In Review

Return of the Questing Beast

REVIEWED BY RICHARD L. GORDON

The Quest: Energy, Security, and the Remaking of the Modern World

by Daniel Yergin 803 pages; Penguin Press, 2011

Imost two decades after his best-selling survey of world petroleum, *The Prize*, Daniel Yergin returns in 2011with a survey of the whole energy realm. It is a comprehensive, highly readable, information-filled survey that correctly states the issues at hand. Unfortunately, it also badly fails at systematically or correctly explaining and dealing with those issues.

As standard in this enormous literature, Yergin's concerns are price prospects, the dangers of import dependence, and global warming. His treatments are defective throughout. The exposition fails adequately to support even his reasonable conclusions. Far too much space is devoted to peripheral matters. In short, the book joins the long list of nonsense writing on serious economic issues—but it exceeds many of them in disorganization.

For that reason, Yergin's title, itself, is an inviting target. The prior quests that come to mind are great follies of history and literature: El Dorado, the Fountain of Youth, and Don Quixote's jousts. Yergin is on a similar path.

Oil The book is divided into six parts that differ radically in coherence, organization, and length.

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Part One is a long, confused ramble through ill-assorted world oil issues. First comes a view of oil in post–Soviet Russia. Two chapters examine the effort to develop Caspian Sea oil. An uncharacteristically lucid review of oil company mergers follows. Next we hear of Hugo Chavez's ruining the Venezuelan oil industry. The following chapter is a mélange of a discussion of the September 11, 2001 attacks on the United States, more Venezuela, problems in Nigeria, and the effects on oil of Hurricane Katrina. Even more curiously, Yergin moves to an extended denunciation of the invasion of Iraq.

A particularly messy chapter treating 21st century oil prices ensues. It starts with a typical digression about why West Texas Intermediate is the market-traded U.S. crude oil. Then Yergin argues that demand surged unpredictably rapidly in the 2003–2006 period due mostly to rising consumption in China and India. (Examination of the underlying data suggests some cherry-picking to exaggerate the importance of those years.)

Yergin's next topic is the rise of oil futures trading—a topic that he totally botches. Having correctly stated that speculators survive only by correctly anticipating prices, he repeats the widespread nonsense that traders manipulated prices in the last decade, which is inconsistent with correct anticipation. This is interspersed with a scary fairy tale about oil supply tightening that he asserts was widely believed by traders. The tale consists of four different ways of stating that world oil production was about to peak plus concern about growing Chinese oil

consumption. While this view has its exponents, it is implausible to assert that such fears drove *short-term* speculation in oil. He then meanders through the subsequent price collapse, pausing for no discernable reason to note that a 2007 U.S. energy bill required increases in mileage requirements for automobiles and trucks.

The section closes with two chapters on the rise of China.

Unconventional sources | Part Two purports to deal with exhaustion and insecurity issues. It starts with an inadequate discussion of the exhaustion issue. In another strange chapter, Yergin inserts a discussion of the Deepwater Horizon blowout into a discussion of unconventional sources of oil such as Canadian tar sands.

Two florid chapters follow on the security risks of oil imports.

Yergin moves to natural gas prospects. His first chapter on the subject discusses ocean transport of liquefied natural gas. It curiously begins and ends with discussion of Qatar's big venture into liquefied natural gas and, in between, gives historical background. The section concludes with treatment of alternative sources of natural gas. Here he starts with the rise of extracting natural gas from shale in the United States and then turns to the earlier rise of Russia as a pipeline gas exporter.

Part Three tries to relate the history of electric power in 72 pages. Yergin devotes one chapter to the creation of the industry, turns to the push for nuclear electric power, moves on to the regulatory problems of the industry with stress on the California restructuring fiasco, and ends with a review of issues about future energy sources for generation. His treatment of California is uncharacteristically perceptive; he recognizes that the problem was government imposition of an unsatisfactory structure. Even here, he cannot refrain from the standard error of blaming a ban on long-term power contracts for part of the problem.

Experience with contracting shows that when market conditions diverge drastically from those upon which the contract is based, economic realities imply that adjustment is needed to prevent default.

Environment | The rest of the book treats aspects of global warming. Part Four deals with the global warming problem itself. Part Five treats responses—mostly solar, wind, and conservation. Part Six then moves helter-skelter among alternative responses in automobiles; it starts with a review of biofuels that barely notices the role of crony capitalism. Yergin turns to the electric car; following his editorial quirks, he starts with the early 20th-century race

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DANIEL YERGIN

among options for motor-car propulsion.

The chaos in organization unfortunately is outdone by the incompetence of the argument. Practically all the great myths about energy are accepted; the few that are rejected are inadequately discussed. The crux is that the author's research strat-

egy invites me to use such critical adjectives as "quixotic," "bizarre," "inadequate," "incompetent," and "insane." The quintessence of the defect is that Yergin could find an article by Betty Freidan on global cooling but ignore most of the extensive theoretic and applied economics relevant to his subject matter. One could fill a book with citations of the essential literature that he ignores. He even botches the few citations that he does provide.

His treatment of global warming is particularly egregious. Yergin starts with three chapters rambling through history back to 1856 and on to the first major international meeting on global warming. These chapters are filled with his characteristic use of florid language.

He then provides a disastrous chapter on the theory and practice of emission control. As have many before him, Yergin starts with Ronald Coase's celebrated 1960 article, "The Problem of Social Cost." Yergin manages to make the worst botch of Coase of the many of which I am aware. Coase's arguments center on the proposition that evaluation of the control of social costs—the impacts of economic activities on bystanders-must consider not only the costs imposed on such bystanders, but the further cost of designing and implementing correction. Coase termed these "transactions costs." Several relevant points follow: First, either a properly designed subsidy or a tax could optimally correct the social costs. ("Properly designed" is my shorthand for warning that designing the right tax or subsidy is probably beyond the capability of political organizations.) Second, although taxes and subsidies clearly differ in their income distribution impacts, the worthiness of subsidy beneficiaries is not always clear in practice; for instance, some people choose to locate in harm's way. Third, where the impacts are widespread,

> a centralized approach could be considered, which might lower transaction costs. Fourth, even here, the resulting lowering of transaction costs may not be sufficient to ensure that costs are less than benefits. Fifth, given the limitations of real-world governments, it is unclear that private solutions are inferior.

