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Beyond market failure and government failure

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Abstract
Criticisms of market outcomes often rest upon a notion of 'market failure,' meaning that the market has failed to align incentives and knowledge to produce an optimal outcome. Rejoinders to classic market failure arguments have taken several forms: that there are institutional or contracting solutions to various forms of market failures, that optimality is not a reasonable goal for real world economic activity, or that government may fail as well. Similarly, Wittman (The myth of democratic failure, University of Chicago Press, Chicago, 1995) and others have argued that concepts of government failure are equally problematic as the ordinary forces of political competition may render politicians sufficiently accountable to achieve realistically defined standards of efficiency. Even thinkers like Buchanan imagine that constitutional design may allow politics to fend off its tendency to become a zero-sum game. Both concepts are problematic in a world of entangled political economy in which market and government activity are interconnected. We argue that it is time to abandon both 'market failure' and 'government failure,' and instead focus on problems of institutional mismatch, when the rules governing interaction are ill-suited to the problems that agents confront.

Keywords Government failure · Institutions · Market failure · Property rights · Public goods

JEL Classification B52 · H41 · P16

1 Introduction

The language that economists use when speaking about market failure is more than a half-century old. While the core idea can be traced back to the classical economists, market failure theories were formalized in the work of Francis Bator (1958) and Paul Samuelson (1948, 1954). Several challenges to the relevance of market failure arose throughout

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the twentieth century: James Buchanan, Gordon Tullock, Ronald Coase and Elinor Ostrom challenged the standard approach to market failure on distinctive grounds. Market failure theorists were challenged by Buchanan (1979) and Tullock (1959, 1967, 2005a) in the context of public choice reasoning, citing the possibility of government failure; by Coase (1960, 1974), who emphasized the importance of property rights and legal institutions; and by Ostrom (1990), who documented the diverse institutional solutions to textbook market failures.

The textbooks, however, have not kept up with the relevant literature. The modern conceptions of market failure and government failure emerged roughly contemporaneously.[1] Yet government failure and property rights are barely covered in most introductory economics textbooks. Fike and Gwartney (2015) examine the extent to which public choice is included in modern textbooks. Of the 23 textbooks studied, only six contain a chapter on public choice. Eight contain no discussion of voting or an analysis of the operation of government. Three of the textbooks provide no reference whatever to government failure. In terms of page counts, textbooks focus overwhelmingly on market failure and make little mention of government failure.[2]

Also missing in action from most economics textbooks is a serious discussion of property rights. The popular textbook by Greg Mankiw (2015) has only three index entries on the subject. The first argues that government is necessary to provide them (pp. 11–12), which precedes directly a discussion of market failure. The second discusses the importance of property rights in the context of public goods and common pool resources (p. 223). Finally, Mankiw provides a brief mention of property rights as they pertain to patents and technology spillovers (p. 195). While Mankiw's textbook has many strengths, it omits any extended discussion of the rules within which markets operate.

The primary aim of this essay is two-fold. First, we ask the following questions: If economists took the insights of Buchanan, Tullock, Coase and Ostrom seriously, how would it change our research and our teaching? What sort of language would we deploy to discuss real world instances of spillover effects, collective action problems, information asymmetries, and other challenges to social cooperation? We propose, as an alternative to the status quo, the language of *institutional mismatch* as a way of consolidating and synthesizing the insights of public choice and new institutional economics on these questions.

Institutional mismatch occurs when the rules governing an economic problem are inferior to a feasible *alternative* set of rules. Economic problems arise whenever individuals' ends may be in conflict, or in which individuals may cooperate to advance one another's goals. Institutions condition patterns of conflict as well as cooperation (Boettke and Coyne 2009). A change in the rules begets a change in the way the players play the game, which begets a change in observed patterns and outcomes (Brennan and Buchanan 1985; Buchanan 2008).

Our second goal in this essay is to persuade our fellow economists and political scientists that the language of institutional mismatch has substantial advantages over that

[1] Arrow (1951) and Downs (1957) published their work *before* Bator (1958) and Samuelson (1954), while Black (1958), and ultimately Buchanan and Tullock (1962) as well as Olson (1965) appeared shortly afterwards. See also Medema (2009, Chaptert 4) on the Italian Tradition of Public Finance in economics.

[2] Hall et al. (2018) find that most (upper level) undergraduate public economics textbooks cover rent-seeking in varying degrees of detail. On the other hand, rent-seeking receives zero coverage in graduate-level public economics textbooks. Receives zero coverage in graduate level public economics textbooks. Llyalk actually matters, arguing that standard models assu.

of failure (government, market, or any other). We are not arguing that market failure or government failure are mistaken as concepts. But institutional mismatch is (a) completely consistent with the theoretical substance of those concepts, but (b) a more constructive language with which to apply them. Mismatch talk is superior in that it focuses on more relevant research questions and better communicates the insights of economic theory. It also more obviously applies to non-market, non-government institutions, such as the institutions of civil society and tradition-bound practices.

