The Democratic Efficiency Debate and Definitions of Political Equilibrium

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Abstract. An ongoing debate has been occurring within public choice for over a decade concerning the efficiency of democracy. Virginia Political Economy holds that political markets perform very differently from traditional markets. Chicago Political Economy, exemplified by the work of Becker and Wittman, maintains that political equilibrium, properly defined, is relatively efficient. I argue that the debate can be understood at least partially in methodological terms: Chicago views politics exclusively within the equilibrium framework of traditional economics, while Virginia draws at least implicitly on Austrian economics' view of the economy as a disequilibrium process. I contend that the factors which public choice scholarship has identified as distinguishing politics from markets—rational ignorance, majority rule, collective outcomes—affect the performance of politics as a process even if political equilibrium is relatively efficient.

Key Words: political equilibrium, efficiency, market process

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1.   Introduction

Positive analysis of government decision making has identified instances of inefficient resource allocation by the public sector, "government failures." Public finance economists had previously implicitly assumed that the public sector always tried to improve efficiency (Brennan and Buchanan 1980). The public choice revolution has changed this forever. Government decisions are public goods, and consequent collective action and rational ignorance problems interfere with efficient allocation by the public sector. The theory of rent seeking implies that government intervention in the economy often worsens resource allocation compared to market outcomes (Stigler 1971, Posner 1975, Tullock 1980).[1]

Several Chicago school political economists, however, have challenged the inefficiency of democracy proposition. Their argument is a plea for symmetry: that the mechanisms which promote efficiency in markets also apply to political markets. Wittman (1995:2) offers a definitive statement of the Chicago efficiency claim: "I demonstrate that nearly all of the arguments claiming that economic markets are efficient apply equally well to democratic political markets; and, conversely, that economic models of political—market failure are no more valid than the analogous arguments for economic—market failure." Virginia Political Economy (VPE) strongly opposes the Chicago Political Economy (CPE) efficiency argument, claiming in response that a lack of enforceable property rights produces

high transactions costs in politics (Boudreaux 1996, Wagner 1996, Rowley 1997). The debate amounts to how much inefficiency remains in political equilibrium.

I offer a contrasting perspective on the debate. VPE I argue has been influenced by Austrian economics' process view of the market economy. Austrian economics rejects mainstream economics' equilibrium theorizing. VPE points to factors in politics like rational ignorance which slow adjustment toward equilibrium compared to markets. Yet slow adjustment toward equilibrium matters only when exclusive reliance on end state modeling is abandoned; the process of adjustment is irrelevant when economists merely compare equilibria. The comparative inefficiency of politics I contend emerges, not in the end state the process might eventually attain, but when comparing the political process to the market process. Markets provide participants incentives to discover and quickly exploit gains from trade; politicians often find delay and obfuscation useful tools.

I proceed as follows. Section 2 considers efforts to define market equilibrium and the tensions concerning prospects for gains from trade remaining unrealized in equilibrium. Section 3 considers the parallel effort to define a state of rest for politics. Section 4 argues that Virginia political economy views politics as a process similar to Austrian economics' process view of markets. Section 5 offers a brief conclusion.

2.   Defining Equilibrium in Markets

Neoclassical economics focuses almost exclusively on equilibrium theorizing while Austrian economics, by contrast, emphasizes that a market economy is a process (Kirzner 1973, O'Driscoll and Rizzo 1985). Equilibrium economics involves end-state theorizing. While not necessarily denying the existence of a trading process in the real world, equilibrium models focus on end state of rest eventually reached by the process. Thus equilibrium modeling maps the environment of an economy (technology, preferences, resource stocks) into hopefully unique end states. A particular mapping of initial conditions to end states would represent the market economy, other mappings would represent comparative economic systems. Welfare analysis compares the end states attained by different mappings.[2]

Determining which end state the market economy attains for a given set of initial conditions is the core of the equilibrium approach. Economists build models and consequently define equilibrium. In numerous contexts the criteria for selecting an end state as an equilibrium are settled. The consensus on equilibrium in the static supply and demand model or even the Arrow-Debreu competitive general equilibrium masks that the definition of equilibrium is a matter of convention. By contrast, efforts to settle on a refinement of Nash equilibrium in extensive form games over the past thirty years illustrates the role of convention in defining equilibrium. The value of equilibrium theorizing depends on how closely the defined equilibrium approximates the hypothetical point of rest. If the selected state is unreasonable, the definition will produce intellectual confusion.

