

# Social Capital and the Dynamics of Trust in Government

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## **Abstract**

For some time, it has been evident that individuals monitor the performance of the president, Congress, and the economy and adjust their trust of the government either up or down depending on what they observe. But given that trust has never returned to the levels witnessed in the 1950's and 1960's, despite improved government performance, some other phenomenon must contribute to the movement of trust over time. Social capital may be the force that has kept trust low. As such, to understand the movement in trust over time, we need to assess the relative contributions of both government performance and social capital at the macro level. Using macro-level data, the analysis, here, is designed to capture the overtime variation in both social capital and government performance and let them compete to explain the macro variation in trust. The empirical results demonstrate that both government performance and social capital matter, but that social capital appears to be the force which accounts for the decline in trust over the last forty years.

From the late 1950's to the early 1970's, trust in government in the United States fell precipitously, declining by over thirty points. We know the decline to be sudden and steep. But when we ask how-by what process-did trust decline and how, more generally, does trust move over time, the answers are less certain.

For some time, it has been evident that citizens tend to generalize from recent government actions to form evaluations of government trustworthiness. That is, individuals monitor the performance of the president, Congress, and the economy, adjusting their trust of the government up and down accordingly (Citrin 1974). But given the inability of trust to rebound despite better government performance, some have begun to suspect that some deeper process may underlie the movement of trust over time.

Perhaps social capital is another, broader process that underlies the movement of trust over time. Here, trust is not a manifestation of how the public views political leaders but a result of how much the public engages in civic life and the attendant attitudes of trust and reciprocity that develop in civic activity. When citizens disengage from civic life and its lessons of social reciprocity, they are unable to trust the institutions that govern political life.

Since our interest in the topic is motivated by a macro-level phenomenon-that trust is apparently declining in American politics-we need to assess the relative contributions of both government performance and social capital to trust over time. Furthermore, given the inherently temporal nature of the research question, the level of analysis chosen in the research design is critical. Most of what we know about trust is from micro-level theories and cross sectional statistical analyses, as we ask why some people trust government more than others. If we care about why trust has declined over time, we must analyze trust across time, and this requires a macro-level research design using aggregate data.

Moreover, a macro-level research design provides us with additional leverage for assessing the relative effects of social capital and performance. While ignored in the past, both the social capital and performance explanations have distinct implications for the temporal dynamics of trust-that is how often we should expect trust to change in response to its causal influences. For example, if trust falls as social capital declines, then trust's reaction should not be immediate,

but instead occur gradually across future time periods. In contrast, if trust reacts to performance that reaction should be immediate. Again a macro-level research design allows us to test for such differing temporal dynamics in the movement of trust.

And the implications of the decline in trust have become increasingly relevant. It has become clear that trust is necessary for political leadership. Without trust, leaders are unable to obtain citizen compliance without coercion, make lasting decisions, or commit resources needed for collective action (Barber 1983; Levi 1997, 1998; Scholz and Pinney 1995; Scholz and Lubell 1998; Tufte 1990). Trust, in short, creates the environment that political leaders need to succeed (Hetherington 1998). The first step in the analysis is to review the well-established micro foundations of trust before developing macro-level point predictions.

## **1 What We Know (And Don't Know) About Trust in Government**

A substantial body of work has developed around the topic of trust in government. The literature begins in the 1970's as political scientists attempted to explain the first large decline in trust. Since trust reached a new nadir in the early 1990's, there has been a spate of new work. Given this work, what can we say causes trust to move over time?

The actions of political leaders and perceptions of government performance are most often identified as potential precursors to trust. Economic stewardship is typically identified as a leading cause of trust, when citizens are dissatisfied with economic performance distrust of government ensues, but when prosperity abounds so will trust (Chanley, Rudolph and Rahn 2000; Citrin and Green 1986; Citrin and Luks 1998; Feldman 1983; Hetherington 1998; Miller 1991; Lawrence 1997). The actions of incumbent leaders and evaluations of government institutions are also thought to be critical to levels of trust. In particular, the actions of Congress and the president appear to have a formative influence on how trusting the public is of government (Chanley, Rudolph and Rahn 2000; Citrin and Green 1986; Citrin and Luks 1998; Craig 1993; Erber and Lau 1990; Feldman 1983; Hetherington 1998; Miller 1991; Williams 1985). The actions of Congress and the President are

crystallized in scandals and the media focus on those scandals are seen as another contributor to national levels of trust (Chanley, Rudolph and Rahn 2000; Orren 1997). And others have identified crime as yet another contributor to trust (Chanley, Rudolph and Rahn 2000; Mansbridge 1997; *Deconstructing Trust: How Americans View Government* 1998). And most recently, Keele (2005a) demonstrated that government performance affects trust relative to evaluations of the political process.

While this literature is fairly extensive, the findings are easily summarized by saying that trust is a reflection of government performance. The performance of Congress, the President and how well they manage the economy, control crime, and avoid scandal are a large part of what causes the public to trust or distrust the government. So one thing we might say that we know about trust is that various aspects of government performance are important to perceptions of trust.

However, running through this work is a sense that trust has some other additional cause that is reflected in broader social and cultural trends. Some authors have suggested that perhaps social capital is the wider social phenomenon which affects trust (Brehm and Rahn 1997; Putnam 2000). Here, trust is a reflection of civic activity and the attendant attitudes of social trust that are learned in civic life. So, then, we might be able to say that besides government performance, we also suspect that social capital is an important cause of trust in government. Despite what we know about trust, which is considerable, there are some puzzles that we have not yet solved.

The questions about social capital and trust loom large in particular. Besides a basic theory that links trust and social capital, the relationship between social capital and trust over time is not at all clear. The little empirical evidence we do have (Brehm and Rahn 1997), is with micro level data and as such can tell us nothing about any possible over time covariance between the two concepts. Moreover, others have argued that, in fact, measures of voluntary associations do not coincide with movements in trust (Mansbridge 1997). Finally, the direction of causality between trust in government and social capital remains muddled. Both embody trusting attitudes, so surely trust in government could be causally prior to social capital.