Yergin curiously argues that Coase was setting the stage for the introduction of tradable permits to pollute. To be sure, Yergin recognizes that Coase never considered that option, but he claims that it was tacit in Coase's article. Yergin then cites two early efforts to propose tradable permits. This is a great misfire. Permits, as do pollution taxes and subsidies, still involve extensive government control. The market then adapts, trying to find efficiencies in light of whatever policy is adopted. However, contrary to Coase's warnings, Yergin still trusts government uncritically to set the rules. Moreover, he totally ignores the profound problems of choosing among taxes, subsidies, and permits. Adding the permit option means increased confusion. In a U.S. context, the experience with global warming legislation makes evident the practical superiority of taxes: recent legislation that passed the House of Representative died in the Senate because of the bill's convoluted allocation of permits, intended to buy off objectors.

Another failure of Yergin's book is its neglect of the daunting problem of dealing with rising greenhouse gas emissions from China and India. Those countries argue, understandably, that if they are to restrain their environmentally harmful activities that are pulling much of their populations out of poverty, then they should be paid for doing so by the richer developed world. The developed countries show no willingness to provide those payoffs.

Yergin then turns to the myth of the success of a market solution to "acid rain." He expectedly repeats the long-refuted claim that such rain was killing trees in Germany's Black Forest. He proceeds tersely to note the success of a tradable-permit remedy to acid rain. As usual, neither the lack of cogency of the argument for acid rain controls nor the extreme command-and-control element of the permits is treated. The law establishing the program named the individual operating units at individual power plants that would receive permits and set the permit level.

The sins of the emission permits chapter become insignificant when compared to those of the last two parts of the book. In them, Yergin's prior note of the drawbacks of command-and-control regulation is forgotten. This portion of the book roams through assorted ways to lessen fossil fuel use. In every case, he recognizes the existence of intervention in the form of direct subsidies, tax credits, and performance mandates. At no point does he reflect on the folly of such measures.

In contrast, the key defect of the remainder of the global warming section is its uncritical advocacy. Every problem in support of action is dismissed. This starts at the trivial level of admiration of questionable actors such as Al Gore. Most importantly, two critical aspects of the advocacy-the multiple reports of the Intergovernmental Panel on Climate Change (IPCC) and Nicholas Stern's report to the British government on the economics of global warming-receive far less scrutiny than they deserve. In both cases, Yergin notes and dismisses important concerns. His discussion clearly recognizes that global warming research is predominantly government financed, yet it never occurs to him that this produces a bias to studies that justify intervention. Even worse, he accepts the embarrassing whitewashes of the scandals unleashed by release of leaked e-mails among climate scientists. He notes only the source-data-manipulation aspect of the fiasco with the notorious "hockey stick" graph that showed a sharp rise in earth temperatures with fossil fuel use. He does not note that the result also depended on the use of a defective homemade program to analyze the data. The type of curve-fitting analysis attempted is standard, and the results disappeared if the well-established existing programs were used. Yergin also ignores the efforts to suppress dissent on the issue that were disclosed in the leaks.

Similarly, he is well aware that Stern's results depend on uncritical acceptance of the IPCC's projections coupled with the assumption of a discount rate far lower than most other economic analyses adopted. Yergin does not seem to realize just how tortured Stern's analysis is. What is more, Yergin gives no attention to the belief among economists working on global warming that the Kyoto Treaty, because of its exclusion of developing countries, was a grossly unsatisfactory remedy.

Ignoring economics | Sadly, ignoring economic analysis is the underlying, repeated failure of the book. Return to Yergin's treatments of exhaustion and security of supply. He gives no attention to the central work of M.A. Adelman. At best, a tacit hint of Adelman's analysis appears in Yergin's recognition in the depletion chapter that reserves are proved by their development, and thus that a lack of proven reserves for the long-term future simply means that extraction companies are not investing heavily in fields that they don't expect to tap for decades.

Another example: he devotes most of the exhaustion chapter to review of alarms, with stress on the notorious pessimist M. King Hubbert. To his credit, Yergin does recognize Hubbert's flaws, but he doesn't adequately refute them for readers.

The handling of security of supply is even worse. A disconnected series of anecdotes replaces serious discussion of the dangers, their implications, and the best policy responses. Thus, Yergin presents so amorphous a problem that it necessarily has no clear solution. In this realm, Adel-

man is but the start of a vast literature on security. Several works have dealt directly with the security issue. It is widely agreed that possible macroeconomic impacts are the only policy-relevant problem. An extensive literature has grappled with determining whether or not such impacts actually arise. Yergin's coverage is limited to an *interview* with a leading exponent of the view that the shocks are important. No literature, including that from the interviewed economist, is cited. Still another neglected literature treats the unsatisfactory theory and practice of oil stockpiling.

Conversely, only the peak oil portion of the alarmist literature is adequately cited. This ignores the mass of broader calls for action from a curious assortment of think tanks, ad hoc organizations, and various academics.

Few lesser myths miss inclusion. Most critically, Yergin ignores Adelman's demolition of the demand shock and Arabembargo explanation of the oil price increases of the middle 1970s. The oil-company-merger chapter uncritically reports the 1911 breakup of Standard Oil without

recognizing that the shift of oil production from Appalachia to the U.S. South Central states and abroad was already undermining Standard's position. His treatment of the early history of electric power incorrectly praises Roosevelt's New Deal for breaking up public utility holding companies, starting federal power projects, and promoting rural electrification. The inadvisability of the last two is widely discussed in the literature. The holding company is less widely treated. Examination of the effects, however, shows that by concentrating on one form of organization, the Holding Company Act produced capricious reorganizations. (For an alternative, heavily annotated viewpoint on most of the issues treated by Yergin, see my "The Gulf Oil Spill: Lessons for Public Policy," Cato Policy Analysis #684, released last November.)

A secondary but still maddening problem is Yergin's inclusion of insulting explanations and useless information. It is hard to decide whether telling us that "doubling" means being twice as large (p. 164–5) or that Sonny Bono was once married to Cher (p. 599) is more condescending.

Ruinous Competition?

REVIEWED BY DAVID R. HENDERSON

The Darwin Economy: Liberty, Competition, and the Common Good by Robert Frank

240 pages; Princeton University Press, 2011

With a series of academic journal articles in the early 1980s and a 1985 book, *Choosing the Right Pond*, Cornell University economist Robert Frank made the case that people care a lot about their relative position. He used this assumption to explain why the most-productive people in a workplace

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are often paid much less than the value of their marginal product, while the least-productive are paid more. In later books and articles, he has claimed that people's focus on their relative position distorts what gets produced in the broader market economy. He reasons from that claim to the idea that the U.S. federal government should impose a "progressive consumption tax"—that is, a tax on people's consumer spending, with higher tax rates for higher-consuming people.

