

Meet the Oligarchs: Business Legitimacy, State Capacity and Taxation¹

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First Draft. June 11, 2016

Do not circulate. Work in progress.

Abstract

We analyze the role of people's beliefs about the rich in the determination of public policy. A question we study is the desirability of government-private sector meetings, a variable we argue is connected to State capacity. Survey respondents primed with negative views about business leaders want fewer of these meetings, as well as higher taxes to the top 1% and more regulation. We also study how these effects change when subjects are primed with negative views about government. A model helps interpret these findings.

Keywords: Business Legitimacy, State Capacity, Meetings, Taxes, Top 1%, Regulation.

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1. Introduction

Businesspeople are often perceived to be unpleasant, self-serving and even corrupt. In the US, where they have sometimes been lionized, the public is increasingly uneasy about the role played by business and the so-called “top 1%”.² Since beliefs about whether the poor are lazy or unlucky appear to be an important determinant of economic systems, a natural question concerns the possible consequences of believing the rich are undeserving.³ Our paper studies two possible consequences of this belief, namely that it has led to deterioration in State capacity and that it has caused an increase in the demand for taxing and regulating business. Our reasoning is that the perception that businesspeople are corrupt makes the public want to reduce the power and privileges of business.

There may be costs to these public reactions. Economists have discussed the incentive costs of taxes and the inefficiencies of over-regulated economies. But there may also exist costs in terms of State capacity of having a system where there is less private/public sector contact. Indeed, one of the basic problems of democracy is that everyone is expected to have similar influence on government, even if some people (those in business) can be expected to have lots of information that is helpful to government when setting policy.⁴ We focus on a key aspect of State capacity: the usual way of soliciting, and of conveying, this type of information involves direct contact (e.g., during a meeting) between the businessperson and the public official. Obviously, such close contact can allow for undue influence and bribes, so the public is understandably nervous about the existence of these meetings. Our main hypothesis is that lack of business legitimacy causes low State capacity, as well as demands for regulating the economy and taxing the richest 1%. This complements previous work on the causes of State capacity emphasizing the role of historical factors (which we review below).

Documenting how low business legitimacy lowers the demand for private-public sector meetings is important because it suggests a possible explanation for the existence of inefficient regulations in developing countries with weak private sectors. Indeed, some of the regulations present in poor countries are so obviously counterproductive that the most reasonable explanation is ignorance on the part of the bureaucrats putting them in place. The standard explanation in Economics is that they are put into place by interest groups (see for example, Tullock 1967, Stigler 1971, Shleifer and Vishny 1994). But why would interest groups (businesses or bureaucrats) with specific knowledge choose forms of regulation that are ostensibly inefficient?⁵ A more reasonable answer is that bureaucrats put in place bad regulations because they don’t know better and they can’t talk to those that know because they would be suspected of taking bribes.

² In 2001, a Gallup poll found that a combined 48% of US respondents said they were either very or somewhat satisfied with the size and influence of major corporations, and the same percentage were very or somewhat dissatisfied. Since 2003, a majority of Americans have been dissatisfied. Dissatisfaction peaked at 67% in 2011. See “Majority of Americans Dissatisfied With Corporate Influence”, Gallup Economy, January 20, 2016.

³ See for example, Piketty (1995), Alesina and Glaeser (2004). Research on comparative economic systems has emphasized the role of beliefs, at least since de Toqueville. See for example, Hall and Soskice (2001).

⁴ For example, the owner of a factory might know the times at which delivery of key inputs is both convenient for suppliers, convenient for the factory and does not cause traffic congestion. This information would be helpful to the public official in charge of regulating the times that trucks are allowed in the urban areas.

⁵ That this is the case is clear from the abundant evidence gathered from work on the “tollbooth” variant of capture emphasizing the role of bureaucrats (see Shleifer and Vishny 1994, De Soto 1989). Coate and Morris (1995) is a classic demonstration that inefficient redistribution may be employed as long as it is “sneaky” (i.e., not apparent to the public).

We also document how low business legitimacy causes an increase in the demand for taxing the rich and for regulating business. This complements previous work on the role of information regarding one's own position in the distribution of income in determining people's view about taxation by Kuziemko et al. (2015). And work that documented a negative correlation between regulation and measures of trust (including perceptions of corruption), in different settings (see, for example Djankov et al. 2002; Di Tella and MacCulloch 2009; Aghion et al. 2010; Pinotti 2012). These papers are potentially useful because they help explain differences in economic systems. Work on American exceptionalism has emphasized how differences in beliefs can explain differences in taxation and economic organization. Economists, starting with Piketty (1995), have developed models where beliefs about the income-generating process play a central role in the demand for policies (see also Benabou and Ok 2001 and Alesina and Angeletos 2005). Some of these models have emphasized the link to corruption, an important trait if the varieties of capitalism literature is going to be applied to the study of poor countries (Alesina and Angeletos 2005a focus on corruption arising from redistribution; Di Tella and MacCulloch 2009, focus on grand corruption; while Aghion et al. 2010 focus on bureaucratic extortion). Our paper involves a natural extension of this literature as it involves studying beliefs about the rich (which may be involved in some forms of corruption) and which may be somewhat independent from beliefs about the poor.

We present a model where beliefs about the rich and their honesty levels help determine the amount of contact between the private and public sectors, as well as the amount of regulation and taxation that prevail in the economy. We then introduce some data to these hypotheses. Our key assumption is that the public's perception of business is formed over time through experiences and the accumulation of messages, including those from the media. Our empirical strategy then, is to expose subjects to a brief description of a well-known, old piece of news regarding business leaders (positive or negative). This is expected to provide a direct reminder of this particular piece of news and, more importantly, an indirect stimuli of related memories (conceptual priming). Accordingly, our research design exposes a sample of 8,500 American subjects taking an online survey on Amazon Mechanical Turk (mTurk) with positive/negative information about American businesspeople and public officials. It then gathered their responses about what goes on in private-public sector meetings and their desire for regulation and taxation. Previous work has also used priming in studies of social preferences (Fong and Luttmer 2007; Chen and Li 2009; Shayo and Zussman 2011), public opinion (Gerber et al. 2010), and ideology Berdejó and Chen (2012). The latter is particularly relevant as it does so in the field.

We find that subjects that are primed with positive (negative) depictions of American businesspeople are more (less) likely to answer that information rather than bribes are exchanged in meetings between the public and the private sector than those in a control group. We also study a similar question after subjects were also primed with positive and negative depictions of government officials. We find that, regardless of the priming regarding corruption in government, subjects exposed to positive depictions of business report a higher intention to vote for pro-meetings politicians relative to those exposed to a negative depiction of business. We also find significant causal effects going from low business legitimacy and the desire to increase average regulation in the economy. We do not find an effect of business legitimacy on the desire to tax the top 1% when subjects have been primed with positive views of government officials. In contrast, when they are primed with depictions of corrupt government, subjects exposed to low business legitimacy are significantly more likely to report a higher desired tax rate on the top 1% than those primed with corruption in business. This is the same question for which Kuziemko et al. (2015) found "quantitatively small effects" of inequality. In contrast, when trust in government is low, subjects in our study primed with positive views on businesspeople want a tax on the top 1% that is approximately 2.7 percentage points lower than those primed with a negative image.

The paper proceeds as follows: Section 2 below discusses some of the prior work in this topic. Section 3 presents a simple model where beliefs about the rich are central in determining State capacity. Section 4 presents the survey design and basic summary statistics. Section 5 presents the main results from the survey. Section 6 offers some concluding thoughts.

2. Previous Literature (selective) and Motivation

The study of State legitimacy has a long tradition in political science and sociology. The related concept of commercial legitimacy, the acceptance of the authority and privileges that emerge from the economic system, is a far less studied question.⁶ Our paper can be seen as a study of the consequences of low business legitimacy for State capacity and for the demand for keeping business under control (regulation and taxation). We assume business legitimacy stems from both the efficiency and the honesty of a few, well-known business leaders. There seem to exist differences in the type of businesspeople that are seen to prevail in the country over time, depending on their salience in the media. For example, during the initial dot-com bubble tech entrepreneurs were ubiquitous in the media, whereas after the 2008 financial meltdown it was more standard for bankers to capture the public imagination. Similarly, one might expect businesspeople in developing countries to be active in “crony” sectors than those in rich countries.⁷

Previous work has emphasized the importance of State capacity. For example, Wade (1990) focused on the role of government intervention during the East Asian industrialization, in particular on the “synergies between markets and public administration”. In a study of the computer industry in Brazil, Korea and India, Evans (1995) argued that the most effective bureaucracies were those that were both autonomous from interest groups and enjoying deep links with the private sector (i.e., “embedded”). In the same tradition, we view private-public sector meetings as a key input into the production of informed bureaucrats. De-legitimized businesspeople, perhaps because of a combination of inefficiency and corruption, are less useful as a source of information. Accordingly, we expect the public to be less inclined to use meetings, both because they are not a source of useful information and because they may suspect that, even if they happen to have information, inefficient businesspeople may have more to gain from offering bribes than by surrendering it. Economists have emphasized other dimensions of State capacity. One tradition, for example, is focused on the ability to enforce contracts and collect taxes (e.g., Besley and Persson 2009), while another focuses on physical presence (e.g., Acemoglu, García-Jimeno, and Robinson 2014). Some of the work has emphasized the connection between State capacity and military needs (e.g., Tilly 1992; Besley and Persson 2009; Gennaioli and Voth 2015) or the size of firms (Kleven, Kreiner, and Saez 2016). There is also work emphasizing the complementarity between State building and good institutions (e.g., Acemoglu 2005; Dinecco 2009; Gennaioli and Voth 2015).

There is ample anecdotal evidence suggesting uneasiness on the part of the public regarding meetings between public officials and members of the private sector. Many countries have enacted laws that allow citizens to know what goes on in these meetings. These were particularly visible in the financial after the 2008 crisis, as the following excerpt illustrates:

⁶ There is also a large management literature on organizational legitimacy (e.g., Suchman 1995).

⁷ Akerlof et al. (1993), La Porta, Lopez-De-Silanes, and Zamarripa (2003) and Morck, Wolfenzon, and Yeung (2005) discuss the role of regulations and of corporate governance in the success of businesses that are inefficient and/or corrupt. Based on these ideas, *The Economist* magazine published a “crony-capitalism” index using data on billionaire wealth in sectors where there is a lot of interaction with State (see “Comparing crony capitalism around the world”, May 5th, 2016).

Representative Marcy Kaptur: ...you made about a hundred calls to Federal Chair Ben Bernanke, but then the next highest number of calls in that period, you made 103 to a man name Dan Jester... May I just ask, what firm did he worked for? Timothy Geithner: He worked for, as you know, he worked for Goldman Sachs. (Congressional hearing about AIG, January 27, 2010)

One standard justification for close contact with the private sector involves the exchange of information that helps policymakers. For example, when some of the European Central Bank's top decision makers were criticized for meeting with asset managers and bankers in the days prior to making important decisions, an ECB spokesman explained that "it was important for policy makers to understand financial markets, since this is how monetary policy is transmitted into the real economy."⁸ Both the US Federal Reserve and the Bank of England, in contrast, ban members of the rate-setting committee from discussing issues regarding monetary policy with "outside interests" during the week prior to a policy decision. In early 2015, the ECB "launched its own review of the issue, setting out new principles for how its officials should interact with the private sector."⁹

There is a large literature on lobbies, which act as intermediaries between firms and elected politicians. This work emphasizes the role of information and monetary influence, typically through campaign contributions. The role of information can be large: de Figueiredo and Cameron (2006) report Federal lobbying expenditures that are 5 times larger than campaign contributions. Recent work by Bertrand, Bombardini, and Trebbi (2014) reports evidence in support of the view that lobbyists provide firms access to politicians and politicians with access to expert information.¹⁰ We study another layer of this process which consist on what are people beliefs regarding the lobbying process, and how these beliefs could put a constraint on state capacity.

3. A model of the demand for public-private sector meetings

In this game there are 4 players: Nature, a businessman, the public, and a delegate.

In the first stage, the businessman and the public play a simultaneous move game. The businessman can decide to invest in becoming a "High quality" businessman (to study and train, which requires high effort e_h), or a "Low quality" businessperson (exert low effort $e_l < e_h$). Simultaneously "the public" decides whether to Permit "many" meetings of his delegate with the businessperson or to limit them to being Few; it must also set one of two income tax rates (for businesspeople; not the overall tax rate) τ_h or $\tau_l < \tau_h$. The decision of the public about meetings is whether the probability of a meeting will be high or low: some meetings will take place, the question is whether other "extra" meetings can take place. We model things this way so that there will be some meetings of low quality businesspeople with delegates (otherwise any inference about low quality businesspeople meeting with the delegate would be based on "off equilibrium" beliefs).

After the simultaneous decisions by the public and the businessperson, a type π_h or π_l is chosen by Nature for the delegate: the quality of the delegate will be the quality of her information; in particular π will be the precision of the delegate's information. The probability of type π_h is q . At the same time, nature chooses whether a meeting will take place: if meetings have been permitted, a meeting happens with probability 1; if the

⁸ From "ECB officials met bankers before key decisions", *Financial Times*, Tuesday November 3, 2015.

