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GROWTH IN HEALTH CONSUMPTION AND ITS IMPLICATIONS FOR FINANCING OASDI: AN INTERNATIONAL PERSPECTIVE

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The increased cost of U.S. health care has reduced the share of labor compensation that is taxable by Social Security. Between 1960 and 2010, non-taxable employer premiums for worker health plans increased from 1 percent to 7 percent of employee compensation. The fall in taxable compensation relative to total compensation reduces Social Security revenues in both the short and long run, increasing the financial pressure on the program.

This paper uses international data to examine the determinants of trends in health care spending and the reasons that the U.S. experience has differed so dramatically from that of other high-income countries. In 2010, the share of U.S. gross domestic product devoted to health care was 7.2 percentage points higher than the share in 19 other rich countries. The gap is much bigger than it was 40 years ago. In 1970, the United States allocated 7.1 percent of its GDP to health care, just 2.1 percentage points more than the weighted average health spending of the other countries. If the United States had allocated the same proportion of GDP to health spending in 2010 as the other countries, American health expenditures would have been 40 percent lower.

One explanation for higher U.S. spending is higher income. Assuming the share of income devoted to health consumption increases with average income, we would expect the United States to spend a higher proportion of its income on health compared with other, lower income OECD countries. Using data covering the period from 1960 through 2010, we perform a variety of regressions to determine the relationship between a nation's per capita spending on health care and its average income level. To ensure that our findings are robust to plausible changes in income measurement, statistical specification, and sample composition, we use a variety of estimation procedures to test our findings. We show that for the countries in our sample, real health spending per capita increases proportionately more than real income per capita. This finding is consistent with evidence on health spending trends within individual countries. As a country's per capita income level rises, a larger share is devoted to health care.

Across all the estimation alternatives, we find close similarities in estimates of the size and trend of excess U.S. health spending growth. U.S. spending was about 15 percent to 20 percent above the level that would be predicted based on other countries' spending patterns in the 1960s and early 1970s. Starting in

1979, there was a sizeable upward shift in U.S. spending, one that ended in the early 1990s. Between the late 1970s and early 1990s, excess U.S. health spending increased from about 20 percent to about 60 percent above the level that would be predicted based on other countries' spending patterns. The first decade of the 21st century saw another upward drift in relative U.S. spending levels, with the estimated prediction error rising to about 70 percent.

We identified countries with unusually slow spending growth using similar statistical methods. Our results suggest that Canada, Denmark, Finland, Ireland, Japan, and Sweden saw declines in their health care spending relative to the spending that would be predicted from the experience of other OECD countries. Our estimates imply that there was a significant downward trend in these countries' relative health expenditures between 1960 and 2010. We find a strong negative relationship between the amount of a country's excess spending in the 1960s and early 1970s and our estimates of the decline in the country's spending rank in later decades. Thus, the downward trend in a country's relative spending may simply reflect reversion to the mean. If this is the typical long-term pattern of health spending change, the United States is a notable exception. In the 1960s, its health spending was average or modestly above average, given its income, but its excess health spending generally increased in later decades.

We examined recent studies that attempt to divide the excess health spending in the United States between the part that is due to a higher volume of health care services and the part attributable to higher health care prices. One view is that technological innovation is the driving force behind overall health cost increases. Technological improvements in the delivery of health care help explain steady reductions in mortality and morbidity. However, it is hard for us to accept technological change as a full explanation for cross-national differences in rates of expenditure growth. New health care technologies are widely adopted in most high-income countries, and the lags in adoption are not long. If the ultimate test of new technology is that it delivers better health outcomes – lower rates of mortality and morbidity – then it is hard to see evidence in cross-national health statistics that the United States has derived outsized gains from faster adoption of better technology.

A significant barrier to making meaningful cross-national cost comparisons is the lack of reliable measures of the prices of health services. Accurate price measures would help us to answer the basic question of whether the greater amount of spending in the United States is largely a reflection of higher prices or the provision of more health services. Most available measures of medical prices rely on estimates of the prices of the inputs rather than the outcomes.

We present some estimates of the prices of a handful of narrowly defined health services. For example, one set of comparisons comes from a 2010 OECD analysis. It derived price estimates for inpatient hospital services in 12 countries including the United States. The price comparison focused on nine specific cases of medical services and 23 surgical procedures that represent comparable medical treatments. The price of inpatient services in the United States was 64 percent above the 12-country average price, and it was 45 percent above the level in Canada. Our interpretation of these studies is that much of the current excess in U.S. health costs can be traced to higher U.S. prices for health care goods and services. The failure of the United States to obtain better-than-average health outcomes in exchange for its much-higher-than-average health outlays tends to support this interpretation. Compared with other OECD countries, the United States has been slow to develop institutions and global budget constraints that restrain the pace of health cost growth.

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