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## Is Health Insurance Affordable to the Uninsured?

A common explanation for the fact that 15 percent of U.S. citizens do not have health coverage is that a significant proportion of the population cannot afford to pay for coverage. Yet the “affordability” of health insurance is a subject that is poorly understood and that has received relatively little attention from economists. In **Is Health Insurance Affordable for the Uninsured?** (NBER Working Paper No. 9281), economists **Kate Bundorf** and **Mark Pauly** develop a framework for understanding affordability and, based on a plausible range of definitions and assumptions, show that health insurance is affordable for between one quarter and three quarters of adults who are not insured.

Adults in low-income households are certainly more likely to be uninsured than people in higher income households, but not all uninsured adults are in families with low incomes. If low income is defined by the federal poverty line, then only 22 percent of adults aged 25-64 who are uninsured are in families with incomes below the poverty line while 30 percent are in families with incomes three times the poverty level. At the same time, some people purchase health insurance

despite having what might be seen as an inadequate income, and this has important public policy implications. There may be a case for subsidizing health insurance for those who cannot afford it, or for people who have insurance but for whom paying the premiums causes hardship. But, for a large proportion of

them to data from the 2001 Current Population Survey, which provides information on insurance coverage. Their analysis focuses on adults 25-64 years of age without public health insurance coverage.

The authors first look at what people can “afford,” based on whether household income is above

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uninsured people, health insurance is a matter of choice. Policymakers can either mandate coverage — as is the practice in most countries — or not worry about people who choose to bear the risk.

Bundorf and Pauly use two broad approaches, analyzing a range of assumptions within each, to examine the question of affordability. The first approach relies on the commonly applied definitions of poverty to identify adequate levels of family income. The second approach relies on peer comparisons to ascertain what similar adults do. The researchers examine the implications of adopting the different approaches by applying

or below the federal poverty line (or some multiple of the poverty line), adjusting reported income for differences between insured and uninsured adults attributable to employer premium payments for health insurance. They find that the insurance-adjusted poverty rate for adults aged 25-64 in 2000 was 10.5 percent; on that basis, health insurance is unaffordable for 10.5 percent of adults aged 25-64. For the whole sample, using the poverty line as a benchmark, 71 percent of the currently uninsured population could afford health insurance coverage. Increasing the definition of affordability to family income exceeding three times the poverty threshold,

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the proportion of “uninsured afforders” declines to 28 percent.

Bundorf and Pauly also present a number of estimates defining affordability thresholds according to the proportion of individuals with similar characteristics who purchase insurance. Using a definition of health insurance as affordable if the majority of people in similar circumstances purchase coverage, the authors find that health coverage was affordable to between 59 and 66 percent of the insured, depending on the characteristics used to define individuals as similar. Using the threshold that

80 percent of similar households purchase insurance, they find that around 25 percent of the uninsured could afford coverage based on peer comparisons.

Thus, the researchers conclude that the affordability of health insurance, measured in various ways, is not a particularly accurate predictor of whether a person will obtain coverage. It is certainly not the only explanation of observed patterns of insurance coverage. The broad picture that emerges from the authors’ tests is that between 25 percent and 75 percent of people who do not purchase coverage

could afford to do so. This provides a clearer framework for policy decisions and for prioritizing where public assistance is required.

Bundorf and Pauly’s results apply only to those not covered by public programs. The researchers use a number of assumptions to control for various personal and family characteristics, but the wide range of the estimates also reflects unobservable differences in unmeasured income or wealth, and well as different preferences of the individuals and difference prices of health insurance that they face.

— Andrew Balls

## Does the World Trade Organization Actually Promote World Trade?

The World Trade Organization (WTO) has become one of the world’s most controversial multilateral organizations, perhaps rivaling only the International Monetary Fund as the favorite target for anti-globalization activists, who argue that the body’s policies and rules favor trade at the expense of workers and the environment. But, according to the research of NBER Research Associate **Andrew Rose**, maybe everyone should stop worrying so much about the Geneva-based agency. Not only does the WTO not increase trade by member countries; it doesn’t even produce more open trade policies among member states. In **Do We Really Know that the WTO Increases Trade?** (NBER Working Paper No. 9273) and **Do WTO Members Have a More Liberal Trade Policy?** (NBER Working Paper No. 9347) Rose offers compelling counterpoints to the common wisdom regarding the global impact and effectiveness of the WTO and of its predecessor organization, the General Agreement on Tariffs and Trade (GATT). In the first paper, Rose estimates the impact of multi-

lateral trade agreements on international trade using a standard “gravity” model of bilateral trade, which explains trade with the distance between countries and their joint income. He takes into account various factors that can affect trade,

Rose finds that traditional linkages among countries — such as belonging to the same regional trade pact or sharing languages, borders, and colonial histories — account for nearly two-thirds of the variations in trade. Above and

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“Very little happens to countries’ trade openness upon joining the WTO.”

