

BACKGROUND

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Legislating Low Prices: Cutting Costs or Care?

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Abstract

Proposals to restrain the cost of health care by imposing price controls ignore their long history of failure. Regulated prices prevent markets from efficiently allocating resources, leading to pervasive shortages and deteriorating quality, while stifling innovation and diverting care to inequitable black markets. Tight price controls in Japan manifest many of these failures, while the Netherlands has enjoyed improvements in cost and quality by abandoning them for market-based pricing. Government-fixed prices for hospitals in Maryland and under Medicare have served only to inflate costs and the power of providers. With Obamacare about to increase the taxpayers' responsibility for financing health care, all experience suggests that attempts to regulate provider prices will likely prove costly and counterproductive.

The United States spends far more on health care than any other country. With the government funding about half of this spending, some have suggested that price regulation could rein in the cost of care and help to secure a better deal for employers, taxpayers, and individuals purchasing health coverage.

Yet the history of price controls is extensive, consistent, and uninspiring. Tight caps on prices lead resources to be wasted and production to be cut short. Widespread shortages guarantee providers a reliable demand for substandard services and prevent them from profiting by innovating or improving quality. Prices fixed by fiat reduce incentives for providers to cut costs and encourage them to seek profits by playing politics rather than by serving their customers. While some have suggested that regulation can check the

KEY POINTS

- » With the United States already spending more on health care than any other country and Obamacare shifting even more of that cost onto the taxpayers, some have suggested that price regulation could reign in the cost of care.
- » A close investigation of the cases in which price regulation is claimed to be most successful demonstrates that replacing price signals with politics yields a predictable pattern of systematic shortages, deteriorating quality, and inflated costs.
- » In the Netherlands, centrally negotiated prices yielded a paucity of high-technology services and long waiting lists for treatment, while deregulation has reduced costs and improved quality of care.
- » Maryland's rate-setting system has effectively functioned as a cartel agreement, secured by a substantial federal subsidy, rather than serving to cut costs.
- » Regulated pricing creates artificial scarcity which tends to make health care more of an exclusive privilege than ever before rather than reserving care for the needy.

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capacity of monopolists to inflate prices, it will be more likely to squeeze out whatever facets of competition remain in the market.

Critics of a free market have suggested that regulated pricing can cut costs without undermining quality of care, and they point to a number of cases in which they claim it has done so. Hospital price regulation systems in Japan, the Netherlands, and Maryland have all been advanced as models for the United States to follow. They have also called for price controls on prescription drugs and an expansion of Medicare's systems of hospital and physician reimbursement to cover all care. Yet closer investigation of these cases reveals the familiar catalogue of woes and shows that these claims of a free lunch are wildly exaggerated.

Struggling With the Cost of Care

Over the past half century, real per capita spending on health care in the United States has risen steadily—doubling roughly every 17 years.¹ Several factors have combined to bloat the cost of health care. Technological improvements have vastly increased the opportunities to heal the sick, while medical progress has allowed people to live for years into illnesses that would once have led to a swift (and cheap) death. Federal and state legislatures have expanded public entitlements for this care, while restricting cost sharing and inhibiting market innovations that might constrain its cost, but threaten entrenched providers. Even before the full rollout of the Affordable Care Act (ACA or Obamacare), government health care spending had soared from 3.5 percent of gross domestic product (\$165 billion) in 1987 to 8.4 percent (\$1,215 billion) in 2011.²

Obamacare has exacerbated this budgetary pressure, stretching resources even more thinly. While the government provided health insurance to 99 million in 2011, the expansion of Medicaid and creation of federally subsidized exchanges are projected to extend the taxpayer's responsibility to 36 million more by 2017.³

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An all-star cast of Obamacare advocates recently reassembled in *The New England Journal of Medicine* to call for a follow-up reform whereby “public and private payers would negotiate payment rates with providers, and these rates would be binding on all payers in the state.”⁴ Several of these scholars seemed even to suggest that price controls might yield a free lunch, by checking the monopoly power of health care providers. They suggested that price regulation could compensate for an “inability or unwillingness of private insurers to resist the pricing power of consolidated health systems.” As evidence of potential benefits of deploying the government's supposedly superior skill at bargaining, they cited the ability of Medicare and Medicaid to purchase care at cheaper rates than private payers.⁵

1. Centers for Medicare and Medicaid Services, “National Health Expenditures,” Table 1, <http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/Downloads/tables.pdf> (accessed July 18, 2013), and U.S. Department of Labor, Bureau of Labor Statistics, CPI Inflation Calculator, <http://data.bls.gov/cgi-bin/cpicalc.pl> (accessed July 18, 2013).
2. Centers for Medicare and Medicaid Services, “National Health Expenditures,” Table 4.
3. U.S. Census Bureau, Health Insurance Historical Tables—HIB Series, Table HIB-4, http://www.census.gov/hhes/www/hlthins/data/historical/HIB_tables.html (accessed July 18, 2013), and Congressional Budget Office, “Effects on Health Insurance and the Federal Budget for the Insurance Coverage Provisions in the Affordable Care Act—May 2013 Baseline,” May 14, 2013, Table 1, <http://www.cbo.gov/publication/44190> (accessed August 1, 2013).
4. Ezekiel Emanuel, Donald Berwick, David Cutler, Tom Daschle, John D. Podesta, Uwe Reinhardt, Andrew Stern, Peter R. Orszag et al., “A Systemic Approach to Containing Health Care Spending,” *New England Journal of Medicine*, Vol. 367, No. 10 (September 6, 2012), pp. 949–954.
5. Robert Murray, “The Case for a Consolidated System of Provider Payment in the United States,” *Journal of Health Politics, Policy and Law*, Vol. 37, No. 4 (August 2012), pp. 679–696; Joseph White, “Cost Control and Health Care Reform: The Case for All-Payer Regulation,” Case Western Reserve University, May 12, 2009, <http://www.ourfuture.org/files/1WhiteAllPayerCostControl.pdf> (accessed July 19, 2013); John Holahan and Linda Blumberg, “Can a Public Insurance Plan Increase Competition and Lower the Cost of Health Reform?” Urban Institute, October 3, 2008, http://www.urban.org/UploadedPDF/411762_public_insurance.pdf (accessed July 19, 2013); and Uwe E. Reinhardt, “The Many Different Prices Paid to Providers and the Flawed Theory of Cost Shifting: Is It Time for a More Rational All-Payer System?” *Health Affairs*, Vol. 30, No. 11 (November 2011), pp. 2125–2133.

However, this contention is shaky. Fixed costs account for 84 percent of hospital costs, which is to say that the cost of providing care—the cost of maintaining a hospital, equipping an operating room, staffing, and so forth—is largely incurred whether or not an additional individual is treated.⁶ A hospital may therefore spread these costs unequally, by charging different amounts for different cases. Therefore, the government’s capacity to oblige hospitals to charge less for Medicare and Medicaid patients does little to prove that it can reduce the costs for all.

While price controls on a monopolist may theoretically yield lower prices and higher output, in the absence of government intervention or structural barriers to competition, any market power will tend to be a short-run phenomenon. Indeed, the ability to charge more than the marginal cost of providing services—at least for a time—is essential to attracting the substantial fixed capital investments that are necessary for modern health care.

The market for hospitals, for example, is not a natural monopoly, but occasionally an artificial one established by regulation. If providers are permanently shielded from competition, price regulation cannot substitute for the need to reform the various causes of unearned market power, such as barriers to hospital expansion, regulatory restrictions on the capacity of insurers to bargain with providers, licensing requirements, or regulations that privilege favored providers. Far from mimicking the benefits of competition, government price setting prevents providers from competing with each other to earn more by doing a better job.

