

Demand and Supply Curves in Political Markets

Understanding the Problem of Public Goods
and Why Governments Fail Them

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Abstract

This paper brings the economic tools of demand and supply curves to better understand how political markets shape the selection of government policies. It does so to tackle a problem at the intersection of political science and economics: government failure to pursue policies on the basis of sound technical evidence. Too often, the leaders who wield policy-making power within governments deliberately and knowingly ignore sound technical advice, or are unable to pursue it despite the best of intentions, because of political constraints. The paper shows how the prevailing dominant explanation for suboptimal policies and weak institutions, of special interest and elite capture, can be understood as

the selection of a point on the political demand curve by oligopolistic political competition. Further, it shows how elite capture is only one of many possible outcomes, and is endogenous to preferences and beliefs in society. Preferences in society for public goods (or the lack thereof), and beliefs about how others are behaving in the public sector, are the primitive or fundamental elements driving the shapes of political demand and supply curves and thence the selection of public policies and institutions. This framework highlights the need for future research to understand where political preferences and beliefs come from, which is essential to the design of institutions that address problems of public goods.

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Demand and Supply Curves in Political Markets: Understanding the Problem of Public Goods and Why Governments Fail Them

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“The reader may wonder why we [economists] do not just pack up and become sociologists. The answer, we think, is that the distinctive strengths of economics—explaining prices and quantities, as well as exploring the complex and often unexpected ways that countless uncoordinated actions generate sometimes unanticipated aggregate outcomes and dynamics—is no less relevant today than when it was pioneered by the classical economists two centuries ago.” (Bowles and Gintis, 2000, pp 1433).

This paper brings the economic tools of demand and supply curves to better understand how political markets shape the selection of government policies. It does so to tackle a problem at the intersection of political science and economics: government failure to pursue policies on the basis of sound technical evidence. Too often, the leaders who wield policy-making power within governments deliberately and knowingly ignore sound technical advice, or are unable to pursue it despite the best of intentions, because of political constraints (World Bank, 2016). Simply put, government failure can be described as: “bad policies can be good politics” and vice versa, that “good policies can be bad politics” (Vicente and Wantchekon, 2009; Bueno de Mesquita et al, 2003).

“Good” and “bad” policies are examined in this paper on the basis of economic models of the role of governments, or the public sector, in addressing market failures, promoting prosperity, eradicating poverty, and providing the public goods that contribute to society’s wellbeing. The central question regarding policy choices, which is common to both economics and political science, is whether politics yields policies in the broad public interest rather than being captured to serve narrow special interests. The paper develops a new analytical framework which synthesizes a complex body of multidisciplinary research on this question, and distills a few fundamental features that matter for whether governments pursue policies more, or less, in the public interest. The consolidated approach to political markets offered in this paper is one which hones in on how politics matters for the selection of economic policies by governments.

The political market examined in this paper is one in which actors on the demand-side are separated from the supply-side on the basis of the degree of direct power they exercise over public policy. Demand side actors are the countless “ordinary” citizens, who are not well organized, who hold no powerful positions, nor command significant economic resources, and exert little direct influence over policy-making. Supply-side actors consist of that sub-set of citizens who select into government bureaucracy and political contestation for power—for leadership positions in government or as organized groups that exert direct influence over leaders and policy-making. The analogy to economic markets is the selection of individuals into being consumers, or “takers” of public policy, versus producers, who “make” public policy, exercising direct power over what government agencies and authorities do.² The actors on the supply-side are also citizens, but distinguished from citizens on the demand-side by having the *power* to *make* policy.

² One concern raised upfront by a reviewer is whether there is a problem with limiting the framework to a two-actor world—on the demand and supply sides. The paper will show how this is not the case. The shape of the demand and supply curves in political markets that are proposed in this paper reflect complex variation among individuals in their preferences, and the different types of political actions individuals can take on the supply-side. However, the framework abstracts from the details of these different types of political actions to hone in on how they are aggregated by political markets and translated into policy outcomes.

The development of this framework is timed to coincide with global forces that are making political markets look much more like “countless uncoordinated actions” (Bowles and Gintis, *ibid*) than ever before, necessitating more tools to understand how these actions aggregate into outcomes, and the dynamics of these outcomes. More and more ordinary citizens are participating in political processes around the world (World Bank, 2016). These citizens are not only queuing at voting booths or taking to the streets, but they are also contesting on the supply-side for local leadership positions, with the spread of local elections and decentralization of public policy delivery within countries across the political spectrum. In more and more places around the world, the power to make public policy, including through how policy is de-facto implemented, is less and less restricted to a small group of organized elites, but rather dispersed across a larger number of actors in leadership positions. The framework offered here takes-on the analysis of how individual political actions, and the threat thereof, of large numbers of citizens, on both the demand and supply sides, aggregate into outcomes of public policy.

Political markets determine the allocation of resources to public goods. In contrast to the availability of a well developed framework in economics to think about how economic markets allocate resources to private goods, there is no general framework available in the social sciences to think about the market for public goods. Questions about the nature of public goods that matter for human wellbeing and economic development, how society allocates resources towards these goods, and how to think about whether these allocations are “sufficient” or “optimal” are falling through the cracks between disciplines in the social sciences. While important advances have been made to answer these questions, I posit that a more general framework is needed that can encompass or bring together dispersed pieces of individual research. This paper is a first attempt to provide such a general framework by extending the methodology of demand and supply curves in economics to examine how political markets allocate resources to public goods.

At the same time as offering something of value from economics, namely, the application of demand and supply curves, the paper confronts perhaps its biggest shortcoming: of assuming exogenous preferences. It focuses on this shortcoming particularly in the context of preferences for public goods, and attitudes towards the role of government in an economy, and shows how these are the crucial ingredients shaping the political market. It seeks to learn from political science and other disciplines about how collective or social preferences are formed for public goods, and the role of endogenizing preferences to understand equilibrium outcomes of political markets. Economists have grown recent interest in questions of culture—values and beliefs—which are closely linked to preferences; how culture interacts with formal institutions, and how these shape economic outcomes (Alesina and Giuliano, 2015, provide a review). However, this is a nascent body of work which has yet to clarify concepts, and to distinguish between channels through which values and beliefs impact outcomes. A key distinction is whether culture matters through interaction among people in private markets or through political markets that shape public policies. In this paper, I focus on the latter channel—how values and beliefs shape *political* markets—and summarize what we may know and what are large, open questions for future research.

In the framework of demand and supply curves in political markets in this paper, the fundamental element driving public policy outcomes, and government failures to pursue public goods, is: preferences across citizens over public goods. Preferences over public goods can be understood as values and beliefs

about the role of government in the economy and society—what types of problems governments *should* be addressing through public policy, or what types of goods and services governments should be providing. These preferences shape citizen participation on both sides of the market—as “takers” of public policy on the demand side, and as “makers” of public policy on the supply side. Preferences over public goods determine which citizens enter the supply-side, contending for positions of political and bureaucratic leadership, and organizing into groups to actively exert pressure on policies. Preferences therefore shape policy outcomes through both the demand-side mechanisms of how popular support (or opposition) determine incentives of policy-making leaders, as well as through the supply-side mechanisms of who selects to become contenders for policy-making powers, and on what basis they compete with each other. The paper shows how policy outcomes across a variety of formal and informal political institutions that determine who has power over policy-making can be understood as the intersection of different shapes of demand and supply curves. Using this general framework thus allows for focusing on the characteristics of public policies—summarized into an index of private versus public interest outcomes—that come out of a diversity of political institutions for gaining and remaining in power.

In the last section of the paper, after defining the framework of demand and supply curves in political markets, I argue that we know very little about which types of formal institutions of power configuration (such as democracy, autocracy, federalism, etc.) are more or less conducive to getting more public (less private) goods from the public sector. I discuss how the existing evidence supports my argument that preferences for public goods, and beliefs about how others are participating in politics, are of first order importance within any institutional context, shaping both the demand-side—what citizens are willing to support before becoming more politically active, that is, moving to the supply-side—entering the market of contenders for policy-making powers. For example, some autocracies can outperform democracies, while others are disastrous. This variation between good policy outcomes in some autocracies and bad policies in some democracies can be explained not by differences in formal institutions of elections, but rather, by differences in behavior within institutions that are ultimately attributable to different preferences and beliefs among citizens.

Fundamental questions about political markets loom large for all types of countries, rich and poor, going well beyond things like voting behavior, or outcomes of elections, to how citizens form preferences over public goods, and the critical role of how they access information and use it to form beliefs about what the state or government should be doing. How do citizens find common ground to demand broad public goods that benefit society as a whole? What role do formal institutions play in shaping citizens’ values and beliefs with regard to the role of governments in providing public goods? What are the characteristics of *informal* institutions that shape these values and beliefs? This paper provides a new framework, drawing upon vast areas of literature, to tackle these broad questions, and shows how central these questions are to research and policy efforts to understand and solve problems of public goods.

I further argue that this new framework is useful to understand how transitions happen from one type of “low level” equilibrium, such as of clientelist or patronage politics where public policies are more likely to be geared to provide private benefits rather than broad public goods, to a better equilibrium, such as where public goods are provided by depoliticized and professional bureaucracies. Transition from an old to a new equilibrium can come about through changes in either the citizen demand-side of political

markets or on the supply-side, through policies selected by political leaders, or both, but without a structured framework or tools to examine these forces separately, we have limited ability to analyze the dynamics of a transition. Most scholars acknowledge that little is known about how societies with initially weak institutions, of bureaucracy and the rule of law, move towards strengthening them so they cannot be easily bent to the will or discretion of powerful political elites. What little research is available relies on historical accounts of institutional transition in the United Kingdom and the United States. The insights from competing papers on what explains these transitions can be reconciled and consistently interpreted within the framework offered in this paper. For example, Acemoglu and Robinson (2000) argue that the transition to democratic institutions in England in the 1800s was the result of underlying threat of revolution by citizens on the demand-side. However, Lizzeri and Persico (2004) argue that demand-side explanations are insufficient to explain the political reforms, and should be complemented by another of increasing preferences among some elites for urban public health goods following the industrial revolution. Preferences for public goods among citizens—both as voters on the demand-side and as elites who actively influence or become contenders on the supply-side—have also been credited as underlying the so-called Progressive Era in the 20th century United States during which professionalism in bureaucracies became established (Glaeser and Goldin, 2006). I discuss how these different accounts of institutional transition can be interpreted as changes in the shape (or slope and elasticity) of demand and supply curves in political markets.

The paper is organized as follows. Section I provides a discussion of the problem that is the objective of this analysis: the problem of public goods and government failure to address it. Section II presents the framework for the demand and supply sides of political markets, and discusses how to interpret policy selection in equilibrium. Section III applies this framework to explaining government failures to pursue public goods. Given the importance of preferences and beliefs in shaping the demand and supply curves in political markets, Section IV forges connections between key pieces of available evidence to examine what we know about the formation of these preferences and beliefs. The experience of citizen engagement through local political markets, the messages communicated through local media, and the learning of concepts and ideas in schools appear to play fundamental roles in shaping political preferences and beliefs, but with many open questions on which future research is needed. Section V concludes.

I. The Problem of Public Goods and Government Failure

Markets are the domain of economic transactions among large numbers of people. Governments attempt to control the freedom of private individuals and groups to engage in market transactions by exercising the powers of authority and coercion of the state. Modern economics analyzes how markets function and aims to identify regularities or patterns in what outcomes are obtained through the interaction among large numbers of dispersed agents. A durable result from this analysis is that when markets are competitive, property rights are well defined, contracts can be enforced, and transactions between agents are not too costly, good economic outcomes of rising incomes and prosperity are likely to be obtained. Furthermore, a related result in economics is that the outcomes produced by competitive markets would be difficult for a central planner in government to replicate through instruments of state policy and

suppression of markets. The domain of “good” economic policy making by governments is derived as supporting competitive conditions in markets, and providing the public goods that markets do not.³

Economics is most confident about its results about markets when it comes to the allocation of resources to the consumption and production of *private* goods—goods from which individuals derive utility and that have little direct implications for the utility of others. Economics recognizes the limits of markets to achieve good outcomes when there are problems of externalities and public goods—when the consumption of a good by one individual has direct implications for the utility of others. Elementary economics textbooks present the notion of market failures, externalities and public goods which are problems that require some form of public policy intervention by governments. The “optimal” policy is typically derived by assuming the position of a benevolent social planner to analyze the characteristics of the problem and the potential impact of different policy instruments.

For example, take the case of the negative externality (for environmental quality) of pollution generated during the production process of firms, such as oil refineries. Policy makers in government can choose between “command and control” regulation which specifies the quantity of pollution that each firm is allowed to produce; price regulation through the imposition of Pigouvian taxes on the production of pollution; or, allocate “pollution permits” (the cap and trade policy) to firms and thence allow market forces to determine who produces how much pollution. The third solution follows the insights of Coase (1960) on how to secure property rights and well-functioning markets in which different agents can costlessly negotiate with each other, calls for light policy interventions by governments to facilitate market-led solutions. Yet, even the so-called Coase Theorem, which minimizes the role of government, does not get rid of it—government institutions are needed to protect property rights, reduce transactions costs, support free markets and gently nudge these markets when they fail (as in the case of the pollution externality).

Governments are not only uniquely positioned to provide the institutional infrastructure for well-functioning markets, but also to pursue public goods that society values and that are likely to be underprovided by markets. For example, for those who seek to eradicate poverty and reduce inequality, governments also have unique powers of redistribution to complement other market-based solutions to raise living standards for all. Supporting market institutions can also be regarded as a public good, and some forms of redistribution, such as providing social safety nets, can be viewed as part of this public good. For example, by cushioning people from shocks, public insurance programs may help prevent populist backlash against markets. Redistribution may also help maintain competitive conditions in markets by reducing the likelihood that unequal endowments of wealth lead to the creation of monopolies by the wealthy.⁴

The notion of “public goods” that governments can uniquely provide (or nudge markets to provide) is broader than the textbook definition of those goods that have the *physical* properties of being “non-excludable” and “non-rival” (clean air and national defense are typical textbook examples of public goods, although one could think of ways in which even these can be excludable and rival). Many types of public spending may be regarded as providing public goods even though at first glance they would

³ Rajan and Zingales (2003) provide a most spirited account of the economists’ view of the importance of markets.

⁴ The concept of redistribution as a public good needs greater attention in the literature. The paper will discuss the challenge of analyzing what are technically sound redistribution policies further below.

appear as both “excludable” and “rival”. For example, spending on public education in a neighborhood school excludes residents living in other neighborhoods, and increasing public resource allocation to some schools is likely to rival resources for others. But society and its citizens may have preferences defined over the public good of “equal opportunities for all children, regardless of the accident of their birth”. Providing this good may require an array of unequal public spending policies such as progressive targeting of resources to schools in poor neighborhoods, or providing scholarships and social support to children from disadvantaged families.

Solutions to problems of market failures and public goods need not necessarily involve public policies of direct production or provision of services by government departments. Just like in the example of cap and trade regulation of pollution, public policies that aim to accomplish goals of redistribution or equal access to health and education services may provide incentives for markets to provide these services (Pineiro and Schneider, 2017). This paper will be agnostic about what specific policy design works better than others to accomplish a policy goal. It will pursue the more abstract or meta question of whether society and government seek to address problems of public goods using the best available technical evidence about what policies work for the purpose.

