Journal of Contextual Economics, 142 (2022) 3: 247 – 272
https://doi.org/10.3790/schm.2024.375232

It Takes a Model to Beat a Model*

By Michael C. Munger**

Abstract

Generating verisimilous and policy-relevant models of the macroeconomy in a democracy is a challenge. Three broad theoretical perspectives are considered: (A) the orthodox Keynesian Synthesis; (B) the Austrian response; and (C) the Public Choice response. The orthodox view is inaccurate, but has the advantage of being "a model." The Austrian critique, while largely correct, generates no usable political advice. The Public Choice critique provides a model for understanding the likely form and effects of government policies. But Public Choice scholars have missed the policy thrust of Progressivism, which accounts for the problem of political equilibrium, and insulates technocratic power from voters and interest groups. Keynesian orthodoxy has consistently won because it is playing a different game.

JEL Codes: B22, P11

Keywords: Models, Public Choice, Keynesianism, Austrian School, Equilibrium

> "It is astonishing what foolish things one can temporarily believe if one thinks too long alone, particularly in economics (along with the other moral sciences), where it is often impossible to bring one's ideas to a conclusive test either formal or experimental." (Keynes [1936] 1964, vii –viii)
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> "The answer is that *it takes a theory to beat a theory*; if there is a theory that is right 51 percent of the time, it should be used until one comes along that is better. (Theories that are right only 50 percent of the time may be less economical than coin-flipping)." (Stigler [1942] 1987, 7; emphasis added)
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> "I play by the rule that *it takes a model to beat a model.*" (Sargent 2011, 198; emphasis added)

1. Introduction

In the third edition of his textbook, *Economics*, Paul Samuelson ([1948] 1955) proposed a "grand neoclassical synthesis," which was "a synthesis of (1) the valid core of modern income determination with (2) the classical economic principles" (*ibid.*,

* The author is grateful for comments from participants at the Law and Economics Center Conference in Chicago, Illinois, September 20 – 21, 2021, which gave rise to the central idea of this paper, and also for the useful comments made by many during the Liberty Fund conference, but especially Roger Koppl and Richard Wagner. Errors and problems that remain are entirely the fault of the author.

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vi). He argued that: "In recent years 90% of American economists have stopped being 'Keynesian economists' or 'anti-Keynesian economists'. Instead they have worked towards a synthesis of whatever is valuable in older economics and in modern theories of income determination. The result might be called neo-classical synthesis and is accepted in its broad outlines by all but about 5% of extreme left wing and right wing writers" (*ibid.*, 212).

Samuelson ([1948] 1955) continued later:

> By means of appropriately reinforcing monetary and fiscal policies, our mixed-enterprise system can avoid the excesses of boom and slump and can look forward to healthy progressive growth. This fundamental being understood, the paradoxes that robbed the older classical principles dealing with small-scale "microeconomics" of much of their relevance and validity – these paradoxes will now lose their sting. … Perhaps for the first time – the economist is justified in saying that the broad cleavage between microeconomics and macroeconomics has been closed (*ibid.*, 360).

The "paradoxes" included the rapidity of wage and price adjustment, the ability to make accurate forecasts about the future under uncertainty, and the apparently stable equilibrium of an economy with a shortfall in aggregate demand and labor markets, meaning that unemployment was persistent in the absence of policy response.

In this article I consider the difficulty of generating verisimilous and "usable" policy-relevant models of the macroeconomy in a democracy. I use three broad theoretical perspectives: (A) the Keynesian/Progressive/Neoclassical Synthesis (de Vroey and Duarte 2013), which I claim is the orthodox view, taught in the modal university "macroeconomics" class; (B) the Austrian response; and (C) the Public Choice response. The question ultimately is whether models can be used to evaluate policy recommendations in a rigorous way; the notion that the answer is "yes" is inseparable from the orthodox research program itself.[1]

My conclusion is that the Austrian critique is verisimilous, but is not usable, in a setting where political advice and model justification as "science" simply *must* be provided. Right or wrong, the "it takes a model to beat a model" maxim makes the Austrian response politically ineffective. The Public Choice critique, by contrast, does provide a model for understanding the likely form and effects of government policies. But Public Choice scholars have missed the policy thrust of the Progressive political agenda, at least as filtered through the Pigou-Lange-Lerner-Samuelson policy prism. Progressives are fully aware of the problem of political equilibrium, and would solve it by concentrating technocratic power beyond the control of voters and interest groups. As a result, the Public Choice critique has not been effective, either, at least in the policy debates central to evaluating Progressive proposals.

[1] For an empirical examination of whether economic theory is in any a contribution to "theory," see Klein and Romero (2007). Their critique is rather sharper than the one advanced here, claiming that economic models not only fail to test a theory, but in fact often fail even to state a theory. They look for "Theory of what? Why should we care? and What merit in your explanation?" In that telling, which is certainly an accurate view of some parts of economics, the only thing that matters is having a model, and the need that that model embody and elaborate a theory is secondary, at best. See also Klein (2014).

Of course, if all this is true, then there is a deep puzzle that needs to be addressed: why is the social and commercial world so much better than it was 1,000, 500, 250, or 100 years ago? The difference is not small; slavery in most of its forms, including state socialism, has mostly been banished, except for Cuba, North Korea, Venezuela, and the febrile minds of many American university professors. Taxes and government spending have increased, even in relative terms, but not to the point where progress and prosperity are impossible. Are models really that important, after all?

The article is organized as follows: the next section considers the "neoclassical synthesis" and the Austrian economics response. Section 3 considers Public Choice and "political equilibrium." The fourth section looks at the Progressive response to both critiques of the neoclassical model, and identifies the mistake that Public Choice scholars have made in "straw-manning" the Progressives. Sections 5 and 6 describe the actual Progressive "model," and the reasons that it fails, even on its own terms. Section 7 concludes.

2. The Neoclassical Synthesis and the Austrian Response

As Backhouse (2015) notes, there are at least three senses in which Samuelson saw the "synthesis" as offering a more "general" view of the macroeconomy. The first was that it encompassed both equilibrium and nonequilibrium approaches, with equilibrium being the narrow "special case"; the second was that the mathematical foundations could be written down, giving a shared scaffolding on which differences in modeling could be identified clearly; and finally, the synthesis represented the union or combination of existing models, and therefore included both (and all others) as special cases.

Objections to the traditional "neoclassical synthesis," or its modern manifestation as the expectation-augmented "3-equation model" (Clarida *et al.* 1999; Woodford 2003; Carlin and Soskice 2005) run afoul of the oft-stated – but rarely justified – claim that "it takes a model to beat a model." The highest state of the "art" of macro-modeling is the different versions of the dynamic stochastic general equilibrium (DSGE) model (Smets and Wouters 2003). Regardless of whether one prefers the Keynes-inflected 3-equation model or the "saltwater/freshwater synthesis" DSGE approach, these models provide a means of representing, and evaluating, policy simulations and "exogenous shocks."