As a general matter, price regulation is most effective in a market with substantial natural barriers to competition, a few homogenous products, few providers to be monitored, and a single measurable objective. Such circumstances could not be more different than those prevailing in the health care sector.⁷

The Damage of Price Regulation

The essential function of market prices is to signal opportunity cost—the value of goods and services that must be forgone to use a resource in a specific

manner. People bid prices higher when the scarcity or demand for goods increases and bid prices lower when relatively abundant supply relaxes the need for thrift and allows them to employ resources for a greater variety of purposes. Rising prices for goods encourage producers to find ways of supplying more, while guiding purchasers to switch to cheaper alternatives. Thus, the price mechanism encourages the productive and careful employment of scarce resources and directs innovative efforts where they are most needed.

Price regulations short-circuit this process. Rather than allowing prices to match supply to demand, they frustrate producers’ attempts to compete for customers and establish incentives that antagonize patients and providers. The consequences of government attempts to fix prices depend on how much its dictates differ from market forces. The lower it fixes prices below the market rate, the greater the shortages it will likely induce. If it raises prices above the market level, wasteful surpluses will tend to result.

Shortages. A price ceiling is effectively a ban on provision of a service at a price that a purchaser would be prepared to pay. In health care, price controls can lead to shortages by making it unprofitable to treat certain patients or to provide the services they need. If hospitals are not properly reimbursed for the costs of care, they cannot fund the construction, staffing, or equipping of units to treat more patients.

Price regulations also encourage the waste and inefficient use of the scarce resources that do exist. For instance, if the price does not reflect the full cost of a hospital room, patients who could recover at home may be kept in beds that are needed for those in more acute need of treatment.

Quality Reduced. Shortages set up a seller’s market in which the customer is no longer king. This tends to reduce the quality of goods that are provided because even second-rate providers are guaranteed substantial demand and revenue. Hospitals with poor standards of care and outdated equipment will therefore be deprived of the inducement to improve their performance. Over time, if the premium rewarding quality is eliminated, cheap-to-produce

6. Rebecca R. Roberts et al., “Distribution of Variable vs Fixed Costs of Hospital Care,” *JAMA*, Vol. 281, No. 7 (February 17, 1999), pp. 644–649.

7. Richard Zeckhauser and Christopher Zook, “Failures to Control Health Costs: Departures from First Principles,” in Mancur Olson, ed., *New Approach to the Economics of Health Care* (Washington, DC: AEI Press, 1981).

threadbare services will be the most profitable and tend to dominate.

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Regulating prices also requires classifying goods into categories. These categories will inevitably fail to fully grasp all the aspects of products that are valued, and features omitted from pricing formulas will be neglected. For instance, if the prices charged for consultations are capped, physicians may shorten the duration of those visits or avoid patients that are difficult or out of their way.

Innovation Stunted. The damage of price regulation accumulates as time passes. If providers cannot earn a premium by improving quality, they have little motivation to invest and innovate. Because improvements in health care are extremely capital-intensive, price controls make it difficult for innovators to profit from making the substantial up-front investments in research and development. Therefore, health care systems subject to price controls tend to stagnate technologically and to lag in the diffusion of access to cutting-edge surgical procedures and drug treatments, which are expensive initially.

Overpayment. Fixing prices tends to entrench the dominant position of incumbent firms, protecting them from new competitors that threaten to undercut their prices or to provide more focused solutions to patient needs. Regulated pricing also prevents managed care providers from driving down costs by negotiating discounts with provider networks. Therefore, it removes the incentive for hospitals to provide more cost-effective care in order to compete. Artificially low prices may also encourage use of unnecessary, costly procedures and overuse of diagnostic tests, which insurers may nonetheless be obliged to cover.

The freezing of price signals also likely generates geographic and substantive mismatches of supply and demand. While it is less expensive to live in remote rural areas, doctors often must be enticed there with higher pay. Although prices can be finessed to provide higher compensation for specialists and those practicing in undesirable areas,

regulators will likely lack the information to make such adjustments with any great accuracy.

Politicized Pricing. Whereas market prices rise automatically to encourage the production of goods to eliminate shortages and fall to reduce spending on unwanted goods, the pattern of political mobilization determines whether regulated prices are adjusted above or below the market-clearing rate. Providers learn that their income depends on manipulating the regulator rather than pleasing customers, while patients and taxpayers have much less reason to push back and insist on a good deal.

To avoid the deterioration of services associated with underpayment, the government is forced to rely heavily on providers' claims about their costs of production. Unsurprisingly, doctors and hospitals are quick to protest and demand rate hikes if they are underpaid, but tend to resist downward adjustments if they are making high profits when technological improvements or cheaper supplies make their work easier. Over time, regulated prices tend to become inflated, and discourage the adoption of new cost-saving technology.

Black Markets. Tight price caps are often hard to enforce because sellers profit from providing services under the table at elevated prices to willing customers. Where there is a scarcity of doctors, bribery is regularly employed to skip to the front of the line. Black markets are also common where price controls on pharmaceuticals create shortages of drugs. This encourages speculative hoarding by those who can procure products at regulated prices, exacerbating shortages.

Neediest Worst Hit. Where black market payments are substantial, the need to avoid detection ensures that care becomes directed toward those who can afford to pay large sums out of pocket. Price caps also make it harder for providers to cross-subsidize the poor by charging according to the ability to pay. Moreover, the mere risk of price controls likely deters investment in facilities serving the poor because the controls are expected to undermine profitability. If the government fixes a single low price for all cases, hospitals may be at risk of bankruptcy if they treat only the sickest patients. Therefore, they may avoid admitting them or provide only perfunctory care.

Hindering Real Reform. When governments attempt to shift prices against the forces of supply and demand, the need to repair the resulting damage often produces another cycle of damaging interventions. Shortages of one service often lead to spikes

in demand for another, which creates pressure for further controls and thus further shortages. In the absence of market signals to increase prices, the damage accumulates over time, increasingly impairing investment, quality, and availability of services.

When governments attempt to shift prices against the forces of supply and demand, the need to repair the resulting damage often produces another cycle of damaging interventions.

Most importantly, price controls tend to obscure the underlying causes of high medical costs and the institutions in serious need of reform. The upshot of price controls is a seller's market of pervasive shortages, in which providers are insufficiently compensated and customers are taken for granted. Such circumstances generate a climate of opinion that only makes it harder to relieve the onerous underlying regulatory mandates and supply constraints that are truly responsible for driving up costs.

The Experience of Regulated Pricing

The desire of governments to distribute resources without raising taxes is as old as recorded history. The history of price controls is therefore extensive, and the above pathologies of artificial shortage often develop quickly.⁸

Nonetheless, regulated pricing is ubiquitous in countries that use private enterprise to provide health care. Such pricing is often lauded for reducing health care costs, and it appears to have minimal side effects from a distance. However, closer examination reveals the same old tale of woe repeating itself in case after case.

Price Regulation in Japan. The Japanese system of regulated pricing is often cited as a model for the United States to emulate.⁹ While some countries operate loose price controls that make little difference to market outcomes, price caps in Japan are tight. Between 1980 and 1992, physician fees declined by 19 percent while real wages grew by 11 percent.¹⁰ Therefore, the Japanese system enables evaluation of a meaningful attempt to regulate prices.

Japan uses price controls to contain spending without explicit rationing.¹¹ A nationwide fee schedule sets prices for services accounting for more than 95 percent of hospital and physician revenue. The prime minister decrees a cap on national health care spending as part of the government budget, and prices are then revised to deter or encourage the provision of various procedures, based on a survey of past provider claims and profit margins.