Equilibrium analysis requires criteria for determining the reasonable end state for market activity given initial conditions. In broad terms the guiding principle is a lack of exploitable gains from trade. Both Austrians and neoclassicals agree individuals in the market economy have an incentive to recognize and exploit gains from trade. People may not be perfectly

rational, but they will not leave $500 bills on the sidewalk. Equilibrium modeling chooses one end state to represent market activity from a set of initial conditions. Gains from trade not captured in the defined end state remain realized forever, since no further action occurs upon reaching the end state. Unrealized gains from trade in the defined equilibrium create the scope for government action to capture these elusive gains. If the unexploited gains are a consequence of a poorly defined equilibrium, a policy prescription based on this inefficiency amounts to claiming that government action is needed to pick up $500 bills lying on the sidewalk.

Agreement on the principle that a definition of equilibrium should not allow exploitable gains from trade to go unrealized has little content without specifics about which gains can be realized. Determining which gains from trade are exploitable becomes problematic, especially in complicated environments. The consensus is that gains which can be captured by unilateral action are inconsistent with market equilibrium. Hence in general equilibrium consumers must maximize utility and firms must maximize profit; in Nash equilibrium each player must play her best response to the strategies of other players. In equilibrium there must be no way for any actor to beneficially adjust her action. Convention distinguishes between unitary action and joint or collective action. Equilibrium can include uncaptured gains from trade requiring multilateral action. Hence we have inefficient production in a public good voluntary contributions equilibrium: each person's contribution maximizes utility relative to other contributions, but only coordinated action can improve production. Increasing returns to scale create spillovers that independent firms cannot capture. Common pool resources can be overexploited in equilibrium because optimal conservation requires mutual action.

End state theorizing goes beyond just restrictions on reasonable allocations of goods to include restrictions on preferences and expectations as well. Consumer preferences must be transitive, because intransitive preferences allow a person to pay to trade X for Y, then pay to trade Y for Z, and finally pay to trade Z for X and allegedly be better off than initially. We would not expect a person to repeatedly fall into this trap and thus eventually adopt transitive preferences. Similarly, expectations in equilibrium must be formed rationally. Failure to form expectations in the best way possible in the model leads to lower utility or profits than with correct expectations. An individual can correct her expectations unilaterally. Hence, adaptive expectations, even if descriptively accurate, would result in exploitable gains from trade.

Error represents a complication for definitions of equilibrium. Error can be corrected by unilateral action, and including error in equilibrium behavior prevents the possibility of correction. Consequently many economists are reluctant to accept equilibrium errors. Error can be incorporated in a model with costly acquisition of information; errors can be eliminated through the acquisition of information. Individuals in equilibrium commit errors only when the cost of reducing errors exceeds the cost of the errors. Yet calculation of the cost of errors requires considerable knowledge: that an error is being committed, the consequences of the error, and how to correct the error. As Kirzner (1979:137–153) argues, this is a limited notion of knowledge and error: "The truth is that, of the mass of knowledge, beliefs, opinions, expectations, and guesses that one holds at a given moment and that inspire and shape action, only a fraction can be described as being the result of

deliberate search or learning activity." (142) Some errors can be eliminated at very little cost once recognized, and very costly errors can be discovered in this manner.

Entrepreneurship blurs the distinction between individual action and joint action. Entrepreneurs often devise new ways to secure cooperation and capture gains from trade. Any modern business, for instance, requires intricately coordinated action among the suppliers of many inputs to produce output. An absence of firms would seem to be consistent with the conventional definition of market equilibrium. Entrepreneurs also discover innovative ways to coordinate individual action for successful collective action. Economists might conclude prior to the establishment of the first resort hotel, that would-be vacationers face an insurmountable collective action problem. Entrepreneurship is notably absent from neoclassical models (Kirzner 1973). The entrepreneur's work is done in the state of rest—gains from trade have either been captured or remain out of grasp. Neoclassical models ignore the process of discovery and exploitation, and consequently reveal little about the types of profit opportunities which entrepreneurs can capture by coordinating action.

