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Indemnity vs. HMO Plans: Why the Cost Difference?

HMO insurance premiums generally are far lower than the costs of traditional indemnity coverage. Critics of HMOs have long suspected that this is because the HMOs restrict access to expensive or essential medical treatments. But a new NBER Working Paper indicates that HMOs do not save money in that way.

In **Enrollee Mix, Treatment Intensity, and Cost in Competing Indemnity and HMO Plans** (NBER Working Paper No. 7832), authors **Daniel Altman, David Cutler,*** and **Richard Zeckhauser** examine why managed care plans are less expensive than traditional indemnity plans. They find that the substantial cost differences arise because HMOs have a lower incidence of diseases among their generally healthier members, and pay lower prices for the same medical treatments, but not that HMO members receive fewer expensive treatments.

The authors use data on 200,000 Massachusetts state and local employees and family members who are insured in a single pool and must choose between an indemnity plan and a variety of

HMOs. The average HMO costs within this group are 40 percent lower than those of the indemnity plan, and premiums for the indemnity policy are 77 percent higher than premiums for the most expensive HMO.

The authors analyze the sources of cost difference across plans in the treatment of eight common medical conditions, which represent over 10 percent of total U.S. health care costs: heart attacks; cancers (breast, cervical, colon, prostate);

than indemnity plans, which explains the lower incidence of diseases in the HMO plans. Virtually all of the remaining savings, 45 percent of the total, come because HMOs pay lower prices for the same treatments.

Surprisingly, the authors find that differences in treatment intensity — that is, the procedures selected to treat a particular condition — explain only a small part of the cost differences. The indemnity plan offers more intense treatment for

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diabetes (type I and II); and live births. To explain cost differences, the authors consider the importance of patient mix, treatment intensity, and prices paid.

This study reveals that roughly half of the HMO cost savings are attributable to the lower incidence of these conditions in the HMOs. The authors note that other studies have uniformly shown that HMOs enroll younger, healthier members

live births only (more Caesarean sections), while the HMOs offer more intense treatment for heart attacks and colon cancer. The similarity of treatment patterns in HMOs and indemnity insurance suggests that quality differences between the these two types of plans are not large.

—Lucille Maistros

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College Financial Aid and Antitrust Action

For the academic community, an antitrust case that was launched more than a decade ago was a shock. From 1989 through 1991, the Department of Justice (DOJ) investigated a number of private, selective colleges for price fixing. The investigation eventually settled on the “overlap group,” comprised of about half of the most selective private colleges in the United States. The group included 23 colleges, from small liberal arts schools like Colby, Vassar,

such students as a “public good” for all their students. Yet, no college wanted to end up with a disproportionate share of the needy students simply because it had unintentionally made more generous need calculations than the other colleges. (All of the colleges attempted to use the same formula for need, but varying and difficult-to-interpret information from parents introduced some actual variation in their calculations.)

Hoxby compares the overlap colleges to a “control” group of private colleges that were equally selective

quence, the trend in overlap colleges to have a student body with proportionately fewer well-off students and relatively more black and Hispanic students was partially reversed after the antitrust case. So far, the effects on the composition of the student body at these colleges after the end of the overlap meetings have been modest, the author indicates.

Interestingly enough, even among middle-income and upper-income families for whom aid grew slightly more generous after the antitrust action (compared to the control colleges), families became 6 percent less likely to accept an overlap college offer (rather than a control college offer) after the antitrust action. Hoxby concludes that this is weak evidence that need-based aid is not purely an act of charity, but a policy that results in student body composition that is valuable to families.

In her study, Hoxby notes that some of the confusion surrounding the antitrust action resulted from the fact that the Department of Justice found it difficult to apply standard economic analysis to college education. In particular, although students are consumers of education, they are also producers in sense that a student's peers affect his experience. They can, for instance, facilitate one another's learning. “Many students,” Hoxby notes, “would like colleges to maintain policies of need-based aid for others while making exceptions for them, awarding them grants for which they would not qualify based on need. Yet the same students might prefer a regime of need-based aid, knowing that it would apply to them, because basing aid on need affects colleges' selectivity and diversity.” In other words, students may value having peers who are diverse and able even if they know that the cost of having such peers is having a college that distributes aid more on the basis of need than on the basis of merit.

—David R. Francis

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and Middlebury to larger universities like Princeton and MIT. Some students applied to more than one of the 23 schools and, each spring, officials from these institutions met to coordinate the exact calculation of such students' financial need. The case broke new ground in antitrust theory. Although the colleges denied the price-fixing allegation, they discontinued their annual meetings in 1991. Nor did they resume, even after a federal Court of Appeals rendered a decision in their favor.

In **Benevolent Colluders? The Effects of Antitrust Action on College Financial Aid and Tuition** (NBER Working Paper No. 7754), **Caroline Hoxby** looks at the economic merits of the Justice Department's case and the colleges' case. The DOJ alleged that the meetings enabled the colleges to collude on higher tuition and to increase their tuition revenue. The colleges defended their meetings by saying that they had to have some coordination in order to successfully implement their commitment to fully cover the need of any student they admitted. The colleges wanted to pull needy, able students into the pool of students who applied to selective private colleges because they saw

but did not participate in the overlap meeting. She finds no evidence that the overlap colleges were colluding to raise tuition, raise net tuition revenue, or to save expenditures on grants. Both the overlap colleges and the control colleges raised tuition about 4 percent a year both before and after the antitrust action.

