

Trust and the Growth of Government

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Abstract

A feature of post-World War II economic history is the growth in government, paradoxically accompanied by a decline in trust of government. How does a mistrusted institution continue to grow? We utilize key findings in the economics, behavioral, and psychology literatures to develop a model to understand how this can occur, as well as illuminating the interconnections between government, rent seeking, productivity, and trust. When an increase in government powers leads to more rent-seeking activity, mistrust of government is engendered, which lowers productivity and sows the seeds for more rent seeking and further government growth. Also, a version of our model has a “trust trap,” illustrating how an economy may become stuck in a low trust/high rent seeking/big government equilibrium.

Keywords: growth of government; trust and cooperation; rent seeking

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I. Introduction

An important part of post-World War II economic history is the growth of government. In the United States, much of this growth has taken the form of an increased scope of federal involvement in the economy via income redistribution programs and in regulatory activity. However, it has been accompanied by a large decline in trust of government. Pew Research Center (2010) reports that respondents who indicate that they trust government “most of the time” or “just about always” fell from 76.6 percent in 1966 to 21.5 percent in 2010.¹ The decline in the public’s trust of government, given its increased importance in society, and has caused great unease among many commentators.² A concern often raised is that trust is an important aspect of social capital and its decline may detract from the performance of government, as well as in the ease and efficacy of economic and social interactions. Moreover, the simultaneous growth in government and deterioration in trust in government presents something of a paradox: how does a mistrusted institution grow and become so large? This paper develops a framework to understand this paradox as well as related issues.

To do so, we utilize key findings in the economics, psychology, and experimental literatures that illuminate the inter-relationships among, trust in government, productivity, rent seeking, and government growth. A good deal has been written about each of these phenomena separately – and the fundamentals that underlie them – and this has produced a number important findings. We bring many of these findings together in a unifying framework regarding trust,

¹ Many more details are in Pew Research Center (2010). For other discussions of trends in measures of trust in government for the U.S. see Nye, Zelikow, and King (1997) and Hunter and Bowman (1996).

² As examples, Nye, Zelikow, and King (1997), Hunter and Bowman (1996), Warren (1999), Dalton (2004), Blind (2006), Hetherington (2005), and Pharr and Putnam (2000).

reciprocity, and cooperation; social capital and productivity; and rent seeking and political economy/public choice to understand equilibria and interactions among them.

A basic outcome from our modeling is the mutual dependence of the public's mistrust in government and the extent of political/rent-seeking activity fostered by government. It seems straightforward that trust in government is a declining function of government actions that generate rent seeking and reward special interests – and indeed this is an aspect of our model. However, a less apparent implication is the feedback mechanism that generates greater rent seeking as the degree of mistrustfulness grows; essentially, the returns to rent seeking are relatively higher in a mistrustful environment. It is this feedback effect that leads to a situation where government growth and mistrust might perpetuate one another. Thus, an initial small change in government policy that encourages rent seeking can produce mistrust and “multiply” itself, leading to further growth in government activity and mounting mistrust. This may help provide an explanation of the historical co-movement of government size and mistrust in government.

“Good” government activity also occurs and we incorporate it into our model. However, it is simply not plausible for government growth to be regarded as predominantly good while leading to less trust in government. Thus, much of our focus is on government action that fosters rent seeking/political activity and rewards interest groups.

Extensions of our basic model also contribute to models of Leviathan, i.e., how government growth may sustain itself and rarely reverse. Important frameworks in this regard are developed by Higgs (1987), Olson (1982), and Caplan (2003), but ours brings in the role of the public's trust in government. In particular, a version of our model has two equilibria – where one equilibrium is “good,” with high trust and low rent seeking, and another is a “bad” one with

the converse – in which an economy can become “trapped” in a big government/high rent seeking/low trust equilibrium. Once policies are adopted that move the economy from the former to the latter equilibrium, moving back is difficult. A return to the original policies is insufficient; the economy remains in a bad equilibrium. There is a “trust trap” that impedes a reversal in the growth of rent-seeking government and the decline in trust.

Section II of the paper discusses central aspects of the literature that we incorporate into our model. We review literature indicating the importance of citizen trust and cooperation with government in order that the latter may function effectively. Many functions of “good” government – such as property rights and contract enforcement, general law enforcement, and dealing with externalities – raise productivity and a cooperative public enhances and enables this to occur. This relates to ideas regarding the importance of social capital. Another strand of the literature considers several key findings in the trust and reciprocity research. Generally speaking, individuals are more likely to be cooperative with other individuals or institutions if they are perceived to be acting in a fair manner and/or are a legitimate authority. Trust and cooperation decline with the extent of rent seeking that the government encourages.

Section III builds our basic model based on the above findings as well as on a political economy/public choice-style model of politicians. Thus, we model government/politicians as self-interested individuals who find it in their interests to reward rent seeking/lobbying activity. Formally, the approach is comparable to that of Grossman and Helpman (1994) regarding trade protection where special interest groups end up being disproportionately favored. Similar to that paper, our framework has politicians that may offer favors in return for political support. This distorts citizen effort away from productive activity in the private sector toward political/rent-seeking activity. The latter results in welfare costs and generates mistrust and a growing

government necessary to support the rent seeking. Mistrust, in turn, erodes cooperation and social capital, lowers productivity, and induces a substitution away from productive activity and toward rent seeking. More welfare-reducing government activity ensues, followed by another round of erosion of trust. Thus, we have the mutual reinforcement of government growth and mistrust. Section IV provides that details regarding the subsequent rounds of declining trust and increased rent seeking. The mutual dependence of trust and political activity/rent seeking has similarities to other papers that model the co-determination of attitudes and economic outcomes.³ Our framework, however, explicitly brings the behavioral/experimental literature into rent-seeking models to understand broad patterns of trust and government activity.

Section V presents the version of the model with two equilibria and shows how a “trust trap” can emerge where once the economy moves to the low trust, high rent seeking equilibrium, it cannot easily move back. Lastly, section VI offers some final thoughts.

II. Background and Supporting Literature

This section provides discussion of some general background literature, related models on the co-determination of trust and political activity, as well as literature specific to trust, reciprocity, and cooperation that are foundational to our model.

A. Some General Background

The ideas of trust and cooperation are closely linked to social capital, culture, and attitudes. There is large literature with a number of studies showing their importance to economic outcomes. For example, Knack and Keefer (1997) show that cross-country measures of trust are positively related to GDP growth and investment. Guiso, Sapienze, and Zingales

³ See Clark and Lee (2001a,b), Francois and Zabochnik (2005), Tabellini (2008), and Aghion, et al. (2010).

(2006) show that differences in cultural attitudes translate into differences in entrepreneurship and savings. Greif (1994) contrasts the culture and practices of the Maghribi traders and the Genoese merchants, especially regarding contract enforcement, and suggests that these lead to different growth rates. At a perhaps more fundamental level, Rosenberg and Birdzell (1986) maintain that the development of a moral system consistent with capitalism was an important ingredient to the growth of the Western world. McCloskey (2010) argues that favorable attitudes toward the bourgeoisie were much more important than previously thought.

B. Related Models

The mutual dependence of trust and political activity/rent seeking has similarities to other papers that model the co-determination of attitudes and economic outcomes. For example, Francois and Zabojnik (2005) discuss contract enforcement through kin and clan or through external methods (e.g., government). Tabellini (2008) is similar in this regard. In their models, parents “invest” in the honesty of their children based its expected success, where the degree of honesty in the populace and GDP are mutually dependent. Other notable papers that relate closely to our approach include Clark and Lee (2001a,b). They emphasize that, while trust is important for government to function, the trust of the public is earned by good performance of the government and they model this simultaneous relationship—that trust enables government action, but government action affects the degree of trust. This mutual relationship is evidently believed to be an important one and has been noted in the non-academic literature. Galston and Kamarck (2008), in trying to revitalize progressive government, write, “Change you can believe in needs a government you can trust.”

In another closely related paper, Aghion, et al. (2010) consider cross-country correlations of trust in government with government regulation. They find that governments that have heavy

regulation are the least trusted. In their paper, there are two equilibria: a “good” one is where most people become civic and vote for little regulation and a “bad” one is where they are not civic and vote for heavy regulation. In their model, heavy regulation reduces productivity but it is better than light regulation of an uncivil populace. In a cross-country sample with a mix of good and bad equilibria, one will find more government regulation coinciding with less trust. While similar to our model in the sense that certain behaviors are mutually reinforcing, the approach and focus are different.

C. Good Government, Trust, and Productivity

There are a number of functions of government that most agree are value-increasing. These include establishing and enforcing property rights and other personal rights, maintaining good contract law, promoting competition, and dealing with public goods and externalities. While these may raise value for several reasons, one reason is that they raise productivity. Better courts, clear property rights, low contracting costs, and a better public infrastructure raise productivity by, for example, enabling less time and effort to be devoted to private contract enforcement and property protection.⁴

Related to this, there is work regarding the importance of public cooperation in enabling government initiatives to be effective. This work is part of a larger literature illustrating many inter-related aspects of trust and cooperation, as well as with trust in government and the perceived legitimacy of government. In broad terms, it shows that legitimacy engenders more trust which, in turn, tends to induce cooperation.

