Robust Analytical egalitarianism:

Worst-case political economy and the socialist calculation debate

Eric Crampton
eric.crampton@canterbury.ac.nz
University of Canterbury

Andrew Farrant
Dickinson College

Revised Draft
27 May 2005

"[I]f the purpose is one of drawing the constitutional limits on the taxing power, would it not be meaningful to utilize a worst-case scenario and to see model governments, anywhere and everywhere, as revenue-maximizing? That is, given any revenue source, would it not be best to assume maximal exploitation?"
James M. Buchanan 1992, p.105.

"You must only take care to remove all the vices. If you remove part, you may render the matter worse. … For whatever may be the consequences of such a miraculous transformation of mankind, as would endow them with every species of virtue, and free them from every species of vice; this concerns not the magistrate, who aims only at possibilities. He cannot cure every vice by substituting a virtue in its place. Very often he can only cure one vice by another; and in that case, he ought to prefer what is least pernicious to society." David Hume 1985b [1752], pp.279-80.

I.   Introduction

Worst-case theorizing about government has a lengthy history in political economy (Levy 2002; Toma and Toma 1984). David Hume provides the classic statement of worst-case theorizing about government in political economy: "Political writers have established it as a maxim, that, in contriving any system of government, and fixing the several checks and controuls of the constitution, every man ought to be supposed a *knave*, and to have no other end, in all his actions, than private interest" (Hume 1985a [1752], pp.42-43). Hume's worst-case model of government has attained canonical status in the contemporary constitutional political economy literature (see, e.g., Levy 2002; Brennan and Buchanan 1980, 1985; Sutter 1998; Faria 1999).

J. M. Buchanan – a founding father of constitutional political economy – is (perhaps) uniquely responsible for the revival of worst-case theorizing about government in modern political economy (see, Levy 2002).[1] Worst-case theorizing about government à la Buchanan necessitates adherence to a principle of motivational homogeneity or symmetry: private and public chooser alike are modelled as pursuing their private interest. Failure to model private and public chooser symmetrically will, of course, unduly bias one's analysis in favour of private or public choice per se (Buchanan 1987, p.85, pp.89-90). Just as knavery (the workings of self-interest) may generate market failure in a private choice context (e.g., externalities, private provision of public goods, and monopoly), we have no reason to think

---

[1] "[The] Leviathan assumption appears to be at the heart of the classical conception of constitutional government." (Toma and Toma 1984, p.93). Brennan and Buchanan view their Leviathan model of government as exemplifying "the [worst-case] spirit of the classical political economists" (2000 [1980], p.220). James Mill's 1820 model of government as slave-driver writ large is remarkably similar to the Leviathan model of government provided by Brennan and Buchanan in the late 1970's. Indeed, the suggestion that one model government as slave-driver was not unique to Mill: "Every Monarch is a Slave-holder upon the largest scale" (Bentham 1989 [1822], p.171). Toma and Toma (1984, p.93) suggest that the Brennan-Buchanan Leviathan model "seems to apply naturally to a monarchial form of government."

that said knavery will not similarly generate government failure when operative in any public choice context (Buchanan 1962, 1979a, p.77). [2]

Buchanan is perhaps the most important advocate in modern economics of what we might term analytical egalitarianism. Analytical egalitarianism requires that all – whether black or white, master or servant, planner or kulak – be modelled symmetrically: any differences in their observed behavior lying not in any supposedly intrinsic preferences or abilities (or their national character per se), but rather in their historically contingent budget sets.[3] Analytical egalitarianism thus lies at the core of worst-case thinking in political economy. A key lesson of Buchanan's worst-case philosophy of constitutional political economy is that one ought not judge the desirability of political institutions[4] simply on the basis of their performance under ideal – or best-case – conditions (see, e.g., Brennan and Hamlin 2000, pp.124-125; Levy 2002), but rather, that one ought to evaluate them in accordance with their performance under decidedly less than ideal – or worst-case – conditions (the prevalence of Hume's political knaves for example). Thus, a policy which might prima facie appear optimal if we suppose that policymakers are wholly public-spirited may prove decidedly less than optimal when policymakers are rather more self-interested than we earlier supposed.

In this chapter we revisit the socialist calculation debate of the 1930s and 1940s. Our re-examination of the debate is squarely grounded in the tradition of Buchanan and Hume's worst-case political economy. Traditional accounts of the calculation debate center around the knowledge or quality of information (or lack of such) characterizing the putative socialist planner's information set (see, e.g., Steele 1992). We view the interwar calculation debate as providing a rather useful framework, however, within which critically to scrutinize the coherence (or lack of such) associated with various approaches to worst-case and best-case theorizing in political economy respectively. In particular, we argue that the Austrian 'socialist calculation' argument (Mises 1935 [1920]; Hayek 1945) is not a 'best-case' or 'worst-case' critique per se of socialist planning, but rather, that the desirability (or otherwise) of socialist calculation is not independent of the assumptions we make about the planner objective function. Thus, rather than questioning the information or knowledge (Hayek 1945) available (or otherwise) to economic planners or other public choosers, however, we follow the worst-case political economy tradition in public choice theory (especially the work of say, J. M. Buchanan or Gordon Tullock) by largely focusing upon worst-case motivational suppositions: private and public chooser alike are homo economicus always and everywhere. [5] By taking planner self-interest (or conversely, planner benevolence) seriously we provide a rather novel interpretation of the interwar calculation debate. In particular, we challenge a variety of important Austrian political economy conclusions.

---

[2] "[T]he economist who utilizes *homo economicus*, who can identify market failure … is under an obligation to identify government or political failure" (Buchanan 1979a, p.77).
[3] "From Adam Smith through John Stuart Mill, classical economists presumed that, for purposes of analysis, people are the same" (Levy, Peart, Farrant, 2005, p.3).
[4] Alternative sets of 'rules of the game', to invoke Buchanan's favored term
[5] "The incompatibility of the incentive structure was not a central feature of the socialist calculation debate of the 1930's" J. M. Buchanan (2001, p.235)

Participants in the socialist calculation debate of the 1930's and 1940's - whether favorable to market socialism or otherwise - modeled public choosers as rather more akin to what Buchanan characterizes as *non-Homo Economicus* than Hume's knave: Thus Buchanan's rather pungent remark that the caricature of "socialist bureaucrat … [as] *non-Homo economicus* in the purest sense … [has been present] in much serious discussion of real world policy" (1999 [1969], p.88) provides a wholly apt characterization of the calculation debate. Consequently, we may view Mises and Hayek, along with their market socialist opponents, as having subscribed to a supposition of motivational asymmetry during the socialist calculation debate: public choosers (planners) were modeled as public-spirited while private-choosers, by contrast, were supposed self-interested. Where worst-case theorists like Buchanan and Hume model all in accordance with worst case motivational assumptions, Hayek and Mises appear to suppose that planner and kulak have asymmetric motivations.