A proposed equilibrium with unrealized gains from trade causes controversy. Numerous market models with inefficient equilibria exist (Stiglitz 1994). But economists who believe that markets work well contend that even elusive gains can be secured. Measures have been devised to deal with quality assurance, property values can reflect externalities, and private goods can be tied to public goods. Anderson and Leal (1997) document entrepreneurial innovations to market and protect environmental amenities. Within the framework of equilibrium analysis, free market economists who object to inefficient equilibria appear to adhere to the efficiency of markets as a matter of faith. The Panglossian appearance results from methodology, however, and not necessarily a belief that markets must be efficient.

3. Defining Equilibrium in Political Markets

Political equilibrium is also a matter of definition, and the efficiency of politics turns on this definition. Politics differs from market exchange, notably through the ability to use coercion. People will turn to politics to secure what they cannot achieve in the market, and the nature of gains from trade may differ from the market. Assuming a democratic polity, individuals and groups demand legislation which benefits them, while those who would be made worse off resist legislation. Politicians act to maximize their utility (with the value of holding office and perhaps policy preferences as arguments), weighing the pressure from supporters against the pressure from opponents and make decisions accordingly. Candidates compete for office proposing new legislation or repeal of existing laws. Political equilibrium involves a balance between demands by citizens on the political system and candidates compete for office.

VPE argues that political markets function very differently from economic markets. Features of an environment which complicate resource allocation in markets are particularly prevalent in politics. Most importantly, government decisions are public goods and individuals' political action is unlikely to be decisive in political decisions. The public good character of government decisions renders application of the individual optimization criterion to political markets problematic. Political action is almost exclusively collection action for the typical citizen. The public good nature of government decisions also creates rational

ignorance, which allows inefficient policies to be sustained due to a lack of widespread knowledge of their cost (and even existence). The pattern of collective action consistent with individual participation leads to the law of concentrated benefits and diffuse costs, an advantage for relatively small groups seeking benefits from government at the expense of numerous and unorganized consumers or taxpayers (Rowley 1997). Other characteristics of political markets also contribute to VPE's charges of inefficiency. Voters do not get a chance to respond personally and immediately to observed quality of policy, as consumers do with their next purchase. Instead they vote periodically for a representative and their vote is almost never decisive (Boudreaux 1996). A vote for a representative bundles signals on many issues together instead of separating out the signal for each product as in the market (Rowley 1997). Political markets also feature asymmetric information and high transactions costs (Rowley and Vachris 1995).

Two effects work to produce efficiency in political equilibrium in the Chicago view. First, no one gains from wasting resources. Given that transfers will occur, politicians have an incentive to make these transfers as efficiently as possible (Becker 1983, 1985). Using fewer resources to make transfers allows either recipients to secure a larger transfer at no added cost to payers, payers to retain more income with no reduction in the net transfer, or both groups to be better off. Replacement of an inefficient transfer mechanism with an efficient one should secure unanimous support. All political actors value wealth, so incentives exist to minimize the destruction of wealth in the process.

Second, political entrepreneurs and institutions help overcome apparent inefficiencies in politics. Politicians and parties might counteract rational ignorance, as Wittman (1995) discusses in detail. Political campaigns provide information to voters at the campaigns' expense, just as firms advertise their products. Voters have some incentive to become informed because of the economic effects of government policy—voters must coordinate their personal actions with government policy in addition to voting. And ignorance does not rule out indirect use of knowledge. Consumers ignorant about internal combustion engines, computer programing or photography can through the market use specialized skills engineered into cars, computers or cameras (Sowell 1980). Voters might effectively control government despite remaining ignorant of many of the details of government action. Politicians have an incentive to act on behalf of broad interests in exchange for subsequent votes. Party labels and endorsements provide voters with needed information concerning candidate location without providing unnecessary information—they, like prices in markets, are informationally parsimonious. Parties provide quality assurance by screening candidates for office and overseeing politicians, just as firms assure the quality of products in the market.

Institutional design also complicates the definition of political equilibrium. Citizens are the principals and government their agent; if current political institutions fail to properly control politicians or provide correct incentives, institutional change can tighten the leash. Modification of campaign finance laws can offset interest group influence. Term limits can counter incumbent advantage. Individuals cannot change institutions, but entrepreneurial politicians can serve as the agents of change. And identification by public choice scholars of the features of current institutions which lead to inefficient rent seeking should indicate the type of institutional change necessary to remedy the problem. Institutional adjustment will

continue as long as inefficiency remains, so the final state of rest, if ever attained, should contain no efficiency.