⁴Though these aspects of government are productivity enhancing, they may have other positive effects on utility.

Scholars in economics, political science, and psychology have contributed to this literature in the past couple of decades. We do not attempt to summarize this literature. However, in this subsection (and the next), we review several of the central ideas that are pertinent to our paper.

Numerous people have argued that the public's trust in government is important. Benjamin Franklin is quoted as saying, "Much of the strength and efficiency of any government in procuring and securing happiness to the people, depends, on opinion, on the general opinion of the goodness of our government, as well as the wisdom and integrity of its governors."⁵ This view evidently is shared by many – the secular decline in measures of trust in numerous democratic governments around the world spawned a great deal of unease and study by political scientists.⁶ Moreover, Brennan and Buchanan (1984, 1988) express concern that the approach to modeling government adopted in the public choice literature may be detrimental to having favorable views of government and may erode trust in it.

A variety of reasons are given for the importance of trust in and cooperation with government. Many have to do with cooperation and involvement in the political process and civic activities, e.g., jury service, voting, volunteering, involvement in political campaigns, membership in political groups, and willingness to work for the government. The argument is that cooperation of the above type helps government run more effectively. Other arguments suggest that trust in government is important to attain honest tax reporting and voluntary

⁵See <http://www.usconstitution.net/franklin.html>. Also see a related quote by Abraham Lincoln: "With public sentiment, nothing can fail; without it, nothing can succeed. Consequently he who molds public sentiment goes deeper than he who enacts statutes or pronounces decisions. He makes statutes and decisions possible or impossible to be executed." <http://www.bartleby.com/268/9/23.html>.

⁶ Some examples are Nye, Zelikow, and King (1997), Hunter and Bowman (1996), Warren (1999), Dalton (2004), Blind (2006), Hetherington (2005), and Pharr and Putnam (2000).

compliance with laws.⁷ Governing is seen less being costly and more effective with citizen cooperation.

An equivalent way to view this is to consider that trust in and cooperation with government enables and augments the productivity-enhancing effects of the functions of government noted above. Consider some examples of how this might work. Voluntarily compliance with the known and accepted parameters of contract and property law limits disputes. This saves on transactions costs and enables resources to be utilized elsewhere. Similarly, cooperation with infrastructure projects by refraining from challenging rights-of-way and engaging in other legal impediments saves resources. Cooperation with police investigations makes it much easier to enforce laws and improves property rights. These cooperative attitudes enable government to work more easily and effectively and raise private-sector productivity.⁸

D. Why Is There Trust and Cooperation?

In the above context, trust in and cooperation with government is much like a public good, with the former raising aggregate social productivity. Thus, one might expect the consequent free-rider problem, so it is natural to ask how cooperative attitudes arise in this setting. A great deal of work has been done in experimental labs trying to understand issues of trust, reciprocity, and cooperation. It is repeatedly verified in a variety of laboratory settings that people engage in some degree of reciprocal behavior, e.g., trusting and cooperation or withdrawal of trust and punishment. These results hold in one-shot prisoners' dilemma games where the dominant strategy, from the perspective of narrow self-interest, is to neither cooperate

⁷ Many of these arguments are implicit in the works cited in the previous footnote. More specifics are offered in Nye (1997) and Dalton (2004).

⁸ There is a related and broad literature on social capital that discusses norms that assist in social cooperation. These can raise value in the private sector, in both commercial and non-commercial settings, by reducing transactions costs and utilizing embedded knowledge. For a short summary, see Fukuyama (2000).

nor punish. Such findings strongly suggest that behavior is in part determined by perceived fairness, i.e., “fair” behavior by the other party is rewarded and “unfair” actions are punished.⁹ Additionally, trust and cooperation are intertwined, with greater trust inducing more cooperation.

Fehr and Gächter (2000) suggest that the pattern of behavior shown in these experiments relate to how social norms might evolve or that the social norms in place affect the degree of cooperation. Regarding the latter, Henrich, et. al. (2001) report on findings from prisoners’ dilemma games in various small societies. They find that that cross-societal variation in trust and reciprocity reflecting social norms helps explain the variation in cooperation. Similarly, Hayashi, et. al. (1999) indicate that “general trust” in the culture explains some of their experimental findings showing higher levels of cooperation in some societies.¹⁰

The experimental work deals with individual interactions, though many of these interactions are anonymous and so may help understand societal levels of trust and cooperation. The latter is the focus of the largely separate literature on trust in government discussed in the previous subsection. A subset of this separate literature discusses reasons for the decline in trust in government, both in the U.S. as well as other Western democracies. Various reasons are proposed, including the decline of the perceived effectiveness and legitimacy of government and affiliated public institutions.

For example, Blendon, et. al. (1997) note that the top four reasons given in a 1995 survey for mistrust of government are: inefficiency/wasting money, spending on the wrong things, special interests being too influential, and the lack of integrity of politicians. Alesina and

⁹ The literature on this topic is quite large. For a short and succinct summary of many of the issues and findings, see Fehr and Gächter (2000).

¹⁰ Also, see Paldam (2009) for discussion and empirical work on the co-evolution of economic development and generalized trust. Bjørnskov (2006) also considers cross-country determinants of generalized trust.

Warcziarg (2000) and Stevenson and Wolpers (2010) find that better macroeconomic performance is associated with more trust in a country's government, presumably based on the idea that good government policy induces better economic performance. The former also suggest that greater welfare spending is associated with a polarized and dissatisfied electorate, especially by taxpayers and groups not favored by the programs. Pharr (2000) finds a negative relationship between misconduct by government officials and measures of trust in government in Japan and Yamamura (2012), in another study in Japan, finds government size reduces trust among those likely to face the increased bureaucracy of larger government. Consistent with this are findings in the experimental work that studies tax compliance. In the Andreoni, Erard, and Feinstein (1998) survey, they review studies showing that participants are less tax compliant if they perceive that tax dollars are wasted, are less satisfied with or are alienated to government, or believe that their taxes are unfair.

Psychologists have examined similar issues and their literature has arrived at closely related findings. For example, Levi, Tyler, and Sacks (2008) consider why individuals comply with the law. They find cooperation is dependent on whether the state is viewed as an appropriate authority entitled to be obeyed. This, in turn, depends on whether the authority is judged to be competent, fair, perform well, and be trustworthy.¹¹ In work extending these basic findings, Nadler's (2005) results show that noncompliance spreads beyond the perception of a particular law but also generates noncompliance regarding seemingly unrelated laws. Thus, perceived illegitimacy of one law reduces the willingness to comply with the law in general.¹²

¹¹ Though this is a substantial literature, similar work in this vein is De Cremer and Tyler (2007) and Tyler (1990).

¹² Also see Mullen and Nadler (2008).

Overall, these findings link to the idea of reciprocity and cooperation as a social norm and suggest that this norm is applied to government. If government is perceived to be effective, then this is reciprocated with trust and with cooperation. Conversely, if government is perceived to be ineffective, inefficient, or corrupt, this reciprocated with mistrust and noncooperation. The upshot is that individuals evidently gain utility through cooperation with persons or institutions that they judge as being worthy.

III. Rent Seeking, Trust and Cooperation, and Social Equilibrium

This section develops a model of trust, cooperation, and government that is built on the results of the foregoing literature, as well as on more traditional models of rent seeking. We begin with a basic model of rent seeking by individuals in order to gain government favors. We then augment it with consideration of “good” government and how the mix of good government and rent-seeking activity affects the perceived legitimacy of and cooperation with government. The social equilibrium of rent-seeking, productivity, and cooperation is then shown.

A. Government Spending, Government Intervention, and the Market for Political Support

Governments have significant power in allocating resources and in providing favors and assistance to individuals and interest groups. This may be in the form of taxes and subsidies, spending programs, regulation, or other forms of intervention. Naturally, individuals and interest groups desire to obtain this government support. In our model, effort in providing political support is the mechanism by which interest groups obtain government assistance. Thus, we take a public choice-style approach where self-interested politicians may seek “payment” for provision of favors. In exchange for government funding and favors, members of interest groups supply effort in generating political support for government officials and/or programs providing the funds and favors. In a broad sense, a “wage” is paid for units of political support provided.

A related approach is that of Grossman and Helpman (1994) where interest groups “bid” for trade protection.

Political support comprises a whole set of things that help politicians get elected, e.g., campaign contributions and assistance in raising such funds, helping convince the public of the importance of particular government programs, promoting the “jobs generated” by the program and its help to the affected community/industry/occupation, favorable mentions in the media, and general endorsements of programs and/or candidates.

Rent seeking and lobbying are terms related to this type of activity and can be interpreted in a similar light. For example, politicians may be willing to protect an industry or occupation from competition and interest groups engage in lobbying to obtain this protection. One of the ways they do so is to provide political support to the politician by, for example, suggesting compelling ways that can convince the public of the efficacy of the protection and/or disguise its harm. The lobbyists that do this most effectively are more likely to obtain government assistance. In this interpretation, rent seeking is not simply lobbying for favors; it is asking for favors with the quid pro quo of supplying political support.