The problem with incorporating lags, expectations, and notions of equilibrium is that it raises the possibility that while the government may not be able to make things better, it can still make things worse (Koppl 2002). This is sometimes called the "freshwater economist" (Hall 1976; Gordon 2003) response within the macro community, narrowly focusing on the response from Chicago, University of Minnesota, and other "river-dwelling" research units, based on the Lucas Critique (Lucas 1976; Galbács 2020).

> [The freshwater economists] argued that a large fraction of aggregate fluctuations could be understood as an efficient response to shocks that affected the entire economy. As such, most, if not all, government stabilization policy was inefficient.

> The intuition of the result seemed especially clear in the wake of the oil crisis of the 1970s. Suppose a country has no oil, but it needs oil to produce goods. If the price of oil goes up, then it is economically efficient for people in the economy to work less and produce less output. Faced with this shock, the government of the oil-importing country could generate more output in a number of ways. It could buy oil from overseas and resell it at a lower domestic price. Alternatively, it could hire the freed-up workers at high wages to produce public goods. However, both of these options require the government to raise taxes. In the models of the freshwater camp, the benefits of the stimulus are outweighed by the costs of the taxes. The recession generated by the increase in the oil price is efficient (Kocherlakota 2010).

At least the freshwater economists had a model; the Austrian response to writing down equilibrium models of the political economy is simply to say that "you can't do that."[2] The problem is that the politically *perceived* need for a model to represent the aggregate economy and capture the effects of policy interventions is overwhelming. The claim that "*A bad model is worse than no model at all*" is a difficult claim to sustain, because the counterfactual cannot be clearly specified.

Remember, the Austrian claim is that attempts to "solve" the business cycle likely make it worse. If we "write down a model," then we are assuming that people will make the same mistakes in the future that led to the policy volatility of the past, as if people don't learn. The belief that policy makers know what to do, and when, is therefore simply false, if past policy effects derived from mistaken reactions to distorted price signals. Ignoring this fact leads to problems with expectations and induced "correlated errors" among economic actors at every level, which is actually the reason that the business cycle is so pronounced (Boettke and Luther 2010; Foldvary 2015) in the first place.

But the Austrian critique is sharper than (just) being a precursor of Friedman's "long and variable" lags insight. Austrians hold that the very idea of the synthesis "macro model" is incoherent, for two reasons. First, the level of aggregation required to define the variables – GDP, employment, price level – rules out any identifiable vectors of cause and effect. The act of aggregating a complex system such as an economy would be like pouring together 10 different colors of paint, and then theorizing about the bland and meaningless gray color that results.

Even just aggregating the capital stock is a problem: an inventory of the "equipment" of a hospital, on revealing that there 11,451 "pieces of equipment," would tell you little about what a hospital staff is capable of doing in an emergency. As I discussed in my own recounting of the experience of seeing highly specialized, capital-intensive medical operations (Munger 2022a), having "equipment" is not enough. It is the capital *structure*, organized in a particular way at a point in time, extending into an uncertain future, that makes capital valuable, or useless.

Second, even to the extent that the aggregates have meaning, the empirical relationships among these variables are never "in equilibrium," and in fact the relationships are not even stable at any particular non-equilibrium level. A snapshot of the data, or the aggregation involved in aggregating data over a month in order to write

[2] Of course, if it is actively misleading to "do that," meaning write down some fixed model expressing stable relations about aggregate variables, then the response has merit. But it takes a model to beat a model.

down a model, is already hopelessly out of date by the time it is used to analyze a simulated "shock," because the kaleidic changes in economic relationships are by definition unpredictable. This is a general problem in the social sciences (Munger 2019), but the problem of even short-term parameter stability is acute in macro models (Stock and Watson 1996; Oprea and Wagner 2003).

The difficulty faced by the Austrian critique is the oft-cited (as in the quotes at the beginning of this paper) requirement that it takes a model to beat a model. A model is usually a set of equations that can be written down, and whose terms can be manipulated to yield predictions for simulations of policy measures. At one level, the Austrian critique of socialist planning operates simply at the level of incomplete information, where planners cannot get accurate, timely local information (Mises [1920] 1975; [1922] 1951; Hayek 1937; 1948). That critique is really an empirical question, though, in the sense that it makes a (falsifiable) claim that it is impossible – not difficult, impossible – to be able to "calculate" the changing patterns of production and resource allocation necessary to "run" an economy. That's not a better model, but seems like a rejection of the use of models because our measurements "are not good enough, yet." And of course that was precisely the response of Oskar Lange (1936), who went so far as to congratulate (sarcastically) the contributions of Ludwig von Mises in pointing out that the calculation problem was an unsolved difficulty.

> Socialists have certainly good reason to be grateful to Professor Mises, the great *advocatus diabol* of their cause. For it was his powerful challenge that forced the socialists to recognize the importance of an adequate system of economic accounting to guide the allocation of resources in a socialist economy. Even more, it was chiefly due to Professor Mises' challenge that many socialists became aware of the very existence of such a problem. And although Professor Mises was not the first to raise it, and although *not all socialists were as completely unaware of the problem as is frequently held*, it is true, nevertheless, that, particularly on the European Continent (outside of Italy), the merit of having caused the socialists to approach this problem systematically belongs entirely to Professor Mises. Both as an expression of recognition for the great service rendered by him and as a memento of the prime importance of sound economic accounting, a statue of Professor Mises ought to occupy an honorable place in the great hall of the Ministry of Socialization or of the Central Planning Board of the socialist state (*ibid.*, 53).

The solution that Lange envisioned was "trial and error;" as we shall see, the notion that a planner can solve the calculation problem through trial and error persists to this day. But it may be useful to give the original context in which Léon Walras had thought of *tâtonnement* in "What must we do in order to prove that the theoretical [by which he meant mathematical] solution [of the problem of the determination of equilibrium prices in a multicommodity universe] is identically the solution worked out by the market? Our task is very simple: we need only show [in the case of pure exchange] that the upward and downward movements of prices solve the system of equations of offer and demand by a process of groping ['par tâtonnement']" (Walras [1874/1877] 1952, 170, translated).

Walras is claiming that the actual market solution approximates the theoretical ideal, or moves toward that ideal, by a process of "groping" (a better translation, actually) or "trial and error." Walras was probably wrong about the initial claim for the existence of

equilibrium in actual market processes, but his claim about the direction of adjustment might be allowed.

The substitution made by advocates of socialist planning is important and cannot be accepted as obvious or innocuous. Lange, and advocates of planning since (*e. g.*, Lerner 1938; 1944), must claim that the *actual* planning solution imposed from the top down by the central authority approximates the *theoretical ideal*, or at a minimum moves society toward that ideal, by a process of groping, or trial and error. The difference is that in decentralized markets the trial and error takes place on myriad dimensions, and is conducted independently by myriad actors. It is the very fact that the efforts at trial and error are uncoordinated and diffuse that gives the process its power, because prices then reflect the aggregate consequences of all these (otherwise) uncoordinated discovery efforts.