And, then, if social capital is an antecedent of trust, its marginal contribution given the known effects of government performance may be minimal. However, the other possibility is equally real;

that is, the well documented effect of government performance may diminish once we account for the covariation between trust and social capital. Or instead perhaps each has a separate effect on trust. At present, who can say? Thus, there is still much we have to learn about trust in government and its antecedents. What follows is a macro level theory that will allow us to understand the mechanics between these three concepts.

## 2 Trust and Government Performance

I start with a simple individual level theory of trust and government performance. Here, the link between trust and government performance is grounded in basic concepts of democratic representation and accountability. I assume that each citizen grants decision-making power to an elected politician under an implicit contract that the representatives will accomplish goals of good policy, peace, and sound economic stewardship.

As voters evaluate whether a politician is meeting his or her expectations trust plays a role in this evaluation. Critically, an everyday definition of trust encapsulates how trust operates in the evaluation of politicians. That is in day-to-day life, we trust someone when we have evidence that we can depend on the character and ability of that person.<sup>1</sup> This definition of trust readily extends to voters and incumbent politicians. A voter will trust his or her representative if he or she has evidence that the politician has the integrity and capacity to meet the voter's expectations. Therefore, to earn the voter's trust, a politician must demonstrate that he or she has the capability to fulfill the goals they were elected to accomplish.

By implication, then, micro trust is based, at least in part, on a simple performance evaluation. Positive performance will increase trust, as it will be evidence of ability, while poor performance will decrease trust, as it will be evidence of the politicians inability to perform.

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<sup>1</sup>Other conceptions of trust could be used here instead. One other prominent conception of trust is that of Hardin who defines trust as a willingness to rely on another person or institution when one expects the actions of that other person or institution to take you into account in some relevant way (Hardin, 1998). Using this conception of trust, however, the implications for the performance theory of trust do not change. Here the citizen expects the representative to take considerations of prosperity and good order into account and if there is evidence that the representative has not taken the citizen's interests into account, i.e. performance is poor, trust will be lost. Others have defined trust as an evaluative orientation toward government (Stokes 1962; Hetherington 1998). Again, no contradiction arises since under all these definitions trust is an evaluative orientation based exclusively on political performance.

## 2.1 Trust and Government Performance in Time

The implications of individual level decisions to trust based upon government performance, however, are manifest at the macro-level. If trust is a product of government performance, trust's response to performance must come *over time*. The variation in performance that we care about occurs across time. That is, we are interested in whether the variation in government performance from one point in time to another causes a change over time in trust.

Given our interest in the over time relationship between trust and performance, the performance theory of trust generates two empirical expectations. First, if trust is a function of government performance, then knowing past government performance should improve our prediction of trust from the history of trust itself. Second, if trust responds to performance, an information stream that fluctuates given the actions of government, then, macro level trust should exhibit the same short-term movement as government performance. That is, trust should register the frequent gaffes and triumphs of government over time. This forms the dynamic expectations for trust under the government performance thesis. Here, trust should have some component that frequently changes in response to government performance.

So far all the references to government performance have been generic. Considering performance more specifically, we might assume that actions of Congress and the President constitute an important part of government performance as these two branches are elected to serve the voters' interests. And in particular, these two branches are held responsible for economic prosperity. Moreover scandals and high amounts of crime are obvious signs of performance failures. Of course, all this mirrors closely what we find in the trust literature. Therefore, some part of trust should be attuned to the regular give and take of presidential and congressional politics and quickly reflect each branches' failures and successes. I, now, turn to why we might expect the more elusive process by which citizens engage in civic life to also have an important, but different effect on trust.

### 3 Social Capital and Trust in Government

Social capital is a broad concept thought to affect many aspects of society. Social capital refers to the social connections, networks and interpersonal trust that occur in communities (Putnam 1993, 1995*a,b*, 2000). Specifically, social capital has two aspects, the first being the level of civic engagement in a community, state or nation, and the second being interpersonal trust, or the willingness to ascribe benign intentions to others. Citizens who participate in civic activities meet more people and learn interpersonal trust from interacting with them (Brehm and Rahn 1997; Putnam 1993, 1995*a,b*, 2000). Each dimension of social capital should contribute to levels of trust in government.

The micro foundations for the relationship between social capital and trust in government are well established (Brehm and Rahn 1997; Putnam 1993, 1995*a,b*, 2000). I briefly review them here. Being involved in civic activities, many of which involve engagement with government or groups that are attempting to influence government, connotes a belief that there is some chance of bringing about social change or control through the established political process. Citizens that are not engaged in civic activity are likely to feel a lack of political influence, which causes feelings of powerlessness, which in turn fuels cynicism and distrust toward political and social leaders, the institutions of government, and the regime as a whole (Putnam 2000). Therefore, citizens that have withdrawn from civic life harbor a hostile orientation toward government leaders and institutions. Moreover, civic engagement teaches interpersonal trust and individuals with low levels of interpersonal trust are equally mistrusting of people and institutions. Thus, the interpersonally distrusting citizen projects his or her misanthropic tendencies onto government (Brehm and Rahn 1997; Lane 1959; Moore and Wagner 1985; Putnam 2000).

But to consider that social capital exerts some causal influence on trust in government must beg the question of whether instead social capital is influenced by trust as some micro work contends (Brehm and Rahn 1997). It seems entirely plausible that trust in government will influence civic activity, since it may require some level of trust in government to participate in activities that engage political institutions. As for interpersonal trust, while mistrust of other people may generalize to institutions including government, it may be that trusting government and people

are not empirically distinct at the macro level as each is just an indicator of a general attitude of trust. Given these questions of causality, the first step in the analysis that follows must be to test that social capital is indeed exogenous to trust in government.

