Paper (2)

The Economics of Individual Behavior and Collective Decision Making

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The Theory of the Individual in Economics

Introduction:

Economics is a social science—it is about people and about how we organize ourselves to meet our needs and enhance our well-being. Ultimately, all economic behavior is human behavior. Sometimes institutional forces appear to take over (witness the tendency of some bureaucracies to expand over time), but if you look closely at any economic outcomes, you will find that they are ultimately determined by human decisions or behavior. Thus, economists have traditionally used, as a starting point, some kind of statement about the motivations behind economic actions.[1]

The concept of the individual is one of the most fundamental in contemporary society. It may even be the most fundamental of all our concepts. We cannot understand the historical evolution of political systems in terms of democracy, freedom, and human rights, the development of knowledge and science, and the quality and meaning of life without recognizing the centrality of the individual to our thinking. Human society could conceivably have developed differently in this regard. However, one thing we can know with certainty at this point in history is that individuality is a fundamental preoccupation of contemporary human society. In addition, the concept of the individual is central to the understanding of behavior in economics. Different approaches in economics implicitly rely on different theories of the individual. Yet in economics, with its tremendous influence on society, very little attention is given to the theory of the individual.[2&3]

Classical, Neoclassical, Recent Theories of Individual

A) Classical Economic Views of Individuals

According to Adam Smith's concept of the invisible hand, people acting in their own self-interest would, through markets, promote the general welfare. The concept of the invisible hand has become very famous, but it is often taken out of context to mean that if people only behave with self-interest, they will do what is best for the entire society. This interpretation would have astonished Smith, who, before writing An Inquiry into the Nature and Causes of the Wealth of Nations, had written another long book, The Theory of Moral Sentiments, in which he examined with care how people are motivated. His emphasis there is on the desire of people to have self-respect and the respect of others. He assumes that such respect depends on people acting honorably, justly, and with concern and empathy for others in their community. Smith recognizes that selfish desires play a large role but believes that they will be held in check both by the "moral sentiments" (the universal desire for self-respect and the respect of others) and also by the fortunate accident by which "in many cases" (not all!) selfish acts can "promote the public interest." Thus Smith's vision of human nature and human motivation was one in which individual self-interest was mixed with more social motives. Rather than starting with Robinson Crusoe, who lived

[1] Goodwin, et al. (2004). Economic Behavior and Rationality. 3 rd edition
[2] Note: this is true when it is compared with other social sciences.
[3] John B. Davis (2003). The Theory of the Individual in Economics: Identity and Value. Routledge.

alone on an island, he perceived that the behavior of any one person always had to be understood within that person's social context.

Smith was followed by other economists, such as the trade theorist David Ricardo and the philosopher/economist John Stuart Mill. They held similarly complex views of human nature and motivations. In 1890 Alfred Marshall tried to codify these ideas in a very influential text called Principles of Economics, which was published in eight editions, the last published in 1920. Marshall viewed the motives of human actors in an optimistic light—including those of economists, whom he assumed were motivated by a desire to improve the human condition. He specifically focused on the reduction of poverty so as to allow people to develop their higher moral and intellectual faculties, rather than being condemned to lives of desperate effort for simple survival.

B) The Neoclassical Model

In the twentieth century, the approach that came to dominate economics was known as the neoclassical model. This approach took a narrower view of human motivations. The basic neoclassical or traditional model builds a simplified story about economic life by assuming that there are only two main types of economic actors and by making simplifying assumptions about how these two types of actors behave and interact. The two basic sets of actors in this model are firms, which are assumed to maximize their profits from producing and selling goods and services, and households, which are assumed to maximize their utility (or satisfaction) from consuming goods and services. The two kinds of agents are assumed to interact in perfectly competitive markets.

Given some additional assumptions, the model can be elegantly expressed in figures, equations, and graphs. Some benefits can be gained from looking at economic behavior in this way. The assumptions reduce the actual (very complicated) economy to something that is much more limited but also easier to analyze. The traditional model is particularly well suited for analyzing the determination of prices, the volume of trade, and efficiency issues in certain cases. The neoclassical model was introduced to generations of students in 1948 with the publication of Paul Samuelson's textbook Economics: An Introductory Analysis. Samuelson's text promoted the idea that economics should be "value free" (i.e., it should be developed without reference to any human goals or values) and that it should be largely or purely deductive, meaning that it should derive conclusions from simple assumptions, about the motivations of market actors. In addition to the claim of being value free, through the second half of the twentieth century, many economists used another belief about the field to assert that their discipline was more scientific than other social sciences. They claimed that the entire system of economic theory is so purely deductive that everything in it can be deduced from one essential axiom[4]. This, the rationality axiom, states that "rational economic man maximizes his utility." (Some economists substitute for "utility" another term such as "self-interest," or "well-being.") This statement has often been interpreted to mean that pursuit of self-interest is the only thing that is done by rational economic actors—and that anything else is irrational. The statement that the subject of

[4] An axiom is a statement that is considered to be self-evident, without need of proof.

economics is "completely axiomatized" (i.e., everything in it can be deduced from this single basic axiom) has come under considerable criticism.

