From Scholarly Idea to Budgetary Institution: The Emergence of Cost-Benefit Analysis

Michael D. Makowsky*
Department of Economics, 3G4
George Mason University
Fairfax, VA 22030 USA
mikemakowsky@gmail.com

Richard E. Wagner
Department of Economics, 3G4
George Mason University
Fairfax, VA 22030 USA
rwagner@gmu.edu

ABSTRACT

Cost-Benefit Analysis (CBA) is typically portrayed as a technique for promoting efficiency in government. We do not deny that CBA can be used in this manner, but rather focus on a different property of CBA, namely, its evolution from scholarly musings into a framing institution within which budgetary processes operate. The evolution of CBA into institutional status, moreover, shows the value of bringing a polyarchical perspective to bear on fiscal organization, wherein budgetary outcomes emerge through structured interaction among participants. CBA is a product of interaction within a political ecology, as distinct from being the product of some person's optimizing choice.

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* Michael D. Makowsky is a doctoral candidate in economics at George Mason University, Fairfax, VA 22030, USA. His email address is mmakowsk@gmu.edu and website is www.michaelmakowsky.com. His dissertation addresses and models the dynamics of religious groups and extremism. He gratefully acknowledges funding from the Earhart Foundation. Richard E. Wagner is Harris Professor of Economics in the Department of Economics, George Mason University. His e-mail address is rwagner@gmu.edu. His home page is http://mason.gmu.edu/~rwagner.

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"Public policies evolve partly in response to changes in perceived demands and opportunities, changes that may result from the evolution of private technologies and market structures or from other identifiable shifts in objective conditions…The particular institutions and procedures for arriving at and modifying policies determine the way in which the various forces mentioned above are translated into new policy departures. Sometimes the institutional machinery for making policy seems to take on a life of its own." – Richard R. Nelson and Sidney G. Winter, *An Evolutionary Theory of Economic Change*.

1. Introduction

Cost-Benefit Analysis (CBA) is typically presented as an instrument for promoting efficiency in government by bringing a rational calculus to bear on budgetary and regulatory actions. To be sure, this instrument is not simple to use, as can be seen by sampling from such sources as Anderson and Settle (1977), Fuguitt and Wilcox (1999), Haveman and Margolis (1977), Layard and Glaister (1994), McKean (1958), Miller and Yandle (1979), Mishan (1976), Sassone and Schaffer (1978), and Schmid (1989). Our purpose here is not to contribute directly to CBA, but rather is to show how CBA has come to acquire institutional status within the American fiscal constitution. That this constitution is largely informal does not make it any less real, as Kenneth Dam (1977) explains.

The philosophers of the Scottish Enlightenment explored how useful conventions or institutions can arise through human interaction without being products of human design (see, for instance, Daiches, Jones, and Jones 1986). Economists have often used the emergence of such institutions as property and money to illustrate this Scottish insight. Our purpose here is to illustrate how CBA

has acquired similar though narrower status within the domain of fiscal organization. CBA began with scholarly musings about efficient governmental actions. We would surely not go too far wrong in attributing the scholarly beginnings of CBA to Dupuit and the French engineers (Ekelund and Hébert 1999), though we also know that the early cameralists sought to advise their princes in light of their knowledge of economics (Backhaus and Wagner 1977). As those musings found their way increasingly into practice--from humble beginnings on the spreadsheets of the Army Corps of Engineers (McKean 1958), later fanned by economic warriors in the Department of Defense (Hitch and McKean 1960), and subsequently spurred by a series of executive orders by American Presidents (Hahn and Litan 2007)--CBA has come to permeate the American public sector as an institution that frames budgetary and regulatory deliberation.

We start by considering some general principles of the emergence of institutions, through processes of what have been, perhaps misleadingly, characterized as spontaneous ordering. We then examine the constitutional context that is essential for any budgetary process to operate; while fiscal scholarship typically treats states as acting and choosing persons, state actions emerge through processes of interaction and are not genuinely products of choice (Wagner 2007). That emergence is governed by the constitutional framework which structures that interaction, and CBA has come to acquire standing as an element of that framework. We then examine the beginnings of CBA as a topic largely of academic interest. Some dynamics of emergence

subsequently began to take shape through interaction among academics and policy practitioners. While those practitioners differed in their policy agendas, CBA nonetheless emerged as a common point of orientation that acquired prominence within the fiscal process. The language of benefit-cost now suffuses policy discussion regardless of policy agenda, as it has become conventional and often mandatory to pay homage to CBA in addressing fiscal and budgetary matters, which indicates that CBA has become an element of the fiscal constitution

2. A Template for Institutional Emergence

Any examination of institutional emergence must place in the analytical foreground two elements that are typically relegated to the background in most economic models. One element is time, used in a real and not in a notional sense. Where an act of choice can occur in an instant, emergence requires some duration of time to pass. The other element is the complexity of polycentric interaction within polities. Emergence involves interaction among acting agents, and that interaction necessarily takes place within some constitutional framework that orders and frames those interactions. CBA began as an academic exercise, but through cumulative interaction among interested parties those scholarly musings came to acquire a place within the American fiscal constitution.