Governments fail when its leaders deliberately and knowingly ignore sound technical advice about what public policies work better than others in pursuing public goods. Defining and measuring government failure is difficult because it requires first specifying what *are* appropriate policies, and what are the public goods that governments should deliver, to then be able to assess whether leaders are failing to pursue those policies and deliver those goods. This paper will follow World Bank (2016) and characterize appropriate public policies in the abstract: as those policies that aim to fulfill the unique role of government to provide the public goods that create value for society but are not adequately provided by markets, debating the best available technical evidence for this purpose. Governments fail when leaders adopt and implement policies that they know are costly for the greater public good, despite the availability of alternative policies that are likely to yield improved outcomes. Governments can make inadvertent mistakes, when they do not have the right evidence, when there is uncertainty and disagreement among experts about the appropriate policies, or when the state of the world changes and they need to find out what to do to tackle new problems as they emerge. Such mistakes and uncertainties about appropriate public policies are not part of the problem of government failure that is tackled in this paper. Government failure is defined on the basis of purpose, intent, and incentives of leaders to pursue public policies in the public interest.

One example of government failure on which there appears to be a consensus is that of malfeasance and mismanagement within public bureaucracies and by political leaders: limited control of corruption; weak management practices that condone frequent absenteeism among public sector workers; the role of connections or nepotism in the recruitment and career concerns of public sector workers, which can contribute to lack of motivation to perform on the job; crony capitalism, whereby politically connected firms receive privileged treatment by public regulators and financial markets. The reason there appears to be consensus that corruption is socially costly is because the evidence suggests that where there is greater corruption, public policies confer concentrated private benefits on a few, at the expense of economic efficiency and more widely shared public benefits (World Bank, 2016 and 2017).

Another example of government failure on which there appears to be consensus has similar properties of conferring private benefits at the expense of the greater public good: price subsidies for energy. For example, there is technical evidence and wide agreement among experts that energy subsidy policies pursued by many governments around the world are inefficient and entail fiscal and environmental costs with little justification on equity grounds (Clement et al. 2013). Energy subsidies in the developing world are highly regressive (Arze del et al. 2012). In India, a country that exemplifies the political and economic problems around energy pricing policies, estimates suggest that the richest 10 percent of households receive seven times more in benefits from subsidies than the poorest 10 percent (Anand et al. 2013). Furthermore, India is also a country where citizens are actively engaged in outright theft of energy. Depuru et al (2011) estimate that utility companies worldwide lose more than \$25 billion every year due to electricity theft, of which utility companies in India lose about \$4.5 billion every year. Such theft, and the resultant transmission and distribution losses, combined with pricing policies of subsidizing electricity results in bankrupt utilities that are unable to provide reliable electricity to anyone. Electricity produced by public utilities in India in effect becomes a scarce commodity over which intense distributive conflict is waged through the political process (Golden and Min, 2013).

How does the notion of government failure defined here apply to other broad areas of policy-making that have been the subject of voluminous scholarship—market-oriented policies of economic liberalization, on the one hand, and social welfare and redistribution on the other? In the literature on the political economy of macroeconomic reforms, policies such as trade liberalization, privatization, deregulation, and fiscal discipline, are argued by economists to be technically sound policies that would enable economic growth for the benefit of all; failure to pursue these policies, economists warn, would have dire consequences.⁵ The animating puzzle in that literature is why governments do not adopt these superior economic policies, and why reforms for macroeconomic stabilization are delayed despite all policy actors realizing that adjustments will eventually become necessary (for example, because budget constraints will eventually bind). The notion of government failure defined here is consistent with the dominant theme in that literature: that failure to adopt reforms is the result of conflict of private interests among policy makers and the constituents they serve. That is, policy makers pursue private interests, either their own or of the interest groups to whom they are beholden, even when they understand technical evidence about the costs of delaying reforms.⁶

When it comes to policies for social welfare and redistribution, there is far less consensus among economists not only about what are technically sound policies, but more fundamentally about how to think about “technical merit”.⁷ Most analysis by World Bank poverty economists, for example, assumes redistribution as a policy objective and then proceeds with technical analysis of how best to achieve the

⁵ Krueger (1993), Rodrik (1996) and Sturzenegger and Tommasi (1998) are classic references that review the literature on the political economy of reforms.

⁶ The leading authors reviewing the literature (cited above) recognize a role for genuine differences in technical opinion about what are appropriate policies, and that some part of lack of reforms is the result of “limited information and the dynamics of learning” (Sturzenegger and Tommasi, 1998, page 8-9). However, they conclude that this limited knowledge factor cannot explain the persistence of bad economic policies without appealing to some role for powerful interest groups who block reforms to maintain their private rents, without regard for the generalized social costs.

⁷ Consensus on basic macroeconomic stabilization policies is ultimately rooted in binding budget or resource constraints—sustaining fiscal excesses is infeasible. In contrast, redistribution policies are determined by the objectives that are being pursued, and these objectives, rooted in preferences, can vary across citizens and policy-makers.

amounts and targets of the specified objective function, such as the World Bank’s own goal of eradicating extreme poverty (World Bank, 2014). A significant literature has examined how differences in preferences for redistribution, such as, based on differing beliefs and philosophies about the role of luck versus effort and individual responsibility in shaping income inequality, is an important factor explaining variation in the size of government, progressive taxation and spending on welfare of poorer households (Alesina and Glaeser, 2004). How relevant, then, is the notion of government failure—leaders pursuing policies that they know are costly for the greater public good, despite the availability of alternative policies that are likely to yield improved outcomes—for the area of redistributive policies, if there is much less evidence or expert consensus on those “alternative policies” or “improved outcomes”? The World Development Report 2006, Equity and Development (World Bank, 2006), marshals evidence to argue that public policies for equitable access to health, education, and economic opportunity are needed for sustained economic growth for all. Put another way, World Bank (2006) provides evidence consistent with equity of opportunity, and avoidance of extreme deprivation by any sub-group of the population, being public goods, in a similar way as protection of property rights, and institutions to support competitive markets. If any policy maker does not agree with the conclusions about the technical value (for sustained economic growth for all) of redistributive policies, and therefore does not pursue those policies, would that be regarded as government failure in the framework of this paper? If the basis for policy disagreement is sustained by credibly non-partisan technical analysis of economic data, it would not. However, if policy making in contentious areas is influenced by incentives of leaders to extract private rents, for themselves or for the interest groups to whom they are beholden, and these leaders deliberately ignore technical evidence on social costs in order to preserve private rents, that constitutes government failure.⁸

This paper builds on the analysis in World Bank (2016) and characterizes “good” versus “bad” policies as the extent to which policies confer private benefits at the expense of the greater public good. I define a policy index— p —to capture the degree of inequality in the incidence of benefits from public policies, akin to the Gini coefficient for income equality. Like the Gini coefficient, the value of p lies between 0 and 1, with 0 representing perfect equality, when the incidence of benefits from public policies is spread universally, and 1 representing perfect inequality—when the benefits are captured by a small segment of the population.

Unlike the Gini coefficient, which reflects inequality in the distribution of a fixed amount of resources, the policy index proposed here reflects a trade-off between allocating public resources to provide private consumption versus investment in a public good that yields greater social returns whose benefits are universally shared. Values of $p \rightarrow 0$ reflect equality in distribution of benefits; but importantly, the origins of these universally shared benefits come from investments in public goods that generate social value. Values of $p > 0$, reflect the opposite, of public spending on private goods, even if they are distributed equally (such as, to continue the earlier example, if subsidized electricity were distributed

⁸ Outcomes in other areas of contentious policy-making that go beyond economics—such as gun control, or environmental policies to combat climate change—may also be partly explained by knowledge limitations and disagreement based on technical analysis of data. But I would argue that the notion of government failure defined in this paper would nevertheless be relevant. Government failure in these cases would look like the following: despite government leaders having access to expert evidence that points to the benefits of some policy reforms that they can all agree upon, those reforms are not undertaken because the political process becomes gridlocked by partisan considerations.

equally across constituents), if these policies come at the expense of public investments that would create greater social value (such as, well functioning, and solvent electric utilities that support economic growth).

The social costs of under-investments in public goods (for example, to combat climate change) may be disproportionately borne by poorer sections of the population who have fewer means to insure or protect themselves, bringing this proposed policy index back in line with a measure of inequality. In short, the policy index p captures the cost of distributive conflict over the allocation of public resources, resulting in allocations to serve private interests at the expense of investments in the greater public good, with $p=1$ representing the highest cost, and $p=0$, no cost:

$$0 \leq p \leq 1 \quad (1)$$

This policy index p is the fundamental building block of the analytical framework in this paper. It represents the problem of government failure that is the objective of this analysis—governments fail when their leaders knowingly and deliberately adopt a policy index p for which there is evidence that it confers private benefits at the expense of the greater public good. This is an abstract way of denoting public policies and should not be confused with policies that are in practice designed to confer unequal benefits in the pursuance of a larger public good—such as, in the example raised earlier of unequal spending across public schools, to give equal opportunity to all children regardless of the accident of their birth in poor families, and build human capital for long-term, sustained growth. The approach is one of summarizing policy choices into a single index of “privateness” versus “publicness”, which links to normative concepts in other disciplines, such as in political science, about special interest versus public interest politics.

Government failure in this approach is analytically identical to market failure—the failure of trade or negotiation between agents to yield a public sector which provides public goods. Any policy index $p > 0$ is an example of a government failure—there exist public goods that would enhance social welfare but public policies are allocating resources to private rather than public goods because it serves the interests of some citizens. There is no political Coase theorem here because of conflict of interest among citizens who are pursuing their private good through public policies (Acemoglu, 2003).

The concept of summarizing policy choices into a single index representing the degree to which policies deviate from the optimal policy of providing public goods can be supported by a general model of an economy which exhibits market failures and requires public goods, such as, property rights and institutions that support competitive markets. The model would need to specify the costs of producing that public good, in terms of foregone private consumption of citizens in that economy, and in terms of the technology of taxation (distortionary and transaction costs associated with taxation). It would yield an “optimal” solution, in the tradition of modern economics, characterized by equating the marginal benefits from the public good with the marginal costs of producing it. This is the so-called Samuelsonian condition, named after the economist who first wrote down such a general model (Samuelson, 1954).

The difference in this paper from the Samuelsonian approach consists of how the public good is modeled. Modern economics analysis takes as its starting point a defined welfare or utility function with exogenously given preferences for private consumption, c , and a public good, g . An individual or group j 's utility function can be written (for simplicity's sake) as the sum of utility from private consumption

and the public good (which enters the utility of all other individuals in society since the good, g , is assumed to be non-excludable and non-rival):

$$U^j(c, g) = c^j + H^j(g) \quad (2)$$

The marginal benefit of g would then be derived from a social welfare function that sums up the welfare or utilities of all individuals in the society. If $C(c, g)$ denotes the social cost function of producing the public good, the optimal solution would be represented as:

$$\sum_j \frac{dH^j}{dg} = \frac{dC}{dg} \quad (3)$$

The problem with this approach is that it does not pay attention to where preferences for public goods come from, how they are endogenously formed by political and economic institutions, and how this matters for economic and human development outcomes (Bowles, 1998; Gintis et al, 2005). The Samuelsonian approach of relying on individual utility functions requires that preferences for public goods have to satisfy particular properties in order to be amenable to analysis through utility functions. Social choice theorists, beginning with Arrow (1965), have cast doubt on the existence of well-behaved preferences over the multiple dimensions of public policy making. The political economy approach of assuming a “median voter”, who has well defined preferences, suffers from the same problem.

I further contend that the problem of defining exogenous and stable preferences is particularly severe for public goods, g , than it is for private consumption.⁹ Public goods, by definition, involve a shared understanding in society about which goods or public policies provide benefits for all, and thereby have the properties of being non-excludable and non-rival. Beliefs about what should be regarded as a public good are not only shaped by the societal institutions that sociology studies, but can also be shaped through game-theoretic interactions between multiple agents (that is studied in political science and political economics). Far from being stable, preferences based on beliefs about how others are thinking and acting may change rapidly. For example, Grossman and Helpman (2001) describe how elites can distort public policy to cater to their own self-interest by persuading ordinary citizens that those policies are in the public interest. Elites’ preferences over public policy in these models of special interest capture may be indistinguishable from their preferences over private consumption, leaving open the question of how to think about preferences for public goods.

What the framework here does is separate the origins of differences in opinion over the optimal public policy p between that which is derived on the basis of technical evidence, and that which is shaped by beliefs, ideology, history, norms, and self-interest. The intuition in the examples discussed earlier in this section, that there exists some available “technical” basis about the types of policies governments should be pursuing to create social value, is not consonant with summing-up individual lay citizens’ valuation of policies, nor with the preferences of a “median voter”. Indeed, there are several examples of institutions adopted by society precisely to shield public policy from popular incursions, and place some forms of policy making within the domain of technical experts. For example, monetary policy making by an independent central bank. A large literature on economic reforms has described what technically

⁹ I cannot think of a formal reference where this distinction has been made, that preferences over public goods, g , is harder to define than preferences over private consumption. I would be grateful for suggestions during the review process.

sound public policies should look like, relying on “expert” assessment of whether these policies would contribute to growth (Rodrik, 1996, and 2006 provides reviews). Theoretically, Lizzeri and Persico (2002) provide a model where the public good, G , is given by exogenous assumptions about the technical value of G , and the efficient or optimal policy choice is to allocate all public resources to producing this public good as long as it is more valuable than the cost of foregone private consumption.

The approach of assuming a domain of policy solutions that carry some technical merit for the good of society as a whole is a particular way of avoiding the ultimately philosophical question of what is “the public good”. An abstract policy index, p , which denotes deviation from technically sound policies does not obscure the fact that there may be a great deal of uncertainty around what specific policies are contained in the benchmark indicator, $p=0$. To continue the prior example, Rodrik (2006) discusses significant limitations to expert understanding of good economic reforms. Experts rarely have irrefutable evidence about whether reforms would indeed improve outcomes. But this uncertainty over knowledge of reforms is *not* the *interesting* political economy question. At some philosophical level, society will never “know” what options are better than others. The interesting question is whether governments pursue policies on the basis of constructively debating the best available technical evidence and continuously promote the generation of better evidence and more debates to inform policy making.

The analysis here will regard citizens’ preferences over p to be endogenously formed by political and economic markets, and shaped by history and social norms. In what follows below, individuals and groups in society will have different preferences over p , and disagreements over the normative, “technical” value of setting $p=0$. This allows for examining society’s beliefs with regard to an abstract benchmark, $p=0$, that has some useful properties. This benchmark is consistent with several strands of literature across disciplines that regard public goods as those that confer universal benefits. This characterization is also useful to serve the role of “prices” in political markets—the price of providing more equal benefits from public policies is foregone private consumption, especially among economic elites who hold greater private wealth endowments and incomes that need to be taxed to finance the public good. The next section will develop the demand curve for the policy index p , using this “price” characteristic of foregone private consumption that is unequally distributed across citizens with different endowments/income.

II. Demand and Supply Curves in Political Markets

The political market examined in this paper is one in which actors on the demand-side are separated from the supply-side on the basis of the degree of direct power they exercise over the setting of public policy, p . Demand side actors are the countless ordinary citizens who hold no public office and exert little direct influence over policy making. Supply-side actors consist of that sub-set of citizens who select into political contestation for power—for leadership positions in government or as organized groups that exert influence over leaders and policy making. The analogy to economic markets is the selection of individuals into being consumers versus producers (Table 1).

Table 1: Analogy between Economics and Politics on Roles and Actions of Individuals

	Demand-side	Supply-side	Actions
Economics	Consumers	Producers	Buy/sell
Politics	Citizens/users/voters	Politicians/bureaucrats/influential organized groups	Elect or support/run or apply, organize

This section will focus on drawing the demand curve for the public policy index p : $D(p)$.