Japan has an unusually healthy population with the lowest obesity rates in the Organisation for Economic Co-operation and Development (OECD) and very low rates of crime, divorce, teenage births, drug use, vehicle accidents, and HIV infection.¹² Nonetheless, universal insurance coverage is failing to guarantee adequate access to care for all members

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8. Robert L. Schuettinger and Eamonn F. Butler, *Forty Centuries of Wage and Price Controls: How Not to Fight Inflation* (Washington, DC: The Heritage Foundation, 1979).
 9. T. R. Reid, "It's Just What the Doctor Ordered," *Newsweek*, August 16, 2010, <http://www.thedailybeast.com/newsweek/2010/08/16/japan-s-good-cheap-health-care.html> (accessed July 19, 2013); Murray, "The Case for a Consolidated System of Provider Payment in the United States"; White, "Cost Control and Health Care Reform"; and Gerard F. Anderson, Amber Willink, and Robin Osborn, "Reevaluating 'Made in America'—Two Cost-Containment Ideas from Abroad," *New England Journal of Medicine*, Vol. 368, No. 24 (June 13, 2013), pp. 2247-2249.
 10. H. E. Frech, "Physician Fees and Price Controls," in Roger D. Feldman, ed., *American Health Care: Government, Market Processes, and the Public Interest* (Piscataway, NJ: Transaction Publishers, 2000), pp. 347-363.
 11. Naoki Ikegami and Gerard F. Anderson, "In Japan, All-Payer Rate Setting Under Tight Government Control Has Proved to Be an Effective Approach to Containing Costs," *Health Affairs*, Vol. 31, No. 5 (May 2012), pp. 1049-1056, <http://content.healthaffairs.org/content/31/5/1049.full> (accessed July 24, 2013).
 12. Randall S. Jones, "Health-Care Reform in Japan: Controlling Costs, Improving Quality and Ensuring Equity," Organisation for Economic Co-operation and Development, Economics Department *Working Papers* No. 739, December 4, 2009, <http://dx.doi.org/10.1787/220005270870> (accessed July 24, 2013), and Naoki Ikegami and John C. Campbell, "Health Care Reform in Japan: The Virtues of Muddling Through," *Health Affairs*, Vol. 18, No. 3 (May 1999), pp. 56-75, <http://content.healthaffairs.org/content/18/3/56.full.pdf+html> (accessed July 24, 2013).

of the community, and attempts to control costs with price controls have caused much of the health care system to break down.¹³

The consequences of Japanese price regulation have been summarized as “cheap stuff is profitable and expensive stuff is unprofitable. A doctor who sees a few extra patients and prescribes drugs for them makes money; coronary bypass surgery at an urban hospital loses money.”¹⁴ Even though the Japanese are four times less likely than Americans to suffer heart attacks, they are twice as likely to die from them.¹⁵

With the fixed price for each consultation, doctors are forced to prioritize quantity over quality of interactions with patients. In 2010, there were 13.1 doctor consultations per capita in Japan—more than twice the average for countries in the OECD.¹⁶ This also causes doctors to waste much time on frivolous or unnecessary patient visits, and patients to book appointments that they frequently do not use.¹⁷ In Japan, doctors work an average of 71 hours per week, compared with 51 hours per week in the United States.¹⁸ Scarce specialists, in particular, tend to spend their time on patients who do not truly need them, and the system is notorious for “three-hour wait, three-minute contact” consultations.¹⁹

Patients commonly proffer bribes and substantial tips for higher quality consultations, while doctors often compensate for per-visit price caps by scheduling patients for multiple appointments.

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With salaries generally low and doctors responsible for dispensing drugs, physician income depends heavily on the quantity of tests and drugs that are prescribed.²⁰ Competition among drug companies has led to giving discounts to physicians for prescribing below the fee schedule. This practice rewards overprescription by allowing doctors to pocket the difference between the officially reimbursed drug prices and discount prices.²¹ The lure of such fee-for-service payments has pulled specialist physicians away from salaried positions in hospitals toward clinics where they can earn a higher income by working shorter hours.²²

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13. Tetsuji Suzuki et al., “The Imminent Healthcare and Emergency Care Crisis in Japan,” *Western Journal of Emergency Medicine*, Vol. 9, No. 2 (May 2008), pp. 91–96, <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2672251/> (accessed July 24, 2013).
 14. Victor G. Rodwin, *Japan's Universal and Affordable Health Care: Lessons for the United States?* (New York: Japan Society, 1994), <http://www.nyu.edu/projects/rodwin/lessons.html> (accessed July 24, 2013).
 15. “Not All Smiles,” *The Economist*, September 10, 2011, <http://www.economist.com/node/21528660> (accessed July 24, 2013).
 16. Organisation for Economic Co-operation and Development, OECD.StatExtracts, s.v. “Health Care Utilisation: Consultations: Doctor Consultations,” http://stats.oecd.org/Index.aspx?DatasetCode=HEALTH_STAT (accessed July 24, 2013)
 17. Frech, “Physician Fees and Price Controls.”
 18. Koichiro Yuji et al., “Forecasting Japan’s Physician Shortage in 2035 as the First Full-Fledged Aged Society,” *PLoS ONE*, Vol. 7, No. 11 (November 2012), <http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0050410> (accessed July 24, 2013); Hideo Yasunaga, “The Catastrophic Collapse of Morale Among Hospital Physicians in Japan,” *Risk Management and Health Care Policy*, Vol. 1 (November 2008), pp. 1–6, <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3270896/> (accessed July 24, 2013); and Douglas O. Staiger, David I. Auerbach, and Peter I. Buerhaus, “Trends in the Work Hours of Physicians in the United States,” *JAMA*, Vol. 303, No. 8 (February 24, 2010), pp. 747–753.
 19. Nicolaus Henke, Sonosuke Kadonaga, and Ludwig Kanzier, “Improving Japan’s Health Care System,” *McKinsey Quarterly*, March 2009, http://www.mckinsey.com/insights/health_systems/improving_japans_health_care_system (accessed July 25, 2013), and Hideki Nomura and Takeo Nakayama, “The Japanese Healthcare System,” *BMJ*, Vol. 331 (September 24, 2005).
 20. “Not All Smiles,” *The Economist*.
 21. Naoki Ikegami, Shunya Ikeda, and Hiroki Kawai, “Why Medical Costs in Japan Have Increased Despite Declining Prices for Pharmaceuticals,” *Pharmacoeconomics*, Vol. 14, Supplement No. 1 (1998), pp. 97–105, and Tetsuo Fukawa and Nobuyuki Izumida, “Japanese Healthcare Expenditures in a Comparative Context,” *Japanese Journal of Social Security Policy*, Vol. 3, No. 2 (December 2004), pp. 51–61, <http://www.ipss.go.jp/webj-ad/webjournal.files/socialsecurity/2004/Dec/Fukawa&Izumida.pdf> (accessed July 25, 2013).
 22. Blaine Harden, “Health Care in Japan: Low Cost for Now,” *The Washington Post*, September 7, 2009, http://articles.washingtonpost.com/2009-09-07/world/36813795_1_medical-care-health-care-health-care (accessed July 25, 2013), and Michael D. Tanner, “The Grass Is Not Always Greener: A Look at National Health Care Systems Around the World,” *Cato Institute Policy Analysis* No. 613, March 18, 2008, <http://www.cato.org/publications/policy-analysis/grass-is-not-always-greener-look-national-health-care-systems-around-world> (accessed July 25, 2013).