The paradigmatic statement of the process of institutional emergence is perhaps Carl Menger's (1892) explanation of the emergence of money. Menger began by noting the inconvenience of barter, posited that some goods are more

saleable than others, and explained the emergence of money as the result of a process of entrepreneurial profit seeking. The result of this process, Menger argued, was the universal appearance of a highly saleable commodity in nearly all exchanges. Thus, money arose not through conscious invention but by the spread of practice. Howitt and Clower (2000) developed a computational model to illustrate this process, wherein interaction among customers and shops led to the emergence of money.

Money is, of course, a far more encompassing institution than CBA. Yet there are some common features that are at work in generating the emergence of institutions of all sorts. Institutional emergence can be illustrated by a conceptual comparison of snapshots taken at distinct points in time. For Menger, one snapshot would reveal widespread barter while the other showed a common commodity appearing in nearly all exchanges. Menger's analytical task was to explain the transition process by which the latter snapshot came to replace the former. The setting is the same for any case of institutional emergence. With respect to CBA, there was a time when it was little more than a topic of academic scribbling. At some later point, we see American Presidents command its use and that the grammar of CBA is unavoidable. In this second snapshot, CBA has become an economic institution, as it has been incorporated into the fiscal constitution within which fiscal outcomes emerge.

In all such cases, the origins of an institution lie in some act of creativity that subsequently appeals to others. The source of that appeal could be commercial, as in offering a way to escape the limits of barter. The source could

also be intellectual, as in providing a different framework to reason about collective efficiency. Those intellectual musings, moreover, might spread into political practice, and not necessarily because of some shared interest in those musings: it could instead be thought that the concepts and categories could be used to promote a particular political program, perhaps reduced regulation, for instance. Regardless of the source, the practice spread through contagion in use. While institutions are not products of human design, they are products of human action and so originate in acts of choice that prove contagious. In this respect, it is perhaps somewhat off base to describe institutions as products of spontaneous ordering, for spontaneous ordering is nothing like spontaneous combustion. A pile of rotting grass might ignite spontaneously, but institutional emergence in human society always has intention at its origin. That initial act of intention, however, is only a point of departure for the subsequent interaction that in some cases will lead to the emergence of a new institution or convention.

Institutional emergence thus involves a sequential process of interaction, the end of which is a distinctly different state from what existed at the start of the process. Many people participate in the generation of such an institution as CBA. Those participants can differ in what they are seeking to accomplish with CBA, and that participation does not imply support for the uses to which CBA is actually put. For instance, many people participated in the generation of the institutional status of CBA who nonetheless objected to some features of CBA as they encountered them. Yet the practice of CBA continued to spread until it

became a given condition that various public projects and regulations should be addressed in terms of the grammar of CBA.

The practice of CBA in its institutionalized form is, of course, quite at variance with academic discourse regarding CBA; the grammar of CBA in actual use bears only modest resemblance to the academic literature on CBA. This should not surprise anyone. Professional economists form but one set of participants in the process that has elevated CBA to institutional standing. Elected politicians, non-elected officials, and lobbyists for interest groups have also participated in that elevation of CBA, even if some of them were previously opposed to it. What has resulted is not some product of reasoned choice, but rather is a result of complex interaction among reasoning participants who may have strongly different objectives that nonetheless generate the outcome in question. There is, in this respect, a nice parallel to a computational model of a traffic jam (Resnick 1994). It is easy enough to imagine cars moving evenly spaced down a highway. The drivers might be following the simple rule to drive as fast as they can until they get to three car lengths behind the car they are following, and then maintain that distance. For whatever reason, one car suddenly slows down. The following cars slow down, as a simple rational response to their rule for following the car in front of them; in this way a traffic jam forms. More significantly, that jam will be seen as moving backwards even though no individual car ever moves backward. The traffic jam is an object distinct from the individual cars that comprise it. The traffic jam arises through

interaction among drivers but is not chosen by any of them. So it is with the emergence of CBA, and of institutions generally – they take on a life of their own.

