exacerbates that problem. These two factors go a long way to explain the SECs sorry record, and help explain why Kotlikoff's idea for an FFA is so ill-conceived. It might very well be the case that LPB could be run without an FFA, but not as Kotlikoff has designed it.

There is a great deal to recommend this book. First, there is Kotlikoff's recounting of the crisis itself. Second, there is sense of the manifest injustice of a system in which bad actors get to gamble with other people's money. Third, there is the challenge to do something radical to reform a system that is radically dysfunctional.

Kotlikoff has performed a service by challenging the existing institutional structure. As I have suggested, he can make common cause with many other economists of divergent political persuasions. James Buchanan has made what may be the strongest argument for 100 percent reserve banking in his article "The Constitutionalization of Money," which recently appeared in the *Cato Journal*. He observes that the economic case for fractional reserve banking was to economize on reserves in a commodity money system. Commodity money is costly to produce. Not so fiat money. "The central logic of leverage banking, of any sort, is absent under the operation of a pure fiat money system."

Whether the case for narrow banking can finally be convincingly made remains to be seen. The case for mutual-fund banking is a giant leap beyond that. The FFA would, I predict, create an even more horrible mess than yet witnessed in financial services.

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The New Holy Wars: Economic Religion vs. Environmental Religion in Contemporary America
Robert H. Nelson
University Park, Pa.: The Pennsylvania State University Press for the Independent Institute, 2010, 388 pp.

Robert H. Nelson, one of the world's leading natural resource economists, long has argued that the ideologies in economics are secularizations of traditional religion and that this concealment is ill advised. Less convincingly, he advocates linking these new ideologies to their religious roots. He now also brands environmentalism as a secular religion whose roots need examination. This book postulates a war between that religion and the economic religion that he previously criticized.

For decades claims of scientific objectivity in policy advice have been easy targets for charges of a "pretense of knowledge." Critics noted the obvious implicit value judgments and the hopeless incoherence of the concepts of scientific and objective. Substantial obstacles plague efforts to go further, and all efforts with which I am familiar are noble failures at best.

Environmentalism is an even easier target. Many excellent refutations exist. Thus, Nelson has the challenge of adding something new. Nelson, in fact, provides a solid and unfamiliar argument. At best, environmentalists stress preserving natural conditions while ignoring billions of years of regular change in nature. At worst, they argue that the rise of homo sapiens is uniquely unnatural. Nelson fails, however, because of the unrealism of his central contrast and his heavy reliance on prior work to develop his comparison.

This is his third effort on secular religions. The first in 1991, *Reaching for Heaven on Earth* (here *Heaven* for short), ambitiously surveyed Western philosophy, turned to a breathless, idiosyncratic survey of modern economic thought from Richard Ely (the founder of the American Economic Association) to D. McCloskey (author of provocative discussions of the practice of economics), and ended with a call to allow succession from the prevailing political order. In the second in 2000, *Economics as Religion* (here *Religion*), he turned to a fuller survey of what he considers the critical economic streams—Samuelson's *Economics,* the Chicago School, and the "new institutionalists." This was followed with assorted reflections including comments on the challenge of environmentalism as a possible replacement of economic religion.

The core of *The New Holy Wars* (*Holy Wars* for short) expands the critique of environmentalism sketched in *Religion*. Ten of the 13 chapters in *Holy Wars* subsume prior publications including the chapter on Frank Knight (a long-time professor of economics at the University of Chicago) in *Religion.* Most critically, the new material is half of his solid case against environmentalism. Perversely, the excellence of this treatment requires far less attention than does his ongoing treatment of economics as a religion. Moreover, his treatment in *Holy Wars* of economic religion makes little sense without examining the two prior books.

The exposition in *Holy Wars* starts with a summary of his prior views so terse that it misleads. He pauses to reprint an article on Islamic fundamentalism that is tenuously related to the basic arguments. Then come three chapters on existence value, sustainability, and progress, all prime examples of his problems in dealing with economic concepts. The next section of the book starts the argument that environmentalism is a new religion challenging economics. Next is the most coherent and useful section, consisting of the three fresh chapters developing the argument made in *Religion* about the incoherence and unreality of environmentalists' calls to preserve "natural" conditions. He then uses prior work indicating that experience with Africa validates his concerns.