In his latest book, *The Darwin Economy: Liberty, Competition, and the Common Good*, Frank further lays out his case for such a tax in an explicit attempt to persuade what he calls "reasonable libertarians" as opposed to "movement libertarians." He comes closer to making a successful case than I would have expected, given his past

work, much of which I've found largely unpersuasive (see my critical review, "Robert Frank's Strange Case for Taxing 'The Rich'," Cato Policy Report, November/December 2007). Ultimately, though, I find his case unconvincing. Moreover, his own reasoning leads to conclusions that even he finds distasteful, and he has yet to find a way out of those unfortunate conclusions. Frank often misstates the libertarian viewpoint, sometimes in ways that matter for his argument. Along the way he does make points—mainly tangential to his main argument-that are quite eloquently and logically argued. At the same time, he stumbles on a number of

issues where he goes beyond his own expertise.

Ruinous competition? | Frank starts with a major prediction: "[E]conomists a hundred years from now will be more likely to name Charles Darwin than Adam Smith as the intellectual founder of their discipline."

Frank errs slightly in attributing to Smith a belief in perfect competition; the concept of perfect competition didn't come along until about 150 years after Smith wrote The Wealth of Nations. But this misattribution causes no major problem for Frank's argument. Frank agrees with Smith that firms competing against each other produce goods and services that consumers want and, because they compete, the prices that consumers pay are lower than they would be without competition. Smith, caring mainly about consumers, saw this as being good. But Frank, drawing on Darwin, sees a big downside to competition. Darwin argued that animals compete for mates by being more powerful, flashier, etc. Frank makes the same argument about humans. Some kinds of competition among humans, he argues, cause them to make systematically bad decisions.

During the mating season, bulls battle ferociously for "near-exclusive sexual access to a harem that may number as many as a hundred cows." Being larger than other bulls gives a particular bull an advantage in this competition, but being large also makes him more vulnerable to predators such as sharks. If bulls could vote, writes Frank, they would vote to reduce each bull's weight by half, making them less vulnerable to predators while not changing the pecking order among bulls.

What human behavior is analogous to competition by bulls? The first of many examples Frank gives is the decision not to use hockey helmets. Players, if not constrained by league rules, tend to play without helmets because doing so gives them a competitive edge-without a helmet, they can see and hear better. The downside is the risk of head injuries. But, argues Frank, it could be in all players' interests to have a rule requiring helmets because, although such a

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rule would stop one player from getting a competitive edge, it would stop his opponent from getting an edge also-and make everyone safer.

I find this argument convincing. If the National Hockey League and other hockey leagues enforce helmet rules, as they do, that is simply an exer-

cise of freedom of association. Those who don't want to play under those rules don't have to. Imagine my surprise, then, to read Frank's statement, "What about the libertarian's complaint that helmet rules deprive individuals of the right to choose?" I, a libertarian, have never made that complaint and I've never heard other libertarians make that complaint. It's odd that someone who expresses passionately his interest in persuading libertarians does not understand one of the most basic beliefs libertarians hold, the belief in freedom of association (in this case, association with a hockey league that requires helmets).

I wondered if Frank had simply slipped and was going to characterize libertarians more accurately later in the book. But he doesn't. Frank says positive things about salary caps in sports, spending limits in soap-box derbies, and engine-size limits in auto racing, and then writes, "Libertarians apart, there don't seem to be many people who view such steps as deeply troubling violations of individual rights." Why "libertarians apart?" I'm a libertarian who sees no rights violation either. One wonders how carefully Frank has read the libertarian literature or talked to actual libertarians.

Improving one's position One of Frank's main arguments, which he also made in his 1999 book, Luxury Fever, is that Darwinian competition among humans causes them to overspend on goods such as housing. He reports data from surveys in which people are given a hypothetical choice between living in World A, where one is in a neighborhood with 6,000-square-foot houses while others live in neighborhoods with 8,000-squarefoot houses, or in World B, where one is in a neighborhood with 4,000-squarefoot houses while others live in neighborhoods with 3,000-square-foot houses. Most people surveyed, writes Frank, would choose World B. He concludes that people care about the relative size of their house, not the absolute size. Housing, he writes, is what the late economist Fred Hirsch called a "positional good." Frank had earlier argued that positional goods are also "things in fixed supply." I pointed out in my 2007 critique that houses are not in fixed supply and Frank, to his credit, has not repeated that error.

What follows from this competition for positional goods? For Frank, it is a "progressive consumption tax"-that is, a tax on all income consumed with higher tax rates for higher amounts of consumption. Frank argues, as he did in earlier work, that such a tax would require "no real sacrifice" from wealthy people because they would maintain their relative positions and that's what matters to them. I find it implausible that the wealthy would not care about being made poorer, but there's an easy test, one I proposed in my 2007 article: let wealthy people, and only wealthy people, vote on the proposal to tax them more. If Frank is right that there is "no real sacrifice," then he would have to predict that well over 90 percent of wealthy people would vote for higher taxes on themselves. Yet Frank nowhere has proposed such a vote. It's strange that someone who even thinks about having elephant seals vote, understanding that—for obvious reasons-they can't, doesn't even consider letting people vote even though they can. Is it possible that Frank has real doubts about his own theory?

One reason people want nicer houses, writes Frank, is that such houses are in districts with better schools. Why do people have to buy nice houses to get nice schools? It's because government provides schools. Governments insist, with few exceptions, that the only people allowed to attend schools in a school district are the children who live in that district. Private schools, by contrast, rarely discriminate geographically. A straightforward way to get around this wasteful competition for houses in nice school districts is to get government out of the business of providing schools. But Frank does not consider that option.

Frank states that "school quality is an inherently relative concept." In other words, what matters to parents, according to Frank, is not the absolute quality of the school, but how good it is relative to other schools. But if that's so, then one obvious way to save resources, so that people can have more non-positional goods, is for the government to spend less on schools. Just as a progressive consumption tax would, in Frank's view, make no rich people worse off, a 50 percent cut in school funding should make no students worse off. Yet Frank never considers cutting government spending on schools.

