Public Choice

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Introduction

Public choice economics is the intersection of economics and politics. It uses the tools of economics to examine collective decisions. Public choice economics reflects three main elements: 1) methodological individualism, decision making occurs only with individuals; 2) Rational choice, individuals make decisions by weighting the costs and benefits and choose the action with the greatest net-benefit; 3) Political exchange, political markets operate like private markets with individuals making exchanges that are mutually beneficial (Buchanan, 2003). It is this last element that makes public choice a distinct field of economics.

Using the basic tools and assumptions of economics on collective decisions provides many insights. Economists assume that individuals are rationally self-interested in private decision making. However, this assumption is not always applied to the realm of collective decision making. In fact, for the first half of the 20th century it was argued that collective choices are made based on what is best for society. This view is referred to as public interest theory. Early public choice scholars called this dichotomy of behavior into question, arguing that individuals are rationally self-interested regardless of which sector they operate. The public interest theory does not allow for someone operating in the public sector to make decision based on what would solely benefit them. However, the public choice theory properly understood does acknowledge that when an actor in the public sector acts his own self-interest it may be consistent with the public's interest. In this regard the public choice view is a more encompassing theory.

Assuming that individuals are rationally self-interested and applying the laws of supply and demand provides a unique understanding of political decision making (for the purposes of this chapter the terms political and collective decision making will be used interchangeably). Voters can be thought of as demanders or consumers of public policy; as such they are concerned with having policies enacted that will benefit them. Politicians act as suppliers of public policy. Just as businesses in the private sector compete for consumers politicians compete for voters. If businesses want to maximize profits, then politicians want to maximize votes. Unlike private markets, public sector decision making has a third party involved in the decision making process: bureaucrats or civil servants. These are the individuals who run government and carry out the public sector choices and policies on a day to day basis. Bureaucrats are not elected, which means they do not directly serve a group of constituents. The public choice view of bureaucrats is that they maximize power, prestige, and perks associated with operating that bureau. To accomplish this goal bureaus maximize their budgets.

Public choice theory provides a way to evaluate collective decision making that not only allows for positive analysis, but also address some of the normative issues associated with policy making. The rest of the chapter provides an overview of the origins of public choice theory and the contributions it has made to the discipline of economics.

Origins of Public Choice

Public choice economics emerged from public finance, which is the analysis of government revenues and expenditures. According to James Buchanan (2003), it was evident by the end of World War II and early 1950s that economists did not have good understanding of public sector processes. Economists began to realize that the naive public interest view did not reconcile with the reality of politics. Buchanan made his first endeavor into this issue in 1949. Around that same time two other scholars began to examine a similar question. Duncan Black (1948) began examining the decision making process of majority voting in committee settings. Kenneth Arrow (1951) was examining whether choices of the individual could be aggregated to create an overall social ordering of preferences. Arrow concluded what is now known as his Impossibility Theorem that it is not possible to aggregate preferences to develop a social welfare function. The only way the preferences of individuals could be consistent with those of society is if a dictatorship existed and the preferences of society are those of the dictator's. Arrow's theoretical contributions served to inspire public choice theorists, but formally developed into what is now known as social choice theory. Social choice theory is focused on the concern of social welfare and the public's interest. It examines how collective decisions can be made to maximize the well-being of society. Further analysis of social choice theory is beyond the scope of this chapter (see Arrow *et al.*, 2002 for more on social choice).

Public choice theory was developed primarily upon the work of James Buchanan, who was awarded the Nobel Prize in Economics in 1986. Buchanan was inspired by Swedish economist Knut Wicksell, who can be considered a precursor to public choice theory. Wicksell's focus on the role of institutions lead James Buchanan and Gordon Tullock, to write *The Calculus of Consent: Logical Foundations of Constitutional Democracy*. This seminal work is considered to be the origins of the public choice revolution (Gwartney and Wagner, 1988).

The public choice revolution that began in 1962 with *The Calculus of Consent* called into question not only how political decisions are made, but the role of government in the private sector. Prior to the development of public choice theory, many economists argued that there are instances where private markets will fail to allocate resources efficiently: externalities, public goods, and monopolies. The conventional view was that government intervention could improve the allocative efficiency through taxes, government production, or regulation of the market. Public sector officials were thought to make decisions based on the public's interest and improve the overall welfare of society. However, this view is at odds with the economic and political reality of public sector outcomes. While most economists do not favor policies such as price controls, tariffs, and regulatory barriers that impede competition, these types of policies are common public sector outcomes. More specifically, public choice economists started asking if government intervention is the means to correct market failure then why does government enact policies that often increase economic inefficiency. Public choice's concept of all individuals acting rationally self-interested provided an answer to this question. It reminded us that government is not an entity that is seeking social welfare, but merely a set of rules under which decisions are made. While self-interest leads individuals to socially enhancing outcomes, via Adam Smith's invisible hand, these same motivations under government institutions can actually create outcomes that are not beneficial to society. The conclusion that emerges from this field of economics is that if one is to acknowledge that market failure exists then one must recognize that government failure exists.