The rest of the paper is organized as follows. Section 2 examines the intellectual history of market failure and government failure, arguing that both are institutionally contingent. Potential changes to the rules of the game can alleviate the failures most commonly identified by social scientists. Section 3 develops the theory of institutional mismatch. Throughout most of this essay, when we discuss failure or mismatch, we assume that the metric of success and failure is economic efficiency. We also assume that institutions are well described as the "rules of the game in a society… the humanly devised constraints that shape human interaction" (North 1990, p. 3). In Sect. 4 we relax both assumptions, arguing that one advantage of our preferred language is the ability to enrich communication between alternative conceptual and normative approaches to institutional analysis. Section 5 concludes.

2 Institutional remedies to failure

The debate between A. C. Pigou and F. H. Knight in the early part of the twentieth century highlights our primary argument in this section: failures are institutionally contingent. Pigou (1912, 1920) formally introduces external effects into the thinking of economists. Pigou identifies situations in which self-interested behavior does not maximize social benefits net of social costs. That recognition opens the door, at least potentially, to an active role for government to tax negative externalities and subsidize positive externalities (see Medema 2009, Chapter 3). Frank Knight (1924) challenges Pigou, pointing out that he was failing to incorporate what Knight called "entrepreneur's cost" into his analysis of congested roads. Knight, presaging Coase (1960), argues that if a congested road were owned by a private firm, its owner would simply raise the price to a socially efficient level. That argument highlights the institutional contingency of Pigou's argument, which rests on the assumption of unpriced entry to the roads in question. In this case, private ownership negates the need for a Pigouvian solution.

Samuelson (1954) and Bator (1958) give the market failure perspective a facelift. Samuelson asks how society might arrive at the optimal level of expenditure on public goods. He concludes that markets will not provide the optimal quantity of public goods owing to the characteristics of non-rivalry and non-excludability. Bator (1958) argues that the market fails to provide goods that possess such features. He formalizes the idea of externalities as they are understood to this day, identifying particular reasons why market outcomes might diverge from optimal efficiency.

Coase (1960), in a manner reminiscent of Knight (1924), points out the absence of property rights in these arguments. If a rancher is obligated to pay a farmer damages for any crops destroyed by roaming cattle—that is, if the farmer's property rights are enforced—he will take the legal cost into account just like any other cost. If the crops destroyed are worth less than the value of additional cattle, the rancher may pay the farmer not to cultivate some land or buy it outright. In either case, the externality is eliminated, under exactly the

conditions that Pigou and Bator assume. Such logic holds unless transaction costs are high, establishing that property rights and private contracting can eliminate many market failures caused by externalities.

The formal and informal rules surrounding honey bee pollination illustrate Coase's point. Both Bator (1958) and Meade (1952) use pollination as an example of uncompensated positive externalities. Meade and Bator argue that the decision of an apple farmer to increase output depends on the decisions of beekeepers to increase their output. However, because the apple farmer receives pollination services from the beekeeper without having to pay the full cost of the service to the resource owner, pollination services will be underprovided and—left to their own devices—"profit-maximizing decisions will fail correctly to allocate resources…at the margin" (Bator 1958, p. 364). The theoretical claims made by Meade and Bator were put to the test by Cheung (1973), who performed a comprehensive historical study of the pricing and contractual arrangements between the owners of flowering plants and the providers of pollination services. He finds that the arrangements contrived between orchards and beekeepers produces an efficient allocation of resources. By contracting *ex ante* each season, beekeepers and orchard farmers can successfully internalize the positive externalities thought to be pervasive in the theoretical analysis.[3]

Additionally, Cheung observed what he calls the "custom of the orchards" (p. 30). This custom took the place of formal contracting. Because farmers are aware of the fact that bees can travel miles from their hives to collect nectar and perform pollination, a neighboring orchard can free ride off of the hiring of beekeeping services by another farmer. To get around that potential externality, it became customary for all orchard farmers in a given area to contract a similar or the same number of hives, so as to avoid free riding. An individual failing to comply with that custom could be "rated as a 'bad neighbor,' and could expect a number of inconveniences imposed on him by other orchard owners" (p. 30).