### **3.1 Social Capital and Trust in Time**

Critically, the macro level linkage between trust and social capital may be stronger than the micro level linkage. We might expect micro level data on civic engagement to contain large amounts of measurement error. Survey items on civic acts such as working for the school board are particularly prone to recall effects. By aggregating over a large number of micro measures, much of the measurement error will cancel out. Only with less noisy macro measures of social capital might we be able to observe any statistical relationship between social capital and trust in government.

More importantly, while social capital can be a property of individuals, it is really a property of aggregated units be they communities, states, or nations. Even Brehm and Rahn (1997) define social capital as primarily an aggregate concept. As an aggregate concept, we can examine two different forms of variation in social capital. The first is the variance across aggregated units, for example, the difference between the level of social capital in Maine and Nevada. We can also examine the over time variation in social capital within a single unit: has the level of social capital changed over time in the US? Given the aggregated nature of social capital, micro level searches for an association between trust and social capital may be entirely misleading. A micro level study cannot capture either of these two different forms of variation in social capital. Only by using a macro design can we really expect to find an association between social capital and trust in government. The macro design, first, captures the aggregate nature of social capital, but also incorporates the temporal nature of variation in social capital.

If trust does respond to the movement in social capital over time, just like for performance, there should be an implied dynamic between these two processes. The dynamic between trust and social capital should, however, be quite different than the dynamic between trust and government performance. Here, instead of trust responding to the rapidly changing stream of information and

perceptions that make up government performance, trust is reacting to a social process. Given that social capital is the combination of decisions to engage and the trusting attitudes that results from such engagement, the longitudinal movement in social capital should be gradual. As such, any effect that social capital has on trust should occur over the long term and not be contemporaneous as we expect for government performance. In short, we should expect the effects of government performance to be mostly contemporaneous, while social capital and trust should vary around a common level in the long run.

Attention to the dynamics of these three processes allows us to develop a more holistic understanding of how trust operates. While trust may react to both government performance and social capital, it should respond to each differently. Trust should respond to changes in performance immediately, but it should also respond more slowly over time to social capital. The dynamics also imply that the effect of social capital should be more potent than that of performance. If the effect of performance is predominantly a short-term effect, then its effect will be transitory beyond short term fluctuations. But if social capital dominates the long term trend in trust, it would suggest that the decline in social capital has caused the decline in trust over the last forty years.

## **4 The Analytical Framework**

To summarize, we have two separate but interlocking explanations for the behavior of trust. First, as the public perceives government performance improving (or worsening), trust will increase (or decrease). The statistical relationship should be positive as better performance should indicate an increase in trust, and trust will frequently fluctuate as performance changes. And second, a decline in social capital should also erode trust and affect the long-term movements in trust, without affecting trust contemporaneously. What remains, then, is to perform a statistical analysis that will precisely estimate the relationship between government performance, social capital, and trust. Before performing the analysis, I outline the specific measures used in the analysis, with a focus on the measure of trust.

## 4.1 Measuring Trust in Government

To analyze trust's dynamic response to its predictors requires longitudinal data with close intervals between observations. An annual or biennial time series of trust will not adequately reveal whether trust responds in the short-term to government performance. The challenge, then, is to obtain a time series that will capture any short-term reaction trust might have to government performance.

To that end, I constructed a trust in government time series with nearly 200 administrations of nine different survey questions from the data archive at the Roper Center for Public Opinion. Using Stimson's (1999) "recursive dyadic dominance" algorithm, I am able to form a quarterly trust time series and assess how well the different survey questions tap the same underlying trust construct. A number of researchers have used Stimson's method to construct time series measures of public opinion (Durr, Gilmour and Wolbrecht 1997; Durr, Martin and Wolbrecht 2000; Kellstedt 2000; Freeman et al. 1998; Chanley, Rudolph and Rahn 2000; Keele 2005*b*; Erikson, MacKuen and Stimson 2002).

Stimson's method produces a loading – interpretable as a correlation – that allows the analyst to assess how well different survey items measure the underlying construct. Table 1 reports the loading between the survey items and the trust in government construct.

(Table 1 About Here)

All nine survey items are highly correlated with the underlying trust construct; the lowest loading is a high .73, with most items loading at .9 or higher.<sup>2</sup> The items also explain over 87 percent of the variance, which indicates that the measurement model fits the data well. With the data available, I am able to produce a quarterly time series, which starts in the early 1970's. The quarterly time series is scaled from 0 to 100 with higher values indicating higher levels of trust. Figure 1 displays the yearly trust time series.

(Figure 1 About Here)

The quarterly time series allows us to see a fine-grained picture of the short-term movement in trust. Trust reaches a low point around the Watergate scandal in 1973, but rebounds during the

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<sup>2</sup>Survey items that only occur twice load at 1.0, -1.0, or 0 by definition in the principal components analog.

Ford and Carter administrations before declining again. During the Reagan administration, trust maintained levels nearly twenty-points higher than during the lows of the previous decade. After a sharp decline in the early 1990's, trust again climbed throughout the Clinton era, but is never as high as it was in the 1980's. The quarterly time series provides evidence that trust moves in the short-term, but this movement could be random fluctuations. The statistical analysis will assess whether changes in government performance are responsible for these short-term movements when the long-term trends in social capital are controlled for.

I use six different measures to capture public perceptions of government performance.<sup>3</sup> To measure economic performance, I use the Michigan *Index of Consumer Sentiment* (ICS), a set of survey items that tap public perceptions of economic prosperity.<sup>4</sup> To measure the performance of government institutions, I use presidential and congressional approval. The *presidential approval* measure comes from the Gallup and CBS/*New York Times* surveys. The *Congressional approval* measure is an extended series of the survey aggregates used in Durr et al. (1997).<sup>5</sup> To measure public perceptions of crime, I use the proportion of respondents who identify crime as the "Most Important Problem." I also test whether Congressional and presidential scandals, as evidence of performance failures, affect trust. Scandals are operationalized as dummy variables. Each scandal is a dummy variable with a one in the quarter the scandal started and a zero in all other quarters. The dummy variable for the Watergate scandal is slightly different, with ones from the second quarter of 1973 to the third quarter of 1974 and zeros in all other quarters.<sup>6</sup> The scandals included and the period in which they occur are as follows: Watergate, 1973:2—1974:3, Koreagate, 1977:1, ABSCAM, 1980:1, Iran Contra Affair, 1986:3, Jim Wright Scandal, 1989:2, Keating 5, 1990:4, House Bank Scandal, 1991:3, White House Travel Office, 1993:2, Whitewater, 1994:2, Filegate,

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<sup>3</sup>Critically, it is *perceptions* of government performance that should matter. Real government performance is difficult to measure or observe, but what citizens think the government does will be what shapes their level of trust. It is for this reason that I use ICS instead of measures such as unemployment and inflation.