Voting in a Direct Democracy

The issue of voting and majority rule was at the forefront of the development of public choice theory, and is still the subject of much of the literature written today. All the aspects of voting that have been addressed by public choice scholars are too vast for this chapter therefore the focus will be on the seminal work in this area.

Majority Voting Cycles

Beginning with the work of Black (1948) and Arrow (1951) the idea emerged that when voting for two candidates, referendums, or policies; if preferences are not single peaked then majority voting can result in a cyclical voting pattern. This concept can be illustrated with Table 1. Three voters: Gordon, James, and Anthony are represented across the top of the table with each voter's ranking of preferences being represented by the order in the column. Thus, column 1 shows that Gordon ranks his preferences as A, B, and C. Similarly, columns 2 and 3 show the preferences of the other two voters. Based on the preferences of these three individuals when these options are voted on in pairs there is no decisive winner. Option A paired with B will result in A winning.

Option B will defeat option C, and similarly option C will defeat option A. The outcome will be determined by the number of elections that will occur and in what combination the options are paired. There is not a single option that wins the majority of votes. Two further concepts regarding voting developed in light of voting cycles are the median voter model and agenda manipulation.

Table 1 Preference Analysis for 3 voters

Gordon's Preference Ordering	James' Preference Ordering	Anthony's Preference Ordering
A	B	C
B	C	A
C	A	B

Median voter model

The median voter model arises out of the need to assume single peaked preferences. Single peaked preferences exist when one option is preferred by voters above all others. If single peaked preferences exist then cycling is no longer a concern. In addition, the option must be a single dimensional issue e.g., measuring government expenditures from left (less) to right (more) on an x axis. With these assumptions a majority rule will lead to the median voter's position always winning. The median voter model has several applications for evaluating voting decisions: committees, referenda, and representative democracy.

Figure 1 Median Voter Model for a Committee

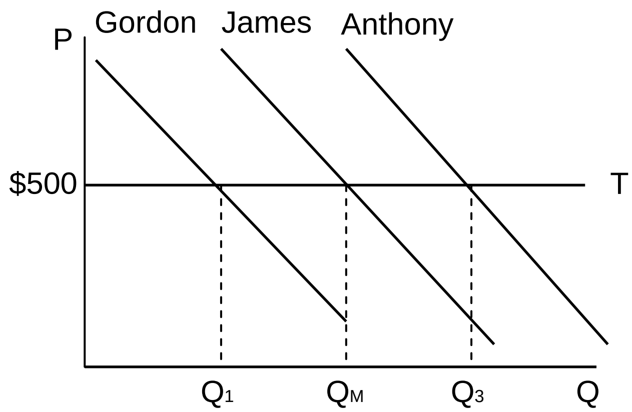


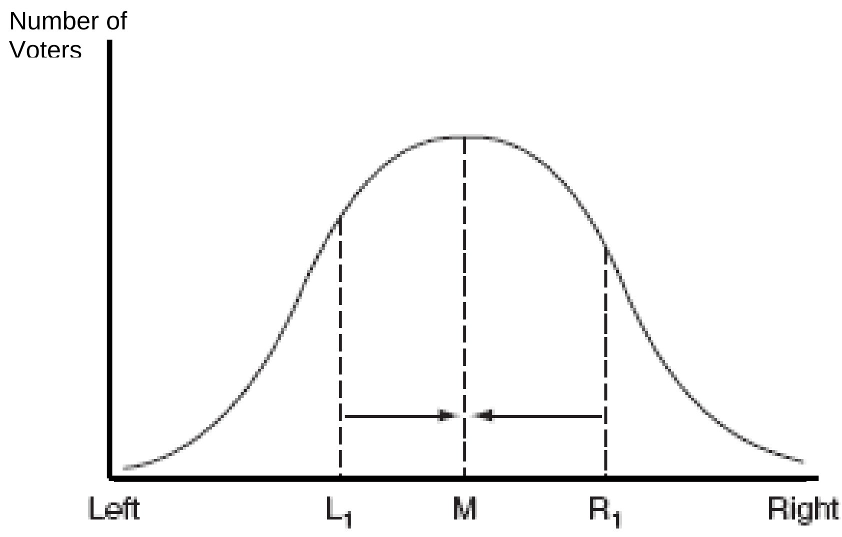
Figure 1 demonstrates the median voter model. Imagine that Figure 1 represents spending on education to be voted on by a committee. The price axis (P) represents the amount of education spending. Committee members Gordon, James, and Anthony all pay the same tax price (T) $500. The difference is the quantity they would like to receive for that tax price. The horizontal or quantity axis (Q) represents the amount of education each voter prefers. Gordon prefers quantity Q_1, which is less than James, who is the median voter and desires Q_M, and Anthony prefers the largest quantity Q_3. Given the voters have single peaked preferences and the single dimension of the issue, either a greater or lesser quantity of education at T, then in a majority vote Q_M the quantity preferred by James (the median voter) will always win. In a committee environment Gordon would suggest Q_1, his most preferred outcome then James, the median voter, would counter with Q_M his most preferred outcome. Gordon will vote for Q_1 while James and Anthony would vote for Q_M, and Q_M would win by a vote of 2 to 1. If Anthony proposes Q_3 then James would propose Q_M and this quantity would again win by a vote of 2 to 1 with Gordon and James voting for Q_M and Anthony voting for Q_3.