3. CBA and the Constitutional Framework for Fiscal Interaction

Much theorizing about public finance and public choice assimilates government to some choosing agent, as conveyed by models of constrained maximization. Within this framework, CBA is treated as a scheme for bringing substantive rationality to bear on fiscal choices. By using the concepts and categories of CBA, proponents of CBA have thought that Kaldor-Hicks efficiency could be promoted. While these claims on behalf of CBA and its presumption that the promotion of efficiency can be treated as a technical matter have been challenged (see, for instance, Wildavsky (1979), Williams (1972), and Ostrom (1973)), our interest here is on how CBA has acquired institutional standing regardless of how one might appraise technical approaches to fiscal efficiency.

Within a choice-theoretic framework, CBA would appear to counsel some decision-maker to approve only projects that are judged to be Kaldor-Hicks efficient. To be sure, Kaldor-Hicks is a mental construction that people can construct differently, as illustrated cogently by Hanke and Walker"s (1974) reconstruction of a CBA by the U. S. Bureau of Reclamation, wherein the Bureau's highly positive projection of net benefits became highly negative after Hanke and Walker's re-conceptualization and re-calculation. As a technical manner, one may reasonably question how accurate CBA might be as an instrument for making decisions. But fiscal outcomes are not someone's

decisions but are emergent resultants of some structured process of budgetary interaction. Our focus is not on CBA's accuracy as an instrument of decision-making but on its place in framing budgetary processes, recognizing that particular outcomes are shaped and influenced by those framing rules and procedures.

Collective action arises not through individual choice but through interaction among some set of relevant participants. Once a group moves beyond the proverbial handful of people, moreover, such interaction is possible only within some formal framework of parliamentary rules of procedure (De Jouvenal 1961). Fiscal outcomes are intermediated by some constitutional framework. Fiscal outcomes emerge out of interaction that is structured by some set of constitutional rules.

Consider a simple textbook illustration of a lighthouse, and consider what would be involved in any effort by a group of people to arrive at something like Lindahl-type prices. It is conventional, of course, to conceptualize some quantitative dimension of lighthouse services, and with people having ordinary demand functions for that service. It is such a conceptualization that lies behind the model of Lindahl pricing. The world of political practice, however, is far more complex because of the manifold dimensions that would be involved. For instance, the number of lighthouses to be erected is one such dimension. The height of the lighthouses is another dimension, as are their location and the strength of their luminescence. Lighthouse architecture would surely be yet another dimension, as would the identity of the contractor hired to organize the

building (and whether that contractor might be forced to use union labor is yet a further possible dimension). If there were ten dimensions and ten options for each dimension, there would be ten billion options for collective choice. No collective entity will engage in such deliberation, as some form of agenda control will restrict the range of possible options. Which actual options are considered will depend on the interaction between the preferences of participants and the parliamentary rules that govern relationships and interactions among participants.

4. CBA in the Academy

Economists have always thought that their theories had value in promoting social improvement, if only public officials would pay attention. This was so even back at the classical beginnings of the discipline, as explained by Robbins (1952) and Samuels (1966). The central idea of CBA as a technique for harnessing economic theory to the service of collective efficiency is present clearly in Dupuit's (1844) treatment of measuring utility from public works. However, CBA as a tool of policy analysis that could gain a more receptive hearing for economists in the public arena was not systematically pursued until some economists took notice that the Army Corps of Engineers had begun using CBA on prominent water projects. For economists CBA was little more than the arithmetic governing decision making in a first-best, Kaldor-Hicks abstraction. Taking the microeconomic logic that a person will pursue actions only if the perceived benefits outweigh expected costs, and extending it to the social welfare of a community, a Kaldor-Hicks estimation of welfare is a fiction designed

to complement the Pareto criterion. As welfare economics prospered, economists using social welfare functions to analyze public goods, market failures, and related dilemmas found comparisons of costs and benefits to be a practical technical proxy for the desirability of various government policies. The official rules used by the government today are in fact those largely suggested by first-best welfare theory (Schmid 1989).

Perhaps unfortunately, the standards of CBA in practice could never live up to the standards of the academy. Economists had deep substantive concerns, embodied in debate and discussion over such matters as social discount rates, opportunity costs, shadow prices, distributional weights, and evaluative criteria. While these finer points of analysis fueled heated debates in the journals, the procedural reality had already left their hands. CBA was about to become a major policy tool, and as such it was to increasingly become the domain of political decision makers.

