

chronic budget deficit turned into a persistent surplus from 2000 to 2008, and its public debt that had exceeded GDP was almost eliminated. Seldom has a financial crisis been resolved more swiftly and successfully.

Today, we need to reconsider why an apparent complete failure turned out to be such a success. Gilman rightly emphasizes: "In retrospect, August 1998 should be considered the definitive watershed moment for the Russian economy..." (p. 278). But on the page before he wrote: "the 1998 crisis...was not the IMF's finest hour..." (p. 277). I think it was.

Gilman specifies the close cooperation between the IMF and the Russian authorities, which helped the Russian government propose sound fiscal reforms in the summer of 1998, and the IMF and the World Bank responded by offering a large credit package of \$22.6 billion. The IMF made one disbursement, but when the Russian parliament objected to necessary fiscal reforms, the IMF dropped Russia like a hot brick. It recovered its credibility after too many politicized decisions, as Russia turned out to be not too big or nuclear to fail.

The absence of any finances other than tax revenues forced Russia to abolish its budget deficit. Gilman underlines the importance of the new Tax Code—the massive cut in public expenditures was key. They declined by 14 percent of GDP from 1997 to 2000, as enterprise subsidies were primarily cut. Through its quick default on all its GKO's regulated by domestic law, Russia quickly eliminated \$55 billion of public debt. Greece, which has hesitated for one and a half years, could learn from that speed. The Russian freezing of foreign bank transactions appears more dubious, since it froze the payments system for three months. It imposed a hard budget constraint but may have turned Russians, who once again lost their bank savings, against democracy.

Today, Gilman's comments about the Russian government are illustrative for the current financial crisis in Europe. Gilman complains that Russia was "a largely dysfunctional state in which internal rivalries, divergent institutional interests, and bureaucratic infighting made a consensus on policies . . . hard to achieve . . ." (p. 39), but what about the European Union? It appears slower and more dysfunctional, making

the Russian government seem efficient and effective. Gilman criticizes the Russian government's limited administrative capacity, but the European Union seems worse. He also laments that few officials were involved and little transparency, but any observer of the EU mess would wish for fewer officials involved (with more responsibility) and less information about discussion on defaults depressing markets being divulged.

Gilman objects that "it is extraordinary to think of two nonofficial Russians [Yegor Gaidar and Anatoly Chubais] meeting in a back room to plot Russia's financial fate" (p. 183). But, the European Union needs a Jean Monnet in its back room, and it has none. It has too many irresponsible officials, too much transparency, too slow decision making, too much money, and is thus too indecisive. It has much to learn from Russia's quick and robust handling of its crisis of 1998.

ANDERS ÅSLUND

Peterson Institute for International Economics

Q Agricultural and Natural Resource Economics • Environmental and Ecological Economics

The End of Energy: The Unmaking of America's Environment, Security, and Independence. By Michael J. Graetz. Cambridge and London: MIT Press, 2011. Pp. x, 369. \$29.95. ISBN 978-0-262-01567-7. *JEL* 2011-0803

In a compelling historical account of U.S. energy policy since about 1970, Michael Graetz argues that forty years and tens of thousands of pages of legislation later we are still beholden to foreign oil and our system of securing and delivering fossil energy has led to consumer prices far below social costs. Graetz makes many of his arguments from the perspective of economics, arguing for policy that raises consumer energy prices to match the total social cost of energy provision, though I was somewhat disappointed that he never directly confronts the question of how large total costs might be or how they would be measured. As reading for economists, both the depth of the historical review and the discussion of the political processes involved in recent energy regulation are interesting and useful.

Graetz sums up his central argument early on: “Nothing that we did or might have done has had as much potential to be as efficacious as paying the true price” (p. 7). The prices paid for fossil energy, he contends, should include the costs of air pollution, climate change, and national security efforts. For gasoline in particular, Graetz includes accidents and congestion in the list of externalities, leading to a policy prescription that closely reflects the view of many economists. There are two areas where I felt the work could improve in making the Pigouvian argument: Worker safety, in particular in coal mines, is raised several times but it is unclear to what degree these costs are external. I also think Graetz should have suggested the degree to which current prices are too low, as the book puts him in a position to combine separate sets of findings in the literature on the laundry list of externalities he addresses.

I am curious what Graetz might think, for example, of the numbers in Ian W. H. Parry and Kenneth A. Small’s (2005) “Does Britain or the United States Have the Right Gasoline Tax.” Parry and Small combine estimates of the pollution, traffic congestion, and accident externalities associated with gasoline consumption and arrive at an optimal tax of about \$1 per gallon of gasoline. Graetz adds considerable emphasis on the national security impacts of U.S. oil consumption: An estimate of \$700–800 billion in oil-related security costs for 2008 appears on page 181 and would suggest very large existing implicit subsidies per gallon. Allocation of the costs of wars in the Middle East is not without difficulty, but if the magnitudes are even a fraction of this estimate it would substantially alter the discussion surrounding optimal gasoline price.