⁹ From "ECB officials met bankers before key decisions", *Financial Times*, Tuesday November 3, 2015.

¹⁰ See also Grossman and Helpman (2001) for a good review. Blanes I Vidal, Draca, and Fons-Rosen (2012) estimate the value of connections to Senators and de Figueiredo and Silverman (2006) estimate the return to lobbying by universities.

public has decided that they will be few, a meeting happens with probability f . If a meeting takes place, the quality of the delegate becomes known to the businessperson (it is immaterial whether the public knows it too).

In the second stage, if a meeting takes place, the businessman can offer a bribe or not; the delegate then has to accept or reject it. The bribe consists of a payment of B to the delegate, and she commits to increasing her optimal action (in the last stage) by 1 unit. If no meeting takes place, nothing happens in stage 2.

Prior to stage 3, nature draws a signal about the state of nature which is observed by the delegate. The delegate of type $j = h, l$ receives a signal $s = \omega + \epsilon$ about the true state of nature $\omega \sim N(0,1)$. The precision of the delegate's signal is larger if no bribe was offered: with $\epsilon \sim N\left(0, \frac{1}{\pi_j}\right)$ if a bribe was offered, and $\epsilon \sim N\left(0, \frac{1}{z\pi_j}\right)$ for $z > 1$ if the businessperson and the delegate collaborate. The signal is also known to the businessperson, but not to the public. The justification for this assumption is that the delegate receives information which the businessman and he can interpret, but that is harder for the public to understand. The assumption that the businessperson can observe the signal is just for simplicity, to avoid an inference problem: when the delegate chooses (in the next stage) a policy action a , the businessman must know what it would have been in the absence of a bribe, so as to "check" that the delegate indeed complied with her end of the deal (of increasing her otherwise optimal action by 1). Alternatively, we could assume that by accepting the bribe the delegate commits to the action required by the businessman (and there would be no inference problem); the results are unchanged in this case.

The assumption that if the bribe is offered the signal has a lower precision (larger variance) is in line with the idea that if a businessperson meets with a regulator, either exchange of useful information takes place, or negotiations leading to the bribe take place, but not both. The meeting is used for one thing, or the other, but not both. This assumption will also play an important role in driving the results. To understand why, notice that since more information will make the policy better, the businessman would in general like to collaborate with the delegate, but in that case the incentives of the Trained businessman and the Untrained one would be the same in terms of offering the Bribe or not, and multiplicity would not arise.

In the final stage (either after nature chose no meeting, or after the meeting took place) the delegate chooses a policy action $a \in \mathbb{R}$. As explained above, the exchange for the bribe is simple: the businessman offers an amount of money B to increase the action a by 1 unit (we will specify payoffs later, but for now it suffices to say that the business person likes large a ; say, a more favorable regulation).

Payoffs are as follows. Let k be a constant, x a technological parameter, and τ the tax rate. A businessperson with education e_i with cost c_i , for $i = h, l$, who pays a bribe b (the bribe will be either B or 0), has utility

$$u_B = (1 - \tau)(e_i(k - (\omega - a)^2) + xa) - b - c_i$$

The basic idea is as follows: everybody wants the policy action a to match the state, so as to minimize $(\omega - a)^2$, but the businessman has a bias, he likes higher a . In particular, in the absence of the xa term, the a desired by the businessperson (for $\bar{\omega}$ the expectation of ω , given any information available, would be $a = \bar{\omega}$. The education term e_i increases "honest income" which is defined as $e_i(k - (\omega - a)^2)$: if the action matched the state, income would be $e_i k$, but "bad policy" moves a away from ω . The parameter x indexes how distorted the businessperson's preferences are in terms of wanting higher a . In particular, the optimal a for the businessperson if he could choose it would be $a = \bar{\omega} + \frac{x}{2e_i}$. In this setting a could be interpreted as any

variable that businesspeople like higher than the rest of the population. It could be that higher a means lower regulation and ω would be the “optimal amount” of regulation; or in an export oriented economy, a could be the exchange rate. We assume that taxes are spent in other areas of the economy; we could add a lump sum transfer to the utility of the businessperson, and all results would go through unchanged. The only relevant part of this assumption is that a higher tax hurts the businessperson; with the lump sum transfer it would be only through the increased distortion. Notice that the bribe is paid from “after tax” money (it is not deductible from as a cost in taxes), and that the education cost is nonmonetary (it is in “utility” terms, it is a cost of effort).

A relevant feature of the preferences of the businessperson is that there is a complementarity between education and policy: more educated businesspeople like better policy more; put differently, a better policy (smaller $(\omega - a)^2$) increases the incentives to acquire education.

The public cares about how “efficient” the businessperson is, and about the existence of bribes. Bribes distort the policy action and therefore reduce the “honest income” $e_i(k - (\omega - a)^2)$ about which the public cares; in that sense, the public cares indirectly about bribes. But we assume that the public also cares directly about the bribes. One justification is that the public dislikes the existence of “unearned” income, or dishonest income, which arises with bribes (this would be similar to Alesina and Angeletos 2005b, where society dislikes differences in income arising due to luck), and therefore would like to tax it. A higher tax reduces the incentives to bribe (a bribe produces less after tax income, and the cost of the bribe does not change with the tax rate, so higher taxes reduce bribes). An alternative justification is that the public dislikes bribes because they are the consequence of selfish businesspeople’ actions that hurt others, and therefore businesspeople should be punished (with higher taxes). In any case, both variants would lead to preferences of the form we assume now for the public, who cares about the utility of the businessperson (derived from honest activity), and about bribes. For $I_B(\cdot)$ an indicator function of whether a bribe occurred (a function of all shocks and actions, that takes the value of 1 if a bribe happened), the utility function is

$$u_p = (1 - \tau)e_i(k - (\omega - a)^2) - c_i + \alpha I_B(\tau - C)$$

In this formulation α and C are parameters indicating how much the public dislikes bribes relative to how much it cares about “efficiency”. The term $C > \tau_h$ is a cost which is paid whenever a bribe happens; the term $\alpha\tau$ increases the utility of the public, and increases the marginal utility of taxes when bribes happen. When we take the expected utility of the public, the indicator function becomes the probability that $b = B$ (that there is a bribe), and last term becomes $\alpha P(B)(\tau - C)$, so the public prefers a higher tax rate, the higher the probability of a bribe. One can also interpret this formulation of preferences as “betrayal aversion” if we have a higher α when meetings are allowed: the public allows the meeting (trusts the businesspeople) and then a bribe happens; the public is then “more hurt” than if it had chosen to minimize meetings (in that case, it expected the bribe, so it doesn’t hurt so much). This formulation with different α can also be obtained in a psychological games setting (à la Geanakoplos, Pearce, and Stacchetti 1989), in which a punch (the bribe) hurts more when the public expected honest behavior.

The delegate is paid a fixed proportion p of the honest income $e_i(k - (\omega - a)^2)$, where p represents the power of the contract. This may reflect an actual contract where performance is rewarded, or some form of reputation whereby bureaucrats who do well don’t earn more immediately but face better career paths in the future. In addition, she also may obtain bribes, so her payoff is

$$u_D = pe_i(k - (\omega - a)^2) + b$$

We present now the main theorem that states the two equilibria of this model. Additionally, with this theorem in hand we derive two straightforward corollaries which will guide most of the results in section 5. Proofs of these results can be found in the appendix.

Theorem 1. *There is an open set of parameters for which there are only two subgame perfect equilibria. In one of them the businessperson is High quality (high effort, and productive) and the public permits meetings. In the other, the businessperson is low quality and the frequency of meetings is low (all unnecessary meetings are forbidden).*

In the good equilibrium, since firms are productive, they reap the benefits of better policy and therefore do not offer bribes. In the bad equilibrium firms offer bribes to the low quality delegate, and not to the high quality delegate (this is not central, they could offer bribes to both).

Because of the higher incidence of corruption in the bad equilibrium, the corporate tax (the tax to businesspeople, to the oligarchs) is higher than in the good equilibrium.

Corollary 1.a. *If people were able to observe the quality of the delegate and businessperson, ceteris paribus the quality of the delegate, the opportunity cost of forbidding meetings when the businessperson is High quality, is higher than when the businessperson is Low quality.*

Corollary 1.b. *Ceteris paribus the quality of the businessperson, the opportunity cost of forbidding meetings when the delegate is High quality, is higher than when the delegate is Low quality.*

Corollary 2. *If people were able to observe the quality of the delegate and businessperson, they would set high taxes only when both the delegate and the businessperson are Low quality (low taxes otherwise).*

4. Empirical strategy

4.1. Survey design

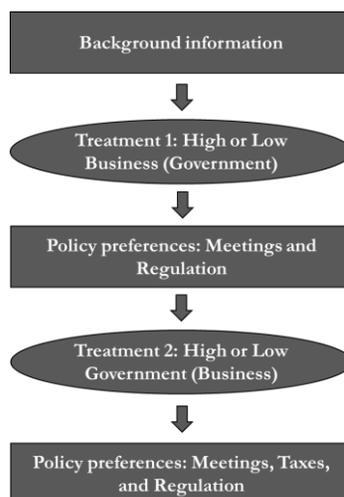
The model presented below basically rationalizes how beliefs about the business and government may affect certain policy preferences, in particular preferences towards meetings taking place between government officials and businesspeople, and taxes on businesspeople (which may in turn affect state capacity). In the following section we take the model's prediction to the data. We "prime" subjects with either: businesspeople are efficient/honest; or they are willing to commit economic crimes (we don't specify whether that is because they are unable to make an honest dollar, or because they are immoral). We call these the business treatments (*High Business* and *Low Business* treatment). After this treatment we ask a first round on questions regarding their preferences for meetings and regulation, and we "prime" subjects again with either: government officials are efficient/honest, or they are willing to commit economic crimes.¹¹ Analogously, we call these the government treatments (*High Government* and *Low Government* treatment). To rule out order effects, in some cases we first showed individuals the business treatment and then the government treatment, and in some cases the other way round.¹² There is also a control group, which consists of individuals that were presented with no treatment at all. A diagram showing the flow of the survey is presented below: we first conduct some basic questions (age,

¹¹ We actually perform two additional treatments (we call them treatments with punishment.). In one of them we prime subjects with government is corrupt but these government officials are punished. In the other one we prime subjects with businesspeople are corrupt but these businesspeople are punished.

¹² In this version we present only the treatments "pooled". This means that an individual treated first with *High Government* and then with *Low Business* is treated in the same way as an individual treated with *Low Business* first and with *High Government* later. Results where these treatments are considered as different treatments are available upon request.

gender, beliefs about the poor and rich, trust, etc.), second we show them a first treatment, third we ask them some questions regarding their policy preference over meetings and regulation, fourth we show them a second treatment (if the first treatment was a business treatment, the second treatment is a government treatment and vice versa), fifth we ask them a different and more comprehensive set of questions regarding their policy preferences over meetings, taxes, and regulation.¹³

Figure 1. Survey Design



The reason for this particular survey design will become more apparent once we look at the results, but the objective of this design is to achieve the following: 1) disentangle effect of private legitimacy and public legitimacy on policy preferences; 2) measure potentially differential effect (on policy preferences) of private legitimacy in scenarios with low and high public legitimacy (and analogous for public legitimacy in scenarios with low and high private legitimacy).¹⁴

To measure the impact of business legitimacy (on certain policy preference), the main empirical strategy will be to compare respondents that were treated with the same government treatment but with different business treatments (and vice versa to measure the impact of public legitimacy). The rationale of looking at this effect conditional on a government treatment is that conditioning it this way let us “fix” the beliefs on the government and thus arguably the gap in public legitimacy between people that are treated with *High Business* and *Low Business* is lower than if there were no government treatment at all (so we are measuring a more “pure” effect of private legitimacy, rather than a combined effect of private and public legitimacy). Put it differently, when an individual is treated with *High Business* it is impossible to perfectly know how this affects individual’s perceptions on other aspects besides businesses. Potentially, individual’s views about the government are also affected. By directly treating the individual with a government treatment, one is shrinking the effect that the business treatment has on the beliefs about the government.¹⁵ Formally, what we mean is that the gap in respondent’s public legitimacy when treated *High Business* vs *Low Business* is lower if we additionally treat them with a government treatment, than if we don’t. We can only disentangle effects this way by looking at the questions performed after the second treatment. The questions asked before the second treatment were put to separate both treatments and

¹³ A complete questionnaire and all treatments can be found in the appendix.

¹⁴ The following terms will be used interchangeably: business legitimacy, private legitimacy, and trust in businesses. Same applies to the following terms: public legitimacy and trust in government.

¹⁵ We are planning on running a separate mTurk experiment to show this is the case.

to be able to look at some simple results, although in this case it is clear that public and private legitimacy may be confounded.

The survey was implemented through Amazon's Mechanical Turk, an internet-based market for tasks. The case for online experimentation is strong, as there is no need to physically aggregate subjects and compensate them for their travel (this and other aspects of online labor markets are reviewed in Horton, Rand, and Zeckhauser 2011). They have been used to study several questions in economics, including the effect of peers' wages on job satisfaction (Card et al. 2012), the effect of inequality on preferences for redistribution (Kuziemko et al. 2015) or views about social preferences (Weinzierl 2014 and Saez and Stantcheva 2016). Several papers have studied the characteristics of M-Turk respondents and their usefulness for political research (see, Berinsky, Huber, and Lenz 2012, Mason and Suri 2012, and Huff and Tingley 2015).

