

On the Possibility of Inefficiency

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Abstract

The notion that all observed institutions are efficient has come to be known as the “efficiency always” view in economics. It has been defended most recently and explicitly by Leeson—although it is also associated with other economists such as Barzel, Cheung, Staten and Umbeck, and Alchian et al. First, I explicate the argument in support of the efficiency-always view, and then I defend my modified version of the argument. Second, I attempt to delineate the lines along which skeptical Austrian economists who are not persuaded by the efficiency-always argument might disagree.

JEL Codes: B53, D61

Keywords: efficiency, maximization, Austrian economics

I. Introduction

Every observed institution is efficient. This notion has been associated with the “efficiency always” view in economics. It has been defended most recently and explicitly by Leeson (2019), although it is also associated with other notable economists such as Barzel (2002), Cheung (1998), Staten and Umbeck (1989), and Alchian et al. (1996). My purpose in this essay is twofold: First, I explicate the efficiency-always argument as defended by these authors—using Leeson (2019) as a paradigmatic example—and then I defend a modified version of the argument inspired by Staten and Umbeck (1989). Second, I attempt to delineate the lines along which skeptical Austrian economists who are not persuaded by this modified argument may disagree, and I respond to those objections.

Before I turn to my version of the argument, one question must be addressed. Namely, given the number of arguments already offered in favor of the efficiency-always view, why offer another? The argument I offer does two things I believe the other arguments do not. First, by presenting a deductive argument in standard logical form, the specific assumptions and premises are made explicit. This not only makes it easier to identify which premises are critical for the argument to succeed, but it also requires critics to identify which premises they deny. Second, the argument makes precise its logical

form. Since I present it in a deductive fashion, the only way to deny the conclusion is to either deny the truth of one of the premises or deny the validity of the logical form. It is my impression that the debate over the efficiency-always view is prone to miscommunication, which often results in scholars talking past one another. By offering the argument in the way I do, my desire is to facilitate clarity in discussions between proponents and detractors of the efficiency-always view.

The paper proceeds in the following fashion. Section 2 presents Leeson's argument and defends the modified argument. In section 3 I outline and explain two Austrian criticisms of the modified argument. Section 4 responds to those arguments, and section 5 concludes.

II. Efficiency Always

The insight that all observed outcomes are efficient is not a new one. Stigler (1992) argues that institutions that persist over a long period are efficient, or else they would be replaced by another institution. However, it is not merely the durability of an institution that determines whether it is efficient. The proponent of the efficiency-always view argues that *all* outcomes (and therefore institutions) are efficient. Cheung (1978, pp. 24–27) concisely makes this point in his discussion of the errors of Pigou. He notes that although virtually no economist would envisage inefficiency in a Robinson Crusoe economy, economists frequently perceive inefficiencies at the societal level (where all participants are assumed to be Crusoe-type maximizers). So, if one assumes that every individual is a constrained maximizer, understood to mean that they “achieve the best possible results from their efforts,” it is *impossible* to find social situations in which net gains are not maximized (p. 24). In the “schema” or “paradigm” of neoclassical economics, Cheung continues, it is impossible to find any situation in which additional net gain to society is not zero.

Leeson (2019) is the most recent and most concise defense of the efficiency-always view, so I use it as a paradigmatic example of the view to make the issues around the view plain. Because of the ease with which arguments such as Leeson's can be misinterpreted, I follow the spirit of his paper by presenting both his and my arguments in standard logical form. This strategy also has the benefit of avoiding any confusions later when I consider possible objections to the view. Leeson's efficiency-always argument can be presented as follows:

1. Economic theory is grounded on the assumption that individuals are maximizers.
2. If individuals are maximizers, their choices are efficient.
3. Thus, economic theory implies individuals' choices are efficient. [From 1 and 2]
4. The observed collections of property rights resulting from the choices of individuals are what we call institutions.
5. Therefore, economic theory implies all institutions are efficient. [From 3 and 4]

The conclusion in 5 is what I think a charitable interpretation of the argument would yield. A close reading of the argument shows Leeson is making a specific claim about the implications of *economic theory*.¹ This is a methodological point that echoes Cheung (1978, p. 24) when he states it is impossible to derive inefficiencies within the “schema” of neoclassical economics. The claim that all observed institutions are efficient is a claim about what economic theory implies about observed outcomes.