The government, by contrast, is trying just one thing, or just one policy, at a time, because that is all that centralized monopoly planner can try, at least in a socialist system. The belief was that trial and error and *tâtonnement* could solve the problem, if tinkering was allowed. This belief is incorrect, because the scale of the tinkering precludes discovering anything. It is the aggregation of myriad dispersed tinkerings, going on independently, that cause the price system to work.

We will come back to this claim, about "trial and error," in a later section, because the belief that some form of groping, or trial and error, solves the discovery problem for top-down state-mandated industrial plans even today.

3. Public Choice and "Political Equilibrium"

The Public Choice critique of macro models is related to the Austrian critique, but with an important difference relating to "political equilibrium." One of the key results in Public Choice literature is the potential incoherence, and manipulability, of majority rule processes, especially faced with collective action problems and interest group power (Arrow 1953; Olson 1965; Wagner 1966; Peltzman 1976; Brennan and Buchanan 1980; McCormick and Tollison 1981; Riker 1982; Denzau and Munger 1986; Tollison 1988; for reviews, see Mueller 2003 and Zywicki 2016).

On the other hand, it is possible to argue that this problem of instability, or manipulability (Dowding and Hees 2008), is actually not so bad. As Buchanan put it:

> If, indeed, preferences differ over collective alternatives, and if these preferences are such as to generate cycles in voting outcomes, would not this result be precisely that which is best? Any attainment of a unique solution by majority voting would amount to the permanent imposition of the majority's will on the outvoted minority. Would not a guaranteed rotation, as produced through the cycle, be the preferred sequence here? In such a cyclical sequence, the members of the minority in the first round are enabled to come back in subsequent rounds and ascend to majority membership. My concern, then and later, was always with means of preventing discrimination against members of minorities rather than ensuring that, somehow, majority rule produced stable sets of political outcomes (2003, 3).

The difficulty is that there are two quite different metrics of "good" public policy at work here. Buchanan's view, as he clearly points out when he says, "my concern was

always with means of preventing discrimination against members of minorities rather than ensuring that majority rule produced stable sets of political outcomes," is taking the view that majority rule is nothing more than *a procedure for choosing outcomes*, not a mechanism for discovering truth.

Following this line of argument, Riker claimed: "Outcomes of voting cannot, in general, be regarded as accurate amalgamations of voters' values. Sometimes they may be accurate, sometimes not; but since we seldom know which situation exists, we cannot, in general, expect accuracy. Hence we cannot expect fairness either" (1982, 236).

As I myself put it, though more colorfully:

> There is a definition [of democracy] people sometimes pretend to believe, though they back off quickly if you press them. It is much narrower, and goes like this: If a group is constituted to decide as one, then any numerical majority of that group can make decisions. These decisions can be binding on all (majority rules the totality), or binding just on some class or group specified in decision itself (majority rules the minority). While I have already said that this (or any other) definition is not really useful, this version seems to be the one that many people accept, or act like they accept.
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> The problem with the narrower definition is that no one could really believe it, at least not in isolation from lots of other assumptions. One is left to wonder whether democracy, in the sense of rule by the people, is a conceit or a fraud. As a conceit, it may be harmless enough. It may even be useful, because it celebrates the wisdom and good will of the common person. This sort of mythology has a calming, leveling effect on public discourse.
>
> If a fraud, however, then we are in darker and more forbidding terrain. The pretense that we find rectitude in the multitude is dangerous. The public invocation of the public wisdom simply holds citizens down whilst we steal their purses, or send their children off to war (Munger 2005, 115–6).

The point of the Public Choice critique is to break the necessary link between the outputs of majoritarian institutions and "the good" from a deontic or even a utilitarian perspective. Not only is there no necessary connection to moral "goodness," but voting outcomes need not even be Pareto optimal (Keech and Munger 2015). Combining this claim with the Austrian critique, we have the problem that public officials can't possibly have enough information to do the right thing, but public officials in a democracy won't want to select the "omniscient dictator" solution even if they could identify it.

Following the logic of majority rule instability further, we come to understand that the outcomes of democratic systems based on majority rule institutions are unpredictable. Actual voting outcomes can be either arbitrary or imposed by agenda power, because of the non-existence of "preference-induced equilibria." In the Public Choice literature, this has been seen as leading to "structure-induced equilibria" (Shepsle and Weingast 1981, in response to Tullock 1981). The problem is that this political equilibrium hands over disproportionate influence to interest groups and political leaders with low transaction costs of influencing the agenda (Weingast 2005; Wagner 2017; Holcombe 2018).

One might claim the Public Choice critique encompasses the Austrian critique, or a caricature of it, in the sense that Public Choice scholars note that central plans and the

technocrats who "run" them lack the information that would be required to implement the solution that would be chosen by an *omniscient* despot. But technocrats likewise lack the incentive to act as a *benevolent* despot would act, even if they possessed the information required.

4. The Caricature Version of Progressive Macro Policy Models

Consider the problem of optimal policy, in the way it is usually stated by Progressive advocates for government intervention in the economy (see, *e. g.*, Abel and Bernanke [1995] 1999; Woodford 2003). The goal is to use certain levers of policy to influence aggregate variables such as employment, inflation, and aggregate demand.

The task assigned to the government, in the "planner's problem" or the "benevolent dictator's problem," is to identify a set of policy tools, and then to treat the different settings of these tools as being the values to be determined in an optimization problem. This the vector of policy instruments $\boldsymbol{x}= x_1, x_2 \ldots x_j \ldots x_n$ where j is the j^{th} policy and values of x can be continuous, or discrete alternative policies, or a "switch" (1 if "on," 0 else). The "optimal" value $\boldsymbol{x}^*$ is that vector of policy "settings" that solves the following optimization problem:

$$\text{Total Social Welfare}=f(\boldsymbol{x}) + \lambda g(\boldsymbol{y})$$

where $\boldsymbol{y}$ is the vector of potential resources in the social transfer function, or "production possibilities frontier," and λ is the Lagrangean multiplier that describes the marginal value of additional resources to the system.

Of course, selecting $\boldsymbol{x}^*$ will only select the optimal aggregate policies for the total social or aggregate level of production. The decision about distribution is a political decision, but assuming the existence of a social welfare function, the implementation of the distribution stage of the problem is simply a problem of institutional design.

You think I'm making this up. But this is precisely the statement of the Bergson-Samuelson solution to the central problems of welfare economics. The two great "welfare theorems" (for a clear statement, and historical development, see Samuelson, 1947; for a critical review, see Stiglitz, 1991) show, first, that any "competitive equilibrium" – under a set of restrictive assumptions – is Pareto optimal, meaning that exchange systems will be efficient. The problem is that there are many Pareto optima, and some are likely better than others, even from a (behind the veil of ignorance) universal viewpoint. A relatively even distribution of "welfare" is likely going to be chosen by a wide margin over the silly Pareto optimum "Person i gets everything, all others get nothing." But the second welfare theorem shows that any Pareto optimum can be achieved, with just minor friction and transaction costs, with the appropriate implementation of endowments, or (what amounts to the same thing) a set of taxes and subsidies that achieve the correct endowment of resources.