In our case, M-Turk was used to attract subjects by offering a small reward (1 dollar) for taking a brief survey (approximately 10 minutes) to "help us learn more about the relationship between politics and government in America". We explained participation was voluntary and that it was anonymous.

Before showing the main summary statistics for the data collected, in the following table we present a complete list of variable definitions.

Table 1. Variables definitions

Variable	Description
Control variables	
Male	Dummy equal to 1 if individual is male (0 if female and missing value if neither male/female)
Age	Age in years
White	Dummy equal to 1 if indicated as one of the races "White"
Black	Dummy equal to 1 if indicated as one of the races "Black"
Hispanic	Dummy equal to 1 if indicated as one of the races "Hispanic or Latino"
Asian	Dummy equal to 1 if indicated as one of the races "Asian"
Other_race	Dummy equal to 1 if indicated as one of the races "Other"
Hispanic and other races	Dummy equal to 1 if indicated as one of the races "Other" and/or "Hispanic"
Postgraduate degree	Dummy equal to 1 if highest level of education is Master's Degree/Doctoral Degree/Professional Degree (JD, MD, MBA)
Only college degree	Dummy equal to 1 if highest level of education is 2-Year College Degree/4-Year College Degree
No college degree	Dummy equal to 1 if highest level of education is Eight Grade or less/Some High School/ "High School degree/GED" or Some College
Full-time employee	Dummy equal to 1 if Full-time employee
Part-time employee	Dummy equal to 1 if Part-time employee
Employee	Dummy equal to 1 if Full-time employee or part-time employee
Self-employed	Dummy equal to 1 if Self-employed or small business owner
Unemployed	Dummy equal to 1 if unemployed and looking for work
Student	Dummy equal to 1 if student
Unemployed or student	Dummy equal to 1 if unemployed and looking for work or student
Not_in Labor_Force	Dummy equal to 1 if not in labor force (for example: retired or full-time parent)
Trust	Variable taking 0 if "Need to be very careful" and 10 if "Most people can be trusted" (scale: 0-10)
Poor didn't make an effort/PoorNoEffort	Dummy equal to 1 if poor are poor because they made no effort
Rich made an effort/RichEffort	Dummy equal to 1 if rich are rich because they made an effort
Obama	Dummy equal to 1 if supported Obama or leaned towards Obama
Dependent variables in regressions	
Meetings_Good1	Variable taking 0 if "Mainly exchange of bribes for favors" and 10 if "Mainly exchange of useful information" (scale: 0-10), when asked regarding what goes on at meetings between government officials and politicians
More_Regulation1	Variable taking 0 if "Very unlikely" and 10 if "Very likely", when asked regarding support for more government regulation on firms (scale: 0-10)
More_Wages_Regulation1	Variable taking 0 if "Strongly against" and 10 if "Strongly in favor", when asked regarding regulating wages (scale: 0-10)
More_Prices_Regulation1	Variable taking 0 if "Strongly against" and 10 if "Strongly in favor", when asked regarding regulating prices (scale: 0-10)
Meetings_Good2	Variable taking 0 if individual wants "A politician that is against allowing these meetings" and 10 if "A politician that is in favor of allowing these meetings" (scale: 0-10)
Competiton_Bad2	Variable taking 0 if "Competition is good..." and 10 if "Competition is bad..." (scale: 0-10)
More_Gov_Resp2	Variable taking 0 if individual believes that "People should take more responsibility..." and 10 if "The government should take more responsibility..." (scale: 0-10)
Democracy_Bad2	Variable taking 0 if "Disagree strongly" and 10 if "Agree strongly", when asked regarding "In democracy, the economic system runs badly" (scale: 0-10)
Discretion2	Dummy equal to 1 if individual wants to give discretion to policymakers
Tax_1_percent2	Preferred tax rate for the top 1%
Tax_next9_percent2	Preferred tax rate for the next top 9% (1% of households earn more than them, but 90% earn less)
Tax_next40_percent2	Preferred tax rate for the next top 40% (10% of households earn more than them, but 50% earn less)
Tax_bottom50_percent2	Preferred tax rate for the bottom 50% of the income distribution (poorest)
High_Fraud2	Dummy equal to 1 if individual thinks there was a lot of fraud (during 2008 financial crisis) and it was the main cause of the crisis

4.2. Data

After having gone over the survey design, and before going over the main results, in this section we explain the sample considered and present the main summary statistics. It should be noted that we collected data on the time spent in each of the windows that were presented to the respondent in the survey, so we can potentially use this data to restrict the sample considered. The survey was taken by 9217 individuals, 21 of them had corrupted data in the time that they took to complete the survey so were dropped out from the sample. Additionally, many other respondents took far less time than what is needed to accurately read the questions that were asked in the survey. To get potentially meaningful answers we restrict the sample in two ways. First, we consider only individuals that took at least 3 minutes to complete the survey (not considering the time spent in the treatment window).¹⁶ Second, among these individuals we consider only those who spent at least 3 seconds looking at each of the treatment windows (this last condition doesn't apply to individuals assigned to the control group). The total number of observations after applying these two filters is 7687. Additionally, in the results section we don't consider the punishment treatments for ease of exposition, so we don't consider them here either. Our resulting sample size is 5986 and the mean number of minutes that an individual spent performing the survey is 7.2 minutes.¹⁷

Two potential issues should be addressed at this point. First, even though we randomized the treatments across individuals, there could be different attrition across treatments that could bias our results (maybe some treatment is more "boring" than another one for example). Additionally, a potential issue with applying the filters we mentioned before (individuals that spent certain number of minutes completing the survey and looking at the treatment windows) is that they could exacerbate attrition issues.

To check that the randomization worked correctly and that this is not an issue, we look at whether the variables are balanced across treatments. As can be seen in table 3, individuals are balanced on observables across treatments.

¹⁶ There is also a very short unrelated experiment that was performed after all this survey was conducted, which we call the candy experiment which was not considered when restricting the sample. If the reader wants to look at the survey interactively please follow this link: https://hbs.qualtrics.com/SE/?SID=SV_ahE7rZtC1sCrInT

¹⁷ Results are robust to other sample definitions and are available upon request.

Table 2. Summary Statistics

Variables	Mean	SD	Median	Min	Max
<i>Demographics</i>					
Male	43.9%	49.6%	0	0	1
Age	34.9	11.7	32	17	86
White	80.5%	39.6%	1	0	1
Black	9.2%	29.0%	0	0	1
Hispanic	6.6%	24.8%	0	0	1
Asian	6.8%	25.2%	0	0	1
Other race	2.6%	16.0%	0	0	1
Postgraduate degree	13.3%	34.0%	0	0	1
Only college degree	47.3%	49.9%	0	0	1
No college degree	39.3%	48.9%	0	0	1
Full-time employee	46.6%	49.9%	0	0	1
Part-time employee	12.8%	33.4%	0	0	1
Self-employed	12.4%	32.9%	0	0	1
Unemployed	8.0%	27.2%	0	0	1
Student	8.7%	28.1%	0	0	1
Not in Labor Force	11.5%	32.0%	0	0	1
<i>Political preferences and beliefs</i>					
Trust	4.9	2.5	5	0	10
Poor didn't make an effort	22.8%	41.9%	0	0	1
Rich made an effort	36.9%	48.3%	0	0	1
Obama	68.8%	46.3%	1	0	1
<i>Outcome questions before second treatment (for control group)</i>					
Meetings Good1	4.0	2.2	4	0	10
More Regulation1	5.8	2.5	6	0	10
More_Wages_Regulation1	5.7	2.7	6	0	10
More_Prices_Regulation1	4.7	2.7	5	0	10
<i>Outcome questions after second treatment (for control group)</i>					
Meetings Good2	3.8	2.4	3	0	10
Competiton_Bad2	2.6	2.0	2	0	10
More_Gov_Resp2	3.9	2.8	3	0	10
Democracy_Bad2	4.1	2.3	4	0	10
Discretion2	31.8%	0.5	0	0	1
Tax_1_percent2	34.8	20.4	30	0	100
Tax_next9_percent2	26.5	16.2	24	0	100
Tax_next40_percent2	17.8	12.4	15	0	100
Tax_bottom50_percent2	9.3	10.8	7	0	100
High_Fraud2	31.9%	0.5	0	0	1

Notes. We considered the sample of people that spent at least three minutes in the survey (not considering the candy experiment and time spent in the treatment windows) and at least three seconds in every treatment (when applicable). Individuals primed with punishment treatments are not included. Total number of observations is 5986.

Table 3. Randomization

Variables	Treatment group				
	Control Group	High Bus- High Gov	High Bus- Low Gov	Low Bus- High Gov	Low Bus- Low Gov
<i>Demographics</i>					
Male	44.4%	47.2%	43.2%	43.6%	41.9%
	-	0.25	0.55	0.68	0.30
Age	34.4	35.0	35.0	35.0	35.0
	-	0.24	0.23	0.23	0.26
White	80.5%	79.5%	81.0%	80.0%	81.5%
	-	0.61	0.75	0.80	0.59
Black	9.0%	8.6%	10.0%	8.6%	9.6%
	-	0.73	0.44	0.71	0.69
Hispanic	6.5%	7.6%	5.7%	7.0%	6.5%
	-	0.37	0.44	0.62	0.99
Asian	6.8%	7.0%	6.6%	6.9%	6.9%
	-	0.82	0.92	0.91	0.92
Other race	2.8%	2.8%	2.8%	2.3%	2.8%
	-	0.96	1.00	0.44	0.93
Postgraduate degree	15.4%	13.7%	12.0%**	13.5%	13.4%
	-	0.32	0.02	0.19	0.24
Only college degree	45.8%	46.9%	49.4%*	46.9%	45.8%
	-	0.65	0.09	0.60	0.98
No college degree	38.7%	39.3%	38.6%	39.6%	40.8%
	-	0.80	0.96	0.67	0.38
Full-time employee	46.9%	48.2%	47.4%	45.5%	45.2%
	-	0.59	0.82	0.50	0.48
Part-time employee	11.9%	12.3%	11.9%	14.0%	13.5%
	-	0.81	0.98	0.15	0.33
Self-employed	10.6%	12.2%	12.7%	13.2%*	12.0%
	-	0.30	0.12	0.06	0.38
Unemployed	9.5%	10.4%	7.3%*	6.4%***	8.9%
	-	0.53	0.06	0.01	0.65
Student	9.4%	6.9%	9.1%	9.0%	8.1%
	-	0.06*	0.82	0.74	0.33
Not in Labor Force	11.6%	9.9%	11.6%	12.0%	12.3%
	-	0.25	0.99	0.78	0.63
<i>Political preferences and beliefs</i>					
Trust	4.8	5.0	4.9	4.9	4.9
	-	0.12	0.20	0.18	0.18
PoorNoEffort	22.8%	24.5%	22.6%	22.3%	22.2%
	-	0.40	0.91	0.80	0.76
RichEffort	38.6%	38.1%	36.6%	36.7%	35.0%
	-	0.85	0.34	0.34	0.13
Obama	67.5%	70.5%	67.3%	69.1%	70.6%
	-	0.19	0.93	0.41	0.18
Observations	829	852	1730	1732	843

Notes. Mean value of the variable is presented in the first row; p-value of the mean differences t-test (with respect to the control group) is presented in the second row. *, **, *** indicate statistical significance at the 10%, 5% and 1% levels, respectively. We considered the sample of people that spent at least three minutes in the survey (not considering the candy experiment and time spent in the treatment windows) and at least three seconds in every treatment (when applicable). Total number of observations is 5986.

5. Results

In the following section we present the main results. Other results can be found in the appendix or are available upon request.

5.1. Meetings

Right after the first treatment, respondents are asked whether they think that meetings between government officials and businesspeople consist mainly in exchange of bribes or information (*Meetings_Good1*). After the second treatment, respondents are asked about their preferences for meetings between government officials and businessmen in a slightly different way. They are asked whether they would prefer a politician that is more or less pro-meetings (*Meetings_Good2*). We focus in this latter case, as we will be focusing on post-two-treatments questions throughout the paper (as explained in the survey design section), but the same results can be seen if we focused on *Meetings_Good1*.

We regress *Meetings_Good2* on only the treatments (and a constant term) in column 1, include a set of demographic controls in column 2, and political preferences and pre-treatments beliefs in column 3.¹⁸ Before looking at the treatment's coefficients, some interesting correlations between the outcome variable and controls should be pointed out. First, general trust (we used the same question that is used in the World Value Survey to define this variable) is positively correlated with a more favorable view of meetings, as one would have expected. Second, we see that beliefs about the rich don't completely capture beliefs about the poor. To put it differently, beliefs about the rich have a direct effect on the policy preference regarding meetings, so as beliefs about the poor. One could have thought that in a horserace between these two only one would survive but it is not the case. A more favorable view about the rich correlates with a more favorable view of meetings. A negative view of the poor also positively correlates with a favorable view of meetings. Third, being Democrat has a negative correlation with preferences for meetings. This is consistent with Zalka et al. (1998), which finds that Democrats have a more negative attitude towards business legitimacy than Republicans and Independents (so we would expect them to have less support for meetings).