Academia and politics have a long-standing, often awkward, relationship. Keynes famously made his point about world leaders and revolutionaries mouthing the words of academic scribblers long since dead. While not the rule, if an idea grown and nurtured in the microcosm of academia is to become a fully entrenched institution, it typically has to enter the political sphere. This shift can have a profound impact on the nature of any idea. The selective criteria that dictate the evolution of an idea in the ecology of politics are very different than those that shape ideas in academia. Some see their ideas as warped or mutated when they finally emerge on the socio-political stage. Whatever the predominant

view, what cannot be ignored is that the institution that emerges can no longer be treated and evaluated as the blackboard concept originally conceived prior to its political evolution.

5. CBA in the Policy Arena

The use of CBA was adopted by the United States federal government in the 1930's to assess water resource projects. Prior analysis had been strictly a technical assessment of feasibility by the Army Corps of engineers. The River and Harbor Acts of 1927 and 1928 required estimated construction costs, though they carried no requirement for the justification of those costs. The Flood Control Act of 1936 stipulated that projects under its umbrella be "in the interests of the general welfare" and that its projects were justified "if the benefits to whomsoever they accrue are in excess of the estimated costs." It was left to the Department of Agriculture to calculate these costs and benefits (Fuguitt and Wilcox 1999). Similar tools were eventually used by the RAND and the military (Hitch and Mc Kean 196o), and the greater health community in evaluating "cost of illness." It was not, however, until the era of environmental political economy had dawned that CBA began its most rapid evolution from a blackboard exercise to a political institution. It was an evolution spurred, in large part, by Presidential Executive Orders.

The Executive Branch has relatively few powers enumerated in the constitution. Over time new powers have evolved, more generally through greater access to the media than any other branch, but specifically in its

establishment and guidance of the various regulatory agencies. This leadership often comes through the issuance of Executive Orders. Over the course of roughly two decades, each of five presidents issued an executive order related to the use of CBA within regulatory agencies.

The EO's issued by Presidents Nixon, Ford, and Carter were targeted toward the implementation of cost-*effectiveness* analysis of significant regulations, specifically the minimizing of costs in meeting specific regulatory, especially environmental, objectives. It the case of each of these presidents, two Republican, one Democratic, it can be fairly said that the goal was to reduce the regulation of the private sector (Weidenbaum 1997). Perhaps the greatest effect of these orders was to further establish the Office of Management and Budget as the de facto lobby for economic efficiency (Schultze 1977).

Reagan's EO 12291 represented a major departure from previous orders, requiring Regulatory Impact Analyses, and that "potential benefits outweigh the costs." This represents an explicit call for cost-benefit analysis and a major shift in how regulations were evaluated. More so, this type of analysis was not consistent with how most existing environmental regulation was written, having tended to focus on non-economic criteria such as "adequate margins of safety" or maintaining waters as "swimmable and fishable" (Morgenstern 1997).

This insistence on quantifiable measures was weakened by EO 12866 issued by President Clinton, requiring that the CBA include qualitative costs and benefits in the total analysis. Thus the full analysis must be conducted, and presented on record, but in justifying a regulation there is no longer an explicitly

quantitative decision-making formula. This weakening of the insistence need not be interpreted as motivated as an end to the trend towards deregulation. As we will discuss later, the evolution of the family of nested institutions may have progressed to a point where greater weighting of qualitative costs and benefits no long favored regulatory policies.

The family of Executive Orders establishing and reestablishing CBA in federal agencies engendered a climate increasingly rich with CBA and other economic methods of analysis. The Safe Water Drinking Act of 1996 required explicit CBA for all major drinking water rules. The Congressional Review Act of 1993 and the Regulatory Improvement Act of 1999 require agencies to send all major rules before Congress for review, conduct cost-benefit and risk analysis, and to submit those rules to independent peer reviewers. Less conspicuously, but no less important, has been the expansion of CBA in the network of bureaucratic agencies, municipal and state offices, and the private contractors that compete to serve them.

Spontaneously emerged orders are notable for their origination despite a lack of conscious organization. The seeding of CBA in the U.S. was accomplished through the executive branch, itself a conscious organizing force, exercising its allotment of sovereign power within the network institution of governance, but its power does not extend substantially beyond this seeding stage. Its power is limited to this ability to introduce and embed smaller institutions within the greater institution of the federal government. What it cannot do is control the manner in which the institution evolves and what selective

pressures shape its development. Agents within the polyarchy interact, conflicts of interest will arise and generate information regarding what does and does not work. These experiences will modify how the broadly stated procedures of a policy are substantively carried out (Majone and Wildavsky 1995). In fact, after introducing a decision-rule into the political ecosystem, an executive can do little to control whether the rule remains substantively effective or is procedurally neutered.