The types of programs just described lower welfare and simply redistribute resources in inefficient ways. But not all government activities have negative welfare effects, nor are all recipients of government funding merely engaged in activities simply to make the program look good in the eyes of the voting public. Olson (2000) considers the conditions under which government has more “encompassing” interests and is less inclined to cater to special interests. Besley, Persson, and Sturm (2010) show that more politically competitive governments are more likely to follow policies that favor general interests. However, substantial amounts of government programs do fit the rent-seeking description and, in order for trust in government to

fall as government grows, they must play a critical role. Thus, we model these vis-à-vis value-enhancing government spending.

B. Choice of Productive Work and Political Support

A building block of our complete model is a basic model of the representative individual who may supply effort toward productive activity or toward political support activity. While couched in terms of an individual, the unit of observation may be considered an organization or interest group with the same sort of decision to make: how much effort to devote to political support activity versus productive activity.

Let the following definitions hold.

h = effort in productive activity, e.g., hours of work

$(1-t)w$ = the after-tax return to productive activity, where t is the tax rate, though it may be an explicit or an implicit tax (e.g., unfavorable regulation)

s = effort in political support activity

r = the return to each unit of political support activity. This payoff may be in-kind returns and is assumed not to be subject to tax.

$C(h,s)$ = the utility cost of effort. Assume that there is increasing marginal cost of each type of effort ($C_{ii} > 0$, $i=h,s$) and $C_{hs} > 0$.

In the basic model, let the individual's utility function be

$$(1) \quad U = (1-t)wh + rs - C(h,s)$$

so that total utility is simply after-tax income from work plus the payoff from political support effort less the utility cost of effort.¹³

The first-order conditions for the utility-maximizing choices of h and s are:

¹³ The terms in the utility function are analogous to the payoff function for any organization, i.e., there is an after-tax return to allocating resources to production, a return to allocating resources to political support, and a cost of each.

$$(2) \quad \partial U / \partial h = (1-t)w - C_h = 0$$

$$(3) \quad \partial U / \partial s = r - C_s = 0$$

Each of these equations represents setting the marginal benefit of each type of effort equal to its marginal cost. As expected, when $(1-t)w$ increases, h rises and s falls. Similarly, as r increases, s rises and h falls. An increase in the return to political support activity diverts effort toward that end and away from work effort. The converse holds for changes in the after-tax return to productive effort.

Aggregate political support is $S = \sum s_i$, where i indexes individuals. Total transfers due to political support activity are rS . As is well known, welfare is decreasing in this type of government activity since it generates only rent-seeking and transfers of wealth.

C. Incorporating Good Government, Productivity, Trust and Cooperation

As noted above, there are a number of functions of government that most agree are value-increasing, including establishing and enforcing property rights, maintaining good contract law, promoting competition, and dealing with public goods and externalities. Denote government spending and programs on these activities as G . In our framework, these are modeled as raising productivity. This is expressed in a simple way. Let $w=w(G)$, with $w_G > 0$, i.e., greater G raises the productivity of work effort.

The literature reviewed previously indicates that citizen cooperation with government enhances the productivity-augmenting effect of G . To express this in our model, we consider a single representation of the aggregate level of trust and cooperation with the government denoted by L . This aggregate cooperativeness is the summation of the cooperation of each individual, ℓ_i , so that $L = \sum \ell_i$. Let the effectiveness of the G in raising productivity be dependent on the aggregate level of trust and cooperativeness. This is expressed in the following way:

$w = w(G,L)$, with $w_G > 0$, $w_L > 0$, and $w_{GL} > 0$. The latter cross-partial conveys that the marginal product of G is increased by L .

It is aggregate cooperation, L , that raises productivity, not individual cooperation, ℓ_i . We noted above that standard models suggest that the free-rider problem entails a general lack of cooperation. This is because each individual's cooperation is infinitesimally small relative to that of the populace at large and has no effect on aggregate L . But the literature shows that notions of reciprocity and fairness indicate that individuals evidently gain utility through cooperation with persons or institutions that they judge as being worthy. This is incorporated into our model in the following way.

Assume that individuals attain utility from trust and cooperation from the single-peaked sub-utility function $\beta \ell_i - \varphi(\ell_i)$, where ℓ_i is individual trust in and cooperation with government, $\beta > 0$, and $\varphi' > 0$. The coefficient β determines the utility gain from cooperation and $\varphi(\ell_i)$ is the utility cost of cooperation. Let $\beta = G/(G+rS)$, where G is good government and rS represents payments for political support. If all government programs are expenditure based, then this is simply the ratio of spending on good government to total government spending. If programs are not all expenditure based, then β represents the expenditure equivalent.

Trust and cooperation generate more utility if β is larger, i.e., for a government that devotes a larger share of its activities to G , and more cooperation is forthcoming. A high value of β – indicating more good government – is reciprocated with trust and cooperation. Governments that generate a larger share of political activity – lowering β – lower the utility from cooperation and are “punished” with reduced trust and cooperation.

D. Trust, Political Activity, and Social Equilibrium

Putting the above all together this yields an individual's utility function as:

$$(4) \quad U = (1-t)w(G,L)h + rs - C(h,s) + \beta\ell - \varphi(\ell)$$

The individual chooses h , s , and ℓ to maximize utility. The first-order conditions for the choices of h and s are as before. The choice of ℓ , assuming that each individual ℓ has an insignificantly small effect on aggregate L is:

$$(5) \quad \partial U / \partial \ell = \beta - \varphi'(\ell) = 0$$

This implies that cooperation, ℓ , is an increasing function of β . Because the aggregate value of political support activity, rS , lowers β , cooperation declines with S (and increases with G).¹⁴

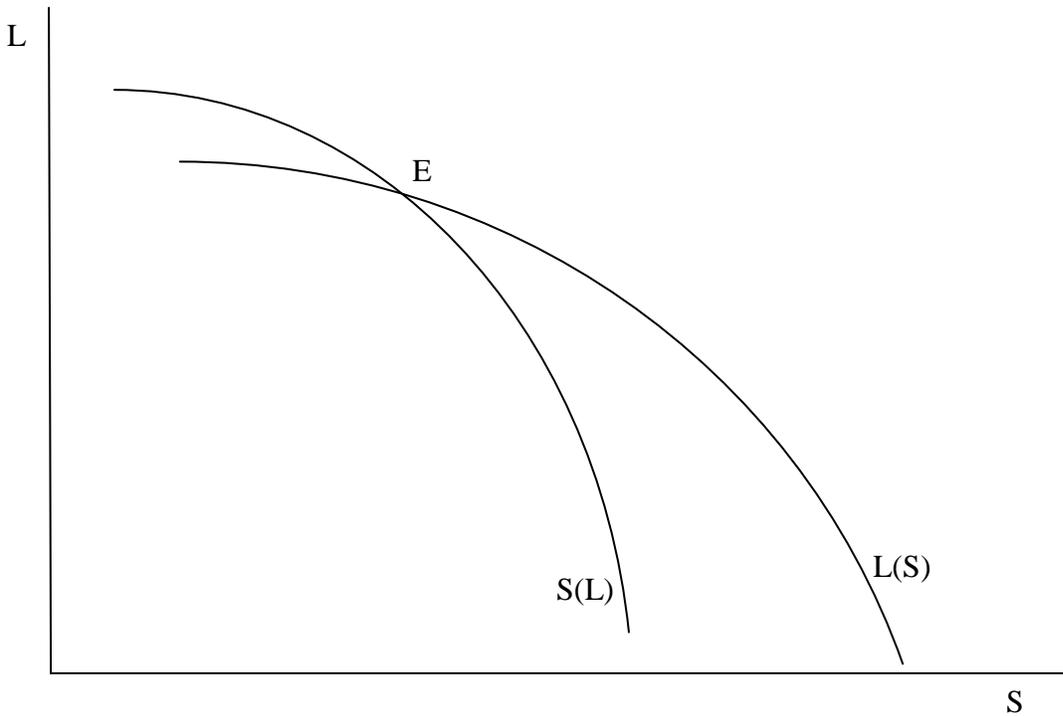
The results regarding the choices of h and s described above are hardly changed.¹⁵ The only difference is that aggregate cooperation, L , affects h and s . The reason is that a higher L improves the effectiveness of G in raising productivity and a lower L does the opposite. A lower L means that private-sector activities are more costly to arrange and enforce, lowering the returns to productive effort. This induces less h and more s . This, along with the ℓ function, can be expressed as $h=h(L)$, $s=s(L)$, and $\ell=\ell(S)$, where $h'>0$, $s'<0$, and $\ell'<0$ and where other arguments of the functions are suppressed.

In aggregate, $H = \Sigma h_i$, $S = \Sigma s_i$, and $L = \Sigma \ell_i$. This implies an aggregate mutual dependence between L and S , that is, $L=L(S)$ and $S=S(L)$. The total amount of cooperation is a negative function of political support activity and political support activity is a negative function of aggregate trust and cooperation. The final equilibrium L and S requires that these relationships

¹⁴ Consistent with the psychology literature, we assume that the individual chooses a level of cooperation that applies broadly and does not tailor his/her cooperation toward particular programs.

¹⁵ The simplicity in this regard is due, in part, to the separable utility function used in the analysis.