Specialties offering little scope for such incomes—namely surgery, pediatrics, and obstetrics—have suffered severe shortages of doctors.²³ The scarcity of obstetricians has caused many maternity wards to close, with the number of childbirth facilities declining from 4,200 in 1993 to 3,000 in 2005. This has forced longer commutes on pregnant women giving birth.²⁴ In one notorious case, a woman miscarried in an ambulance on the way to a ninth hospital after a three-hour search driving from one hospital to another searching for an opening. Another pregnant woman died after being turned away from 19 hospitals.²⁵ These are extreme, but not isolated incidents. In 2007, of 368,266 patients with severe disease or injury who were transported to emergency hospitals by ambulance, 58,996 (16 percent) were rejected by at least one hospital due to lack of physicians.²⁶

Hospitals prices are fixed per patient and by length of stay.²⁷ This encourages hospitals to keep recovering patients in beds longer than necessary, resulting in an average hospital stay that is four times the OECD average.²⁸ Hernia operations, which usually do not involve overnight stays in the West, often result in five-day visits in Japan.²⁹ Despite having an average of only 2.2 doctors per 1,000 population (OECD average of 3.1), Japan has 13.6 hospital beds per 1000 residents (OECD average of 4.9).³⁰ A fragmented and inefficient hospital system has resulted, with many small, crowded, and understaffed local

hospitals sustained as long as they have patients to fill beds, while insufficient resources are available for big hospitals to provide acute care and emergency treatment.³¹

Fees for surgery are so low that only about one-third as many surgical operations are performed in Japan as in United States.³² Conversely, the ban on price competition among hospitals leads them to increase spending on technology to attract patients without requiring much time from specialist physicians. Consequently, Japan purchases five times more MRI scanners per capita than the OECD average.³³ The absence of price signals to optimize the use of scarce resources ensures that a patient with mild conjunctivitis is often seen directly by an ophthalmologist in a university hospital, when only minor treatment is necessary.³⁴ While the use of drugs accounts for an unusually large proportion of Japan's health care costs, the absence of price incentives means that generic drugs account for only 19 percent of the market, compared with 59 percent in U.S.³⁵

The Japanese Medical Association has resisted proposals to loosen price regulations by permitting supplementary “balance billing” payments for unreimbursed high-technology services out of fear that permitting these would subject the fee-for-service incomes of clinic-based physicians to competition from hospitals.³⁶ More shamelessly, the chairman of the Japan Dental Association was arrested for

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23. “Not All Smiles,” *The Economist*.
 24. Editorial, “A Medical Travesty in Nara Prefecture,” *The Japan Times*, September 4, 2007, <http://www.japantimes.co.jp/opinion/2007/09/04/editorials/a-medical-travesty-in-nara-prefecture/> (accessed July 25, 2013).
 25. Reuters, “Miscarriage Jolts Japan to Address Doctor Shortage,” August 20, 2007, <http://uk.reuters.com/article/2007/08/30/uk-japan-miscarriage-idUKT29658920070830> (accessed July 25, 2013), and Editorial, “A Medical Travesty in Nara Prefecture.”
 26. Yasunaga, “The Catastrophic Collapse of Morale Among Hospital Physicians in Japan.”
 27. Henke et al., “Improving Japan’s Health Care System.”
 28. Jones, “Health-Care Reform in Japan.”
 29. “Not All Smiles,” *The Economist*.
 30. Organisation for Economic Co-operation and Development, OECD.StatExtracts, s.vv. “Health Care Resources: Physicians” and “Health Care Resources: Hospital Beds.”
 31. Henke et al., “Improving Japan’s Health Care System,” and Blaine Harden, “Health Care in Japan: Low Cost for Now,” *The Washington Post*, September 7, 2009, http://articles.washingtonpost.com/2009-09-07/world/36813795_1_medical-care-health-care-health-care (accessed July 25, 2013).
 32. Ikegami and Campbell, “Health Care Reform in Japan.”
 33. Tanner, “The Grass Is Not Always Greener,” and Jones, “Health-Care Reform in Japan.”
 34. Tetsuji Suzuki et al., “The Imminent Healthcare and Emergency Care Crisis in Japan.”
 35. Jones, “Health-Care Reform in Japan.”
 36. Naoki Ikegami, “Should Providers Be Allowed to Extra Bill for Uncovered Services? Debate, Resolution, and Sequel in Japan,” *Journal of Health Politics, Policy and Law*, Vol. 31, No. 6 (December 2006), pp. 1129-1150.

bribing members of the government advisory council responsible for setting fees.³⁷

Deregulation in the Netherlands. Until recently, the Netherlands had a similar system of price regulation and was lauded as a model for the United States to follow.³⁸ Yet state-regulated pricing led to shortages throughout the Dutch health care system and failed to control spending. Following an electoral backlash against growing waiting lists and deteriorating standards of care, the government deregulated prices. The resulting competition has since driven down costs and substantially improved quality.

In the 1980s, after decades of expanding public entitlements to health care, the need to limit the growth of spending had become pressing. Rather than allowing cost sharing to constrain demand, the government sought to regulate the supply side, gradually imposing budget caps and price controls on hospitals and physicians according to “agreed upon expected output.”³⁹

Yet these reforms undermined incentives for efficiency and innovation. Shortages ensured that even the worst providers were oversubscribed, and the system became unresponsive to patient needs. Those needing heart transplants were hit particularly hard, with only one-third as many operations undertaken per capita as in the United States, and

approximately 100 cardiac patients died every year while on waiting lists.⁴⁰ Despite steadily expanding government subsidies, shortages were widespread, and those needing long-term care faced particularly long waiting lists.⁴¹

In 2002, the Dutch Minister of Health, Welfare, and Sport was forced to admit that waiting lists of five months for consultations left cancer patients often unable to see specialists until their conditions had become untreatable.⁴² A public outcry at the continued incapacity of policymakers to curb waiting lists contributed to the heavy defeat of the governing coalition in the May 2002 election. The incoming center-right coalition pledged a concerted series of deregulatory reforms, including removal of price controls and general liberalization of supply.⁴³

From 2005, diagnosis-related reimbursement rates for hospital care became freely negotiated between hospitals and insurance companies, rather than fixed by the government.⁴⁴ Providers were no longer guaranteed income, but obliged to negotiate and compete over price and quality of care. This competition motivated hospitals to expand services such as neurosurgery and radiation therapy.⁴⁵ Single hospital rooms, which were unseen for decades, have again emerged.⁴⁶

Hospital prices were deregulated procedure by procedure. Competitive pricing was first introduced

37. “Dental Lobby Chief, Six Others Held over Bribery Allegation,” *Japan Times*, April 16, 2004, <http://www.japantimes.co.jp/news/2004/04/16/national/dental-lobby-chief-six-others-held-over-bribery-allegation/> (accessed July 25, 2013).

38. Murray, “The Case for a Consolidated System of Provider Payment in the United States,” and White, “Cost Control and Health Care Reform.”

39. Wynand P. M. van de Ven and Frederik T. Schut, “Universal Mandatory Health Insurance in the Netherlands: A Model for the United States?” *Health Affairs*, Vol. 27, No. 3 (May 2008), pp. 771–781, and Frederik T. Schut and Marco Varkevisser, “The Netherlands,” in Luigi Siciliani, Michael Borowitz, and Valerie Moran, eds., *Waiting Time Policies in the Health Sector: What Works?* (OECD Publishing, 2013), p. 191, http://www.oecd-ilibrary.org/social-issues-migration-health/waiting-times-for-elective-surgery-what-works_9789264179080-en (accessed July 25, 2013).

40. Gautam Naik, “In Holland, Some See Model for U.S. Health Care System,” *The Wall Street Journal*, September 6, 2007, and J. Plomp et al., “Death on the Waiting List for Cardiac Surgery in the Netherlands in 1994 and 1995,” *Heart*, Vol. 81, No. 6 (June 1999), pp. 593–597.

41. Jan-Kees Helderma et al., “Market-Oriented Health Care Reforms and Policy Learning in the Netherlands,” *Journal of Health Politics, Policy and Law*, Vol. 30, Nos. 1–2 (February–April 2005), pp. 189–210.

42. “Borst: Doden door de wachtlijsten” (Borst: Death by waiting lists), *De Telegraaf* (Amsterdam), June 13, 2002, <http://krant.telegraaf.nl/krant/vandaag/teksten/bin.borst.minister.patienten.html> (accessed July 25, 2013).

43. Jan-Kees Helderma et al., “Market-Oriented Health Care Reforms and Policy Learning in the Netherlands.”

44. Teun Zuiderent-Jerak, “Competition in the Wild: Reconfiguring Healthcare Markets,” *Social Studies of Science*, Vol. 39, No. 5 (October 2009), pp. 765–792.