The efficiency of democracy argument amounts to an application of the Coase theorem (Coase 1960) to politics, along with the supplementary assumption that institutions evolve to control transactions costs (Stigler 1992). The rules of democracy provide interest groups with sufficient political power to receive transfers. Resources will be allocated efficiently to their most highly valued uses (interest groups). Transfers should be made efficiently. VPE argues that politicians use inefficient means and bogus public interest rationales to disguise transfers and keep voters in the dark, allowing preservation of transfers to favored interest groups. CPE argues that disguised transfers cannot be an equilibrium. Eventually either voters will catch on or some enterprising politician or policy institute will clue them in. If the beneficiaries of the program lack sufficient support to sustain the transfers in the face of an aroused electorate, the transfers will be ended. If the beneficiaries have sufficient support to sustain the program, then the transfers can be made efficiently because subterfuge is unnecessary.

Consensus has yet to be reached on the degree of inefficiency remaining in the final political end state. As Wittman (1995) points out, many of the inefficiency of politics arguments rely not merely on errors by voters, which would be randomly distributed, but on systematic mistakes. The political business cycle requires voters never realize that the surge in the economy in the election year is due to political manipulation of the economy. Fiscal illusion requires that voters consistently underestimate, not just misestimate, the tax price of government services due to deficit financing. As Wittman notes, proponents of VPE might object to systematic errors by market participants in equilibrium creating a rationale for corrective government policy, yet seem comfortable including such errors in an inefficient political equilibrium which provides a normative basis for constitutional limits on democracy. The apparent intellectual inconsistency is troubling.

Possible justifications for the residual inefficiency in political equilibrium can be provided. Principals cannot perfectly control agents in the presence of both moral hazard and adverse selection. Coate and Morris (1995) formulate an inefficient equilibrium combining both politician uncertainty and policy uncertainty. Differences in voter preferences for government create a common agency problem complicating the control of politicians (Dixit, Grossman, and Helpman 1997). But how much inefficiency remains is difficult to pin down. Claiming that all inefficiencies would eventually be eliminated is a clear conceptual criteria, one with considerable appeal. Yet as Wagner (1996) notes, it is essentially a metaphysical argument, a faith that what is must be efficient. I suspect economists will not get far debating metaphysics. I offer a different interpretation of the debate in the next section.

4.   Politics as a Process

The debate between CPE and VPE over the efficiency of politics is puzzling, given the degree of similarity in many of their views. Both schools believe markets work well and argue for a limited economic role for government; the papers in *Chicago Studies in Political Economy* hardly provide a ringing endorsement for activist government. Why the disagreement?

One interpretation could be as an empirical disagreement. VPE and CPE could maintain different beliefs about the prevalence of market failures and the efficacy of measures like reputation and de facto property rights in mitigating these conditions in political markets. The power of the market is ironically turned by CPE against VPE's arguments for markets over politics.

I offer an alternative perspective on the debate in this section. The CPE vs. VPE debate might result in part from a methodological difference concerning the role of equilibrium models in economics. CPE builds on the Chicago school view of markets, which involves strong market clearing. Markets are efficient because prices quickly adjust to clear markets. Rational expectations market clearing equilibrium accurately describes the state of the economy. Although the Virginia model is not as carefully spelled out, I contend that VPE draws, at least implicitly, on Austrian style process analysis. VPE's arguments about the inefficiency of politics actually have more force when considering politics as a process as opposed to political equilibrium.

The Virginia school has maintained close relations with modern Austrian economics.[3] Austrian ideas have influence the thinking of several notable members of the Virginia school, most significantly James Buchanan. Buchanan's Southern Economics Association Presidential address (1979:17–37) stressed the Austrian theme of the economy as an exchange process and his book *Cost and Choice* (1969) made a significant contribution to subjective cost theory. Several other prominent members of the Virginia school, like Leland Yeager, Richard Wagner and Randall Holcombe, have also contributed to the dialogue of Austrian economics.[4] VPE shares Austrian economics' emphasis on institutions, in contrast to mainstream economics and CPE's deemphasis on institutions (Rowley and Vachris 1996). VPE also does not share the mainstream's near obsession with mathematical technique for its own sake. Finally, the influence of Austrian economics is partly a matter of geography, namely the residence of both Austrian economists and Virginia school political economists at George Mason and Auburn Universities.