Figure 1. The Equilibrium Levels of Cooperation and Political Activity



hold simultaneously. This is illustrated in Figure 1. Point E in figure 1 at the intersection of the L(S) and S(L) loci shows the social equilibrium. Stability of the equilibrium occurs when the relative slopes of the two loci are as shown.

IV. Government Behavior and Changing the Equilibrium: Growth in Government and Declining Trust

This section shows how the trust, rent-seeking equilibrium changes, resulting in a self-reinforcing cycle of greater rent seeking and less trust. We start by showing how greater powers for politicians to reward interest groups results in a higher return to rent seeking activity. This, in turn, shifts the equilibrium.

A. The Politician's Choice of the Reward for Political Support

We suppose that an important motivation of politicians is that they seek to retain office, in part, for the benefits and perks of power.¹⁶ Increasing the return to S to stimulate political support can be beneficial to the politician in this regard even though it is welfare reducing. This is because welfare-enhancing policies sometimes translate into votes in a muted way and political support often translates more strongly. There is no direct compensation to the politician for raising GDP, for example. It is likely that an effective way of retaining office is through generating other means of political support, e.g., favorable media mentions, endorsements, claims of job creation, and campaign contributions. Suppose that political support activity, S , generates benefits $f(S)$ to the politician by increasing the chances of retaining office and consuming the perks of power.

Thus, let the politician's utility function be the following:

$$(6) \quad U^P = \theta f(S) + (1 - \theta)U$$

where U is the typical citizen's or organization's utility and $0 < \theta < 1$. Thus, politician utility is a weighted average of the support generated from political activities and the support received by raising the utility of the average individual in the economy. The latter is affected by r as well as G . We assume that the political system determines the weight θ , that is, how political support activities translate into favorable outcomes for the politician vis-à-vis average citizen utility. A higher θ indicates that the politician can more readily transform S into his/her benefit. Thus, it is a proxy for the power and discretion held by the politician.

The politician chooses r and G to maximize U^P . S/he does so recognizing that S depends

¹⁶ There may be other motivations as well (e.g., to "do good," to impose a viewpoint) but we implicitly hold these constant.

on r . There also a balanced budget constraint. If all government programs are budgetary in nature, paying r for each unit of S is a part of government spending and must be paid for by tax revenue. Total spending on political support is rS and is G on good government. If tax revenue derives solely from the tax t on productivity, it sums to twH . Then the government budget constraint is $twH = G + rS$, where H and S (and L) are at the social equilibrium.

It is straightforward to show that the utility per person falls when the return to political support activity, r , rises. This occurs for familiar reasons. This increase necessitates a rise in government spending. Thus, there is a standard Harberger loss; the increased spending requires a tax increase, which reduces work effort and production. Additionally, there is a Tullock loss. A higher r induces more resources to be devoted to political support activity which produce nothing but simply transfer wealth.

If the rewards for political activity and/or the means to support it are off-budget, then a balanced budget need not hold. For example, a restriction on entry into a market aids the incumbent firms in the market and raises prices to consumers, just as a tax on consumers and cash payments to incumbents would, but there is no direct budgetary consequence. Of course, this means of increasing r also is value reducing.

An increase in G can be welfare enhancing. There is still the Harberger loss associated with the increased taxation to pay for G , but if G raises productivity by enough to offset this loss, then this type of spending can raise value.

The first-order condition for politician utility maximizing choice of r is given by:

$$(7) \quad \partial U^P / \partial r = \theta f'(S) \partial S / \partial r + (1-\theta) \partial U / \partial r = 0$$

This is the usual marginal benefit—marginal cost formulation. The marginal benefit of raising r

is that it generates more political support, valued at $\theta f'$. The marginal cost is that it lowers citizen utility ($\partial U/\partial r < 0$), which carries the weight $1-\theta$.¹⁷

If politicians were somehow constrained to act only in the interests of the public, the weight $\theta=0$ and no value-reducing government would ensue. However, in our framework, political power and rational ignorance are likely to generate rewards to the politician for using that power to retain office. These imply that $\theta>0$ and the $f(\cdot)$ function matters. Increased powers in the hands of the government raise θ and increase these rewards as well as the ability to remunerate people who help sustain it.

Figure 2 illustrates the effect of an increase in θ . Suppose $\theta = \theta_1$. The curve labeled $\theta_1 f' \partial S/\partial r$ shows the marginal benefit of increasing r and the locus $(1-\theta_1) \partial U/\partial r$ represents the marginal cost. Point X is the equilibrium. The politician selects the reward for political support activity at r_1 . Suppose that θ rises to θ_2 , shifting the marginal benefit function to $\theta_2 f' \partial S/\partial r$ and the marginal cost function to $(1-\theta_2) \partial U/\partial r$. With the higher θ , the politician pays more attention to political support and less to citizen welfare. The equilibrium moves to point Y, corresponding to $r=r_2$. Naturally, the higher value of r implies a higher value of rS , which manifests itself either in the form of greater political support spending or in intervention to reward political support.

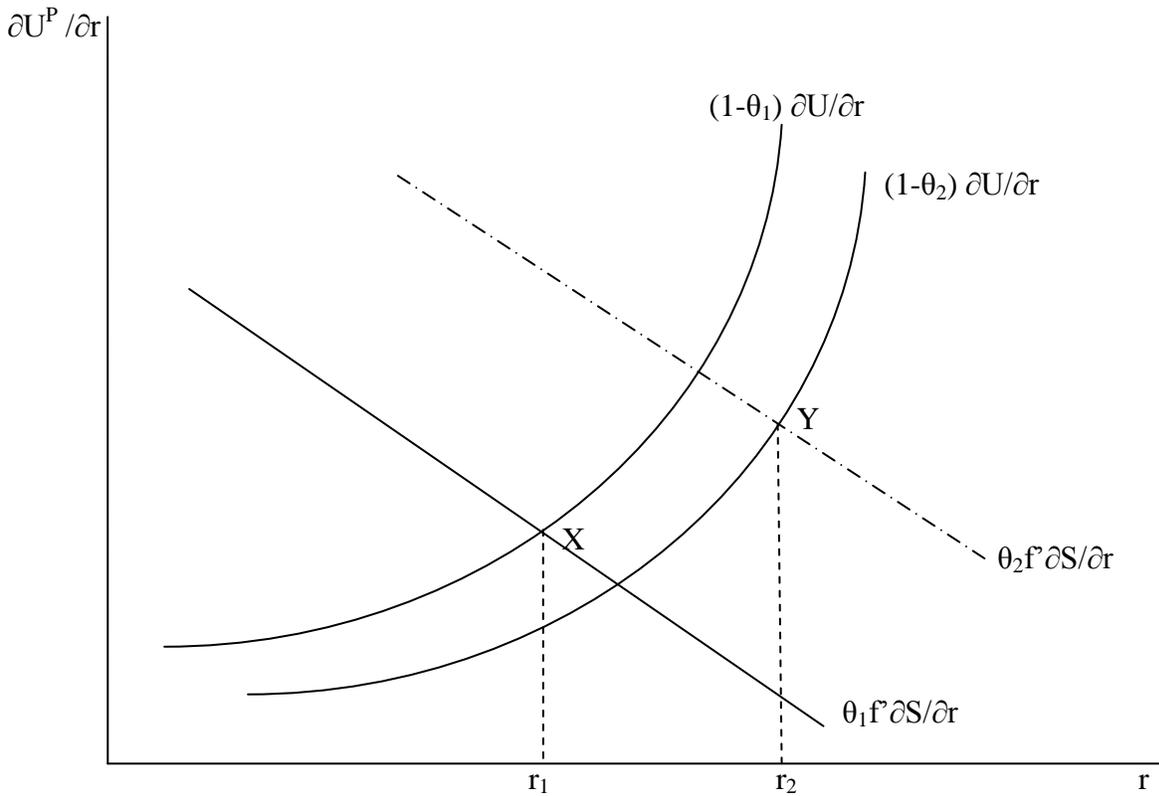
B. A Mistrusted But Bigger Government

We are now in a position to illustrate how a once-over increase in θ generates mistrust which in turn leads to an even larger government. Note that our measure of government is $G+rS$. Increases in rS and in G may take the form of greater expenditures but the former also can be in the form of greater intervention that transfers wealth.

¹⁷ We assume that $f(S)$ adds less to politician utility than S reduces individual utility, so there is a net loss of S .