Consider a society with different individuals or groups indexed by j . The welfare of group j 's members is given by:

$$W^j(c, b) = c^j + b^j(p) \quad (3)$$

where c represents private consumption over which an individual exercises direct decision-making power, while $b(p)$ represents net benefits from public policies after paying any taxes owed to the government under those policies. I propose separating the analysis of the demand and supply sides of political markets on the basis of little versus greater power to manipulate p . To gain power to manipulate p , citizens have to enter the bureaucracy or become political actors and contest as candidates (or organize into parties) or participate as voters and political interest groups on the supply-side of the market. The decision to vote, or how to vote, and protest (or rise in revolt) receive special treatment in this framework, lying at the cusp of the demand and supply sides—these are actions ordinary citizens can threaten to take to indirectly influence policy selection, regardless of whether they in fact vote or revolt. The act of voting or of mobilizing in protest are actions on the supply-side of the political market.

The demand curve is proposed as the number of citizens, $D(p)$, who would choose to remain “takers” of a given policy (p), rather than becoming political or bureaucratic actors on the supply side to directly influence or select the policy.¹⁰ The demand side thus reflects citizen support provided to a policy without resorting to political action to change the policy. It captures one aspect of voting behavior—the weight that voters place on public policy offers or past performance—but does not pin down actual voting decisions that are made on the supply side of the market. Actual voting decisions depend upon the supply side of this market—what different options are in fact being offered by candidates competing for power to make policy.¹¹

The supply-side in this framework consists of that sub-set of citizens who enter the market as contenders for power over policy making—for leadership positions in government, both as politicians and bureaucrats, or as organized interest groups that exert influence over leaders and policy making. The analogy to economic markets is the selection of individuals into being consumers on the demand-side versus producers on the supply-side (Table 1). For politicians, actions on the supply-side consist of the

¹⁰ This approach to the demand-side is similar to the concept of latent threat of revolution in institutional contexts where citizens have no formal political powers. Citizen behavior on the demand side plays a similar role in democratic contexts where people can vote to remove leaders from office.

¹¹ This point—about voting decisions on the supply-side—is elaborated further below.

political strategies that are adopted by different candidates/parties, given electoral rules and political institutions that determine how to win office or gain access to policy-making powers.

However, the supply-side not only consists of citizens who run for political office, but also citizens who seek a career in the government bureaucracy. Bureaucratic leaders manage myriad working-level agencies of government and wield power over the implementation of public policies, *de facto* making policy through how it is implemented. For example, the behavior of frontline service providers, such as public sector teachers, matters directly for whether public spending on their salaries leads to widely shared public benefits (such as, an educated and healthy population). If teachers are absent from the classroom, or not motivated to teach effectively even when present, spending on teachers translates into a high p —providing rents to teachers in the form of a secure government job, but at the expense of the public good of an educated population. We will return to this point, about the supply-side including both political and appointed technocratic leaders who wield power over public policy, further below in this section.

Consistent with the view of citizen behavior on the demand side as “takers” of policy, the supply side consists of citizens who have strong preferences for (i) holding office and/or (ii) for specific policies, p , that they would like to have implemented. The first factor shaping who enters the supply-side, preferences for holding office, is consistent with the Downsian tradition of assuming that candidates competing for power select political strategies opportunistically, to maximize the probability of winning (Downs, 1957). The second factor shaping the entry of citizens into the supply-side, preferences for specific policies, is consistent with the “citizen-candidate” tradition in economics (Besley and Coate, 1997; Osborne and Slivinski, 1996). Citizens’ values and beliefs with regard to public goods thus shape their behavior on both the demand and supply sides—what policies to support, and when to enter as actors and contenders on the supply-side.

Switching between the demand and supply sides: The decision to “switch” from the demand to the supply side of political markets is a special feature of political markets that is not familiar to economic markets. The switching decision for citizens to compete for leadership positions, and to participate as voters (or protestors, outside of elections) on the supply-side is determined by the following factors:

- (1) Preferences over public policies: $b^j(p)$
- (2) Preferences over non-economic policies, and directly from the act of participating in politics
- (3) Beliefs about the behavior of other contenders for leadership
- (4) Beliefs about the behavior of other voters/protestors

The supply-side of political markets is thus intricately linked to the demand-side through preferences over public goods, represented in $b^j(p)$ in equation (3). In addition to preferences over the benefits from public economic policies, preferences over non-economic policies and for particular parties, candidates or ideological positions, regardless of economic policies, shape the decision to switch from the demand to the supply side. These preferences which determine the entry decision also determine subsequent behavior on the supply side. Furthermore, separate from preferences, entry and behavior on the supply side are determined by beliefs about how others are behaving.

A large literature on expressive voting suggests that a component of voting decisions, separate from how voters weigh economic policy offers, is whether citizens derive direct utility or value from the act of voting, $V(x)$, where x denotes turning out to vote. Further, citizens may derive utility from aligning with parties who represent their social or ideological beliefs, a , independent of actual policy choices, and from voting to support these parties, z : $V(x, a, z)$.¹² That is, voters may derive utility from seeing their “team” (the party which represents their ideological positions) win, regardless of whether their party actually implements policies consistent with their purported ideology. Candidates can, potentially, seek to implement a costly policy index p^h , that is disliked by a majority of citizens because it would give them few benefits, but nevertheless win office and the power to implement it by targeting political strategies at manipulating x , a , and z . By separating out demand, as latent voting over public policy from actual voting behavior, which is exercised on the supply-side of the market because it responds to non-policy variables x , a , z , that candidates on the supply-side can manipulate, this framework accommodates a vast literature on expressive voting while retaining a focus on implications of political behavior for economic policy choices.

It is therefore possible for a citizen to *prefer* optimal economic policies at $p=0$, but nevertheless vote for a candidate who offers $p>0$ because there are no candidates offering $p=0$; and/or because the citizen derives utility from voting and therefore does not want to abstain. What the demand curve will then reflect for each point of p —representing social costs due to foregone public goods—is the number of citizens who provide support to that policy by not coming out to act against it on the supply side.

For the switch to the supply-side as contenders for leadership, entry decisions are determined by very similar factors as in the citizen-candidates models: what policies are likely to result in equilibrium given how others are voting, and given who else is entering as contenders; how far those expected policies are from their own preferred positions; and, what are the costs of running for office. Prevalent models that emphasize the role of political institutions in determining policy outcomes emphasize the role of the costs entailed in running for and winning office. The framework here includes consideration of policy preferences in shaping entry, in addition to maintaining that political institutions that determine the costs of entry also matter. However, entry costs are subsumed into beliefs about the behavior of other contenders for leadership. For example, in contexts where entry costs are high, such as when powerful incumbents use the coercive power of the state to prevent contenders from emerging, the decision to enter would be shaped by beliefs about how this incumbent would respond. In contexts where entry costs are high because organized political parties control nomination, the decision to enter would be shaped by beliefs about the behavior of these political parties—how they choose candidates and how they mobilize voters around policy platforms.

The spread of electoral institutions across and within countries has significantly lowered entry costs for citizens because elections allow individuals to participate on the supply side as voters, compared to contexts where there are no elections. Incumbent leaders or organized parties on the supply side can still manipulate those entry-costs, such as by using violence and intimidation in weak institutional contexts, or passing new laws, such as literacy tests and poll taxes, to regulate voting in strong institutional costs

¹² This summary is obtained from a review of the literature by Romer (1996).

(Acemoglu and Robinson, 2006). The decision to enter the supply-side as voters would be influenced by beliefs about how incumbent powerful leaders might respond to voters.

Policy selection in equilibrium, p^* , has to be a point on the demand curve—at least some citizens have to support it by remaining as “takers” on the demand-side of the market rather than choosing to enter to contest power or sanction incumbents as voters. Leaders, or the contenders who enter the supply-side of political markets, will, in effect, choose a point on the demand curve as the selected policy as they compete with one another to win more “decisive” citizen support than others. Political institutions determine what proportion of citizen support is “decisive” in that leaders cannot deviate to another policy choice and still be able to defeat their opponents by wooing other citizens. The formal and informal rules of the game for gaining and remaining in power determine who enters the supply side, and with what motivation—to opportunistically seek public office or to pursue particular policies; and, what political strategies to deploy upon entering the market. Political institutions thus influence which point on the demand curve is selected as policy, as leaders compete for power under those institutions.

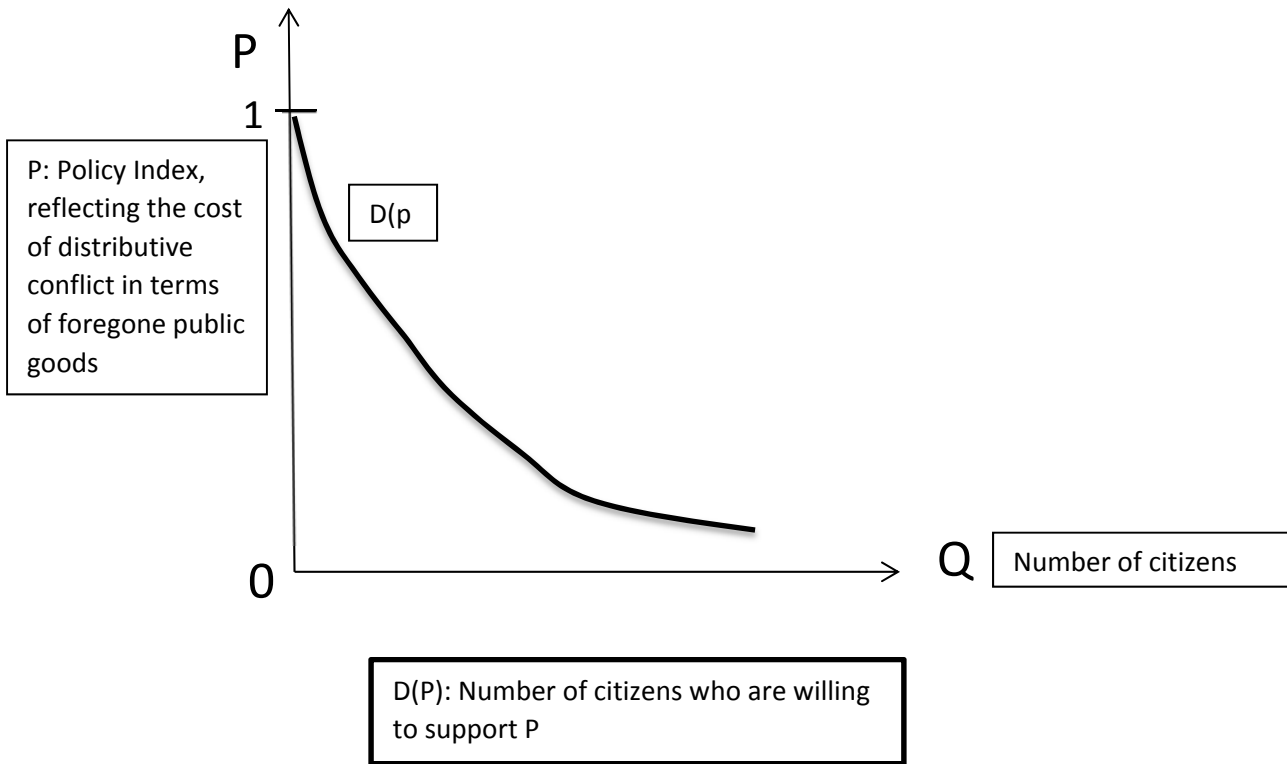
Since the public policy index, p^* , that is selected in equilibrium has to lie along the demand curve, the shape of the demand curve—its slope and elasticity for different regions of p —matters for policy selection. Preferences on the demand-side thus influence the selection of public policies by determining the shape of the demand curve. This is how the framework represents the outcomes of Downsian political competition in which voters play a crucial role in the selection of policy, such as, for example, in the median-voter theorem. I show further below how this framework goes beyond the Downsian tradition and allows for the preferences of citizens to influence policy as potential contenders for power on the supply side.

Shape of the demand-curve. Assuming that citizens are, on average, self-regarding and materialist, deriving greater wellbeing from both greater private consumption and greater public policy benefits, we

can draw a downward sloping demand curve, reflecting $\frac{\partial D}{\partial p} < 0$ (Figure 1).¹³ To see this intuitively, consider regions of $p \rightarrow 1$, in which public policy allows an elite to control all economic resources and no public goods and benefits are provided to the non-elite population. Low demand in this region of $p \rightarrow 1$ would mean a high proportion of citizens are unwilling to “take” this policy as given and would rather become active on the supply side to oppose it, such as through voting or even violent revolution. At intermediate values of p , the elites in the population who control a larger share of economic resources would pay a higher price in terms of foregone private consumption to finance the provision of public goods whose benefits are universally shared. A higher proportion of citizens would thus receive net benefits from these intermediate values of p and thereby be willing to support these policies.

¹³ The assumption of selfishness makes it harder to draw demand curves that are downward sloping for all regions of p . It would be easy to draw a downward sloping demand curve in this framework if we assumed that people are altruistic or other-regarding, as critics of *homo economicus* contend. The critical issue that arises in this framework is whether citizens demand altruistic policies *from government*, even if they choose to behave altruistically in their private lives (such as, by making voluntary charitable contributions). The literature on crowding-out versus crowding-in of voluntary contributions does not show that private markets can solve problems of redistribution and public goods (Bowles and Polania-Reyes, 2012); rather, similar to the role of government in the Coase theorem, it shows that optimal public policy should take individual responses into account.

Figure 1: Demand curve for public policies



The only assumption needed to draw a downward sloping demand curve is that a higher number of citizens are likely to support a more equal policy index, or one that creates more social value, compared to the proportion of those who would tolerate a more unequal or more socially costly policy index.¹⁴ This assumption does not preclude the possibility that some citizens, including the elite, may have altruistic or other regarding preferences which may mean that no-one in society would tolerate a policy index of perfect inequality ($p=1$). It also does not preclude the possibility that poorer citizens may have “populist” preferences for private consumption at the expense of investments in public goods. Populism is to be understood here as the widespread provision of private benefits from public spending policies which have high fiscal and macroeconomic costs (Sturzenegger and Tommasi, 1998; Krueger, 1993). Populist demand would result in citizens supporting certain policies that provide them with immediate private benefits, such as free electricity, but that entail large social costs from which the poor may eventually suffer disproportionately.

The crucial feature of the demand curve is not whether it is downward sloping, but rather, its elasticity over different regions of p . Figure 2 provides examples of different demand curve elasticities. Panel A depicts a demand curve that is elastic around a high value p^h , while panel B depicts elasticity around a

¹⁴ We can also get rid of this assumption and draw demand curves with varying slopes for different regions of p . That does not change the main insight coming out of this framework that the shape of the demand curve for different regions of p matters for what policies are selected in equilibrium. The puzzles we want to address pertain to how even when a large number of people would benefit from public goods, government and its institutions fail to invest adequately in those goods.

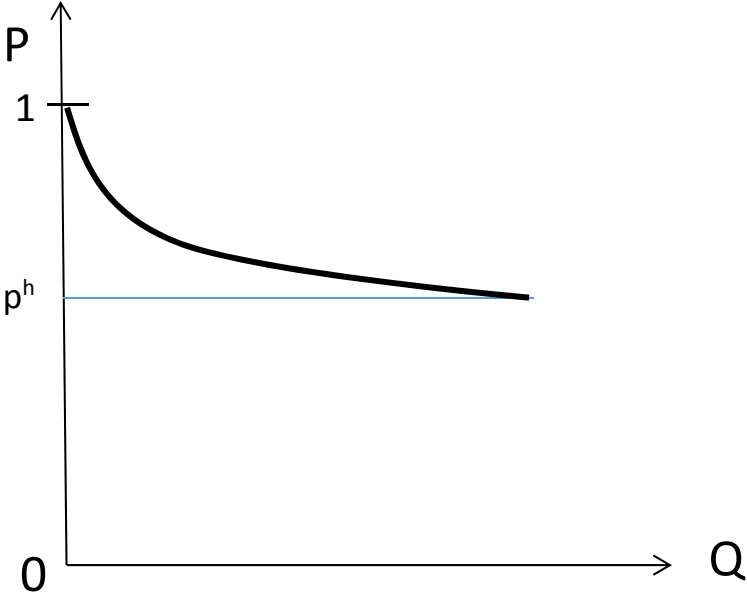
low value p^l . What each shows is the region of the policy index p for which there are large increases in the proportion of citizens who would support those policies.