Austrian economics offers an argument that markets work, but one that does not rely on market clearing. Austrians focus on the process of market trading as opposed to the final end state the process may be converging to if everything else remains constant for long enough. The tendency toward equilibrium is the subject of examination, not the equilibrium states themselves. As Hayek (1948 [1937]:45) wrote, the tendency toward equilibrium means that "the knowledge and intentions of the different members of society are supposed to come more and more into agreement or ...that the expectations of the people and particularly of the entrepreneurs will become more and more correct." The market process coordinates activity reasonably well, helping to ensure that "individual sets of subjective data correspond to the objective data..." (Hayek 1948 [1937]:40). I contend that VPE's criticisms of political markets combine to create an environment in which political activity is not as coordinating.

To illustrate my argument, I consider the role of entrepreneurs in markets and politics. Entrepreneurs play a crucial role in the Austrian market process. Entrepreneurship is the element of alertness to new opportunities in human action (Kirzner 1973). Entrepreneurial action might involve recognition of an arbitrage opportunity, a new product to produce or new way of producing an existing product, or speculation about future economic activity. It involves discovery of unexploited profit opportunities. Exploitation of

profit opportunities involves changing existing patterns of action, acting outside of a given means-ends framework (Kirzner 1979:5–9). Profit opportunities exist because activity in the market is less than perfectly coordinated (Kirzner 1973) and hence entrepreneurship is a coordinating force in the market process.

The Kirznerian view ignores the potential for entrepreneurial error (Vaughn 1994), and thus overstates the coordinating function of entrepreneurship. Entrepreneurs are not infallible so some perceived profit opportunities will not pan out. And not all profit opportunities in the market are a result of coordinating activity; an entrepreneur could discover a way to profitably market snake oil. Still entrepreneurs must perceive a profit opportunity and the vast majority of opportunities do involve coordinating function.

Consider in contrast political entrepreneurs. Political entrepreneurs will seek out innovations in the political sphere which yield political profits (Wagner 1966). The environment of political markets described by VPE implies that fewer political profit opportunities will involve coordinating activity than economic profit opportunities. Of consequence for the comparison of political and market entrepreneurs, the private cost of holding irrational beliefs is high in most market contexts but very low in political contexts, as Caplan (2001) emphasizes. The low private cost of error suggests that the model of economic voting employed by both CPE and VPE—that people vote for the platform which provide the voter with the highest level of material well-being—may not be descriptively accurate. Instead voters may vote expressively (Brennan and Lomasky 1993), considering the polling booth as an opportunity to indulge their possibly erroneous beliefs. Politics will involve greater emphasis on symbolic actions than economics; politicians succeed with photo opportunities while stockholders are less likely to forgive a CEO who focuses on symbols at the expense of the bottom line. Widespread indulgence in erroneous beliefs allows an inefficient policy proposal to be greeted with approval by voters. Market entrepreneurs can prey on consumers' ignorance and fears, but the differential cost of irrationality suggests a lower incidence of erroneous beliefs at any given instant in time. The potential is greater for political entrepreneurs to benefit initially from discoordinating actions. Coercive taxation externalizes a portion of the cost of inefficient policies and the low probability of decisiveness implies voters are less likely to recognize a bad policy as a lemon than consumers are to recognize a bad product. Thus while the economic calculus turns quickly against the market entrepreneur who succeeds in initially fooling consumers, the benefits are more likely to continue to exceed costs for the political entrepreneur who succeeds in fooling voters. In addition the infrequency of elections and the bundling of many issues in a single vote also contribute to persistent profits from inefficiency in politics.

Examples of inefficient, but successful, innovations by political entrepreneurs can be found. The political business cycle, both through macro level variables and micro level projects is probably the primary example of inefficient manipulation by political entrepreneurs (Wagner 1977). Political entrepreneurs from the Missouri, Kansas and Texas Railroad benefitted from misinformation efforts to open the Indian Territory to settlement (Campbell 1999). The company encouraged poor farmers to settle on certain tribal lands in the territory to create the appearance of dispute, even though the legal status of the lands was not actually in dispute and the claims were dismissed in Federal courts. Political action also sometimes goes forward after conditions have changed. A classic example is macroeconomic

stabilization policy, where long lags in recognition and implementation can lead policy to have a destabilizing effect in practice (Friedman 1953). An economic stimulus package for the 1990-91 recession was an issue in the 1992 Presidential election and was finally passed in 1993, two years after the recession was over. Politics is more about symbols than the market. Symbolic action creates a barrier for efficient resource allocation in an ongoing process, even though it might not exist in a final political equilibrium.