Any pairing with Q_M will result in Q_M winning since Q_M would be preferred by Gordon and Anthony relative to Q_3 and Q_1, respectively (Holcombe, 2005).

This proposition will hold for a referendum as well where the government would propose a quantity of education (still referring to Figure 1). If the referendum were to fail then another one will be proposed until the amount Q_M is on the ballot, which can win a majority.

The median voter model applied to selecting a candidate is a slightly different analysis. Voters decide upon a candidate who will represent their preferred position on a multitude of issues i.e., a party platform. Figure 2 demonstrates the median voter model in the context of representative democracy. Candidates for office can position themselves based on party platform on the horizontal axis from left (liberal) to right (conservative). The vertical axis measures the number of voters that identify with that political position. One additional assumption is that voters are distributed normally across the population so that the most voters exist at the median (M).

Figure 2 Median Voter Model in a Representative Democracy



The median voter model in this context was first presented by Harold Hotelling (1929). Hotelling argued that businesses and politicians, in a two party system will locate at the median to attract the most customers and voters. It was Anthony Downs (1957) who first suggested that political parties are strategic in their adopting of policies. According to Downs (1957, 28), “parties formulate policies in order to win elections, rather than win elections in order to formulate policies.” Politicians as rationally self-interested actors are concerned with winning elections and will therefore run on policies that will appeal to the decisive median voter. Referring to Figure 2, candidate L_1 and candidate R_1 will both move toward M where the greatest number of voters reside in order to maximize their vote share. Thus, candidates want to present policies that appear as centrist or “middle of the road” as possible. This will allow the candidate to attract all the votes to the left (right) of their position for L_1 (R_1) plus M, and possibly voters to the right (left) of M if they are closer to M than R_1 (L_1). One conclusion from this application is that extreme candidates either to the right or left cannot win elections dominated by a two party system.

Agenda manipulation

In the presence of voting cycles the agenda setter has significant power as to the final outcome. With a committee structure, in the presence of cycles the rules that dictate how the agenda will be set matter in determining the end result. An agenda setter, a committee chair for example, with the desire to have his preference be the outcome can structure the votes to achieve this end. Following the example from Table 1, suppose that committee members are all voting sincerely for their preferences. Suppose that Gordon is the agenda setter and prefers option A over B and C. He would pair option B with C knowing that B will win and then proposes option A vs. option B. Option A will defeat option B and at that point the agenda setter can suspend all further voting with the result being option A. Harrington (1990) argues that even when the agenda setter is selected at random, in the presence of voting cycles, that individual has the advantage of acquiring his desired outcome over the other members of the committee. Public choice scholars have noticed that despite the focus on voting cycles there appears to be stability in Congressional committee voting (Tullock 1981). Committees rely on a particular set of rules that allows an agenda setter to avoid these cycles.

Logrolling

Economists argue that voluntary exchange is always mutually beneficial, presumably without imposing costs on others. When an opportunity exits for parties to gain from exchange then it is in an individual's rational self-interest to engage in that trade. Political decision making is no exception. One reason for why voting may appear stable in the context of cyclical voting is the ability of politicians to exchange votes. Casting a vote does not indicate any intensity of preference. The congressman from Michigan's vote counts the same as a congressman from South Carolina. However, the intensity of the preference associated with a piece of legislation may be greater for one congressman than another. While the actual buying or selling of votes is illegal, as an informal practice this process has been occurring since the beginning of legislatures. Vote trading or "logrolling" can be described as "you scratch my back I will scratch yours" process. Logrolling helps to explain why redistributive polices that benefit only a small segment of the population can be passed and continue to be passed with regularity.

Suppose a congressman from Michigan would like to pass a tariff that would protect the domestic automobile industry. This tariff will benefit the citizens of Michigan who work for that industry while citizens across the country bear the cost of the tariff. Why would a congressman from South Carolina support this legislation if his constituents will not directly benefit from this policy? If the congressman from South Carolina would like to receive votes for an infrastructure project, such as a bridge, then he may vote for the tariff in exchange for the Michigan congressman's vote. The citizens of Michigan and the other states are unlikely to directly benefit from the building of a bridge in South Carolina in the same way that most citizens will not benefit from the tariff. These types of redistributive policies that benefit a specific congressman's district or state are known as pork barrel legislation.