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including culture (whether a pair of countries shares a common language), geography (whether the countries are landlocked), and history (whether one nation colonized another). He also adds the key variable of GATT/WTO membership: as of April 2003, membership had risen from 23 original founding members to 146 countries. Rose concludes that, taking all such factors into account, members in the trade body do not display significantly different trading patterns from countries outside the agency. “Countries joining or belonging to the GATT/WTO do not have significantly different trade from non-members” he writes.

beyond these gravity effects, membership in the GATT/WTO actually has a slightly negative (and statistically insignificant) impact on trade. “No reasonable person believes that membership in the GATT or WTO actually reduces trade,” explains the author, “so I prefer to interpret the negative coefficient as a mystery rather than an indictment.” Rose seeks to solve the mystery in the second paper, which examines whether WTO members indeed display more liberal and open trade *policies* than non-members. In order to skirt the massive debate over how to measure openness in trade policy, Rose decides against choosing a particular indicator and instead looks at more

than 60 different measures of trade policy. The measures can be broken down into seven groups: outcome-based measures of openness (such as the ratio of trade to GDP); trade flows adjusted for country characteristics; tariffs; non-tariff barriers (NTBs); informal or qualitative measures (such as World Bank measures of “trade orientation”); composite indexes, such as the Heritage Foundation’s index of economic freedom; and measures based on price outcomes. The different measures cover periods ranging from 1950 to 1998.

Rose finds that very little happens to countries’ trade openness upon joining the WTO. A typical country acceding to the WTO has an openness ratio (imports plus exports/GDP) of 73.1 percent five years before joining the organiza-

tion. Five years after accession, the joining countries display openness ratios of only 70.4 percent. By the same token, tariffs actually rise (insignificantly) from 12.5 percent to 13.1 percent. One example: When Mexico joined the GATT in 1986, its tariffs averaged 6.4 percent of imports. Five years later, tariffs stood at 7.1 percent. (Indeed, Mexico’s tariff rates did not really start dropping until it joined the North American Free Trade Agreement in the 1990s.)

“It seems that none of the 64 measures of trade policy [openness] is strongly and consistently tied to GATT/WTO membership,” explains Rose, with the exception of the Heritage Foundation’s index of economic freedom. (WTO members tend to enjoy more economic freedom, as measured by that index.)

The author also finds that the GATT repeatedly admitted countries that are relatively closed to trade, and allowed them to remain so for long periods after joining. So, if the WTO neither increases trade by member states nor produces more liberal trade policy among members, then why does the organization exist? Rose cites other researchers who highlight various secondary WTO functions, such as “coordinating” trade policy among members (without necessarily liberalizing it) or serving as a disseminator of information. Finally, Rose leaves his readers with an intriguing possible explanation for the WTO’s ineffectiveness. “Of course,” he writes, “a weak international institution may be the deliberate result of its members.”

— Carlos Lozada

## What Causes House Price Fluctuations?

A number of studies have documented that the prices of houses exhibit both “momentum” (that is, a tendency to move together in the short run) and “reversion” (cycle around a trend). From these studies, and from the observed behavior of housing prices in regional markets, it is clear that the extent of momentum or reversion varies with location, for example between coastal and inland cities. This is important because it is only possible for large housing price bubbles to occur in locations with a lot of momentum and little cyclical return to trend values. But what other variables might affect time-series properties, and why do regions react differently to economic shocks?

In **Determinants of Real House Prices** (NBER Working Paper No. 9262), authors **Dennis Capozza, Patric Hendershott, Charlotte Mack, and Christopher Mayer** use data for 62 U.S. metropolitan areas from 1979 to 1995 with economic, and demographic, and political variables for each of

the metro areas to explore two explanations for momentum and cyclical behavior: information-based explanations and supply-based theories. They find that both information dissemination and supply factors influence the dynamics of house prices.

Their results show that variation in the cyclical behavior of real house prices across metropolitan areas is attributable to more than just variation in local economies. Real house prices react differently to economic shocks depending on such factors as the growth rates of the underlying population and real income in the area, the size of the area, and construction costs. Some areas may react faster or more strongly to a given economic shock than other areas. In particular, any given positive economic shock will be easier for an area to absorb if the housing stock can be increased quickly and at low cost.