<sup>4</sup>Since I have no theory about whether trust responds to either retrospective or prospective evaluations of the economy, I use both in an overall index.

<sup>5</sup>Since economic expectations also shape Congressional and presidential approval, the level of collinearity among these three variables is quite high. Following Erikson:2002, I purged Congressional and presidential approval of their economic components. I did this by regressing each on ICS and using the residuals from that equation in the models to follow.

<sup>6</sup>The six quarter specification achieved the best model fit over a variety of other longer and shorter dummy specifications. Also while I operationalize scandals as dummy variables, the dynamic models I use all the effects of these scandals to feed into the future.

1996:2. Social capital is operationalized with two measures, one of civic engagement and one of interpersonal trust. Both measures are public opinion time series that are developed and detailed in Keele (2005*b*).

Finally as a control in the the statistical analysis, I also include a measure of *macropartisanship*. Macropartisanship is a measure of the level of Democrats relative to Republicans over time (MacKuen, Erikson and Stimson 1989). The reason I include macropartisanship as control is that Chanley, Rudolph and Rahn (2000) find some evidence of an overtime covariance between trust and macropartisanship. But more importantly Keele (2005*a*) demonstrates that party identification has important links to trust at the micro level as well.

## 4.2 A Visual Analysis

Prior to more complicated statistical analyses, I conduct a much simpler visual analysis. The test, here, is to see whether a simple bivariate relationship exists between each measure of social capital and trust in government. While the more complicated models to follow provide for the inclusion of relevant statistical controls, it is useful to first examine the simpler bivariate relationships. With time series data, a visual inspection of the variables in question often provides a useful intuitive test: do the measures in question appear to move together over time? If the measures of social capital and trust in government appear to move together over time, it would provide some nominal evidence for a linkage between the two concepts. In Figure 2, I plot interpersonal trust, civic engagement and trust in government.

(Figure 2 About Here)

The visual pattern is striking, particularly between interpersonal trust and government trust. The two measures move together quite closely in the period under observation. While there is little quarter to quarter movement in civic engagement, the movement of trust in government also tracks the course of civic engagement. The evidence from a rough visual analysis, then, certainly suggests that the three measures covary. I, now, turn to a set of statistical tests to assess the theory.

### 4.3 Causal Mechanics

Before I can consider the more subtle questions of the relative dynamic effects of government performance and social capital, I must clear up the questions surrounding the causal mechanics between trust and social capital. Thus, I present the evidence for a theoretically critical question: Does trust in government affect, in any way, the two indicators of social capital?

To answer this question, I rely on a standard Granger causality test, a statistical technique well suited to the present line of inquiry (Freeman 1983; Freeman, Williams and Lin 1989). The test is quite simple: a standard partial F-test is used to determine whether past values of one series affect subsequent values of another series. I perform two Granger tests. In the first, I test whether trust in government Granger causes civic engagement, and in the second, I test whether trust in government Granger causes interpersonal trust. In each Granger test, if the null succeeds, we infer that trust is a proximate cause of civic engagement and interpersonal trust.<sup>7</sup>

(Table 2 About Here)

The results appear in Table 2. The two cells in the table represents an estimated equation testing whether trust Granger causes the two components of social capital. The  $p$ -values associated with each equation appear in the cells of the table. In the first equation, I test whether trust in government has any effect on interpersonal trust, and I estimate with a  $p$ -value of .90 that it *does not*. In the second equation, I estimate with a  $p$ -value of .88 that trust *does not* Granger cause civic engagement. The results, here, make the task at hand much simpler. I may straightforwardly model the relative effects of government performance and social capital on trust in a simple recursive system while focusing on the differing dynamic effects of each.

### 4.4 Dynamic Models of Trust in Government

The primary concern in the selection of the statistical model is the need to capture both short-term shifts in trust while accounting for the movement in social capital. The theory suggests that social

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<sup>7</sup>Lag length tests indicated that two lags were appropriate. While a two lag model was deemed superior based on AIC, SBIC, and a Likelihood Ratio test, I also estimated models with up to six lags. The results were unchanged. I also estimated a set of models with an exogenous time trend, which also left the results unchanged.

capital, as a dynamically slower process, should dominate the long-term trends in trust, while short-term shocks will be a function of performance. To analyze the differing long and short-term contributions of social capital and government performance, I use single-equation error correction models (ECMs). ECM's have separate parameters for contemporaneous effects and long-term equilibrium effects.<sup>8</sup> The ability to estimate long and short-term parameters in error correction models is particularly important, since I expect to observe government performance having an immediate effect on trust, while social capital has an effect on trust that occurs not immediately but instead over future time periods.

A bivariate single-equation ECM may be written as follows, and helps illustrate why an ECM is particularly suited to the theoretical question at hand:

$$\Delta Y_t = \beta_1 \Delta X_t - \beta_2 (Y_{t-1} - \beta_3 X_{t-1}) + \varepsilon_t \quad (1)$$

Equation 1 relates current changes in  $Y_t$  to both the changes in  $X$  and the degree to which the lagged levels of  $Y_t$  and  $X_t$  are outside of their equilibrium relationship.