Dark conception of human nature

Frank does present a new argument for his progressive consumption tax, an argument in which he draws heavily on the Coase Theorem. Frank's exposition of the theorem is about the best I've seen—and I've seen many.

How does he get from Coase to his argument for high tax rates on high-consuming people? The Coase Theorem says that if transaction costs are zero, then, when one person's actions impose costs on another, the two parties will negotiate and reach an optimal solution. When transaction costs are prohibitive, on the other hand, the optimal solution is not necessarily achieved and the courts should assign the burden of adjusting to, in Frank's words, "the party for whom that burden would be least costly." Many economists accept a role for government to use taxes or liability rules to handle issues like pollution because high transaction costs make it hard or impossible for polluters to get together with those who suffer from pollution. Frank argues that,

similarly, when people compete for "positional goods," they impose costs on others. Because transaction costs are too high to let people get together to agree to compete less for these positional goods, Frank sees a role for government, with the earlier-noted progressive consumption tax, to cut down on the competition.

But if people care a lot about their relative income, there are two ways for them to have higher relative income. The way Frank focuses on is to seek more income. But Santa Clara University professor David D. Friedman, in a May 5, 2010 post entitled "Robert Frank, Status, and Income Redistribution" on his "Ideas" blog, (daviddfriedman.blogspot.com), points out another obvious way: make everyone else poorer. Friedman points out that if Frank is right, "The rich ought to be in favor of grinding down the poor, the poor ought to be in favor of pulling down the rich, and the people in the middle ought to be in favor of both." Friedman writes, "I do not think that that describes the policies that Robert Frank, who is a nice man as well as an able and original economist, wants." Frank, in replying to Friedman ("Robert Frank's Reply," May 10, 2010) stated, "These remarks betray a curiously dark conception of human nature." That was exactly Friedman's point, but it's not Friedman's conception; it's Frank's. Frank completely misses that.

In his reply to Friedman, Frank covers important new ground that I could not find in his book. He writes, "All available evidence suggests that positional concerns are largely local in nature." But if that's so, then, even within Frank's own framework in which relative position matters a lot, the solutions ought to be local, not nationwide. Oops, there goes the *federal* progressive consumption tax.

Other weaknesses | Frank often lays out great insights clearly. For example, in defending cost/benefit analysis from the charge that it gives too much weight to the wealthy, Frank shows that weighting all people's preferences equally to tilt against the wealthy would make poor people worse off than if straight cost/benefit analysis were applied along with side payments to the poor. He also points

out how taxes to discourage behavior are typically much more efficient than "prescriptive regulations." Because he discusses this in the context of energy use, it would have been nice to see him call for abolishing the Corporate Average Fuel Economy laws that have been shown to be much more expensive and inefficient than a stiff increase in the gasoline tax. Unfortunately, he doesn't.

On other issues he discusses that are outside his expertise, Frank makes an unpersuasive case. In discussing the Occupational Safety and Health Administration's worker safety regulations, for example, he writes, "[T]here's little doubt that workplace safety levels are higher because of them." In fact, there's a great deal of doubt, as economist W. Kip Viscusi has shown in his book, Risk by Choice. Worker safety did improve after OSHA was formed in 1970. But worker safety was trending upward in the decades before OSHA was formed. And, although Frank correctly points out how dependent politicians are on campaign contributions, he seems unaware that the Federal Election Campaign Act of 1974 made the problem worse by limiting individual contributions to \$1,000 and, thereby, giving an advantage to corporate Political Action Committees (PACs) that bundle such contributions. Before 1974, people could make unlimited contributions to federal candidates. That allowed mavericks such as Democratic senator Eugene McCarthy to run for president in 1968 on an anti-war platform. McCarthy got huge funding from just six people. One, Stewart Mott, gave about \$210,000. In today's dollars, that would be over \$1.3 million.

Finally, in discussing the idea of Ricardian equivalence—the view that when government increases its deficit, people increase their saving to be able to pay future taxes—Frank completely ignores the extensive empirical literature on this topic and settles for ridiculing those economists who take Ricardian equivalence seriously.

Is the book worth reading? I think so. Robert Frank is emerging as one of the leading critics of economic freedom and many other leading academics, as the book cover shows, pay a great deal of attention to his thoughts. So defenders of economic freedom had better do so also.

The Second Wave of **Managed Care?**

REVIEWED BY PETER VAN DOREN

Overdiagnosed: Making People Sick in the Pursuit of Health

by H. Gilbert Welch, Lisa M. Schwartz, and Steven Woloshin 228 pages; Beacon Press, 2011

edical expenditures and their rate of growth in the United States are high. Many health care professionals claim that early detection of medical conditions would reduce health care expenditures and improve patient welfare. But empirical research conflicts with this belief, according to Overdiagnosed, one of the most important books about health care in the last several years.

The authors clearly state their argument early in the book:

Americans have been trained to be concerned about our health. All sorts of hidden dangers lurk inside of us. The conventional wisdom is that it's always better to know about these dangers so that something can be done. And the earlier we know, the better. ... Americans love diagnosis, especially early diagnosis....

But the truth is that early diagnosis is a double-edged sword. While it has the potential to help some, it always has a hidden danger: overdiagnosis-the detection of abnormalities that are not destined to ever bother us.

Normal becomes abnormal | Early diagnosis arises from two distinct trends in medicine. The first is the "renorming" of standards; that is, the redefinition of what readings from medical tests are designated as abnormal and worthy of treatment even though other clinical symptoms are absent.

For example, before the late 1990s, a blood pressure reading of 160-over-100 was considered the threshold for the diagnosis

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of hypertension. Today it is 140-over-90. The five-year risk of a bad event (death, heart attack, and stroke) for diastolic pressure of between 90 and 100 is only 9 percent. If the pressure is lowered with medication, only 3 percent of people experience a bad event for a treatment benefit of 6 percent. Thus, just one in 18 patients with diastolic pressure in this range who is treated with medication avoids a bad health event in the next five years that would have happened without treatment.

That benefit may be worth the money spent on medication for all 18 patients, but the cost of treatment goes beyond the pharmacist's bill. Medical intervention is never precise, i.e., there is a range of effects

MAKING PEOPLE SICK IN

THE PURSUIT OF HEALTH

DR. H. GILBERT WELCH,

from taking medication. So, for instance, blood pressure medicine lowers some people's pressure so far that they faint—which is more than just an inconvenience. Widespread treatment of all people with pressures above the new guidelines would result in more fainting.