Similarly, in "The Lighthouse in Economics", Coase (1974) criticizes economists like Mill, Pigou and Samuelson for using the lighthouse as an example of a public good without actually diving deeply into the history of lighthouse provision. Coase does what the others had not done, showing that the institutional arrangements under which lighthouses services historically were provided and maintained were more complex than the simple analysis put forth by public goods theory would suggest. While not privately owned, lighthouses were constructed and operated under a number of rules that were adapted over time [e.g., patents issued by the Crown to Trinity House and then leased to private individuals to operate lighthouses (p. 365)]. Coase shows that the history of the lighthouse involves quasi-private provision by contractual arrangements through the Trinity House Corporation along with private lease agreements. The lighthouse operators were able to collect fees for their services from ships docking at nearby ports. Coase's article does not show that the lighthouse could be, or ever was, provided privately by the market.[4] Rather, it illuminates the scope of potential institutional solutions to supposed market failure problems. Candela and Geloso (2018) make the latter point especially clear in their investigation of lightships as an alternative to lighthouses. When entrepreneurs have access to substitute technologies, the scope for contracting around market failures expands. The fundamental insight provided by these

[3] A simpler and ubiquitous method of property delineation is the practice of fencing. To see a discussion of land enclosure via fencing in the American west with the introduction of low-cost barbed wire fencing, see Anderson and Hill (1975).

[4] Van Zandt (1993) and Bertrand (2006) push back against claims made by Coase.

historical analyses is that numerous institutional settings exist conducive to the provision of what might, in theory, be called a public good.

Economists also have identified institutional solutions for 'new' market failure theories. Akerlof (1970) popularizes the problem of asymmetric information, which can lead to situations of adverse selection, in which only low-quality goods are traded on the market, while goods of higher quality are kept out of the market. Markets for "lemons" have been shown—both theoretically and empirically—to exist in a number of industries.[5] Chezum and Wimmer (1997, 2000) use evidence from the market for thoroughbred yearlings to test for adverse selection. Sellers know more about the quality of the yearlings than buyers do and their empirical analysis suggests that such informational asymmetries influence the price. However, because two different "types" of sellers exist—those who breed and sell to racers only, and those who also are racers themselves—the buyers can distinguish between suppliers who are more likely to sell quality yearlings (1997, p. 522). A later article by the same authors studies the effects of quality certification as a way of assuaging the adverse selection effects of the thoroughbred yearling market. They find that "certification alleviates the problems of adverse selection that are present in noncertified sales… nearly all of the difference in prices between certified and noncertified sales is attributable to the selection process" (Wimmer and Chezum 2003, p. 290). Provision of warranties and customer guarantees can perform similar roles in other market contexts as well.[6]

What about cases in which transaction costs are high, and these bottom up institutional solutions do not emerge? Coase (1992) argues that government solutions then may be appropriate. But note that government, too, is an institutional fix, which is trivially true in the case of government legal rulings and regulations that directly alter the rules of the game of market transactions.[7] But it is equally true of fiscal remedies such as taxes, subsidies and government financing of particular goods and services. Such remedies involve a partial or complete shift in the rules governing a particular economic problem from the rules of the market to whatever government institutions govern the fiscal commons. Government provision of a public good, for instance, means that some combination of democratic and bureaucratic rules will determine how much of the good is provided, at what cost, and for whom.

Thinking about policy as the outcome of rules raises the second main objection to applying the theory of market failure, public choice. Prior to the public choice revolution, market failure theory typically treated government as an exogenous actor that could take appropriate steps to correct market failures. Instead of assuming ideal governments who perform the duties of taxing, regulating and administering proposed corrective policies, public choice economists analyzed the incentives of government agents under the assumption of

[5] Examples include childcare (Mocan 2001), labor (Gibbons and Katz 1991), credit (Ausubel 1991), insurance (Puelz and Snow 1994; Chiappori and Salanie 2000), capital (Booth and Smith 1986), and automobiles (Bond 1982; Genesove 1993).

[6] For an empirical examination of market-provided warranties in used car markets, see Mann and Holdych (1996). For similar studies using laboratory experiments, see Holt and Sherman (1990).

[7] This is the main reason we have not explicitly addressed monopoly as a form of market failure. Antitrust policy and regulation of natural monopolies are obviously institutional solutions to purported problems. It is worth noting, however, that monopoly has probably become less of a concern in the academic literature on market failure, owing to insights about contestability (Demsetz 1982), and that it is unclear whether anti-trust policy is a an effective solution to concentrations of market power that do exist (Shughart and McChesney 2010; Young and Shughart 2010). Moreover, whether monopoly generates inefficiency also depends on controversial behavioral assumptions, such as whether monopolists act as Cournot or Bertrand competitors.

behavioral symmetry (Buchanan 1979). Governments populated by individuals subject to incentive and information problems also may fail to achieve efficient outcomes.