The reason the elasticity of the demand curve is important is because equilibrium policies—those that are selected and implemented by leaders who win policy-making powers—have to lie along the demand-curve; and, leaders are more likely to choose points on the elastic portion of demand curve because there is greater flexibility (compared to inelastic regions of the demand curve) to choose political strategies to win support from a decisive proportion of citizens. Supply-side actors can exploit the elastic portion of the demand curve to implement the corresponding policies by forging together the required support from different groups of citizens, choosing from a variety of political strategies, tailored to prevailing political institutions, or the rules for gaining power.

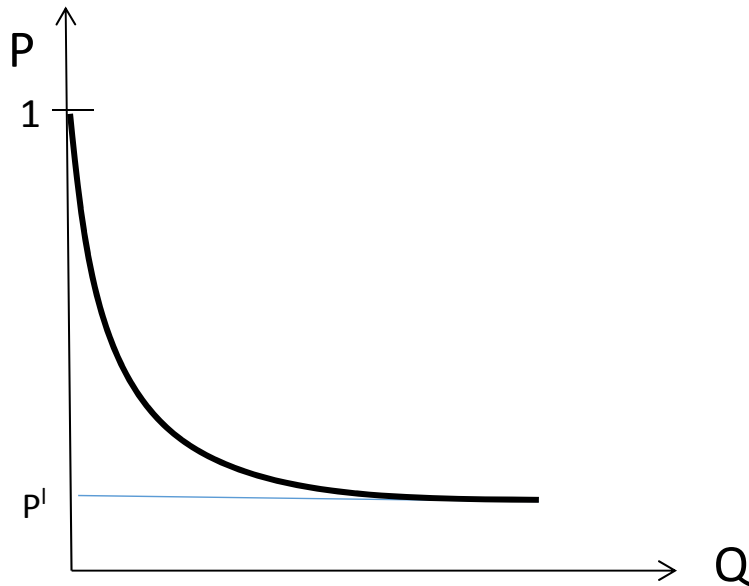
Panel A, for example, represents the demand-side explanation for persistent elite capture of public policies in countries with free participation of citizens in political contestation (Gilens and Page, 2014; Grossman and Helpman, 2001). When citizens are unwilling to act on the supply-side to sanction highly unequal policy indices, elites can get away with selecting a point on that portion of the demand curve corresponding to those unequal policy indices. Panel B, on the other hand, provides an example of a more progressive or enlightened society where citizens would be more likely to take action to overturn highly unequal or socially costly policy choices. This latent threat of citizen action plays a similar role across authoritarian and democratic political systems, incentivizing leaders in both types of regimes to select a policy that enjoys large citizen support (Acemoglu and Robinson, 2000).

Figure 2: Elasticity of the demand curve

Panel A: Demand is elastic at high values of p (Conditions for elite capture in many political systems, including democracies)



Panel B: Demand is elastic at low values of p (Conditions for enlightened public policy in many political systems, including autocracies)



Shape of the supply-curve. In all of the literature, political candidates or parties (political firms) select policies given their “production function”—the rules of the game for gaining and remaining in power—and the shape of the demand curve. Political candidates and parties are, in effect, “price setters”, analogous to monopolistic, duopolistic and oligopolistic competition among firms in economic markets. Prevalent models that emphasize the role of political institutions in determining public policy are, in effect, saying the following: elites who have the capacity to incur the entry costs of contending for power will exploit political institutions to gain and remain in office while pursuing their preferred policy positions. Even in models in the Downsian tradition in which policy makers are exogenously given and assumed to be purely opportunistic, political institutions such as electoral rules create conditions for duopolistic or oligopolistic competition. Electoral rules that promote two-party systems are characterized by duopolistic competition, and rules, such as in proportional systems, that promote multiple parties are characterized by oligopolistic competition.

Authoritarian institutions in which political power is monopolized in a single party or even in a single leader or group of elites, would not yield supply curves—the monopolist political firm would choose its preferred policy point on the demand curve subject to its technology for remaining in power (the production function), including violence and coercion through state institutions to enforce the acquiescence of citizens. In Downsian political competition between opportunistic office-seekers, alternate electoral rules shape the production function of oligopolists, and thereby which point is selected on the demand-curve. For example, Lizzeri and Persico (2001) examine how proportional versus winner-takes-all electoral rules would result in very different implications for whether public

goods are produced in equilibrium; when public goods are very valuable (from a technical perspective), winner-take-all systems would under-provide them compared to systems where politicians gain power proportional to their vote share. Investigating the effect of electoral rules and forms of government on fiscal policy outcomes in a large sample of democracies, Persson and Tabellini (2004), find that majoritarian elections lead to smaller governments and smaller welfare programs than proportional elections.

More complex models of political bargaining among different groups who pursue their group-specific policy preferences, rather than being only opportunistic (as in the Downsian setting), can be translated into our framework as a search for equilibria among those points that are preferred by the political elite. Highly captured political institutions can be represented as akin to an economic monopolist who sets the price (policy index) to maximize his own preferences and can win office and implement this policy even if it is detrimental to the larger public interest. For example, political institutions that allow violence and coercion may enable leaders to gain and remain in office even while implementing highly unequal public policies. But, political capture need not require violence and coercion. A point on the demand curve corresponding to more captured policies can be supported as an equilibrium even under competitive elections, and even if a non-trivial proportion of citizens would prefer more public goods. For example, citizens who would prefer a different policy outcome than what a political party or leadership has been known to pursue, may abstain (not turn out), vote for a losing candidate, or even vote for a candidate who does not offer their preferred policy because other non-policy considerations persuade them. Candidates on the supply side can use political strategies that are separate from economic policy choices, of appealing to social or ideological preferences, or deploying charisma, to win office and implement their preferred economic policies even when they are different from what their supporters prefer.

Preferences play a fundamental role in pinning-down which particular point on the demand curve is selected by leaders when we relax the assumptions about exogenously-given oligopolistic political institutions on the supply-side, and allow for endogenous entry which yields greater competition among contenders for power. Further below, I propose a supply-curve for political markets which is shaped by the preferences of citizens who choose to enter the market as contenders of power. Preferences thus determine policy outcomes in this framework through the shapes of both the demand and supply curves.

Most prevalent models of the supply-side of political markets assume fixed political institutions, formal and informal, and are preoccupied with examining who are the elites who have lower costs or greater ability to be contenders for office; and, who are the organized interest groups who defray the costs of running, or enhance the ability of contenders to succeed. As discussed above, these models emphasizing political institutions do not yield supply curves at all—elites contend for power as oligopolists and are price setters, selecting a point on the demand curve as the equilibrium policy. One of the innovations in this framework is to propose a supply curve which reflects the other factors that influence citizen entry to become contenders for policy-making power—the distance of status-quo policies from citizens' preferred positions and their beliefs about whether others are similarly (dis)satisfied and would be willing to support a challenger. Acknowledging these other factors allows us to draw a supply curve reflecting greater competition for leadership and policy-making powers in political markets. Greater competition arises from the potential threat and actual entry of citizens into the supply-side of the market when

public policies are far from their preferences, and they know that they are not alone—others too are dissatisfied and may shift their support away from incumbents to new challengers. As we will show further below, greater competition does NOT ensure more public goods. Outcomes depend upon the preferences of citizens who enter as contenders.

To be consistent with the demand-side, the supply curve, $S(p)$, in this framework should tell us how many citizens, from among those who select into the supply side, would pursue policy, p . I propose the following as a model for $S(p)$ in these political markets: citizens who put larger weight on utility derived from public policies, $b(p)$, and who hold certain beliefs about their capacity to be able to shape public policy, are more likely to select-into seeking office to try to shape p in accordance with their preferences.

Similar to the intuition for downward sloping demand curves in the previous section, assuming that citizens who enter the supply-side, are, on average, self-regarding and materialist, deriving greater wellbeing from both greater private consumption and greater private benefits from public policy, we can

draw an upward sloping supply curve, reflecting $\frac{\partial S}{\partial p} > 0$ (Figure 3). Consider regions of $p \rightarrow 1$, in which public policy allows an elite to control all economic resources and no public goods and benefits are provided to the non-elite population. Higher supply in this region of $p \rightarrow 1$, compared to regions of $p \rightarrow 0$ would mean a higher proportion of contenders for leadership would pursue this policy because once in office it would allow them to extract large personal benefits from public policies. Economic elites would be likely to enter as contenders for leadership (or as king-makers) at a higher rate than non-elites because they would have more to lose from intermediate values of p , where they would be taxed to finance the provision of public goods whose benefits are broadly shared. A smaller proportion of contenders would have the resources to combat economic elites. Entry costs, determined by prevailing political institutions, are thus incorporated into this supply curve.

Consistent with the demand curve, the important feature of the supply curve is not whether it is generally upward sloping for all regions of p , but rather its elasticity for different regions of p , and additionally, its position, with reference to the size of p on the y -axis. Figure 3 provides examples of two different supply curves— $S^L(p)$ represents the case where political leaders, and bureaucrats, who we will now bring back into the picture, compete on lower regions of p —or for more public goods—than $S^H(p)$. This approach to a supply curve in political markets can encompass and highlight the links between two very different strands of literature—one on political accountability of political leaders who select policies, and another on bureaucratic accountability of appointed government agents who are supposed to implement the selected policies. A contribution of this framework is how to think about the supply-side as a set of complex interactions among a large number of citizens who wield different powers over public policy as bureaucrats and politicians. This framework can be used to analyze problems of weak public service delivery in developing countries as arising from inseparable links between bureaucrats and politicians, which makes it difficult for any one type of agent—either a bureaucrat or a politician—to improve outcomes without support from the other.

For example, $S^H(p)$ can represent a politicized bureaucracy where appointments and career concerns are shaped by patronage, and where bureaucrats and politicians together capture public policy. A public-spirited contender who might consider entering the market to try to reform the bureaucracy may not

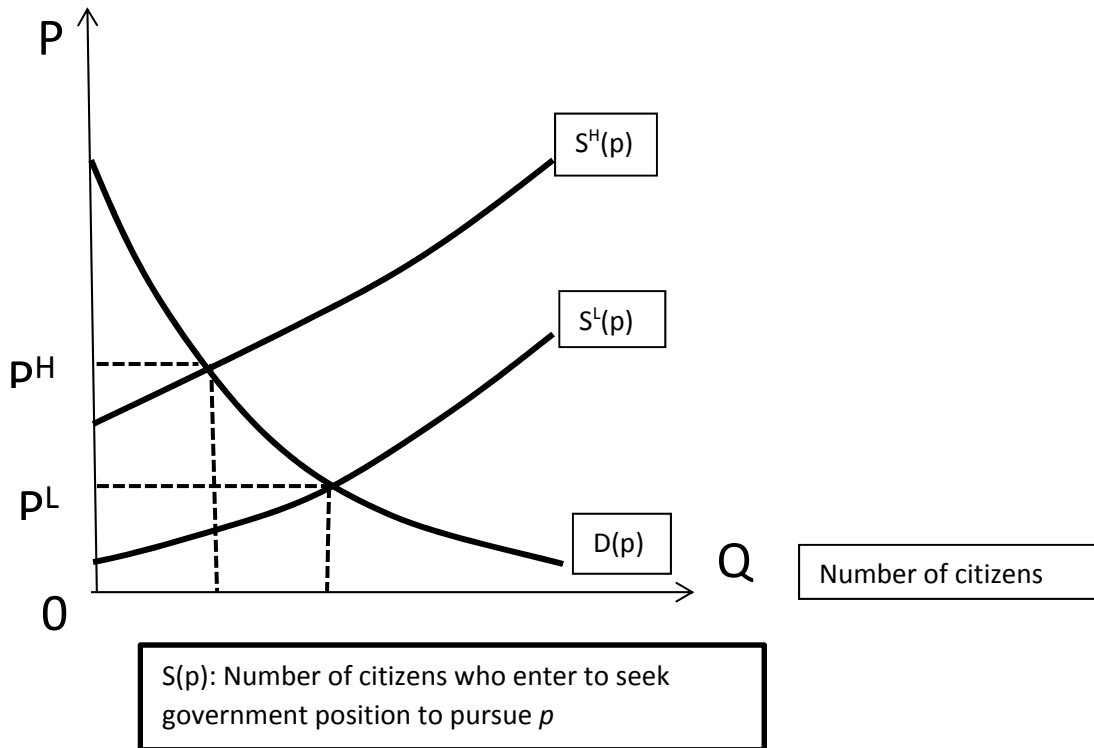
have the capacity to do so, being constrained by other citizens who have selected into the public sector to extract private rents. In this context, where the supply side consists primarily of citizens who have entered to extract private rents, political contenders who pursue more public goods are not only unlikely to emerge, but even if they do, they are likely to be defeated at the polls or frustrated in their attempts to reform the prevailing public institutions. For example, suppose a reformer is able to win an election, exploiting demand among ordinary citizens for improved public services, and tries to implement proven reforms that incentivize public sector teachers and doctors to show up and do their job. In this context of a supply curve positioned at $S^H(p)$, teachers and doctors who are absent from the job would not have the incentives to follow the lead of this new politician who wants to make them perform, because the reformers are minorities in the market of contenders with little chance of staying in office (unless the demand side compels all politicians to shift to public goods, thereby shifting this supply curve). That is, outcomes are driven by how citizens think others are behaving.

On the other hand, the supply curve can be positioned at lower regions of p , or more public goods, $S^L(p)$, representing the case of an effective and professional bureaucracy which implements policies for the public good. In countries which have inherited strong institutions or have evolved effective bureaucracies that are free from undue political interference, citizens are likely to enter into the public sector driven by professionalism and a sense of public service.

The point of intersection of a supply curve with the demand curve is the policy selected in equilibrium. For example, the policy p^H , at the intersection of $S^H(p)$ with $D(p)$, is implemented because it has equal support from citizens on the demand side and contenders for leadership on the supply side. Contenders who pursue $p > p^H$ are thwarted from winning office by others who offer more public goods to win the support of citizens who are unwilling to support p^H . However, public policies cannot be improved beyond the point of intersection of the demand and supply curves. A public-spirited contender who might want to offer $p < p^H$ would be defeated by other contenders who seek to capture public policies, and are able to select corresponding points on the demand curve, finding political strategies to win decisive citizen support for those policies.

Supply curves may be positioned differently for different types of public policies depending on how powers over policy making are instituted. For example, in countries with professional bureaucracies, some areas of public policy may be relatively removed from the political process and delegated to agencies and departments led by appointed technocrats who recruit professional service providers. This would be represented in the $S^L(p)$ curve, as discussed above. But political capture of public policies for the private interest is still possible even in these countries with strong bureaucratic institutions. Public good policies such as regulation of markets to promote competitiveness, or the size of progressive taxation to deliver the public good of equal opportunity (World Bank, 2006), can be thwarted when political supply curves are located at $S^H(p)$. That is, when entry by citizens into contestation for political leadership is driven by preferences for more private goods.