Austrian political economy[6] has traditionally posed the question as to whether socialist planners can allocate resources to attain any semblance of first-best efficiency. Here, however, we ask whether the assumption of low 'calculative efficacy'[7] might prove desirable. Is high calculative efficacy desirable per se, or is any such desirability rather a function of whatever planner type (whether benevolent or self-interested) we suppose, conjunct with the particular welfare metric we invoke? To illustrate our argument we contrast the Austrian and public choice critiques of socialist economic planning. The Austrian critique of planning faults public-choice theory for its purported failure to accept the logic of the Austrian economic calculation argument (see, e.g., Lavoie 1985a, p.102): Ludwig von Mises showing in 1920 that socialist planners (even the public-spirited variety) were logically precluded from rationally organizing production to attain any semblance of first-best efficiency whatsoever, due to their inability to accurately calculate relative scarcities and opportunity costs without market prices for capital goods. Mises argues that the inability of planners to engage in rational socialist calculation guarantees pervasive economic inefficiency. The public choice critique of planning, however, emphasizes the perverse incentives that lead self-interested planners to generate pervasive artificial shortages, given that planning seems akin to monopoly writ large. Shortages, of course, allow planners to systematically extract bribes and other perquisites (all akin to artificial scarcity rents) from goods-starved consumers (see, e.g., Levy 1990; Shleifer and Vishny 1992).

Section II contrasts the Austrian and public choice critiques of socialist planning, drawing particular attention to the markedly divergent empirical predictions associated with Austrian and public choice critiques respectively regarding the operation of real world Soviet-type 'planning'. Section III argues that perfect information *is* a worst-case assumption if we suppose that planners are self-interested. Where planners are non-benevolent, we suggest

---

[6] e.g., the contributions of Mises and Hayek during the socialist calculation debate
[7] Calculative efficacy refers to the degree to which the central planner is able to overcome the Mises-Hayek economic critique of socialist planning. If calculative efficacy is low, the Mises-Hayek critique significantly constrains planner ability to allocate resources efficiently; conversely, if calculative efficacy is high, the Austrian critique does not hinder the planner.

that imperfect information possesses second-best efficiency type properties. We draw upon the preceding analysis in Section IV to provide a sketch of 'robust' political economy, paying attention to the role that assumptions regarding planner type and "omniscience" play in the Austrian and public choice critiques of planning. Section V concludes.

II.   Taking the worst case seriously in the Socialist Calculation Debate

Robust political economy and worst-case thinking enjoy a rich heritage in political economy, tracing back through Hume's dictum (cited earlier) to Mill's warning:

> Whether the institution to be defended is slavery, political absolutism, or the absolutism of the head of a family, we are always expected to judge of it from its best instances; and we are presented with pictures of loving exercise of authority on one side, loving submission to it on the other – superior wisdom ordering all things for the greatest good of the dependents, and surrounded by their smiles and benedictions. All this would be very much to the purpose if any one pretended that there are no such things as good men. Who doubts that there may be great goodness, and great happiness, and great affection, under the absolute government of a good man? Meanwhile, *laws and institutions require to be adapted, not to good men, but to bad.*" (J.S. Mill, CW, vol. XXI, 287, italics added).

Robustness considerations[8] therefore necessitate that we take Hume and Mill very seriously and focus on how institutions perform under worst-case conditions (e.g., where the supposition of planner benevolence in market socialist models is seriously weakened). Political systems that depend on idealized assumptions of disjoint incentives between planners and ordinary people may work well when the planners are truly idealized Philosopher-Kings, but do not work so well when the planners rejoin the human race. A pessimistic analytical egalitarianism provides for robust foundations (see Levy 2002).

The Austrian 'economic' critique of socialist planning – the 'economic calculation argument' associated with Ludwig von Mises (Mises 1935 [1920]) – argues that any socialist 'price' vector (shadow or otherwise), while grossly suboptimal from the perspective of social efficiency, will, however, be wholly *unbiased*. The calculation argument thus predicts *generalized* calculational chaos under socialist planning: some prices are set too low, while others are set too high relative to their market-clearing values. Thus, the Austrian prediction – namely, that *unbiased* but systematically erring planners will generate pervasive shortages and surpluses – contrasts starkly with the public choice prediction concerning the *bias* that is thought all-too likely to typify any real-world "centrally planned" price vector (Levy 1990): Self-interested planners generate pervasive artificial shortages, which, as recognized by

---

[8] Stiglitz (1994:106–107) states, "we can ask, is the model robust? Do slight changes in the assumptions—particularly the assumptions about which we may have limited confidence—result in marked changes in the conclusions?"

Rothbard[9] (1976) generate rent-extracting opportunities for the planner-cum-price setter to exploit. Interestingly, Rothbard's remarks echo those of Stigler (1975, x): whereas Austrians generally argue that the failures of socialist planning (e.g. pervasive shortages) are simply an instance of planner error, the public choice account suggests that planner error is largely a chimera – Austrian political economy has simply incorrectly specified the planner's objective function.

The Austrian critique of planner "omniscience" (Hayek's "knowledge problem") is clearly applicable to the characteristic 1930's market socialist assumption that planners could easily acquire the information requisite for the formulation of a first-best efficient plan, whether through some Lange-type "trial and error" process or by solving a system of simultaneous equations ex-ante. H. D. Dickinson is representative in supposing that planners have sufficient information to ensure first-best efficiency:

"On the basis of its experience with changing prices and quantities the statistical service of every sales agency would be able to draw up a demand schedule for each type of good sold … Under capitalism, demand schedules are apt to exist in the realm of faith rather than in that of works, but with the greater publicity and fuller statistics of the socialistic economy they would become much easier to draw up" (Dickinson 1939, p.63).

Dickinson, of course, presupposes planner benevolence[10], and with said benevolence, full or high calculative efficacy is clearly a boon irrespective of our welfare metric. Where planners are not wholly public-spirited, however, matters are not so simple. Public choice theory, while vigorously contesting the supposition of planner benevolence, suggests that low calculative efficacy may possess second-best efficiency properties. Interestingly, Dickinson's joint 'best-case' supposition – planner benevolence conjunct with omniscience – raises the following rather intriguing public choice speculation: Suppose the planning authority has perfect information concerning consumer reservation prices (Dickinson (1939, 63, 191), why would planners of the self-interested rather than public-spirited variety not simply engage in perfect price discrimination (as would their self-interested private choosing counterpart were they in a similarly monopolistic position) – thereby extracting all surplus from hapless consumers?