Rent seeking is perhaps the most widely cited form of government failure.[8] As a form of behavior it is similar to profit-seeking, but channeled through political institutions (Buchanan 1980; Keech and Munger 2015). Krueger (1974) was the first to use the term rent seeking in reference to the activity of spending resources in an attempt to secure private benefits at others' expense (Tullock 2005b, pp. 25–26). She estimates the welfare costs of import restrictions in India and Turkey, finding them to be 7.3% and 15% of GNP, respectively. The sizes of those social welfare losses is not insignificant. In a later paper, Lopez and Pagoulatos (1994) estimate the welfare losses in terms of domestic consumption in the United States. They look at losses from trade barriers, specifically, finding that the social losses are around 12.5% of domestic consumption. Lopez and Pagoulatos also find that milk and sugar producers constitute a large fraction of the losers, and that a positive relationship exists between the strength of the industry's lobbying efforts and the magnitude of the welfare losses. Rent seeking also has a negative effect on growth. Murphy et al. (1993) hypothesize that rent seeking is characterized by increasing returns. Rent seeking, therefore, may beget more rent seeking. And once transfers are created, they are difficult to remove, as the incentives of transfer recipients are to ensure the elimination of others' advantages and the preservation of their own (Tullock 1975; Anderson and Hill 1980). In addition, rent seeking compromises innovation more than production efficiency. Given that innovation is more important to growth (Grossman and Helpman 1990), rent-seeking activities may be even more harmful than what might appear on the surface.

Government failure, too, is institutionally contingent. A number of solutions to the problem of rent seeking have been offered. Among them are a federal system of government. Economists have long recognized that competition among subunits of government can limit state action (Hayek 1948; Tiebout 1956). Competition places a natural limit on government predation. As long as capital and labor can move freely from jurisdiction to jurisdiction, policy makers are incentivized to select more favorable bundles of policies. Boettke et al. (2011) draw attention to the "neoconsolidationist" response to that classic argument. Essentially, neoconsolidationists argue that traditional government failure arguments apply more forcefully to extremely decentralized governance arrangements. Boettke et al. respond that one major problem with federalist "quasi-markets" is their "quasi-ness" and that private provision of governance and public services often may be preferable. It is worth noting that both the neoconsolidationist position that Boettke et al. describe and the pro-market one they advance are institutional solutions to government failures. As we note above with respect to public provision as a solution to market failure, altering jurisdictional levels or outright privatization simply are radical institutional solutions to government failures.

Institutional solutions to government failure go beyond the creation of quasi-markets. Weingast (1995) argues that federalism has characterized the most successful economic systems for centuries, including England and the United States. Rather than emphasizing Tiebout competition, Weingast argues that the devolution of power can function as a credible commitment to policy reform. Also in England, a number of constitutional changes took place during the seventeenth century that were aimed successfully at reducing rent seeking (Baysinger et al. 1980). Those reforms largely were at the constitutional level.

[8] Pasour (1987, p. 123) argues against the claim that rent-seeking is a government failure, pointing to the fact "that rent-seeking waste can only be identified by substituting the observer's own standard of value."

The shift of power from monarchs to Parliament raised the transaction costs of potential rent seekers.[9] A competitive judiciary as well as a lack of regulatory enforcement in local regions also contributed to the reduction in rent-seeking in England (ibid.).

Government failures associated with the fiscal commons (c.f. Wagner 2012) likewise can be mitigated by constitutional constraints.[10] Campbell (1994) performs a comparative institutional analysis of New Hampshire's fiscal system with those of Vermont, Maine and Massachusetts. Consistent with McCormick and Tollison (1981), Campbell finds that the bicameral legislature in New Hampshire, combined with the number of seats in each house, and the legislature's ratio or balance of seats make it difficult to assemble a winning coalition sufficient for the passage of laws that would broaden the state's tax base. As a result, New Hampshire is one of the few states without an income tax or a general sales tax. Campbell shows that the consequences of the fiscal structure include lower public spending and taxes, faster population growth, more competitive local and state governance arrangements, and fewer welfare expenditures. New Hampshire also maintains levels of expenditures on other public goods similar to those of comparable states. Hillman and Ursprung (2000) recognize the importance of culture in rent-seeking societies. They model societies with political insiders and outsiders and show how political liberalization during the post-Soviet reformation led to both more rent seeking and economic decline. They propose a number of potential solutions to rent-seeking norms, including constitutional constraints and altering customs through education.

Another potential source of government failure is voter ignorance. Voters are thought to be "rationally ignorant" when choosing in the political realm because of the small probability of any one vote deciding the outcome on any democratic decision (Downs 1957, Chapter 13). Wittman (1989, 1995) postulates that the existence of political parties in a democratic system reduces the amount of information required to achieve efficient outcomes. That insight is formalized by Jones and Hudson (1998). Bartels (1996) empirically tests the claim that political parties, combined with a large number of voters, will produce results *as if* the average voter were fully informed. While those results are not fully achieved, in aggregate, party affiliation does reduce the deviation of actual votes from hypothetical "fully informed" votes.