Now, let's focus on the treatment coefficients. The main conclusions that will be derived is that individuals have more favorable views about meeting when primed with either *High Business* and/or *High Government* (relative to *Low Business/Low Government*). So both the quality of business and government matters for the preference that the public has on these meetings, as predicted by the model (see corollaries 1a and 1b). According to our model, this would amount to say that both private and public legitimacy affects state capacity (through meetings).

To check that private legitimacy has a positive effect on preferences for meetings (corollary 1a) *ceteris paribus* the quality of government, we perform two hypothesis tests over the estimated coefficients. First, we compare the treatment coefficients of individuals treated with *High Business* relative to individuals treated with *Low Business*, when both groups were treated with *High Government*. The difference in coefficients is positive and statistically significant (0.557 in column 1) which amounts to saying that conditional on a *High Government* treatment, individuals have stronger preferences for meetings when treated with *High Business* than with *Low Business*. To put this numbers in perspective, effect of private legitimacy measured this way (conditional on *High*

¹⁸ In column 3 we add regressor *Obama* which is a post-treatments variable about an action that took place in the past. Results in column 3 (treatment coefficients and correlations of outcome variable with other controls) are robust to dropping this control.

Government) amounts to an increase in support of meetings of 15% (in terms of the control mean). Qualitatively the same results apply when one conditions on *Low Government*.

To check that public legitimacy has a positive effect on preferences for meetings (corollary 1b) *ceteris paribus* the quality of business, we follow an analogous procedure than when testing corollary 1a. First, we compare the treatment coefficients of individuals treated with *High Government* relative to individuals treated with *Low Government*, when both groups were treated with *High Business*. The difference in coefficients is positive and statistically significant (0.675 in column 1) which amounts to saying that conditional on a *High Business* treatment, individuals have stronger preferences for meetings when treated with *High Government* than with *Low Government*. To put this numbers in perspective, effect of public legitimacy measured this way (conditional on *High Business*) amounts to an increase in support of meetings of 18% (in terms of the control mean). Qualitatively the same results apply when one conditions on *Low Business*.

A final comment has to do with some quantitative comparisons between the effects of private legitimacy on preferences for meetings when treated with *High Government/Low Government*. There is some suggestive evidence that the effect of private legitimacy on state capacity (through meetings) is stronger when there is high public legitimacy in place. It should be noted that this result is not very robust, although this could be a power issue, which is expected given that the ‘priming’ may not be that strong (or the sample size not big enough) to capture the complex condition that we consider over the estimated coefficients to test this hypothesis.¹⁹ This hypothesis test is given by comparing the effect of private legitimacy conditional on being treated with *High Government*, relative to the effect of private legitimacy conditional on being treated with *Low Government*. The differential effect is positive (0.208), so private legitimacy seems to have a greater effect in scenarios with high public legitimacy (relative to those with low public legitimacy), although this difference is not statistically significant.²⁰

¹⁹ It should be noted that we could also be interested in comparing the differential effects of public legitimacy on preferences for meetings when treated with *High Business/Low Business*. The hypothesis test performed to achieve this is actually the same test that the one we perform here. To understand why they are the same, it may be useful to think of these effects as derivatives. In that sense, what we are actually looking at is at the cross-partial derivative of preferences for meetings with respect to private and public legitimacy (the order in which you take derivatives doesn’t matter and that’s why the effect is the same whether we look it first from the private perspective or from the public one). Results would indicate that the first derivative with respect to both arguments (private and public Legitimacy) is positive, so as the cross-partial (although non-significant).

²⁰ Formally, this is what we are testing: $\text{High Business} | \text{High Government} - \text{Low Business} | \text{High Government} > \text{High Business} | \text{Low Government} - \text{Low Business} | \text{Low Government}$. The inequality holds when the test is performed in each of the three specifications in columns 1-3, and the p-values are: 0.13 (column 1), 0.14 (column 2), 0.13 (column 3).

Table 4. Effect of Trust in Business and Government on Support for Meetings

Dependent variable: Meetings Good2			
<i>Panel A: Regression output</i>	(1)	(2)	(3)
<i>Treatments</i>			
High Business-High Government	0.557*** (0.117)	0.564*** (0.117)	0.550*** (0.114)
High Business-Low Government	-0.118 (0.098)	-0.106 (0.098)	-0.111 (0.095)
Low Business-High Government	0.000 (0.099)	0.010 (0.099)	0.019 (0.096)
Low Business-Low Government	-0.467*** (0.113)	-0.458*** (0.113)	-0.438*** (0.110)
<i>Controls</i>			
Poor didn't make an effort	-	-	0.250*** (0.079)
Rich made an effort	-	-	0.797*** (0.067)
Obama	-	-	-0.234*** (0.069)
Trust	-	-	0.088*** (0.013)
Observations	5974	5946	5915
R ²	0.015	0.023	0.073
<i>Panel B: Hypothesis testing over the coefficients</i>			
Effect of Private Legitimacy			
High Bus – Low Bus High Gov	0.557*** [0.0000]	0.554*** [0.0000]	0.531*** [0.0000]
Expected result	Positive		
High Bus – Low Bus Low Gov	0.349*** [0.0002]	0.352*** [0.0002]	0.327*** [0.0004]
Expected result	Positive		
Effect of Public Legitimacy			
High Gov – Low Gov High Bus	0.675*** [0.0000]	0.670*** [0.0000]	0.661*** [0.0000]
Expected result	Positive		
High Gov – Low Gov Low Bus	0.467*** [0.0000]	0.468*** [0.0000]	0.457*** [0.0000]
Expected result	Positive		

Notes. Robust standard errors in parenthesis. *, **, *** indicate statistical significance at the 10%, 5% and 1% levels, respectively. Meetings_Good2 is a variable taking 0 if individual wants "A politician that is against allowing these meetings" and 10 if "A politician that is in favor of allowing these meetings" (scale: 0-10). A constant term (not shown) is included in every regression. Column (1) includes no additional controls. Column (2) includes demographic controls (gender, age, race, education, and type of employment). Column (3) includes same demographic controls, plus political variables and pre-treatment beliefs (include relative support for Obama in previous election, attitudes towards the rich and the poor, and general level of trust). In Panel B we present difference of coefficients and p-value (in brackets) for the test of whether the difference is equal to 0. Expect results are defined according to the model's predictions (corollary 1a and 1b). We considered the sample of people that spent at least three minutes in the survey (not considering the candy experiment and time spent in the treatment windows) and at least three seconds in every treatment (when applicable). Respondents assigned to treatments with punishment were not included.

5.2. Taxes

Another interesting dimension where we hypothesize that private legitimacy may play a role is in preferences for redistribution. In this section we focus on preferences for taxes on the top 1%, although results for preferences for taxes on household that are in other parts of the income distribution can be found in the appendix, and will be briefly discussed.

Results are presented in the same way than in the previous section. We regress the preferred tax rate for the top 1% on only the treatments (and a constant term) in column 1, include a set of demographic controls in column 2, and political preferences and pre-treatments beliefs in column 3.²¹ Before looking at the treatment's coefficients, some interesting correlations between the outcome variable and controls are mentioned. First, general trust is negatively correlated with preferences for taxes on the top 1%, although this correlation is not statistically significant. Second, we see again that beliefs about the rich don't completely capture beliefs about the poor. A more favorable view about the rich correlates with a lower preferred tax rate on the top 1%. A negative view of the poor also negatively correlates with a lower preferred tax rate for this group. Third, being Democrat has a positive correlation with this preferred tax rate, as one would have expected.

Focusing on the treatment coefficients, the main conclusion that will be derived is that business legitimacy affects preferences for taxes on the top 1% only when there is low public legitimacy. Symmetrically, public legitimacy affects these preferences only when there is low business legitimacy. This result is consistent with the model's predictions (see corollary 2) and the way this result is rationalized in the model is through the public's distaste of bribes. The public wants to punish businesspeople when there are bribes by raising taxes, and bribes in equilibrium happen only when there is a low quality of both the delegate and the businesspeople. This implies that the public will want to impose high taxes (punish the businesspeople) only in this latter case. This theoretical result (which empirically holds too) may help understand why other authors may not have been able to find an effect of public legitimacy on preferences for redistribution. Kuziemko et al. 2015 carefully generates a treatment that intends to prime people to distrust the government and finds no effect of this on preferences for taxes on the top 1%.²² Besides the many reasons why they could have find no effect, a non-obvious one that comes out from this research, is that only priming with low public legitimacy (distrust in government) may not be enough to move people's preferences for redistribution, especially if there is high private legitimacy. Also, one could have thought that higher public legitimacy leads to a higher demand for taxes as the government is more able to collect taxes or is more efficient in doing so. However, the opposite sign is found, which favors other interpretations, such as the one proposed here where demand for taxes is being driven by desires to punish bribery and corruption.

Now, let's check the results we just mentioned. In column 1 it can be seen that when primed with *Low Government*, subjects in our study primed with *High Business* want a tax on the top 1% that is approximately 2.7 percentage points lower than those primed with *Low Business* (mean of the control group is 34.8 so effect is non-negligible). However, this difference (among individuals primed with *High Business/Low Business*) is not statistically significant when primed with *High Government*. So individuals react to private legitimacy only when primed with *Low Government*. Analogous result is found when one looks at public legitimacy instead of private legitimacy. Yet another way to see this, and consistent with our model (see corollary 2), is that individuals only

²¹ Results robust to dropping regressor *Obama* in column 3.

²² In their main treatment (which combines information on US income inequality and link between top income tax rates and economic growth) they do find an effect on taxes on the top 1% although it is small and statistically significant only at the 10% level.

react when primed with both *Low Business* and *Low Government*. This is the only treatment whose coefficient is statistically different from 0, which indicates that relative to the control group, this combined treatment leads individuals to increase their preferences over taxes for the top 1% on 1.7 percentage points.

Table 5. Effect of Trust in Business and Government on Preferences for Taxes on the 1%

Dependent variable: Tax_1_percent2			
<i>Panel A: Regression output</i>	(1)	(2)	(3)
<i>Treatments</i>			
High Business-High Government	-0.021 (1.020)	-0.062 (1.015)	-0.461 (0.976)
High Business-Low Government	-0.926 (0.864)	-0.841 (0.857)	-1.028 (0.820)
Low Business-High Government	-0.228 (0.865)	-0.051 (0.859)	-0.456 (0.824)
Low Business-Low Government	1.742* (1.043)	1.951* (1.040)	1.352 (0.991)
<i>Controls</i>			
Poor didn't make an effort	-	-	-3.866*** (0.632)
Rich made an effort	-	-	-7.167*** (0.565)
Obama	-	-	8.246*** (0.598)
Trust	-	-	-0.055 (0.113)
Observations	5966	5938	5922
R ²	0.002	0.012	0.109
<i>Panel B: Hypothesis testing over the coefficients</i>			
<i>Effect of Private Legitimacy</i>			
High Bus – Low Bus High Gov	0.207 [0.8151]	-0.011 [0.9897]	-0.005 [0.9957]
Expected result	Negative or not significant		
High Bus – Low Bus Low Gov	-2.668*** [0.0034]	-2.792*** [0.0022]	-2.380*** [0.0056]
Expected result	Negative		
<i>Effect of Public Legitimacy</i>			
High Gov – Low Gov High Bus	0.905 [0.3058]	0.779 [0.3769]	0.567 [0.5002]
Expected result	Negative or not significant		
High Gov – Low Gov Low Bus	-1.970** [0.0307]	-2.002** [0.0283]	-1.808** [0.0364]
Expected result	Negative		

Notes. Robust standard errors in parenthesis. *, **, *** indicate statistical significance at the 10%, 5% and 1% levels, respectively. Tax_1_percent2 is the preferred tax rate for the top 1%. A constant term (not shown) is included in every regression. Column (1) includes no additional controls. Column (2) includes demographic controls (gender, age, race, education, and type of employment). Column (3) includes same demographic controls, plus political variables and pre-treatment beliefs (include relative support for Obama in previous election, attitudes towards the rich and the poor, and general level of trust). In Panel B we present difference of coefficients and p-value (in brackets) for the test of whether the difference is equal to 0. Expect results are defined according to the model's predictions (corollary 2). We considered the sample of people that spent at least three minutes in the survey (not considering the candy experiment and time spent in the treatment windows) and at least three seconds in every treatment (when applicable). Respondents assigned to treatments with punishment were not included.

On a final note, some comments regarding the effect of the treatments on preferences for taxes for other groups in the income distribution are in order.²³ All results that were just mentioned regarding taxes on the top 1% hold if we look at preferences for taxes on the next top 9% (1% of households earn more than them, but 90% earn less). This makes sense as people may want to punish not only the top 1% but also people slightly below them in the income distribution. When one looks at preferences for taxes over the next top 40% (10% of households earn more than them, but 50% less) and the bottom 50% (poorest), the treatments have basically no significant effect. This is also consistent with the model, where taxes are a way of punishing businesspeople, and not of redistributing income. The fact that preferences for taxes on these two groups remain unchanged after the treatments favors the punishment interpretation as driver of demand for taxes, instead of other interpretations (one could think of a story where efficiency in provision of public goods drives the demand for taxes or other interpretations that would change demand for taxes on the whole distribution, but this is not empirically supported).