5. Conclusion

The major purpose of this paper has been to offer a perspective on the debate between CPE and VPE concerning the efficiency of democracy. I contend that methodological differences account for at least part of the divergence: that CPE examines politics strictly through equilibrium analysis, while VPE views politics more through the disequilibrium process perspective of Austrian economics. Equilibrium analysis examines the one end state selected to represent the performance of the economy for given initial conditions. Selection of the end state is everything, and if gains from trade go unrealized in this state, they go unrealized forever. Determining the conditions under which gains from trade will go unrealized in market equilibrium is controversial. The debate over the efficiency of politics amounts to the application by CPE to political equilibrium of some of the same objections free market economists make against unrealized gains from trade in market equilibrium.

A second purpose of this paper is to offer a different possible response for VPE to CPE's claims that political equilibrium is efficient. VPE has never viewed the polity in exclusively end state terms, due to the influence of Austrian economics on many important Virginia school scholars. An alternative response to claims that political equilibrium is efficient would be to develop a more process-oriented theory of politics. How does the political process operate? I have speculated that the comparative inefficiency of politics emerges with full force along these process dimensions. The coordinating process operates more slowly in politics than in markets. Ultimately given time political entrepreneurs might eventually identify to voters inefficient policies, voters might correct irrational beliefs, and parties might assure policy quality and transmit information. Wittman might be correct in terms of the efficiency of democratic political equilibrium. But the relevance of equilibrium analysis depends on the tendency toward equilibrium, and the strength of the tendency is an empirical proposition (Hayek 1948 [1937]). The slower convergence toward equilibrium may render equilibrium analysis completely inappropriate for political markets but acceptable for some purposes in economic markets. Both economic and political markets may work well with equilibrium models, but this may be due to the requirements of equilibrium theorizing. Interpreting the VPE argument concerning the inefficiency of democracy in Austrian terms also relieves VPE from charges of inconsistency, that economic markets work but political markets do not.

Notes

1. For a survey of the rent seeking literature see Tollison (1988).
2. By state of rest I mean an outcome which would persist with repeated play of the same initial conditions by the same actors, as perhaps best illustrated by repeated rounds of trading in a double auction experiment. Trading

under such conditions tends to converge to the market clearing price within a few rounds (Smith 1982). Real world markets, needless to say, do not involve replays, so the value of such experiments is debatable. While Austrian economists debate whether the market exhibits a tendency toward equilibrium, the concept should nonetheless be clear.

3. Vaughn (1994:118–119) discusses the influence of the Virginia school on the Austrian revival.
4. Some representative contributions include Yeager (1997), Wagner (1999), and Holcombe (1998, 1999).

References

Anderson, T. L. and Leal, D. R. (1997) *Enviro-Capitalists*. Lanham MD: Rowman & Littlefield Publishers.

Becker, G. S. (1983) "A Theory of Competition Among Pressure Groups for Political Influence." *Quarterly Journal of Economics*, 98: 371–400.

Becker, G. S. (1985) "Public Policies, Pressure Groups, and Dead Weight Costs." *Journal of Public Economics*, 28: 329–347.

Boudreaux, D. J. (1996) "Was Your High-School Civics Teacher Right After All? Donald Wittman's *The Myth of Democratic Failure*." *The Independent Review*, 1: 111–128.

Brennan, G. and Buchanan, J. M. (1980) *The Power to Tax: Analytical Foundations of a Fiscal Constitution*. Cambridge: Cambridge University Press.

Brennan, G. and Lomasky, L. (1993) *Democracy and Decision*. New York: Cambridge University Press.

Buchanan, J. M. (1969) *Cost and Choice*. Chicago: University of Chicago Press.

Buchanan, J. M. (1979) *What Should Economists Do?* Indianapolis: Liberty Press.

Campbell, N. D. (1999) "Political Entrepreneurs and the Transfer Demanding Process: Homesteading the Unassigned District." *Review of Austrian Economics*, 12: 201–225.