Cholesterol levels have also been renormed. In 1998 a trial showed that reducing total cholesterol below 200 mg/dL reduced major health events over five years from 5 percent to 3 percent of the studied population. Choosing a cutoff of 200 as abnormal had large effects on medical practice because 200 was near the middle of the population frequency distribution. The change from a standard of 240 to 200 increased the number of abnormal people by over 42 million, or 86 percent. Over a lifetime (24 years of treatment for the average 58-year-old in the trial), the results from treating everyone with a total cholesterol level between 200 and 240 mg/dL are that (for every 100 patients) eight will benefit, 14 will have bad events despite treatment, and 78 will be "overdiagnosed"-they wouldn't have

experienced bad events even in the absence of treatment.

Seeing trouble everywhere The second source of early diagnosis is advances in medical imaging. Computerized tomography (CT) and magnetic resonance imaging (MRI) scans allow doctors to see abnormalities in people. Many of these abnormalities will ultimately have no adverse effects on people's health. Yet this reservoir of clinically unimportant abnormalities combined with more aggressive "preventive" imaging leads to diagnosis and a cascade of further testing and intervention. Some 40 percent of people with no knee pain have meniscus damage in their knees. Some 50 percent of people with no back pain have bulging discs. And 7 percent of people under age 50 in the Framingham health study had silent strokes with no symptoms. The lifetime risk of dying from prostate cancer is 3 percent, but the reservoir of undiagnosed prostate cancer is

> enormous-almost 50 percent of men age 50-59 have prostate cancer, for example, but it isn't clinically important. Even lung cancer has a large reservoir of abnormalities in people who are well. The landmark study of British physicians by Richard Doll and Austin Hill in the 1950s found that the

lung cancer death rate over five years in smokers was 17 times higher than in those who never smoked. Yet in the early 2000s a study of 5,000 people with spiral CT scans found a cancer rate incidence in smokers that was only 1.1 times that of nonsmokers (11.5 per thousand vs. 10.5). The conclusion is that many nonsmokers have lung cancer that isn't clinically important.

The net result of a large reservoir of abnormalities, improved imaging, and increased testing of those without symptoms is that the incidence of "disease" increases dramatically, survival rates increase dramatically, but mortality rates from those diseases remain constant. Kidney and thyroid cancer as well as melanoma incidence is rising dramatically, but death rates haven't changed. The introduction of mammography increased breast cancer incidence by 50 percent, but death rates have decreased just slightly. Some 90 percent of mammography-diagnosed cancer is of two types: overdiagnosed (the cancer will not affect the patient's health), or the cancer will harm the patient's health regardless of treatment. For mammography, only one in 1,000 women who are screened every year for 10 years will benefit, while two will be overdiagnosed, 5–15 will be diagnosed correctly and early but not have their prognosis changed by medical intervention, and 250–500 will experience a false alarm.

Ironically, all of this overdiagnosis and these false alarms contribute to more overdiagnosis and false alarms. Oftentimes, people who initially receive bad health news but later receive good news (the illness is not spreading or the initial bad test proved incorrect) are so relieved that they encourage their friends and family to get tested. Overdiagnosis and false alarms then propagate. However, if someone forgoes testing and is later diagnosed with a late-stage case of some disease, he naturally wonders what would have happened if the disease had been "caught early." Yet in truth, the outcomes are basically unaffected by early detection.

Consumer/voter revolt? | How do we get out of this state of affairs? University of Illinois law professor and Cato adjunct fellow David Hyman has argued ("In Medicine, Money Matters," Winter 2010-2011) that American medicine's feefor-service system, which rewards health care providers for performing tests and providing treatment even if they provide no health benefits, incentivizes overdiagnosis and false alarms. So what prevents a different business model from arising and saving money by not testing for and finding clinically unimportant abnormalities? In the 1980s and early 1990s, employers experimented with incentivizing employees to join health maintenance organizations (HMOs) in which physicians were salaried and acted as gatekeepers to reduce access to specialists. But consumers did not like the utilization restriction strategies. Employers stopped imposing them as labor markets tightened in the late 1990s boom and the "patients' bill of rights" movement threatened to make utilization controls subject to government regulation. So while economists are correct that changing incentives would change outcomes, consumers have resisted the imposition of such incentives both in the labor market and politically.

The late economist Herbert Stein said, "If something cannot go on forever, it will stop." Increasing health care costs cannot go on forever because there really is a budget constraint, even in the United States. One strategy to implement the insights of the evidence-based medicine movement is the Independent Payment Advisory Board created by the 2010 Patient Protection and Affordable Care Act. The board is charged

with devising ways to constrain Medicare and Medicaid expenditures that will automatically be implemented unless overturned by a vote of Congress. To me this feels like the second installment of the managed care movement. The trick will be to avoid the result from the first attempt, which was consumer revolt. Unless average voters embrace the claims of this book, this second attempt to impose constraint on the "medical industrial complex" will fare no better than the first.

READINGS

"Adverse Consequences of Adverse Selection," by Mark Pauly and Sean Nicholson. *Journal of Health Politics, Policy and Law*, Vol. 24, No. 5 (October 1999).

"Health Care Costs: On the Rise Again," by Sherry Glied. *Journal of Economic Perspectives*, Vol. 17, No. 2 (Spring 2003).

Let My Lawyers Go

REVIEWED BY DAVID R. HENDERSON

First Thing We Do, Let's Deregulate All the Lawyers

by Clifford Winston, Robert W. Crandall, and Vikram Maheshri 110 pages; Brookings Institution Press, 2011

For years, many free-market economists have advocated deregulating the legal profession: loosening or abolishing barriers to entry, allowing lawyers to advertise, and permitting organizational forms that are not allowed now. Economists have presented anecdotes and some evidence that deregulation would yield gains in public welfare, but little of that evidence has been systematic and comprehensive.

Until now, that is. In their short book, First Thing We Do, Let's Deregulate All the Lawyers, Brookings Institution economists Clifford Winston and Robert W. Crandall and University of Houston econo-

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mist Vikram Maheshri make a systematic attempt—largely successful in my view—to assess two conflicting claims. The first is that the current government restrictions on legal services serve to assure quality. The second is that the restrictions are mainly an attempt by existing lawyers to prevent competition and maintain lawyers' incomes. The authors give evidence against the first claim and in favor of the second.