Here, current changes in  $Y_t$  are a function of current changes in  $X_t$  and the degree to which the two series were outside of their equilibrium in the previous time period. Specifically  $\beta_1$ , captures any immediate effect  $X_t$  has on  $Y_t$ , often referred to as a contemporaneous effect. That is, if the first difference of a variable included in the model is statistically significant, then it has a short-term effect on the dependent variable. The coefficient,  $\beta_1$ , is referred to as the equilibrium effect of  $X_t$  on  $Y_t$  and is the causal effect that occurs over future time periods, often referred to as the long-term effect that  $X_t$  has on  $Y_t$ . So if the parameter for a lag of one of the independent variables is significant, then that variable has a long-term effect on  $Y_t$ . Finally, the long-term effect occurs at a rate dictated by the value of  $\beta_2$  (Bannerjee et al. 1993).<sup>9</sup>

The expectation from theory is that government performance should have statistically signifi-

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<sup>8</sup>Long and short run effects can also be estimated with an ADL model. However, these estimates are more transparent in the ECM.

<sup>9</sup>While single equation error correction models (ECM) are extensively used for modeling cointegrating relationships, the single equation error correction specification is more general and can be used to model a variety of time series relationships. Bannerjee et al. (1993) prove that ECMs are linear reparameterizations of autoregressive-distributed lag models (ADL). As such the error correction formulation is entirely appropriate for both stationary data and non-stationary data.

cant short-term effects, while social capital should, instead, have statistically significant long-term effects. In the practical context of the statistical model, I expect that the first differences of the performance variables should be statistically significant, while the lagged values of social capital should be significant. I also allow, however, that perhaps social capital has a short-term effect as well while performance may have a long-term effect. To that end, I include both lagged and differenced terms for each.

(Table 3 About Here)

Using a single equation ECM, I modeled changes in trust as a function of short-term changes and long-term levels of government performance, social capital. Using the results from the full model, I removed several variables that were not statistically significant under any specification. Results from both analyses are presented in Table 3.<sup>10</sup>

The error correction coefficient, lagged trust in the model, indicates that equilibrium errors are corrected at the rate of 35% per quarter. More generally, this is the rate at which long-term levels of trust move in response to a change in one of the predictor variables. Trust, then, responds to equilibrium errors relatively quickly, leaving 65% of the disequilibrating shock present after two quarters, 42% after three quarters, 27% after four quarters and so on. This error correction rate implies that it takes a little over two years for 95% of the errors from a disequilibrating shock to be corrected.

First, as expected the short-term parameters for both the Index of Consumer Sentiment and Congressional Approval are significant. Interestingly, the effect of government performance is not completely transitory since both Congressional Approval and the economy influence the long-term level of trust as well. The effect of government performance, then, is both subtle and blunt. First, trust quickly updates when performance changes, but the memory of that change lingers to ensure that trust is more than “what have you done for me lately?” That the effect of performance is not completely transitory is reassuring. If the electorate simply forgot past performance, the government would not be accountable for past performance beyond a single quarter.

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<sup>10</sup>Granger tests indicate that trust does not Granger cause any of the independent variables.

Presidential approval and crime are not significant. I did find that both presidential approval and crime were significant in bivariate regressions. For crime, this implies that while it may embody some sense of general government performance, the actions of Congress and the health of the economy better captures the public's sense of what contributes to a trustworthy government. Given that presidential approval has been purged of its economic component, the model implies that the president only contributes to trust insofar as the public holds the president responsible for the economy. Congress, however, is held responsible for the trustworthiness of the government beyond its economic management.

The indicators of social capital are also important causal determinants of trust as both civic engagement and interpersonal trust have large, significant effects. However, the effects of social capital are very different from those of performance. Civic engagement and interpersonal trust only affect the long-term equilibrium of trust. Thus, were we to witness a large increase in social capital, there would be no immediate effect on trust, but over subsequent quarters the level of trust would reequilibrate and subsequently move higher as well.

To more fully explore the dynamic pattern of the effects, I plot the lag distributions for the effects of Index of Consumer Sentiment, Congressional Approval, Interpersonal Trust, and Civic Engagement. The lag distribution is the amount trust changes each quarter in response to a one point increase in the independent variable. The lag distributions for each variable are in Figure 3. The dynamic component of the theory is clearly confirmed in the figure. For both ICS and Congressional approval, the bulk of the effects occur immediately. But, the effects of civic engagement and interpersonal trust don't take hold until  $t + 1$  and then are distributed across the next approximately 8 quarters. The dynamic expectations from theory are fully confirmed. The effect of performance is largely contemporaneous, while social capital dominates the long term component of trust. Moreover, the effects of social capital appear to be much larger than those of performance. To further explore this point, I next compare the relative magnitudes of the effects of performance and social capital.

(Figure 3 About Here)

To compare the size of the effects, I calculate the long run multipliers for the variables of

interest. The long run multiplier is the total long and short-run effect on trust for a one point increase in the independent variable.<sup>11</sup> I also calculated the standard error for each long-run variable using the Bewley transformation (Bannerjee et al. 1993). The results are in Table 4.

(Table 4 About Here)

While all of the long run multipliers are statistically significant, the effects of social capital are quite powerful as they are the largest in the model. A one point increase in civic engagement will increase trust 0.72 points, while a one point increase in Congressional approval will increase trust 0.24 points. An increase of one point in ICS increases trust 0.07 points, while an increase in interpersonal trust will increase government trust 0.28 points. A concerted increase in both measures of social capital will increase trust 1 point, while a concerted increase in performance will increase trust 0.31 points. The substantive impact of social capital, then, is far greater than that of performance. Performance undoubtedly causes the frequent fluctuations we observe in the trust time series, but it appears to be social capital that is driving the long term downward trend in trust.

As such, the debate over performance versus civic disengagement and misanthropy, at the macro level, is at some level a false dichotomy since both explain for how trust moves over time. Comparing the two in the same model allows us to understand that it appears to be the decline in social capital that is responsible for the current stagnation in trust in government. The model also suggests that while performance may be responsible for temporary increases in trust, without some change in social capital trust will not return to the levels witnessed in the 1950's and 60's.