The authors find that high real income growth in an area has about three times as large an effect on

momentum as on cyclical house prices. They also show that high real construction costs will raise momentum but lower cyclical returns toward trend. That combination of large momentum and low cyclical response leads to real house prices continuing to rise beyond their equilibrium values even after the economic growth has slowed, causing as much as 25 percent overshooting and an eventual reversal in real prices. This result is consistent with the extreme behavior of house prices in markets such as Los Angeles and Boston in the 1980s, where large increases in real incomes were coupled with high real construction costs over this period.

Based on these results, this paper suggests that the volatility of real house prices would be reduced where lower real construction costs dampen house price cycles and where developments in information technology, which will provide better information to buyers and sellers, allow them to negotiate more efficient agreements.

## Does Alcohol and Marijuana Use Alter Teen Sexual Behavior?

Rates of teen pregnancy and out-of-wedlock birth in the United States are high, the latter having risen from seven per 1000 in 1940 to 46 per 1000 in 1994. The current rates are nearly twice those of Britain and Canada. And, survey data indicate that in 1999, 25 percent of sexually active students had used alcohol or drugs at the time of their last sexual intercourse.

In **Get High and Get Stupid: The Effect of Alcohol and Marijuana Use on Teen Sexual Behavior** (NBER Working Paper No. 9216), co-authors **Michael Grossman, Robert Kaestner,** and **Sara Markowitz** investigate whether use of alcohol and marijuana cause sexual activity and risky sexual behavior. They argue that, while the overwhelming majority of studies show a positive correlation between alcohol and marijuana use and sexual activity, those studies do not establish a causal relationship. Their results suggest that the positive association between substance use and sexual activity, or risky sexual

behavior, is not causal and more likely attributable to some other variables.

One alternative explanation for the positive association between substance use and sexual activity is that these behaviors may reflect a common personality trait, such as

these studies fail to control for a variety of family background and personal factors that may confound estimates of the relationship between substance abuse and sexual practices. Finally, no prior study has recognized the possibility that reverse causality may be at work;

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“The positive association between substance use and sexual activity, or risky sexual behavior, is not causal and more likely attributable to some other variables.”

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thrill-seeking behavior. Another possible explanation is that a teenager who chooses to have many sexual partners may use drugs to cope with society’s negative view of such behavior, thereby lowering the psychic costs of risky sex.

The authors also point out that for many reasons the large number of studies has not been able to establish causality. For example, these studies typically use non-representative samples, and, most of

that is, that sexual activity may actually cause substance abuse.

The authors data come from two sources: the 1997 cohort of the National Longitudinal Survey of Youth (NLSY97), which consists of approximately 8,500 youth between the ages of 12 and 16; and the National Longitudinal Survey of Adolescent Health, which consists of approximately 6,000 youth in grades seven through twelve.

— Les Picker

## Information Technology Spillovers

Evangalists for the computer revolution predicted that rapid advances in information processing technology would create a new economy. Vastly increased computing power would revolutionize working arrangements, leading to previously unmatched improvements in productivity and a new age for consumers. But actual evidence of the benefits flowing from roughly two decades of massive invest-

ment in information technology has accumulated more slowly.

In **Information Technology Externalities: Empirical Evidence From 42 U.S. Industries** (NBER Working Paper No. 9272), authors **Sung-Bae Mun** and **M. Ishaq Nadiri** measure the benefits that accrue to suppliers and customers when a specific industry invests in information technology (IT). Across the industries they

examine, the value of IT equipment, computers, software, and data input, output, and storage devices, was 9 to 10 times larger in 2000 than in 1984. Service industries — such as wholesale trade, the finance sector, and business services — had the largest IT investments.

About three fourths of the industries examined received more spillover benefits from the IT capital of their suppliers than their cus-

tomers, as would be the case when a computerized supply chain lowers inventory costs. On average, a 1

propagated through the supply chain. Increasing IT investment in manufacturing industries by one

and securities differ from manufacturing in that they have customers from a wider variety of industries than most manufacturers do. Unlike less service-oriented industries, these industries appear to have benefited most heavily from their own IT investments and from the spillovers from the IT investments of their customers. Overall, the authors find that IT investments, and their spillover effects, reduced variable costs in all industries by promoting savings in both labor and materials.

— Linda Gorman

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“Increasing IT investment in manufacturing industries by one percent increased supplier investments by 0.6 percent, and customer investments by 0.3 percent.”

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percent increase in IT investments in manufacturing industries reduced the labor intensity of their suppliers by 0.01 percent. In the long run, investment in IT appears to have

percent increased supplier investments by 0.6 percent, and customer investments by 0.3 percent.