5.3. Regulation

If one looks at the results from the two previous sections, it would look like private and public Legitimacy are actually the same objects. Results have been symmetric in both dimensions, so this raises the concern of whether they are actually different concepts. In the following section we look at the results regarding regulation that show private and public legitimacy are different concepts and affect demand for regulation differently (and sometimes in opposite directions).

Let's first get some intuition of the results we could find by looking at the World Value Survey (WVS). This is a well known survey that has been conducted for several years already in many countries and has been widely used in the political economics literature (see for example Aghion et al. 2010). With this data in hand, Aghion et al. 2010 shows there is a negative correlation between different measures of trust and demand for regulation in a cross section of OECD countries and transition economies. By looking at only the US, we see similar results. In table 6 we see in the first two columns the correlation of *Trust in Government* and *Trust in Businesses* on four different measures of demand for regulation. *Trust in Businesses* seems to be strongly negatively correlated with all these measures. Correlation with respect to *Trust in Government* is not that strong with the first two measures, although we also observe a negative coefficient. In the last variable we see a positive correlation, opposite to the one we observed with *Trust in Businesses*. Nevertheless, the more interesting results can be found in the last two columns where we put *Trust in Government* and *Trust in Businesses* in a horserace to see their resulting correlations. Here, we see how in the first two variables *Trust in Businesses* still has a strong negative correlation with these measures of demand for regulation. *Trust in Government* changes sign although correlation remains not statistically significant. In the third variable, both measures of trust seem to play a role, as both survive the horserace. In the last column we clearly see opposing correlations of measures of trust with the measure of demand for regulation. These results taken together seem to suggest that, in the US, private and public legitimacy affect demand for regulation differently in some cases, and even in opposite ways.

However, these are clearly not causal estimates and other factors could be behind these correlations. In our survey we asked 3 of the questions that can be seen in this table, so we can experimentally test whether the signs of the correlations that we see in this table correspond to the signs of the causal relationship (if any).

²³ These results can be found in the appendix.

Table 6. Private and Public Legitimacy and Regulation in WVS

<i>Dependent variables (rows)</i>	Explanatory variables			
	With only one of these regressors		With both regressors	
	Trust in Government	Trust in Businesses	Trust in Government	Trust in Businesses
(1) Competition is harmful	-0.076 (0.070)	-0.562*** (0.070)	0.070 (0.071)	-0.582*** (0.072)
N	5655	5574	5532	
(2) Government should take more responsibility	-0.052 (0.087)	-0.642*** (0.087)	0.107 (0.089)	-0.669*** (0.090)
N	5668	5586	5544	
(3) The economic system runs badly in democracies	-0.073*** (0.020)	-0.043** (0.019)	-0.063*** (0.021)	-0.033* (0.019)
N	2332	2266	2249	
(4) Government ownership of business	0.386*** (0.070)	-0.315*** (0.070)	0.480*** (0.072)	-0.435*** (0.072)
N	5662	5582	5543	

Notes. Robust standard errors in parenthesis; OLS regressions estimates using sampling weights that normalize each wave (marginal effects for a Probit model in the case of variable 3 are presented).

*, **, *** indicate statistical significance at the 10%, 5% and 1% levels, respectively. The dependent variables come from the answers to the following questions: (1) "Competition is good: it stimulates people to work hard and develop new ideas. Or competition is harmful: it brings out the worst in people." The variable takes on values from 1 to 10, a higher score indicating a higher level of distrust of competition. (2) "People should take more responsibility to provide for themselves or the government should take more responsibility." The variable ranges from 1 to 10, with a higher score indicating a stronger support for government intervention. (3) "In democracy, the economic system runs necessarily badly. Could you please tell me if you agree strongly, agree, disagree, or disagree strongly?" The variable takes a value equal to 1 if respondent answered strongly agree or agree, and 0 otherwise. (4) "Government or Private ownership of business and industry should be increased". The variable ranges from 1 to 10 with a higher score indicating a stronger support for Government ownership. Explanatory variables are two dummies: High Private Legitimacy is a dummy equal to 1 if individual expressed having "A great deal" or "Quite a lot" of confidence on "Major Companies" (0 if expressed "Not very much" or "None at all"); definition for High Public Legitimacy is analogous but with respect to "The government (in your nation's capital)". Source is World Value Survey, waves 1-6, US sample.

We also asked another question related with demand for regulation which is not in the World Value Survey. This is shown in column 4 of table 7 and has to do with whether the individual wants to give discretion to policymakers, or not.

Looking at the results column by column in table 7, we see that causal estimates follow almost perfectly the signs of the correlations seen in the horseshoes we showed in the table 6. First, column 1 shows that private legitimacy has a negative effect on individual's beliefs of whether competition is bad, while public legitimacy has not a significant effect at all (matches row 1 of table 6). Second, column 2 shows that private legitimacy leads individuals to say they want less government responsibility (caveat here is that this results holds only conditional on *Low Government* treatment), while public legitimacy plays no role. This matches with row 2 of table 6. Third, column 3 shows that both private and public legitimacy lead individuals to have more positive views about the economic system in democracies. This is also consistent with the results seen before with World Value Survey data (row 3 of table 6). These results of column 3 are particularly important because in the other two variable we found no effect of public legitimacy, so one could think that it was because the priming in public legitimacy was ineffective (not that public legitimacy doesn't play a role), but the fact that it is significant

in this variable invalidates that argument.²⁴ In the last column, we can see an intuitive result: when there is more public legitimacy, people want to give more discretion to policymakers, while when there is more private legitimacy people want to give less (although effect of private legitimacy is non-statistically significant).

Finally, another takeaway from this exercise is that it provides additional support for our interpretation that these treatments affect trust in government and trust in businesses (and not something else), as they experimentally replicate the correlations seen in the WVS.

²⁴ Additionally, one could think that the effect of priming dissipates within the survey so if we find effect of the treatment in questions that are asked right after the priming but not in questions asked later in the survey, we can't rule out that there is an effect in these last questions (it is just that the priming effect dissipated). However, here the questions for the dependent variable in column 3 was asked right after the questions for variables in columns 1 and 2, so dissipation of the priming is not a reason why we find non-statistically significant effects of public legitimacy in columns 1 and 2.

Table 7. Regulation: Competition, Government Responsibility, Democracy, and Discretion

	Competition Bad2	More Gov Resp2	Democracy Bad2	Discretion2
<i>Panel A: Regression output</i>	(1)	(2)	(3)	(4)
<i>Explanatory variables</i>				
High Business-High Government	-0.025 (0.102)	0.266* (0.139)	-0.380*** (0.112)	0.044* (0.024)
High Business-Low Government	0.009 (0.087)	0.140 (0.119)	-0.051 (0.097)	-0.019 (0.020)
Low Business-High Government	0.125 (0.087)	0.238** (0.119)	-0.166* (0.097)	0.063*** (0.020)
Low Business-Low Government	0.176* (0.101)	0.386*** (0.141)	0.157 (0.113)	-0.010 (0.023)
Observations	5973	5977	5966	5978
R ²	0.001	0.002	0.005	-

Effect of Private Legitimacy				
High Bus – Low Bus High Gov	-0.15* [0.0966]	0.028 [0.8179]	-0.214** [0.0255]	-0.019 [0.3180]
Expected result	Negative	Negative	Negative	-
High Bus – Low Bus Low Gov	-0.167* [0.0619]	-0.246** [0.0444]	-0.208** [0.0317]	-0.009 [0.6342]
Expected result	Negative	Negative	Negative	-
Effect of Public Legitimacy				
High Gov – Low Gov High Bus	-0.034 [0.7055]	0.126 [0.2984]	-0.329*** [0.0006]	0.063*** [0.0016]
Expected result	Not significant	Not significant	Negative	-
High Gov – Low Gov Low Bus	-0.051 [0.5647]	-0.148 [0.2240]	-0.323*** [0.0008]	0.073*** [0.0003]
Expected result	Not significant	Not significant	Negative	-

Notes. Panel A presents regressions estimates with robust standard errors in parenthesis; OLS estimates except for column (4) where marginal effects for a Probit model is presented); a constant term (not shown) is included in every regression. *, **, *** indicate statistical significance at the 10%, 5% and 1% levels, respectively. Dependent variable definitions are the following: (1) Variable taking 0 if "Competition is good..." and 10 if "Competition is bad..." (scale: 0-10). (2) Variable taking 0 if individual believes that "People should take more responsibility..." and 10 if "The government should take more responsibility..." (scale: 0-10). (3) Variable taking 0 if "Disagree strongly" and 10 if "Agree strongly", when asked regarding "In democracy, the economic system runs badly" (scale: 0-10). (4) Dummy equal to 1 if individual wants to give discretion to policymakers. In Panel B we present difference of coefficients and p-value (in brackets) for the test of whether the difference is equal to 0. Expect results are defined according to the correlations observed with WVS data (table 6). We considered the sample of people that spent at least three minutes in the survey (not considering the candy experiment and time spent in the treatment windows) and at least three seconds in every treatment (when applicable). Respondents assigned to treatments with punishment were not included.

6. Conclusions

We began our analysis under the assumption that in certain areas, it is useful to know what those affected think (source of information is the private sector) and thus meetings between businessmen and government officials could potentially enhance the policy-making process. Our main hypothesis is that the public's tolerance for these exchanges of information is affected by their views of the beneficiaries, in a way that private legitimacy determines state capacity. In order to test this hypothesis, we first develop a model that makes salient the main channels through which this process operates. After that, we conduct a surveys that test the model's predictions and find evidence that suggest that when people believe that business/government is inefficient/dishonest, their beliefs that meetings consist mainly of bribes for favors are stronger than when they believe that business/government is efficient/honest. With these surveys we also asses how private and public legitimacy affects preferences for redistribution, focusing in particular in preferences over taxes for the top 1%. Results are again consistent with the model: firms don't offer bribes if there is an honest/efficient government in place (so people shouldn't react to the quality of firms when deciding over taxes in this case), although the quality of firms do matter to assess whether there will be bribes when government is corrupt (corrupt companies offer bribes in this case, honest firms don't). Finally, with a set of results from the survey (mainly ones that ask the individuals what are their attitudes towards regulation) we provide evidence that private and public Legitimacy are not indistinguishable concepts, but different concepts and that a more proper understanding of how these operate in people's mind could shed some lights in understanding policy preferences, and its implications on actual policymaking.

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Appendix 1: Model

Analysis of the game

Third stage.

In the last stage, conditional on her information, the delegate chooses the policy action a . There are three cases to consider.

No meeting, or meeting and bribe rejected. In this case, the delegate's information is just her signal $s = \omega + \epsilon$, where ϵ 's precision is π_j , for $j = h, l$. In this case for any fixed e , the delegate chooses a to maximize $E(pe(k - (\omega - a)^2)|s)$, which yields (here n stands for no meeting):

$a_n = E(\omega|s) = \frac{1}{1+\pi_j}0 + \frac{\pi_j}{1+\pi_j}s = \frac{\pi_j}{1+\pi_j}s$. Then $E((\omega - a_n)^2|s)$ is the conditional variance of ω , which is $\frac{1}{1+\pi_j}$ and the expected utility of the delegate is:

$$u_D = E(pe(k - (\omega - a_n)^2)|s) = pe(k - E((\omega - a_n)^2|s)) = pe\left(k - \frac{1}{1 + \pi_j}\right)$$

The utilities of the businessperson (before receiving his information) and the public are

$$u_B = u_P = (1 - \tau)e\left(k - \frac{1}{1 + \pi_j}\right) - c$$

Meeting, no bribe offered (information exchanged). The delegate observes her signal with a higher precision. The delegate chooses a to maximize her utility, which yields (with m standing for meeting)

$a_m = E(\omega|s) = \frac{z\pi_j}{1+z\pi_j}s$, and the variance of ω conditional on s is $\frac{1}{1+z\pi_j}$. Then utilities are

$$u_D = E(pe(k - (\omega - a_n)^2)|s) = pe\left(k - \frac{1}{1 + z\pi_j}\right)$$

$$u_B = u_P = (1 - \tau)e_i\left(k - \frac{1}{1 + z\pi_j}\right) - c_i$$

Meeting, and bribe exchanged. The delegate observes her signal s with precision π_j and chooses $a_n + 1$ (her optimal a in case of no meetings, plus the 1 unit contracted upon in the bribe). Since $E((\omega - a_n - 1)^2|s) = E((\omega - a_n)^2 - 2(\omega - a_n) + 1|s) = \frac{1}{1+\pi_j} + 1$, utilities are then:

$$u_D = pe(k - E((\omega - a_n - 1)^2|s)) + B = pe\left(k - \frac{1}{1 + \pi_j} - 1\right) + B$$

$$u_B = E[(1 - \tau)(e(k - (\omega - a)^2) + xa) - b - c] = (1 - \tau)\left(e\left(k - \frac{1}{1 + \pi_j} - 1\right) + x\right) - B - c$$

$$u_p = (1 - \tau)e \left(k - \frac{1}{1 + \pi_j} - 1 \right) - c + \alpha(\tau - C)$$

Second (meeting) stage.