One can argue that logrolling, especially in the case of pork barrel legislation, is simply tyranny of the majority because these types of policies benefit one group of citizens at the expense of another. Overall there is no increase in net-benefit for society, while the congressmen from Michigan and South Carolina, and their constituents, may be better off although trade occurs. In the public sector these benefits come at the expense of others. One conclusion then is that majority voting where logrolling occurs will always increase government spending on redistributive policies (Tullock 1959).

Public Choice applied to Representative Democracy

Thus far the focus has been on direct democracy where citizens or committees directly vote for some policy, but what about voting for representatives? In the U.S., most citizens do not directly vote to pass legislation, although that is possible in the cases of referendums. Rather they vote for politicians who will in turn represent them at some level of government.

Paradox of voting

Unlike private markets where an equilibrium outcome exhausts the gains from trade, the cost and benefits associated with voting provides a different outcome. Voting for a representative presents a scenario where the costs outweigh the benefits. Economists argue that individuals will not participate in activities that will not provide a net-benefit. If voting does not provide a net-benefit than no one should vote, and yet people do vote. This paradox of voting can be better understood by further examining the theory of the rational voter.

Rational voter hypothesis: instrumental voting

The rational voter hypothesis was first developed by Downs (1957) and then further developed by Tullock (1967a) and Riker and Ordeshook (1968). This topic has generated scores of articles by public choice scholars and continues to be a topic of interest (see Aldrich, 1993). Here the simple economic application of cost benefit analysis is demonstrated. Instrumental voting is simply the voter weighing out the expected benefits and costs of voting. The expected benefit of a voter's preferred candidate winning must be greater than the costs associated with voting. For an individual to vote requires that $PB - C > 0$. Where B is the expected benefit that a voter receives if their candidate wins the election. P is the probability that one's vote is decisive in determining whether or not the desired candidate win's the election. In its simplest calculation one can think of P as 1/N, where N is the total number of voters participating in the election. Thus, as N gets large the probability of being the decisive vote for your candidate becomes infinitesimally small. Mueller (2003, 304-305) provides a more detailed calculation of P. Thus, the probability of being the decisive vote for one's preferred candidate is PB. C is the cost of voting. The opportunity cost of ones time to actually go the poll, and the time one may spend learning about the candidates. Given, that the probability of a voter being decisive is perceived as nearly zero (in large elections) then even a small cost of voting should keep the rational voter away from the polls.

To complicate matters if Down's hypothesis regarding candidate's behavior and the median voter are correct, then candidates will quickly move to the center to capture the median voter and win the election. However, if both candidates' position themselves at the median than how does the voter perceive a difference between the two candidates? As the candidate's move to the middle the benefit, B, one see's for voting for candidate L_1 over R_1 (to use the notation from Figure 2) becomes smaller. Thus, PB may be very small even in cases where P is not infinitesimally small. By this logic no one should ever vote and yet millions of people turnout to vote in elections, hence the paradox. In an attempt to rescue the rational voter hypothesis Tullock (1967a) and Riker and Ordeshook (1968) include an additional component to the voter's calculation. They suggest that the calculation is PB + D – C > 0, where D is a psychic benefit from voting. This psychic benefit can be perceived as a desire to vote or to fulfill one's "civic duty." Therefore, if a voter participates in an election then D must have been larger then C.

Rational voter hypothesis: expressive voting

A further development of the rational voter hypothesis is expressive voting. The expressive voting hypothesis picks up where the instrumental hypothesis leaves off. The term D, or the psychic benefit one receives from voting, now includes the utility that one receives from being able to express her preference. Brennan and Buchanan (1984) and Brennan and Lomansky (1993) take a slightly different view of expressive voting suggesting that voters are still rational in turning out to vote, but not because they are decisive. In fact, the hypothesis now assumes that voters understand that they will not be decisive, but instead find value in being able to express their preference for a particular candidate even if they know that their vote will not change the outcome. Expressive voting has been likened to cheering for your team at a sporting event. One knows that cheering louder will not change the outcome of the game, but the fan wants to express his support for the team.