Intriguingly, Mises argues that planner type is utterly irrelevant to the socialist calculation debate (see also Hayek 1935, 2-3; 1986 [1944], 44):

> [T]he socialist economy is impracticable not because men
> are morally too base, but because the problems that a

---

[9] "[H]ow could Mises know that some advocates of price control do not *want* shortages? They may, for example, be socialists, anxious to use the controls as a step towards full collectivism. … Still others may favor price control, *even after learning of the shortages, because they or their political allies will enjoy well-paying jobs or power in a price-control bureaucracy.*" (Rothbard 1976, 102, italics added).

[10] See also Kornai: "Lange's model is based on erroneous assumptions concerning the nature of the "planners." The people at his Central Planning Board are reincarnations of Plato's philosophers, embodiments of unity, unselfishness, and wisdom. They are satisfied with doing nothing else but strictly enforcing the "Rule," adjusting prices to excess demand. *Such an unworldly b ureaucracy never existed in the past and will never exist in the future*" (Kornai 1986, italics added)

5

socialist order would have to solve present insuperable
intellectual difficulties. The impracticability of Socialism is the
result of intellectual, not moral, incapacity. … Even angels, if
they were endowed only with human reason, could not form
a socialistic community. If a socialist community were
capable of economic calculation, it could be set up without
any change in men's moral character (Ludwig von Mises
[1932] 1981, 407, italics added).

Mises, however, neglects to explain why planners of the self-interested rather than
benevolent variety have any interest in attaining first-best efficiency per se. [11]

Taking Benevolence Seriously?

Lavoie (1985b) suggests that the 'knowledge' problem and the 'totalitarian' problem
(the Austrian 'economic' and 'political' critique of socialist planning and government
intervention) are complementary arguments against planning. Lavoie (1985b, p.20) notes:

"[o]f the contemporary advocates of planning who consider
the issue of past failures, most blame them on a lack of
attention to democratic values, on the fact that the wrong
personnel have been in charge, on a lack of statistical data,
or on the supposition that its principles were not carried far
enough. These rationalizations are not supported by the
factual record and the primary arguments raised against
national economic planning – which I will designate the
"totalitarian problem" and the "knowledge problem" – are
more fundamental and are almost completely unaddressed in
contemporary planning proposals."

Nowhere, however, does Lavoie ask whether the Austrian 'political' critique of planning is truly
congruent with the Austrian 'economic' critique of planning. Does the strength (or relevance)
of any one 'Austrian' argument (political or economic) simply serve to weaken whatever
strength (or cogency) the other might have?

We suggest that the Austrian 'political' critique of socialism (the "totalitarian
problem") and the Austrian 'economic' critique of socialism (the "knowledge problem") are
rather incongruent with one another. If the "totalitarian problem" is the relevant worry, the
"knowledge problem" is largely immaterial – or simply serves to attenuate the rapacity
(surplus-extracting proclivities) of the planners. By contrast, were we to follow Mises and
Hayek in assuming public-spirited planners and in holding the "knowledge problem" as being
the relevant concern, those planners, quickly recognizing the strength of the Mises critique,
would eagerly retreat from the debacle of planning and institute a program of economic
liberalization. Indeed, no Western democracy actually implemented a policy of wholesale
planning during the twentieth century – democratic constraints (the selection effects for both
policy and office-holders alike which are intrinsic to democratic 'political markets') apparently
worked to dramatically attenuate – and ultimately to block – any move towards such planning

---

[11] "What is there in public choice theory that also gives the lie to the planning advocates? We need only
return to the ancient Roman query: Who is to guard the guardians? Planners are also utility-maximizing
individuals, and who could predict that planning decisions will be made contrary to the interests of those
who make them?" (Buchanan 1979b, p.272).

(see, e.g., Wiles 1967, p.18). By contrast, any examples of twentieth-century experiments in wholesale planning are provided by countries akin to the Soviet Union, where non-benevolent agents both initiated the said experiments with planning and, because economic liberalization endangered their rents, vehemently resisted economic reform.

Of course, Austrian critics of planning (e.g., Hayek 1944; Lavoie 1985b; Boettke 2001) argue that the adverse selection mechanisms supposedly intrinsic to political markets (their workings being decidedly exacerbated in the case of wholesale economic planning), will operate to guarantee that any initial set of planners – benevolent by supposition and responsible for setting up the planning machinery, and wholly willing to reverse course if planning is socially inefficient – are replaced by a set of rather more malign planners (see, e.g., Chapter 10 of Hayek's *Road to Serfdom*): The "worst" will rise to the top of the planning bureaucracy. Lavoie's remarks are representative:

> "The totalitarian problem of planning, which its critics [e.g., Hayek 1944] have raised, was never claimed to be a consequence of the evil intentions of planning advocates, but rather of the kinds of institutions planning puts into place and the *inherent dynamics* [our italics] of these institutions … national economic planning involves *by its very nature* the concentration of immense political and economic power in a single agency … [this] concentration [of power] will naturally lend itself to abuse by those hungry for power and eminently competent in its exercise. *It does not matter who initially is put in charge or how much that person and his or her employees emphasize or love democracy.* [our italics]" (1985b, pp.20-21).

Lavoie's logic, however, appears rather lacking in empirical veracity. We remind the reader that Hayek's argument that the worst would rise to the top in a planned economy was not intended as a purely abstract argument: The argument Hayek provided in *The Road to Serfdom* was supposed to apply to the post 1945 Labour government in Britain (Hayek 1994 [1956], pp.xxxvii-xxxviii). Toye (2004, p.227, italics added) is apposite: "[Stafford] Cripps himself admitted, *the* [1945 Labour] *government's determination not to violate its own democratic precepts* meant that it could not take the measures necessary to guarantee the execution of its own plans." One may reformulate Lavoie's "intrinsic dynamics" argument to argue that benevolent planners lack sufficient ideological flexibility to retreat from planning even once its failure becomes readily apparent (see, e.g., Boettke 2005). Any such argument, however, would need to adequately explain how the selection effects intrinsic to democratic politics work to get the relevant "single-minded idealists" (Hayek 1994, p.61) wholly lacking in ideological flexibility into the initial candidate pool (let alone into office). Democratic constraints selecting for those particular public choosers who actually get to vote for or against the implementation of any policy of wholesale planning are surely of the utmost importance. Thus, the extent to which such agents "love democracy" will determine their marginal willingness to trade-off the constraints of democratic politics for an ever more rigorous plan. Lavoie, of course, simply presupposes that a central planning authority is already in place. We suggest, however, that Austrian opponents of planning simply fail to