His religious approach very nicely skewers the intellectual incoherence of environmentalism. Its basic flaws are false claims. Humanity becomes an illegitimate species, and the environmentalists ignore billions of years of massive natural changes in the environment. Nelson is warning environmentalists that they must come to grips with the reality of scarcity. The next section reprises his views on Knight and inadequately expands a previously published discussion of about free-market environmentalism as the way out of the dead end reached by the environmentalists. *Holy Wars* proves the least problematic of an extremely disturbing trilogy. Environmentalism as religion makes more sense than economics as religion.

Several problems arise from all these analyses, and *Holy Wars* cannot be understood without examining the underlying premises. In essence, Nelson is grappling with the problem that plagues all libertarian economists—Why do so many brilliant people trained to analyze markets and government have such naïve policy positions? Nelson concentrates on the defects of these policy analyses and ignores the theoretic principles employed. He incessantly faults economic theory without devoting even a few pages to what that theory is. This leads to an unsatisfactory resolution of the key problem of reconciling the policy views with the theory.

He uses "efficiency" in several senses—the progressive vision of guidance by impartial experts, the fad for time-and-motion studies, Samuelson's (failed) effort to balance appreciation of market forces with concerns over market failures, and the relentless pushing of economic principles by the Chicago school. Unfortunately, all these senses and many others are at least potentially consistent with the economic theory of efficiency. Why this is so and what should be done about it badly need far more attention than Nelson provides. Another problem is concentration on selected, not necessarily fully representative works by the prolific economists whom he examines.

Nelson's asserts that economists believe economic growth will bring heaven on earth. Neither that nor any other interpretation is standard in economic discourse (as several contributors, particularly Fred McChesney, noted in a *Case Western Reserve Law Review* symposium on *Religion*). A more reasonable view is that progress greatly extends and improves lives. Moreover, Nelson tends in all three books to note the benefits of progress but turn quickly to the costs, primarily the horrible wars of the 20th century. He also grapples unsuccessfully with the radical differences among the economic viewpoints that he reviews.

The underlying defect is how Nelson treats economic analysis and its history. Analytic economics seizes on the obvious, but often ignored, reality of scarcity. Nelson nicely recognizes that choices have consequences but makes little of the point. Scarcity forces choice, but deciding what choices are made and by whom is an unending problem. This means economic principles, even if not objective or scientific, *are* universal, and their neglect, as often occurs in politics, leads to disaster. However, proper application of principles is difficult.

Nelson thinks formal theory means economists have knowledge unavailable to the uninitiated and thus are like priests. However, policy advice is normally presented informally. More critically, as do most, he forgets that this formalization produced analytic clarity that previously was badly lacking; it was oversimplified because of manageability problems, not because it ignored reality. In the generation of my teachers' teachers, embarrassing analytic errors were a commonplace greatly reduced by formalization.

Nelson, particularly in *Religion*, faults theory for every failure to explain developments in actual economies. A preferable alternative view, best presented in George Stigler's "The Politics of Political Economists," is that the theory is so general that the validity of any interpretation requires empirical testing. Stigler made this point as part of a broader contention that study of economics made people more conservative, which Stigler defined as *more* supportive of market solutions.

As I read the literature up to the 1930s, including that cited by Nelson, an uneasy truce prevailed between traditional marketoriented, theory-oriented economists and the institutionalists, who scorned theory and advocated a progressive approach in which an elite of experts would reshape the world.

The 1930s brought two revolutions in economics. As Nelson incessantly notes, Keynes fomented major changes in the treatment of economic instability leading to its formalization as macroeconomics. This produced an extended effort to interpret and formalize Keynes. Even today, writers disagree on the true meaning and implication of Keynes.

Three years later, J. R. Hicks in *Value and Capital* brought to a turning point the long effort to refine Walras's effort to provide a general equilibrium theory that characterized the implications of the multiplicity of goods, consumers, and producers in an economy. Shortly after, a brilliant American scholar, Paul A. Samuelson, presented a Ph.D. thesis advancing key parts of Hicks's formalization. Samuelson also became an enthusiast of Keynes.

General equilibrium theory, precisely because it was so general, could be and has been blamed for every conceivable defect in applied economics from excessive faith in free markets (Galbraith) to market socialism (Stiglitz). The theory postulates two types of entities, consumers who seek to maximize utility given the limited wealth they possess and firms that seek to maximize profits, given that they must use resources to earn returns. These interact in markets to determine the equilibrium levels of all transactions by all entities and the prices governing these transactions.