Figure 3: Supply curve for public policies



III. Applying the Demand-Supply Framework to Explain Government Failure

This section will show how applying the demand-supply framework is consistent with the conclusions of vast areas of established literature that seek to explain government failure, or the capture of policies to serve private interests, disregarding evidence on social costs. The value of re-interpreting those established conclusions within the new framework here is that the framework can then serve as a schematic for analyzing when policy distortions, or deviations from technically sound directions, are the result of elite capture; entrenched political institutions; or, beliefs and preferences widespread in society. The other value of the framework is that its derivation employs some primitive elements that ultimately drive others in shaping outcomes, and thereby it identifies those elements as fundamentally driving change between outcomes of special and public interest politics. Those primitive elements underpinning the framework are preferences over public goods, of elite and non-elite citizens acting on the supply and demand sides of the political market, respectively.¹⁵ In this section I show how political institutions are

¹⁵ In this sense, the paper is not much of an advance over Besley and Coate (1997) who write on the first page of their paper: “The primitives of the approach are the citizens of a polity, their policy alternatives, and a constitution that specifies the rules of the political process. Political outcomes are thus derived directly from the underlying tastes and policy technology.” Policy technology in the framework here is represented in the policy index p , and tastes drive the shape of the supply and demand curves. The contribution here is to hone in on these “underlying tastes” and explore the different ways in which they shape policy outcomes.

ultimately endogenous to preferences, and how changes in policy outcomes and institutions of government are ultimately driven by changes in preferences.

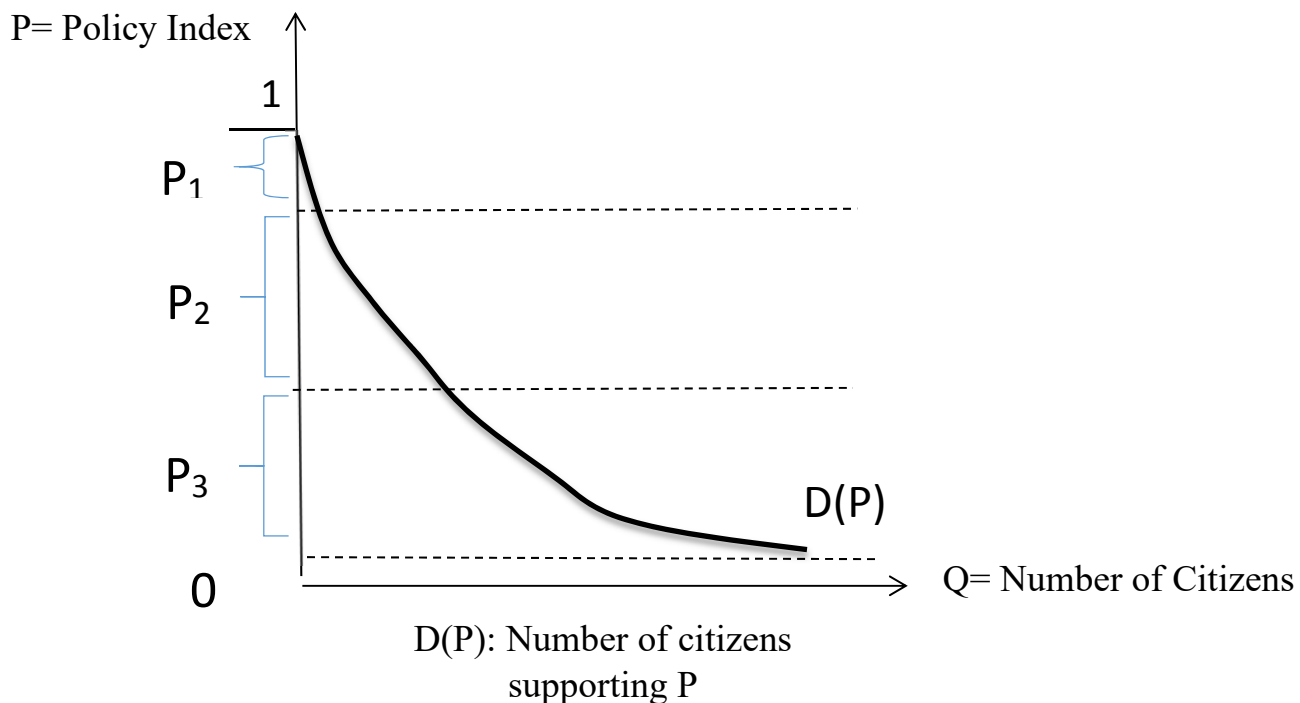
The entire literature on the political economy of reforms, and the persistence of under-development, can arguably be summarized quite succinctly as: policy distortions or sub-optimal outcomes are the result of bargaining among elites for greater private rents from public resources (World Bank, 2017; Rajan, 2009; Sturzenegger and Tommasi, 1998). The World Development Report 2017, Governance and the Law (World Bank, 2017), reviews the literature, emphasizing explanations rooted in unequal distribution of economic endowments as the source of unequal political power. Elites are thus defined as those who are endowed with power, while non-elites are not. It is therefore a useful starting point to show how elite capture and manipulation is represented within this paper's framework. But to preview where we go from here, I show further below how the framework allows us to endogenize who are the elites, rather than assume this as an exogenous or fixed endowment, and how preferences in society-- among incumbent elites, challengers or potential future elites, and non-elite citizens—are what ultimately drive who contests power, on what policy bases, and to achieve what policy outcomes. The same framework accommodates both an outcome of elite capture of private rents, as well as its polar opposite--of a good policy outcome being the result of well-intentioned elites pursuing public goods, while the demands of non-elite citizens at large in society can be the source of policy distortions.

In the framework here, elite capture is represented as monopolistic or oligopolistic selection of elite-preferred policy points on the demand curve. Preferences—those of elites—are thus fundamental drivers of policy outcomes. However, explaining outcomes as arising from the preferences of predatory elites to extract private rents from public policies, is not satisfying; one would want to know how the elites are able to get away with low provision of public goods if there are widespread preferences among non-elite citizens for more public goods. One would also want to endogenize elite status, rather than assume that elites are exogenously given, such as through some initial distribution of economic endowments. Much of the literature focusing on political institutions, and not preferences, describes a specific equilibrium in which an initial distribution of economic and political power endowments is taken as fixed and the selection of public policy is then derived from those fixed institutions. The framework here is sufficiently general to accommodate those outcomes—as price setting through oligopolistic competition—but goes further to show how the equilibrium can change. Outcomes can change towards more public goods both through greater pressure on oligopolists from non-elite citizens—the demand side—but also through new challengers who can potentially emerge to contest for elite status, or policy-making powers—the supply side. The extent to which these pressures are applied (or not, leading to persistence of unequal policies) depend upon whether preferences among citizens are sufficiently far from status-quo policies.

Let's consider three scenarios: (1) highly distortionary policies and captured state institutions through which the benefits from public policies are concentrated in a small proportion of citizens; (2) middling-levels of policy distortion and concentration of benefits among a larger group of citizens, an expanded elite, but with systematic deprivation of the large majority of non-elite citizens; and (3) relatively lower levels of policy distortion and wider sharing of benefits from public policies with non-elite citizens, but nevertheless, persistence of government failures to address public good problems. Figure 4 depicts these

scenarios as policy outcomes in three different regions of a fixed demand curve: P_1 , corresponding to the first case of highly captured policies and institutions; P_2 corresponding to the second case of more expanded sharing of benefits from public policies among larger numbers of elites, but still excluding the majority of non-elite citizens; P_3 corresponding to the third case, where the majority of non-elite citizens receive benefits from public policies, but public goods are nevertheless neglected ($P \neq 0$) such that these benefits are still lower than what they could be under alternate, technically better policies.

Figure 4: Different regions of policy selection on the demand curve



If P_1 is observed, the framework would explain it as price-setting by a political monopolist, or very small group of well coordinated oligopolists, who hold power over policies and institutions to be able to select P_1 by thwarting the political challenge posed by citizens further down the demand curve. Outcomes in this region of the demand curve corresponds to negligible $b(p)$ for a large proportion of citizens, and therefore require that political action by citizens to influence p , to achieve higher levels of $b(p)$, is effectively suppressed by incumbent political elites. The outcome P_1 , concentration of benefits of public policies among a few, could be trivially explained as a result of preferences of those few elites, and thereby maintain the argument of preferences as the underlying driver, but that is not satisfactory. Even the elites may prefer more public goods, but choose sub-optimal policies, and repressive political institutions, because this serves the purpose of maintaining their future rents and grip on power. Hence, there may be some cases that are explained within the framework as arising out of repressive political institutions that prohibit political action by citizens who demand higher levels of public goods. For this range of outcomes, the sheer technology of political power remains the most important explanation of outcomes; change may come only if citizens can sufficiently organize or equip themselves to overthrow the regime.

However, for a larger range of outcomes, in the regions of P_2 and P_3 , the selected technology of political power needs to be explained. The framework shows how political strategies within existing formal institutions, such as those delineated in constitutions, and those constitutional choices themselves, are endogenous to preferences. For the range of outcomes depicted as P_2 , when benefits from public policies are concentrated among an expanded group of elites, applying the framework (oligopolistic selection of a point on the demand curve) is consistent with the following explanation in the literature: elites contest to extract private benefits from public policies, and establish institutions that allow them to extract greater private benefits from public policies. Elites' valuation of public goods is not sufficiently large to persuade them to give-up the extraction of private rents from public policies. Elites cannot escape sub-optimal outcomes because bargaining is not costless—in order to preserve their rents, elites have to settle for some costs (Acemoglu, 2003). The interesting question is how transitions come about from P_2 to P_3 —if the large majority of citizens would prefer more widely shared benefits from public spending, why is elite extraction of private rents not reduced?

Transitions out of this equilibrium of costly bargaining among elites, towards better outcomes in developed countries have been explained as the result of rise in valuation among some elites of public goods. Lizzeri and Persico (2004) explain transitions out of clientelist politics, and political institutional change of the extension of the franchise in post-industrial revolution UK as the result of a rise in elites' valuation of urban public health goods. Accounts of the Progressive Era in the United States, during which the country experienced shifts away from machine politics, the dismantling of patronage and the establishment of professional bureaucracies, have also been explained as arising out of a rise in demand among business elites for urban infrastructure (Glaeser and Goldin, 2006).

In contrast to Lizzeri's and Persico's (2004) account of suffrage extension in post-industrial revolution UK as being driven by elite preferences for public goods, the spread of competitive electoral institutions in poor developing countries, such as in Africa, has been explained as a way of solving commitment problems among elites to facilitate their rent extraction and accommodate different elite interests (Bidner et al, 2015). Similarly, the research on clientelism in present day developing countries has yielded much more pessimistic conclusions than research on transitions out of clientelism in the presently developed world. For example, Fukuyama (Forthcoming) describes how clientelism in the United States was overcome through widespread political participation by non-elite citizens who demanded more benefits from public policies. In contrast, Anderson et al (2014) explain the persistence of clientelism in India, despite decades of competitive elections, as the result of non-elite citizens accepting the authority of long-standing, historical elites who control economic institutions. But there is tremendous variation within India, to continue this example, as within Anderson et al's (2014) study sample, in the extent to which there exist these historical elites who continue to control the mind-sets and economic opportunities of non-elite citizens. The flip-side, or the glass-half-full part of the empirical results in that study is that villages where a historical elite does not dominate land ownership receive a slew of public spending programs targeted at eradicating poverty. Competitive elections in India, as in the rest of the world, have been associated with public spending policies that distribute benefits widely (Banerjee et al, 2005; Brown and Mobarak, 2009; Burgess et al, 2015; Lieberman, 2015).

But public spending policies that distribute some benefits widely can co-exist with other policies that allow rents-extraction by elites and overall lower spending on public goods needed for more equitable

growth and development. The literature on the relationship between democracy and growth, for example, is far more inconclusive than the above cited results on the association between democracy and *some* redistributive spending policies (World Bank, 2016, provides a review). That is, how do we explain policy outcomes in the region of P_3 , where benefits are relatively more widely shared compared to P_2 , but nevertheless far from optimal public good policies? Before focusing on this question, let's summarize thus far how preferences account for the difference between P_2 and P_3 : in some cases, the difference between P_2 and P_3 is explained as a result of shift in elite preferences for public goods; in other cases, the difference between P_2 and P_3 is explained as arising from more democratic institutions under which leaders contesting for political power have to appeal to the preferences of a larger number of citizens. In some cases, elites reform political institutions towards greater democracy so that political incentives are credibly and sustainably strengthened to distribute benefits more widely. In others, the threat of revolution is sufficient to shift policies from P_2 to P_3 without any changes in formal political institutions. This is how, for example, Acemoglu and Robinson (2000) explain socialist welfare policies adopted by the German state in the nineteenth century without franchise extension. Mares and Carnes (2009) similarly discuss how authoritarian governments have adopted social policies in many developing countries, driven in some cases by their ideology (or preferences), and by pressure from constituents in other cases.

Turning now to the question of why there are policy outcomes in the region of P_3 , where benefits are relatively more widely shared compared to P_2 , but nevertheless far from optimal public good policies. Outcomes in the region of P_3 cannot be explained by appealing to differences in formal political institutions of democracy versus autocracy. There are examples of elite capture of public policies in advanced industrial democracies which have solved some problems of minimum public goods provided by professional bureaucracies (Gilens and Page, 2014). There are examples of better economic performance by some autocracies compared to many democracies (Besley and Kudamatsu, 2008). The framework presented in this paper is consistent with the model in Besley and Kudamatsu (2008) in which performance of both democracies and autocracies depends upon the basis on which leaders are selected and sanctioned. The question that matters regardless of formal institutional division between democracy versus autocracy is whether the public policies that are “salient” in political contestation are “general interest” (Besley and Kudamatsu, 2008, page 23).

In the framework proposed here, “salience of general interest policies” is to be understood as preferences in society for public goods. Preferences of three types of citizens in the society matter in different ways—(i) the ordinary, no-office-bearing, non-elite citizen on the demand side; (ii) the potential contender for power on the cusp of the demand and supply sides; and (iii) the politicians, bureaucrats, and informal elites on the supply side who wield direct power over policy making and implementation.

Most of the literature examining the persistence of clientelist politics in many developing countries, despite reductions in the concentration of economic power among elites, and despite the competitiveness of elections which could have created more pressure for public goods to reach a widening middle class, has emphasized (iii), the preferences of entrenched elites (as in Anderson et al, 2014). Entrenched elites are able to purchase political support through clientelist strategies while contenders are unable to launch a challenge on the basis of promising more public goods (Keefer and Vlaicu, 2007). Another argument,

such as provided by Weitz-Shapiro (2012), is that variation in preferences in (i), among citizens on the demand side, is exploited by politicians—in places where poverty is high, politicians use clientelist strategies to win the support of poor voters, while in other places with lower poverty, where middle-class voters have a distaste for clientelism, politicians provide more public goods. The open questions which have received far less attention in the literature, than the attention to elite capture, are on preferences in (i) and (ii): why are the poor satisfied with clientelist benefits, and not more demanding of public goods; and, why do contenders not emerge to mobilize demand for more public goods if there indeed exist alternate policies that would deliver larger social benefits?

One set of answers is provided in the work of Cammett (2014) on how the contenders that emerge to challenge incumbent elites seek to pursue social or ideological goals, such as sectarianism, and are less concerned with economic policy. Put in the terminology of the framework here, contenders have particular preferences over policies and the nature of state institutions. Cammett (2014) examines how sectarian groups and political parties can win support from citizens by targeting social services, at a cost for general institutional development and state capacity to provide public goods. There may be important links, that are unexplored, between this body of work, on how non-state provision of social services in developing countries can come at the cost of building state institutions for public goods, and work on the role of private charitable contributions in strong states. For example, President George Bush in the United States renewed interest in an approach to addressing problems of social and economic inequality through “compassionate conservatism” which seeks to reduce the role of tax-funded state programs, delivered through government departments, in favor of voluntary contributions and services provided by private companies, charities, and religious organizations.¹⁶ Non-state provision of social services by private groups can contribute to maintaining social divisions and impeding the development of a common identity among citizens that underpins preferences for social welfare spending as public goods. Singh (2015) provides an analysis of the role of social solidarity in explaining differences in state provision of social welfare.