provide anything akin to an adequate explanation as to why benevolent agents initially adopt central planning, let alone why such agents would more vigorously pursue any such policy once the pervasive economic chaos supposedly inherent to planning rears its head. These points aside for the moment, however, we suggest that Lavoie's logic – assuming for the sake of argument that the Austrian "adverse selection" mechanism is accurate[12] – suggests that the "knowledge problem" is a rather irrelevant critique of planning: The dynamics supposedly intrinsic to planning generate a Stalin-type or worst-case equilibrium[13] whenever wholesale economic planning is attempted, irrespective of whether or not the said attempt is made by benevolent planners who in Lavoie's words "love democracy". Thus, it appears that from an Austrian political economy perspective, it is the "totalitarian" argument against planning which provides a far stronger critique of planning than the "knowledge problem" irrespective of planner type. Calculative efficacy may prove low, wholesale economic planning thereby generating pervasive deadweight losses, but any retreat from said planning is simply not possible (irrespective of whether planner type is public-spirited or self-interested): The institutional dynamics to which Lavoie makes reference supposedly militating against any possible retreat in the case of benevolent planners (who are replaced by Hayek's 'worst'), while non-benevolent planners, by contrast, while having no desire to retreat from planning anyhow, also have no desire to implement a socially efficient plan. Thus any claim that the planners have low calculative efficacy is immaterial; the benevolent-planners inevitably giving way to planners who are rather less benevolent (or downright malign), and having no desire to attain a first-best efficient outcome anyhow. Inability to calculate simply appears neither here nor there as regards the unfolding of the Austrian 'planning leads to totalitarianism' mechanism.

An alternate interpretation of the "dynamics" inherent to planning is that the dynamics are *contingent* on planners having low calculative efficacy per se (Hayek's knowledge problem): without the failure of planning (pervasive calculational chaos), the conditions will never be ripe for the rise of the demagogue (e.g., Boettke 2001, 52). This interpretation, however, leaves much to be desired. Let us assume perfect calculative efficacy and initial planner benevolence. As we discuss in Section III, the potential rents to be won by anyone capable of capturing the planning apparatus in such a case are huge. Consequently, a non-benevolent would-be planner will be willing to bid up to the full value of those potential rents in order to secure the position. In order to maintain his position at the top of the apparatus, the benevolent planner will need to extract enough rents to defend his position (Crampton and Farrant, 2005). More to the point, if we find the Boettke-Hayek-Lavoie mechanism sketched above at all persuasive, we would expect to see at least one data point where a benevolent planner, after having initially established the planning apparatus, was supplanted by a

---

[12] "Hayek's argument is an application of comparative advantage to the selection of leaders within the system." (Boettke 2001, 52).
[13] What Cullenberg 1992, refers to as "hideous communism".

Stalinist-type. To the best of our knowledge, however, such a case does not exist.[14] Where planning was initiated by the benevolent, a retreat from planning followed; where initiated by the non-benevolent, however, there was no retreat until the ultimate collapse. The knowledge problem once again simply appears to take second stage to the totalitarian problem.

Intriguingly, F. A. Hayek apparently agrees with our point that the economic calculation argument takes a role of secondary importance relative to the public-choice (incentives) critique of planning for the purpose of comparative institutional analysis. Anticipating Demsetz's Nirvana critique (1969), Hayek insists that one cannot compare institutions (or sets of rules of the game) as they would operate under ideal conditions (e.g., planner benevolence) with relatively imperfect existing institutions. Thus, Hayek suggests that in comparing markets and planning,

> "[i]f the comparison is to be of any value … it has to be made on the assumption that either system is realized in the form which is most rational under the given conditions of human nature [planner type] and external circumstances which must of course be accepted" (1935, 38).

If planner type ("human nature") provides an important constraint upon which of various potential equilibria are more likely empirically, public choice theory clearly then takes precedence over Austrian political economy as a critique of planning. Thus we suggest that Austrian theory (particularly Hayekian strictures concerning imperfect information) has relatively little to add to the already existing corpus of worst-case theorizing (public-choice theory and constitutional political economy). Indeed, given the primacy of self-interested planner type, as we argue below, we ought to be thankful that self-interested planners cannot engage in rational economic calculation. Perfect information (ability to calculate) conjunct with planner self-interest generates the *worst-case* outcome: the perfectly-extracting Socialist Leviathan. Given Hayek's acceptance that analysis must proceed upon the acceptance of *given* planner type, it simply becomes immaterial whether would-be socialist planners can actually engage in rational economic calculation. Irrespective of the possibility – or otherwise – of economic calculation under socialism, Hayek appears to cede that the principal relevant consideration is the fact that socialist planners lack any incentive to allocate resources so as to maximize social welfare per se. Indeed, given the worst-case assumption of *homo economicus* – or the "given conditions of human nature" (absence of non-homo economicus) as Hayek put it – quite the contrary is the case: planners will allocate resources to maximize their own personal well-being, irrespective of any deadweight losses that the resultant pattern of production and distribution might entail.

---

[14] Wiles is apposite: "[T]he war economies of Western Europe … have completely disappeared. Even mere social democracy has taken a bad beating in Western Europe since the war, and retains a toehold in power only at the price of total Revisionism. Hayek rightly diagnosed the nature of the game, but he grossly misjudged the strengths of the players." (Wiles 1967, p.18).

III.   The Worst worst-case?

As we suggest above, given self-interested planners, the supposition of perfect information provides a worst-case assumption in public choice analysis. Welfare increases as we relax the worst-case supposition that planners have unhindered ability to formulate and implement economic planning. By welfare, we mean some measure of the utility enjoyed by the modal citizen; our results are robust to several alternative welfare measures. A median welfare standard suffices (the level of utility enjoyed by the median citizen). So too does any mean welfare standard (total societal utility divided by the number of people) that incorporates any non-trivial diminishing marginal utility of income – simply the idea that the marginal dollar appropriated by the central planner generates less utility for him than it would have provided to the citizen from whom it was taken. Imperfect information conjunct with agency problems (cooperative inefficacy) and imperfect monitoring may improve outcomes.

Our argument provides the 'economic calculation' complement to Cowen and Sutter's (1999) agent-type critique of standard public-goods theory. Cowen and Sutter (1999) suggest that any increase in what they term "cooperative efficacy," (p.161) will generate welfare gains *and* losses. When private or public choosers find it easier to engage in the degree of cooperation which is requisite if optimal (or near-optimal) private or public provision of public goods is to prove feasible, they can also more easily cooperate with one another to produce a variety of public bads (see Cowen and Sutter 1999, p.163). We suggest that any increase in planner ability to calculate may similarly prove a public bad where planners are self-interested. Whereas Cowen and Sutter (1999, p.161) refer to "cooperative efficacy," we refer to the supposition of perfect information as "calculative" efficacy. Indeed, Cowen and Sutter's account complements the general thrust of our argument:. Any posited increase in "cooperative efficacy" (given 'worst-case' planner type) will necessarily facilitate greater collusion among upstream and downstream monopolist-planners (thus reducing the potential 'defection' inherent to any agency relationship), thereby facilitating more efficient joint bargaining over the distribution of the surplus extracted from consumers (Shleifer and Vishny 1992). We suggest that 'worst-case' political economy ought to posit maximum "cooperative efficacy" along with perfect information (calculative efficacy) and planner self-interest.