All the details, *all of them*, are just matters of implementation, institutional design, and political choice. As it was first clearly put by Abraham Bergson: "If the production functions and individual indifference functions are known, they provide sufficient in-

formation concerning the Economic Welfare Function for the determination of the maximum position if it exists" (1938, 322).

In effect, there are two parts to the planner's problem, each with multiple stages:

Part I: Setting

1. Obtain measures for what people want, or more accurately proxies for what they are *allowed* to want. Use objective features of needs for food, shelter, and clothing.
2. Put this into the equivalent of the Edgeworth Box, for *n* people and *m* goods. Complex calculations, but not conceptually difficult.
3. Construct the production possibilities frontier (PPF) for the society, embodying information about technological capacities and the physical quantities of all the resources society controls.
4. Construct the social welfare function (SWF) for the society, embodying all the information about marginal valuation and political "standing" to have needs and wants counted.

Part II: Implementation

Start at the highest level of aggregation, and work downward:

1. Using the SWF and the PPF, calculate the optimal total allocations of resources and the total production of all goods and services.
2. Use that point to dimension the societal Edgeworth Box. This has to be possible, without waste, because of the First Welfare Theorem.
3. Use rules of Rawlsian political "justice as fairness" to allocate these resources fairly to individuals. This has to be possible, because of the Second Welfare Theorem.

The result is a complete, general equilibrium solution, at both the aggregate level and the level of each individual, at least under the assumptions of the "perfect competition" model of equilibrium. Conveniently, deviations from the assumption of the model of "perfect competition" are, in each instance (asymmetric information, public goods, externalities, large increasing returns to scale; for a review, see Ledyard [1987] 2008) an additional rationale for government action and control of market processes.

This is the version of the model to which I have always considered the "Public Choice objection" to be a reaction. The problem of majoritarian political institutions is that the "discovery" process in counting votes, or pursuing top-down technocratic solutions, has information problems so crippling that it cannot be taken seriously. And the process of using elections to choose some officials, and then bureaucratic delegation to choose other officials, has no hope of solving the immanent "agency problems" that torpefy state action. Even if one grants (implausibly) that the discovery/information problems can be put to one side, the incentive problems are still more than enough to make state action unlikely to be successful in choosing the optimal outcome in a democracy (Wagner 1983; Munger 2022b).

But a more careful reading of the historical development of the Progressive macro policy paradigm (and having things explained to me at some length by my Duke col-

league, Steve Medema, while he was beating me by about a stroke per hole at golf), has forced me to rethink my long-held views. The fact is that in some ways the Progressive macro modelers, beginning in the 1920s, invented a kind of proto-Public Choice theory that recognized that democracy was actually the main problem their program faced. Once this is made clear, many of the policy choices of the Progressives make more sense, up to and including the events of the past three years.

5. The More Accurate Version of the Progressive Macro Model View

It is useful to review the original formulation of the "market failures" that Progressive planners hoped for the power to fix, or at a minimum mitigate. Francis M. Bator (1958) summarizes the argument for "market failure"-based government interventions this way:

> It is the central theorem of modern welfare economics that under certain strong assumptions about technology, tastes, and producers' motivations, the equilibrium conditions which characterize a system of competitive markets will exactly correspond to the requirements of Paretian efficiency. Further, if competitively imputed incomes are continuously redistributed in costless lump-sum fashion so as to achieve the income-distribution implied by a social welfare function, then the competitive market solution will correspond to the one electronically calculated Pareto-efficient solution which maximizes, subject only to tastes, technology and initial endowments, that particular welfare function (*ibid.*, 351).

Actual market outcomes are evaluated in terms of explicit comparisons to the Pareto efficient results obtained under the "strong assumptions."[3] Violations of the strong assumptions are grouped and categorized as "market failures," as Bator notes: "What is it we mean by 'market failure'? Typically, at least in allocation theory, we mean the failure of a more or less idealized system of price-market institutions to sustain 'desirable' activities or to estop 'undesirable' activities. The desirability of an activity, in turn, is evaluated relative to the solution values of some explicit or implied maximum-welfare [at the equilibrium solution]" (*ibid.*).

Bator's notes that market failures can take several forms (this is his "anatomy" description: (1) (non-)existence of equilibrium; (2) accuracy of price signals; (3) consistency of incentive (private action produces group benefits); (4) market structure, including economies of scale and monopoly; and (5) enforcement, resting on a legal system that enforces property rights and adjudicates disputes, and a regulatory system that follows the rules. His central question is whether a "*decentralized* price-market game will or will not *sustain* a Pareto-efficient configuration" (*ibid.*, 355; emphasis added).

Bator's argument builds on the work done earlier by theorists, particularly Arthur Cecil Pigou, who had raised questions about the capacity of decentralized price mechanisms to generate accurate *relative scarcity* signals in the form of *prices.* In the presence of what have come to be called "externalities," marginal cost pricing does not line

[3] As noted above, Ledyard ([1987] 2008) argues that violations of each of the basic assumptions of perfectly competitive markets provide a one-to-one rationale for government intervention.

up with efficient allocation, because the social cost diverges from marginal cost perceived by the seller (buyer). The difference between marginal social cost and prices accounting only for private costs would need to be corrected by regulation, possibly a system of taxes and subsidies, according to Bator's interpretation of Pigou.

And this seems a fair reading of Pigou ([1920] 1932), who did in fact argue that: "[i]n any industry, where there is reason to believe that the free play of self-interest will cause an amount of resources to be invested different from the amount that is required in the best interest of the national dividend, there is a *prima facie* case for public intervention" (*ibid.*, 331).

It is this passage that later led Ronald Coase and others to call the market failure approach "naïve." But, as has been noted by Backhouse and Medema (2012), it would behoove critics to poke around a little to see just what Pigou meant by *prima facie.* Backhouse and Medema identify the criticism of the "Cambridge" school, the precursor to what I am identifying as the Progressive macro policy advocates. Backhouse and Medema give useful examples of what they see as a caricaturing of the "Cambridge" view (see Buchanan 1962, 17; Coase 1960, 28–42; 1974, 357–60, 372–6). It is that caricatured "Public Choice" view that has become the way that the Progressive model is often characterized. But it turns out that the real story is, to say the least, more complex.

Pigou had been quite clear about some qualifications to his baldly optimistic statement of 1932, quoted above. As early as 1912 Pigou had said:

> The case … cannot become more than prima facie one, until we have considered the qualifications, which governmental agencies may be expected to possess for intervening advantageously in this class of matter…
>
> It is not sufficient to contrast the imperfect adjustments of unfettered private enterprise with the best adjustments that economists in their studies can imagine. For we cannot expect that any State authority will attain, or even whole-heartedly seek, that ideal. Such authorities are liable alike to ignorance, to sectional pressure, and to personal corruption by private interest. A loud-voiced part of their constituents, if organized for votes, may easily outweigh the whole (247–8).