The emergence of cost-benefit analysis as a lingua franca in the greater institution of the public sector is similar in both its patterns of emergence and its effects on the greater institution operating within the society. As a shared language, the vernacular and grammar of CBA shapes what policies are proposed, how policy is viewed, how they presented to voting constituencies, and whether they are in the end judged favorably or unfavorably. It is in this manner that an institution originally embedded within the regulatory agencies of the federal government was able to spread to virtually every corner of the public sector and all activities organized through political, rather than private, networks. Cost benefit analysis is one of many political institutions that make up a disaggregated constitution of public finance. The enforced vagueness of constitutional law, allowing a greater share of GDP to be taxed and channeled through government, non-market relationships, has contributed to a growing body of rules that aggregate, and over time become hardened and entrenched, into a de facto constitution.

6. Agenda Setting and the Evolution of CBA

The source of demand for institutional change is the political recognition of gains that remain uncaptured (Ostrom, Feeny, and Picht 1988, Ch. 6). In examining the history of executive orders regarding the use of CBA, it is clear that there are strong political motives behind those pushing for and against its use. These motivations are rooted in the often underestimated but unavoidable arbitrariness of CBA (Richardson 2000) and the powerful agenda-setting capacity (Posner 2002) that any decision making rule carries with it. We should note in this regard that we are using a broad definition of agenda-setting, going well beyond the order in which rules or legislation are voted on. Our definition is broadened to encompass such things as the criteria with which policies are evaluated, the ex ante requirements and costs associated with policy proposition, and the circuitry of the political structure through which a policy proposal must pass. This expanded notion of agenda control complements the treatment of political outcomes, not as some ruler's choice but as an emergent feature of polycentric political processes (Wagner 2005), and which is certainly a more realistic political landscape (Becker 2000).

Polycentric processes leave considerable room for administrative discretion, as Morgenstern (1997) explains with respect to the U. S. Environmental Protection Agency. Within a polycentric framework, such discretion leaves much scope for avoiding academic concerns regarding the

precision and truth of cost-benefit measures of social welfare. Robert Hahn and Patrick Dudley's (2004) evaluation of the effectiveness of government executed CBA reveals that, when evaluated from an academic economist's point of view CBA is poorly done, without the necessary rigor or precision. Furthermore, they point out a general prevalence of decisions justified with insufficient information, specifically noting the lack of fundamental economic information and adequate summaries within the documentation behind decisions made. Such incompleteness leaves wide scope for interpretation, which makes it easier for superiors to arrive at their ex ante desired conclusions. The surface technicality of such exercises surely strengthens, and not weakens, the agenda-setting character of CBA by reinforcing the prominence of process over particular outcomes. For the ever-growing private industry of CBA in the form of think tanks and universities, the good they are often producing is not precise revelations of the economic reality, but rather the satisfaction of political sovereign demands, be those that of a committee chair or the director of OSHA.

An example can be found in the establishment of The Council on Wage and Price Stability in 1974 by President Ford. The immediate effect of Council was to strongly set the decision-making rules agenda against regulation, in this case ostensibly using inflation as the rationale.

> "…the council adopted the view that the major policy instruments determining the rate of inflation were fiscal and monetary policy but that . . . any policy action that increased the aggregate supply of goods and services would lower the rate of inflation and vice versa.

> This meant that a government regulation that generated benefits (that is, the addition to aggregate supply) greater than costs (the subtraction from aggregate supply) was in a real sense anti-inflationary." (Miller and Yandle 1979).

Such a decision rule, taken literally, could result in virtually any rule being deemed inflationary. Assuming that firms are ex ante competitive and seeking profits, no rule could push them to increase supply without reducing profits and in turn come at greater cost than benefit. More to the point, regulations are generally of the sort that limit productive options and in turn limit supply in some manner. As such the agenda is powerfully stacked against future regulatory policy propositions. We would contend that the accuracy of the social welfare mechanics were never of concern in their formulation, only the discretionary power they granted officials within the council.

The agenda setting power of CBA is far more general than this one example, as it takes several particular forms. Below we enumerate six of what we think are the more significant forms, knowing full well that the vagaries of politics and bureaucracy assuredly allow for agenda setting gamesmanship of great variety, subtlety, and nuance.