As indicated above, an increase in θ raises the level of r selected by the politician as illustrated by the movement from X to Y in figure 2. This, in turn, increases the amount of political support activity, S , and the size of government rises, and the value of β falls. Note that

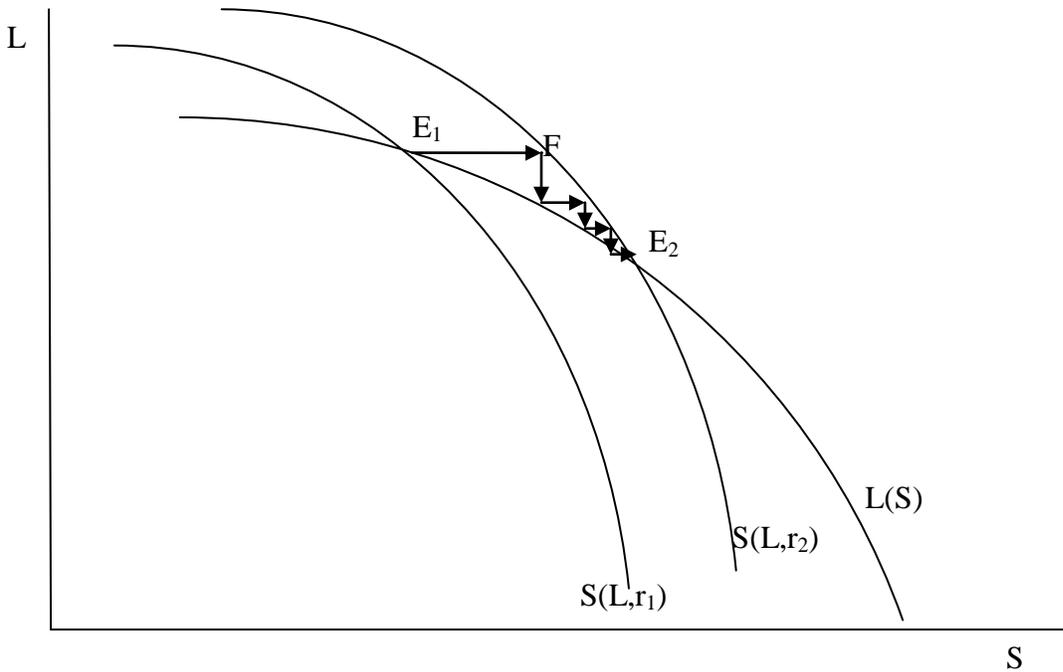
Figure 2. Government Determination of the Reward for Political Activity



the value of G chosen by the politician also determines $\beta = G/(G+rS)$. An increase in θ raises the denominator by increasing rS . However, G may also change. The first-order condition for G is $\partial U^P/\partial G = (1-\theta) \partial U/\partial G = 0$. Though this looks as if G is unaffected by an increase in θ , the higher rS can affect the level of G . The value of G may fall or rise, but the value of rS relative to G rises, β falls, and under plausible conditions, total government, $G+rS$, rises.

The new equilibrium is illustrated in figure 3. It augments the loci of figure 2. Suppose that the original level of r is r_1 . This entails the original S function given by $S(L, r_1)$ as shown in figure 3. The increased θ results in an $r=r_2 > r_1$. The direct effect of this is to shift the S function

Figure 3. Increased Government and Less Trust



to $S(L, r_2)$ as shown, i.e., more political support activity for each level of L . This is shown by the arrow emanating from point E_1 toward F . If there were no effect on public cooperation, this is the end of the story. Citizen utility is reduced – any movement on the graph to the south, east, or southeast from the original equilibrium lowers utility – government is larger, but there is no change in the level of trust.

However, more government spending on political support activities lowers β and undermines trust in and cooperation with government. Thus, the society moves southeast on the L function. This, in turn, reduces the productivity-enhancing effects of G, lowers the return to productive effort, and – as illustrated by the arrows – generates further distortion of effort toward political activity. This causes further growth in rent-seeking government activity and reductions in trust. With the S and L loci as drawn, this spiral in government and mistrust eventually weakens and a new equilibrium is reached at point E_2 .

This equilibrium is where the size of government has grown to a multiple of its initial increase, accompanied by a lower level of trust in government. Growing government occurs with increased mistrust, leading to higher equilibrium levels of both. Thus, putting together some basic building blocks of rent seeking and the psychology of trust, reciprocity, and cooperation yields a straightforward framework to help understand the pattern of trust in government and the growth in government.

Another factor that could be brought into the model that reinforces and magnifies these results is investment in human capital. An increase in the return to political activity induces more activity in that regard, but also generates more human capital investment into political skills. This makes the response of S to an increase in r much larger and generates a larger shift in the $S(\cdot)$ function, forcing the new equilibrium to be at an even lower L, a higher S, a larger government, and lower citizen utility. The appendix provides some details.

V. Multiple Equilibria and the “Trust Trap”

A number of frameworks have been proposed suggesting that there is a “ratchet effect” in the size of government where it grows much more readily than it shrinks. For example, Higgs (1987) argues that crises generate more government activity and this greater government

involvement becomes accepted by the public, thereby limiting any reversal of government growth. Olson's (1982) analysis indicates that once distributional coalitions form, the complexity and level of government grows in certain ways that are not easily changed. In an agnostic framework, Caplan (2003) shows how bad government can be self-perpetuating.

An extension of our model leads to a related outcome. We show how interactions of trust with rent seeking and government growth may lead to a low trust/high rent seeking/big government equilibrium that is not readily reversed. This occurs when we have multiple equilibria, which leads to discrete jumps in the equilibrium and a "trust trap" at a "bad" equilibrium.

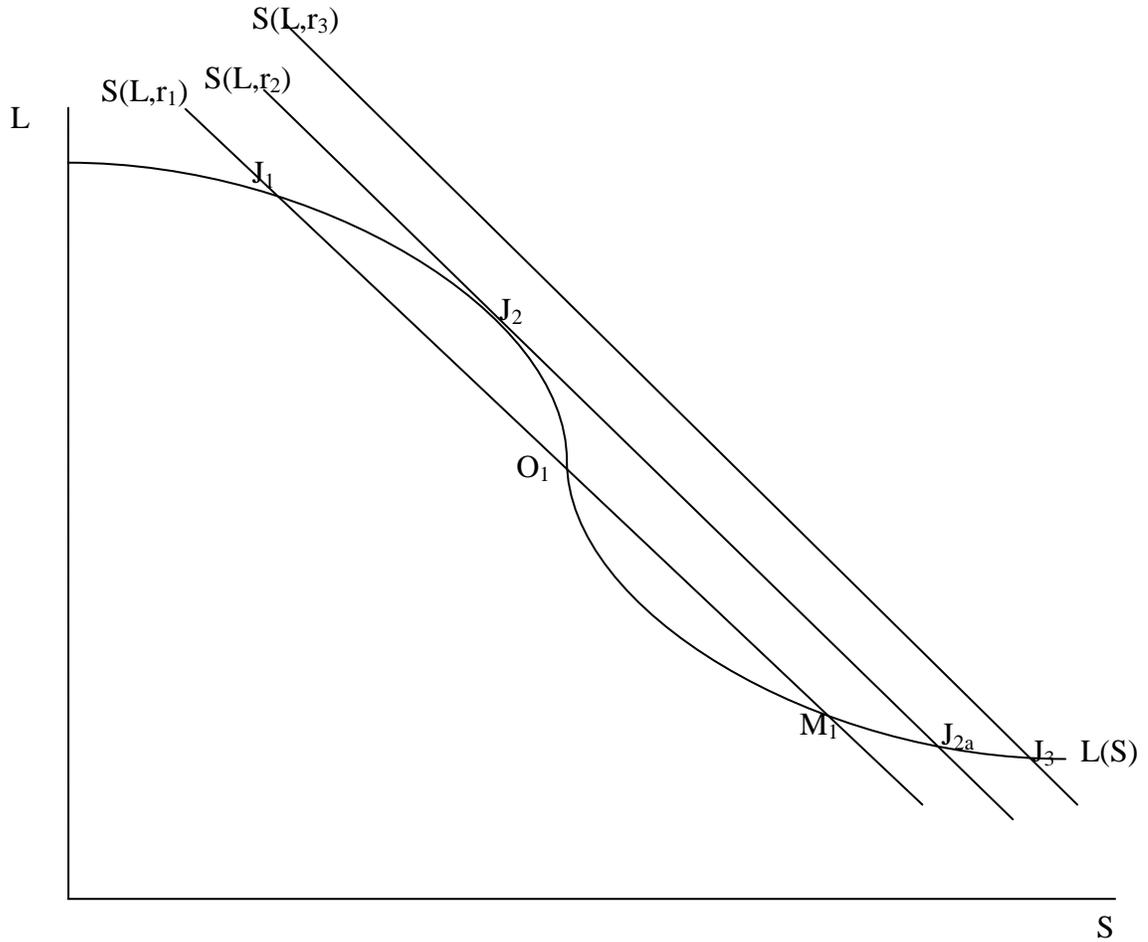
A. Multiple Equilibria and Discrete Jumps

In the above figures, the curvatures of the two functions are such that the equilibria depicted are stable and unique. This situation does not necessarily have to occur. There are a number of possible other cases when the curvatures of the two loci differ and there are multiple equilibria, some of which are stable and some of which are not.

One that is of particular interest is where there is a movement from one stable equilibrium to another. Consider figure 4 in this regard. This figure depicts equilibria in L-S space as in figure 3, but with differently shaped functions. Assume that the $L(S)$ and $S(L, r_1)$ functions represent the initial situation. There are three equilibria: points J_1 , O_1 , and M_1 . Only points J_1 and M_1 are stable. The equilibrium at J_1 is a "good" one with high trust, low political activity, and high utility. Point M_1 represents a "bad" equilibrium with the converse.