45. J. Andrew Knottnerus and Gabriel H. M. ten Velden, “Dutch Doctors and Their Patients—Effects of Health Care Reform in the Netherlands,” *New England Journal of Medicine*, Vol. 357, No. 24 (December 13, 2007), pp. 2424–2426, <http://www.nejm.org/doi/pdf/10.1056/NEJMp0707383> (accessed July 25, 2013).

46. Hans Maarse and Aggie Paulus, “The Politics of Health-Care Reform in the Netherlands Since 2006,” *Health Economics, Policy and Law*, Vol. 6, No. 1 (January 2011), pp. 125–134.

for more standardized and frequently performed elective procedures (e.g., cataract surgery, knee and hip replacements, and diabetes care). It has incrementally expanded from 8 percent of hospital services in 2005 to 70 percent in 2012.⁴⁷ While prices in the residual regulated segment, which is determined by collective bargaining, have continued to increase steadily, prices for deregulated procedures have risen slower as they have become subject to deregulation—and in recent years, these have even begun to fall.⁴⁸

The quality of care available has improved substantially. Mean waiting times have fallen from 16 weeks in 2000 to five weeks in 2011 for cataract surgery, from 14 weeks to six weeks for hip replacements, and from nine weeks to five weeks for both hysterectomies and prostatectomies. From 2003 to 2009, hospital productivity increased 15 percent, measured by the cost of treating case mix-adjusted patients.

Over time, reimbursement limits for drugs had effectively become price floors. A 1991 rule, banning the sale of drugs above the “lowest price” for therapeutically equivalent drugs, discouraged any price reductions from ever being made to the cheapest classified product.⁴⁹ Reimbursement levels for on-patent drugs established effective price floors for similar generic drugs. Whereas pharmacists previously had no incentive to pass on the savings for using generics, deregulation has allowed payers to benefit from competitive bidding by generic drug makers. As a result, the list prices of the 10 highest-selling generics have fallen by 76 percent to 93 percent.⁵⁰

Deregulation in the Netherlands has yielded impressive results. As total spending has been allowed to rise, life expectancy has suddenly increased.

Deregulation in the Netherlands has yielded impressive results. As total spending has been allowed to rise, life expectancy has suddenly increased—with mortality declines concentrated among the elderly, clearly associated with a sharp increase in specialist visits, drug prescriptions, and hospital admissions.⁵¹

Rate Setting in Maryland. Maryland’s hospital pricing system has regularly been endorsed as a model for further nationwide reform.⁵² To deal with the acute budgetary pressures resulting from its health care reform, Massachusetts commissioned the RAND Corporation to develop a menu of cost containment strategies.⁵³ Its first recommendation was for the state to copy Maryland’s system of all-payer rate setting in which a state commission fixes prices for all hospital services.

All-payer rate setting is a legacy of the 1970s fad for price controls.⁵⁴ These systems were established across the Northeast and in a few other politically liberal states. Yet following a wave of deregulation in the 1980s and 1990s, they remain in full force only in Maryland (and partially for privately funded patients in West Virginia). Massachusetts abandoned rate setting when rates failed to keep pace with underlying costs. In New York and New Jersey, it collapsed under competition from health

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47. R. S. Halbersma, M. C. Mikkers, E. Motchenkova, and I. Seinen, “Market Structure and Hospital-Insurer Bargaining in the Netherlands,” *European Journal of Health Economics*, Vol. 12, No. 6 (December 2011), pp. 589–603.
48. Martin Gaynor and Misja Mikkers, “Are Price Controls the Answer? Netherlands Edition,” *Compassionate Economics*, February 27, 2013, <http://martingaynor.blogspot.com/2013/02/are-price-controls-answer-netherlands.html> (accessed July 25, 2013).
49. Lieke H. H. M. Boonen et al., “Pharmaceutical Policy in the Netherlands: From Price Regulation Towards Managed Competition,” in Avi Dor, ed., *Pharmaceutical Markets and Insurance Worldwide* (Bingley, U.K.: 2010), pp. 53–76.
50. Ibid.
51. Schut and Varkevisser, “The Netherlands,” p. 191.
52. John A. Kastor and Eli Y. Adashi, “Maryland’s Hospital Cost Review Commission at 40: A Model for the Country,” *JAMA*, Vol. 306, No. 10 (September 14, 2011), pp. 1137–1138, and Paul B. Ginsburg, “All-Payer Rate Setting: A Response to ‘A Modest Proposal’ from Uwe Reinhardt,” *Health Affairs* blog, July 24, 2009, <http://healthaffairs.org/blog/2009/07/24/all-payer-rate-setting-a-response-to-a-modest-proposal-from-uwe-reinhardt/> (accessed July 26, 2013).
53. Christine Eibner et al., *Controlling Health Care Spending in Massachusetts: An Analysis of Options*, RAND Health, August 2009, http://www.rand.org/pubs/technical_reports/TR733.html (accessed July 26, 2013).
54. Gerard F. Anderson, “All-Payer Ratesetting: Down but Not Out,” *Health Care Financing Review*, Vol. 13, No. 2 (1991 Supplement), pp. 35–41.

maintenance organizations (HMO), which negotiated bundled discounts from providers. Maryland's legislature moved swiftly to protect rate setting from this form of competition, banning HMO discounts over 4 percent.⁵⁵

Because Medicaid and Medicare tend to reimburse hospitals less than the average costs of treating patients, hospitals necessarily cover overheads by charging private payers a relatively higher rate. Therefore, any system to fix prices equally for all payers will likely render hospitals unviable unless states can secure a waiver from national Medicare reimbursement rates. Maryland is the only state with statutory assurance of such a waiver. This effective Medicare reimbursement bonus of around \$1 billion per year is regularly described as the "linchpin for the system."⁵⁶ Maryland receives this waiver on condition that its hospital payments per case do not exceed national increases above 1981 spending levels.⁵⁷

In 1968, Maryland established certificate-of-need regulations to prevent the establishment or significant expansion of hospitals and medical facilities without state approval.⁵⁸ As a result, incumbent hospitals were shielded from competition, and two huge hospital systems (Johns Hopkins and the University of Maryland) were allowed to dominate the state market.⁵⁹ By 1971, these regulations existed in only three other states, and Maryland's hospital costs per admission were 26 percent higher than the national average.⁶⁰ In that year, the state legislature

established the Maryland Health Services Cost Review Commission (HSCRC), supposedly to crack down on this problem of monopolistic pricing.

Little could have been more counterproductive. Under a free market, cartels are threatened by new entrants, the risk of cheating on agreements, and the difficulty of orchestrating collective action in response to changing economic conditions.⁶¹ By setting prices for procedures at each of 53 state hospitals, rate setting has protected incumbent hospitals from each of these competitive threats.

Nor is there much risk that the HSCRC will impose a good deal for taxpayers and consumers. It is dominated by hospitals, seeks little input from insurers in setting rates, and three of its four most recent chairmen have been senior executives at Johns Hopkins.⁶² The price premium that larger hospitals could command is permanently enshrined, and these hospitals are able to mandate charges for initiatives that they want to undertake, driving up costs for potential competitors.

Budget pressures have not led to prices being tightened. Hospitals are better informed than regulators about their true costs of production and able to wield the threat of shortages to force adjustments to increase fees.⁶³ Hospitals and their staff protest when prices are set below demands, costs, or expectations, but keep quiet when they are set above. Prices are only adjusted downward under an acute crisis, and even then only once a year, so they are at best a year out-of-date.