1: *Ex ante disfavor to policies whose benefits are difficult to quantify*. Costs are easier to monetize than benefits. The benefits of any new policy are inherently hypothetical, existing in a future than could be, often in the form of unrevealed demand. Costs, as defined as opportunity costs, exist in the present, and are immediately tangible. They are the present that is foregone for potential

future benefits. Requiring a cost-benefit analysis will put any proposed policy at a disadvantage relative to the status quo, particularly if the status quo is the absence of policy. This obstacle will serve to select for those policies whose benefits are more easily converted some specific quantity, notably dollars. It should not be considered coincidence that this represents a special problem for environmental regulations, particularly those for whom there is no directly measurable dollar amount of reduced health costs (bodies in hospital beds carry a price, people coughing when they walk outside do not). This can become particularly relevant if CBA is used as a screening device by politicians or officials (Nyborg 1998). Many agents may not be willing to risk their own political capital participating in deliberations in favor of policies that they cannot justify on a balance sheet.

2: *The shift in the burden proof*. The benefits of proposed regulation is often inherent to its intent (i.e. if you wish to limit carbon emissions, then regulating the amount of carbon that a factory can emit will intuitively generate that benefit). Thusly, in the public forum prior to CBA, those who were against regulation had to show that the benefits were either (a) falsely conceived or (b) insufficient relative to the costs, for whom the disapprovers had the task of uncovering. The burden of proof was on them to prove the ex ante accepted benefits came at too high a cost. With the executive orders requiring impact analyses to accompany with proposed regulations, the burden of proof was effectively shifted.

3: *Preference for Type I errors over Type II*. The context within which a proposed policy is evaluated is crucial to its prospects for approval. Any evaluation methodology carries with it a unique balance of quantitative and qualitative criteria. This balance will go a long ways towards shaping both the brand of policy likely to be approved. Policy evaluation necessarily entails both Type I and Type II errors. Where a Type I error would reject a beneficial policy, Type II error would approve a harmful policy. Benefits are often more qualitative than costs, particularly with regard to environmental policy. Under such circumstances, CBA would tend to increase the relative frequency of Type I errors. It is not surprising that market-interventionists were less enthusiastic about CBA than were parties that preferred reduced regulation, as noted by Morgenstern (1997) and Nyborg (1998).

4: *Costs imposed on policy proposition*. Increasing the costs of supplying any good will reduce production at the margin; public policy is no different. The requirement of formal CBA represents an additional cost on whomever is creating the product to be analyzed, regardless of whether the decision making body is the Senate, an agency board, or an agent's boss in the bureaucracy. This is especially true with additional requirement that the analysis be conducted by an independent peer reviewer, such as a think tank or university. As such, those who favor a reduced body of public policy will favor requiring the most stringent analytical standards possible.

5: *Legislation that never leaves committee*. Those who chair legislative committees typically command powerful positions of agenda control. A bill may

only come to a vote in committee if the chairman calls for it, so such a chairman may permanently strand a bill in committee. The requirement of CBA for proposed bills opens the possibility for the formation of a sub-committee to which conduct and oversight of CBA is dedicated. This avenue for extension of the local committee polyarchy increases the number of potential gatekeepers in a proposals path to becoming law. With each additional gatekeeper there exists the potential for obstruction of the bill with an event probability greater than zero. More generally, additional stages in the path from bill to law bear the opportunity for the exercising of agenda setting power.

6: *Behavioral considerations*. If a deciding body is given qualitative benefits and quantitative costs (or vice versa), they are forced, when making a decision, to convert one metric to the other. Behavioral biases can lead to systematic errors in the evalutation of these qualitative constructs. Qualitatives take on a potentially binary quantitative conversion – either “low” or “high.” Strategic politicians favoring a regulation will, under circumstances where quantitative accounts do not favor their preferences, construct benefits in qualitative categories with more romantic images, often bearing the description of being “priceless.”

The nature of these, and other, sources of directional bias within the political landscapes are constantly shifting in direction and magnitude. Political entrepreneurs with conflicting goals will constantly be presented with incentives to employ their time, effort, and imagination in an effort to shift the balance in their favor, even if only momentarily. The establishment of political property rights

via the legislative committee structure (Weingast and Marshall 1988) serves to further coalesce the objects of desire competed for. This political ecology becomes analogous to an evolutionary view of the market in this regard, adopting agents and practices (Alchian 1950) who are best able to manipulate the institutional environment they are working within in the competition for various ends, be they rents, claims to power, or utility derivative of principle and ideology. Within this ecology, institutions are subject to selective pressures which shape their evolution. In this respect, we would expect the dominant form of CBA which emerges over time to be one with maximum agenda setting potential and only incidental economic precision and insight.

7. A Summing Up

Whether a decision rule can become an institution depends on where it originally emerges; the number and strength of the connections of the "node" pushing for the decision rule's greater implementation will go a long way towards determining its impact and staying power. The use of the decision rule can be viewed as akin to communicable disease spreading through the network. The initial conditions matter a great deal as to whether it will survive and prosper amidst resistance.