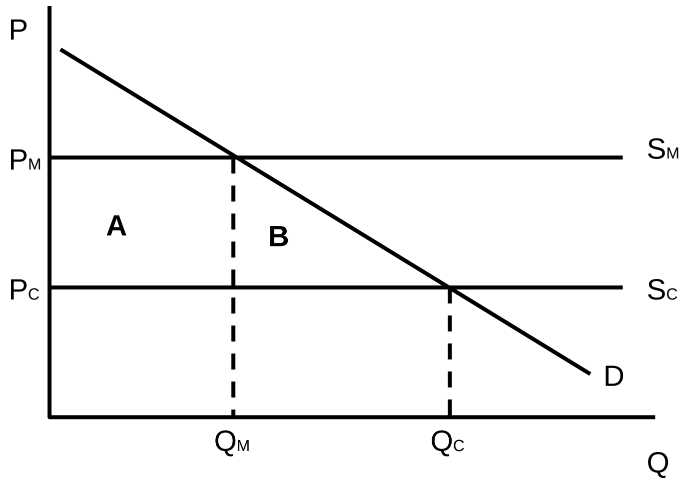
Rent Seeking

Perhaps Gordon Tullock's (1967b) greatest contribution to the field of public choice is the concept of rent-seeking, a term later coined by Anne Krueger (1974). In a market economy economists argue that firms seek profits. These profits (total revenue – total economic cost) provide necessary signals to entrepreneurs on how to direct resources. Industries that are earning profits will see an increase in resources while those that are experiencing losses will see resources leave the industry. The profit and loss signals are necessary for the existence of a well functioning market economy. In all market activities a business can only profit if they are in fact providing a good or service that is valued by consumers.

Rent-seeking is the process of business, industries, or special interest groups attempting to gain "profit" through the political process. Politicians can supply policy that provides an economic advantage to a particular group in the form of granting them monopoly power, or regulation that creates barriers to entry. The policy would benefit this group at the expense of the existing or potential competitors. These rents from the creating, increasing, or maintaining of a groups monopoly power involve a pay-off large enough that groups are willing to extend effort to acquire them. More importantly, the process of rent-seeking unlike, profit seeking, results in costly and inefficient allocation of resources.

Suppose Figure 3 represents the market for cosmetologists (hair dressers). Where D is the demand for these services and S_C is the supply in a competitive market. A simplifying assumption is made that the marginal cost of serving one more customer is constant, hence S_C is horizontal. If this market operates competitively the consumers will pay a price of P_C and be supplied a quantity of Q_C. Now suppose that the existing members of the cosmetology industry hire lobbyists to persuade government officials to impose new regulations on the industry that create higher barriers to entry giving it greater monopoly power. After the regulation is imposed the costs of becoming a cosmetologist increase causing the supply curve to shift from S_C to S_M. Consumers now pay the higher price of P_M and the cosmetologists will reduce the quantity to Q_M.

Figure 3 Rent-Seeking in the Cosmetology Market



In a traditional monopoly analysis the area labeled A would be known as the welfare-transfer. The suppliers gain the area A at the expense of the consumers in this market. These are the rents that the cosmetology industry is seeking through the political process. Area B is the deadweight loss, and is the loss of consumer and producer surplus. However, Tullock argued that both areas B and A are deadweight losses. Area A is the rents that can be extracted by the group through the use of government power. In this example the cosmetology industry, is willing to pay up to the amount of A to receive these rents. Real resources must be used to acquire these rents. They would hire lobbyists, lawyers, and consultants to meet with government officials. They may engage in a media campaign to justify the new regulations. In addition, there are other groups perhaps consumers, or a competing interest group that may spend resources in an attempt to prevent this regulation. These are costs above and beyond what may be gained by the cosmetology industry. In the end area B is a deadweight loss because real production is lost from Q_C to Q_M. Area A is a deadweight loss, or wasteful spending, because the real resources that are used not produce more real goods and services, but instead to acquire these rents, which creates regulation that promotes inefficiency in the market.

Rational Ignorance

If economists (and presumably government officials) realize that rent-seeking is wasteful, why does it occur so often? To answer this question we return to the supply and demand for public policy. Politicians can supply policy to different groups of voters: large unorganized groups such as the working poor, the middle class, or college students, and smaller well-organized groups such as unions, industry specific groups (automobile manufacturers), or groups organized by occupation (farmers). The unorganized groups are generally classifications of citizens that have only their individual vote. The organized or special interest groups provide contributions and often a large block of votes to a politician.

We know from our discussion of the rational voter hypothesis that the benefits from voting are extremely small, and the cost of voting may outweigh these benefits. More importantly, the costs of voting do not simply include the costs of voting on the day of the election, but the costs of knowing who or what is on the ballot. Being a well-informed voter is extremely costly. Voters have to research candidates' records, and policy positions, which are often not fully provided by the media, or in the candidate's literature. Citizens have to be aware of the goings-on within in their legislative body. The problem is being a well-informed voter does not change the probability or benefit of voting. Well intentioned and informed voters might participate only to see none of their proposals or candidates win. Thus, there is little benefit to being a well-informed voter. Therefore, the self-interested voter is rationally ignorant.