The resulting model is a toy that all serious observers agree grossly oversimplifies the economics but still requires extensive mathematical skills to comprehend. The specification is deliberately vague. Of the concepts that I mentioned, only maximization is clearly defined. The outcome is a paradox that Nelson fails to recognize. As limited as the model may be, it squeezes out a remarkable vision of the scarcity problem that can guide sound appraisal. Moreover, these conclusions may be the outer limits of what economic *theory* can treat. Nelson's assertions that proper supporting values and institutions are needed for markets to work is far less neglected in applied economics than he suggests. A good indication is that *Religion* starts with a quote about Hayek, a central figure in the discussion of institutions, a quote that never remedies Nelson's prior neglect of Hayek's ideas. The problem is the difficulty of sensibly dealing with these problems. The vast secular literature that he ignores on the proper distribution of income is filled with illustrations of the problem.

Consider Nelson on the meaning of benefits and "costs." In both *Religion* and *Holy Wars,* he is concerned with the policy relevance of nonmarket costs. These relate first to the losses directly incurred by losers in economic competition and the alleged willingness of outsiders to value the existence of various resources. The latter was designed initially to deal with the benefits of preserving natural resources, but its critics pointed out that outsiders could value anything that existed such as the happiness of others. My traditionalist instincts urge simply factoring the cost of displacement into the decision to enter an activity, a move that eliminates Nelson's problem.

More broadly, both those costs and existence value are explained by Ronald Coase's discussions of transaction costs, which Nelson discusses in *Religion* but does not use in it or *Holy Wars.* Coase's point is that, in practice, people do not come to a decision fully informed. They must incur costs to learn the necessary information about what they are contemplating procuring. Thus, correct benefit-cost analyses must factor in the informational costs on top of the price paid the provider. Coase has argued that intervention is justified only if the benefits exceed these total relevant costs *and* the problems of a private solution are greater than those of a public one. One of the great unresolved problems in applied economics is determining when, if ever, these strict conditions are met. An approach based on Coase would probably do more to appraise interventionist arguments than making values more explicit.

Nelson's vague proposals for more explicit ties back to religion are unconvincing because, as Shakespeare wrote, "The devil can cite Scripture for his purpose." Nelson actually stresses the conflicting authority-directed and individual-responsibility religious streams but never seems to make the next step of noting the diversity of principles and practical advice derived from them. Nelson aggravates the situation by simultaneously making Jewish economists (and psychologists) critical figures and stressing Christian theology. This ignores numerous important differences between Judaism and Christianity, not to mention greater differences within both than he seems aware.

Given the economic illiteracy and statism among Jewish, Catholic, and Protestant clergy, Nelson has it backwards. He misses the critical reason why religion has lost ground. With the emergence of a global, technically progressive economy, religion's vague general advice to behave justly is insufficient. Techniques such as economic analysis are needed to appraise the consequences of actions so that the religious or otherwise can determine whether the results are desirable. Therefore, theology needs economics far more than economics needs theology.

After World War II, Samuelson published his thesis and then provided a more satisfactory textbook for introductory economics. The text introduced macroeconomic principles, presented a more modern, tacitly general equilibrium version of traditional theory, and showed the applicability of both to practical problems.

Samuelson called his efforts a neoclassical synthesis that took the best of both new and traditional economics. His critics feel the balance was too close to the interventionist side. As is evident without recalling theology, Samuelson made a leap to tacit value judgments supported by neither economic theory nor applied economics. Calling this a theology does not explain why such a brilliant person as Samuelson and most other prominent economists *continuously* supported so much intervention and exactly what were their bows to tradition.

Consider Samuelson's treatment of Austrian economics. Samuelson rejected what he took to be the Austrian view that any intervention is a road to serfdom. While this correctly conveys what *Mises* believed, it is not the far more moderate position *Hayek* presented in the *Road to Serfdom*. The irony is compounded by Samuelson's 1972 recognition that Hayek's essay "The Uses of Knowledge in Society" was the victor in the classic socialist calculation debate on the workability of a centrally planned economy. (This is but one of the many examples of economists who deplore libertarian policy views but cite Hayek as the key expositor of the case for a market economy. Even an offhand favorable mention of libertarian arguments will produce a ballistic response from at least one referee.)