55. John E. McDonough, "Tracking the Demise of State Hospital Rate Setting," *Health Affairs*, Vol. 16, No. 1 (January 1997), pp. 142-149, <http://content.healthaffairs.org/content/16/1/142.full.pdf+html> (accessed July 26, 2013), and John E. McDonough, "The Decline of State-Based Hospital Rate Setting: Findings and Implications," National Academy for State Health Policy, May 1995, <http://www.nashp.org/publication/decline-state-based-hospital-rate-setting-findings-and-implications> (accessed July 26, 2013).
56. Jay Hancock, "Feds Push Maryland to Think Big on Health Cost Control," *Kaiser Health News*, August 28, 2012, <http://www.kaiserhealthnews.org/stories/2012/august/26/maryland-health-cost-control.aspx> (accessed July 26, 2013).
57. Maryland Health Services Cost Review Commission, "Update Factor Recommendation for FY2014," June 5, 2013, <http://www.hsrc.state.md.us/documents/CommissionMeeting/2013/06-05/hsrc-final-update-factor-recommendation-for-fy2014-2013-06-07-post-meeting-w-slides.pdf> (accessed July 26, 2013).
58. National Conference of State Legislatures, "Certificate of Need: State Health Laws and Programs," March 2012, <http://www.ncsl.org/issues-research/health/con-certificate-of-need-state-laws.aspx> (accessed July 26, 2013).
59. Mark Pauly and Robert Town, "Maryland Exceptionalism? All-Payers Regulation and Health Care System Efficiency," *Journal of Health Politics, Policy and Law*, Vol. 37, No. 4 (August 2012), pp. 697-707.
60. Kastor and Adashi, "Maryland's Hospital Cost Review Commission at 40."
61. Margaret C. Levenstein and Valerie Y. Suslow, "What Determines Cartel Success?" *Journal of Economic Literature*, Vol. 44, No. 1 (March 2006), pp. 43-95.
62. Maryland Health Services Cost Review Commission, www.hsrc.state.md.us/documents/AboutUs/ChairDir/HSCRC_ChairmenDirectors.pdf (accessed August 8, 2013).
63. This yields a situation akin to that of the "soft budget constraint," which János Kornai demonstrated was responsible for hobbling the

HSCRC supporters regularly boast that Maryland has enjoyed the lowest increase in cumulative cost per hospital admission of any state from 1977–2009.⁶⁴ Yet a lower relative rate of growth on top of a higher base is not much to celebrate, and it largely registers the unique rewards that Maryland’s Medicare waiver provides the state for targeting resources on this particular metric. Other states that have experimented with rate setting, but without a similar Medicare waiver, did not even register this modest cost improvement.⁶⁵ By rewarding a low average per case, the waiver has discouraged policies to prevent readmissions or unnecessary inpatient admissions for one-day stays. Maryland saw the volume of provision soar at the expense of quality, to a level where the state had the highest rate of readmissions within 30 days of discharge.⁶⁶

The regulation of inpatient prices has also shifted high-cost cases to outpatient hospitals. In addition to its four hospitals in the state, Johns Hopkins has three “surgery centers,” which are not subject to price caps.⁶⁷ Although this helps to reduce the costs-per-case registered at inpatient hospitals and allows the hospitals to circumvent many of the shortages associated with price controls, it also frustrates the coordination of care.

When broader measures of health care costs are examined, rate setting in Maryland appears to have frustrated competition to a high degree, but done

very little to check prices or volume. The state’s total health spending and its rate of increase are both slightly above average, despite a population that is slightly healthier than average.⁶⁸ Hospital costs per capita have continued to grow faster than those of neighboring states. Medicare reimbursements per enrollee in Maryland rose 44 percent to \$4,150 between 1996 and 2007, compared with a 23 percent increase to \$3,047 across the rest of the nation.⁶⁹

The Washington Post recently reported that in Maryland “hospital expenses have risen so relentlessly in recent years that the original price controls now appear unsustainable.”⁷⁰ To avoid losing its lucrative Medicare waiver, the state is now exploring a global budget cap to supplement rate setting and is lobbying the federal government to make a “technical adjustment” to its Medicare cost target to bring it closer within reach.

***The Washington Post* recently reported that in Maryland “hospital expenses have risen so relentlessly in recent years that the original price controls now appear unsustainable.”**

Medicare Reimbursement. In federal health

economy of the Soviet Union. See János Kornai, *The Socialist System: The Political Economy of Communism* (Oxford, U.K.: Oxford University Press, 1992).

64. Kastor and Adashi, “Maryland’s Hospital Cost Review Commission at 40.”

65. McDonough, “The Decline of State-Based Hospital Rate Setting.”

66. Stephen F. Jencks, Mark V. Williams, and Eric A. Coleman, “Rehospitalizations Among Patients in the Medicare Fee-for-Service Program,” *New England Journal of Medicine* Vol. 360, No. 14 (April 2, 2009), pp. 1418–1428.

67. Johns Hopkins Medicine, “Patient Care Locations,” http://www.hopkinsmedicine.org/patient_care/hospital_locations.html (accessed July 26, 2013).

68. Maggie Mahar, “How Maryland ‘Broke the Curve’: A Solution for Massachusetts?” February 14, 2010, <http://thehealthcareblog.com/blog/2010/02/14/how-maryland-%E2%80%9Cbroke-the-curve%E2%80%9D-a-solution-for-massachusetts/> (accessed July 26, 2013), and Indu B. Ahluwalia et al., “State-Specific Prevalence of Selected Chronic Disease-Related Characteristics,” *Center for Disease Control Morbidity and Mortality Weekly Report*, August 22, 2003, <http://www.cdc.gov/mmwr/preview/mmwrhtml/ss5208a1.htm> (accessed July 26, 2013).

69. Pauly and Town, “Maryland Exceptionalism?” and Joseph Antos, “Maryland All-Payer Hospital Rate Setting: Regulation vs. Market Power,” presentation at Council on Health Care Economics and Policy: 19th Princeton Conference, May 23, 2012, http://council.brandeis.edu/pdfs/2012/Joseph-Antos_5.23.pdf (accessed July 26, 2013).

70. Lena H. Sun and Sarah Kliff, “Maryland Already Sets Hospitals’ Prices. Now It Wants to Cap Their Spending,” *The Washington Post*, May 25, 2013, <http://www.washingtonpost.com/blogs/wonkblog/wp/2013/05/25/maryland-already-sets-hospitals-prices-now-it-wants-to-cap-their-spending/> (accessed July 26, 2013).

policy, the budgetary concerns that push policymakers toward price controls have been the most pronounced where Congress has been responsible for financing care, most significantly in Medicare.

In its early years, Medicare spending spiraled beyond all expectations. It provided benefits to retirees who had never paid in, reimbursed hospitals their costs plus a supplement, and paid doctors for any consultations at their “prevailing, customary and reasonable” fees. Consequently, Medicare’s first year of operation (1967) cost \$4.6 billion, instead of the projected \$238 million, with subsequent spending doubling every five years.⁷¹ By the 1980s, with Medicare obliged to reimburse providers able to name (and gradually inflate) their prices, the program had become widely recognized as a burden on the taxpayer and a drain on other budget priorities.

In 1983, Congress established a system of prospective payment for Medicare, providing fixed reimbursements to hospitals according to the diagnosed conditions for which they admitted patients. This only partly reined in providers. By including the cost of overheads as a markup in the payment for each additional unit, Medicare pays substantially more than the marginal cost for such treatments and therefore makes overprovision highly profitable.⁷²

Hospitals are no longer directly rewarded for inflating their costs because the 467 Diagnosis-Related Groups (DRG) ideally function as fixed voucher payments for the treatment of specific conditions. Yet prospective payment has enabled them to draw higher income by reclassifying patients under more expensive conditions (“upcoding”) or by

discharging patients and readmitting them for post-acute services (“unbundling”). As the DRG only approximates costs for a group of procedures, additional compensation (“outlier payment”) is often required for the most expensive cases. While pricing could be refined by adding billing codes, this could backfire by facilitating upcoding.