Voters focus on the few policies that matter to them and become aware of only whether or not the politician supports their view. It is rational, to remain ignorant of most issues and incur only the costs associated with the issues that are most important to that voter. A consumer shopping for a new car will not test drive every make and model before purchasing the car. At some point the additional information that can be gained from driving another car will be less than the cost associated with that test drive. The same idea applies to voters, beyond some point trying to gather more information about a candidate will prove too costly for the benefit, and choose to be ignorant.

It is this rational ignorance of voters that allows wasteful rent-seeking policies to occur. Most citizens remain unaware of the regulations surrounding a particular industry, or the motivations for imposing them. It is also important to realize that well organized special interests groups have the incentive to be well informed. The benefits to the special interests are large relative to the dispersed costs imposed upon the taxpayers.

Legislatures, Bureaucracies, and Special Interest Groups

If politicians want to maximize votes to win elections, then they can appeal to rationally ignorant voters in ways that convince the citizen to vote for them. For example, a politician campaigning on a college campus may speak on issues of affordable higher education. Rationally ignorant voters now know that this candidate will promote a policy that will benefit college students. These students may not seek out any additional information on the candidate and proceed to vote for her. Building on the concepts developed in this chapter we can see that legislators will supply public policy to special interest groups in addition to broad groups of voters. Legislators using logrolling and relying on the rational ignorance of voters will allow special interest groups to rent-seek in an effort to win or remain in office.

Special interest groups are typically organized based on industry, occupation, or a political cause. Mancur Olson (1965) argued that when these groups form to promote the interests of the groups they take on the characteristics of public goods, which means they suffer from the free-rider problem. Therefore, he argued that these groups will be more effective when they are relatively small, and if they are large they require what Olson referred to as “selective incentives” to minimize the free-rider problem. An example of a selective incentives is unions requiring that members have dues deducted from their wages, so that members cannot receive the benefits of the union without incurring the costs. Public choice economists have made two arguments why special interest groups contribute to elections: 1) In an effort to (re) elect politicians. 2) To influence the way a politician votes on a public policy relevant to the special interest group.

Political Action Committees (PACs) are the legal or formal method by which special interest groups make contributions to legislators. The empirical literature on the influence of PACs on elections and legislation is numerous. Kau and Rubin (1982, 1993), Munger (1989), Grier and Munger (1991), and Stratmann (1991, 1992, 1995, 1996b, 1998) find evidence that PACs give to legislator with the hope of influencing the legislator’s votes and not merely his/her chance to win office. For a brief review of this literature see Mueller (2003, 486-493). Calcagno and Jackson (1998; 2008) argue that

PAC spending increases roll call voting, the voting on legislation, for members of the U.S. Senate and House of Representatives. Thus, public choice economists argue that special interest groups have more influence on political decision making for three basic reasons. 1) Politicians want to win elections and special interest groups (PACs) can offer money and votes to improve the odds of winning. 2) Voters are rationally ignorant of the policies that special interest groups are lobbying for or against. 3) The costs of these policies offer concentrated benefits to the special interest group, and widespread costs on the individual voter.

Bureaucrats run the government on a day to day basis and include everyone from the clerk at the Department of Motor Vehicles to the head of the Food and Drug Administration. These individuals are primarily appointed and are not subject to the same accountability as politicians. These individuals cannot be voted out of office and many remain in these positions long after the politicians that appointed them have left office. William Niskanen (1971) was one of the first economists to examine bureaucracies from a public choice perspective. If bureaucrats like everyone else are rationally self-interested then what is it that they are maximizing? Niskanen argued that bureaucrats are budget maximizers. Larger budgets signal greater political power, prestige, and job security. Bureaucracies are difficult to monitor. This allows the bureaucrat to extract these non-pecuniary benefits. The model of bureaucracy is based on a monopoly model. The bureau is the only one producing this good or service for the public. They present to congress and the citizens an all-or-nothing demand curve. That means they can either produce the good or service for a specific budget or not at all. This perception is in part due to the difficulty of monitoring bureaus. Beyond that the output of bureaucracies is often difficult to measure, making it easier to present to the public a level of output that requires a specific budget.

Unlike the private sector where managers have the incentive to improve production and are rewarded for their efficiency by receiving higher profits, bureaucrats do not receive any such reward. Thus, the incentive of improving efficiency is not part of the bureaucracy institutional structure. Bureaucrats will seek larger and larger budgets under the guise of satisfying citizens. In addition, bureaus can appeal not only to satisfying the citizenry as a whole, but often provide a good or service that is specific to a special interest group. Bureaucrats make the special interest group aware of the goods or services they provide that benefits the group in an effort expand the bureau's patronage. Providing these goods or services encourages special interest groups to purse rent-seeking behavior, e.g. more benefits for the special interest group. Providing more good or services, allows bureaus to expand in size, scope, and budget.

