be disproportionately larger than what the estimates from individuals' changes in health insurance would suggest. For example, unlike an isolated individual's change in health insurance, market wide changes in health insurance may increase market demand for health care enough to make it worthwhile for hospitals to incur the fixed cost of adopting a new technology. Consistent with this, Finkelstein presents suggestive evidence that the introduction of Medicare was associated with faster adoption of then-new cardiac technologies.

Such evidence of the considerable impact of Medicare on the health care sector naturally raises the question of what benefits Medicare produced for health care consumers. Finkelstein and McKnight investigate this question, noting two potential benefits that public health insurance might provide to the elderly: better health and risk reduction. The period after Medicare's introduction, for example, was one of declining

elderly mortality. However, using several different empirical strategies, the authors estimate that the introduction of Medicare had no discernible impact on elderly mortality in its first ten years in operation. They present evidence suggesting instead that, prior to Medicare, elderly individuals with life threatening, treatable health conditions (such as pneumonia) sought care even if they lacked insurance, as long as they had legal access to hospitals.

Even absent measurable health benefits, Medicare's introduction still may have benefited the elderly by reducing their risk of large out-of-pocket medical expenditures. The authors document that prior to the introduction of Medicare, the elderly faced a risk of very large out-of-pocket medical expenditures. The introduction of Medicare was associated with a substantial (about 40 percent) reduction in out-of-pocket spending for those who had been in the top quarter of the out-of-pocket spending distribution, the authors estimate.

"The introduction of Medicare had no discernible impact on elderly mortality in its first ten years in operation."

Finkelstein and McKnight conduct a cost-benefit analysis comparing the insurance value of the reduction in the risk of large out-of-pocket medical expenditures provided by Medicare with the costs of the program. They estimate that even in the apparent absence of health benefits, the insurance value of Medicare alone is enough to cover between 45 percent and 75 percent of its costs. In addition, the authors caution that Medicare may well have had health benefits that their analysis cannot detect, such as improvements in health status, even without mortality improvements. Moreover, given the evidence that the introduction of Medicare was associated with more rapid adoption of new cardiac technologies, in the long run Medicare's impact on elderly mortality may be much larger than the ten-year impact they examine.

— Matt Nesvisky

Is There a Housing Bubble?

For some time now, there has been much speculation in the media that house prices are unsustainably high, that there is a "bubble" in the housing market, possibly even that house prices may already be on their way down in the East and West Coast regions of the United States. "House-price watching has become a national pastime," note **Charles Himmelberg, Christopher Mayer,** and **Todd Sinai** in **Assessing High House Prices: Bubbles, Fundamentals and Misperceptions** (NBER Working Paper No. 11643).

The three, though, find "little evidence" of housing bubbles in almost any of the 46 single-family housing markets they studied, at least as of 2004. (The authors have subsequently updated their data through the third quarter of 2005 and come to the same conclusion. Updated tables, downloadable data, and a data appendix are available at http://www2.gsb.columbia.edu/departments/realestate/pubs/supplements/index.html.)

"While it is impossible to state definitively whether or not a housing bubble exists," the authors add, "most housing markets did not look much more expensive in 2004 than they looked over the past 10 years, and in most major cities our valuation measures are nowhere near their historic highs." Even in high-appreciation markets like San Francisco, Boston, and New York, "current housing prices are not cheap, but our calculations do not reveal large price increases in excess of fundamentals." Recent price growth is supported by basic economic factors such as low real, long-term interest rates, rapid income growth, and housing price levels that had fallen to unusually low levels during the mid-1990s. Expectations of outsized capital gains appear to play, at best, a "very small role" in house prices, the authors hold.

"Because real, long-term interest rates are currently so low ... housing costs are more sensitive to changes in real, long-term interest rates now than at any other time in the last 25 years."

This does not mean, however, that prices cannot fall. An unexpected future rise in real, long-term interest rates or a decline in economic growth, for example, could easily cause a fall in house prices, the authors note. "Indeed, because real, long-term interest rates are currently so low, our calculations suggest that housing costs are more sensitive to changes in real, long-term interest rates now than at any other time in the last 25 years," they write.