Suppose that the initial equilibrium is at J_1 . Now, as above, consider an increase in θ that raises r from r_1 to r_2 . This shifts the locus $S(L, r_1)$ to $S(L, r_2)$, i.e., there is a higher level of S for each L . The new equilibrium moves to J_2 , with a somewhat lower L and a slightly higher S , and

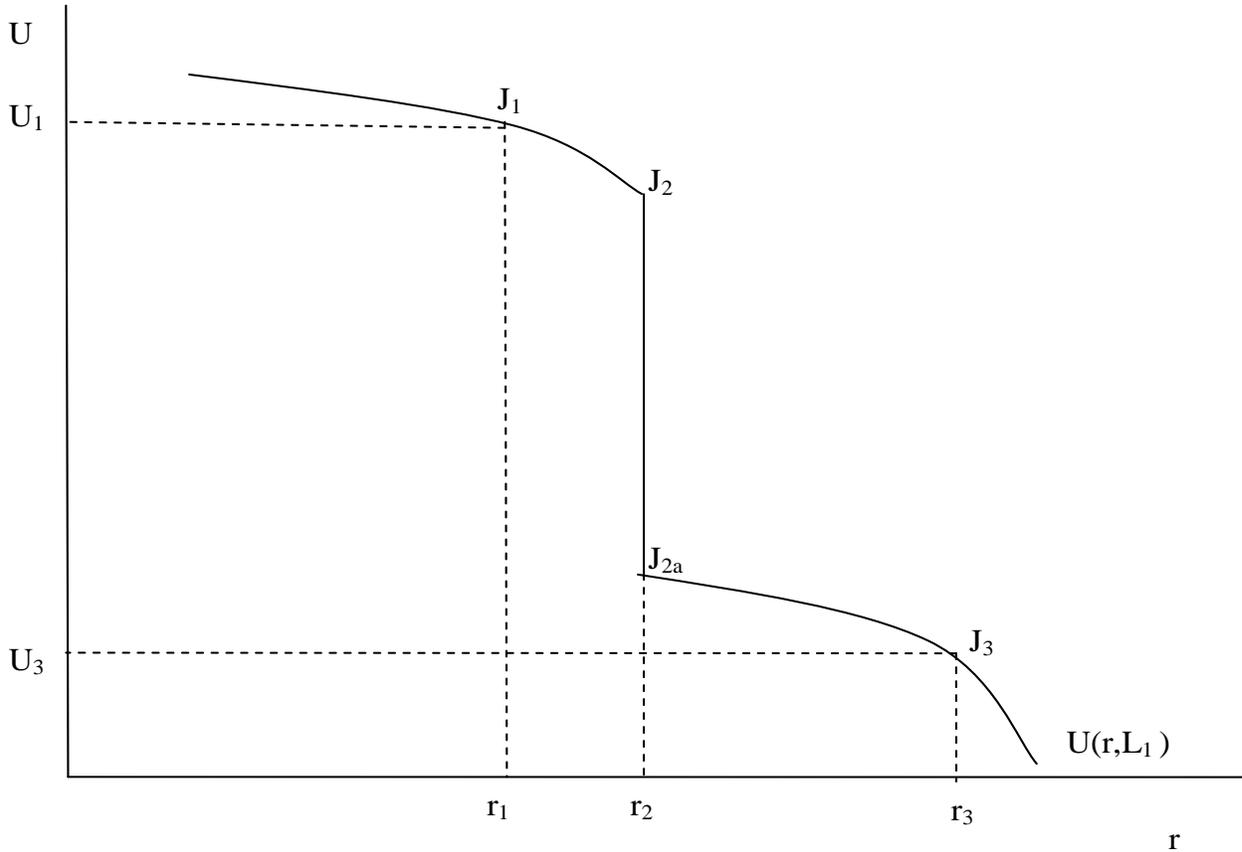
Figure 4. Discrete Jumps in Equilibria



lower welfare. An infinitesimally higher θ and r shifts the $S(\cdot)$ function infinitesimally further to the right and the equilibrium makes a discrete jump to J_{2a} with drastically different values of L , S , and utility – lower, higher, and lower, respectively. A minor change in policy that enables government to slightly increase the reward for rent seeking induced a big growth in government and large drop in trust. Any further increase in r – say to r_3 that shifts the $S(\cdot)$ function to $S(L, r_3)$ – causes smaller changes.

Figure 5 illustrates this in a different way. This figure graphs utility per citizen, U , on the vertical axis and the return to political activity, r , on the horizontal axis. The initial equilibrium at J_1 in figure 4 is also denoted as J_1 in figure 5, with $r=r_1$ and $U=U_1$. An increase in θ that raises

Figure 5. Utility and a Discrete Change in Equilibrium: “Off the Cliff”



r to r_2 moves the economy to J_2 . An infinitesimally higher θ and r drops the economy “off a cliff” to J_{2a} with a drastically lower utility. Further increases in r lower utility, but not radically, e.g., a further increase of r to r_3 moves the economy to J_3 with a smaller reduction in U .

B. The “Trust Trap”

The transitional gains trap of Tullock (1975) – and its variant in Clark and Lee (2003) – indicates that government programs which generate investment in durable capital (human or

otherwise) tied to those programs makes it especially difficult to undo those programs. Eliminating programs entails a loss to those who invested in the relevant capital specific to the program. These potential losers will suffer a capital loss and oppose any reform efforts.

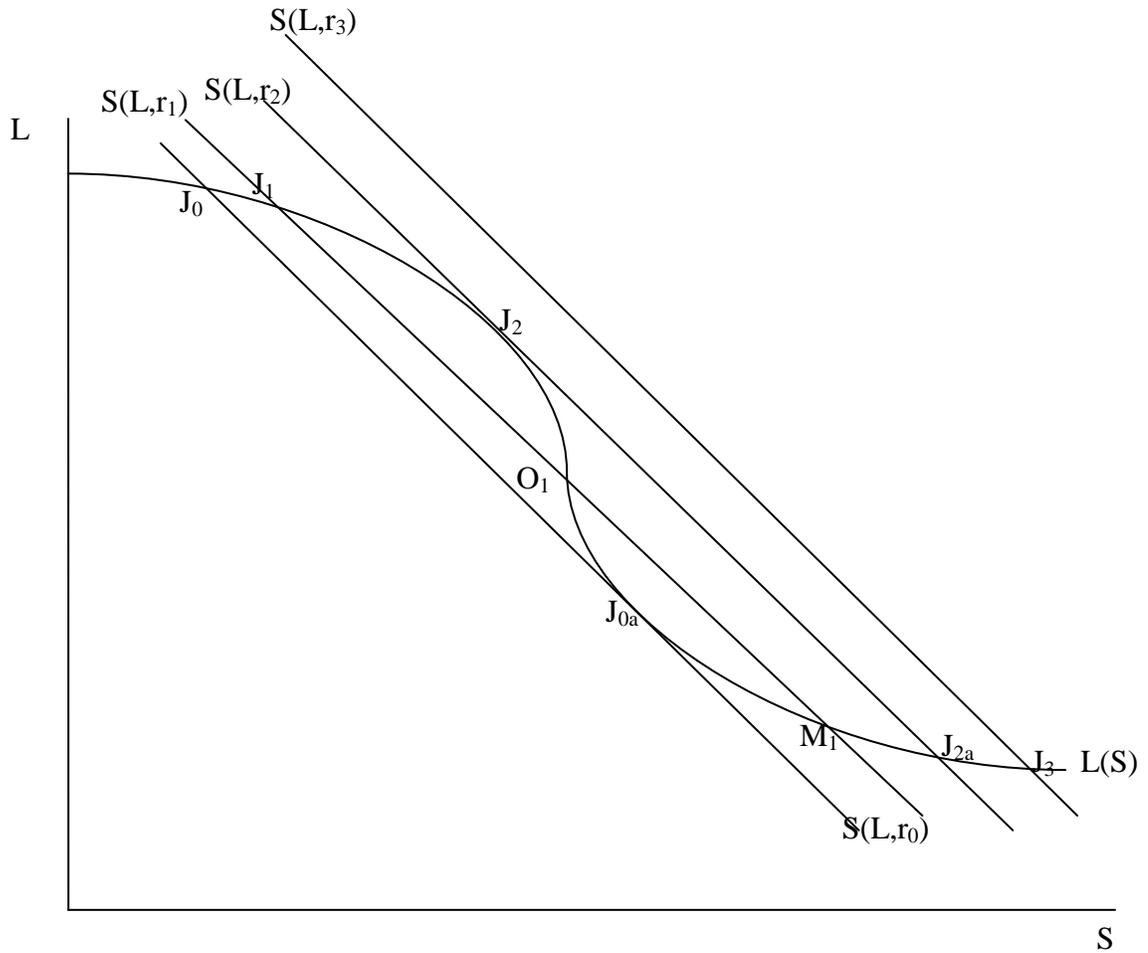
This issue can arise in the expanded version of our model that includes investment in human capital.¹⁸ However, another type of trap emerges in our model – a “trust trap.” In the setting with two stable equilibria as in Figure 4, once the economy has slipped from a good equilibrium like point J_1 to a bad equilibrium like point J_3 , moving back to a good equilibrium is problematic. Simply undoing the policies that got the economy to the bad outcome is not sufficient. Returning to a good equilibrium entails lowering θ to a lower level than initially. If this does not occur, the economy is trapped in a bad equilibrium.