The traditionalism is easier to explain. As Stigler suggested, economics does limit what seems sensible. First, economics makes one a free trader. Too many recipients of government aid are too affluent to merit aid within the progressive ideology, and too many policies are inordinately cumbersome ways to meet their goals.

The initial interventionist views are explicable. A view was strongly prevalent in 1948 (and since strongly discredited by extensive economic analysis) that Franklin Roosevelt had faced a failing capitalist system and found a third-way route to preserve the market by selectively intervening. A large part of the economics profession at the time supported extension of Keynesian economics beyond formalization to advocacy of active tax, spending, and monetary policy to stabilize the economy. The criticisms of Keynesianism, first by Milton Friedman and other monetarists and then by Robert Lucas and other rational expectation economists, received a gigantic boost by the stagflation of the 1970s. As McChesney noted, Friedman and Schwartz's painstaking, dispassionate study of monetary-policy practice demonstrated one element of the government failures that were key causes of the depth and longevity of the Great Depression. For decades, people from many fields have grappled ineffectually with the question of how much and how to assist the poorest. For ill-explained reasons, faith bloomed that the government was smart enough to improve competition through antitrust and regulation. Again it took much effort and bad experience to weaken those beliefs.

Unresolved tensions exist in both Samuelson's initial outlook and in his resistance to growing evidence of his error. However, we should wonder why later generations of economists continue to believe deeply in such interventions. Paul Krugman is more inexplicable than Paul Samuelson.

None of Nelson's three treatments is satisfactory on this problem. *Heaven* overstates kinship to the progressives. In *Religion,* he first notes both the admiration for markets in Samuelson's *Economics* and the interventionist exceptions but fails to explain why this was so. The relevant *Holy Wars* chapter oversimplifies.

Nelson is even more problematic in his treatment of libertarian alternatives. The progressives faced opposition from then conventional economics. Similarly, many prominent economists of the 1930s (including Viner, Schumpeter, Knight, and Pigou) at least initially rejected Keynes's message. The German historical school, the European inspiration of the Progressive movement, quickly attracted strong resistance. From its inception in the 19th century, the Austrian approach to economics attacked intervention. Nelson pays far too little attention throughout the trilogy to Austrian economics, and most of that attention concerns the extreme case of Murray Rothbard.

From forces that none of the literature including autobiographies of the participants makes clear, after World War II, economists at the University of Chicago starting with Milton Friedman developed an alternative approach that advocated less intervention. Nelson in both

Religion and *Holy War* stresses the influence of Frank Knight's teachings. The cause of that leap and why Samuelson, a Chicago undergraduate, did not similarly react to, say, Schumpeter or, for that matter, Knight, is undiscussed.

While the Austrians were devoted to grand statements of principles, Chicago economists provided devastating, economically impeccable evaluations of cherished interventions. These, moreover, were but the most easily distinguished of many anti-intervention economists. As long as the neoclassical synthesis seemed to work, the anti-intervention views of the Austrians, the Chicago people, and others were relegated to the fringes. The disasters from Lyndon Johnson to James Earl Carter should have and widely did shake this confidence. Libertarian views secured wider acceptance. Chicago and Austrian views greatly increased in respectability, and economists became less likely to support intervention.

In sum, *Holy Wars* combines devastating criticism of environmentalism with an inadequately developed effort to show how good economics could remedy its defects. Economic theory is not a religion but rather an indispensible, but too general, analytic technique. It proves potentially consistent with many possible applications. It is strongest in fighting an unending stream of interventionist schemes. Seeking progress, particularly through free markets, may be a "religion," but it will prevail because of the good, albeit short of perfection, it produces.

Environmentalism, however, is most likely another false Messiah. Environmentalism is, in fact, the last refuge of frustrated interventionists. With observable concerns refuted, the interventionists turned to stress outcomes nearly impossible to appraise satisfactorily. Nelson is surely aware that environmentalists wish to replace the mistaken planning of the past with the new correct path. By the way he constructed his book, he grossly underdeveloped the key points of his case. The first is that economics is the only source of sensible appraisal of policies about the environment or other issues. The second is that the pretenses of knowledge, statism, mendacity, libel, and slander of environmentalism need renunciation. Adoption of free-market environmentalism would be desirable precisely because it would destroy environmentalism as we know it.

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