Limiting competition As I noted, the authors build a strong empirical case and don't depend on anecdotes. But even anecdotes can be persuasive. As the late economist George Stigler supposedly said, "The plural of 'anecdote' is 'data'." And the authors lead with a particularly strong anecdote originally told in more detail by deregulation advocate and regular Regulation contributor George Leef. It is about Rosemary Furman, a legal secretary in Florida who made a living filling out divorce papers for her lawyer boss until she realized that she could do the same on her own. And so she went into business for herself, cutting the price of filing for divorce substantially; yet she still made more money per client than she had previously. The Florida Supreme Court ordered her jailed for practicing law without a license. Although Florida's governor intervened to prevent her from going to jail, she never provided the service again. The government's point was made. Interestingly, note the authors, none of her clients ever complained about her work.

The authors carefully build their case, first telling of the various restrictions on who can be a lawyer. All but a few state governments, they note, require prospective lawyers to have graduated from a law

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school that the American Bar Association has accredited. One notable exception is California, where one can become a lawyer simply by passing the bar exam and a competency exam. Every state government but Wisconsin's requires all wouldbe lawyers to pass a bar exam. The Wisconsin government

makes exception only for graduates of the University of Wisconsin Law School! This would make sense, from the viewpoint of quality assurance, only if the University of Wisconsin Law School graduates are, on average, better than those of any other law school, including Stanford, Harvard, Chicago, and Yale.

Quality control? The authors' argument proceeds in three steps. First, they argue that regulation of entry is not about assuring quality. Second, they show that, as would be expected when competition is limited, lawyers earn a substantial premium, currently on the order of 50 percent. Third, they show that lawyers have an incentive to lobby for legislation and regulations that increase the demand for their services.

Why do the authors think regulation is not about assuring quality? One reason is that the American Bar Association, which accredits law schools—essentially a fox in charge of the hen house—has not even considered accrediting foreign law schools or online law schools. If the ABA's true motive were to assure quality, it would seriously consider accrediting

such schools. Another reason, they write, is that "the ABA has refused to provide further information about a law school's quality beyond its accreditation status and has continually issued disclaimers of any law school rating system."

The authors devote a big part of the book to measuring the income premium that lawyers make because of the restriction on the number of lawyers. Their bottom line: "[W]e find that by 2004 lawyers' earnings premiums amounted to \$64 billion—or an eye-popping \$71,000 per practicing lawyer—and that those premiums were widely shared among the legal

profession." They find that the premiums were substantial for the whole period they studied, 1975–2004, but rose a lot in the 1980s and 1990s.

Could this increased premium over that time period reflect an increase in the quality of lawyers rather than a restriction of competition per se?

Their answer is no. They point out that the grade point average of people admitted to at least one law school rose only slightly, from 3.25 in the late 1970s to 3.34 in 2004. Moreover, these data don't account for grade inflation, which would make the underlying increase in quality even less than the 0.09-point increase would suggest.

The third part of their argument is that the restriction on the number of new lawyers gives existing lawyers an incentive to lobby for regulations that increase the demand for their services. Winston, Crandall, and Maheshri point to expansions in liability for unsafe products as one such lobbying activity. They also note that lawyers from more than 20 law firms "met extensively with commissioners from the federal Commodity Futures Trading Corporation to shape the implementation of new financial regulations under the Dodd-Frank Wall Street Reform and Consumer Protection Act."

Liberalizing legal services | The authors' solution is to deregulate the legal profession by allowing people to provide various services without a law license and by allowing different types of organizations, not

just law firms, to provide services. They point out two big advantages of deregulation. The obvious one is that with more supply and more competition, prices of legal services would fall. What about the fear that consumers would not have quality assurance without the ABA as a gatekeeper? The authors maintain that consumers can get information about lawyers' quality in many ways, especially in the Internet age. They should have also noted that anyone who wants to hire only a lawyer who has passed a bar exam and graduated from an ABA-accredited school would still be free to do so.

The authors also point to a subtle benefit of deregulation: it would break down solidarity in the legal lobby, thus undercutting the push for more government regulation. They don't make this argument totally clear, but it seems to be an application of the late Mancur Olson's theory of collective action. The big problem with collective action, noted Olson, is the free-rider problem: those who don't pay for the benefits of lobbying still get the benefits. The free-rider problem, therefore, leads to less lobbying than otherwise. The American Bar Association and the American Association of Justice (formerly the American Trial Lawyers Association), which both lobby for regulations and legislation that benefit lawyers, would have a bigger free-rider problem if there were more lawyers and fewer restrictions on who could become a lawyer. I find this argument persuasive, but it would have been helpful if the authors had elaborated on it somewhat.

One caution: although most of the book is well-written, there are a few key parts in which the authors write as if their main audience is economists who are sophisticated in econometrics. It's clear that they dig into the econometrics to drive home their high degree of confidence that their empirical findings are robust. But you might want to skip over those parts.

Of course, the book's title is a play on the famous quote from Shakespeare's *Henry VI, Part 2:* "The first thing we do, let's kill all the lawyers." Winston, Crandall, and Maheshri offer a much less violent, and much better, alternative.

IN REVIEW WORKING PAPERS

Below is a summary of some recent papers that may be of interest to Regulation's readers.

BY PETER VAN DOREN, Cato Institute

Pharmaceutical Regulation

"Improving the FDA Approval Process," by Anup Malani, Oliver
Bembom, and Mark van der Laan. October 2011. SSRN #1945424.

Inder current U.S. Food and Drug Administration policy, pharmaceuticals are approved for sale only if they are safe and effective relative to the current standard of care, or a placebo, for the entire treated population. While the agency understands that a drug may have positive effects only for certain subgroups, such as women or young people (and, in fact, clinical trials may be designed with subgroup analysis in mind before they start), no data analysis of subgroups to determine if such benefits exist is allowed after a trial has ended.

The reason for the prohibition is that the probability of a false positive result (the conclusion that a drug is efficacious when it really is not) is increased by such subgroup analysis. The probability of finding a false positive result among 10 subgroups (if you use the usual criterion of keeping the chance of a false positive in each subgroup to less than 5 percent) is $1 - 0.95^n$, where n is the number of subgroups. For example, if a trial has adults whose ages range from 20 to 70 and we divide the data into five-year age bins (10 subgroups), the cumulative probability of a false positive from among the 10 age subgroups would be $1 - 0.95^{10} = 40$ percent.