House prices are extremely important, both to the economy and to homeowners. By 2004, 68 percent of households owned their own homes. For most of them, housing equity will make up nearly all of their

non-pension assets at retirement. Many of the 32 percent who rent are younger households, or potential owners watching housing markets closely to judge whether it is an opportune time to buy, or looking with concern at presumably high prices. Between 1975 and 1995, the authors note, real house prices in the United States increased an average of 0.5 percent per year. By contrast, from 1995 to 2004, national real house prices grew 3.6 percent per year, or nearly 40 percent in one decade. In some individual cities, such as Boston and San Francisco, real home prices grew about 75 percent from 1995 to 2004.

In explaining how to assess the state of house prices, the authors point to what they regard as four common fallacies: first, the price of a house is not the same as the annual cost of owning. So it does not necessarily follow from rising prices of houses that ownership is becoming more expensive. A correct calculation compares the value of living in that owner-occupied property (the imputed rent) with what it would have cost to rent an equivalent property and with the lost income that one would have received if the owner had invested the capital put into the house in an alternative investment. The comparison should also take into account differences in risk, federal and state tax benefits, property taxes, maintenance expenses, and any anticipated capital gains.

Second, high price growth is not evidence *per se* that housing is overvalued. In some local housing markets, house price growth has consistently exceeded the national average rate of appreciation for very long periods of time.

Third, considerable variability in the ratio of house prices to rents across housing markets can be the result of reasonable differences in expected gains in house prices and in taxes.

Finally, the authors note, the sensitivity of house prices to changes in fundamentals is higher at times when real, long-term interest rates are already low and in cities where expected price growth is high, so accelerating house price growth and outsized price increases in certain markets are not intrinsically signs of a bubble.

For these reasons, conventional metrics for assessing prices in a housing market, such as price-to-rent ratios or price-to-income ratios, generally fail to reflect accurately the state of housing costs. House prices may appear exuberant by these metrics, even when they are in fact reasonably priced. House price dynamics are a local phenomenon. So national-level data can obscure important economic differences among cities. Further, in some cities, the housing supply is relatively inelastic because of the lack of open land, zoning restrictions, or other factors. Thus house prices in such areas may be higher relative to rents, and more sensitive to changes in interest rates.

In this study, the authors create an index of imputed rent and divide this index by an index of actual market rents or an index of per-capita income. The ratios of imputed rent-to-actual rent or imputed rent-to-income are then compared to their 25-year average for each city. During the 1980s, the authors' measures show that houses looked most overvalued in many of the same cities that subsequently experienced the largest house price declines — including Boston, Los Angeles, New York, and San Francisco. Only a few cities in 2004, such as Miami, Fort Lauderdale, Portland (Oregon), and to a degree San Diego, had valuation ratios approaching those of the 1980s, the authors note.

— David R. Francis

Economic Explanations of Increased Obesity

Since the early 1970s, the U.S. federal government has used the National Health and Nutrition Examination Survey (NHANES) and various body mass index (BMI) categories to estimate the percentage of the U.S. population that is overweight. BMI is defined as weight in kilograms divided by the square of height in meters. In the 1980s, being overweight was defined as having a BMI greater than or equal to 27.8 for men and 27.3 for women. Applying those standards to survey data from 1988–94 results in an estimated 33 percent of American men and 36 percent of American women being overweight. In the late 1990s, though, the federal government redefined being overweight as having a BMI greater than or equal to 25. Thus, the estimated number of overweight adults increased from 61.7 million to 97.1 million.

"The estimated age-adjusted percentage of overweight U.S. adults between the ages of 20 and 74 increased from about 43 percent in 1960-2 to about 54 percent in 1988–94 ... The fraction of the population that is obese — that is, with a BMI greater than 30 — increased from about 14 percent in the mid-1970s to about 29 percent in 2000. "

Using the new definition, the estimated age-adjusted percentage of

overweight U.S. adults between the ages of 20 and 74 increased from about 43 percent in 1960–2 to about 54 percent in 1988–94. Although the age-adjusted fraction of the population in the "pre-obesity" category, with a BMI between 25 and 29.9, has been fairly stable since 1970, the fraction of the population that is obese — that is, with a BMI greater than 30 — increased from about 14 percent in the mid-1970s to about 29 percent in 2000. Because obesity is correlated with a variety of health problems, the increase in markedly overweight individuals has generated substantial concern among public health officials.