The efficiency-always view takes for granted that economic theory assumes maximizing behavior. Every economic explanation assumes that individuals are maximizers. This is the starting point of the argument, and therefore premise 1 is assumed. To deny the first premise would be equivalent to saying that one either (a) is not engaged in doing economics (for example, one is doing psychology) or (b) subscribes to some other economic theory that is not built upon the assumption of maximization. The efficiency-always argument is generally aimed at persuading economists who affirm premise 1 but deny the conclusion; however, given that Austrian economists would likely identify as belonging to group (b), this presents an interesting challenge that I address in the next section.

In framing his argument, Leeson (2019) situates it within the “property rights approach” to institutions developed by Barzel (2002). As another form of the efficiency-always view, Barzel’s approach regards individuals as maximizers who secure and exchange property rights until the expected costs of defining and exchanging these rights equal the expected benefits of security and trade. What emerges from this maximization process are collections of property

¹ It is possible to interpret the conclusion as a claim about the world, rather than a methodological point about the implications of theory. In other words, rather than efficiency being an implication of economic theory, efficiency just *is* a property of the real world. This is a stronger claim than the one defended in this paper.

rights. Since maximization entails that expected net benefits are maximized given some set of relevant constraints, the outcomes of such a process, whatever they may be, must be efficient.

Barzel (2002) forcefully argues that available but unrealized gains are impossible if individuals are maximizers. He states, “The maximization assumption implies that every individual will exploit *every* profit opportunity” (p. 129). This should not be taken to mean that profit opportunities are somehow all used up or that no profit opportunities will be present in the future; rather, Barzel is affirming the truth of a simple conditional: “If a profit opportunity is available, it will be exploited.” Simple logic would then tell us that if some imagined profit opportunity has not been exploited, it was never available to be exploited in the first place. If there is a twenty-dollar bill lying on the sidewalk, and it costs twenty-one dollars to pick it up, then it will remain on the ground. Thus, to assume both that individuals maximize net benefits and that their choices are not efficient (that is, some other choices would yield greater net benefits) is logically inconsistent. So, following Barzel, if property rights arrangements are themselves the outcome of a maximization process, those arrangements maximize net benefits and are also efficient. Given Leeson’s (2019, p. 2) focus on applying the efficiency-always view to institutions, he regards these collections of property rights as institutions.²

One important thing to note about the process of maximization is that constraints are critical in the determination of outcomes, institutional or otherwise. Constraints can be cognitive or noncognitive. For example, Leeson (2019, p. 3) regards individuals’ limited ability to reason as a constraint in their maximization problem. That people make mistakes, do not reason perfectly, and fail to see new opportunities are all elements in the set of relevant constraints facing the individual. These constraints, therefore, are critical in determining optimal outcomes. Individuals are maximizers, but feasible optimal outcomes are limited by the constraints they

² It is unclear whether Leeson defines institutions just as collections of property rights, or whether he thinks institutions are epiphenomenal to collections of “economic” property rights considered in Barzel (2002). Specifically, “economic” rights refer to the abilities of individuals to do what they wish with their property regardless of what is recognized by the state or what is legal. Nevertheless, in either case, all outcomes of a maximization process are considered efficient, so whether institutions are defined to be a subset of those outcomes or the entire set of resulting property rights, it is difficult to see why it is a problem for the argument.

face. It is not reasonable to say that because some preferred outcome is imaginable, the outcome we observe is inefficient. To do so would be to fail to specify properly the set of constraints in the problem.

This point was emphasized repeatedly by Armen Alchian to his students (Alchian et al. 1996). John Lott, one of Alchian's pupils most influenced by his efficiency-always view, summarized the view this way: "Armen . . . defined efficiency as 'Whatever is, is efficient.' If it wasn't efficient it would have been something different. Of course, if you try to change anything that is there, that is efficient too" (1996, p. 413). If we are making judgments about the real world, we should take into account all relevant costs. The belief that inefficient outcomes exist is a result of including some costs and ignoring others, for if some other outcome is thought to be optimal, one must explain why it is not observed. The explanation, Alchian believed, is always that the other outcome must not be so optimal to begin with.