Becker (1983) makes a similar economic point regarding political pressure groups and competition for political influence. He assumes that individuals, as members of groups, produce pressure, directed at the government, in order to receive subsidies (or reduce taxes). The transfer process of taxes and subsidies implies deadweight losses. Becker's analysis suggests that an increase in the deadweight loss of transfers will encourage more investment in pressure by those groups being taxed and discourage pressure from the subsidized group (because they are receiving a smaller cut of the net-of-tax transfers). Such behavior begets a tendency towards efficient taxation, as the smaller deadweight loss would benefit the taxed group as well as the subsidized group.

From the very beginnings of public choice, economists have identified prospective and actual institutional solutions to potential government failures. Supermajority decision rules can be implemented a la Buchanan and Tullock (1962) to minimize external political costs. Likewise, generality constraints can be implemented to reduce external political costs by

[9] Similarly, Salter and Young (2017) compare governance institutions in England and France. Their research highlights the importance of assembly representation in the development of the rule of law in the former as well as differences in their effect on economic institutions in both countries.

[10] See, for example, Brennan and Buchanan (1980, 1985) and Buchanan and Congleton (2003).

eliminating discriminatory outcomes, as in Buchanan and Congleton (2003). Contemporary scholars of political economy have identified other mechanisms that can align political incentives with the general welfare. Wittman (1989, 1995), analogously applying the standard assumptions of microeconomics to governments, argues that political institutions generate efficient outcomes similar to those of markets. Arguing that democracy is sufficiently competitive and possesses something akin to transferable property rights, Wittman asserts that any postulated failures must show that the standard assumptions that otherwise align incentives of political agents with voters have been violated. Similarly, Besley (2006), arguing somewhere between the self-interested and public-spirited theories of government, focuses on the selection of politicians and the alignment of political incentives that offer a solution to the public sector's principal-agent problems.

The foregoing cases demonstrate that changes in the rules often can solve potential market and government failures. What about other forms of market failure? Tables 1 and 2 provide a broader overview of our argument, matching institutional solutions to market failures and providing examples of each. An online appendix documents an additional 47 examples of institutional solutions to market and government failures.[11] It is impossible in one essay exhaustively to cover every proposed form of market (government) failure, and thus likewise impossible to catalogue every possible institutional solution. Moreover, many institutional solutions will work only in particular circumstances. The online spreadsheet contains citations to a more comprehensive list of these failures. What we seek to establish in this essay is that the presumption that some institutional solution exists should be adopted. The burden of proof rests on those who insist that no institutional fix exists for a particular form of market or government failure.

3 Institutional mismatch

Consider a fundamental ambiguity in applying the concept of market failure. Imagine that a negative externality, perhaps industrial pollution, generates a socially inefficient outcome. Standard economic analysis and most Econ 101 textbooks readily would label such an outcome as a market failure. As argued above, "market failure" is institutionally contingent. It depends on the absence or misspecification of property rights. If an individual whose property is polluted is able to file a nuisance claim against the polluter, the externality will be internalized and efficiency restored (Ellickson 1991). Even though nuisances have long been recognized in common law, in most advanced market societies government claims a leading role in defining and enforcing such property rights. Some philosophers and social theorists take this point so far as to argue that government cannot violate property rights, it can only redefine them (Murphy and Nagel 2002). Thus, what appears to be a market failure is really a government failure to properly define and enforce property rights.

Keech and Munger (2015) advance exactly that sort of argument. They point out that a common approach to government failure treats it as merely the failure to remedy a market failure. But they go further, arguing that government failure should play a more prominent role in political economy. First, they argue that government failures are often far more disastrous than market failures. Governments sometimes fail to provide the fundamental requirements of law and order or even actively foment humanitarian crises. Second, and

[11] Spreadsheet available here (link).

Table 1 Market failures

Market failure	Solution	Example	Source
Externality	Internalize costs/benefits	Coasean Exchange Ex ante contracts	Positive: Cheung (1973) Negative: Bailey (2013) Klick and Stratmann (2007)
Public Good	Develop exclusion mechanisms	Bundling Intermediary contracting User fees	Coase (1974) Klein (1990) Benson (1991)
Adverse selection/asymmetric information	Extended dealings Assurances	Brand names Franchising Warranties	Bond (1982) Wimmer and Chezum (2003)
Common-pool resource	Community devised rules with private enforcement and monitoring	Traditional common property systems	Ostrom (1990) Ostrom et al. (1994) McChesney (1986)
Path dependence	Reduce switching costs	Training bundled to sale of product	Liebowitz and Margolis (2002) Van Vleck (1997)

Table 2 Government failures

Government failure	Solution	Example	Source
Voter ignorance	Increase voter stake/knowledge	Branding via political party	Caplan and Miller (2010) Wittman (1989)
Rent reeking	Constitutional constraints	Division of powers	Nelson (1986) Campbell (1994)
Logrolling	Constitutional rule adjustment	Bicameral legislature with disproportionate representation	McCormick and Tollison (1981) Nelson (1986) Campbell (1994)
Over/under provision of public services	Polycentricity	Federally constituted government	Orbell and Uno (1972) Cebula (1990) Schmith Conway and Houtenville (1998)

more importantly for our purposes, Keech and Munger argue that government failure is "causally prior" to the operation of markets and therefore markets can fail because "government defines the rules under which markets operate" (p. 3). If that is the case, it is hard to imagine what market failures would *not* count as government failures instead.