Within a polycentric framework of public finance, existing political institutions are modeled as emergent from within the overlapping spheres of the various governance structures. Relationships within such a framework are guided by the self-interest of agents, but also by the constitutional structure that governs

both spheres. While property rights pervade all relationships, they are differentially limited relative to the dominant sphere governing a specific agent relationship, with greater individual veto power/autonomy in market relationships, and greater coercive power in non-market relationships. In such a framework, a tool such as CBA can originate in market relationships dealing with explicit dollar quantities, make the jump to non-market interactions where a different set of selective criteria lead to a divergent evolutionary path. While within market relationships modeled by economists, the use of CBA evolved under the selective pressure of profit maximizing trade and contract formation, thus more closely adhering the antiseptic world described by near-perfect competition. Conversely, in the public, collective sphere, selective criteria fall almost exclusively under the broad heading of agenda setting.

Policymaking and budgeting does not represent someone's maximizing choices, for rather those outcomes emerge out of the interactions of the multitudes of interested participants. Those interactions, in turn, are mediated, shaped, and channeled through sets of rules and institutions. CBA now occupies a place in that process, whereas it did not have such a place half a century ago; we have witnessed the establishment and entrenchment of an institution, albeit a relatively small, nested one.

CBA, like any other academic endeavor, technique, or field, carries with it a specific jargon and grammar. As government usage of and requests for CBA became increasingly prevalent, it in turn became a language that everyone came to use to some degree. Languages, like media of exchange, tend to be

institutions that remain in question until the systems tips in a rapid cascade. Reversing this trend is extremely difficult; regime changes in tipped systems are rare in occurrence and violent in nature. As such we would expect the use of CBA to remain entrenched.

While the first two executive orders requiring CBA came from sitting Republican presidents, it should not be assumed that CBA inherently favors conservative policy. Whenever benefits are more difficult to quantify, such as those concerning “morals” or “values,” policy proponents will find their task more cumbersome, as costs are more easily quantified, if not outright monetized, and at the very least any policy or regulation will carry with it least some cost of adoption and enforcement. Typically the answer comes in the form of non-cash metrics. Environmentalists come armed with counts of lost species and eroding acres of land, Christian conservatives with unwed mothers and juvenile delinquents.

This is, however, not to say that the agenda setting ramifications of the institution of CBA cannot change. If at any one moment the institution has some directional bias that other people want strongly to overcome, they will make efforts to do so, possibly through an excision of the embedded institution, but more likely by changing the language and understood meanings, and hence the very nature, of the institution. If some people use CBA to place more attention on cost, others with opposing desires will start to speak of the priceless character of certain types of alleged program benefits. If quantifiable data is required, but dollar amounts do not speak favorably to your bias, you will introduce alternative

quantifiable data, such a numbers of species lost, particles per million of a certain compound, or increase in degrees of the ocean temperature. Regardless of the goals individuals choose to pursue, CBA becomes ever more suffused throughout the policy process, though without permanence in directional bias. In the end, the prime accomplishment of CBA may be to give economists a more prominent place in policy circles and in the staffing of consulting firms.

Notes

[1] For a wonderful survey of the field see Prest and Turvey 1965).
[2] Marx's letter to Jules Guesde in which he declares "I myself am not a Marxist" comes to mind.

References

Alchian, A. A. (1950). "Uncertainty, Evolution, and Economic Theory." The Journal of Political Economy 58: 211-221.

Anderson, L. G. and R. F. Sedttle. 1977. Benefit-Cost Analysis: A Practical Guide. Lexington, MA: D. C. Heath.

Backhaus, J. G. and R. E. Wagner. 1987. "The Cameralists: A Public Choice Perspective." Public Choice 53: 3-20.

Becker, G. S. (2000). "A Comment on the Conference on Cost-Benefit Analysis." The Journal of Legal Studies 29: 1149-1152.

Daiches, D., P. Jones, and J. Jones. 1986. A Hotbed of Genius: The Scottish Enlightenment, 1730-1790. Edinburgh: Edinburgh University Press.

Dam, K. W. 1977. "The American Fiscal Constitution." University of Chicago Law Review 44: 271-320.

De Jouvenal, B., 1961. “The Chairman’s Problem.” American Political Science Review 55: 368-72.

Dupuit, J. (1844, 1952). "On the Measurement of Utility of Public Works." International Economic Papers 2: 83-110.

Ekelund, R. B. and R. F. Hébert. 1999. Secret Origins of Modern Microeconomics: Dupuit and the Engineers. Chicago: University of Chicago Press.