Staten and Umbeck (1989) argue that it is logically impossible to obtain a Pareto-inefficient result from a decision problem that assumes maximization. I modify their argument and present it in a way that is generalized to any criterion of efficiency. My argument is also modified in that I start by assuming it is possible to derive an *inefficient* result assuming maximization. I then show that, given this assumption, one arrives at a logical contradiction. If the assumption implies a contradiction, the assumption must be false, thereby demonstrating that maximization logically entails that the resulting outcome is efficient. The argument is as follows:

1. Let C be some criterion of efficiency such that, given any outcome O, O is C-efficient if and only if no other feasible outcome O* exists such that O* is C-superior to O; C-superior means that outcome O* yields greater net benefits than O, as determined by criteria C and measured by some variable X. [Definition]
2. Maximization is a process by which the maximum value of X is found subject to a set of given constraints S. The solution to any given maximization problem is some maximum value X*. [Definition]
3. Individuals' choices are outcomes resulting from a constrained-maximization process (that is, individuals are maximizers). [Assumption]

4. Suppose the observed outcome of some individual's choice, O_1 , subject to the set of constraints S_1 , is not C-efficient. [Assumption]
5. If O_1 is not C-efficient, then there exists a different outcome O_1' , subject to the same constraints S_1 , such that O_1' is C-superior to O_1 . [Negation of 1]
6. If O_1' is C-superior to O_1 , then O_1' yields a greater value of X than O_1 . [From 5 and 1]
7. However, by definition, as the outcome of a constrained-maximization process, O_1 yields the maximum value of X given constraints S_1 . [From 2, 3, and 4]
8. Thus, O_1 yields the maximum value X^* and O_1' yields a higher value of X than O_1 . [Contradiction]
9. Therefore, our original assumption must be false, and O_1 is C-efficient. [Conclusion]

Since the argument above has not specified a specific efficiency criterion C or a measure of gains X, it holds for any criteria we may decide to use. Inefficiency can then never be a logical implication of any theory that assumes or includes as a premise the proposition that individuals are maximizers. This holds regardless of our welfare criteria and whether net benefits are measured according to income, utility, or wealth. Any criterion of efficiency and any measure of gains can fit the bill. Thus, if an economist is operating under the paradigm of maximization, inefficiency is logically impossible. That is what Staten and Umbeck's (1989) argument aims to show and what I think the modified argument here succeeds in demonstrating.

The language in premise 1 is chosen very carefully. Premise 1 is defined in terms of what is "feasible," not what is merely "possible."³ The technical difference between the two is often lost or ignored entirely in discussions about efficiency, which leads to confusion. Feasibility is defined here as the set of outcomes that are attainable holding a single *specific* set of constraints constant. This is, in effect, tantamount to evaluating only those outcomes attainable under a *ceteris paribus* assumption. Possibility, on the other hand, is defined as the set of outcomes that are attainable given *any* set of constraints.

³ One may also distinguish between "optimality" and "efficiency" as another way of establishing the same point, but given the tendency for economists to conflate optimality and efficiency, it seems best to employ a different set of technical definitions.

Possibility is therefore used when comparing different outcomes that are predicted under two or more different sets of constraints. Understood this way, feasibility implies possibility, but possibility does not always imply feasibility.

This distinction is not immediately apparent and may strike some as odd, but let me demonstrate the difference with an example. Consider a market that is initially in equilibrium when a tax is introduced. An opponent of this tax may be tempted to say that the tax creates deadweight loss, and deadweight loss is *prima facie* inefficient. Thus, if we take Kaldor-Hicks efficiency as our criterion, for example, this would entail that people are maximizing in such a way that the dollar value of all resources is not as large as possible. But suppose the tax persists for a sufficiently long period. We may ask the opponent of the tax why, if keeping the tax is inefficient, does it nevertheless persist?