Keech and Munger provide a helpful reminder that markets and states are linked. But their argument goes too far. States do not create property rights ex nihilo (Hume 1777; Demsetz 1966, 1974; Alchian and Demsetz 1973; Benson 1989, 2010, 2011; Friedman 1994; Buchanan 2000). The historical record is, in essence, the opposite: property rights developed from the bottom-up and preceded states. Moreover, property rights often emerge *despite* government neglect or even in the face of active state opposition. Leeson (2013, 2014) catalogues and explains how religious practices and superstitions can facilitate the development of substitutes for formally enforced property rights in criminal organizations and in response to state failure. And while it is plausible to argue that state-provided governance impedes the operation of markets, it is likewise possible to argue that such pre-political or extra-legal property rights impede politics.

The argument can cut either way. Government monopolization of an industry—perhaps taxicabs—that leads to higher prices and restricted output typically would be called a form of government failure, and would include both the deadweight losses from restricted trade and the rent-seeking costs associated with establishing the monopoly (Tullock 1967). But if rent seeking is a necessary condition for a taxicab monopoly to exist, then it could also be called a market failure. If the taxicab company were not privately owned—or more precisely, if the owners and operators did not privately benefit from the monopoly—then no incentive would exist to restrict output and raise prices. Pre-political property rights can influence political activity in failure-inducing ways.

Rather than concluding that market failures are government failures or vice versa, the above arguments indicate that *concepts* of market failure and government failure—however well-defined they might be in theory—often are ambiguous in application. It is certainly possible to imagine externalities generated by privately established property rights. And it is possible to imagine strictly public actors, such as Plato's imagined guardian class, acting in a manner that produces government failures. But the real world rarely approximates those idealized institutional forms.

It is tempting to treat either markets or states—and thus either market failure or government failure—as analytically primary. Wagner (2016) criticizes both approaches, arguing that both private choice and public choice are best studied under an assumption of *entangled political economy*. Enterprises organized in the context of market institutions exist side by side with enterprises organized in the context of political institutions. Since the *interaction* of private and public choice is what generates most 'failures', failure talk often conceals as much as it illuminates.

We propose a more neutral and flexible concept: *institutional mismatch*. In all of the cases noted above, the rules are wrong. Those rules may be the result of private choice, public choice, or (most frequently) some combination of the two. This is not to say that the genealogy of existing rules is completely unimportant, but rather that it is more useful to have a widely applicable concept that does not come with ideological prejudice built in.

Why 'mismatch?' Prevailing work sometimes refers to 'institutional failure' as a superset of market and government failure. Failure is an appropriate term when comparing the outcome of real institutions to some ideal. Our intention in using 'mismatch' is to build a comparative element into the foundation of institutional evaluation. Compared to compelling normative ideals, institutions often fail. Practically, however, failure is uninteresting if a superior and feasible institutional arrangement is not available (Demsetz 1969).

Of course, the concept of failure remains useful; comparative institutional analysis cannot be undertaken without a benchmark of success. But for applying such benchmarks to the actual world, a thoroughly comparative approach always is necessary to avoid the nirvana fallacy. That is the reason we prefer the language of mismatch to that of failure.

Institutional mismatch presupposes an underlying economic problem, some set of human activities for which individuals can affect—both positively and negatively—the success of one another's projects. One might object that institutions *constitute*, rather than *condition*, certain human activities. Such a conclusion would make the concept of mismatch problematic, since no institution-independent reference point would be available for engaging in comparisons of institutional performance. But, at least when applied to circumstances that economists typically classify as market or government failure, this is too strong. Human interaction also involves biophysical components, including scarce resources, that are not reducible to even the most expansive definitions of institutions (Ostrom 1990; Ostrom and Kiser 2000).