Figure 1: A taxonomy of incentives and efficacy.

	Calculative Efficacy	Cooperative Efficacy
Benevolent Planners	Desirable. Allows for the formulation of the SWF-maximizing plan.	Desirable. Allows for the implementation of the SWF-maximizing plan.
Self-Interested Planners	Undesirable. Allows for the calculation of maximal surplus extraction; output is maximized but is entirely expropriated.	Undesirable. Prevents individuals from colluding with lower levels of government for protection from higher levels; allows perfect price discrimination result to obtain.

The public-choice critique of planning traditionally posits that lower level planners (industry managers) efficiently collude with one another to extract surplus (bribes) from consumers (see, e.g., Shleifer and Vishny 1992). Although such an assumption makes for analytical tractability (downplaying the importance of the 'upstream-downstream' monopolists problem familiar from intermediate industrial organization texts) we find it somewhat ad-hoc. Why do the 'lower-level' planners not readily engage in equally efficient collusion with 'higher-level' planners (e.g., the state treasury)? Such collusion would entail that socialist industry managers maximize their rents by simply charging the 'monopoly' monetary price (extracting their rents like any standard monopolist) rather than, as traditional public-choice models of planning suppose, setting price below that at which the market clears and inefficiently extracting their rents in the form of bribes. Thus, public choice models apparently presuppose some degree of cooperative inefficacy.

Less than full cooperative efficacy, however, possesses second-best efficiency properties. Full cooperative efficacy simply failed to obtain in the Soviet Union, and fortunately so. Under the full worst-case scenario, planners at all levels would collude successfully and bargain efficiently. Perfect information, conjunct with maximum cooperative efficacy and self-interested planner type ensures maximal surplus extraction: The worst *worst-case* scenario thereby obtaining. We suggest that the traditional public-choice critique of planning provides a less than truly worst-case account on the grounds that although total income is lower (in result of inefficient rent-extraction and the prevalence of 'upstream-downstream' monopoly problems), citizen welfare is still somewhat greater than is the case in our suggested *worst worst-case* scenario.[15] Indeed, as Cowen and Sutter (1999, 166) note, "the optimal level of cooperative efficacy is higher when leaders are altruistic rather than self-seeking." Similarly, the optimal degree of calculative efficacy is higher when planner type is 'benevolent'.

From the perspective of total output maximization, planner type is irrelevant where full cooperative and calculative efficiency obtain – the distribution of surplus is irrelevant to any welfare ranking based only on total output. Where full 'calculative' efficacy obtains, self-interested planners select the socially optimal set of production projects, simply appropriating all resultant surplus for their own use. With less than full calculative efficacy, however, planners select self-enriching projects, irrespective of any divergence between the private and social costs of any such policy choice. Either way, however, it is planner type (planner self-interest), rather than calculative inefficacy per se, which is driving the story.

---

[15] We assume away the possibility of free entry into the 'industry' of rent-extraction. Shleifer and Vishny (1993) suggest that mean and median income will (in the limit) converge on zero where entry into the 'corruption' or 'bribe extraction' industry is totally free. In the Shleifer and Vishny case, as *N* increases, deadweight losses increase concomitantly. Alternatively, assume that maximal cooperative efficacy holds regardless of entry, and that the joint maximal level of extraction obtains regardless of *N*.

Figure 2: Calculation and Cooperation with Benevolent Planners

	Calculative Efficacy	Calculative Inefficacy
Cooperative Efficacy	Maximal mean and median welfare. The efficient plan obtains.	Planners grope towards SWF improvements. Shortages are met with price increases and production increases; surpluses met with price reductions and production cutbacks. Shortages and surpluses equally likely. Plan is always updated to account for previous-period results. Equilibrium by trial and error.
Cooperative Inefficacy	Central planner knows the overall SWF maximizing plan; local agents implement local SWF maximizing plans instead. Lose efficiencies of larger-scoped planning.	Worst case. Even the suboptimal plan cannot be implemented. Pervasive economic irrationality and large deadweight losses result. Benevolent planners will retreat from planning.

The self-interested planner – conjunct with calculative efficacy – will always provide the first-best efficient resource allocation since doing so allows for greater levels of surplus extraction. Output is maximized while welfare reduces to epsilon. From an output-based standard, a perfectly price discriminating leviathan is no worse than perfect competition. Where citizen welfare provides the relevant standard, however, the perfectly price discriminating socialist leviathan is the *worst* outcome.

Where government agents are self-interested we suggest that 'calculative' inefficacy may possess second-best efficiency properties. Thus, from a welfare perspective, the socially optimal level of 'calculative' efficacy will decline if selection effects induce knavish agents (Hume) to pursue positions in the planning bureaucracy. Hayek (1944) argues that the "worst get on top" because the planners cannot calculate (see Boettke 1995). We argue that the worst are far more likely to "get on top" when 'calculative' efficacy obtains.[16] Why select into the planning bureaucracy if opportunities for self-enrichment are few and far between?

To illustrate our point concerning cooperative and calculative efficacy, consider the case of two levels of government, each with surplus extraction authority over an individual. Under assumptions of full cooperative and calculative efficacy, the two levels of government efficiently bargain between themselves over a division of extracted total surplus. Calculative efficacy implies that each level of government can perfectly observe the individual's full demand schedules and reservation utility levels, and cooperative efficacy implies that the levels of government work together towards full extraction. From a welfare perspective, this is

---

[16] A "realistic supposition is that governments pursue their own interests rather than the public interest … It is not obvious that we wish to increase cooperative efficacy in governments of this kind." (Cowen and Sutter 1999, 168-169). Moreover, increasing "cooperative [calculative] efficacy for selfish governments may bring very high costs and also induce knavish politicians to pursue power" (169). Thus, we argue that Hayek's "worst" are more likely to get on "top" where full calculative efficacy obtains.

the worst possible worst-case scenario. The individual is left with the bare subsistence level of consumption.

Now, let us relax the assumption of calculative efficacy while retaining that of full cooperative efficacy. Both levels of government will cooperate in the attempt to extract the fullest possible amount of surplus from the individual. Failing full calculative efficacy, however, the government cannot restrict itself to taxing only inframarginal gains: deadweight losses result as individual behavior responds to the tax rates. Though the total amount extracted will be lower than in the first case, the individual will be slightly better off.[17] From a welfare perspective, reductions in the amount of information available to the planning agency appear desirable despite the decline in total output.