The tax is efficient *given the set of constraints people face*. The mistake made in claiming the tax is inefficient is to forget the difference between what is feasible and what is possible. One is attempting to compare feasible outcomes to those that are merely possible. The initial pretax equilibrium is no longer feasible after the tax is introduced since the underlying constraints changed and the costs of overturning the tax now outweigh the benefits. The deadweight loss created by the tax only exists if the two states of affairs were being compared under the same set of constraints. So saying that the post-tax outcome is inefficient fails to acknowledge that the original equilibrium is no longer feasible under the new constraints. The original equilibrium is possible only insofar as it is the outcome we would expect *if* the underlying constraints were relaxed or it were profitable to overturn the tax. And because we can only evaluate efficiency under one set of constraints at a time, that the initial equilibrium is comparable to the new maximand only under a different set of constraints tells us nothing about whether it is efficient. Feasibility is what matters when we are talking about efficiency. If all it takes to judge some outcome as inefficient is that it is what we would expect under some imagined or nonactual set of constraints, then we are committing what Demsetz (1969) famously calls the “nirvana fallacy.”

Returning to the argument, the critical premise is the assumption of maximizing individuals in premise 3. If individuals are not maximizers, then the argument is unsound. Thus, one of the characteristics of this specific argument is that it makes clear it

defends a kind of *if-then*-ism. The argument does not succeed in showing that efficiency is a property of the world, whatever that may mean. What it shows is that efficiency is a property—or, rather, an implication—of economic *theory*. One cannot accept maximization as the basis of our theory and simultaneously declare that the theory tells us that an observed outcome is inefficient. That is *logically impossible*. So, then, why is the argument so unpopular? Why do people resist the efficiency-always view so vociferously? Those are questions that Leeson (2019) attempts to answer in the second part of his paper. He speculates that the answer has something to do with a desire to improve the world. I regard those questions as being answered satisfactorily, so I do not consider them here. Instead, I am interested in what Austrian responses to the efficiency-always argument would be.

III: Objections and Responses to the Efficiency-Always View

In this section, I delineate two potential responses to the argument from an Austrian approach: (i) the Austrian approach to individual behavior is not based on constrained maximization and is therefore outside the scope of the efficiency-always argument, and (ii) even if the efficiency-always argument is true in theory, economic theory built upon maximization does not tell us anything about the real world. The reason these specific issues are addressed is to motivate the exploration of the larger question whether the maximization assumption at the center of this argument is plausibly compatible with an Austrian approach to economics.

An important clarification needs to be made. I do not regard Austrian economics as monolithic. There are diverse views about how to characterize the scope, purpose, and methods of Austrian economics. Accordingly, this analysis is necessarily limited, but the goal in this section is not to encompass the whole Austrian tradition. It is to invite dialogue.

The first issue I wish to touch on is the microfoundations of Austrian and Walrasian economics. Following Martin (2015, p. 31), the Walrasian approach rests upon the foundation of constrained optimization while the Austrian approach is built upon a foundation of “choice under uncertainty.” Both methods are methodologically individualist, and the differences between them are “subtle,” according to Martin; for example, the different microfoundations “make little to no difference to how Austrians would analyze partial equilibrium situations” (p. 30). However, there are large differences

when it comes to analyzing large-scale, market-level social phenomena and questions of political economy. According to this view, Austrian microfoundations are not explicitly reliant on maximizing behavior as an essential component of the model of individual behavior, but the two approaches resemble each other in practice at some levels of analysis.

For example, Austrian economists do not shy away from drawing supply-and-demand graphs, even though doing so means they are doing comparative statics. Accordingly, it would seem that the denial of the individual-maximization assumption in the modified efficiency-always argument causes no significant problem for the Austrian economist who rejects the efficiency-always conclusion. Although Austrian and Walrasian economics may resemble one another in practice at some level, the argument presented above applies only to economic theory that is built upon the foundation of individual maximizing behavior. If the Austrian model of individual behavior does not assume maximization, then it does not matter how much it resembles Walrasian comparative statics; efficiency is not a logical implication of the theory.

The second response is one highlighted by Sautet (2015) in his narrative of the historical development of market process theory. In his essay, Sautet traces the origin of the efficiency-always view to the period following the Second World War when Stigler extended perfect-competition analysis “to all aspects of human life” (p. 71). He writes that “after Stigler, the assumption is that markets are always in equilibrium, for if we include the relevant costs in the analysis, an efficient-always situation obtains” (p. 71). The problem with this approach is its inherent inapplicability to the real world. According to Sautet, general equilibrium theory is so abstract as to only describe an abstract economy; no such economy exists. The entire enterprise is one of a mathematical nature, devoid of real-world economic phenomena and devoid of the “human element” (p. 74). It is not to be understood as an explanation of the real economy (pp. 73–74).