We now analyze the decisions of businesspeople regarding the bribe, and that of the delegate regarding acceptance.

We build an equilibrium in which high quality businesspeople do not offer bribes, and low business types offer bribes to low quality delegates.

We start in the subgame where the bribe has been offered, and check what parameter conditions are needed for the configuration of behavior we want.

- a) All delegate types take the bribe when offered by a low quality businessperson: for $j = h, l$

$$pe_l \left(k - \frac{1}{1 + \pi_j} - 1 \right) + B > pe_l \left(k - \frac{1}{1 + \pi_j} \right) \Leftrightarrow B > pe_l \quad (1)$$

The condition says that the bribe must be larger than the efficiency loss due to the distortion of 1 unit in the optimal action; in an extreme ($p = 0$), if the delegate does not care about the outcome, she takes the bribe (regardless of e).

b) All delegate types reject a bribe offered by a high quality businessperson. This is just to avoid a deviation by the high business (obviously, if the delegate is going to reject the bribe, the businessperson is worse off; but if the high businessperson deviates and offers, it must be in the delegate's best interest to reject). In order for that to be the case, we need for $j = h, l$

$$pe_h \left(k - \frac{1}{1 + \pi_j} \right) > pe_h \left(k - \frac{1}{1 + \pi_j} - 1 \right) + B \Leftrightarrow B < pe_h$$

Thus our **parameter requirement #1** is that

$$e_h > \frac{B}{p} > e_l$$

c) High business types do not want to offer the bribe to low delegate types. Note that for any businessman, offering a bribe which will be rejected is suboptimal: if the bribe is offered, no information can be exchanged, and therefore he loses the chance of communicating his information, and doesn't get the benefit of the bribe. Still, if a low delegate type would accept the bribe, we need to check that the high business person does not want to deviate and offer. For the trained businessman,

$$(1 - \tau)e_h \left(k - \frac{1}{1 + z\pi_l} \right) - c_h > (1 - \tau) \left(e_h \left(k - \frac{1}{1 + \pi_l} - 1 \right) + x \right) - B - c_h \Leftrightarrow \quad (2)$$

$$e_h \left(1 + \frac{1}{1 + \pi_l} - \frac{1}{1 + z\pi_l} \right) > x - \frac{B}{1 - \tau}$$

which says that the rhs (the net monetary benefits of the bribe, measured in “pre tax” dollars) has to be less than the informational cost of the bribe, since $1 + \frac{1}{1+\pi_l}$ is the distortion with bribe and no information, and $\frac{1}{1+z\pi_l}$ is the distortion with no bribe and information. Note that increasing taxes decreases bribes: since the cost of the bribe comes from after tax money, and the benefit is additional legal income that is pre tax; so taxes reduce the benefit while leaving the cost unchanged.

d) The low quality businessman will not offer the bribe to the high delegate

$$(1 - \tau)e_l \left(k - \frac{1}{1+z\pi_h} \right) - c_l > (1 - \tau) \left(e_l \left(k - \frac{1}{1+\pi_h} - 1 \right) + x \right) - B - c_l \Leftrightarrow$$

$$e_l \left(1 + \frac{1}{1+\pi_h} - \frac{1}{1+z\pi_h} \right) > x - \frac{B}{1-\tau} \quad (3)$$

e) The low quality businessman will offer the bribe to the low quality delegate

$$(1 - \tau)e_l \left(k - \frac{1}{1+z\pi_l} \right) - c_l < (1 - \tau) \left(e_l \left(k - \frac{1}{1+\pi_l} - 1 \right) + x \right) - B - c_l \Leftrightarrow$$

$$e_l \left(1 + \frac{1}{1+\pi_l} - \frac{1}{1+z\pi_l} \right) < x - \frac{B}{1-\tau} \quad (4)$$

The combination of (**Error! Reference source not found.**) and (**Error! Reference source not found.**) yields our **parameter requirement #2**, (point (c) is unnecessary actually, since the low delegate will reject a bribe from the high businessman) and the combination of (**Error! Reference source not found.**) and (**Error! Reference source not found.**) yields **parameter requirement #3**,

$$e_h \left(1 + \frac{1}{1+\pi_l} - \frac{1}{1+z\pi_l} \right) > x - \frac{B}{1-\tau} > e_l \left(1 + \frac{1}{1+\pi_l} - \frac{1}{1+z\pi_l} \right)$$

$$e_l \left(1 + \frac{1}{1+\pi_h} - \frac{1}{1+z\pi_h} \right) > x - \frac{B}{1-\tau} > e_l \left(1 + \frac{1}{1+\pi_l} - \frac{1}{1+z\pi_l} \right)$$

Parameter requirement #3 is simplified by noting that a necessary condition is $z\pi_h\pi_l < 1$ which ensures that the bracket in the lhs is greater than the rhs; then one needs to fit $x - \frac{B}{1-\tau}$ in between.

Then, the probability of a bribe is 0 in the good equilibrium, and the probability that a meeting happens (f) times the probability of a low quality delegate in a bad equilibrium: $P(\text{Bribe}) = f(1 - q)$. We therefore have the following result: “We do not find an effect of business legitimacy on the desire to tax the top 1% when subjects have been primed with positive views of government officials. In contrast, when they are primed with depictions of corrupt government, subjects exposed to low business legitimacy are significantly more likely to report a higher desired tax rate on the top 1% than those primed with corruption in business.”

There are two ways to interpret the model in line with the previous finding.

1. The first is about the public’s preferences, if they were able to observe the type of the delegate: it would choose a null tax for high quality delegates (who don’t take bribes), and for low quality delegates in the presence of high quality businessman; it would choose a positive tax rate when both the delegate and the businessman are low quality.

2. An alternative interpretation is as follows. If $q = 1$ (all officials are good), no bribes occur in either equilibrium, so taxes are 0 in both equilibria (so when delegates are good, the public is not responsive to the quality of the businessman); if $q < 1$ (officials are worse on average than in the case of $q = 1$), in the good equilibrium (meetings allowed and trained businessman) bribes and taxes are 0; in the bad equilibrium taxes are positive, so the public responds to the quality of the businessman when officials are bad.

First stage.

To simplify notation slightly, let $\frac{1}{1+z\pi_h} + (1-q)\frac{1}{1+z\pi_l} \equiv \frac{1}{1+z\bar{\pi}}$, and $q\frac{1}{1+\pi_h} + (1-q)\frac{1}{1+\pi_l} \equiv \frac{1}{1+z\bar{\pi}}$. Also, recall that we are showing the existence of an equilibrium in which the tax rate is low in the good equilibrium, and high in the bad equilibrium.

Meetings equilibrium: If meetings will be allowed, it must be that it is a best response to become educated for the businessman

$$(1 - \tau_l)e_h \left(k - \frac{1}{1 + z\bar{\pi}} \right) - c_h >$$

$$(1 - \tau_l) \left[qe_l \left(k - \frac{1}{1 + z\pi_h} \right) + (1 - q) \left(e_l \left(k - \frac{1}{1 + \pi_l} - 1 \right) + x \right) \right] - (1 - q)B - c_l$$

which rearranging becomes **parameter requirement #4:**

$$(1 - \tau_l) \left[q(e_h - e_l) \left(k - \frac{1}{1 + z\pi_h} \right) + (1 - q)e_h \left(k - \frac{1}{1 + z\pi_l} \right) - (1 - q) \left(e_l \left(k - \frac{1}{1 + \pi_l} - 1 \right) + x \right) \right]$$

$$>$$

$$c_h - c_l - (1 - q)B$$

And if the businessman will be educated, it must be optimal for the public to allow meetings (we check first with the same tax rate)

$$(1 - \tau_l)e_h \left(k - \frac{1}{1 + z\bar{\pi}} \right) - c_h >$$

$$f(1 - \tau_l)e_h \left(k - \frac{1}{1 + z\bar{\pi}} \right) + (1 - f)(1 - \tau_l)e_h \left(k - \frac{1}{1 + \bar{\pi}} \right) - c_h \Leftrightarrow$$

$$k - \frac{1}{1 + z\bar{\pi}} > k - \frac{1}{1 + \bar{\pi}} \quad (5)$$

which is always satisfied.

Suppose now that the public considers a deviation in which it forbids meetings, and increases taxes. We know that this will not change high business types behavior (higher types make bribes less attractive, but high business types don't bribe), so the condition for the public not to want to deviate is

$$(1 - \tau_l)e_h \left(k - \frac{1}{1 + z\bar{\pi}} \right) - c_h >$$

$$f(1 - \tau_h)e_h \left(k - \frac{1}{1 + z\bar{\pi}} \right) + (1 - f)(1 - \tau_h)e_h \left(k - \frac{1}{1 + \bar{\pi}} \right) - c_h \Leftrightarrow$$

$$(1 - \tau_l - f(1 - \tau_h)) \left(k - \frac{1}{1 + z\bar{\pi}} \right) > (1 - f)(1 - \tau_h) \left(k - \frac{1}{1 + \bar{\pi}} \right)$$

which is satisfied since (**Error! Reference source not found.**) holds, and $(1 - \tau_l - f(1 - \tau_h)) > (1 - f)(1 - \tau_h) \Leftrightarrow \tau_h > \tau_l$.

No Meetings equilibrium: If meetings will not be allowed it must be a best response for the businessperson not to become educated:

$$f \left[q(1 - \tau_h)e_l \left(k - \frac{1}{1 + z\pi_h} \right) + (1 - q) \left((1 - \tau_h) \left(e_l \left(k - \frac{1}{1 + \pi_l} - 1 \right) + x \right) - B \right) \right]$$

$$+ (1 - f)(1 - \tau_h)e_l \left(k - \frac{1}{1 + \bar{\pi}} \right) - c_l >$$

$$(1 - \tau_h)e_h \left[f \left(k - \frac{1}{1 + z\bar{\pi}} \right) + (1 - f) \left(k - \frac{1}{1 + \bar{\pi}} \right) \right] - c_h$$

which rearranging becomes **parameter requirement #5**

$$(1 - \tau_h)e_h \left[f \left(q(e_h - e_l) \left(k - \frac{1}{1 + z\pi_h} \right) + (1 - q)e_h \left(k - \frac{1}{1 + z\pi_l} \right) \right. \right.$$

$$\left. \left. - (1 - q) \left(e_l \left(k - \frac{1}{1 + \pi_l} - 1 \right) + x \right) \right) + (e_h - e_l)(1 - f) \left(k - \frac{1}{1 + \bar{\pi}} \right) \right]$$

$$<$$

$$c_h - c_l - f(1 - q)B$$

Note that for f close to 1 the condition is the opposite of parameter requirement #3, except with τ_n instead of τ_m . Hence, one way to satisfy it would be with f close to 1, and $\tau_n \gg \tau_m$. Another is to set $f \approx 0$, which means no meetings (and in any case, we want meetings when they are forbidden just to have reasonable (non-off-equilibrium) beliefs, and require that $(1 - \tau_n)(e_h - e_l) \left(k - \frac{1}{1 + \bar{\pi}} \right) < c_h - c_l - f(1 - q)B$.

If businessmen will not be educated, it must be optimal for the public not to allow meetings. What determines whether that is the case is whether the public would be better off cancelling a meeting (assume first the public keeps the tax rate fixed), which yields **parameter requirement #6**:

$$(1 - \tau_h) \left(k - \frac{1}{1 + \bar{\pi}} \right) > (1 - \tau_h)e_l \left[q \left(k - \frac{1}{1 + z\pi_h} \right) + (1 - q) \left(k - \frac{1}{1 + \pi_l} - 1 \right) \right] + \alpha(1 - q)(\tau_h - C)$$

$$\Leftrightarrow$$

$$\alpha(1 - q)(C - \tau_h) > (1 - \tau_h)e_l \left[q \frac{1}{1 + \pi_h} - q \frac{1}{1 + z\pi_h} - (1 - q) \right]$$

Of course, a high cost of a bribe will make meetings not desirable. Another way to obtain the result, even when $\alpha = 0$, is if $\pi_h - q + z\pi_h(1 - 2q) + (1 - q)z\pi_h^2 + 1 > 0$, which ensures that the bracket in the right hand side is negative. Note that one case in which this works is with $q \approx 0$. This is another way of saying that taxes need not play an instrumental role in the development of the equilibrium multiplicity.

If the public decides to deviate, and allow meetings, while also decreasing taxes, the condition is that

$$f \left((1 - \tau_h)e_l \left[q \left(k - \frac{1}{1 + z\pi_h} \right) + (1 - q) \left(k - \frac{1}{1 + \pi_l} - 1 \right) \right] + \alpha(1 - q)(\tau_h - C) \right) + (1 - f)(1 - \tau_h)e_l \left(k - \frac{1}{1 + \tilde{\pi}} \right) > (1 - \tau_l)e_l \left[q \left(k - \frac{1}{1 + z\pi_h} \right) + (1 - q) \left(k - \frac{1}{1 + \pi_l} - 1 \right) \right] + \alpha(1 - q)(\tau_l - C)$$

Suppose that when the public knows there is a bribe (by a low quality agent), it wants to increase taxes: the trade off is that higher taxes lower the businessman's utility, which matters for the public, but the public wants to punish such behavior. The technical condition is our **parameter requirement #7**,

$$\alpha > e_l \left(k - \frac{1}{1 + \pi_l} - 1 \right)$$

In that case, the condition in (**Error! Reference source not found.**) is satisfied for $f = q = 0$. As we have said before, $f, q > 0$ were just for robust inference, so the condition that f and q are small is just that the public is allowed to forbid most meetings, and that most delegates would take a bribe. Still, one has to check that equation (**Error! Reference source not found.**) is satisfied for the parameters chosen.