The FDA could institute a statistical correction, called the Bonferroni correction, that would change the acceptable rate of false positive inferences in each subgroup to account for the existence of all the subgroups. For example, if the acceptable rate of false positive results is 0.05 (5 percent) and there are 10 subgroups, then the correction would be $0.05 \div 10 = 0.005$. Thus in order to be 95 percent confident that the differences between the treated and controls in any subgroup were real rather than the result of chance, we would actually have to act as if we were 99.5 percent confident rather than 95 percent confident.

The FDA does not allow companies to self-report the number of subgroups investigated after the completion of trials because currently no way exists to verify the number. If a trial has 10 age subgroups as well as gender and ethnicity (white, black, Hispanic, other) subgroups, then that would mean there is a total of $10 \times 2 \times 4 = 80$ subgroups. Under normal procedures without correction, the possibility of false positive findings from at least one subgroup would be $1 - 0.95^{80} = 98$ percent. Drug companies would have strong incentives to say they looked for positive results in only a few subgroups (thereby lowering their officially announced n) rather than admitting they looked at all 80 subgroups so as to increase the possibility of FDA approval of a drug for use in a subpopulation.

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The authors propose a two-step solution to this credibility problem. First, an independent consulting firm identifies promising subgroups (groups whose treatment effects appear to be real in a small subsample of the trial data). Second, the sponsor of the trial would perform analysis of the health outcomes of the promising subgroups on a different and larger subsample of the trial data and implement the Bonferroni statistical correction to the subgroup results.

While this paper proposes a clever solution to problems of scientific inference in clinical trials, the most important problems in the current FDA regime may not be scientific. Instead, problems result from a lack of clarity between where science stops and values begin. The current FDA pharmaceutical approval process has two components: a genuine scientific enterprise in which clinical trials are conducted to generate knowledge about the safety and efficacy of new drugs relative to a current standard of care (or placebo), and a value-laden decision as to whether the safety and efficacy results merit permission to sell to consumers. In a more libertarian world, these two components and the role of government in each would be considered separately.

While a laissez-faire regime of knowledge generation and disclosure may be hard to imagine, it is not logically impossible. That is, firms might have to conduct trials and disclose the results in order to convince patients (or, more likely, the patients' physicians) to use (recommend) their products. Or, more precisely, some patients would require such information to make informed decisions about use and some firms would generate and disclose while others would not (a separating equilibrium).

If a laissez-faire knowledge regime produces an unacceptably low level of information, an intervention that is more minimalist than current policy would mandate research and disclosure of results, but no organization would decide how the knowledge would guide decisions. That is, there would be no centralized decision masquerading as a scientific decision about the wisdom of the market availability of a drug because such decisions are not scientific.

I have always been troubled by members of scientific advisory committees voting through majority rule to advise the FDA commissioner as to whether a drug should be available to consumers. Acceptable risks and appropriate ratios of costs and benefits are not scientific questions; they are economic questions. So if experts are going to vote on acceptable risks, at least they ought to be economists rather than scientists or physicians. And most economists would argue that the acceptability of risk from using pharmaceuticals is not a collective decision and thus should not be determined centrally by government.

Viewing such decisions within an economic rather than scientific framework also would encourage the public to think of risk and safety more appropriately. Instead of thinking of risk in dichotomous terms (i.e., is a drug safe or not?), the public, if they internalized an economic perspective, would ask how much safety or risk does a drug pose at what cost. And this would encourage the public to realize no right answer exists as to whether a drug's costs and benefits are worthwhile. Instead, many different answers exist for different individuals—and that is perfectly appropriate.

Wage Inequality

- "Can the Rapid Growth in the Cost of Employer-Provided Health Benefits Explain the Observed Increase in Earnings Inequality?" by Mark J. Warshawsky. September 2011. SSRN #1932381.
- "Measuring the Impact of Health Insurance on Levels and Trends in Inequality," by Richard V. Burkhauser and Kosali I. Simon. March 2010. NBER #15811.

Increasing inequality in the distribution of earnings has become one of those stylized facts that everyone "knows." The nightly news reminds viewers that ordinary workers have not fared well in the labor market over the last 25 years, while corporate executives have. Many professional economists and a recent CBO report have supported this view as well.

While it is true that the cash explicitly paid to employees has become more unequal over the last generation, the implication that labor markets are not working well and that government should alter labor market outcomes does not necessarily follow. A more benign explanation for the change in cash compensation over a generation is the dramatic increase in health insurance costs. Employers may be paying *all* their employees a more or less equivalent increase on a percentage basis, but for lower-paid workers much of that pay is not showing up in cash. Thus, if this view is correct, inequality in the cash component of compensation has increased while inequality in total compensation has not increased because the fixed costs of health insurance are a much larger percentage of the total compensation of lower-earnings workers.

Burkhauser and Simon explore this explanation. They add the value of employer-provided health insurance as well as Medicaid and Medicare to the pre-tax, post-cash-transfer household income data and find that the bottom three income deciles actually exhibit higher growth than the top seven deciles from 1995 to 2008. If one analyzes data on only working-age individuals (age 25–61), inflation-adjusted real pre-tax, post-cash-transfer money income grew 1.9 percent and 10.5 percent respectively for the first (poorest) and 10th (richest) deciles from 1995 to 2008. But if one adds the value of health insurance, the first (poorest) decile grew 12.3 percent while the top decile grew 11.7 percent.

Warshawsky makes a similar discovery. Using unpublished BLS total compensation data, including employer health insurance expenditures, from 1999 to 2006, he finds that the growth in compensation by earnings decile (from the 30th to the 99th) averages 35 percent, with 41 percent growth at the 30th percentile

(workers earning \$10-\$14 an hour) and only 35.8 percent growth at the 99th percentile (workers earning \$59-\$80 an hour).

Because expenditures on health care are increasing so rapidly and because so much of the cost of health care is paid for by employers or government, discussions about rising inequality that only consider cash income provide a misleading view of trends in inequality. When health insurance expenditures are added to household cash income, the increases in inequality from 1995 to 2008 are completely offset.

Canadian vs. U.S. Banking

"Why Didn't Canada Have a Banking Crisis in 2008 (or in 1930, or 1907, or ...)?" by Michael D. Bordo, Angela Redish, and Hugh Rockoff. August 2011. NBER #17312.