A related area of work that has received little attention is how elites can use positions of power to shape preferences and beliefs on the demand side, such as about the nature of poverty and inequality, and whether the state should play an active role in redistribution. Grossman and Helpman (2001) identify this as one channel for the persistence of capture by special interests in the United States—investments by elites in mass media and communication to shape preferences and beliefs among uninformed citizens. The recent upsurge of interest in the United States in the question of why citizens belonging to lower income deciles apparently vote against their economic self-interest can find answers in this older body of work on special interest politics, in which ideology and partisan attachments, which are part of preferences, are exploited by political contenders to win office while capturing economic policies.

The explanation for the persistence of clientelism in developing countries is not that far from the explanations for special interest capture in rich countries when it comes to how citizens vote on the supply-side on the basis of different considerations than their preferences for public goods on the demand-side. That is, voting can happen on the basis of ideology, identity, and receipt of private benefits, with little regard for the consequences of such voting for policy selection in equilibrium. While the mechanisms of enforcing clientelism in the context of weak institutions are dramatically different

¹⁶ <https://georgewbush-whitehouse.archives.gov/news/releases/2002/04/20020430.html>

than the mechanisms through which special interest capture is sustained in rich countries with strong institutions, both types of capture of public policies, despite underlying preferences among citizens for more public goods, are sustained by manipulating voting behavior on the supply side.

The conclusion for developing countries is that citizens vote on the basis of material considerations—whether they are provided cash, a gift, a job, or more generally, a private benefit from public resources (Hicken, 2011). A related strand of literature has examined the role of ethnic identity in sustaining clientelist political mobilization, with some debate over whether the mechanisms of negative impact of identity politics on public goods provision are through diversity of preferences over public goods, or, through ethnic nepotism (Lieberman and McClendon, 2013; Habyarimana et al, 2009; Banerjee and Pande, 2007; Posner, 2005). The mechanisms of impact of identity could thus work through preferences for different public policies, or at least, different heuristics over evaluating public policies (as in the argument of Lieberman and McClendon, 2013), or through political mobilization on the basis of targeting private benefits to ethnic groups. I interpret this last channel—political mobilization on the basis of identity-targeted benefits—as linked to lower preferences for public goods, shared in common across ethnic groups, compared to private benefits from public policies. This is consistent with the model in Banerjee and Pande (2007), and with the very different implications of identity in the work of Singh (2015), when identity is associated with greater preferences for social welfare.¹⁷

These factors, of voting behavior by non-elite citizens, on the basis of identity, and/or the receipt of private benefits, could explain both sub-optimal policy outcomes, such as subsidized or free electricity, as well as weak institutions, such as patronage-ridden bureaucracies, crony capitalism, and pervasive and costly state intervention in markets. These factors can also endogenize elite capture—preferences among non-elite citizens for private benefits from public policies allows some elites to then select political strategies of clientelism and populism and defeat more well-intentioned contenders.

To illustrate this point of how preferences of non-elite citizens can explain sub-optimal policy outcomes, let's return to the earlier example of energy subsidies. Assuming that the experts are correct that policies of energy and fuel subsidies are inefficient policies, a common view based on the regressive incidence of energy subsidies is that subsidies are a form of elite capture in poor countries (Clements et al, 2013). But there is no evidence to distinguish whether subsidy policies are due to capture by elites or organized special interests; or, due to informational and cognitive constraints among citizens about the costs of these policies; or, due to ideological beliefs about the value of such policies. The latter two channels—cognitive constraints among lay citizens, and ideological beliefs—would both feed into shaping preferences of citizens on the demand side for price subsidies. Citizens may support energy subsidies because of beliefs that these are “pro-poor” policies and that governments *should* pursue price controls.¹⁸ Some evidence of citizen demand for price controls comes from a question we asked in a survey of citizens in Tanzania that was undertaken in March 2016: “How strongly do you agree/disagree

¹⁷ I return further below to the “strategy-selection” mechanism through which ethnicity can work, as in the research of Habyarimana et al (2009).

¹⁸ Citizens may also come to expect these subsidies as entitlements, the rents they would not be willing to give-up because if they do they may get nothing else in exchange from elites. This class of explanation is consistent with those of costly bargaining among different political groups. Further below, I discuss how one general explanation for sub-optimal policies is akin to the prisoner's dilemma in game theory—all actors would prefer another outcome but are stuck in a suboptimal one because of beliefs about how others are behaving.

with the statement ‘Governments should play an active role in controlling and managing prices’?¹⁹ Table 2 reports the percentage of respondents who agreed/disagreed with this statement, showing that the overwhelming majority (93 percent) agreed that governments should control prices.

Table 2: Citizen responses to “How strongly do you agree/disagree with the statement ‘Governments should play an active role in controlling and managing prices’?”		
	Frequency	Percent of total (3000 responses)
Don’t know	16	0.53
Strongly Disagree	50	1.67
Disagree	62	2.07
Neither agree nor disagree	68	2.27
Agree	1232	41.07
Strongly Agree	1572	52.40

Some evidence from the United States on citizen attitudes to combat climate change with energy policies suggests that cognitive constraints and ideological beliefs, that resist evidence, are likely to be significant even among educated citizens in an advanced economy. Using laboratory experiments, Kahan et al. (2012, 2013) show that those who score highest on cognitive abilities are also the most likely to adopt ideological beliefs in defiance of technical evidence. The authors explain this as “motivated reasoning” adopted by people in order to conform to the values of the cultural groups to which they belong. Their findings suggest that public divisions over climate change are not a reflection of the public's lack of knowledge or misunderstanding of science. Rather divisions stem from conflicting interests – between an individual’s interest in adopting common beliefs held by one’s community versus a collective interest in making decisions to promote common welfare. Holding a viewpoint that goes against one’s surrounding cultural community can bear a cost. When such a cost is high, it is rational for individuals to assimilate their reasoning to that prevailing in the group.

Sunstein (2007) and Dal Bo et al. (2013) provide evidence also from laboratory experiments in the United States that citizens are cognitively constrained to demand policies that confer short-term benefits at the expense of long-term or “equilibrium” costs. That is, citizens fail to internalize the full impact of the demand for a particular policy. They value immediately available private benefits from policies that

¹⁹ This survey was undertaken as part of the impact evaluation of the World Bank’s Tanzania Urban Local Government Support Program. The principal investigators of this study, who designed the survey, are: Vincenzo Di Maro, David Evans and Stuti Khemani. For this particular question, we drew inspiration from a pattern in Afrobarometer data of citizens expressing especially high rates of dissatisfaction with government performance in controlling prices.

carry hidden and large social costs. These two sets of work – Kahan et al. (2012, 2013) and Sunstein (2007) – both substantiate the role of beliefs and norms of behavior in shaping citizens’ demands for public policies. They differ in their view of the extent to which citizens’ resistance to technical evidence is because of cognitive constraints. Kahan et al. (2012, 2013) highlight the importance of cultural norms instead of cognitive constraints arguing that citizens engage in motivated reasoning to conform an assessment of available facts to the beliefs of the social groups to which they belong.

Going back to the Tanzania survey, here is another question which reveals widespread citizen support for policies that would provide the private benefit of government jobs: “How strongly do you agree/disagree with the statement ‘Governments should provide employment to people?’” Table 3 reports the percentage of respondents who agreed/disagreed with this statement, showing that the overwhelming majority (95 percent) agreed that governments should provide employment.

Table 3: Citizen responses to “How strongly do you agree/disagree with the statement ‘Governments should provide employment to people?’		
	Frequency	Percent of total (3000 responses)
Don’t know	14	0.47
Strongly Disagree	15	0.50
Disagree	51	1.70
Neither agree nor disagree	57	1.90
Agree	1214	40.47
Strongly Agree	1649	54.97

Citizens in poor countries may believe that provision of jobs and subsidies is exactly what governments should be doing because markets cannot be trusted to address the injustices of poverty and inequality. Historical inequality in the distribution of economic endowments may explain why citizens develop norms of supporting policies that provide immediately verifiable private benefits, with insufficient attention to the longer run social costs associated with those policies. This interpretation is consistent with a strand of literature arguing that countries with historical institutions of greater inequality exhibit worse economic performance than those who history favored with more egalitarian institutions. For example, Sokoloff and Engerman (2000) argue that historically unequal economic institutions in Latin America compared with those in the United States and Canada were responsible for the delay in adoption of inclusive political institutions, and this delay is associated with subsequent weak institutions and persistently worse economic outcomes. The authors provide evidence that exogenous variation in

the climate to produce sugar led to variation across countries within the Americas in the timing of adoption of egalitarian political institutions (democracy with universal adult suffrage) and social policies (education for universal literacy). Similarly, Acemoglu and Robinson (2012) argue that early experience with inclusive or egalitarian political institutions in the history of nations is the source of variation in subsequent paths of economic development.

However, although this body of work shows that early adoption of egalitarian institutions and social policies is important, the mechanisms behind why early adoption matters and has persistent effects is not clarified or made explicit. Why are countries not able to change outcomes within short time spans by instituting elections with universal adult suffrage and spending on public education? The answer in this paper, echoing the arguments in World Bank (2016) are that first, political preferences regarding what policies to support on the demand side, and how to vote on the supply side, are important in shaping the functioning of formal institutions. Historical institutions of inequality can contribute to unhealthy political preferences such as those that sustain clientelist forms of political competition where political support is won on the basis of providing targeted private benefits rather than broad public goods.

Brix, Lust, and Woolcock (2015) provide a study of government failures in the Middle East and North Africa region with a similar argument and interpretation of available evidence. They discuss how historical experience with colonial institutions, and beliefs about the role of the state at the time of independence in the region, led to political clientelism, elite capture of state resources, and citizen expectations that leaders would provide a broad range of private and public benefits (such as subsidies, health, and education). The coexistence of these three factors—that leaders organized to extract private rents from the economy, maintaining loyalty and political support through patronage, providing subsidies and a broad range of public services to citizens to win their acquiescence—became untenable as economic inefficiencies mounted and citizens became dissatisfied with the social compact. Yet, as the evolving dynamics in the region suggest, leaders may be able to use the coercive institutions of the state to maintain elite capture despite a large number of citizens being unwilling to support it. This is another case where the technology of political power takes precedence over the argument that political institutions are endogenous to preferences; although elite preferences can still explain why those coercive and suppressive technologies are adopted.

Measuring citizen demand for policies that provide private benefits rather than broad public goods is an empirical challenge. Existing work has typically made indirect inferences on the basis of changes in vote shares for different political parties and candidates. Casey (2015), for example, provides evidence that information reduces vote shares of co-ethnic candidates in Sierra Leone, which may lead one to infer that this implies a reduction in identity-based patronage and expansion of programmatic goods; but, in fact, she cannot rule out that the information may have led to greater vote buying or targeted provision of private benefits. Vote shares could shift because political candidates respond to availability of information by increasing efforts at targeting those voters from whom support can be bought in exchange for private benefits. Indeed, Cruz, Keefer and Labonne (2015) find an increase in vote buying by political candidates in the Philippines when their constituents are exposed to more information.

Recent use of survey vignettes constitutes an important innovation in assessing citizens' demand for policies that confer private benefits at the expense of broad public goods. Typical surveys of respondent policy preferences do not ask respondents to internalize tradeoffs between these two objectives. Instead,

they commonly ask “what is the most important thing that governments should do”; to pose “agree/disagree” questions following statements about what governments should do;²⁰ to frame questions as a direct referendum on where public spending should be allocated—“if you were to allocate \$X of public spending, where would you spend it?”; or to ask respondents to express preferences from among a menu of public goods. Another strand of literature has focused on citizens’ views of the redistributive role of the state (Alesina and Glaeser, 2004). None of these approaches allows us to infer changes in citizen demand along the private good-public good spectrum.

Keefer and Khemani (2014) design a survey vignette aimed at measuring citizen demand for a private good—jobs—that prior research has identified as a salient currency of clientelist political strategies, relative to their demand for public goods like health and education whose benefits are widely shared. The vignette imposes an explicit trade-off in the form of a budget constraint faced by leaders such that when they choose to allocate resources to government jobs for some members of the community, this would come at the cost of inputs into broadly delivered health or education services that benefit the entire community. This vignette was purposefully designed to contrast jobs as a private good, and health as a public good, based on prior research findings on the characteristics of government jobs and public health. With regard to health, public spending on vaccination and the distribution of subsidized anti-mosquito bed nets has been regarded as contributing to the public good of combatting the spread of contagious diseases (Cohen and Dupas, 2010). The vignette is thus designed to focus on health inputs of vaccination and bed nets for all children to highlight the public good characteristics of the proposed spending.

Public employment or government jobs, on the other hand, have been documented as a classic form of provision of private benefits in weak institutional contexts where public bureaucracies are not sufficiently professionalized and rules-based (Wantchekon, 2003; Robinson and Verdier, 2003; Chandra, 2004; Kitschelt and Wilkinson, 2007; Grindle 2012; Gibson, Hoffman and Jablonski 2015). The dismantling of political patronage in government jobs is at the heart of accounts of transition from weak to strong institutions, such as in the history of the United States during the Progressive Era (Glaeser and Goldin, 2006). Furthermore, there is systematic correlation between failures in delivering broad public services and the provision of patronage jobs, and clientelist forms of vote mobilization more generally (Callen et al, 2014; Khemani, 2015; Andersen et al, 2015). That is, when government jobs are provided as political patronage, the job-holders have weak incentives to exert effort and perform well in delivering public services (World Bank, 2004).

²⁰ Such questions are contained in the Afrobarometer surveys, for example.

Over 4,000 households in 210 villages spread across northern Benin were surveyed in March 2009, and respondents were asked whether they would support a (hypothetical) leader who chooses to allocate spending to jobs for a few at the expense of inputs into public health and education for all (Keefer and Khemani, 2014). Consistent with Wantchekon's (2003) pioneering work on support for clientelist political strategies in Benin, responses to these novel survey vignettes reflect widespread citizen support for leaders who offer jobs. However, respondents with greater access to community radio, the most popular local media in Benin, as in all of Africa, are significantly less likely to support leaders who offer jobs at the expense of health and education services for all. The paper provides several pieces of supporting evidence to show how media effects on citizen demand are the result of persuasion about the value of public health and education because of greater exposure to radio programs about the importance of these services.

Box 1: Survey vignettes to measure citizen demand for private versus public goods

The local government leaders are deciding how to use a fixed amount of local revenue to best serve the needs of the community. They have a limited budget so they can only afford one of the following two proposals. Which of these would you prefer the government do?

1. Vignette contrasting jobs for a few with malaria prevention for all:

- (A) to spend the money to provide jobs for a few selected poor people or*
- (B) to spend it on preventing malaria for the health of everyone in the community.*

2. Vignette contrasting cash transfers for a few with malaria prevention for all:

- (A) to give cash transfers to a few selected poor people who need it;*
- (B) to spend it on preventing malaria for the health of everyone in the community.*

3. Vignette contrasting jobs for a few with roads for all:

- (A) to spend the money to provide jobs for a few selected poor people or*
- (B) to spend it on improving roads in the community for everyone.*

4. Vignette contrasting cash transfers for a few with roads for all:

- (A) to give cash transfers to a few selected poor people who need it;*
- (B) to spend it on improving roads in the community for everyone*

Box 1 shows different versions of this Keefer and Khemani (2014) vignette that I included in the aforementioned survey in Tanzania targeted at local government officials and households. While field testing these vignettes, the local authorities were very keen to have greater specificity regarding who would be the intended beneficiaries of the private benefits described in the vignette. We were therefore obligated to add the words “for a few selected poor people” which compromises the degree to which we are able to interpret responses that support benefits for a few poor people as support for private goods at the expense of the public interest (since targeting poverty can very well be regarded as a public good).