As reading for economists, the historical account is detailed and engaging, particularly in presenting policy during the Nixon and Carter administrations when the United States responded to shocks in the oil price. Broadly, Graetz organizes regulation of American energy sources by fuel—oil, nuclear, coal, natural gas, and renewables. I also found the discussion of historical transitions in energy supply to be interesting and important, but here I wanted to see a bit more about the American shift from oil to coal in electricity

generation and the sweeping transition in France to nuclear generation. Understanding more about the speed and cost of these changes could inform policy as we move toward natural gas and renewables in electricity.

Chapters 11 through 13 explore the U.S. political system, again providing a thorough background for researchers in energy economics. Graetz details the long history of policy that has kept energy prices below total cost: Lifting the price controls of the 1970s proved incredibly difficult, as have the few (and usually failed) attempts at small increases in fuel price. The more politically palatable route has been to heavily subsidize technologies that promise a “silver bullet,” and Graetz argues the list of failed attempts is growing: coal-to-liquids, “breeder” nuclear reactors, and hydrogen-fueled cars. He maintains that the market should find appropriate technological substitutes, again in line with much of the economics literature.

Chapter 13 also includes a brief primer on American politics, including the roots of power in Congress, the environmental movement, and a history of labor union and corporate involvement in energy regulation. Deep divisions between states, particularly as they differ on net production or consumption of fossil energy, are identified. I found the detailed discussion of the failed Waxman–Markey climate bill particularly informative. I believe this history is critical in helping energy economists make their work relevant to policy.

Given the tremendous impact of crude oil prices and consumption on U.S. energy policy, Graetz gives substantial attention to the Corporate Average Fuel Economy (CAFE) standards. I found the historical details of the initial rounds of CAFE legislation both informative and accurate: The power of individual legislators is highlighted at several points in the book and was remarkable in the passage of CAFE, where Congressman John Dingell’s (Michigan) political location between environmental groups and the auto industry shaped much of the program.

Graetz contends that CAFE costs at least three times as much per gallon of gasoline saved in comparison to a gasoline tax—a finding generally supported in the economics literature, for example in David Austin and Terry Dinan (2005) and my

own work. In spite of the remarkable inefficiency of CAFE at saving gasoline, Graetz goes on to tell us that the policy is one of our more effective efforts to date. "It is an unfortunate and sad fact that CAFE, although far from the best policy we might have had, probably ranks among the best that was enacted" (p. 257). This view underscores Graetz's withering criticism of U.S. energy policy in most sectors.

In discussing the value of energy efficiency regulation (both CAFE and more generally), Graetz touches only briefly on the issue of rationality in the purchase of durables: Proponents of efficiency standards often argue that regulation will "pay for itself" as businesses and consumers save more on energy bills than they spend up-front for the more efficient appliance or machine. Graetz cites one such study arguing that \$500 billion in energy-efficiency investments now would save \$1.2 trillion on energy bills by 2020 (p. 260). Little is offered in explanation of why such investments are not already being undertaken by profit-maximizing businesses and entrepreneurs, and I had hoped for more discussion of this central issue in current energy research.

Overall, Graetz's book is well researched and highly detailed in its presentation of the external costs of energy provision. The economic arguments made throughout tend to be simple, but they are accurate and I think Graetz does a service to economists in making ideas about social cost and substitution across energy technologies accessible to a general audience. As reading for researchers in economics, I most appreciated the detailed history and discussion of long-standing patterns in American energy politics. It helps guide research and place empirical results in context.

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MARK JACOBSEN

University of California, San Diego and NBER

R Urban, Rural, Regional, and Transportation Economics

Triumph of the City: How Our Greatest Invention Makes Us Richer, Smarter, Greener, Healthier, and Happier. By Edward Glaeser. New York: Penguin Group, Penguin Press, 2011. Pp. 338. \$29.95. ISBN 978-1-59420-277-3. *JEL* 2011-1250

Edward Glaeser's new book, *Triumph of the City*, is a tour de force. It is an impressive assembly of economics, history, business, and politics, with a reasonable amount of science, art, and biography included as well. The book's urban enthusiasm calls to mind Whitman's "Crossing Brooklyn Ferry," with its crowds and ships and foundries and so on.

Its enthusiasm notwithstanding, this is a very serious investigation of as serious an issue as there is: how we live. Eighty percent of North Americans live in cities. The number is similar in Europe and in Latin America. And while the urban share is smaller in Asia and Africa, it is growing rapidly, quickly enough that more than half of humanity now lives in a city. This book's examination of urban issues—the creation of jobs in cities and their loss, urban innovation and entrepreneurship or poverty and decline, the creation of livable neighborhoods or ghettos, greenness or concrete—these are all central aspects of twenty-first century life.

In considering these issues, the book makes a compelling case that cities are crucial for prosperity and progress. The book's first two chapters deal with how cities grow and how they decline. The first chapter is largely concerned with the role of cities in innovation. Some of the ground covered will be familiar, such as the history of the semiconductor industry in the Silicon Valley. But Glaeser makes clear that Silicon Valley is important not just in itself but for the more general phenomenon of urban innovation that it represents. This is nicely established by describing Bangalore's current and future role as a similar center of innovation and Nagasaki's historical role as an entry point for western technology into Japan.

These are the happy stories of urban success. The next chapter deals with urban decline, with Detroit taking the role of the anti-Silicon