Industries including business services, legal services, and banking

## Effects of Multinational Company Investments

While critics of globalization view the foreign ventures of multinational corporations as damaging exports, jobs, and wages at home and abroad, an exhaustive review of research into the effects of “foreign direct investment” credits multinationals with being far more beneficial than detrimental — for both their “home” and “host” countries. In **Home and Host Country Effects of FDI** (NBER Working Paper No. 9293), NBER Research Associate **Robert Lipsey** asserts that there is little evidence that multinationals are guilty of the “many evils that are alleged.”

Lipsey’s study reviews economic research that has delved into various aspects of what happens when companies based in one country decide to expand their operations to a foreign country. Specifically, Lipsey is interested in whether foreign investments by multinational firms do what opponents of globalization claim they do: that is, lead to unemployment and reduced exports in the company’s home country while depressing wages and exploiting workers in the host country.

Lipsey’s analysis suggests that, if anything, both home and host

countries would be worse off in a world without globe trotting multinationals. For example, examining the critique that a company’s foreign operations inevitably will hurt domestic jobs and wages, Lipsey notes that among those who have studied the situation, such fears have “mostly dissipated.”

Lipsey does not deny that prob-

“most of the reduction...was offset” by the increased output and employment resulting from an surge in foreign owned affiliates moving into the United States. “U.S. and foreign firms were both internationalizing,” he writes. “Each group was expanding in the other group’s home region.”

Lipsey points to other instances

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“If anything, both home and host countries would be worse off in a world without globe trotting multinationals.”

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lems, such as job losses at home, can occur when a domestic company invests in foreign production facility. But he notes that critics of globalization often fail to consider the broader picture. For example, in the United States, while there has been considerable attention to jobs lost because of a domestic firm shifting production abroad, less attention has been paid to how this may be offset by foreign firms investing in U.S. facilities. Lipsey notes that U.S.-based manufacturing employment and output provided by U.S.-owned companies indeed declined from 1977 to 1997, but

in which a company’s investment abroad provides benefits at home. For example, investing in a particular country may give a company access to markets that it would not be able to penetrate with a domestic operation alone. This has the effect of increasing the company’s exports overall, the benefits of which accrue to domestic operations. In addition, having operations abroad can shield a company from the damaging effects of currency fluctuations and trade-inhibiting tax policies in the home country. In both instances, the foreign investment could end up protecting jobs

at home by strengthening the parent company.

Overall, Lipsey argues it's not always or even often the case that an investment in production abroad "substitutes" for or displaces what would otherwise be production capacity at home. Looking at exports alone, Lipsey notes that economists have found more evidence associating foreign investments with an increase in home country exports than a decrease. Even in Europe — where rising unemployment in proximity to an increase in foreign investment lead to suspicions that the two were related — Lipsey notes that economists found foreign investment was more likely to boost rather than to reduce the host country's exports.

As for its effect on the foreign country, again, Lipsey finds little, if any, support for the anti-globalization gospel. For example, considering the charge that foreign investment leads to depressed wages and thus exploits "host country" workers, Lipsey finds that the opposite is true. "Within host countries it has been abundantly shown that foreign-owned firms pay higher wages than domestically-owned firms," he

writes. Lipsey notes that foreign firms tend to be in "higher wage sectors," generally hire "better educated and more qualified workers" than locally-owned firms, and "tend to be larger and more capital intensive." He finds only sparse evidence of those higher wages having a "spillover" effect on wages paid by

rarely, if ever, examined."

More conclusive, according to Lipsey, is evidence that foreign investment significantly boosts exports and economic growth in the host country. But he acknowledges that such an association "would not necessarily please critics of multinationals." For example, he notes that

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"It's not always or even often the case that an investment in production abroad 'substitutes' for or displaces what would otherwise be production capacity at home."

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local companies, but he claims that whatever evidence there was points to an increase in average wages.

Lipsey observes that the research offers a mixed view of whether the presence of foreign firms has a positive effect on productivity in the host country, with some studies reporting a significant effect and others viewing the evidence as inconclusive. However, Lipsey believes that, with productivity in foreign firms generally superior, this "suggests that overall production is improved by the presence of foreign-owned operations, although that question is

the encumbrances of trading relationships can be viewed as restricting a government's freedom to act domestically while "fast growth involves disruptions and the destruction of the value of old techniques of production and old skills."

"Those who value stability over economic progress will not be convinced of the worth of the gifts brought by foreign involvement," Lipsey observes. "That is especially true if the gains are captured by small elements of the population or if no effort is made to soften the impact of the inevitable losses."

— Matthew Davis

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