Hoxby does find however that, as a result of the suit, financial aid at the overlap colleges became less progressive with respect to parents' income and more sensitive to the merit of students, as measured by standard aptitude tests. That is, grants and aid became less sensitive to parents' income and, within any given level of need, more able students obtained more aid. According to Hoxby, this occurred because, with the end of coordination, each college had an incentive to continue to *claim* to continue to distribute aid on the basis of need (in order to get the “public goods” benefits associated with seeing a full range of applicants) while actually bending their need calculations so as to give out more merit-based aid and less need-based aid than rival colleges (thereby ending up with only a small share of the costs associated with the “public good.”) She finds that, as a conse-

Product Prices Link Business Cycles among Major Industrialized Countries

One of the characteristics of the modern era has been a discernible pattern of synchronized business cycles among the major developed economies. New research by **Aart Kraay** and **Jaume Ventura*** sheds light on the reasons behind this trend; their findings may not only improve our understanding of the channels through which our economies are linked but also could have important implications for economic policy.

In **Product Prices and the OECD Cycle** (NBER Working Paper No. 7788), the authors build a case for the possibility that the cyclical nature of product prices might help to explain why business cycles are synchronized in the OECD. As a first step, they present evidence supporting the notion that the peak of the OECD business cycle is associated with high prices of labor-intensive

products and low prices of capital-intensive products. Interestingly, the authors show that these cyclical movements in relative prices are driven by OECD-wide shocks, and not by country-specific ones. Kraay and Ventura then argue that this evidence is consistent with the view that shifts in the demand for labor tend to occur at the same time in all OECD countries. In particular, they observe that manufacturing employment, hours worked, and real wages

higher employment growth and wages, creating an economic expansion in other countries as well. The authors then use the model to make some quantitative sense of how much of the synchronization of business cycles can be explained through this mechanism. Their main conclusion is that this mechanism might be important, but it cannot alone totally explain the extent to which business cycles are synchronized among OECD countries. In

“Manufacturing employment, hours worked, and real wages are all highly correlated among OECD countries.”

are all highly correlated among OECD countries.

Armed with this evidence, the authors build a model of how an economic expansion in one country would increase the demand for labor not only in that country but in the rest of the OECD as well. Higher demand for labor would lead to

short, movements in the relative price of labor- and capital-intensive products do play a part in the process by which economic expansions are transmitted across countries, but it is only a part and not the whole story.

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Foreign Direct Investment Changes Ownership, not Location

In **Interpreting Developed Countries' Foreign Direct Investment** (NBER Working Paper No. 7810), NBER Research Associate **Robert Lipsey*** suggests that flows of foreign direct investment (FDI) among developed countries, where most FDI occurs, have little to do with the location of production. To a large extent, they are changes in ownership of specific productive assets, presumably from less efficient to more efficient owners and managers. There may be no change in the geographical location of aggregate production or production in a particular industry.

An example of such shifts in ownership with little change in the loca-

tion of production took place in the U.S. manufacturing sector. The share of U.S. parent firms in domestic manufacturing output fell from 65 to 55 percent between 1977 and 1997, while the share of their overseas affiliates in their firms' output grew substantially. That might appear to be a change in the location of production attributable to FDI. However, the share of foreign-owned manufacturing affiliates in U.S. manufacturing production rose by 9 percentage points at the same time, almost completely offsetting the decline in the U.S. parent share. Thus, in terms of total manufacturing production, the outward and inward FDI movements practically cancelled each other out.

Lipsey finds that inward and out-

ward FDI stocks and flows tend to coexist in a two-way and often offsetting manner across countries and in individual years for individual countries. That is especially true for large countries that are open to trade and investment. Overall, inward and outward FDI stocks and flows tend to coincide; nations that invest abroad extensively are usually major recipients of FDI.

Analyzing data for individual countries from 1970 through 1995, Lipsey finds that the relationship between inflows and outflows of FDI relative to total output is positive and significant in most of the 19 countries. That is evidence that economic conditions influence the turnover of assets as much as, or more than, the net flow of capital.

Neither inflows nor outflows of FDI are crucial to determining the level of capital formation in a given country, though. Lipsey's data show that even gross FDI inflows have been small relative to gross fixed capital formation. In most countries, gross inflows of FDI averaged 5 percent or less of capital formation and net inflows were between minus 5 and plus 5 percent of capital formation.

He argues that if the major role of

comparative advantages in those industries. Inflows of FDI based on technology differences should come to industries of host-country comparative disadvantage.

In the case of the United States, U.S. affiliate production abroad (resulting from outward FDI) was particularly large in some, but not all, of the industries of major U.S. export comparative advantage. Industries of comparative U.S. disadvantage, such

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FDI is to shift the location of production, then we should observe flows from industries of home-country comparative disadvantage, or declining comparative advantage, to locations with comparative advantages in those industries. To the extent that FDI flows reflect the technological advantages of firms in the source country, outflows should take place in the industries of that country's past or present comparative advantages. However, the FDI does not necessarily go to countries with

as textiles and apparel or iron and steel, showed relatively large inward production by foreign-owned affiliates in the United States (inward FDI production). That is what might be expected if foreign firms were technologically ahead of U.S. firms in those industries, and the foreign-owned production reflected a change in the ownership of U.S. production rather than a movement of production to the United States.

Examining changes over time in U.S.-owned production abroad,

Lipsey finds two distinct patterns. In foods and metals, U.S. outward FDI production in recent years moved toward countries with relative comparative advantages in each industry group, suggesting the influence of country factor endowments and shifts in the location of production. In nonelectrical machinery, however, indications are that U.S. affiliate production moved toward countries with comparative disadvantages in the industry. That movement suggests the influence of U.S. firms' technological advantages.

If FDI transfers assets and production from less efficient to more efficient owners and managers, Lipsey theorizes, then FDI can be viewed in recipient countries as freeing capital frozen in industries that owners (including governments) would like to leave. It permits the owners to use their capital in what they consider more appropriate ways, at home or abroad. In investing countries, outward FDI permits the country's firms to better exploit their skills and technological advantages.

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