Later, in *State Action and Laissez-Faire*, Pigou (1935) again sounded a note of caution: "In order to decide whether or not State action is practically desirable, it is not enough to know that a form and degree of it can be conceived, which, if carried through effectively, would benefit the community. We have further to inquire how far, in the particular country in which we are interested and the particular time that concerns us, the government is qualified to select the right form and degree of State action and to carry it through effectively" (124).

It is hard to square this analysis with the naïve view that Ronald Coase identified in one paragraph, taken out of context. There is in Pigou's system a *clear* potential for government failure, on grounds of *inaccurate information*, *inconsistent incentives*, and *majoritarian dysfunction.* These are all themes that were later raised by Public Choice scholars, to be sure, but Pigou must be seen as an *ur*-Public Choice theorist himself.

Nonetheless, at this point the historical flow of logical inferences from what are essentially the same set of premises sharply and permanently diverge. Public Choice seems to conclude that state action in a democracy is unlikely to improve on the (admittedly imperfect) results of market processes. The Public Choice conclusion is similar to the Austrian conclusion in this way, though where the Austrians emphasized *information* and *aggregation* problems, the Public Choice movement has emphasized *incentive* and *agency* problems. Still, the conclusion is that state action cannot improve on market processes in a democracy, and so limits must be placed on state power.

My claim is that it is mistaken, as a matter of intellectual history, to claim that Pigou and Progressive failed to recognize the Public Choice problem. They, too, thought that politics could not improve on market processes in a democracy. The actual difference, as I will argue in the next section, is that their solution was to get rid of *politics* and to sharply limit *democracy*, precisely of a means of expanding the right kind of state power, that of experts and bureaucrats.

Abba Lerner, in his 1944 book attempting to implement the logic of the Lange system, noted that the chief problem in choosing the socially optimal level of investment would be "political" interference (Lerner 1944, 265–6). Lerner calls his ideal society "the rationally organized democratic state," which would encompass both "the controlled economy" *and* explicit mechanisms for preventing any actual democracy from ever being expressed: "The fundamental point of the controlled economy is that it denies both collectivism and private enterprise as principles for the organization of society, but recognizes both of them as perfectly legitimate means. Its fundamental principle of organization is that in any particular instance the means that serves society best should be the one that prevails" (*ibid.*).

The interesting thing is that it turns out the solution proposed by the Progressive macro policy reformers when it comes to controlling democracy is likewise "trial and error," just as Oskar Lange had said all along about information problems in the economy.

6. The Problem of Planned Industrial Policies and Macro-Interventions in a Democracy

An "industrial policy" is the broad set of government actions, including regulations, subsidies, and direction of "public investment" on infrastructure that encourages the expansion of some industries or sectors, and the opposite set of government actions that restrict or actively shrink other industries or sectors.

The first coherent attempt at an industrial policy by the U.S. government was Alexander Hamilton's report as Secretary of the Treasury, December 5, 1791. In it, he accurately summarized the argument against the idea that the government should, or even that it plausibly could, do better than market processes left to their own logic:

> To endeavor by the extraordinary patronage of Government, to accelerate the growth of manufactures, is in fact, to endeavor, by force and art, to transfer the natural current of industry, from a more, to a less beneficial channel. Whatever has such a tendency must necessarily be unwise. Indeed it can hardly ever be wise in a government, to attempt to give a direction to the industry of its citizens. This under the quicksighted guidance of private interest, will, if left to

> itself, infallibly find its own way to the most profitable employment: and 'tis by such employment, that the public prosperity will be most effectually promoted. To leave industry to itself, therefore, is, in almost every case, the soundest as well as the simplest policy (Hamilton 1791, 1).

Hamilton goes on to describe what he considers to be a set of policies, including the building of "internal improvements" in roads, bridges, and canals, improving public communications, and a system of "bounties" and subsidies for certain socially beneficial inventions and discoveries. One may or may not find Hamilton's claims plausible, but the interesting thing in the 1791 *Report* is that it presages the Progressive distrust of democratic and interest-group based political process. Hamilton says of the argument quoted above: "This mode of reasoning is founded upon facts and principles, which have certainly respectable pretensions. If it had governed the conduct of nations, more generally than it has done, there is room to suppose, that it might have carried them faster to prosperity and greatness, than they have attained, by the pursuit of maxims too widely opposite" *(ibid.*, 2).

In other words, the problem is not that governments have tried to substitute their ideal economic plans for the "plans" of the market process, but rather that politics, and the organized interests that dominate the process of picking winners and losers will be based on power and not national interest. It was not necessary for the public plan Hamilton had in mind to be better than the unfettered market logic of profit and loss, because no nation had *ever* used that logic. Rather, Hamilton argued that his "plan," using centralized technocratic expertise, would be *better* than democracy, because democracy and organized factions would prevent government policy from being set at the optimum values (to use modern macro parlance).

It is precisely as an extension of this claim that is the best interpretation of how modern Progressives should be understood. And, from a Public Choice perspective, it is not obvious that they are wrong, though I think they are. We sometimes forget that the benchmark "industrial policy," in a market system at least, is the profit test.[4] Entrepreneurs negotiate voluntary contracts with owners of inputs, and of capital and labor; each of those input suppliers must be better off as a result of the exchange, since each has the option of not exchanging (Guzmán and Munger 2020).

If the entrepreneur sells the resulting product in voluntary exchanges with buyers of the product, then each of those consumers is better off as a result of the exchange. The sum of those benefits – seller surplus to suppliers and consumer surplus to buyers of the product – is the social benefit resulting from the mediation of the entrepreneur through the mediation of the firm. Without *that* firm, that specific firm, each seller would be worse off, because they would have sold to the next best buyer.[5] Without *that* entrepreneur selling *those* products, each consumer would be worse off, because

[4] A much more detailed version of this argument in Munger (2022b). But the essential citation is Mises ([1951] 1952).

[5] It should be noted that I am not assuming that all buyers and sellers are atomistic, and have "many" opportunities to sell at the "market-clearing" price. Rather, the "next best" opportunity for selling inputs is likely to be at least slightly worse, in markets where actual rather than theoretical "competition" is the rule.

of product differentiation: each consumer would have paid more, or bought something else that was not as desirable.

But is the entrepreneur better off? The market provides an additional signal, analogous to the price inputs for suppliers and the price of outputs for consumers. This additional signal generates information about whether the activity is valuable, and gives an incentive that it should be abandoned, cut back, continued, or expanded. That "other" price, of course, is profit, or loss. Without externalities or artificial market power, nonnegative profits are a necessary and sufficient condition for the social justification of the activity, and strictly positive profits are required to attract new entrepreneurs into the industry.