In the quest for explanations of the U.S. financial crisis of 2008, the most glaring omission is the absence of any discussion of Canada. As the title of the paper by Michael Bordo and his colleagues suggests, Canada seems immune to financial crises. Why is this so?

The answer they suggest lies in the political and regulatory history of financial markets. This is an interesting answer for an economist because of the long-running debate over whether institutions are simply endogenous and efficient or exogenous and sticky. For those not familiar with this debate, the question is what happens to legal and cultural practices that inhibit efficient market adaptation. One answer is that if efficiency and institutions conflict, then institutions change to align themselves with efficient adaptation. The other answer is that institutions persist beyond their "sell-by" dates and thus historical paths matter.

For much of its history, the United States had a fragmented banking system because of an 1839 Supreme Court case that permitted states to exclude the branches of banks from other states. The fragmented banking system that resulted was ill-suited to the needs of national corporations and industrialization, which instead were served by unregulated financial and commercial paper markets. According to Bordo, the United States has always had something like the shadow banking system described by Yale finance professor Gary Gorton in his recent papers, which I've discussed in previous columns.

In contrast, Canadian banks were chartered nationally, like the First Bank of the United States, but Canada did not stop with one bank. Instead, Canada developed a national oligopolistic banking system with limited entry protected by the national government. In contrast, the Canadian broker-dealer and securities market system remained much smaller because the banks were national in character and capable of providing the financing for industrial development.

Another important difference between the U.S. and Canadian banking systems was their response to the inflation of the late 1960s and early 1970s. U.S. banks had interest rate controls while Canadian banks did not. Thus deposits stayed within the Cana-

dian banking system while they fled the U.S. system for money market mutual funds. By the 2000s, more U.S. debt was financed outside than inside the traditional banking system, with much of that financing coming from short-term "deposits" that could flee the alternative shadow system if investors lost confidence.

A third important difference is that Canadian mortgages have fixed rates for a maximum of only five years, thus eliminating the problems inherent in linking shorter-term deposits with longer-term loans.

The combined effect of interest rate controls, long-term fixed rate mortgages, and lack of national branching in the United States necessitated the development of mechanisms to link capital markets directly with housing debt through mortgage securities. None of this occurred in Canada. Mortgages and the deposits backing them stayed within the conservative banking system while our lending shifted to the shadow banking system.

Bordo et al. argue that the crisis of 2008 strongly paralleled the crises of the 1800s as argued by Gorton. The Canadian system was a five-firm oligopoly regulated by a single entity that preserved the profits of traditional banking and prevented unstable lower-cost shadow banking from developing.

Rural Telephone Subsidies

"The Universal Service Fund: What Do High-Cost Subsidies Subsidize?" by Scott Wallsten. September 2011. SSRN #1927933.

Telecommunications regulation has always been accompanied by cross-subsidy schemes. That is, some services (primarily long distance) have been "taxed" to transfer resources to other services (mostly local-loop access in rural areas). When entry was restricted, the tax-and-transfer scheme was hidden in the excessive price of long distance service. Once long distance deregulation occurred, the scheme became an explicit tax-and-transfer scheme so that local-loop providers would not collapse.

Economists have long criticized this subsidy as an inefficient method of transferring resources because the demand for the taxed service was elastic while the demand for the subsidized service was inelastic. The result has been large deadweight losses probably equal to or more than the resources transferred.

In this paper, Scott Wallsten analyzes another aspect of the program: what do the subsidies buy? He finds that as customers have dropped landlines, subsidies have remained relatively constant. In a regression explaining general and administrative expenses, he finds that, controlling for firm and year fixed effects, each dollar of subsidy is associated with an increase of 59 cents in general and administrative expenses. That is, instead of paying for access loops, the subsidies pay for office staff. Instead of observing economies of scale, Wallsten finds diseconomies of scale: overhead expenses increase with firm size.

Rather than eliminate the program, the Federal Communications Commission recently announced changes to the Universal Service Fund. The agency proposed to end funding of phone services and shift subsidies toward high-speed broadband access. In addition, the agency capped the budget for the subsidies and proposed a competitive bidding scheme to allocate the funds. The latter may alter the incentives for extra administrative expenses

Fuel Tax Holidays

 "Fuel Tax Incidence and Supply Conditions," by Justin Marion and Erich Muehlegger. March 2011. NBER #16863.

Then gasoline prices rise, politicians are under pressure to alter policy to provide consumers with relief. A fuel-tax holiday is one such policy response. Economic theory argues that taxes are fully passed thorough to consumers and thus a gas tax holiday would reduce fuel prices to consumers.

Remarkably, little empirical work has been conducted to verify this prediction and examine whether the pass-through to consumers is altered by changes in supply elasticity. During the summer of 2008 when oil prices reached over \$140 a barrel and top-tier presidential candidates Hillary Clinton and John McCain proposed suspension of the federal gasoline tax, economists were quoted in the press as arguing gas tax reductions would not result in lower prices for consumers because supplies in the summer were inelastic.

Marion and Muehlegger examine 20 years of monthly price data and the changes in the taxation of gasoline and diesel fuel and conclude that taxes on gasoline were fully passed through to consumers even when refinery utilization was over 95 percent. This result would appear to contradict economic theory, but only because the authors assume that high refinery utilization implies fixed supply. But in fact, because of the differential taxation of diesel (low tax) and gasoline (high tax) in Europe and the fairly fixed ratio of the two when crude is refined (in the absence of catalytic cracking), Europe has excess gasoline that is a source of elastic supply for the U.S. market in the summer. U.S. demand is very inelastic in the summer, so gasoline tax changes are passed through to consumers even in the summer.

Diesel fuel reacts differently because of its untaxed use as heating oil. In the winter, this untaxed alternative use has the effect of increasing the supply elasticity of diesel as taxed motor fuel (the sellers of heating oil get to keep more money so they divert product away from the taxed diesel to the untaxed heating oil market in response to a tax increase). As a result, the pass-through of diesel tax changes actually increases in states with greater heating oil demand. But for states without much heating oil use, tax changes are not fully passed through to consumers.

Diesel also reacts differently to refinery utilization. Utilization greater than 95 percent reduces the pass-through to less than half the change in the tax. This is consistent with domestic refinery utilization being a better measure of supply constraint for diesel compared to gasoline because of full European utilization of their diesel supply.