Government as Leviathan

If politicians are maximizing votes, bureaucrats are maximizing budgets, special interest groups dominate the political process, and voters are rationally ignorant, then the logical conclusion is the theory of government as Leviathan. Rather than a benevolent government, which seeks to aid the public's interest the theory of Leviathan suggests government is a monopolist with the sole interest of maximizing revenue. Government officials cooperate to generate as much revenue as citizens will allow, or by what ever means they are constitutionally constrained. This view of government is at odds with traditional public finance that suggests that there are optimal levels to tax citizens and suggests that government officials are constrained by their accountability to citizens. If citizens (voters) are uninformed then government officials with the power to tax, spend, and create money are uncontrolled. Even with constitutional limits, rationally ignorant voters will not understand the amounts they are being taxed, the size of deficits and debt, and the impact of expanding money supplies. When government exceeds its constitutional limits, citizens may realize that they must monitor government more closely. However, these attempts to constrain government are often short lived. In the 1970s, voters attempted to constrain government with tax revolts and in the early 1990s with the contract with America (Mueller 2003). Brennan and Buchanan (1980) provide a complete analysis of the theory of government as Leviathan.

Political Business Cycle

While public choice is primarily a microeconomic field it examined the macro economy through the prism of business cycles. Business cycle theories can be broadly categorized by their causes: 1) large declines in aggregate demand, 2) expansionary monetary policy, and 3) technological shocks to the economy. While business cycle theories may suggest that government policy may play a role in the creation of the business cycle, public choice scholars take this view one step further. Business cycles are the result of government policy, primarily through monetary expansion, and these cycles coincide with election cycles. Political business cycle economists argue that politicians will attempt to improve economic conditions prior to elections so as to win reelection. Focusing on a simple trade-off between unemployment and inflation, politicians will pursue policies that will reduce unemployment and generate positive economic conditions. Monetary expansion and fiscal policy are used to reduce unemployment. Only after the election does the inflationary effect of the policy emerge and the boom becomes a bust. At this point the politicians start the cycle again. This opportunistic political business cycle in part relies on the rationally ignorant voter, but one wonders are voters fooled over and over again by such policies? An alternative explanation is that voters are selecting politicians that they believe will benefit them. If unemployment is a concern for a voter then he may vote for a politician who reduces unemployment because it will specifically benefit them.

According to Heckelman (2001), the first term of the Nixon administration provides anecdotal evidence of a political business cycle, and suggests that it was Nixon's administration that inspired early theoretical models. "Keller and May (1984) present a case study of the policy cycle driven by Nixon from 1969-1972, summarizing his use of contractionary monetary and fiscal policy in the first two years, followed by wage and price controls in mid-1971, and finally rapid fiscal expansion and high growth in late 1971 and 1972" (Heckelman 2001, 1). Similarly, Couch and Shughart (1998) find evidence that New Deal spending was higher in swing states than states with a greater economic need suggesting that the spending was motivated by Roosevelt's desire to be reelected. The empirical evidence of an opportunistic political business cycle has mixed results in the economics literature. In a recent study Kevin Grier (2008) finds strong support for the political business cycle. Between the years 1961-2004 he finds evidence that real GDP rises and falls in conjunction with presidential election cycles.

Normative Public Choice

The Importance of Institutions

Like most economics, public choice is primarily positive economic analysis, which means it is used to explain what is or what will happen. However, since public choice examines the world of political decision making and these decision affect factors such as economic growth, taxation, and individuals' standards of living it seems appropriate that it venture into the realm of normative analysis, or the way things should or ought to work. The use of normative economics in public choice has focused on the role of institutions. It is not enough to understand why voters may chose a particular candidate under majority rule, but to ask whether majority rule is the best institution to select elected officals. Gwartney and Wagner (1988, 25) argue that if individual actors are going to generate outcomes that benefit society then "success rests upon our ability to develop and institute sound rules and procedures rather than on our ability to elect 'better' people to political office. Unless we get the rules right, the political process will continue to be characterized by special interest legislation, bureaucratic inefficiency, and the waste of rent-seeking."

Constitutional Economics

The normative aspect of public choice can be seen as the overlap with social choice theory. One major normative analysis that emerges from public choice theory is constitutional economics. Like social choice theory, the fundamental question is what is the best way for a society to be organized so as to maximize the welfare of its citizens? It is precisely this question that Buchanan and Tullock (1962) tried to answer in *The*

Calculus of Consent. Constitutional economics can be thought of as both a positive and normative analysis. Focusing on the normative analysis the argument for a constitution is similar to other social choice theories that address the concept of a social contract. Public choice theory starts with the first stage of a convention being called to establish a constitution under uncertainty. The difference in these theories is the degree of uncertainty for the actors in this first stage of decision making. Buchanan and Tullock (1962) argue that in this first stage collective decisions are really individual decisions in which each individual follows his own self-interest.