Fuguitt, D. and S. J. Wilcox (1999). Cost-Benefit Analysis for Public Sector Decision Makers. Westport, Conn., Quorum Books.

Hahn, R. W. and P. Dudley (2004). "How Well Does the Government Do Cost-Benefit Analysis?" Working Paper, AEI-Brookings Joint Center for Regulatory Studies.

Hahn, R. W. and R. E. Litan. 2007. “The President’s New Executive Order on Regulation.” The Economists’ Voice 4, Issue 2, Article 1.

Hanke, S. and R. Walker (1974). "Benefit-Cost Analysis Reconsidered: An Evaluation of The Mid-State Project." Water Resources Research 10: 898-908.

Haveman, R. H. and J. Margolis, eds. 1977. Public Expenditure and Policy Analysis, 2nd ed. Chicago: Rand McNally.

Hitch, C. J. and R. N. McKean. 1960. The Economics of Defense in the Nuclear Age. Cambridge: Harvard University Press.

Howitt, P. and R. W. Clower. 2000. “The Emergence of Economic Organization.” Journal of Economic Behavior and Organization 41: 55-84.

Layard, R. and S. Glassiter., eds. 1994. Cost-Benefit Analysis, 2nd ed. Cambridge: Cambridge University Press.

Majone, G. and A. Wildavsky (1995). The Implementation Game. Public Policy : the Essential Readings. S. Z. Theodoulou and M. A. Cahn. Englewood Cliffs, N.J., Prentice Hall**:** xii, 402 p.

McKean, R. N. 1958. Efficiency in Government through Systems Analysis. New York: Wiley.

Menger, C. (1892). "On the Origin of Money." The Economic Journal 2: 239-255.

Miller, J. C. and B. Yandle, eds. 1979. Benefit-Cost Analyses of Social Regulation. Washington, American Enterprise Institute.

Mishan, E. J. 1976. Cost-Benefit Analysis. New York: Praeger, 1976.

Morgenstern, R. D. (1997). Economic analyses at EPA : Assessing Regulatory Impact. Washington, DC, Resources for the Future.

Nelson, R. R. and S. G. Winter (1982). An Evolutionary Theory of Economic Change. Cambridge: Harvard University Press.

Nyborg, K. (1998). "Some Norwegian politicians' use of cost-benefit analysis." Public Choice 95: 381-401.

Ostrom, V., 1973. The Intellectual Crisis in American Public Administration. University, AL: University of Alabama Press.

Ostrom, V., D. Feeny, and H. Picht. 1988. Rethinking Institutional Analysis and Development. San Francisco: ICS Press.

Posner, E. A. (2002). "Controlling Agencies with Net-Benefit Accounts." University of Pennsylvania Law Review 150: 1473-88.

Prest, A. R. and R. Turvey (1965). "Cost-Benefit Analysis: A Survey." The Economic Journal 75(300): 683-735.

Resnick, M. (1994). Turtles, termites, and traffic jams : explorations in massively parallel microworlds. Cambridge, Mass., MIT Press.

Richardson, H. S. (2000). "The Stupidity of the Cost-Benefit Standard." The Journal of Legal Studies 29: 971-1003.

Robbins, L. 1952. The Theory of Economic Policy in English Classical Political Economy. London: Macmillan.

Samuels, W. J. 1966. *The Classical Theory of Economic Policy*. Cleveland: World.

Sassone, P. G. and W. A. Schaffer. 1978. Cost-Benefit Analysis: A Handbook. New York: Academic Press.

Schmid, A. A. (1989). Benefit-cost analysis : a political economy approach. Boulder, Westview Press.

Schultze, C. L. (1977). The public use of private interest. Washington, Brookings Institution.

Wagner, R. E. 2005. “Self-Governance, Polycentrism, and Federalism: Recurring Themes in Vincent Ostrom’s Scholarly Oeuvre.” *Journal of Economic Behavior and Organization* 57: 173-88.

Wagner, R. E. 2007. Fiscal Sociology and the Theory of Public Finance. Cheltenham, UK: Edward Elgar.

Williams, A. 1972. “Benefit-Cost Analysis: Bastard Science? And/or Insidious Poison in the Body Politik?” Journal of Public Economics 1: 199-226.

Weidenbaum, M. (1997). "Regulatory Process Reform From Ford to Clinton." Regulation 20, No. 1.

Weingast, B. R. and W. J. Marshall (1988). "The Industrial Organization of Congress; or, Why Legislatures, Like Firms, Are Not Organized as Markets." The Journal of Political Economy 96(1): 132-163.

Wildavsky, A. 1979. Speaking Truth to Power: the Art and Craft of Policy Analysis. Boston: Little, Brown.