In **The Super Size of America: An Economics Estimation of Body Mass Index and Obesity in Adults** (NBER Working Paper No. 11584), coauthors **Inas Rashad**, **Michael Grossman**, and **Shin-Yi Chou** use individual-level data from the First, Second, and Third NHANES surveys to explore whether the increase in the rate of obesity is attributable to economic changes that have caused changes in individual behavior. Controlling for ethnicity, age, gender, household income, marital status, and years of formal education, they consider the effects of state restaurant density, state gasoline taxes, and state controls on smoking — including laws against smoking in public places and the cigarette tax — on individual BMI and obesity in men and women.

The authors ask whether the relatively recent change in the proportion of severely overweight individuals suggests that environmental factors, not genetics, play a central role in the increase in overweight. They note that technological change has reduced the amount of physical effort that people expend in their jobs, and that "the ready availability of inexpensive restaurants has not only caused people to consume more, but has made them less active — less likely to prepare food at home or travel further distances to obtain a healthy meal." The cigarette tax and smoking prohibition laws are included to account for the possibility that the increase in U.S. BMI may be related to the success of public health efforts to decrease smoking. When people quit smoking they often gain weight.

The authors can account for 79 percent of the change in BMI for males and one percent of the change in BMI for females. Their results suggest that blacks, Hispanics, males, older people, and those who are married or widowed, have higher BMIs. People with higher incomes and those with a college education have lower BMIs. Men are "more likely to have a higher BMI but less likely to be obese, reflecting the fact that BMI tends to overestimate overweight and obesity in people with more muscular mass." As the number of restaurants per capita increases so does BMI. The average BMI will rise by 0.09 percent if the per capita number of restaurants increases by one percent. The authors note that the rapid increase in obesity in the 1980s is partly an "unintended consequence of the campaign to reduce smoking." On balance, however, they conclude that "the increase in the per capita number of restaurants makes the largest contribution to the BMI outcome, accounting for 54 percent of the growth" in a pooled sample of men and women.

— Linda Gorman

The Effects of Communism on Popular Preferences

While the common view in the West is that most Europeans who lived under Communism were happy to trade state-run economies for free-market capitalism, it turns out that their Marxist indoctrination may have more staying power than previously thought. In **Goodbye Lenin (or Not?): The Effects of Communism on People's Preference** (NBER Working Paper No. 11700), co-authors **Alberto Alesina** and **Nicola Fuchs-Schündeln** find that after being reunited with West Germany, most East Germans have retained a decidedly Communist view of what the government should do in terms of providing a social safety net and redistributing wealth from rich to poor. The authors conclude that the exposure to Communism has made East Germans "much more pro-state than West Germans."

"After being reunited with West Germany, most East Germans have retained a decidedly Communist view of what the government should do in terms of providing a social safety net and redistributing wealth from rich to poor."

"This effect could arise due to indoctrination (such as teaching the virtues of Communism in the schools) or simply due to becoming used to an intrusive public sector," they write. "A second, indirect effect of Communism is that by making former East Germany poorer than West Germany, it has made the former more dependent on redistribution and therefore more favorable to it."

Alesina and Fuchs-Schündeln see Germany as an ideal laboratory for studying the lingering influence of Communism on a society because,

prior to its partition in 1945, East and West Germans were, culturally and economically, almost indistinguishable. Therefore, one can attribute differences in contemporary attitudes to the different systems they lived under until unification in 1990.

The authors observe that after 45 years of living under Communism, one could think of "two possible" outcomes. Given the contrast between their stagnation and the West's prosperity, East Germans could have a strong reaction against state intervention and eagerly embrace free-markets. Alternatively, it could be that more than four decades of "heavy state intervention and indoctrination instill in people the view that the state is essential to individual well being."

Alesina and Fuchs-Schündeln examined comprehensive, contemporary surveys of East and West German residents regarding their views on who should be most responsible for ensuring individual financial security, the state or the private sector. What they discovered is that most East Germans continue to hold the Communist view of the state as the central actor.

"In fact, we find that the effects of Communism are large and long lasting," they write. "It will take one to two generations for former East and West Germans to look alike in terms of preferences and attitudes about fundamental questions regarding the role of the government in society." In that sense, they view West Germany as having received a major "political shock" when it was re-united with East Germany since, almost overnight, the portion of the German population favoring state intervention grew significantly.