The constitutional convention requires unanimity for it to have a successful outcome. If everyone agrees to the constitution then everyone is agreeing to abide by the rules even though some of those rules may ban or restrict their behavior in the future. It is in this way that the uncertainty comes into play. The actors know that certain actions will reduce the utility of individuals in the future, but they do not know at that point whether they will be one of the individual's affected. A first stage decision may be voting rule used in future elections: simple majority rule, a two-thirds majority, or three-fourths majority. By having unanimity in the first stage everyone is agreeing to that rule without knowing whether they will be in the majority in the future. It is not until the second stage when individuals are actually voting on policies, and candidates that she will know to what degree she will be affected by the first stage decisions.

One contention in this theory is whether constitutions are contracts or conventions. The contract theory views constitutions as a contract agreed upon and actually signed by the originators to signify their commitment. The convention view suggests that constitutions are a device by which social order and collective decisions are made. The convention view treats constitutions as self-enforcing because all parities understand the convention or device by which decisions will be made, and chose a convention in the first stage that maximizes social welfare. Thus, the second stage decisions are easily agreed upon, and no one has an incentive to violate the convention. The constitution as contract view requires an outside enforcement mechanism, such as a police force or court system to ensure that individuals do not violate the contract. Both views recognize that at the first stage the rules need to be constructed to create an incentive structure consistent with individuals being rationally self-interested. Otherwise, in the second stage individuals will generate outcomes that will not maximize social welfare. Constitutions possess characteristics of both contract and convention. While the self-enforcing feature of conventions is desirable one potential problem is constitutions can evolve over time and these decisions may be out of the citizens' control. With a constitution as a contract it is harder to change, but because it is enforced by the government it can create conflicts between the state and the citizen.

Anarchy

It is precisely the idea of the state as a neutral party that has some public choice scholars asking whether or not constitutions are the right means of organizing society. As has been noted throughout this chapter, individuals in the absence of sound institutions will create outcomes that are inefficient. Instead of a constitutionally limited state some economists argue that the logical conclusion from a public choice perspective is anarchy. Beginning in the 1970s public choice economists began to examine the issue of anarchy. The initial results were a pessimistic view that a state is still necessary to prevent individuals from plundering their neighbors. However, a younger generation of public choice economists has a more optimistic view (Stringham 2005). The absence of government does not mean the absence of rules or laws, but rather the form that they take. Private institutions through voluntary exchange and contracts will create a set of rules that individuals agree to abide by. This research is being revisited, and the question is being asked why not consider anarchy in the realm of possible choices.

Boettke (2005) points out that public choice economics presents a puzzle. He argues that Buchanan suggests that there are three potential functions for government: 1) protective, the state as protector of private property rights, 2) productive, improving inefficiency where warranted, 3) redistributive. The first two features many economists will argue are desirable, but the third the redistributive power of the state is the one that exists, but should be avoided. How do you create a state that will generate the first two and not the third? Boettke suggests that there is a fine line between individual's self-interested behavior being opportunistic, and being cooperative. Does this require the state, or can markets solve this puzzle? This issue provides an interesting area of future research in public choice.

Summary and the Future of Public Choice

It has been said the framers of the U.S. Constitution were the original public choice economists. Somewhere between the 18th century and the first half of the 20th century this view of politics and institutions changed. Beginning in the 1940s and then taking hold in the 1960s public choice economics emerged to return us to this original vision. Using economic tools to examine political choices provided new insights into the field of public finance. The dichotomy of private decision making as self-interested and public decision making as altruistic was confronted with a single vision of economic man. Individuals whether they are buying a car or deciding for which congressman to vote are now seen as behaving rationally self-interested.

Over the last half century the field of public choice has examined every aspect of political decision making from voting, to politicians behavior, campaign financing, to the running of bureaucracies. It has questioned whether political behavior drives our macro economy, the proper origins of the state, can the state be contained, and should the state even exist? Public choice economics has been integrated into the field of public finance and neoclassical economics such that not treating both private and public actors as rationally self-interested may be viewed as an incomplete analysis, and perhaps even naive.

Public choice has tackled many of these issues empirically finding strong evidence of rationally ignorant voters, rent-seeking, vote maximizing politicians, and the existence of an opportunistic political business cycle. It has ventured in the normative arena, asking questions of what type of institutional arrangements will generate the greatest prosperity and maximize social welfare.

What has emerged from this field is an understanding that if market failure exists so does government failure. Public choice economics presents a means by which market based outcomes can be compared to public sector outcomes and decide which institutional arrangement, even if flawed, will likely lead to greater economic efficiency (Gwartney and Wagner 1988).

Public choice theory continues to examine these issues both empirically and from a normative perspective. Public choice theory continues to make contributions to the field of economics analyzing every type of collective decision. With the government taking a larger and larger role in the economy public choice will continue to prove a useful field of analysis.

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Biography

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