That said, one key component of an economic problem that institutions might govern can be other institutions. Institutions often are nested such that rules governing one form of interaction strongly influence other forms of interaction. Those underlying social conditions are no less important than biophysical conditions for determining when the rules fit. Institutional mismatch thus can emerge because the rules governing an activity are misaligned with the meta-rules that govern on a broader or deeper level. Conversely, suggested institutional reforms must be sensitive to the broader institutional realities. What appears to be a mismatch may be an effective adaptation to a meta-institutional background condition.[12] Boettke et al. (2008) analysis of institutional stickiness helps make that clear. Formal institutions are less likely to "stick" when they chafe against the underlying local knowledge, historical experience, and cultural conventions governing a social practice. Leeson and Harris (2018), for example, argue that the absence of private property rights implies that the costs of establishing rights exceed the benefits of doing so. Individuals on the ground have internalized those costs because they are determined by the meta-institutional conditions. When net benefits outweigh net costs, the establishment of private property rights creates wealth. When the opposite holds, the establishment of private property destroys wealth.

Another common term is 'governance failure.' Governance failures can be a source of institutional mismatch. But not always. Many institutional arrangements are spontaneous (Hayek 1973; Benson 1989, 2010). They are not the result of a master plan. And in many of those cases no organization exists with sufficient clout to correct the mismatch. It seems odd to describe such instances as examples of governance failure, since it is not clear which groups or coalitions are doing the governing. For that reason, we posit that governance failure is best understood as a subset of institutional mismatch.[13]

[12] Despite the advantages we enumerate in the proceeding section, then, mismatch talk does not allow us to evade the problem of the second best (Lipsey and Lancaster 1956). Rather, it transfers that problem from the domain of interacting policies to the domain of interacting institutions.

[13] Governance likewise may be about more than determining rules, so that the two concepts would be overlapping rather than proper subsets. Governance failure could include the misallocation of resources within an institutional framework and not only the inept design of an institutional framework.

4 The advantages of institutional mismatch talk

There is one notable disadvantage of adopting mismatch talk: switching costs. Market failure talk is well developed and firmly entrenched, having been taught by most economists to most of their students at most universities for most of the past century. Government failure talk has had less success, but serves as a natural, reflexive counterpoint to the ubiquity of market failure talk. Moreover, any attempt to move to a new equilibrium involves a substantial first-mover problem. Standard terminology functions as a network good, facilitating widespread communication. Indeed, we are not optimistic that the present essay will foster any substantial change in how economists address the relevant topics. Nonetheless, we aim to persuade. Mismatch talk has a number of advantages—the first two of which already were mentioned above—that warrant such a change.

4.1 Applicability to entangled political economy

Market and political activities are deeply intertwined, meaning that real-world instances of failure rarely can be described as wholly private or wholly public in origin. Mismatch talk abstracts from that difficulty, recognizing that both the problem and the solution may involve a mixture of private and public institutions.

4.2 Buffer against the nirvana fallacy

Declaring something to be a market failure naturally suggests intervention, which usually ignores potential private governance solutions. And declaring a government failure naturally suggests (in many contexts) privatization, while ignoring potential constitutional solutions. Neither move necessarily is warranted, a point that becomes clear when we stop using language that lends itself to an institutional blame game. In mismatch talk, the idea that certain rules are a bad fit for some activities usually suggests consideration of alternative rules without bias toward their origin.

4.3 Error is not mismatch

It would be strange to argue that an individual business enterprise going bankrupt counts as a market failure. The ability of market institutions to shut down ill-conceived plans is a mark of success (Kirzner 1998). Similarly, it would be strange to argue that an individual policy that fails to achieve its goals or has unintended consequences is a government failure. A common example used in introductory economics is to highlight the failure of price controls to achieve their intended aims. That understanding is reflected in a great deal of literature.[14] It is not argued, however, that failure to achieve the intended goals simultaneously constitutes a government failure. Economists should hold government to the same standards as markets. Buchanan and Tullock's (1962) framework for constitutional adoption makes that point explicit: the minimal costs of establishing a government are not zero.

[14] A popular example is that of controls on fluid milk. See, for example, Ippolito and Masson (1978), Helmberger and Helmberger (1994) and Johnson (1985).

Mismatch talk—as opposed to failure talk—imposes symmetry on those judgments, since claiming a mismatch requires identifying a better set of institutions.

4.4 Precision about institutional diversity

Rather than declaring that "the market has failed", economists should be clear that "the particular rules governing exchange in *this* market failed". Alternative rules might do better. Likewise, for government failures. That conclusion is especially clear in auction theory (e.g., Smith 1989, 1994) For example, Smith et al. (1982) examine differences in the institutional features of double-auction market designs and compare them to other institutional arrangements (e.g. variations of sealed-bid offers). Differences in the robustness of the efficiencies achieved in each setting are attributed to changes in the auction rules. Failure talk obscures the wide diversity of institutional forms that both private and public governance take.

4.5 Beyond markets and states

Economists and political scientists increasingly study arenas of interaction that do not comfortably fit the mold of either market or government activity (c.f. Ostrom 2010). Often the terms "civil society" or "third sector" are used as catch-all phrases that signify anything non-government or non-market. Rather than engaging in a reductionist approach to myriad forms of interaction, social scientists of all disciplines should identify the unique prospects for cooperation and conflict in the different spheres and engage in specific analyses of institutional fit.