## 5 Discussion

So what have we learned? The basic statistical results are straightforward. First, trust is an evaluation of politicians and their management of the economy and responds immediately to any changes in government performance. But trust also reflects the lessons learned in civic activity

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<sup>11</sup>The long run multiplier is simply  $\beta_3 \setminus \beta_2$ .

and feelings of personal misanthropy. While changes in social capital will not register an effect on trust immediately, the effect on trust is substantively important.

As such, the statistical results provide us with insight into what trust can tell us about the political climate and public response to popular governance. The early 1990's provide a particularly instructive case of how trust, as it embodies both performance and social capital, operates within the macro polity. Let's recall some of the events of the early 1990's that reflected on government performance at the time. Of course, economic prosperity suffered as the economy dipped into a stubborn recession, and George Bush's presidential approval ratings declined as attention shifted from the Gulf War to domestic politics. Moreover congressional popularity suffered as a series of scandals did little to bolster the image of Congress. Given the performance side of the model, here, with declines in several government performance indicators, it is little wonder that trust suffered.

But trust was particularly low. In fact, trust reached its nadir as less than thirty-five percent trusted the government in 1994. That trust was so low is less surprising given that civic engagement and interpersonal trust both dipped during the same time period. But the movement of trust in late 1990's is also instructive. In the late 1990's, the U.S. experienced robust economic growth and the popularity of Congress recovered. Trust, however, increased during the late 90's but not by much. Of course, there has not been any reversal in the slide of social capital, so it is not surprising that the rebound in trust has not been greater despite the change in government performance.

Scholars have long debated what caused the slide in trust from the 1950's to today. Many explanations have been offered but all have been found wanting. Social capital provides the best evidence yet. First, it declined over the same period. Second, the evidence, here, demonstrates that social capital exerts a powerful effect on trust. So while poor government performance undoubtedly contributed to the slide, the loss of social capital must have been decisive. The slide in social capital also explains why trust has never rebounded. Without some resurgence in social capital, especially civic engagement, we cannot expect trust in government to return to its previous levels.

As Hetherington (1998) demonstrates, without trust it is difficult for political leaders to succeed. Challenges such as social security, terrorism, and global warming are all issues that the

government must confront in the future. Without trust, it becomes all the more difficult for leaders to confront and address these looming issues. Without some return to civic engagement, it is unlikely that leaders will have the trust of the public to solve these problems.

## Appendix

The question wordings to the different items in the dependent variable are reprinted below.

The items below are in the same order as the entries in Table 1.

1. *How much of the time do you think you can trust the government in Washington to do what is right—just about always, most of the time, or only some of the time?* N=156
2. *How much trust and confidence do you have in our Federal government when it comes to handling domestic problems in general?* N=9
3. *Overall, how much trust and confidence do you have in the federal government to do a good job in carrying out its responsibilities?* N=3
4. *Would you say you basically trust the federal government in Washington or not?* N=2
5. *How much trust and confidence do you have in the federal government?* N=2
6. *You really can't trust the government to do the right thing. Do you agree or disagree with the statement?* N=2
7. *Would you say the government is pretty much run by a few big interests looking out for themselves or that it is run for the benefit of all the people?* N=40
8. *Do you think that people in the government waste a lot of money we pay in taxes, waste some of it, or don't waste very much of it?* N=39
9. *Do you think that quite a few of the people running the government are (1958-1972: a little) crooked, not very many are, or do you think hardly any of them are crooked (1958-1972: at all)?* N=27

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Table 1: Loadings Between Trust in Government Indicators and Overall Trust Index

Survey Item	Correlation with Index
Do the Right Thing	0.99
Domestic Trust	0.73
Trust to do a Good Job	0.90
Do the Right Thing (Negative Response)	1.00
Trust the Government	1.00
Trust the Government (Negative Response)	1.00
Big Interest Influence Government	0.97
Wastes Taxes	0.82
Government is Crooked	0.85

Note: See appendix for exact item wordings.  
Items in the table are in same order as those in the appendix.  
Loadings from principal components analog.

Table 2: Direction of Granger Causality Between Trust in Government and Social Capital

Independent Variable	Interpersonal Trust	Civic Engagement
Trust in Government	0.90	0.88
Block F-test $p$ -value		
L.M. Test	13.17	13.17
$\chi^2$ $p$ -value	0.15	0.15
N	109	109

Note: Data are quarterly, 1972:2 to 2000:4.  
Each variable was lagged two quarters. OLS estimates.

Table 3: Trust in Government by Social Capital and Government Performance

		$\Delta$ Trust in Government <sub>t</sub>	$\Delta$ Trust in Government <sub>t</sub>
Trust in Government <sub>t-1</sub>		-0.39* (0.08)	-0.35* (0.06)
$\Delta$ Index of Consumer Sentiment <sub>t</sub>	Short Term Effect	0.07* (0.03)	0.07* (0.02)
Index of Consumer Sentiment <sub>t-1</sub>	Long Term Effect	0.03* (0.02)	0.02* (0.01)
$\Delta$ Congressional Approval <sub>t</sub>	Short Term Effect	0.08* (0.03)	0.09* (0.04)
Congressional Approval <sub>t-1</sub>	Long Term Effect	0.09* (0.03)	0.09* (0.02)
$\Delta$ Civic Engagement <sub>t</sub>	Short Term Effect	-0.03 (0.27)	-0.04 (0.24)
Civic Engagement <sub>t-1</sub>	Long Term Effect	0.28* (0.09)	0.25* (0.08)
$\Delta$ Interpersonal Trust <sub>t</sub>	Short Term Effect	0.01 (0.07)	0.03 (0.06)
Interpersonal Trust <sub>t-1</sub>	Long Term Effect	0.08 (0.05)	0.10* (0.05)
$\Delta$ Macropartisanship <sub>t</sub>	Short Term Effect	-0.17* (0.08)	-0.16* (0.07)
Macropartisanship <sub>t-1</sub>	Long Term Effect	-0.12* (0.06)	-0.13* (0.05)
$\Delta$ Presidential Approval <sub>t</sub>	Short Term Effect	0.03 (0.03)	-
Presidential Approval <sub>t-1</sub>	Long Term Effect	0.01 (0.20)	-
$\Delta$ Crime <sub>t</sub>	Short Term Effect	0.02 (0.09)	-
Crime <sub>t-1</sub>	Long Term Effect	-0.04 (0.05)	-
Watergate (1973:2-1974:3)		-2.75* (1.55)	-2.19 (1.42)
Koreagate (1977:1)		-0.01 (1.37)	-
ABSCAM (1980:1)		-2.40* (1.33)	-2.25* (1.28)
Iran-Contra (1986:3)		0.06 (0.71)	-