And, the citizens' preferences appear to go beyond self-serving beliefs. For example, Alesina and Fuchs-Schündeln find that some of the difference in opinions — about a third — "can be explained by the fact that the East became poorer during Communism and is now a net beneficiary of (state directed) redistribution within Germany, rather than to an effect of Communism on preferences." But, they also find that East Germans are simply much more likely than West Germans to conclude that, "social conditions, rather than individual effort and initiative, determine individual fortunes."

"This belief is of course a basic tenet of Communist ideology," they write. But Alesina and Fuchs-Schündeln find that while Communist attitudes may still linger, they are waning and eventually — though it may take 20 or 40 years — the two sides will converge. For example, between 1998 and 2002, the share of East German votes captured by Germany's most leftist party, the PDS, shrunk substantially, "indicating a movement away from the Communist-leaning left toward the center of the political spectrum."

— Matthew Davis

What Undermines Aid's Impact on Growth?

The question "Does aid lead to growth?" seems to have a patently obvious answer. In poor countries, schools need textbooks, clinics need medicines, and roads need maintenance. More aid to each of these areas, reason suggests, would lead to better education, healthcare, and transport and, subsequently, to economic growth.

Yet the literature on the impact of aid on long-run growth is inconclusive, with recent studies suggesting that even in countries with good policies, there is no robust association between aid and long-term growth. These recent studies suggest that corruption and mismanagement cannot be the only reasons why aid does not boost long-term growth.

In **What Undermines Aid's Impact on Growth?** (NBER Working Paper No. 11657), authors **Raghuram Rajan** and **Arvind Subramanian** examine one channel through which aid might have adverse effects in the long run: by adversely affecting a country's competitiveness. The authors take two complementary tacks to attack the issue. First, they examine in detail a specific channel through which aid might influence growth. Second, they examine the effects of another unrequited capital flow — remittances — and ask whether it has effects similar to aid, and if not, why not.

> "Aid inflows have systematic adverse effects on the growth of labor intensive and export sectors ... Aid probably causes exchange rate overvaluation."

The authors provide evidence that aid inflows have systematic adverse effects on the growth of labor intensive and export sectors. The evidence takes two forms — relative and absolute. First, they show that in countries that receive more aid, the labor-intensive and export sectors grow slower than capital intensive and non-export sectors. This by itself does not show that the impact of aid on export sectors is negative. But they provide additional evidence that the manufacturing sector as a whole grows slower on account of aid. The authors also show that the

transmission mechanism is that aid probably causes exchange rate overvaluation. Remittances do not seem to have a negative competitiveness effect because remittances tend to slow when a country's exchange rate starts becoming overvalued.

Despite the fact that, for many aid-receiving countries, the manufacturing sector might be immediately less important than agriculture, it is worth remembering that that was also true for many of the fast-growing countries when they first embarked upon development. Manufacturing exports provided the vehicle for their growth take-off, so any adverse effects on such exports in aid-receiving countries should be a cause for concern about the effects of aid on long-term growth.

The slower growth of labor-intensive sectors induced by aid should be a source of concern for those who see aid as an instrument to reduce inequality, because labor-intensive sectors are the ones that can absorb the poor and landless who leave agriculture.

The authors caution that their findings do not establish that aid harms overall growth, or that the adverse effects on manufacturing competitiveness are not offset by other beneficial effects on social welfare. However, these findings raise the bar on the quality of government spending: aid has to be spent effectively so that the productivity or welfare improvements from increased public investment can offset any dampening effects from a fall in competitiveness.

More generally, however, the authors suggest that it may be more fruitful to move beyond the inconclusive debate of whether aid is effective and instead focus on specific ways it can be made to work better, by better understanding the reasons that might impair or enhance its effectiveness.

Thus, the authors suggest that policymakers should not lose sight of issues like how much aid can be handled to begin with, how the aid should be delivered, and when. At the very least, their findings suggest that a poor country taking in a massive quantity of aid up front can create substantial adverse effects on the country's export competitiveness. They believe it would be far better to build up the supply of the other critical resources that are needed to use aid effectively, such as a larger body of skilled workers. This might take time but will avoid the problems arising from a rapid ramping up of aid. It might be better to start slowly and accelerate as capacity is built. Even though the world is impatient for poor countries to develop, that development, especially when mandated from the outside, requires patience.

— Les Picker

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