4.6 Alternative conceptions of institutions

McCloskey (2016), following Lachmann (1977), objects to the standard economic definition of institutions. She argues that institutions are not exhausted by the concept of negative constraints, pointing out that institutions, like language, positively facilitate interaction. We are sympathetic to the idea that institutions can do more than impose costs or bestow benefits on various types of behavior. Moving to the more general language of institutional mismatch at least opens the door to those sorts of discussions, including interdisciplinary dialogue with anthropologists, sociologists and other social scientists with distinct conceptions of how institutions govern or mediate human interaction.

4.7 Beyond efficiency

Failure talk places economic efficiency in the foreground. Philosophers and other social theorists vary in their receptivity to efficiency concerns. Some find them congenial (Buchanan 1962; also see Buchanan 1959, 1997), others find them objectionable (Markovits 1993; Stringham 2001; Rothbard 2009), and still others wish to expand concepts such as market failure to cover non-efficiency considerations (Satz 2010). Consequently, discussions of common-sense issues such as third-party effects and collective action problems can become needlessly mired in debates about appropriate normative standards. Mismatch talk can be combined with any number of normative standards and, most importantly, places primary emphasis on a key feature of the world: the institutions that govern an

action situation. Whatever normative standard an analyst wishes to bring to bear on a question, focusing on questions of institutional design provides a shared starting point for such discussions to take place across normative frameworks.[15]

4.8 Understanding social change

In Bator (1958) and Samuelson (1948), market failure is a normative concept. While price theory mostly is meant to describe how markets work, market failure theory prescribes what policy makers ought to do. One of the chief contributions of the new institutional revolution of Ronald Coase, Elinor Ostrom, and others is to demonstrate the descriptive relevance of concepts from market failure (Coase 1974, 2013; Ostrom and Parks 1987; Ostrom 1990; Ostrom and Walker 1997). Those thinkers have catalogued numerous historical responses to collective action problems, spillover effects, and similar ideas. Mismatch talk has the advantage of highlighting the natural response to institutional failures: developing institutions to cope with those failures. Using such concepts descriptively has broadened and deepened the explanatory power of economic analysis, yielding numerous insights that should be shared more widely.

5 Conclusion

In this paper, we have argued that market and government failure are deployed in ways that gloss over the entanglement between governments and markets. The core truth that these ideas describe is that some rules for governing interactions among agents interacting in government or in the market are ill-suited for the achievement of individual ends. Institutional rules, we argue, should not be taken as given, as a broad range of alternatives exist. Some of those alternatives belie the typical dichotomy between market and state. Institutional mismatch, therefore, is a more useful way of describing situations of supposed "failure", whether market-like or state-like. We also have illustrated that, empirically, institutional solutions to such mismatches can in principle realign the incentives of the interacting agents and enhance economic performance.

We recognize that substantial network effects are attached to failure talk, so we are not optimistic about any sort of drastic shift in how economists discuss the relevant issues. But network effects create switching costs that can lead to lock-in. Failure talk is itself a result of lock-in; an institutional mismatch (in McCloskey's broader sense of institutions) with the valuable public role that economists can serve. Mismatch talk offers the student of society a method for identifying reforms without necessarily becoming a zealous reformer or an advisor to benevolent despots. The focus on institutions and the various rules that

[15] This is also an advantage for an "efficiency always" perspective. Leeson (2018) "bites the bullet", arguing that since institutions are the result of maximizing behavior, they must be efficient. Our argument is orthogonal to his. Even he allows a role for economists to "improve the world" by shifting relative prices through costly action and lowering others' search costs for better institutions. In his approach, such actions change what is efficient rather than closing the gap between what is efficient and what simply is. He also distinguishes sharply between efficiency and wealth generation. Though we have used the language of inefficiency throughout because it is standard, mismatch talk works both for analyzing the non-efficiency properties of institutions (such as how much wealth they generate), or as a talk strategy for Leeson's "inside the model" economists who shift was is efficient.

govern interaction among choosing individuals places a scientific constraint on the outside observer, limiting the "pretense of knowledge" syndrome to which social scientists too often and too easily fall prey (see Caballero 2010).

Our framework is, in essence, a fuller restatement of Buchanan's approach to policy reform (see Buchanan 1959). Rather than recommending policy changes to legislative authorities, we focus on the rules that would achieve the ends as perceived by the individual choosers within the system. Hypotheses are advanced regarding which rules might work best, but the standards are judged based on choices made by individuals as they are revealed in actual choosing processes. The language of institutional mismatch is better suited for social scientists who wish to operate in such roles rather than as Adam Smith's men or women of system.

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