Nevertheless, despite the wording of the vignettes suggesting that the private benefits would be targeted at the poor, local government officials answered these questions by systematically choosing option (B)—benefits for everyone in the community—across all four vignettes. Table 4 shows the percentage of government and citizen respondents that chose the different options across the vignettes presented to them. The pattern of responses suggests that technocrats in government think the appropriate public policies are ones that provide broadly shared benefits rather than narrowly targeted ones. When faced with our survey questions, the local government official is likely to give the response that they think is the “right” answer from a technical perspective. In contrast to the responses of the government officials, citizen responses when interviewed in their households are more skewed towards supporting option A—which provides targeted private benefits to a few at the expense of benefits for all—across all four vignettes. The responses of local officials may be more subject to social desirability bias, but the desirability likely stems from one type of policy appearing to be the technically sound one. This makes the responses of no-office-bearing citizens more interesting, and interpretable as evidence that citizens tend to demand sub-optimal policies that confer immediate private benefits.²¹

Preliminary regression analysis of the correlates of citizens’ choices over private benefits versus the more public good suggest that those with less education, fewer assets, and greater indications of poverty are more likely to prefer the private benefits targeted at the poor.²² Interestingly, female respondents are robustly more likely to prefer targeted benefits. Yet, the explanatory power of these regressions (the R-sq) is low, suggesting that there is a lot more variation in citizen demand than we can explain with available indicators of poverty, income and education. Large proportions of citizens who have no formal education, or, who report having gone without sufficient food to eat in the recent past, support spending on the publicly shared goods described in these vignettes rather than on targeted benefits to the poor. For example, 53 percent of those who report having gone without food, and 42 percent of those who have no formal schooling, support spending on malaria prevention rather than targeted jobs.

These vignettes are one approach to what this paper proposes as a large agenda for future work on measuring citizen demands along the dimension of “privateness” versus “publicness” of the benefits provided by public policies. Future research can include a methodological focus to test the consistency between survey-based measures of citizen demand against measures derived from more established lab experiments on contribution to public goods. Another question is whether results would be different if vignettes are designed as a referendum question on how to allocate public spending, rather than emphasizing a choice between leaders, and leaders in turn choose different policies. By framing vignettes as a choice between leaders, future research can examine citizen demand for different types of leaders in representative political institutions, and contrast it against demand for public spending under institutions of direct democracy.

²¹ Consistent with the findings from laboratory experiments that were discussed earlier (Sunstein, 2007; Dal Bo et al, 2013).

²² Not reported here, but available upon request.

Table 4: Responses to Survey Vignettes contrasting Public versus Private Goods				
	Government Official Responses		Citizen Responses	
	Frequency	Percent of total responses	Frequency	Percent of total responses
<i>Vignette 1:</i>				
A: Jobs for a few selected people	38	7.92	583	37.96
B: Prevent malaria for everyone	442	92.08	953	62.04
<i>Vignette 2:</i>				
A: Cash to a few selected people	42	8.75	560	36.46
B: Prevent malaria for everyone	438	91.25	976	63.54
<i>Vignette 3:</i>				
A: Jobs for a few selected people	68	14.17	538	36.75
B: Improve roads for everyone	412	85.83	926	63.25
<i>Vignette 4:</i>				
A: Cash to few selected people	66	13.75	515	35.18
B: Improve roads for everyone	414	86.25	949	64.82
<i>Notes: The survey vignettes were administered to 480 respondents among government officials. Vignettes 1 and 2 were administered to 1536, and vignettes 3 and 4 to 1464 household respondents. Households were randomly assigned to which vignettes to respond.</i>				

Citizen support for leaders who make promises of populist policies, that go against the advice of technical experts, is a resurgent concern around the world, in both developed and developing countries. A large literature focusing on developed countries has examined citizen demands primarily along the single dimension of government size, and the ideological spectrum of Right versus Left. Ideological beliefs among citizens about the role of the state, and thence government policies, can be exploited by leaders who seek to win office on the basis of further polarizing citizens and nurturing ideological

constituencies (Glaeser and Sunstein, 2013). Ideological beliefs can be difficult to shift with technical information about the costs and benefits of different policy options (Kahan et al, 2013). Such polarization and resultant policy gridlock is the main concern in the current literature about government failures to address public goods problems in the developed world. At the same time, concern about persistent capture of public policies by elites has re-emerged (Gilens and Page, 2014). Why such capture and ideological gridlock persists even in environments with free contestation for political power, and with educated voters who have access to multiple sources of news, is an unresolved puzzle (Golden and Min, 2013). The framework in this paper shows how the answer to this puzzle lies in the demand-side of politics—what citizens believe about public policies and what they are willing to take from politicians before they step-into the supply-side and organize action to bring about change. Elite capture begs explanation beyond preferences of elites for private rents from public policies. The framework shows how elite capture can be examined as arising endogenously from preferences prevailing among citizens that elites can exploit. Transitions out of elite capture, such as during the so-called Progressive Era in the United States at the beginning of the 20th century, to more public interest politics, have been explained as a result of fundamental changes in preferences for public goods among both the elites and non-elite citizens on the demand side.

Research in developing countries has focused largely on understanding clientelism and redistributive politics, and voter behavior in that regard, with little work directly examining citizen attitudes to different policy offers (Hicken, 2011; Golden and Min, 2013). Indirect inferences are made in the literature about citizen attitudes to policy by examining voting behavior. For example, the literature can be read as concluding that poor and uneducated citizens, in traditional societies, put little weight on policy when determining their voting choices and are steered primarily by material considerations of the clientelist and patronage networks to which they belong. One upshot of this conclusion—that poor voters are unlikely to respond to information about candidate quality or performance—has been especially subject to rigorous empirical testing, with findings showing the opposite—that citizens in poor countries (that still have traditional institutions, and are yet to fully “modernize”) are nevertheless highly responsive to information.²³ This suggests there are other, potentially large gaps in our understanding of citizen behavior on the demand-side, because research has concentrated on examining equilibrium outcomes such as vote shares of candidates which are shaped by supply-side political strategies deployed by politicians.

The framework shows how preferences link the demand and supply sides of political markets—another area in which future empirical work might focus. For example, populist demands for subsidies and government jobs may enable the supply of clientelist leaders who mobilize political support on the basis of providing targeted private benefits at the expense of broad public services. Once targetable programs are in place, and generally popular, leaders can employ them for clientelist targeting in exchange for political support. For example, poverty alleviation programs such as the employment guarantee program in India, the largest redistributive program in the world (Ravallion, 2016), may fuel citizen demand for public spending on jobs, and provide politicians with the means to practice clientelism by targeting jobs

²³ Pande (2011) and The World Bank (2016) provide reviews. The research network *Evidence in Governance and Politics* (EGAP) supports an ongoing research program on the impact of information on voting behavior in poor countries. <http://egap.org/metaketa/metaketa-information-and-accountabilityw>.

to supporters, at the expense of public goods. This potentially negative political spillovers of such workfare programs are rarely considered by policy advisers and experts.

Analogous to the role of prices in economic markets, which are signals that coordinate the actions of large numbers of consumers and producers, the public policies that citizens experience in political markets would coordinate their values and beliefs in political markets. For example, the experience with rampant absenteeism among public sector teachers and doctors, can contribute to low valuation for public spending on education and health among citizens on the demand-side, and beliefs among service providers on the supply-side that few of their colleagues are professionally motivated to perform because performance doesn't matter in a government job. The political market can get settled into a trap of low public goods because of low expectations from public service delivery and low valuation of public goods.

These points about the fundamental role of preferences in shaping both the demand and supply sides of political markets are weaker in contexts where the sheer technology of political power takes precedence, such as what we see in some parts of the world where violent coercion and suppression are actively used. However, other than these contexts where coercive technologies are overwhelmingly dominant, the vast majority of people live in contexts where leaders accommodate citizen demands in order to win elections or forestall a revolution. In contexts where larger numbers of citizens are actively participating on both the demand and supply sides, the persistence of sub-optimal policies and weak institutions can ultimately be traced to insufficient demand among citizens to support leaders who offer technically sound policies, and/or insufficient movement of citizens into the supply side to contest power by offering better policies.

The biggest challenge to explanations rooted in preferences, when preferences are understood only as arguments in a utility function, is explanations cast as a prisoners' dilemma in game theory: everyone wants more public goods, but is stuck in a sub-optimal equilibrium based on rational beliefs about how others are behaving. Habyarimana et al (2009), for example, argue that under-provision of public goods in ethnically diverse societies should be understood as the result of breakdown of cooperative equilibria, compared to greater norms for cooperation in more homogeneous societies, rather than a result of different preferences. The framework here incorporates beliefs and norms into the supply curve (Figure 3). An additional factor shaping the supply curve, other than how public goods enter the utility function, is beliefs about what others are doing. These are questions about norms, which were described as political norms in World Bank (2016) to distinguish as a sub-set of social norms—beliefs or expectations about how others are behaving in government. In the section below, I review some of the available literature on values, beliefs, and norms.

IV. The Fundamental Role of Preferences and Beliefs

The previous sections have provided a framework to think about how actions by a large number of citizens on the demand and supply side of political markets determine the extent to which public policies are selected to address problems of public goods. This section discusses the emerging literature on the primitive variables that shape the demand and supply curves: citizen preferences for or valuation of

public policies, $b^j(p)$, as well as beliefs about how others are behaving in the public sector. These preferences and beliefs determine citizens' decisions to remain "takers" or supporters of public policy on the demand-side, and whether to enter the government bureaucracy or become contenders for leadership on the supply-side.

Examining how values and beliefs, or culture, matters for economic outcomes is a topic at the cutting edge of the economics literature.²⁴ After several economics papers found robust empirical evidence that cultural traits such as trust and civic cooperation can explain variation across regions or countries in economic outcomes, research is now focusing on better understanding the mechanisms of impact (Alesina and Giuliano, 2015, provide a review). One of the gaps in this nascent area of work is to distinguish the mechanisms that work through political markets, and the allocation of resources to public goods, versus through economic markets for private transactions.

Below I review key pieces of available work and forge connections between them to offer the following conclusion: the intersection between political, media and education markets at the local level is the "first mile" at which political preferences and beliefs are formed; that is, these three local markets play a fundamental role in shaping political preferences and beliefs. Local electoral institutions are spreading within countries across the political spectrum, including in authoritarian and closed national political environments. Local media markets are thriving as well, both through the spread of technologies for social networking and communication as well as through government and donor sponsorship of media such as community radio to reach rural and remote populations (World Bank, 2016). The market for education is also local, given the production function of education through schools. In many countries the local education market intersects with local political markets through direct elections of school boards, or through the management roles that locally elected governments have over public schools.²⁵ Below I discuss the available evidence on how the experience of engagement through local political markets, the messages communicated through local media, and the learning of concepts and ideas in schools appear to play fundamental roles in shaping political preferences and beliefs, but with many open questions on which future research is needed.

A substantial body of work examining local or regional differences in the quality of government and social norms within Italy, between the center-north and the south, provides some evidence on the mechanisms of culture's impact through local political markets (Putnam, Leonardi, and Nanetti 1993; Guiso, Sapienza, and Zingales 2006; Alesina and Giuliano 2015). This literature ultimately attributes better economic performance in present times in some regions of Italy to earlier experience with participatory democracy, dating back to the twelfth century. The inclusiveness of political institutions in "free cities"—a formal institution in the twelfth century—triggered a set of cultural traits (civic and cooperative behavior) whose effects persist today. Regions that were not free cities in the twelfth century but that currently have institutions of local political engagement are argued to suffer from "uncivic" voting, which allows corruption by political leaders to go unpunished (Nannicini et al. 2013). This series of arguments on variation in governance outcomes within Italy thus supports the notion of

²⁴ This is the literature I will draw upon because this is what I know best. The hope of writing this paper is to open up more interactions with political science and other disciplines to learn across disciplines.

²⁵ Naidu (2012), for example, examines how local politics in the 19th century in the U.S. South simultaneously disenfranchised the African American population and reduced teacher-student ratios in black schools.

improvements in political behavior coming about through the experience of political engagement over time. The earlier experience with democratic institutions, and greater accumulation of such experience over time, is argued in this literature to be the underlying source of differences in economic and government performance within Italy today.

Nannicini et al. (2013) build upon the previous work on variation in social capital across provinces within Italy. Social capital is defined as norms for cooperative behavior in society. The authors' main empirical measure of social capital is average per capita blood donations in the Italian provinces (following Guiso, Sapienza, and Zingales 2004). They link social norms to the notion of "civic" versus "uncivic" voting behavior, depending on whether voters assess politicians on the basis of general public interest and punish transgressions even when they have been the recipients of private favors from the politician. The authors use two indicators of transgression or misbehavior of incumbents in national elections: prosecutors' requests to proceed with a criminal investigation against a member of parliament (Richiesta di Autorizzazione a Procedere, called RAP in most of the paper); and the absenteeism rate in electronic votes by members of parliament over the legislative term. They find that both indicators are more frequent in electoral districts with less social capital. More important, the electoral punishment of the incumbent's misbehavior is stronger in districts with more social capital.

Should we then infer from this body of work that preferences for public goods, and behavioral norms in political markets, are slow-changing, and akin to inherited values that persist over generations (for example, as in Akerlof and Kranton, 2000)? Some results in Nannicini et al. (2013), in fact suggest the opposite—that political behavior can change in the short-run, and society does not have to wait for history to run its slow course. The authors find that newspaper circulation is significantly correlated with lower corruption. When newspaper circulation is included in the analysis, the estimated impact of historical institutions shrinks and loses statistical significance. That is, the historically rooted differences in institutions within Italy are not significant in explaining "civic" voting behavior to punish transgressions once newspaper circulation is taken into account. When using measures of political engagement (average turnout in national elections, European elections, and referenda during the 1990s) instead of historical social capital, the negative correlation between corruption and the political engagement measures of social capital is strongly robust to the inclusion of newspapers diffusion as an explanatory variable.²⁶ That is, widespread citizen engagement and transparency in political markets together explain civic voting to punish transgressions by political leaders and thereby strengthen incentives for lower corruption, even in an environment in which there are historical differences in social norms.

Although there is evidence that some part of preferences for public goods or the role of government in society is indeed slow-changing and persistent over generations (Luttmer and Singhal, 2011), there is also significant support for arguments that preferences and attitudes to government can shift in response

²⁶ The results of including newspaper circulation are presented in table 5 of the working paper version. The robustness of alternate measures of social capital, which equate it with political engagement, when newspaper circulation is included are discussed on page 15:

http://didattica.unibocconi.it/mypage/upload/92884_20130406_031702_ACCOUNTABILITY_AEJ_FINAL_JULY2012.PDF

to political, macroeconomic (and even weather²⁷) shocks (Alesina and Fuchs-Schundeln, 2007; Giuliano and Spilimbergo, 2013; Madestam and Yanagizawa-Drott, 2011). This latter strand of literature shows how beliefs are shaped by experience, and are not just inherited or immutable. An important part of how experience shapes beliefs is derived not from one's own, individual experience, but from viewing the experience and actions of others in society. For example, Fernandez (2013) and Fogli and Veldkamp (2011) show that women learn about the long-run benefits from working outside the home by observing nearby women employed in labor markets. This research shows that the speed of evolution of beliefs depends upon the extent of information gleaned from the experience of others—when few women participate in the labor market, information is scarce and participation rises slowly. As female labor force participation increases, more information is revealed about the effects of maternal employment which leads to increasing shift in beliefs and thence participation.

Political markets that are characterized by the participation of large numbers of citizens, and accumulated experience with the performance of different public policies, thus resemble the conditions examined in other cases, such as female labor force participation, of rapidly shifting beliefs. One study, by Bidner and Francois (2013), models the emergence of political accountability as arising from a large shift in beliefs about the value of punishing transgression by leaders. The very experience of political engagement, and the outcomes it produces for quality of government and service delivery, can lead to evolution in political behavior toward the greater public interest. Citizens can become frustrated with corruption and increasingly intolerant of transgressions by leaders. This leads to a shift in political norms toward punishing corruption. Establishing anticorruption norms among citizens is also the idea in Dixit (Forthcoming) for how transitions come from a high to a low corruption regime.