Continued on Next Page

Table 3: (continued)

	$\Delta$ Trust in Government <sub>t</sub>	$\Delta$ Trust in Government <sub>t</sub>
Jim Wright (1989:2)	-2.25* (1.36)	-2.13* (1.29)
Keating Five (1990:4)	-1.22 (1.41)	-1.36 (1.32)
House Bank (1991:3)	0.22 (1.37)	-
House Post Office (1992:2)	0.33 (1.47)	-
White House Travel Office (1993:2)	1.47 (1.52)	-
Whitewater (1994:2)	-0.36 (1.15)	-
Filegate (1996:2)	1.49 (1.37)	-
Constant	-0.02 (3.24)	-1.07 (2.29)
Adjusted R <sup>2</sup>	.28	.33
N	100	100
Box-Ljung Q Test	29.61	29.00
$\chi^2$ p-value	0.93	0.90

Note: OLS Estimates. Standard Errors in Parentheses. One tailed tests.  
Data from 1972:1 to 1999:2. \*  $p < .05$

Table 4: Long Run Multipliers for Trust in Government

Index of Consumer Sentiment	0.07*
	(0.03)
Congressional Approval	0.24*
	(0.06)
Interpersonal Trust	0.28*
	(0.12)
Civic Engagement	0.72*
	(0.21)

Long run multiplier represents the total long and short run effects.

\*  $p < .01$

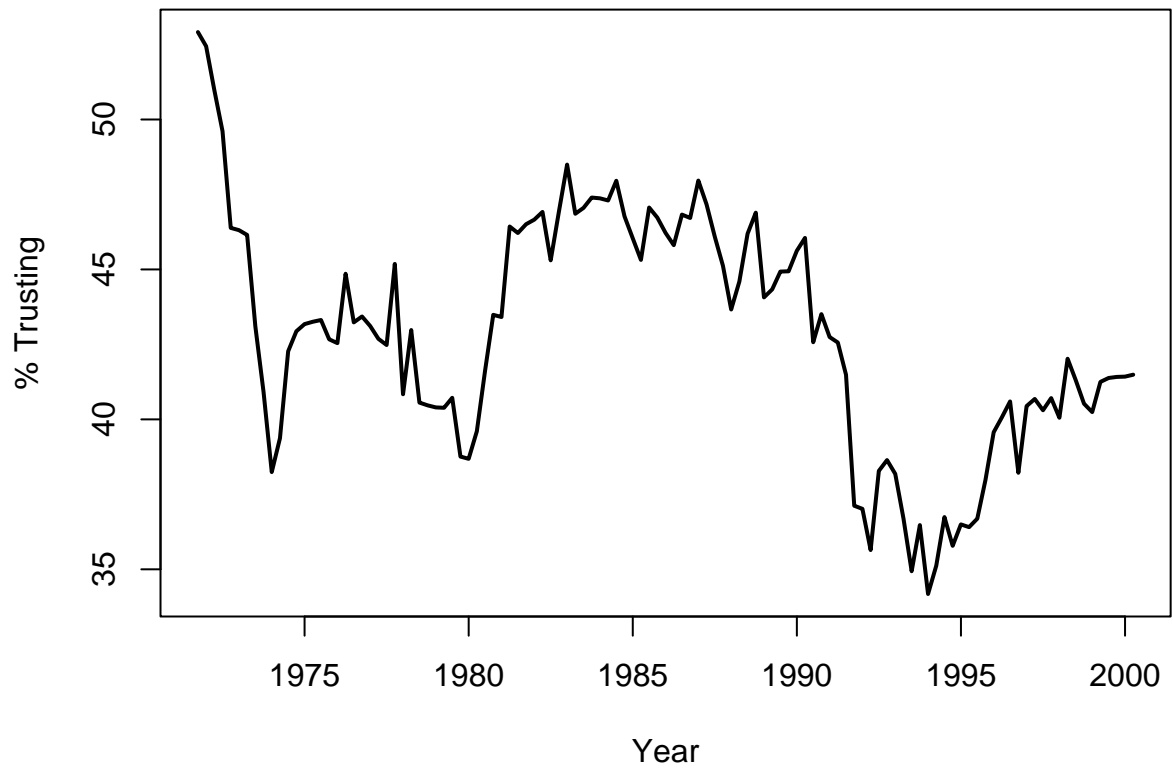


Figure 1: Quarterly Trust in Government, 1970-2000.