Caplan, B. (2001) "Rational Irrationality and the Microfoundations of Political Failure." *Public Choice*, 107: 295–310.

Coase, R. (1960) "The Problem of Social Cost." *Journal of Law and Economics*, 3: 1–44.

Coate, S. and Morris, S. (1995) "On the Forms of Transfers to Special Interests." *Journal of Political Economy*, 103: 1210–1235.

Dixit, A., Grossman, G. M., and Helpman, E. (1997) "Common Agency and Coordination: General Theory and Application to Government Policy Making." *Journal of Political Economy*, 105: 752–769.

Friedman, M. (1953) "The Effects of a Full-Employment Policy on Economic Stability: A Formal Analysis." In: *Essays in Positive Economics*, pp. 117–132. Chicago: University of Chicago Press.

Hayek, F. A. [1948 (1937)]. "The Meaning of Competition." In: *Individualism and Economic Order*, pp. 92–106. Chicago: University of Chicago Press.

Holcombe, R. G. (1998) "Entrepreneurship and Economic Growth." *Quarterly Journal of Austrian Economics*, 1: 45–62.

Holcombe, R. G. (1999) "Equilibrium versus the Invisible Hand." *Review of Austrian Economics*, 12: 227–243.

Kirzner, I. (1973) *Competition and Entrepreneurship*. Chicago: University of Chicago Press.

Kirzner, I. (1979) *Perception, Opportunity, and Profit*. Chicago: University of Chicago Press.

O'Driscoll, G. P. and Rizzo, M. J. (1985) *The Economics of Time and Ignorance*. Oxford: Basil Blackwell.

Posner, R. A. (1975). "The Social Costs of Monopoly and Regulation." *Journal of Political Economy*, 83: 807–827.

Rowley, C. K. (1997) "Donald Wittman's *The Myth of Democratic Failure*." *Public Choice*, 92: 15–26.

Rowley, C. K. and Vachris, M. A. (1995) "Why Democracy Does Not Necessarily Produce Efficient Results." *Journal of Public Finance and Public Choice*, 12: 95–111.

Rowley, C. K. and Vachris, M. A. (1996) "The Virginia School of Political Economy." In: Foldvary, F. E. (Ed.) *Beyond Neoclassical Economics*, pp. 61–82. Brookfield VT: Edward Elgar.

Smith, V. L. (1982) "Markets as Economizers of Information: Experimental Examination of the 'Hayek Hypothesis.'" *Economic Inquiry*, 20: 165–179.

Sowell, T. (1980) *Knowledge and Decisions*. New York: Basic Books.

Stigler, G. J. (1971) "The Theory of Economic Regulation." *Bell Journal of Economics*, 2: 3–21.

Stigler, G. J. (1992) "Law or Economics?" *Journal of Law and Economics*, 35: 455–468.

Stiglitz, J. E. (1994) *Whither Socialism?* Cambridge: MIT Press.

Tollison, R. D. (1988) "Public Choice and Legislation." *Virginia Law Review*, 74: 339–371.

Tullock, G. (1980) "Efficient Rent Seeking." In: Buchanan, J. M., Tollison, R. D., and Tullock, G. (Eds.) *Toward a Theory of the Rent-Seeking Society*, pp.97–112. College Station: Texas A&M Press.

Vaughn, K. I. (1994) *Austrian Economics in American*. Cambridge, UK: Cambridge University Press.

Wagner, R. E. (1966) "Pressure Groups and Political Entrepreneurs: A Review Article." *Papers on Non-Market Decision Making*, 1: 161–170.

Wagner, R. E. (1977) "Economic Manipulation for Political Profit: Macroeconomic Consequences and Constitutional Implications." *Kyklos*, 30: 395–410.

Wagner, R. E. (1996) "Review: Donald A. Wittman's *The Myth of Democratic Failure*." *Constitutional Political Economy*, 7: 153–160.

Wagner, R. E. (1999) "Austrian Cycle Theory: Saving the Wheat While Discarding the Chaff." *Review of Austrian Economics*, 12: 65–80.

Wittman, D. (1995) *The Myth of Democratic Failure*. Chicago: University of Chicago Press.

Yeager, L. (1997) "Austrian Economics, Neoclassicism, and the Market Test." *Journal of Economic Perspectives*, 11: 153–165.