Relaxing now also the assumption of cooperative efficacy along with the supposition of full calculative efficacy, each of the two different levels of government attempts to maximize its own taxation revenue. The local and regional levels of government attempt to extract quantities of surplus L and R from the individual; because they cannot restrict themselves to taxing inframarginal rents, however, they extract an amount equal to $L + R < T$, where T is the amount of extraction undertaken under conditions of full cooperative and calculative efficacy. We suppose the local level of government offers the individual taxpayer assistance in helping to misinform the regional level of government as to the individual's available surplus. In that case, the individual faces surplus extraction of $L' + R' < L + R$, where $L'>L$ and $R'<R$. The individual is left better off by reductions in the ability of planning agents to calculate and coordinate their surplus extraction activities. When planning agents are self-interested, assumptions of full cooperative and calculative efficacy provide worst-case assumptions. Thus, where cooperative efficacy is less than perfect we should expect to see the center (seeking to maximize its share of the surplus) regularly rotating lower-level bureaucrats. Planner rotation weakens lower-level cooperative efficacy. Joseph Berliner (1952, p.362) notes the "relatively short tenure" in office of [Soviet] plant directors, arguing that such "fluidity of directors must impair the efficiency of management, and directors must lose a considerable amount of time in getting used to new plants." Rotation, however, generates "beneficial consequences for the [Soviet] State, such as the disruption of a smoothly operating system of "mutual support" [lower-level cooperative efficacy or collusion] among officials who have worked together a long time in the same plant." (1952, p.362). Full cooperative efficacy is clearly a boon where planner type is benevolent and a negative where planner type is selfish.[18]

---

[17] Olson (2000) provides an analysis of the Soviet Union under Stalin that complements our account: The Stalinist regime extracted surplus from the populace by taxing inframarginal wages very highly. Perfect information would have allowed the regime to engage in perfectly discriminatory taxation – thereby taxing away any surplus above that required for subsistence (Olson 2000, 125).

[18] "Low [cooperative-calculative] efficacy may have been preferable under the Soviet system, when the government did more good than bad" (Cowen and Sutter 1999, p.171).

Figure 3: Calculation and cooperation with Self Interested Planners

	Calculative Efficacy	Calculative Inefficacy[19]
Cooperative Efficacy	Maximal output; minimal welfare. All surplus is efficiently extracted. Worst-case outcome from welfare perspective.	Second-best efficiency in output. Planners grope towards maximal extraction. Deadweight losses; individuals keep some surplus as planners cannot calculate full extraction price levels.
Cooperative Inefficacy	Welfare higher than in all but lower right hand quadrant. Efficient extraction plan devised by central government, but lower levels subvert, allowing consumers to keep some surplus in exchange for bribes.	Second-best citizen welfare.

IV.   Robust Political Economy?

Recently, Peter Boettke and various co-authors have provided a reading of Hayek's work – especially Hayek's contributions to the socialist calculation debate – which places Hayek squarely within the 'worst-case' political economy tradition. Boettke et al build on their 'worst-case' reading of Hayek in advocating an approach to worst-case political economy which, while maintaining a Buchanan-Hume type supposition of analytical egalitarianism regarding planner motivation - self-interest characterizes both private and public chooser alike – injects a decidedly Austrian flavour regarding information (see, e.g., Boettke 1999, Boettke and Lopez 2002, Boettke and Leeson 2004).   Elsewhere, Boettke (1999, pp. xxx) suggests that a truly robust political economy "must explore both sides of the intellectual coin of comparative institutional analysis: incentives and information." Reiterating his earlier point, Boettke (2001, 332, italics added)[20] states that a "robust political economy should work from a starting point which accepts neither benevolence nor omniscience. … There is a good case in human affairs for striving to build institutions from *pessimistic assumptions* about *motivation* and *knowledge*, and thus guarding against the worst-case situations."

We argue here, however, that traditional worst-case theorizing à la Buchanan-Tullock is not necessarily incorrect in ignoring informational imperfections (Hayek's "knowledge problem") – and that the worst 'worst-case' scenario is one where public choosers are both self-interested *and* have full information. While Hayek rightly argues that poor quality information will plague any attempt by *benevolent* planners to rationally plan an economy, we argue that benevolent planners will (if we take benevolence seriously) surely retreat from planning once its failure becomes readily apparent. Alternatively, said would-be planners will never try a policy of wholesale command planning due to a variety of democratic constraints.

---

[20] Boettke and Leeson (2004) further reiterate the point.

Peter Wiles is rather apposite: "It *is* difficult to reconcile parliamentary opposition and the rule of law with a command economy" (Wiles 1967, p.18).[21]

While a public choice reading of Hayek's *Road to Serfdom* (1944) might suggest that planners are self-interested and thus will not retreat from planning (see, e.g., Boettke 1995), we argue that the supposition of planner self-interest makes the Austrian economic critique of planning (the calculation or 'knowledge' problem) either a largely irrelevant consideration – the planners are not seeking to attain first-best efficiency anyhow – or a constraint allowing for the second-best outcome: the knowledge problem attenuating the surplus-extracting venality characterizing self-interested planners. When planners are not benevolent, irrespective of their putative information, first best solutions simply cannot obtain in welfare space.[22] And in second-best worlds, we cannot expect that moves towards optimality measured in first-best space are necessarily desirable. As Lipsey and Lancaster point out in their seminal article, if a constraint "prevents the attainment of one of the Paretian conditions, the other Paretian conditions, although still attainable, are, in general, no longer desirable." (1956, p.11) We argue that similar strictures hold in the designation of best-case and worst-case assumptions. Specifically, if one of the underlying assumptions that a political economy model makes concerning the state of the world fails to obtain, what serves as a worst-case assumption in the model can, in reality, prove something of a positive blessing.

In a first-best world of benevolent planners, full calculative and cooperative efficacies are highly desirable on either a welfare or an output metric. Thus, Boettke (2001, 332) and Boettke and Lopez (2002) argue that perfect information (calculative efficacy) is clearly a best-case assumption. We suggest, however, that they cannot relax assumptions of planner benevolence while simultaneously insisting that Austrian informational assumptions provide robust worst-case foundations.[23] Stand-alone assumptions of planner "benevolence" or "omniscience" cannot be designated as either worst-case or best-case suppositions per se (see, e.g., Boettke 1999, 2001; Boettke and Leeson 2004): Whether any particular informational (or motivational) supposition provides a best-case or worst-case assumption is not independent of whatever complementary supposition the theorist makes regarding planner type (or "omniscience"). Where planners are self-interested, Austrian suppositions regarding imperfect information provide an inadequately "pessimistic" assumption about planner "knowledge" (*contra* Boettke 2001, 332; Boettke and Leeson 2004). Calculative inefficacy may prove a boon where planners are wholly self-interested. In the second-best world of self-interested planners, neither full coordinative nor calculative efficacy is

---

[21] Wiles intriguingly suggests that the trades unions may have acted as a veto player blocking any move towards Hayek's 'serfdom' in post-war Britain. Government mandated wage freezes (surely an early step towards serfdom according to Hayekian logic) are not going to work "where trade unions are strong and it is held that law ought to rule … [the policy provides] a tremendous historical affirmation that socialism excludes collective bargaining and socialist parties [e.g,, the Labour Party] must not be paid by trade unions … in a society such as ours *is*, … it is a complete non-starter" (Wiles 1976, pp.18-19).
[22] Of course, under cooperative and calculative efficacy, first best output *can* obtain. The planner extracts all surplus.
[23] Benson's remarks (2002, 253) are particularly apposite: "it may be that dropping the benevolence assumption does "substantively" alter the conclusions of Austrian political economy."

necessarily desirable. To assume full calculative and cooperative efficacies is to make a truly worst-case assumption.