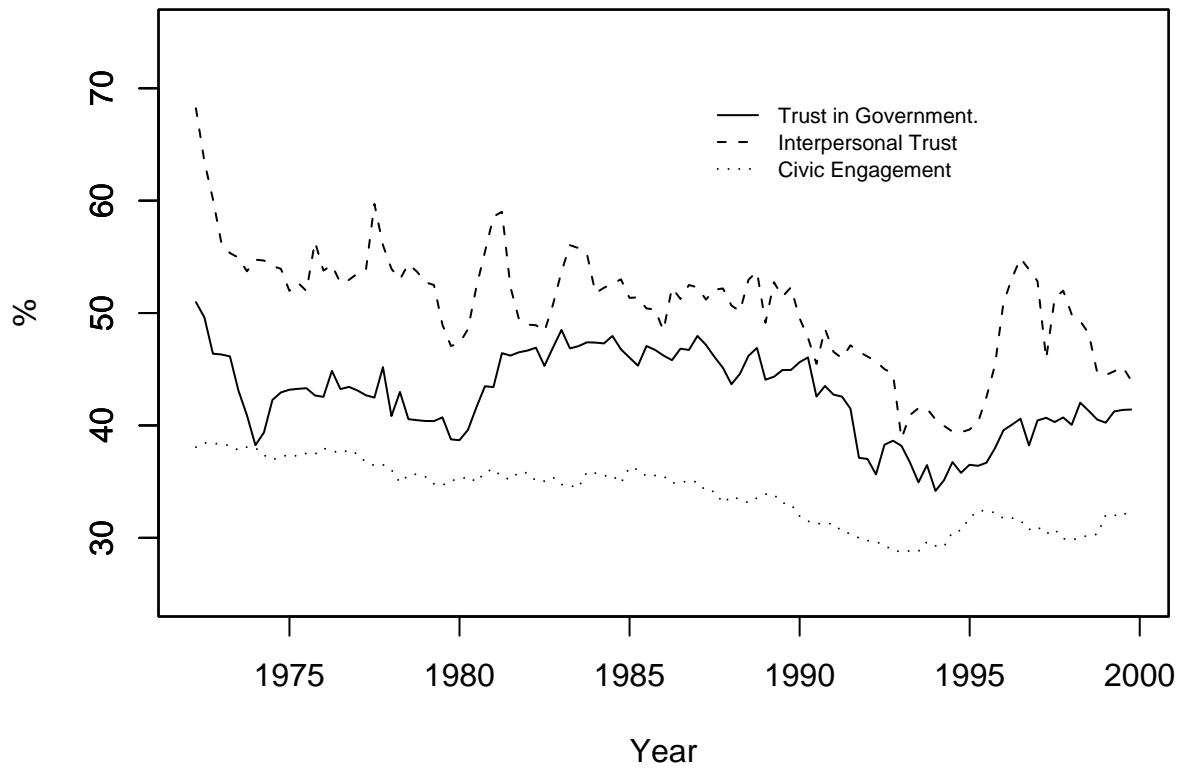


Figure 2: Trust in Government and Social Capital, 1970-2000.

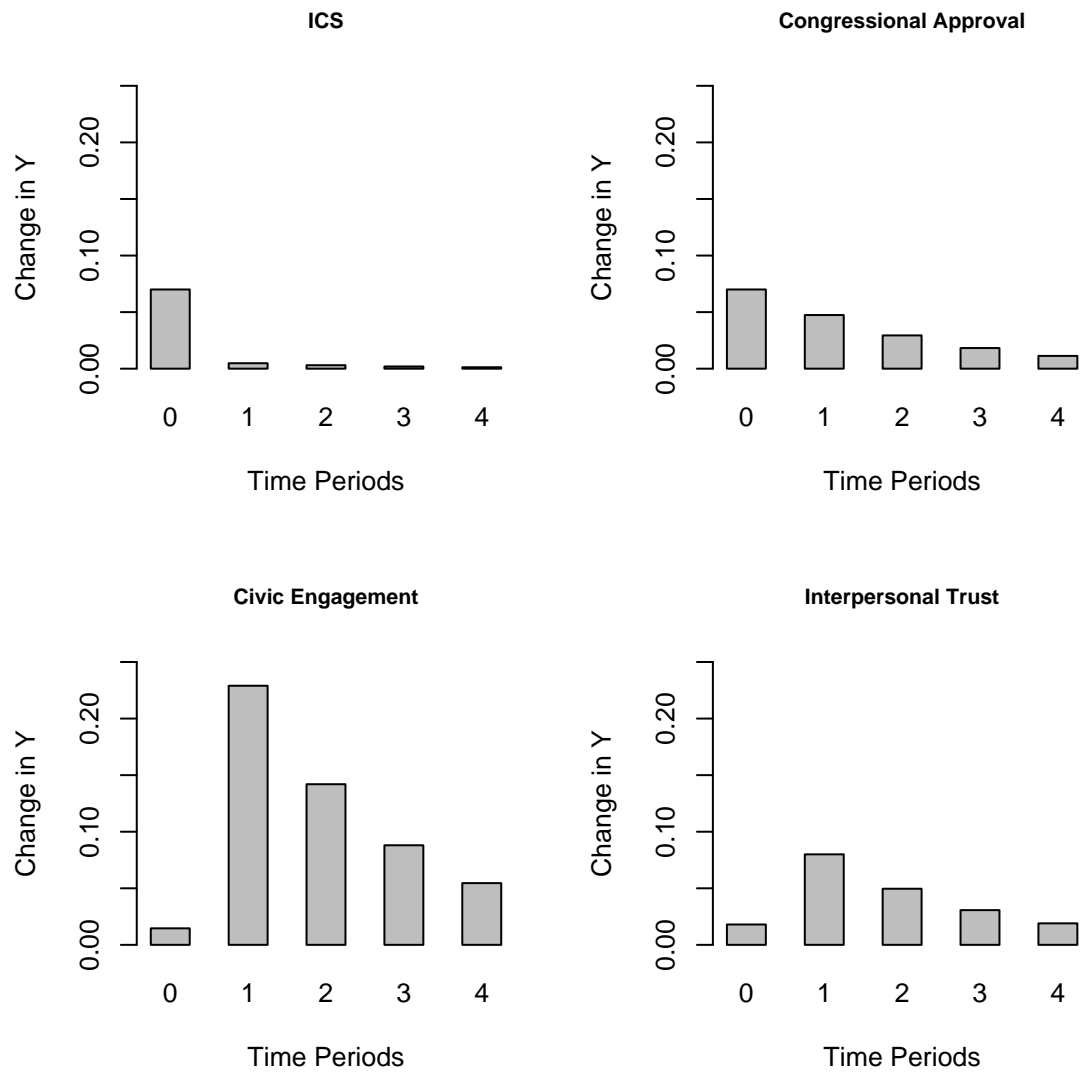


Figure 3: The Dynamic Effects of Performance and Social Capital.