Numerical example

Assume throughout $f = q = c_l = 0$. Consider $e_h = h, e_l = l, \pi_h = H, \pi_l = L, c_h = a$. We need to find values for the following 12 parameters $(h, l, a, p, x, B, z, H, L, T, k, \alpha)$ such that these conditions hold:

$$\#1: e_h > \frac{B}{p} > e_l$$

#2 and #3 we do this with just one tax rate, and then take two marginally different

$$e_h \left(1 + \frac{1}{1 + \pi_l} - \frac{1}{1 + z\pi_l} \right) > x - \frac{B}{1 - T} > e_l \left(1 + \frac{1}{1 + \pi_l} - \frac{1}{1 + z\pi_l} \right)$$

$$e_l \left(1 + \frac{1}{1 + \pi_h} - \frac{1}{1 + z\pi_h} \right) > x - \frac{B}{1 - T} > e_l \left(1 + \frac{1}{1 + \pi_l} - \frac{1}{1 + z\pi_l} \right)$$

$$\#4 \text{ with } q = 0; (1 - T) \left[e_h \left(k - \frac{1}{1+z\pi_l} \right) - e_l \left(k - \frac{1}{1+\pi_l} - 1 \right) + x \right] > c_h - c_l - B$$

$$\#5 \text{ with } q = 0; (1 - T)(e_h - e_l) \left(k - \frac{1}{1+\pi_l} \right) < c_h - c_l - B$$

#6 $\alpha(C - T) > (1 - T)e_l[-1]$ will not include it, as the rhs is less than 0.

$$\#7 \alpha > e_l \left(k - \frac{1}{1+\pi_l} - 1 \right)$$

The following values for $(h, l, a, p, x, B, z, H, L, T, k, \alpha)$ satisfy all these restrictions

$$(16, 1, \frac{23}{2}, \frac{2}{3}, \frac{451}{120}, 2, 3, \frac{1}{2}, \frac{1}{3}, \frac{1}{5}, \frac{3}{2}, 1).$$

Appendix 2: Other results

Table 8. Effect of Trust in Business and Government on Preferences for Taxes on the next top 9%

Dependent variable: Tax_next9_percent2			
<i>Panel A: Regression output</i>	(1)	(2)	(3)
<i>Treatments</i>			
High Business-High Government	0.106 (0.795)	0.022 (0.790)	-0.249 (0.765)
High Business-Low Government	-0.671 (0.683)	-0.539 (0.677)	-0.669 (0.653)
Low Business-High Government	-0.024 (0.686)	0.104 (0.679)	-0.154 (0.656)
Low Business-Low Government	1.632* (0.840)	1.792** (0.835)	1.386* (0.806)
<i>Controls</i>			
Poor didn't make an effort	-	-	-3.031*** (0.495)
Rich made an effort	-	-	-4.810*** (0.445)
Obama	-	-	5.264*** (0.479)
Trust	-	-	0.035 (0.091)
Observations	5967	5939	5923
R ²	0.002	0.012	0.083
<i>Panel B: Hypothesis testing over the coefficients</i>			
<i>Effect of Private Legitimacy</i>			
High Bus – Low Bus High Gov	0.130 [0.8487]	-0.082 [0.9038]	-0.095 [0.8852]
Expected result		Negative or not significant	
High Bus – Low Bus Low Gov	-2.303*** [0.0017]	-2.331*** [0.0015]	-2.055*** [0.0035]
Expected result		Negative	
<i>Effect of Public Legitimacy</i>			
High Gov – Low Gov High Bus	0.777 [0.2534]	0.561 [0.4079]	0.420 [0.5223]
Expected result		Negative or not significant	
High Gov – Low Gov Low Bus	-1.656** [0.0243]	-1.688** [0.0216]	-1.540** [0.0298]
Expected result		Negative	

Notes. Robust standard errors in parenthesis. *, **, *** indicate statistical significance at the 10%, 5% and 1% levels, respectively. Tax_next9_percent2 is the preferred tax rate for the next top 9% (1% of households earn more than them, but 90% earn less). A constant term (not shown) is included in every regression. Column (1) includes no additional controls. Column (2) includes demographic controls (gender, age, race, education, and type of employment). Column (3) includes same demographic controls, plus political variables and pre-treatment beliefs (include relative support for Obama in previous election, attitudes towards the rich and the poor, and general level of trust). In Panel B we present difference of coefficients and p-value (in brackets) for the test of whether the difference is equal to 0. Expected results are defined according to the model's predictions (corollary 2). We considered the sample of people that spent at least three minutes in the survey (not considering the candy experiment and time spent in the treatment windows) and at least three seconds in every treatment (when applicable). Respondents assigned to treatments with punishment were not included.

Table 9. Effect of Trust in Business and Government on Preferences for Taxes on the next top 40%

Dependent variable: Tax_next40_percent2			
<i>Panel A: Regression output</i>	(1)	(2)	(3)
<i>Treatments</i>			
High Business-High Government	0.191 (0.609)	0.092 (0.605)	-0.012 (0.603)
High Business-Low Government	-0.352 (0.520)	-0.279 (0.518)	-0.352 (0.516)
Low Business-High Government	-0.015 (0.521)	0.057 (0.518)	-0.059 (0.516)
Low Business-Low Government	0.541 (0.617)	0.636 (0.614)	0.467 (0.613)
<i>Controls</i>			
Poor didn't make an effort	-	-	-1.102*** (0.406)
Rich made an effort	-	-	-1.390*** (0.355)
Obama	-	-	2.215*** (0.381)
Trust	-	-	0.072 (0.074)
Observations	5965	5937	5921
R ²	0.001	0.012	0.029
<i>Panel B: Hypothesis testing over the coefficients</i>			
Effect of Private Legitimacy			
High Bus – Low Bus High Gov	0.206 [0.6907]	0.035 [0.9467]	0.047 [0.9273]
Expected result	-		
High Bus – Low Bus Low Gov	-0.893* [0.0904]	-0.915* [0.0821]	-0.819 [0.1163]
Expected result	-		
Effect of Public Legitimacy			
High Gov – Low Gov High Bus	0.543 [0.2945]	0.371 [0.4714]	0.340 [0.5063]
Expected result	-		
High Gov – Low Gov Low Bus	-0.556 [0.2919]	-0.579 [0.2711]	-0.526 [0.3143]
Expected result	-		

Notes. Robust standard errors in parenthesis. *, **, *** indicate statistical significance at the 10%, 5% and 1% levels, respectively. Tax_next40_percent2 is the preferred tax rate for the next top 40% (10% of households earn more than them, but 50% earn less). A constant term (not shown) is included in every regression. Column (1) includes no additional controls. Column (2) includes demographic controls (gender, age, race, education, and type of employment). Column (3) includes same demographic controls, plus political variables and pre-treatment beliefs (include relative support for Obama in previous election, attitudes towards the rich and the poor, and general level of trust). In Panel B we present difference of coefficients and p-value (in brackets) for the test of whether the difference is equal to 0. We considered the sample of people that spent at least three minutes in the survey (not considering the candy experiment and time spent in the treatment windows) and at least three seconds in every treatment (when applicable). Respondents assigned to treatments with punishment were not included.

Table 10. Effect of Trust in Business and Government on Preferences for Taxes on the bottom 50%

Dependent variable: Tax_bottom50_percent2			
<i>Panel A: Regression output</i>	(1)	(2)	(3)
<i>Treatments</i>			
High Business-High Government	0.201 (0.535)	0.097 (0.531)	0.096 (0.528)
High Business-Low Government	-0.637 (0.441)	-0.572 (0.439)	-0.593 (0.440)
Low Business-High Government	-0.101 (0.442)	-0.065 (0.441)	-0.064 (0.441)
Low Business-Low Government	-0.250 (0.492)	-0.194 (0.492)	-0.170 (0.492)
<i>Controls</i>			
Poor didn't make an effort	-	-	0.924*** (0.357)
Rich made an effort	-	-	0.725** (0.304)
Obama	-	-	-1.223*** (0.323)
Trust	-	-	0.154** (0.063)
Observations	5954	5926	5910
R ²	0.001	0.014	0.023
<i>Panel B: Hypothesis testing over the coefficients</i>			
<i>Effect of Private Legitimacy</i>			
High Bus – Low Bus High Gov	0.302 [0.4994]	0.162 [0.7143]	0.160 [0.7176]
Expected result	-		
High Bus – Low Bus Low Gov	-0.387 [0.3258]	-0.378 [0.3369]	-0.423 [0.2809]
Expected result	-		
<i>Effect of Public Legitimacy</i>			
High Gov – Low Gov High Bus	0.838* [0.0603]	0.669 [0.1295]	0.689 [0.1172]
Expected result	-		
High Gov – Low Gov Low Bus	0.149 [0.7059]	0.129 [0.7445]	0.106 [0.7857]
Expected result	-		

Notes. Robust standard errors in parenthesis. *, **, *** indicate statistical significance at the 10%, 5% and 1% levels, respectively. Tax_bottom50_percent2 is the preferred tax rate for the bottom 50% in the income distribution (poorest). A constant term (not shown) is included in every regression. Column (1) includes no additional controls. Column (2) includes demographic controls (gender, age, race, education, and type of employment). Column (3) includes same demographic controls, plus political variables and pre-treatment beliefs (include relative support for Obama in previous election, attitudes towards the rich and the poor, and general level of trust). In Panel B we present difference of coefficients and p-value (in brackets) for the test of whether the difference is equal to 0. We considered the sample of people that spent at least three minutes in the survey (not considering the candy experiment and time spent in the treatment windows) and at least three seconds in every treatment (when applicable). Respondents assigned to treatments with punishment were not included.

Appendix 3: Questionnaire

High Business-High Government

You are being asked to take part in a survey being done by a group of researchers from Harvard University that will help us learn more about the relationship between politics and government in America.

The survey will take you about 10 minutes. Please select the link below to complete the survey. At the end of the survey, you will receive a code to paste into the box below to receive credit for taking our survey.

Survey link:

Code:

If you have any questions, please contact us at rditella@hbs.edu. The survey is anonymous, and no one will be able to link your answers back to you. Please do not include your name or other information that could be used to identify you.

1. Gender
 - a. Male
 - b. Female
 - c. I'd prefer to supply my own response:

2. Age

3. Race (select all that apply)
 - a. White
 - b. Black
 - c. Hispanic or Latino
 - d. Asian
 - e. Other

4. In which state do you currently reside?

- Alabama (1)
- Alaska (2)
- Arizona (3)
- Arkansas (4)
- California (5)
- Colorado (6)
- Connecticut (7)
- Delaware (8)
- District of Columbia (9)
- Florida (10)
- Georgia (11)
- Hawaii (12)
- Idaho (13)
- Illinois (14)
- Indiana (15)
- Iowa (16)
- Kansas (17)
- Kentucky (18)
- Louisiana (19)
- Maine (20)
- Maryland (21)
- Massachusetts (22)
- Michigan (23)
- Minnesota (24)
- Mississippi (25)
- Missouri (26)
- Montana (27)
- Nebraska (28)
- Nevada (29)
- New Hampshire (30)
- New Jersey (31)
- New Mexico (32)
- New York (33)
- North Carolina (34)
- North Dakota (35)
- Ohio (36)
- Oklahoma (37)
- Oregon (38)
- Pennsylvania (39)
- Puerto Rico (40)
- Rhode Island (41)
- South Carolina (42)
- South Dakota (43)
- Tennessee (44)

- Texas (45)
- Utah (46)
- Vermont (47)
- Virginia (48)
- Washington (49)
- West Virginia (50)
- Wisconsin (51)
- Wyoming (52)
- I do not reside in the United States (53)

5. Which category best describes your highest level of education?

- a. Eighth Grade or less
- b. Some High School
- c. High School degree/ GED
- d. Some College
- e. 2-year College Degree
- f. 4-year College Degree
- g. Master's Degree
- h. Doctoral Degree
- i. Professional Degree (JD, MD, MBA)

6. What is your current employment status?

- a. Full-time employee
- b. Part-time employee
- c. Self-employed or small business owner
- d. Unemployed and looking for work
- e. Student
- f. Not in labor force (for example: retired, or full-time parent)

7. Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?