V.   Conclusion: Are Two Vices Preferable to One?

Robust political economy requires analytical egalitarianism as a starting point; this is, however, a necessary rather than a sufficient condition: while an assumption that all are alike in their omniscience, omnipotence and beneficence satisfies analytical egalitarianism, such an assumption would not prove a solid grounding for robust political economy. We have shown that the best or worst case nature of particular assumptions regarding knowledge and incentives are entirely contingent on the joint assumptions made regarding their respective motivational or informational counterpart. While perfect calculative efficacy in our socialist calculation example might seem a very optimistic and "best case" assumption, it is necessary when the Austrian assumption of benevolence is weakened. With less than perfect benevolence, perfect information hardly provides a best case scenario. Consequently, while Boettke's relaxing of the benevolence assumption within Austrian political economy may yield important insights, it will not provide the robust foundations he seeks. A robust and analytically egalitarian political economy must apply Hume's dictum without recourse to Austrian informational considerations.

More to the point, relaxing the benevolence assumption within Austrian political economy helps us better to see the root of the Soviet system's undesirability. Mises and Hayek persuasively argued that even benevolent planners could not engage in the kind of economic calculation that would be necessary to create an efficient planned economy. Mises and Hayek, however, failed to provide any coherent explanation as to why a benevolent planner would inexorably set down the road towards full-blown central planning, or to coherently explain the institutional dynamic preventing a benevolent planner from turning away from central planning, once the economic problems supposedly inherent in that system became apparent. Absent non-benevolent agents, we can have little explanation as to why central planning would proceed beyond the first famines. Regardless of Stalin's ability to engage in rational economic calculation, one would not wish to be one of his subjects; the knowledge problem is at worst irrelevant and at best ameliorative when Stalin rules. We argue that a great deal will depend on the nature of the agent instituting central planning and on the institutional framework within which he operates. In no case has full central planning ever been initiated by benevolent agents who were supplanted by despots, as in Hayek's story; real world central planners were non-benevolent ex ante. Contrarily, much of Western Europe started down the road to central planning in the years following the Second World War; but, when problems emerged, their governments turned back from planning and

nationalization, preferring a welfare state to the totalitarian apparatus that would be necessary to implement full scale planning.[24]

Intriguingly, Don Lavoie (1985b, p.214) remarks that it is "fundamentally misleading to view planning in practice only as a *failure* to achieve … progressive ideals … I think it can just as well be said that planning in practice has been a stunning *success* in achieving some entirely different goals … the legacy of *practical* planning procedures traces to an unambiguously reactionary beginning." Thus Lavoie - thereby apparently undercutting his claim that the knowledge problem and totalitarian problem are complementary arguments against planning rather than substitutes – clearly recognizes what was so readily apparent to Frank Knight during the calculation debate: From the perspective of planner self-interest the 'failure' of planning is no failure whatsoever. Lavoie is apposite: "Stalinism … is not an aberration or a betrayal of true planning or a failure of its designers to attain Marxist ideals but, rather, a *successful realization of reactionary ideals*" (p.215).[25] The "totalitarian problem" always outweighed the "economic problem"; consequently, the "economic problem" highlighted by Mises and Hayek proves something of a boon to those living under a socialist system. As robust political economy seeks to guard against the worst case scenario, maintaining a narrow focus on the problem of governing the governors seems best.

Our paper began with Hume's warning concerning political knavery. In Hume's terms,[26] the welfare losses attributable to one vice (or imperfection), namely, that of planner self-interest, are attenuated by that of low calculative efficacy. Thus, to cure one vice (low calculative efficacy), without also replacing planner self-interest with planner benevolence, would simply exacerbate welfare losses.

---

[24] "[T]hey [the Labour government] moved towards a final acceptance of a planning machine that had no executive power, and which has been compared with a mere 'think tank' … This was partly because … there many direct obstacles to the creation of a planned economy in Britain. Equally, these institutional barriers were complemented and reinforced by the clear *inhibitions to comprehensive planning inherent in the ideology and structure of the Labour movement itself*" (Toye 2004, pp.236-237, italics added). "[I]t might well be argued … the Atlee government's policy in the 1940's was merely interventionism under the barest veneer of planning" (Toye 2004 pp.4-5). "Herbert Morrison told the [1945] party conference, 'this document [the Labour party manifesto] *Let us Face the Future* may be described as Labour's Five Year Plan' … [W]hen discussing the reconstruction of Britain, he [Morrison] was not afraid to refer to the Soviet example … [The manifesto] had in practice about as much connection to a Russian plan as Churchill's four-year plan had to Goering's. There was no commitment to establish any form of supreme economic authority. Substantial 'constructive enterprise and private endeavour' would co-exist with publicly owned industries … perhaps the stronges t planning commitment, the national investment board, was abandoned by Labour in power" (pp.154-155).
[25] "The monopoly power of the Communist party and its government bureaucrats was successfully secured [by Stalin]; the economic system was brought to serve the interests of a New Class" (Lavoie 1985b, p.229). Throughout the socialist calculation debate, Frank Knight argued that the technical issue of socialist calculation per se was not truly germane to the planning versus markets debate: "Theory and current experience warrant the gravest doubts as to whether the human group in command of a collectivist economy would make any serious effort to find for socio-economic problems [first-best] solutions of the form taken for granted by Professor Pigou and other liberals" (Knight 1938b, p.243). Similarly, Knight argued that a "socialistic government would not try *intelligently to function in accord with economic principles in securing maximum satisfaction of the economic needs of the masses*" (Knight 1938a, p.268, italics added).
[26] See the epigram.

VI.   Bibliography

Benson, Bruce. 2003. "Regulatory Disequilibrium and Inefficiency: The Case of Interstate Trucking." Review of Austrian Economics. 15(2/3): 229–255.

Bentham, Jeremy. [1822] 1989. First Principles Preparatory to Constitutional Code. Edited by P. Schofield. Oxford: Clarendon.

Berliner, Joseph S. 1952. "The Informal Organization of the Soviet Firm." Quarterly Journal of Economics. 66.3: 342-365.