The "macro policy" implied by the theory of market processes is then maintaining conditions in which entrepreneurs can carry out this function: a stable currency and financial system, predictable and consistent tax and regulatory policies, and a judicial system for defining, exchanging, and adjudicating disputes over property rights. This kind of logic, starting with markets and the signal of profit and loss, that was the traditional starting point for "market failure" paradigm.

The more *dirigiste* versions of industrial policy discount the marginal interventions implied by the market failure paradigm. Progressive activists think of industrial policy as a cure for the "failure" of the market to deliver the entire vector of outcomes – the levels and distribution of total social welfare implied by $\boldsymbol{x}^*$ back in section 4 – that match the desires of political elites, on every dimension. "We" can "do better" than the market outcomes, especially over time, because industrial policy will employ all resources optimally.

It is easy to see why this active direction of resources is seductive to political elites, both because it is easy to imagine a world better than the one around us, and because it is difficult to claim credit for having "caused" prosperity when all one has done is leave market processes alone. It is the argument of this article that the underappreciated component of the Progressive industrial/macro management policy is the claim that technocrats can do better than democratic politics alone. In fact, *politics*, not *market failure*, is the key obstacle to the achievement of Progressive Utopia.

The claim is that state-appointed experts could identify an allocation of investments and subsidies that would improve on the profit test, and implement that policy instantaneously and without transaction costs or incentive problems. That is precisely the Bergson-Samuelson Social Welfare Function claim described above. The difficulty is that, in a democracy, political incentives would displace the optimal set of policies $\boldsymbol{x}^*$ cause the replacement of that optimal policy in favor of another allocation that benefits those in power. In technical terms, the "win set" of $\boldsymbol{x}^*$ is non-empty, meaning that the optimal industrial/macro policy, even if we *can* assume that it exists and *is* known by the policy authorities, is *not* an equilibrium.[6]

This is frustrating, to those who expect to make the world a better place, and know that their ideological own views are clearly the best way to do just that. One important

[6] The identification of the specific set of alternatives that will be chosen instead of the optimal policy is complex; Cox and McCubbins (2001) do a nice job of laying out the contingencies and institutional considerations.

idea at the base of macro interventions, dating back at least to the mercantilism of the 18th century, was the need to "balance through finance" to offset the social predation – in the form of creative destruction – of the profit test. After the Panic and Depression of 1873–1878, for example, a politically powerful "new movement declared it the government's duty to keep all sectors of the economy in a grand balance with one another" (Glock 2021, 1). This movement eventually mutated into the Progressive movement by 1890.

From the profit test/creative destruction perspective, the expansion of productivity and mechanization in farming meant that too much land, and far too much labor, was being devoted to an industry that should actually shrink, in terms of the need for its output. But the industrial policy of the Progressive reformers, beginning in the 1890s, was to "balance" the sectors by subsidizing agriculture and implicitly taxing the more productive sectors raise the funds. The idea of using subsidies and government investments to assist under-performing sectors directly contradicts the logic of the profit test, but it has been a foundational trope of Progressive industrial policy.

This does raise the "knowledge problem" as a challenge.[7] But the Progressive response is to invoke *tâtonnement*, or "trial and error" or "groping" for a solution. This notion of experimentation as a discovery process is part of the DNA of the Progressive organon, as was made clear by Franklin Roosevelt in his 1932 speech at Oglethorpe University:

> Let us not confuse objectives with methods. Too many so-called leaders of the nation fail to see the forest because of the trees. Too many of them fail to recognize the vital necessity of planning for definite objectives. True leadership calls for the setting forth of the objectives and the rallying of public opinion in support of these objectives…
>
> The country needs and, unless I mistake its temper, the country demands bold, persistent experimentation. It is common sense to take a method and try it: If it fails, admit it frankly and try another. But above all, try something.

As many have pointed out (*e. g.*, Shlaes 2008; 2019; Goldberg 2019), there is a great difference between experimentation by *individuals*, working on many dimensions at the margin, and constant change in the tax policy, the definitions of property rights, and the fundamental direction of policy. Each economic entrepreneur trying out an idea is disciplined by the logic of profit and loss; "entrepreneurial" governments are trying out a single large-scale experiment where the very fact of policy uncertainty kills off prospects of growth in the private sector, justifying further public sector intervention in a death spiral of constant "reform."

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[7] One of the clearest statements of "the knowledge problem" is in Hayek, who said: "The peculiar character of the problem of a rational economic order is determined precisely by the fact that the knowledge of the circumstances of which we must make use never exists in concentrated or integrated form but solely as the dispersed bits of incomplete and frequently contradictory knowledge which all the separate individuals possess. The economic problem of society is thus not merely a problem of how to allocate 'given' resources—if 'given' is taken to mean given to a single mind which deliberately solves the problem set by these 'data'. It is rather a problem of how to secure the best use of resources known to any of the members of society, for ends whose relative importance only these individuals know. Or, to put it briefly, it is a problem of the utilization of knowledge which is not given to anyone in its totality" (1945, 519–20).

There have been arguments that, in the U.S. at least, the federal system creates a setting where the opportunities for experimentation are expanded, and the costs of failure are circumscribed. Supreme Court Justice Brandeis is often quoted in this regard, from his celebrated dissent in the 1932 case *New State Ice v. Liebmann*, about the advantages of states as the "laboratories of democracy" (U.S. Supreme Court 1932). But a closer look at the context, and at the goals that Brandeis had long espoused (Greve 2001), show that in fact he was enthusiastic about U.S. states as laboratories for different regimes of planning and centralized planning of the means of production.

The case seems utterly straightforward, and it is astonishing in retrospect that it made it to the Supreme Court. In fact, seven Justices (Chief Sutherland, joined by Hughes, Van Devanter, McReynolds, Butler, Roberts) came down on the majority side, enjoining the state of Oklahoma's attempt to restrict entry into ice distribution based. The Oklahoma law had made "the manufacture, sale and distribution of ice" a "public business", and preventing anyone from entering the ice business "without first having procured a license from a state commission; no license is to issue without proof of necessity for the manufacture, sale or distribution of ice in the community or place to which the application relates, and if the facilities already existing and licensed at such place are sufficient to meet the public needs therein, the commission may deny the application."

Two Justices, Brandeis and Jones, dissented, with Brandeis writing the dissent that became so influential.[8] The famous passage is this:

> There must be power in the states and the nation to remould, through experimentation, our economic practices and institutions to meet changing social and economic needs. I cannot believe that the framers of the Fourteenth Amendment, or the states which ratified it, intended to deprive us of the power to correct the evils of technological unemployment and excess productive capacity which have attended progress in the useful arts.
>
> To stay experimentation in things social and economic is a grave responsibility. Denial of the right to experiment may be fraught with serious consequences to the nation. It is one of the happy incidents of the federal system that a single courageous state may, if its citizens choose, serve as a laboratory; and try novel social and economic experiments without risk to the rest of the country.