Companion figures 6 and 7 illustrate this. These are expanded versions of figures 4 and 5. In figure 6, consider an economy where θ increases such that r rises from r_1 to r_3 . This shifts the $S(\cdot)$ function from $S(L, r_1)$ to $S(L, r_3)$ and the equilibrium from J_1 to J_3 – we move from a good to a bad equilibrium. In figure 7, this also is denoted as a move from J_1 to J_3 in the graph in (U, r) space. The economy goes “off the cliff.”

Now consider undoing this move. Assume that reform moves θ back to its original level so that r is moved back to r_1 . The relevant $S(\cdot)$ function again is $S(L, r_1)$ but the equilibrium does not return to J_1 but stays in the bad region at point M_1 in figure 6. In figure 7, this is also labeled M_1 . There are only modest increases in trust and utility and a reduction in political activity.

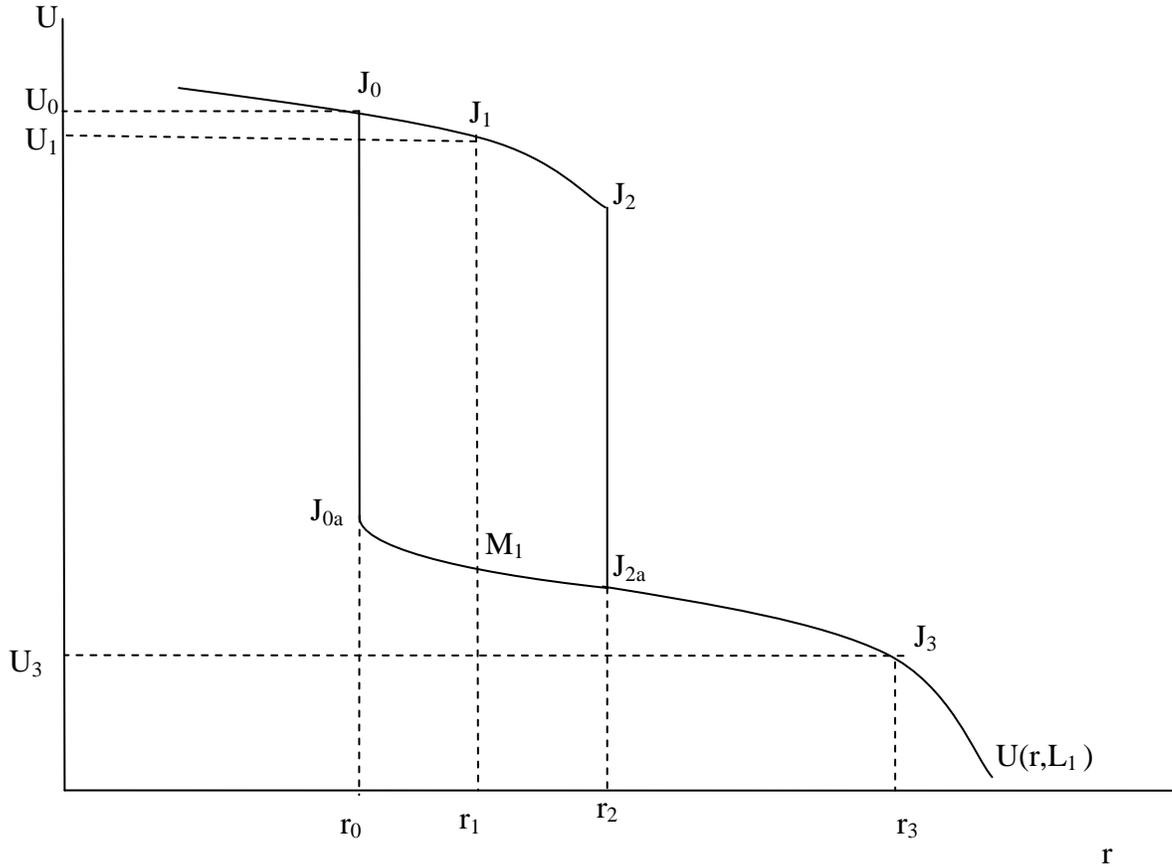
¹⁸ Full consideration of the transitional gains trap would have to consider a multi-period model.

Figure 6: Moving from a Bad to a Good Equilibrium



In order to get back to the good region, the $S(\cdot)$ function has to shift in further. The value of r where utility moves discretely upward is (infinitesimally below) r_0 , corresponding to the $S(L, r_0)$ function where the equilibrium jumps discretely from point J_{0a} to J_0 in both figures 6 and 7. If such a value of r is achieved, the equilibrium is at J_0 , which is better than the original J_1 , but it entails a more ambitious degree of reform than simply undoing what got the economy into the bad equilibrium in the first place.

Figure 7: Restoring a Good Equilibrium



There is an economic intuition to this. In figures 4 and 6, the shape of the $L(S)$ function is such that it is inelastic for low values of S , becomes elastic, then returns to inelastic for high values of S . Starting from a low S , the value of L initially changes very little as S rises, but then hits a threshold where the $L(\cdot)$ function becomes elastic and L drops off rapidly. Once this threshold is crossed, trust and cooperation move to low levels and the economy is in a bad equilibrium. To return a good equilibrium, S must fall by enough to go back across this threshold, entailing a big increase in trust and cooperation. Small reductions in S are not sufficient; L is locally inelastic and so trust is mired at low levels and the economy remains in a bad equilibrium.

The range of values of r between r_0 and r_2 are those relevant for the trust trap. If one begins in a bad equilibrium, these values of r leave one “trapped” in the bad equilibrium, represented by the segment $J_{0a}J_{2a}$ in figure 7. This is despite the fact that the same values of r , when starting from a good equilibrium, leave one “trapped” a good equilibrium (along the segment J_0J_2). Thus, there is a wide range of values of r that leave one with a good outcome, but once a threshold is crossed to move to a bad equilibrium, an overlapping range of values of r leaves one in a bad equilibrium.

An outcome like this relies on the shape of the $L(S)$ function, i.e., the function that determines the relationship of trust and cooperation with authority. Though we do not bring empirical work to bear on this, this function having the requisite shape does not seem implausible. Such a shape simply says that, for authorities with a well-established (good or bad) reputation, some change in their behavior has little effect on citizen trust and cooperation. But once a tipping point is reached, citizen trust can change dramatically.

VI. Final Thoughts

The concept of social capital has become a noteworthy one in economics and has linked together ideas in economics, psychology, political science, and sociology. Public attitudes – including the degree of trust and cooperativeness – are aspects of social capital that contribute to an economy’s productivity. Thus, it is sensible that public policy analysts have paid considerable attention to it. Often lacking from their analysis, however, is the idea that the actions and nature of government are likely to be important in inducing cooperative attitudes and other aspects of social capital. A good deal of evidence suggests that this is the case. Building this into a model illustrates the mutually reinforcing nature of trust, government, and rent seeking and how we may observe the paradox of the growth in both the size and mistrust of government.

Appendix: Investment in Human Capital

Here, we consider how investment in human capital magnifies the effects in the model. Assume two periods. In period two, individuals have a stock of productive skills denoted by I , and a set of political skills, K . In period one, individuals invest in these skills. Productive skills raise the wage, w , and political skills increase r . Write this as $w=w(I)$, $w'>0$ and $r=r(K)$, $r'>0$. In period two, the choice of h and s are affected by the initial period set of skills. Reconsider the first-order condition for the utility-maximizing choices of h and s from equations (2) and (3).

$$(A1) \quad \partial U/\partial h = (1-t)w(I) - C_h = 0$$

$$(A2) \quad \partial U/\partial s = r(K) - C_s = 0$$

Naturally, a higher I raises w , and induces more productive work and less political activity. A larger K does the opposite. Thus, we can write $s=s(r,K)$ and $h=h(w,I)$.

In the first period, the individual determines the investment in his/her skills, recognizing that K and I have an influence on their future allocation of effort. In this period, assume that individuals have one unit of time to devote to human capital investment so that $I+K=1$. Since a fixed amount of time is devoted to investing, the utility in the initial period is fixed at U^0 . The person's two-period utility is given by:

$$(A3) \quad U = U^0 + \delta[(1-t)w(I)h^* + r(K)s^* - C(h^*,s^*) + \beta l - \varphi(l)],$$

where δ is the discount factor, h^* and s^* are the h and s functions determined by optimization in the second period, and other variables are suppressed. After some simplification, the first-order condition for the choice of investment in political skills, K , is (noting that $I=1-K$):

$$(A4) \quad \partial U/\partial K = \delta[-(1-t)w_I h^* + r_K s^*] = 0$$

The first term in brackets is the marginal cost of investing in K . It is the value of forgone investment in productive skills. The second term is the marginal benefit: the increased return to

political support activity times its amount. Whatever raises s^* (and/or lowers h^*) increases the benefit of investing in political skills. That investment is more valuable the more it is utilized, i.e., the bigger is s . Thus, an increase in r has the direct effect of raising s , and also the indirect effect of raising the reward for investing in political skills. In our notation, $K=K(r)$, with $K'>0$.

The total effect of r on s is given by:

$$(A5) \quad ds(r,K)/dr = s_r + s_K K_r$$

The human capital investment effect is the second term and the first term is from the allocation of effort. The second term is positive, making the influence of an increase in r on political support activity larger.