Change can go in the opposite direction. Societies which have accomplished the rule of law, and established effective bureaucracies which function according to professional norms, may nevertheless experience political capture of public policies. Erosion of shared beliefs in common interest public goods, and instead, an increase in polarization of ideologies about the state of the world and society, can allow for political capture of public policies and weakening of state institutions. Systematic biases and prejudices among citizens on the demand-side can encourage leaders on the supply-side who further polarize people, impede the finding of common ground, and capture public policies for their private interests. A literature on political behavior examines how voters compose a “political picture” by relying on partisan cues and other information-economizing heuristics (Bartels, 2012). These heuristics can sustain substantial gaps between the policy opinions of experts and average voters (Caplan, 2007). Several voter biases have been characterized in this literature, such as antimarket and antiforeign biases.

A body of work on the history of institutional transitions suggests that the fundamental driving force for how societies that begin with weak institutions move toward strengthening them (such as control of corruption and bureaucratic efficacy) is citizens' demands for broad public goods (Besley and Persson, 2009; Lizzeri and Persico, 2004; Glaeser and Goldin, 2006). A rise in demand for public goods in these historical accounts leads to the adoption of political institutions that facilitate the emergence of leaders on the supply-side who have the incentives to provide public goods. Acemoglu, Johnson and Robinson

²⁷ Madestam and Yanagizawa-Drott (2011) find that days without rain on the Fourth of July experienced during childhood is associated with shifts adult political views and voting in favor of the Republican party.

(2006) indeed define institutions as mechanisms through which social choices are determined and implemented, thus giving primary importance to the structure of social choices.

In their review of the literature on how culture and institutions interact, Alesina and Giuliano (2015) are hard-pressed to find definitions and measures of formal institutions that are distinct from values, beliefs and behavioral norms, or not determined by these. They review historical accounts of how culture shapes the design of formal institutions, such as Grief's (1994) notable study of the adoption of legal institutions of contract enforcement in Genoese society and lack thereof among Maghribi traders. But when it comes to examining the impact of formal institutions on culture, the available arguments in the literature appear to be less about differences in formal rules shaping culture, than about differences in experience over time. The latter—differences in experience over time—may be traced to a formal institution that existed in the past, but the operating mechanisms of persistent effects of those past institutions are the different experiences over time which shape values, beliefs and norms. For example, Tsai (2007) analyzes how traditional institutions can foster accountability and service delivery by leaders even in the absence of formal mechanisms such as through elections. The distinguishing feature of these traditional institutions is shared norms about the value of local public goods and the obligation to contribute to them.

The difficulty in defining a role for formal rules is central to Glaeser et al's (2004) criticism of available measures of formal institutions. They argue in favor of measures that are specific about formal rules—political systems (electoral rules along the spectrum of “plurality” and “proportional representation”, or political institutions along the “democracy” and “autocracy” spectrum) and judicial constraints on government. However, there is little evidence that these formal rules are the primary determinants of public goods and government failures. While there is evidence that variation in electoral rules and legal institutions across countries can explain variation in economic and public policy outcomes (Persson and Tabellini, 2004; and La Porta et al, 2004), this body of work does not claim that certain formal institutions are systematically associated with fewer government failures, nor that societies can change outcomes by adopting different formal rules.

Another strand of the literature examines the role of media and communication to persuade changes in preferences and beliefs.²⁸ Mass media and transparency—citizen access to common information—may affect beliefs, and thereby change how citizens' engage with institutions in political markets. Elections and mass media are two institutional elements through which transparency and widespread participation by citizens in political markets can potentially interact as strategic complements. Both elections and media have the potential to coordinate citizen action. Fearon (2011) offers a theory in which elections coordinate voters' beliefs about compliance by the ruler and thus also coordinate their readiness to revolt when incumbents ignore the electoral calendar or results. A similar role is played by royal courts in the model by Myerson (2008) wherein a common venue allows the nobles to learn how the king is treating each of them. Yanagizawa-Drott (2014) offers a model in which media play a similar role as a coordination device, albeit in a tragic direction, of promoting participation in the Rwandan genocide.

Additional evidence from the United States on how citizens change beliefs and political behavior highlights the interaction between the forces of transparency and political engagement. Glaeser and

²⁸See DellaVigna and Gentzkow (2010) for a review of the literature.

Sunstein (2013) show that in the presence of preexisting beliefs that polarize citizens, media-provided information is not only unlikely to shift beliefs but might in fact cause previous beliefs to become even more entrenched. The same information can activate completely different memories of personal experiences and associated convictions, thus producing polarized responses to that information.

Glaeser and Sunstein (2013) further show that leaders can play a role in credible communication that can persuade citizens to shift their beliefs. They provide the following example from the United States in this regard:

“When liberals and conservatives are asked for their private views about a generous welfare policy and a more stringent one, they react in the predictable ways, with liberals favoring the former and conservatives the latter. But things change dramatically when they are informed of the distribution of views within the House of Representatives. More specifically, conservatives end up disapproving of the more stringent policy, and favor the generous one, when they are told that 90 percent of House Republicans favor the generous policy. Liberals show the same willingness to abandon their private opinions, and thus end up favoring the stringent policy, when told that this is the position of 90 percent of House Democrats. Notably, the effect of learning about party views is as strong among those who are knowledgeable about welfare policy as it is among people who were not. Also notably, both conservatives and liberals believe that their judgments are driven largely by the merits, and not by what they learn about the views of their preferred party—but in that belief, they are wrong.” (Glaeser and Sunstein 2013, 23)

Leaders can play a role in shifting beliefs and norms. Hermalin (1998) provides an early analysis of how an informed leader may promote effort by others through his or her own effort, thereby signaling the worth of a task. The behavior of leaders can also shift political norms under which citizens feel indignant about bad performance and act to hold leaders accountable (Bidner and Francois 2013). Acemoglu and Jackson (2015) also offer a theory in which the behavior of leaders (actors whose actions are visible to all) affects norms (citizen beliefs about mutual behavior). In the last three papers, leaders can take actions that subsequently lead to citizens’ adopting cooperative social or political norms.

However, whether leaders have incentives to support policies on technical merit, and the credibility to signal that they are doing so to their constituents (as in the quote above from Glaeser and Sunstein), rather than to reflect and even encourage polarization among the electorate, links back to the functioning of political markets. One way to cut this Gordian knot is to explore the role of congruence between media markets and political markets which might make it easier for leaders to select into the supply side by reducing polarization and building common ground for public goods. Campante and Hojman (2013) provide evidence from the US that the intersection of media and political markets influences ideological polarization among politicians and citizens. They find that the introduction of broadcast television decreased the ideological polarization of the U.S. Congress. Information provided by television acted as an important force for bringing members of congress toward the political center. They also find similar effects for the expansion of radio in the 1930s. Their framework can be extended to suggest how different types of media play a role in the steady increase in polarization in the United States since the 1970s. This increase in polarization has coincided with significant structural changes in the American media environment—the rise of talk radio, the expansion of cable television, and the growth of the

Internet, all of which are associated with content differentiation and market segmentation that may have contributed to increased polarization.

The evidence from U.S. experience has implications for how to generate ideas about harnessing transparency to address similar problems of ideological beliefs among citizens in developing countries, such as the government's role in controlling prices by subsidizing essential commodities. The insights from the United States can explain developing countries' experience with subsidy reforms—informing citizens about the cost of subsidies is not sufficient to solve the problem (Clements et al. 2013). Widespread beliefs about the corruptibility of officials make idiosyncratic policy choices—such as subsidy reforms—seem suspect, thereby providing honest politicians with incentives to pander to populist demands. Leaders who emerge from political markets with popular mandates for public service delivery may be key actors who can bring about a shift in beliefs and norms for society to escape the trap of populist policies.

In sum, the experience of engaging in political markets, the degree of overlap between media and political markets, and audience segmentation across media outlets appear to be fundamental determinants of how preferences and beliefs are formed with regard to public goods and the role of government. Papers in the growing literature on media's impact on political actions in the US, UK or European countries have already challenged the traditional view among social scientists that media messages cannot easily sway public opinion or voting behavior in established democracies (Ladd and Lenz, 2009; Gerber et al, 2009). Established work has already shown that media can persuade citizens to turn out to vote, or to support one or the other of ideologically committed political parties (Druckman and Parkin, 2005; DellaVigna and Kaplan, 2007; Chiang and Knight, 2011; DellaVigna and Gentzkow, 2010). Whether media can also persuade citizens about what types of policies to demand, or enable citizens to enter the supply side as contenders for leadership on platforms of public goods, are big and open questions.

Keefer and Khemani (2014) provide the first evidence of the importance of apolitical, public interest media programs in shifting citizen support away from politicians who offer private benefits that would come at the expense of public goods. General, apolitical information provided by media may influence how citizens think about the role of public policies and what to demand from their political representatives. For example, citizens may support politicians who offer policies of trade protectionism because they believe these are the appropriate actions that leaders should take in the national interest of creating domestic jobs. Would media programs that inform citizens about technical evidence on these policies, such as, perhaps, that protectionism may come at the expense of long-term growth and jobs, reduce citizen demand for such policy offers? The survey evidence discussed in this paper shows that in poor countries citizens believe that provision of government jobs, and management of prices, are exactly what governments should be doing, perhaps because free markets cannot be trusted to address the injustices of poverty and inequality. Would media programs about technical evidence against government intervention in well functioning markets change citizens' minds? Would such media specializing in the discussion of technical evidence also influence actions on the supply-side, such as providing platforms for new types of leaders to emerge who seek to build common ground for public goods?

Growing analysis of media markets in advanced economies in fact suggests that media outlets do *not* have incentives to provide technical evidence but rather to slant their coverage to cater to the prior beliefs held by their target audience (Glaeser and Sunstein, 2013; Mullainathan and Shleifer, 2005). Increasing polarization in citizen demands in the United States can be explained by citizens choosing different types of media according to whether media programs confirm their prior ideological beliefs about public policies and thus entrench them (Campante and Hojman, 2013). Audience segmentation into different media outlets, that carry very different programming content, can contribute to increasing polarization in citizen demands. But the context may be different in poor economies, such as in Africa, with limited choice and the preponderance of small media—such as community radio—that rely on sponsorships by government ministries and international donors. Keefer and Khemani (2014) provide evidence from such a media market with characteristics that are the opposite of those of segmented markets—one where uniform, public interest programming content is carried across different outlets. They find that the opposite market characteristics also have the opposite effect on citizen demands. Government and donor supported community radio in Africa, carrying uniform public interest messages, increase citizen demand for commonly shared public goods.

Where media markets are persistently polarized, or where beliefs are entrenched and resistant to persuasion via evidence, how might the experience of engaging in political markets help promote preferences and beliefs that support public goods? The role of leaders on the supply side has been highlighted in recent theory about how transitions come about: leaders are prominent agents who may signal a change in norms (Bidner and Francois, 2013; Acemoglu and Jackson, 2015). Understanding citizen behavior on the supply side—what motivates and facilitates different types of contenders to enter the political market—is the other wide open area of research.

Political and bureaucratic institutions—such as electoral rules, and policymaking powers provided to different jurisdictions where barriers to entry may be lower than others—are likely to matter for who enters to contest leadership positions on the supply-side. But we understand too little about different types of institution design in political markets, and its implications for what types of leaders emerge, and what policy platforms they compete on. Are leaders more receptive to technical evidence, or to seeking common ground with opposition leaders, than the average citizen? Can political institutions be designed to yield a supply curve where leaders are more receptive to evidence of technical merit of different policies; or, put another way, where candidates enter and compete on the basis of providing more public goods ($S^L(p)$ in Figure 3)? A prevailing intuition about institutions pertains to the value of deliberative democracy in small-size jurisdictions, as in the experience of the free cities of the 12th century in Italy, or even before, in Plato's Agora; but whether this would hold in today's complex world is not sufficiently understood. Would diffusion of political power, such as through decentralization of policy-making powers to multiple local governments, or through multiple horizontal departments, each tasked with a different aspect of public policy, help? A large body of evidence on decentralization and local governance has typically concluded that local elections work well for political accountability of local leaders to citizens (Rodden and Wibbels, 2017; World Bank, 2016; Lieberman, 2015; Mansuri and Rao, 2004). But whether local leaders and local political processes also shape preferences and beliefs more generally is the crucial question for whether the public sector works to address problems of public goods. Local politics could instead revolve around things like vote buying, to the detriment of public goods (Khemani, 2015).

Civic education, such as to reduce vote selling among citizens, and communication for social behavior change are widely accepted practices in international development to change preferences and beliefs. For example, various UNICEF programs targeted at changing social behavior in developing countries are reviewed in Mackie et al (2015). An example of civic education campaigns to change political behavior in the developing world is provided by Gottlieb (2014). Education content and curricula have more generally been examined as shaping preferences and beliefs of citizens in all parts of the world. Cantoni and Yuchtman (2013) provide a review of the political economy of educational content. New evidence is growing on how government or elite influence over school curricula can shape political preferences, beliefs, or ideologies (Cantoni et al, 2015). While such evidence of authoritarian interference in school curricula, or some cases of state propaganda, may be a cause for concern, other forms of civic education and social behavior change appear to be accepted as a legitimate part of international development policy. In that spirit of legitimate policy directions, in places where media markets and political markets are particularly polarized, such that adult voters are impervious to technical evidence that goes against their prior beliefs, there may be a role for public policy to target technical evidence about public goods to the education of future voters. This brings us full circle to the importance of how local education markets intersect with political and media markets which shape the selection of public education policy. It is beyond the scope of this paper to further explore the political economy of education, and its intersection with political markets, but I highlight this intersection as the crucial area for future work to understand how political preferences and norms are formed.²⁹

V. Conclusion

The problems the world is grappling with in our times are unlikely to be solved by economic markets alone. Disease epidemics, increasing strength and frequency of natural disasters, conflict and the exodus of refugees are just some examples of problems that require good public sector institutions to solve, within countries and internationally, through global governance institutions that transcend national boundaries. But governments and institutions appear to be regularly failing in addressing these problems. While technical evidence keeps growing on how to address specific problems—be it in health or education or energy—governments and institutions are not making sufficient use of it, with frequent examples of deliberate policy making against the weight of evidence (World Bank, 2016 and 2017).

When it comes to building institutions that promote the broad public interest, we have little technical evidence to draw upon. The approach of exporting lessons from the rich to the poor world does not work (World Bank, 2016 and 2017). There is no formula or blueprint, for example, for establishing professional bureaucracies and strengthening the rule of law. Societies, both in rich and poor countries, continuously grapple with addressing problems of public goods as these emerge in their contexts. While we have made serious advances in understanding how to get market institutions right to promote trade and exchange in private markets, we have not in understanding the institutions needed for public goods, addressing externalities and accomplishing redistribution goals. This is the frontier area of our times.

This paper is a first attempt to extend the methodology of analyzing economic markets to better understand the functioning of political markets in addressing problems of public goods. I argue that the

²⁹ Such future work may well involve economists waking up to an existing and rich multidisciplinary literature on these themes. Part of the purpose of this paper is to encourage economists to do so if we are to do better at understanding the problem of public goods.

framework of demand and supply curves in political markets can encompass and consolidate insights from a vast body of knowledge, honing in on the fundamental determinant of government success or failure in addressing public good problems. That fundamental determinant is: the preferences among citizens about public goods, about the role of the state and of government policy, and beliefs about how others are behaving in the public sector. This points to a path for future research and policy experimentation to understand where preferences and beliefs come from, and how citizens find common ground to address shared problems.

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