In a later section, Sautet echoes Martin’s description of the differences in microfoundations between mainstream neoclassical economics and Austrian price theory when he appeals to McNulty’s (1967) “two strains” of market theory. They are what Sautet refers to as the “genetic-causal” tradition of the Austrians and the “instrumental-causal” tradition of mainstream economics. Sautet (2015, p. 74) regards the differences between the two approaches as almost mutually exclusive. The genetic-causal tradition is teleological

and seeks semantic precision, while the instrumental-causal approach is nonteleological and seeks syntactic precision. Although he acknowledges that the two approaches have at times served as complements, he regards the instrumental-causal approach's desire to develop syntactical elegance as coming at the expense of semantic elegance. In this respect, one cannot "fit human action into the Cournot-Walras mathematical box" (p. 74).

This echoes a similar critique by Boettke and D'Amico (2010), who argue that neoclassical theory's ability to make judgments about welfare is seriously undermined by its lack of any theory of disequilibrium adjustment. As they state, "Without a theory to explain the process of adjustment from disequilibrium to equilibrium, the first and second welfare theorems and the corresponding notions of exchange efficiency, productive efficiency, and product-mix efficiency would be little more than a set of unjustified beliefs" (p. 89). Without any theory about the tendency to move from disequilibrium prices to long-run equilibrium values, there is no underlying theoretical justification for neoclassical welfare claims. This argument rests primarily on one interpretation of Kirzner's theory of entrepreneurship, as noted by Foss and Klein (2010, p. 148). However, Foss and Klein opt for a different interpretation, in which "the existence or non-existence of equilibrating tendencies . . . is relatively unimportant" and markets are efficient insofar as the market process ensures that "consumer sovereignty . . . obtains at all times" (p. 149).

IV. Responses to Objections

What can we say of these responses? The first response I comment on is the response offered by Martin (2015). Assuming Martin regards the microfoundations of choice under uncertainty and constrained maximization as entirely distinct approaches, I regard this to be one of the stronger rejoinders if one wishes to reject the efficiency-always view given that it simply denies the crucial premise in the argument. Simply stated, Martin's position is that Austrian economics is ultimately built upon a different foundation from Walrasian economics.

As a reminder, the efficiency-always argument shows that any economic theory that assumes maximization cannot derive as a result an inefficient outcome. If one does not accept maximization, then the result does not follow. The efficiency-always argument is intended to convince economists who already accept maximizing

behavior as a part of economic theory, so it is unlikely that someone who holds to a theory built upon choice under uncertainty will find the efficiency-always view attractive in the first place. Now, whether one regards this alternative theory of individual action as a viable alternative is another question entirely, and one I do not take up here. However, if one could make a strong enough case that choice under uncertainty is just another way of analyzing the assumption that individuals are maximizers, the response would lose some of its force.

For example, consider the “value scale” method of analyzing individual behavior championed by Mises and Rothbard and compare this to the standard neoclassical usage of utility functions—which I regard to be paradigmatic examples of the choice-under-uncertainty and constrained-optimization approaches, respectively. According to the former, individuals choose the highest-ranked option on their value scale, and according to the latter, individuals choose the preference option that yields the highest feasible value of utility given their utility function. In both cases, individuals are choosing their best possible options. In other words, individuals essentially do the best they can. If this is what we mean when we are talking about maximizing behavior, it might be difficult to understand why a choice-under-uncertainty approach would not also assume the individual-maximization assumption in some sense. Although both approaches may be different methods of representing or analyzing maximizing behavior, they both appear to be attempts at describing the same underlying reality—namely, that individuals maximize welfare as they conceive it.