This adds a further layer of reinforcement to the process described above. This is likely to be longer run in nature since human capital investment takes time. However, when r rises, this now induces more political activity, generating more investment in political skills, further increasing S in the long run. Because the $S(\cdot)$ function lies further to the right than the one depicted in figure 3, the new equilibrium is at an even lower L and higher S , with a corresponding lower level of citizen utility and higher level of government.

References

- Aghion, Philippe, Yann Algan, Pierre Cahuc, and Andrei Shleifer. 2010. "Regulation and Distrust." *Quarterly Journal of Economics* 125(3): 1015-1049.
- Alesina, Alberto and Wacziarg, Romain, "The Economics of Civic Trust," in Pharr, Susan J. and Putnam, Robert D. (eds.), *Disaffected Democracies: What's Troubling the Trilateral Countries*, Princeton, NJ: Princeton University Press, 2000.
- Andreoni, James, Erard, Brian, and Feinstein, John, "Tax Compliance," *Journal of Economic Literature*, 36(2), June 1998, pp. 818-860.
- Besley, Timothy; Persson, Torsten; and Sturm, Daniel, "Political Competition, Policy and Growth: Theory and Evidence from the US," *Review of Economic Studies*, 77, 2010.
- Bjornskov, Christian, "Determinants of Generalized Trust: A Cross-Country Comparison," *Public Choice*, 2006, pp. 1-21.
- Blendon, Robert, John Benson, Richard Marin, Drew Altman, Mollyann Brodie, Mario Brossard, and Matt James. 1997. "Changing Attitudes in America." In *Why People Don't Trust Government*, eds. Joseph S. Nye Jr., Philip D. Zelikow, and David C. King, 205-216. Cambridge, MA: Harvard University Press.
- Blind, Peri K., "Building Trust in Government in the Twenty-First Century: Review of Literature and Emerging Issues," UNDESA, November 2006.
- Brennan, Geoffrey, and James M. Buchanan. 1984. "Voter Choice: Evaluating Political Alternatives." *American Behavioral Scientist* 28(Nov/Dec): 185-201.
- . 1988. "Is Public Choice Immoral? The Case for the 'Nobel' Lie." *Virginia Law Review* 74(2): 179-89.
- Caplan, Brian. 2003. "The Idea Trap: The Political Economy of Growth Divergence." *European Journal of Political Economy* 19:183-203.
- Clark, Jeff R. and Dwight R. Lee. 2001a. "Is Trust in Government Compatible with Trustworthy Government?" In *The Elgar Companion to Public Choice*, eds. William F. Shughart II and Laura Razzolini, 479-493. Northampton, MA: Edward Elgar Publishing.
- . 2001b. "The Optimal Trust in Government." *Eastern Economic Journal* 27(1): 19-34.
- . 2003. "The Increasing Difficulty of Reversing Government Growth: A Prisoners' Dilemma that Gets Worse with Time." *Journal of Public Finance and Public Choice* 21(2-3): 151-165.

- Dalton, Russell, *Democratic Challenges, Democratic Choices: The Erosion of Political Support in Advanced Industrial Democracies*, Oxford, UK: Oxford University Press, 2004.
- De Cremer, David and Tyler, Tom, “The Effects of Trust in Authority and Procedural Fairness on Cooperation,” *Journal of Applied Psychology*, 92(3), 2007.
- Fehr, Ernst and Gächter, Simon, “Fairness and Retaliation: The Economics of Reciprocity,” *Journal of Economic Perspectives*, 14(3), Summer 2000.
- Francois, Patrick and Jan Zabojnik. 2005. “Trust, Social Capital and Economic Development.” *Journal of the European Economic Association* 3(1): 51–94.
- Franklin, Benjamin. 1787. Speech on September 17. <http://www.usconstitution.net/franklin.html>.
- Fukuyama, Francis, “Social Capital and Civil Society,” IMF working paper, April 2000.
- Galston, William and Elaine Kamarck. 2008. “Change You Can Believe in Needs a Government You Can Trust.” Third Way Economic Program, November. http://content.thirdway.org/publications/133/Third_Way_Report_-_Trust_in_Government.pdf.
- Greif, Avner. 1994. “Cultural Beliefs and the Organization of Society: A Historical and Theoretical Reflection on Collectivist and Individualist Societies.” *The Journal of Political Economy* 102(5): 912-950.
- Grossman, Gene and Helpman, Elhanan, “Protection for Sale,” *American Economic Review*, 84(4), September 1994, pp. 833-850.
- Guiso, Luigi, Paola Sapienza, and Luigi Zingales. 2006. “Does Culture Affect Economic Outcomes?” *Journal of Economic Perspectives* 20(2): 23–49.
- Hetherington, Marc, *Why Trust Matters: Declining Political Trust and the Demise of American Liberalism*, Princeton, NJ: Princeton University Press, 2005.
- Hayashi, N., Ostrom, E., Walker, J., and Yamagishi, T., “Reciprocity, Trust, and the Sense of Control: A Cross-Societal Study,” *Rationality and Society*, 11(1), 1999, pp. 27-46.
- Henrich, J., Boyd, R., Bowles, S., Camerer, C., Fehr, E., Gintis, H., and McElreath, R., “In Search of Homo Economicus: Behavioral Experiments in 15 Small-Scale Societies,” *American Economic Review*, 91(2), May 2001, pp. 73-78.
- Higgs, Robert, *Crisis and Leviathan: Critical Episodes in the Growth of American Government*, New York: Oxford University Press, 1987.
- Hunter, James D. and Carl D. Bowman. 1996. *The State of Disunion: 1996 Survey of American Political Culture Vol. 1. Summary Report*. Charlottesville, VA: The Post-Modernity Project, University of Virginia.

- Knack, Stephen and Philip Keefer. 1997. "Does Social Capital Have an Economic Payoff? A Cross-Country Analysis." *Quarterly Journal of Economics* 112(4): 1251-1288.
- Levi, Margaret; Tyler, Tom; and Sacks, Audrey, "The Reasons for Compliance With Law," Paper for Workshop on the Rule of Law, Yale University, March 2008.
- Lincoln, Abraham. 1858. First debate with S. Douglas, July 31.
<http://www.bartleby.com/268/9/23.html>.
- McCloskey, Deirdre, *Bourgeois Dignity: Why Economics Can't Explain the Modern World*, Chicago: University of Chicago Press, 2010.
- Mullen, Elizabeth and Nadler, Janice, "Moral Spillovers: The Effect of Moral Violations on Deviant Behavior," *Journal of Experimental Social Psychology*, 44, 2008.
- Nadler, Janice, "Flouting the Law," *Texas Law Review*, 83: 1399, 2005.
- Nye, Joseph S., Jr. 1997. "Introduction: The Decline of Confidence in Government." In *Why People Don't Trust Government*, eds. Joseph S. Nye Jr., Philip D. Zelikow, and David C. King, 1-19. Cambridge, MA: Harvard University Press.
- Nye, Joseph S., Jr., Philip D. Zelikow, and David C. King, eds. 1997. *Why People Don't Trust Government*. Cambridge, MA: Harvard University Press.
- Olson, Mancur. *The Rise and Decline of Nations*, 1982. New Haven, Conn.: Yale University Press.
- Olson, Mancur. *Power and Prosperity: Outgrowing Communist and Capitalist Dictatorships*. New York: Basic Books, 2000.
- Paldam, Martin, "The Macro Perspective on Generalized Trust," in Svendsen and Svendsen (eds.), *Handbook of Social Capital*, Edward Elgar, 2009.
- Pew Research Center for the People & the Press. 2010. "The People and Their Government: Distrust, Discontent, Anger and Partisan Rancor." Washington, D.C.,
<http://people-press.org/reports/pdf/606.pdf>.
- Pharr, Susan J., "Officials' Misconduct and Public Distrust: Japan and the Trilateral Democracies," in Pharr, Susan J. and Putnam, Robert D. (eds.), *Disaffected Democracies: What's Troubling the Trilateral Countries*, Princeton, NJ: Princeton University Press, 2000.
- Pharr, Susan J. and Putnam, Robert D. (eds.), *Disaffected Democracies: What's Troubling the Trilateral Countries*, Princeton, NJ: Princeton University Press, 2000.

- Rosenberg, Nathan and Lee Birdzell. 1986. *How the West Grew Rich*. New York: Basic Books.
- Stevenson, Betsey and Wolpers, Justin, 2011. "Trust in Public Institutions over the Business Cycle." *American Economic Review* 101:3.
- Tabellini, Guido. 2008. "The Scope of Cooperation: Values and Incentives." *The Quarterly Journal of Economics* 123(3): 905-950.
- Tullock, Gordon. 1975. "The Transitional Gains Trap." *Bell Journal of Economics* 6: 671-78.
- Tyler, Tom R., *Why People Obey the Law*, New Haven, Conn.: Yale University Press, 1990.
- Warren, Mark E.(ed.), *Democracy and Trust*, Cambridge, UK: Cambridge University Press, 1999.
- Yamamura, Eiji, "Government Size and Trust," *Review of Social Economy*, 70(1), March 2012.