- a. Need to be very careful (0)
- b. Most people can be trusted (10)

8. Please think about poor people in the US:

Do you think they are poor mainly because (choose the most important reason)

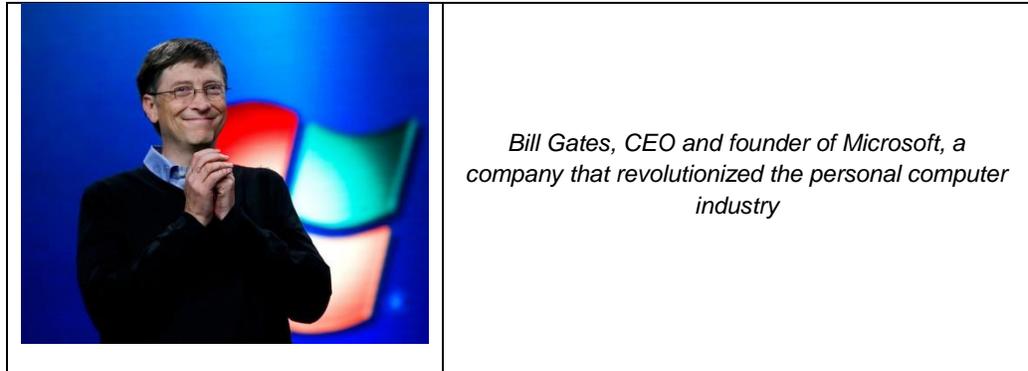
- a. they did not make an effort
- b. they lacked opportunities
- c. they were unlucky

9. Please think about rich people in the US:

Do you think they are rich mainly because (choose the most important reason)

- a. they made an effort
- b. they were born into rich families
- c. they stole money
- d. they had good luck

American business people are amongst the most successful in the world. Some of the most famous include Bill Gates (founder and CEO of Microsoft) and Steve Jobs, (founder of Apple, NeXT and Pixar), who have revolutionized the technology industry. In several other areas, such as biotechnology, entertainment, medical devices, and high-end machinery, US business people have also been at the forefront of innovation.



Why do you think American business people have been so successful?

- a. It is due to the system: business people in the US are encouraged to work hard and can gain money and prestige by creating truly good products.
- b. It is a combination of the system interacting with exceptional individuals, amplified by the availability of capital that allows the successful to expand their business.
- c. It is due to the individuals: there are remarkable business people in the US, who are exceptionally creative and naturally hard working.

10. Government officials regularly have private meetings with business people to discuss matters of mutual interest.

Some argue that such meetings are helpful because they allow the exchange of useful information between government and business and the design of more efficient regulation for complex areas. Critics, on the other hand, argue that these meetings are harmful because they create the opportunity for undue influence, lobbying and the exchange of bribes.

In your view, what goes on at these meetings?

- a. Mainly exchange of bribes for favors (0)
- b. Mainly exchange of useful information (10)

11. There are some recent proposals to increase government regulations on firms in the US.

How likely is it that you would support these type of proposals?

- a. Very unlikely (0)
- b. Somewhat unlikely (3-4)

- c. Somewhat likely (6-7)
- d. Very likely (10)

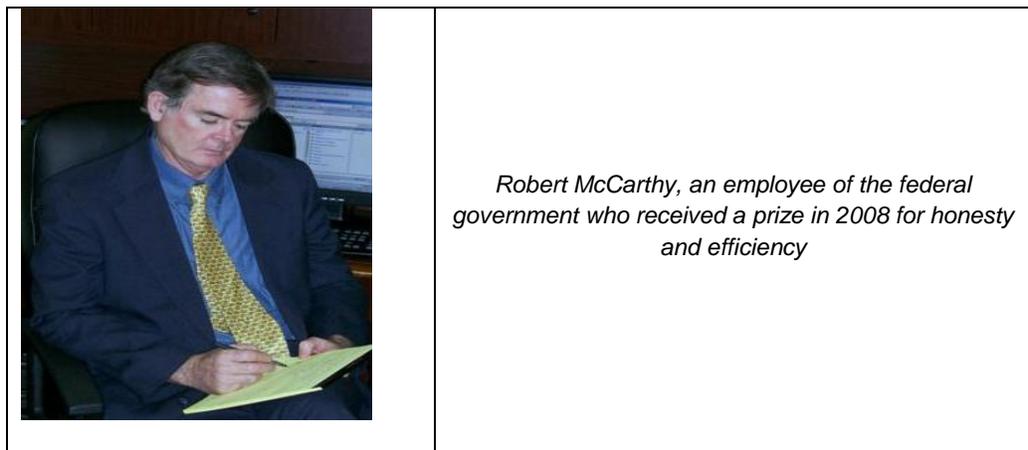
12. Here are some things the government might do for the economy.

Please show which actions you are in favor of and which you are against. (0=Strongly against, 2-3=Against, 5=Neither in favor nor against, 7-8=In favor, 10=Strongly in favor)

- a. Control of wages by law
- b. Control of prices by law

American policymakers and institutions of government are some of the most successful in the world.

There are several famous cases of government officials who are dedicated and honest (one example is Robert McCarthy who helped improve the administration of two large federal programs). The US government is consistently ranked as one of the most honest and efficient in the world (for example, according to indices constructed by the World Bank, the US is one of the top countries in terms of Regulatory Quality and Control of Corruption).



Why do you think the US government is so much more efficient and honest than the governments in other countries?

- a. It is a question of incentives: officials in the US can have a long and well-rewarded career in government by being honest and efficient. The temptations are not worth their while.
- b. It is due to the existence of independent checks: the American judiciary system has a long tradition of protecting the rule of law and combating corruption.

13. Going back to the topic of meetings (between government officials and business people), in the political arena we can find a wide range of views.

Some politicians argue strongly in favor of these meetings while others argue strongly against them.

Which type of politician are you more likely to support?

- a. A politician that is against allowing these meetings (0)

- b. A politician that is in favor of allowing these meetings (10)
14. Now I'd like you to tell me your views on two issues. How would you place your views on this scale? 0 means you agree completely with the statement on the left; 10 means you agree completely with the statement on the right; and if your views fall somewhere in between, you can choose any number in between
- a. Competition is good. It stimulates people to work hard and develop new ideas (0)
 - b. Competition is harmful. It brings out the worst in people (10)
 - c. People should take more responsibility to provide for themselves (0)
 - d. The government should take more responsibility to ensure that everyone is provided for (10)
15. I'm going to read off one thing that people sometimes say about a democratic political system. Could you please tell me if you agree strongly, agree, disagree or disagree strongly?
- a. In democracy, the economic system runs badly (0=Disagree strongly, 3-4=Disagree, 6-7=Agree, 10=Agree strongly)
16. Some people think it is better to give discretion to policymakers to decide how much regulation to impose on the different sectors of the economy (e.g., how much regulation to impose on banks, on energy companies, etc).

What do you think?

- a. Yes, I think it is a good idea to leave them discretion to decide on the proper amount of regulation for each sector
 - b. No, I don't want them to have discretion; I prefer the economy to have less regulation overall
 - c. No, I don't want them to have discretion, I prefer the economy to have more regulation overall
17. Now we would like to ask you about the income tax rates* that you think different people should pay. The income tax rate is the percentage of your income that you pay in federal income tax. For example, if you earn \$30,000 and you pay \$3,000 in income taxes, your income tax rate is 10%. Please use the sliders below to tell us how much you think each of the following groups should pay as a percentage of their total income.
- a. The top 1% (richest)
 - b. The next 9% (1% of households earn more than them, but 90% earn less)
 - c. The next 40% (10% earn more than them, but 50% earn less)
 - d. The bottom 50% (poorest)

*We consider only the Federal income tax, which is a tax on household income. If you receive a regular paycheck, this tax is automatically taken out of your pay. When you file a federal tax return each year, you calculate the exact amount you owe, and you get a tax refund from the federal government if you paid more than you owe. To keep things simple, we do not include other taxes such as social security taxes, state income taxes or sales taxes.

18. What was the role of fraud during the 2008 financial crisis in the US?
Most analysts agree that there was a bubble as a result of excessive risk-taking in financial markets. But those analysts differ in the extent to which they believe fraudulent practices were involved.

Which comes closest to your opinion?

- a. There was some fraud but this did not cause the crisis.
- b. There was a lot of fraud, but there was so much risk-taking that the crisis would have happened anyway.
- c. There was a lot of fraud and it was a central cause of the crisis.

19. In the last election,

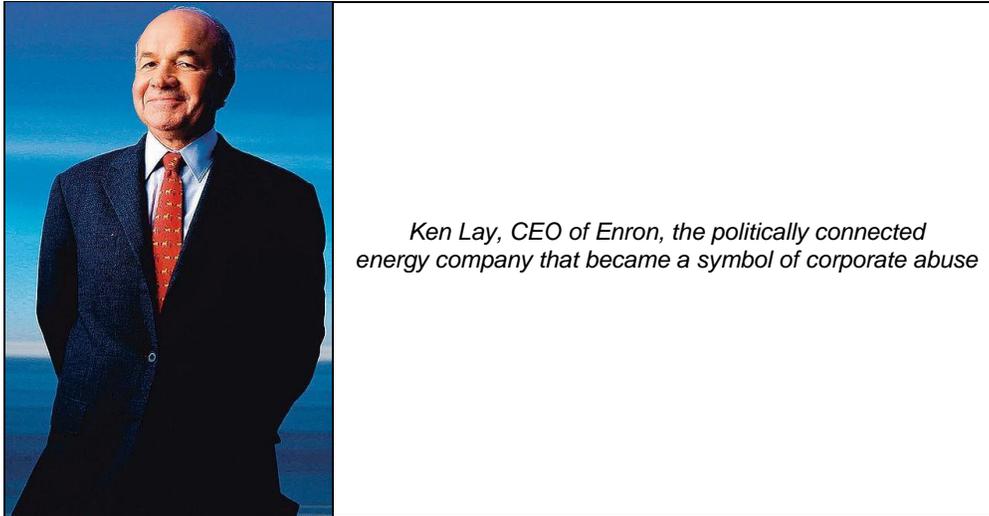
where did you stand politically?

- a. Supported Obama
- b. Center (but leaning Obama)
- c. Center (but leaning Romney)
- d. Supported Romney

20. All that's left is the Candy Choice Experiment (takes less than 20 seconds).

Treatment Low Business

American business people have been involved in some major scandals over the years. Some of the most famous include Bernie Madoff (a Wall Street financier who was able to swindle investors for nearly 20 years) and Ken Lay (the former CEO of failed energy giant Enron who lobbied to obtain regulatory exemptions and government contracts). In several other areas, such as construction and medical supplies, there is also evidence of significant wrongdoing.



Why do you think there has been so much wrongdoing in American business?

- a) It is due to the system: business people in the US are encouraged to focus on profits and can gain lots of money by getting favors from regulators and politicians.
- b) It is a combination of the system interacting with greedy individuals, amplified by the availability of capital that allows the dishonest to hide their actions.
- c) It is due to the individuals: there are business people in the US that are remarkably greedy and dishonest.

Treatment Low Business with Punishment

American business people have been involved in some major scandals over the years. Some of the most famous include Bernie Madoff (a Wall Street financier who was able to swindle investors for nearly 20 years) and Ken Lay (the former CEO of failed energy giant Enron who lobbied to obtain regulatory exemptions and government contracts). In several other areas, such as construction and medical supplies, there is also evidence of significant wrongdoing.

Several of these business people were punished. For example, in 2006 Ken Lay was indicted and found guilty of 10 counts of fraud, each carrying a maximum of 5 to 10 years in prison. This is true of many other cases (the FBI web page has a long list of business people that have been convicted and sent to prison). While some wrongdoers certainly avoid punishment, few other countries are aggressive as the US.



Ken Lay, CEO of Enron, the politically connected energy company that became a symbol of corporate abuse

Why do you think the US is so effective in prosecuting corruption in businesses?

- a) It is due to the existence of independent checks: the American judiciary system has a long tradition of protecting the rule of law and combating corruption.
- b) It is a question of internal checks: business people have incentives to report wrongdoing without fear of reprisals, so eventually bad things come to light.

Treatment Low Government

American policymakers and institutions of government have been involved in some major scandals over the years. There are several famous cases of government officials involved in major corruption scandals (one example is Sal DiMasi, who had a long career in government in spite of extorting bribe payments from several businesses, including one business owned by IBM). There are several other examples of significant wrongdoing in government.



Why do you think so much wrongdoing takes place in American government?

- a) It is a question of incentives: government officials in the US can gain large amounts of money extracting payments from firms that want to comply with all existing regulations. The temptations are just too profitable.
- b) It is due to the lack of effective checks: the legal system has so many loopholes that corrupt officials can defend themselves in very effective ways.

Treatment Low Government with Punishment

American policymakers and institutions of government have been involved in some major scandals over the years. There are several famous cases of government officials involved in major corruption scandals (one example is Sal DiMasi, who had a long career in government in spite of extorting bribe payments from several businesses, including one business owned by IBM). There are several other examples of significant wrongdoing in government.

Eventually, an FBI investigation focused on DiMasi. On October 2009, DiMasi was indicted and found guilty on 9 counts of fraud and conspiracy, and sentenced to 8 years in prison. This is true of many other cases (the FBI web page has a long list of government officials that have been convicted and sent to prison). While some wrongdoers certainly avoid punishment, few other countries are aggressive as the US.



Sal DiMasi, the Massachusetts politician who became a symbol of corruption in the State

Why do you think the US is so effective in prosecuting corruption in government?

- a) It is due to the existence of independent checks: the American judiciary system has a long tradition of protecting the rule of law and combating corruption.
- b) It is a question of internal checks: government officials have incentives to report wrongdoing without fear of reprisals, so eventually bad things come to light.