Boettke, Peter J. 1995. "Hayek's The Road to Serfdom Revisited: Government Failure in the Argument Against Socialism." Eastern Economic Journal. 21(1): 7-26.

Boettke, Peter J. 1999. "Introduction." In vol. 1 of The Legacy of Friedrich von Hayek, edited by Peter J. Boettke. Northampton: Edward Elgar.

Boettke, Peter J. 2001. Calculation and Coordination: Essays on socialism and transitional political economy. London: Routledge.

Boettke, Peter J., and Edward Lopez. 2002. "Austrian Economics and Public Choice." Review of Austrian Economics. 15(2/3): 111-119.

Boettke, Peter J. and Peter T. Leeson. 2004. "Liberalism, Socialism, and Robust Political Economy." Journal of Markets and Morality. 7:1 (Spring): 99-111.

Boettke, Peter J. 2005. "On reading Hayek: Choice, Consequences and The Road to Serfdom." European Journal of Political Economy. Forthcoming.

Brennan, Geoffrey and James M. Buchanan. [1980] 2000. The Power to Tax. Indianapolis: Liberty Press.

Brennan, Geoffrey and James M. Buchanan. [1985] 2000. The Reason of Rules. Indianapolis, Liberty Press.

Brennan, Geoffrey and Alan Hamlin. 2000. Democratic Devices and Desires. Cambridge: Cambridge University Press.

Buchanan, James M. 1962. "Politics, Policy, and Pigovian Margins." Economica. 29 (February): 17-28.

Buchanan, James M. 1979a. "Professor Alchian on Economic Method." In What Should Economists Do? Indianapolis: Liberty Press.

Buchanan, James M. 1979b. "Public Choice and Ideology." In What Should Economists Do? Indianapolis: Liberty Press.

Buchanan, James M. 1987. Economics: Between Predictive Science and Moral Philosophy. College Station: Texas A & M University Press.

Buchanan, James M. 1992. Better than Plowing. Chicago: University of Chicago Press.

Buchanan, James M. [1969] 1999. Cost and Choice. Indianapolis: Liberty Press.

Buchanan, James M. 2001. Ideas, Persons, and Events. Indianapolis: Liberty Press.

Cowen, Tyler, and Daniel Sutter. 1999. "The Costs of Cooperation." Review of Austrian Economics. 12(2): 161-173.

Crampton, Eric and Andrew Farrant. 2006. "Relaxing Benevolence: public choice, socialist calculation, and planner self-interest?" Review of Austrian Economics. 19:1 (forthcoming).

Cullenberg, Stephen. 1992. "Socialism's Burden: Toward a Thin Definition of Socialism." Rethinking Marxism, 5(2): 64-83.

Demsetz, Harold. 1969. "Information and Efficiency: Another Viewpoint." Journal of Law and Economics, 12: 1–22.

Dickinson, H. D. 1939. Economics of Socialism. Oxford University Press.

Faria, J. R. 1999. "Is there an optimal constitution?" Constitutional Political Economy 10, 177-184.

Hayek, F. A. 1935. Collectivist Economic Planning. London: George Routledge and Sons.

Hayek, F. A. 1945. "The Use of Knowledge in Society." The American Economic Review, 35(4): 519-530.

Hayek, F. A. [1944] 1986. The Road To Serfdom. London: Ark Paperbacks.

Hayek, F. A. [1956] 1994.The Road to Serfdom. Chicago: University of Chicago Press.

Hume, David. 1985a. "Of the Independency of Parliament." In Essays: Moral, Political, and Literary, edited by Eugene F. Miller. Indianapolis: Liberty Press.

Hume, David. 1985b. "Of Refinement in the Arts" In Essays: Moral, Political, and Literary, op. cit.

Knight, F. H. 1938a. "Two economists on socialism." Journal of Political Economy, 46: 241-250.

Knight, F. H. 1938b. "Socialism: an economic and sociological analysis." Journal of Political Economy, 46: 267-269.

Kornai, Janos. 1986. "The Hungarian Reform Process: Visions, Hopes, and Reality." Journal of Economic Literature. 24.4: 1687-1737.

Lavoie, Don. 1985a. Rivalry and Central Planning. Cambridge: Cambridge University Press.

Lavoie, Don. 1985b. National Economic Planning: What is Left? Cambridge, MA: Ballinger Publishing Company.

Levy, David M. 1990. "The bias in centrally planned prices." Public Choice. 67: 213-226.

Levy, David M. 2002. "Robust Institutions." Review of Austrian Economics. 15(2-3): 131-142.

Levy, David M., Sandra Peart and Andrew Farrant. 2005. "The Spatial Politics of F. A. Hayek's Road to Serfdom." European Journal of Political Economy, forthcoming.

Lipsey, Richard, and Kelvin Lancaster. 1956. "The General Theory of Second Best." The Review of Economic Studies. 24(1): 11-32.

Mill, J. S. 1984. Essays on Equality, Law, and Education, Vol. XXI of Collected Works of John Stuart Mill, edited by J. M. Robson. Toronto: University of Toronto Press.

Olson, Mancur. 2000. Power and Prosperity. New York: Basic Books.

Rothbard, Murray N. 1976. "Praxeology, Value judgments, and Public Policy." In The Foundations of Modern Austrian Economics, edited by E. G. Dolan. Sheed & Ward, Inc.

Shleifer, Andrei and Robert Vishny. 1992. "Pervasive shortages under socialism." RAND Journal of Economics. 23(2): 237-246.

Shleifer, Andrei and Robert Vishny. 1993. "Corruption." Quarterly Journal of Economics. (August): 599-617.

Steele, David R. 1992. From Marx to Mises: Post-Capitalist Society and the Challenge of Economic Calculation. La Salle: Open Court.

Stigler, G. 1975. The Citizen and the State. Chicago: University of Chicago Press.

Stiglitz, J. 1994. Whither Socialism? Cambridge, MA: MIT Press.

Sutter, Daniel. 1998. Leviathan at Bay: Constitutional versus Political Controls on Government. Economic Inquiry. Vol. XXXVI: 670-678.

Toma, E. and M. Toma. 1984. Constitutional tax constraints within a classical model of Leviathan. History of Political Economy. 16.1: 89-105.

Toye, Richard. 2004. The Labour Party and the Planned Economy: 1931-1951. Woodbridge, UK: The Royal Historical Society / Boydell Press.

Von Mises, L. [1920] 1935. "Economic Calculation in the Socialist Commonwealth." In Collectivist Economic Planning, edited by F. A. Hayek. London: George Routledge and Sons.

Von Mises, L. [1932] 1981. Socialism: An Economic and Sociological Analysis. Indianapolis: Liberty Press.

Wiles, P. J. de la F. 1967. "The Political and Social Prerequisites for a Soviet-Type Economy." Economica (February): 1-19.