There are several remarkable aspects of this passage. First, as Goldberg (2019) notes, the notion Brandeis had of "experimentation" was over institutions and forms of state control of the economy, and direction of industry. The usual gloss on the quotation was that Brandeis was celebrating federalism, but in fact the entire decision turned on the ability of the states to limit the right of entry of new firms and to create monopolies that would be easier to regulate. The direction of experimentation was all in the form of reducing the ability of private individuals to contract. The reason that the states were important to Brandeis was that "a single courageous state" was more likely to move to a completely planned economy than might the entire nation.

For Brandeis this possibility of a vanguard for proof of the value of a planned economy was the benefit of federalism; he had no interest in experiments that expanded the freedom of contract. In fact, the Oklahoma law explicitly prevented the introduction of

[8] Cardozo was recused.

new and more efficient practices of distributing ice, because it created what would now be called a requirement for "certificates of need": existing firms were obliged to certify that they could not serve the demand, which of course was not likely, especially if the potential entrant was bringing new and lower cost technology to the industry.

Once one has seen the "laboratories of democracy" quotation in context, and remembering that Oskar Lange's (1936) claim that experimentation and trial and error will serve as the discovery process of the socialist planner, it is easier to understand the Progressive program. Consider this statement (and he's not joking, I swear) of the problem by one of its most vocal and competent advocates, the economist Dani Rodrik (2014):

> The case against industrial policy comes in two forms. The first…is that governments do not have the information needed to make the right choices as to which firms or industries to support…. The second…is that once governments are in the business of supporting this or that industry, they invite rent-seeking and political manipulation by well-connected firms and lobbyists. Industrial policy becomes driven by political rather than economic motives…
>
> I contend…that the first [claim] is largely irrelevant, while the second – about political influence – can be overcome with appropriate institutional design. Good industrial policy does not rely on government's omniscience or ability to pick winners. Mistakes are an inevitable and necessary part of a well-designed industrial policy programme; in fact, too few mistakes are a sign of underperformance (*ibid.*, 472–3).

To Rodrik's credit, he correctly identifies *each* of the two central arguments *against* technocratic industrial policy: information and incentives. The information claim has already been discussed; let us take the most charitable view of the macro policy argument and put that to one side.[9] But notice that there is a continuity in the argument: like all those who went before, Rodrik is confident that bold experimentation and trial and error – in government policy – are sufficient for effective discovery. Delightfully, Rodrik goes so far as to claim that failures and mistakes are signs of *success* on this score.[10]

Reprising the argument in Munger (2022b), I propose to focus only on the incentives problem, which is really the question of whether it is possible to create a technocratic elite insulated from all political influence, in a setting where democratic barriers "can be overcome with appropriate institutional design," as Rodrik claims.

It is such a delight for political scientists to hear economists dismiss problems of fundamental constitutional reform as if such were details of "appropriate institutional design." One of the lessons of Public Choice, dating back at least to Buchanan (1954), is that there is no "we" at all, much less an organic entity that can reach consensus on appropriate institutional reforms that will elevate unaccountable technocrats to the

[9] Two excellent reviews of the "information problem" are Caldwell (1997) and Bento (2014).

[10] It is possible to argue that business failures are signs of the success of creative destruction (see, *e.g.*, Weber 2014). But the problem of government failure is different, because of the problem of policy uncertainty. Business failures cost only the entrepreneur's own money, or the money of backers. Government failures cost more, and have much greater externalities in the economy.

role of dictator. Further, problems of collective action and organized interests ensure that voters' interests will be sacrificed to the interests of political factions.

But "the appropriate institutional design" is supposed to solve this problem. In describing industrial plans, Ginsburg put it this way: "[Planning agencies] would work closely with representatives of business and labor, minorities and women, consumers and environmentalists, regional and community organizations, and other groups which have a vital interest in the successful functioning of our economy" (1982, 8).

Putting aside the Arrow-problem (Arrow [1951] 1963; Mueller 2003) difficulties, it seems that a kind of magic thinking is at work here. As Don Lavoie, responding to the "work closely with representatives" ideas of advocates such as Ginsburg, put it: "In other words, representatives of the very same special interests who now struggle for government favor will still do so under national planning. Why these representatives are expected to reflect the democratic will of the people any better than they do now is not explained" (2016).

Carnoy and Shearer assume that the planning authority "should be the government – our democratically elected legislature and executive" (1980, 5). But then, in abrupt change of perspective, they warn (and rightly so!) that "This is one of the many dilemmas we face: how to move the government to restrict corporate power instead of aiding abetting it" (*ibid.*). So the reason that industrial policy is needed is precisely that "the government is heavily influenced (if not controlled) by" economic interests.

But there is a problem: the mechanism by which corporations are to be controlled is precisely the political process that is producing the Pareto inferior macro policies in the first place. One might concede that a temporary coalition of interests might select a "good" policy at a point in time. The force of the Public Choice objection is that there is no mechanism – other than an "economic constitution" (Buchanan 1975; Kurrild-Klitgaard and Berggren 2004) – for locking in $\boldsymbol{x}^*$ once it is calculated and implemented, even if that could be accomplished in the first place.

The reason this is a problem is that there is a tension between the de facto distribution of power and rents and the de jure selection of institutions to try to "correct" that distribution. As Cox *et al.* (2019) point out, a legislature or government agency using power delegated by a legislature cannot make credible commitments to policy in the future, if it is not a long-term political equilibrium.[11] Cox *et al.* lay out a "proportionality theorem," demonstrating that the institutions that seek to embody differences between *de facto* power and *de jure* institutions are fatally unstable, and cannot be expected to survive.

This "proportionality theorem" would apply, in particular, to a proposal or implemented policy that removed a controversial question from the political domain and gave discretion to technocrats. But Progressive macro policy reformers assume current "owners" of politically enforced assets will simply consent to have their valuable rent extraction rackets dismantled. Rodrik's dismissive claim that all we need is "appropriate institutional design" assumes that political actors are selfish in politics, but

[11] In multidimensional policy spaces, political equilibria do not even exist in the short run. Expecting stability over future election cycles requires much more than the correct institutional design, it requires a miracle.

are altruistic in delegating to bureaucrats. Worse, the reform approach assumes that market rent-holders are passive. Without these assumptions, one cannot reach the conclusion that $\boldsymbol{x}^*$ is feasible, or sustainable.

This is simply the "heritability" property described by Riker (1980): if the current configuration of power prevents you from changing the *outcome* under the existing rules, proposals for rule changes *will* fail on exactly the same grounds, because elites can look down the agenda tree and see that the rules changes lead to the very outcomes they have been opposing.[12] This led me, in an earlier paper (Munger 2022b) to conclude that a "good" (technocratically optimal) macro industrial policy is impossible, precisely because the political equilibrium differs from the technocratic optimum, *by definition.*

But the difficulty in understanding the nature of the "Public Choice objection" persists. On July 26, 2022, an economist and Twitter star (more than 250,000 followers) posted a tweet, to which there was an almost immediate response from John Quiggin, an Australian economist at the University of Queensland. Clearly, Noah Smith, though he favors equilibrium analysis in economics, does not believe in the concept of "political equilibrium," at least not as a stable outcome. But a particular distribution of power, operating through fixed institutions, is precisely what creates, and sustains, political equilibrium. Saying that this is "pessimistic" is like admitting gravity is actually a thing, and it is unlikely a heavy person like me will be able to dunk a basketball. It's more "realistic," in the sense that it recognizes that politics, not market failure, is the key obstacle to the Progressive macro agenda. Quiggin's response beautifully encapsulates the Progressive response: in the short run, better institutions (through trial and error, or groping) that insulate technocrats from democracy, and in the long run, better and even smarter technocrats.