This problem is growing worse. The two most expensive relevant billing codes were featured on 25 percent of doctor visit claims in 2001, but 40 percent by 2010.⁷³ In 2010, the Government Accountability Office estimated that Medicare lost \$48 billion to fraud—more than \$1,000 per enrollee.⁷⁴

DRG prices have failed to keep pace with changing market conditions. The relative prices were set 30 years ago, and the majority have remained unchanged year-to-year or increased by a uniform percentage. Cost-cutting technological improvements have rarely resulted in price cuts, further inflating spending over time.⁷⁵

Prices are adjusted by geographic area according to political pressures, rather than in response to supply and demand. Living in urban neighborhoods tends to be more expensive, but rural areas have more difficulty attracting doctors and must maintain smaller hospitals, which are more expensive to operate.⁷⁶ Hospitals lobby to be classified in higher reimbursement areas, increasing costs by 10 percent.⁷⁷ Yet patients have no incentive to seek treatment where costs are lowest.

While Medicare’s prospective payment for hospitals at least intends to pay for outputs,⁷⁸ its physician payment rewards the use of inputs by reimbursing according to physician work time and qualifications,

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71. Rick Mayes and Robert A. Berenson, *Medicare Prospective Payment and the Shaping of U.S. Healthcare* (Baltimore: John Hopkins University Press, 2006), p. 18.
 72. Joseph P. Newhouse, *Pricing the Priceless: A Health Care Conundrum* (Cambridge, MA: Massachusetts Institute of Technology, 2002), p. 48.
 73. Fred Schulte, Joe Eaton, and David Donald, “Doctors, Others Billing Medicare at Higher Rates,” *The Washington Post*, September 15, 2012, http://www.washingtonpost.com/national/health-science/doctors-others-billing-medicare-at-higher-rates/2012/09/15/27047458-f2fa-11e1-adc6-87dfa8eff430_story.html (accessed July 26, 2013).
 74. Kay L. Daly, “Improper Payments: Reported Medicare Estimates and Key Remediation Strategies,” testimony before the Subcommittee on Government Organization, Efficiency, and Financial Management, Committee on Oversight and Government Reform, U.S. House of Representatives, July 28, 2011, <http://www.gao.gov/products/GAO-11-842T> (accessed July 26, 2013).
 75. Paul B. Ginsburg and Joy M. Grossman, “When the Price Isn’t Right: How Inadvertent Payment Incentives Drive Medical Care,” *Health Affairs*, August 9, 2005, <http://content.healthaffairs.org/content/early/2005/08/09/hlthaff.w5.376.full.pdf+html> (accessed July 26, 2013).
 76. Newhouse, *Pricing the Priceless*.
 77. Robert Crum, “Study Determines Additional Medicare Reimbursement Does Not Improve Nursing Resources or Patient Outcomes,” Robert Wood Johnson Foundation, May 2008, <http://pweb1.rwjf.org/reports/grr/049288.htm> (accessed July 26, 2013).
 78. This is not always the case: 40 percent of payments are tied to the performance of specific procedures. See Mark McClellan, “Hospital Reimbursement as Incentives: An Empirical Analysis,” *Journal of Economics and Management Strategy*, Vol. 6, No. 1 (Spring 1997), pp. 91–128.

multiplied by a fixed assessment of the relative effort and stress involved in performing particular procedures, as determined by a panel of experts.

In practice, payment rates are slow to adjust to cost-reducing technological improvements—and rarely adjusted downwards at all. There is no premium for quality. Physicians receive the same fee if the patient is unsatisfied, incorrectly diagnosed, or provided with inappropriate and ineffective treatment. Medicare pays doctors \$99 for a 15-minute consultation in a hospital, but only \$58 for the same consultation in a doctor’s office. It pays \$188 for an electrocardiogram in a doctor’s office, but \$452 for the same electrocardiogram in a hospital.⁷⁹

Medicare’s physician payment arrangements have been characterized as more like “a unilaterally imposed union contract” than an attempt to remedy shortages and purchase affordable care.⁸⁰ The profitability of medical conditions therefore varies substantially, which draws physicians into specialization and away from general hospitals.⁸¹ This inflates the wages of physicians, who receive 50 percent more in the United States than the OECD average, even though nurses are paid about the same.⁸²

With fees fixed to encourage greater volume of costly physician services, Congress enacted the Medicare Sustainable Growth Rate in 1997 to constrain spending. This pledged to increase fees for all, if aggregate spending per beneficiary was kept low.⁸³ This mechanism still rewards individual physicians

for overtreatment. Nor are threats to cut fees credible. The fear of physicians dropping out of Medicare is so politically sensitive that Congress has waived 12 of the 13 scheduled downward adjustments.⁸⁴

The degree of unnecessary expense involved when the government sets Medicare prices by decree is evident in the recent introduction of competitive bidding for durable medical equipment, such as oxygen tanks, power wheelchairs, and diabetic tests. For many years, medical providers seeking to offload products at inflated prices viewed Medicare as a cash cow.⁸⁵ The 2003 Medicare Modernization Act authorized trials with competition, but these were delayed by lobbyists for manufacturers that hoped to maintain regulated prices. When trials were finally permitted in nine metro areas, competition reduced overall costs by 42 percent, driving down prices and curbing inappropriate utilization with no observed negative health consequences.⁸⁶

Rather than expand the role of competition to constrain Medicare’s runaway spending growth, the ACA has sought to tighten price controls by establishing the Independent Payment Advisory Board (IPAB). It is obliged to recommend spending cuts, which take effect automatically unless Congress acts within six months. Yet since IPAB is banned from recommending structural changes, increases in cost sharing, or hospital payments, its cuts will likely consist of price controls that focus primarily on medical products.⁸⁷ Among these, the juiciest targets are the priciest, most innovative prescription drugs—because capping

79. Robert Pear, “Medicare Panel Urges Cuts to Hospital Payments for Services Doctors Offer for Less,” *The New York Times*, June 14, 2003, <http://www.nytimes.com/2013/06/15/health/medicare-panel-urges-cuts-to-hospital-payments-for-services-doctors-offer-for-less.html> (accessed July 26, 2013).

80. Roger G. Noll, “On Regulating Prices for Physicians,” in Frech, *Regulating Doctors’ Fees*, pp. 381–386.

81. Ginsburg and Grossman, “When the Price Isn’t Right.”

82. Paul B. Ginsburg, “High and Rising Healthcare Costs: Demystifying U.S. Health Spending,” Robert Wood Johnson Foundation *Research Synthesis Report* No. 16, October 2008.

83. Laura A. Dummit, “Updating Medicare’s Physician Fees: The Sustainable Growth Rate Methodology,” National Health Policy Forum *Issue Brief* No. 818, November 10, 2006, <http://www.nhpf.org/library/details.cfm/2536> (accessed July 26, 2013).

84. Daniel P. Kessler, “Real Medicare Reform,” *National Affairs*, Fall 2012, <http://www.nationalaffairs.com/publications/detail/real-medicare-reform> (accessed July 26, 2013).

85. Barbara Cooper and Bruce Vladek, “Bringing Competitive Pricing to Medicare,” *Health Affairs*, Vol. 19, No. 5 (September 2000), pp. 49–56, and Robert E. Moffit, “Medicare: Congress Is Poised to Block Competitive Bidding for Medical Supplies,” Heritage Foundation *WebMemo* No. 1959, June 18, 2008, <http://www.heritage.org/research/reports/2008/06/medicare-congress-is-poised-to-block-competitive-bidding-for-medical-supplies>.

86. Robert Pear, “In a Shift, Medicare Pushes Bids,” *The New York Times*, April 18, 2012, <http://www.nytimes.com/2012/04/19/health/policy/medicare-to-expand-competitive-bidding.html> (accessed July 26, 2013).