As for Sautet, I find his response most interesting since it makes some interesting philosophical and methodological assumptions. Specifically, the argument expresses a skepticism about the ability of Walrasian economic theory to tell us true things about the world. It regards mainstream economic theory as too abstract and therefore unable to describe the dynamic nature of human action. But, again, if we focus on the simple assumption of maximizing behavior, does the criticism still hold? Is something as simple as the maximization assumption enough to divorce our theory from the world?

The answer to those questions will depend on several matters. First, one will have to possess at least moderately strong intuitions supporting some kind of scientific realism. It must be at least possible, in principle, for our theories to tell us something true about the world in order for a specific theory to get off the ground. Second, if one is not optimistic about the ability of Walrasian economic

theory to illuminate the world, our skepticism should be directed in part at maximizing behavior since it is a crucial element of the theory's foundation. If we follow Sautet's intuition that our assumptions should approximate reality, what defense can be mustered in defense of the maximization assumption?

A long treatment of this question is beyond the scope of this paper, but I wish to sketch a view of what such an account would look like. Maximizing behavior, as understood by most—if not all—defenders of the efficiency-always view, can encompass a wide range of behaviors. Following Becker (1992), we could assume that people maximize welfare as they subjectively understand it. There are no assumptions made about what ends they choose, as long as they see it as increasing their own welfare. One would also need to establish that maximization itself is not purely instrumental. That is to say, what we *mean* by maximization is some kind of rational action that is not purely instrumental. It is not obvious how many theories would fit the bill, but following the common insistence by proponents of the efficiency-always view that people do the best they can, a concept like Rizzo and Whitman's (2019) "inclusive rationality" may offer a promising foundation.

According to this definition of rationality, rational action encompasses purposive action, with people choosing the best means to attain those purposes. If people do the best they can to achieve those ends, then their behavior can be described by the assumption of maximization. I hinted at this view earlier in this section in my response to Martin. I want to make it clear, though, that I am not referring to the maximization of a utility function, which is merely a mathematical *representation* of maximizing behavior. I am interested in whether maximization itself is an apt description of an underlying reality. Ultimately, it may be possible to flesh out a case in which rational behavior, as understood by Rizzo and Whitman's (2019) description of inclusive rationality, just is what we are talking about when we assume individuals engage in maximizing behavior.

V. Conclusion

Several large issues were covered in this short essay, so I wish to recapitulate some of the important claims and arguments made here. First, the primary goal was to convince those economists who accept the assumption of individual maximization that all observed outcomes are efficient and that inefficiency can never be a logical implication of an economic theory that assumes or includes as a

premise the proposition that individuals are maximizers. The underlying motivation for presenting the argument in standard logical form was to facilitate clarity in the debate surrounding the efficiency-always view and to make the objections to the view explicit. In addition to the argument, I also attempted to distinguish between feasibility and possibility in the hopes that doing so will prevent miscommunication between efficiency-always proponents and critics.

The efficiency-always argument developed in this paper, if successful, has a few implications for the way economists think about doing welfare economics. The efficiency-always view precludes economists from using inefficiency as a way of judging the world. This is a point also emphasized by Leeson (2019). If all observed outcomes are efficient, then the concept of efficiency becomes vacuous as a normative category in economics. Acceptance of the truth of the efficiency-always view forces us to recognize that when we declare some outcome to be inefficient, we must make explicit the alternative constraints under which the desired (that is, efficient) outcome is possible. I do not think the efficiency-always view requires economists to give up normative analysis, but it forces them to bring their normative commitments to the forefront, where they can be confronted and debated.

In addition to my defense of the efficiency-always view, I considered two possible objections from the Austrian perspective. The two responses amounted to (i) a denial of the maximization assumption as a necessary part of Austrian microfoundations, and (ii) the view that, regardless of whether the efficiency-always argument is sound, economic theory built on maximization tells us little to nothing about the real world. In my responses to these objections, I attempted to sketch a plausible way in which Austrian approaches to economics can be understood to be amenable to economic theory built upon the assumption of individual maximizing behavior and therefore the efficiency-always view. In order to do so, I appealed to Rizzo and Whitman's (2019) concept of inclusive rationality, which I regard as sufficiently broad to provide a foundation for future work in this area. The merits of such a project are unknown, but I am optimistic that such an account could yield interesting implications for the efficiency-always view and other economic methodologies such as that of Austrian economics.

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