Smith wrote "'This bad outcome is a policy choice' is an inherently pessimistic statement because it implies that the outcome if a political-economic equilibrium rather than simply a failure of technocracy" (Smith 2022, 6:55 pm July 26). Quiggin responded: "In policy discussion, 'let's change policy choices' seems more optimistic than 'we're stuck with this until we get better technocrats" (Quiggin 2022, 7:10 pm July 26). It's as if Public Choice never existed, and invokes a Weberian Messiah, the "better technocrats" who will save us from an imperfect world and commence the millennium.

To be fair, however, the notion that tinkering, trial and error, or "bold experimentation" is an effective discovery process for state action has been one of the core themes of the Progressive program, since its very beginning. It might be objected that governments "learn," because government action is the consequence of intentional choices and correct motivations. Markets, to the extent that they are simply emergent processes, are not capable of learning. So the difference does not come down to perfection; pro-intervention welfare economists never believed in perfection. Instead, the difference comes down to the possibilities for improvement.

[12] A nice illustration can be found in the work of public choice scholar Stanley Winer (see, *e. g.*, Hettich and Winer 1999). Any attempt to reform the tax code must deal with the fact that the existing set of taxes and tax breaks reflects the underlying political power of organized groups and the relative weakness of large, unorganized groups.

As Backhouse and Medema (2012) argue, the difference is important:

> What emerges, then, is that the difference between the Cambridge welfare economists and their modern counterparts at Chicago and Virginia was not that the former were guilty of committing the 'nirvana fallacy' or that they were naive about political processes. Political processes were as central to the policy conclusions of the Cambridge welfare economists as they are to modern public choice theory and the literature on law and economics – indeed, because they did not see government as a homogenous entity, it was even more important for them to examine such processes than it is for modern economists who work with a simplified conception of government. The main difference is that because they were willing to work within the confines of rational choice theory – because, in a sense, they were willing to be more 'neoclassical' – Chicago and Virginia developed techniques for analysing political processes that would probably have been rejected by Sidgwick, Marshall and Pigou, even if they had been available to them. The rational choice approach, with its assumption of stable preferences, is central here, for it effectively rules out the evolutionary view of human improvement that was central to the Cambridge vision (*ibid.*, 993).

The "Cambridge Welfare economists" of the 1920s and 1930s shaped the direction of Progressive macro policy advocates by creating a baseline expectation of evolutionary improvement. I think this has not been sufficiently recognized by either the critics who take the Austrian perspective or those who take the Public Choice perspective. The fact is that the "market failure" approach, with its assumption of static institutions and fixed strategies for defining property rights, is the central theme for the Progressives, because markets by definition – precisely because they are not directed, but simply emerge – cannot evolve or improve. State action is also deeply flawed, and democratic politics is a big problem, but state institutions can evolve and get better over time.

Perhaps the "stable preferences" assumption is doing too much work in describing markets. But the optimism of Progressives about the project of the perfectability of man, and the development of better, more public-spirited preferences is likewise doing a lot of work on the other side. This evolutionary improvement has characterized the thought authoritarians from Georg Wilhelm Friedrich Hegel (1991) to Che Guevara (1965), and the willful disregard of how crucial this axiom for the Progressive argument is a mistake. It's a *model*, after all, and it might well be false.

7. Conclusion

The theme with which this paper started was "it takes a model to beat a model." I have discussed three models, the Progressive macro/industrial policy "neoclassical synthesis," the Austrian model, and the Public Choice model. Many proponents of the second and third schools have lamented the relative success, in terms of both political impact and general use in the economics and policy professions, of the neoclassical synthesis. I have offered an explanation why in fact the essentially negative models of the Austrians and the of Public Choice cannot operate on the same playing field as the neoclassical synthesis.

Austrians have a model about why government cannot improve on markets, even when markets are highly imperfect, because the world is even more imperfect. The

problems of dispersed information and the need for emergent processes such as supply chains to organize themselves means that government responses to shocks, or to shortfalls in aggregate demand, either make the shocks worse or the shortfalls turn into asset bubbles that increase the amplitude of economic fluctuations. From the perspective of a political leader, this model is not a model at all. In an economic crisis, the political leader goes to the Austrian economist for advice, and is told that the reason the recession is so deep, or the financial crisis is so wrenching, is that monetary and fiscal policy made things much worse.

Public Choice scholars have a model for why democratic politics, replete with rent-seeking by organized interests, will produce suboptimal outcomes. Even well-intentioned attempts (if those are possible, for the sake of argument) to improve on market outcomes will be profoundly distorted by political forces. Either there is no "political equilibrium," in which case the hope of implementing a stable optimal policy regime is simply impossible, or else the political equilibrium that does exist – one induced by structure, or legislative institutions – will differ from the optimal policy vector $\boldsymbol{x}^*$ that the politician has in mind.

Compare this with the pleased and confident reaction of the proponents of the neoclassical synthesis. The politician is shown into a spacious, well-lit, and well-furnished waiting room, crowded with other politicians, some of whom are old friends, so there is pleasant conversation. The politician is offered a hot cup of fair-trade coffee, and before long is ushered into the office of well-dressed and confident macroeconomist who can use models and dozens of published empirical papers to support her conclusions about multipliers and the most likely positive effects of the politician's pet new "investments" or regulatory scheme.

It seems hopeless. But we must return, at the end, to the puzzle I identified at the beginning: why have things gotten better? Not a little better, but dramatically, and for the most part continuously, better. Embarrassingly, the answer is likely simply solipsism, on my part. I have over-emphasized the importance of economists. McCloskey (2010) made a persuasive argument that there is simply a disconnect between the large social forces that have caused what she calls "the great enrichment," and the models and theories of the economics profession. Koppl (2018) has expanded the importance of this insulation of *models of the thing* from *the thing*, in other fields – public health, transportation, military procurement, forensic science, and so on.

In short, and as usual, Adam Smith said it best. In spite of the honest and energetic efforts of those who have fetishized a particular kind of economic model, nations have not been ruined, but have grown in spite of those efforts. As Smith put it: "Be assured, young friend, that there is a great deal of ruin in a nation."[13] The "great enrichment" has been the product of our refined, and improving, sense of the importance of a presumption in favor of liberty, rather than models of the processes by which that liberty will be elaborated and directed from above.

[13] Smith (1987, 262), Letter no. 221, footnote 3.

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