87. Robert E. Moffit, “Obamacare and the Independent Payment Advisory Board: Falling Short of Real Medicare Reform,” Heritage Foundation *WebMemo* No. 3102, <http://www.heritage.org/research/reports/2011/01/obamacare-and-the-independent-payment-advisory-board-falling-short-of-real-medicare-reform>.

reimbursements for these few expensive products offers the prospect of greater savings than trimming the prices of many cheap ones.⁸⁸

Prescription Drugs. In recent years, drug development has generated most of the greatest advances in medicine. It has been suggested that pharmaceutical innovation accounts for the entirety of increases in U.S. life expectancy during the 1970s and 1980s.⁸⁹ Those being treated with newer drugs have better post-treatment health than people using older drugs for the same condition, while cancers for which the stock of drugs increased most rapidly saw the greatest increase in survival rates.⁹⁰

On average, researching and developing a new biopharmaceutical molecule costs \$1.3 billion.

Drug innovation is particularly vulnerable to regulatory predation. On average, researching and developing a new biopharmaceutical molecule costs \$1.3 billion.⁹¹ Yet once developed, it can often be replicated for a few cents per dose. Nor are drug research and development (R&D) investments reliably profitable. Only the top 30 percent of drugs generate enough revenue to cover the average R&D costs.⁹²

Unless firms are allowed to reap a substantial share of the value that their most successful innovations generate, they have little incentive to make the colossal up-front investments necessary to produce new drugs. Patents are therefore needed to secure the revenues generated by new drugs for those investing in innovation. However, governments have a strong temptation to renege *ex post facto* on promises to defend these firms' revenues and to undermine patent rights by dictating low prices to manufacturers.

This temptation is particularly acute for countries without substantial pharmaceutical industries, who seek to free-ride on drug development elsewhere. Governments in most of the world use their power to dictate lower prices for originator drugs, resulting in average drug prices that are 74 percent of U.S. price levels in Canada; 64 percent in France, and 74 percent in Germany.⁹³ As a result, the U.S. accounted for 41 percent of the pharmaceutical industry's \$605 billion revenues in 2005, on which the \$120 billion global pharmaceutical annual R&D budget has become increasingly dependent.⁹⁴ In the mid-1980s, Europe spent 24 percent more on R&D than the United States, but by 2004, it contributed 15 percent less.⁹⁵ Between 2001 and 2009, 60 percent of drug patents were granted to U.S.-based inventors.⁹⁶ By 2012, the U.S. biotech industry employed 100,000 people—twice as many as in all of Europe.⁹⁷

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88. Scott Gottlieb, "The Road to Price Controls," *The American*, June 12, 2010, <http://www.american.com/archive/2010/june-2010/the-road-to-price-controls> (accessed July 26, 2013).
 89. Frank R. Lichtenberg, "Pharmaceutical Innovation, Mortality Reduction, and Economic Growth," National Bureau of Economic Research *Working Paper* No. 6569, May 1998, <http://www.nber.org/papers/w6569> (accessed July 26, 2013).
 90. Frank R. Lichtenberg, "Pharmaceutical Embodied Technical Progress, Longevity, and Quality of Life," National Bureau of Economic Research *Working Paper* No. 9351, November 2002, <http://www.nber.org/papers/w9351> (accessed July 26, 2013), and Frank R. Lichtenberg, "The Expanding Pharmaceutical Arsenal in the War on Cancer," National Bureau of Economic Research *Working Paper* No. 10328, February 2004, <http://www.nber.org/papers/w10328> (accessed July 26, 2013).
 91. Joseph A. DiMasi and Henry G. Grabowski, "The Cost of Biopharmaceutical R&D: Is Biotech Different?" *Managerial and Decision Economics*, Vol. 28, Nos. 4-5 (June-August 2007), pp. 469-497.
 92. Patricia M. Danzon and Eric L. Keuffel, "Regulation of the Pharmaceutical-Biotechnology Industry," in Nancy L. Rose, ed., *Economic Regulation and Its Reform: What Have We Learned?* (Chicago: University of Chicago Press, forthcoming).
 93. U.S. Department of Commerce, International Trade Administration, *Pharmaceutical Price Controls in OECD Countries: Implications for U.S. Consumers, Pricing, Research and Development, and Innovation*, December 2004, <http://ita.doc.gov/td/health/DrugPricingStudy.pdf> (accessed July 26, 2013).
 94. International Federation of Pharmaceutical Manufacturers and Associations, "The Pharmaceutical Industry and Global Health: Facts and Figures," November 2011, http://www.ifpma.org/fileadmin/content/Publication/2011/2011_The_Pharmaceutical_Industry_and_Global_Health_low_ver2.pdf (accessed July 26, 2013).
 95. John A. Vernon and Joseph H. Golec, *Pharmaceutical Price Regulation: Public Perceptions, Economic Realities, and Empirical Evidence* (Washington, DC: AEI Press, 2009).
 96. Yali Friedman, "Location of Pharmaceutical Innovation: 2000-2009," *Nature Reviews Drug Discovery*, Vol. 9, No. 11 (November 2010).
 97. Ernst & Young, "Beyond Borders: Matters of Evidence," 2013, [http://www.ey.com/Publication/vwLUAssets/Beyond_borders/\\$FILE/Beyond_borders.pdf](http://www.ey.com/Publication/vwLUAssets/Beyond_borders/$FILE/Beyond_borders.pdf) (accessed July 26, 2013).
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While America has shouldered a disproportionate share of R&D financing, attempts by other nations to free-ride are not pain free. The effective patent life in the U.S. is 2.5 years longer than in France or Germany.⁹⁸ The launch of new drugs is often delayed in price-controlled countries, and Americans benefit from better and more effective drugs.⁹⁹

Where price regulation does not serve to undermine patents, it appears only to inflate costs. As a result, generic drugs cost 133 percent of U.S. prices in Canada, 108 percent in France, and 151 percent in Germany. Countries with highly regulated prices also tend to use generics less, with 74 percent of off-patent drugs available as generics in the United States, compared with 44 percent in France.¹⁰⁰ By incentivizing the use of generics over more expensive branded drugs, the Medicare Part D program has further demonstrated the capacity of competitive pricing to drive down projected costs over time.¹⁰¹

The U.S. government has recently required drug makers to provide drugs to Medicare and Medicaid at substantial discounts to the average manufacturer price.¹⁰² As the ACA increasingly shifts responsibility for financing American health care to the public-sector balance sheet, such practices will likely become more prevalent.

Although price controls can trim budgetary expenses in the short run by undermining patents, patents cover drugs for only a temporary period, so the only lasting effect is to undermine future drug development. Indeed, since drugs are much cheaper to provide than inpatient hospital care, facilitating drug innovation that provides effective substitutes may even save taxpayers money in the long run.¹⁰³

The Burden of Price Controls

To some, price regulation appears to offer the prospect of a free lunch by checking the monopolistic power of health care providers. To others, it provides a convenient way to lower the forecasted budgetary cost of entitlement spending. A third motive seems to be a desire to redistribute resources to patients deemed more needy.

Yet a close investigation of the cases in which price regulation is claimed to be most successful demonstrates that replacing price signals with politics yields a predictable pattern of systematic shortages, deteriorating quality, and inflated costs.

- » In Japan, the regulation of hospital and physician fees has created a severe shortage of doctors, a surplus of small inefficient hospitals, and great difficulties in the provision of emergency and surgical treatment.
- » In the Netherlands, centrally negotiated prices yielded a paucity of high-technology services and long waiting lists for treatment, while deregulation has reduced costs and improved quality of care.
- » Maryland's rate-setting system has effectively functioned as a cartel agreement, secured by a substantial federal subsidy, rather than serving to cut costs.
- » Medicare's prospective pricing has incurred vast expense by establishing systematic incentives to employ resources inefficiently.
- » In many countries, fixed prices for prescription drugs have undermined the patents necessary for research and development while inhibiting the adoption of cheaper generics.

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Instead of promoting genuine competition, regulated pricing only enhances the monopoly power of producers and obscures the factors inflating costs that are in true need of reform. Rather than reserving care for the needy, the resulting artificial scarcity tends to make health care more of an exclusive privilege than ever before.

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