C) Recent Economic Theories

Recent economic theory has explored views of human nature and decision-making that go beyond the simple axioms of the basic neoclassical model. In this section, we examine other models of economic behavior that consider people's (1) choice of goals, (2) the actions they take to achieve these goals, and (3) the limitations and influences that affect their choices and actions.

Behavioral Economics: a subfield of microeconomics that studies how individuals and organizations make economic decisions.

In the past few decades, the neoclassical view of human behavior has been challenged by a strong alternative called behavioral economics, which studies how individuals and organizations make economic decisions. Studies in this area suggest that a more sophisticated model of human motivations is required to explain behaviors such as those that lead to stock market swings, the ways that people react to good and bad fortune, and why people often seem to act against their own self-interest.

Rather than making assumptions about human behavior, behavioral economics relies heavily on scientific experiments to determine how people behave in different situations.

For instance, consider the insights from one such experiment, which concerns a three-hour seminar class that has a short break in the middle, when the professor offers the students a snack. Every week, the professor provides the students with a list of possible snacks, and the students vote on which snack they want. Only the snack with the most votes is then provided. The results of this experiment show that every week students tend to pick the same snack—the one that is their favorite. With a different group of students, who are also taking a three-hour seminar class with a break, the students are instead asked in advance which snacks they will prefer for the next three weeks. In this case, students tend to vote for variety, thinking that they will not want the same snack every week. But this is precisely what students actually do want when they get to vote every week! When planning ahead, students think they will want variety, but when the time comes to consume a snack, students tend to stick with their favorite each time. Similar experiments have shown that people who go grocery shopping infrequently also tend to think that they will want variety, but in reality they tend to want their favorite foods more often.

Another illustration of behavior that does not fit older, rigid definitions of rationality concerns the way that we process information.

Availability Heuristic (Bias): placing undue importance on particular information because it is readily available or vivid.

Perhaps the most famous contemporary behavioral economist is not an economist by training. Despite being educated as a psychologist, Daniel Kahneman won the 2002 Nobel Memorial Prize in economic science. Kahneman's research has found that people tend to give undue weight to information that is easily available or vivid, something he called the availability heuristic **(Bias)**. ("Heuristic" means a method for solving problems.)

The availability Heuristic (Bias) happens we people often judge the likelihood of an event, or frequency of its occurrence by the ease with which examples and instances come easily to mind.

For example, suppose that college students are deciding which courses to take next semester, and they see a summary of evaluations from hundreds of other students indicating that a certain course is very good. Then suppose that they watch a video interview of just one student, who gives a negative review of the course. Even when students were told in advance that such a negative review was atypical, they tended to be more influenced by the vivid negative review than the summary of hundreds of evaluations, even though such behavior seems irrational.

Kahneman has also shown that the way a decision is presented to people can significantly influence their choices, an effect he referred to as framing.

Framing: changing the way a particular decision is presented to people in order to influence their behavior.

For example, consider a gas station that advertises a special 5-cent-per-gallon discount for paying cash. Meanwhile, another station with the same prices indicates that they charge a 5-cent-per-gallon surcharge to customers who pay by credit card. Although the prices end up exactly the same, experiments suggest that consumers respond more favorably to the station that advertises the apparent discount.

The Effect of Framing on Decisions

Suppose that you are presented with the following question: Imagine you are a physician working in an Asian village, and 600 people have come down with a life-threatening disease. Two possible treatments exist. If you choose treatment A, you will save exactly 200 people. If you choose treatment B, there is a one-third chance that you will save all 600 people, and a two-thirds chance you will save no one. Which treatment do you choose, A or B? Kahneman and Tversky found that the majority of respondents (72 percent) chose treatment A, which saves exactly 200 people. Now consider the following scenario: You are a physician working in an Asian village, and 600 people have come down with a life-threatening disease. Two possible treatments exist. If you choose treatment C, exactly 400 people will die. If you choose treatment D, there is a one-third chance that no one will die, and a two-thirds chance that everyone will die. Which treatment do you choose, C or D? In this case, they found that the majority of respondents (78percent) chose treatment D, which offers a one-third chance that no one will die. But if you compare the two questions carefully, you will notice that they are exactly the same! Treatments A and C are identical, and so are treatments B and D. The only thing that changes are the way the options are presented, or framed, to respondents. According to Tversky and Kahneman people evaluate gains and losses differently. Thus while treatments A and C are quantitatively identical, treatment A is framed as a gain (i.e., you save 200 people) while treatment C is framed as a loss (i.e., 400 people die). It seems people are more likely to take risks when it comes to losses than gains. In other words, people prefer a "sure thing" when it comes to a potential gain but are willing to take a chance if it involves avoiding a loss.

Source: Amos Tversky and Daniel Kahneman, "The Framing of Decisions and the Psychology of Choice," Science 211(4481) (1981): 453–458.

A common area of seemingly irrational economic behavior is personal finance.

For example, some companies offer their employees the option of matching contributions to their retirement plans; for each $1 the employee voluntarily contributes to his or her retirement plan, the employer matches it with an additional contribution. For example, with a 50 percent matching program, for each $1 an employee contributes, the employer contributes 50 cents. This amounts to an instant 50 percent rate of return on the employee's investment. Although most financial advisers suggest taking advantage of matching contributions, many employees do not enroll in such programs, voluntarily forgoing the opportunity to garner thousands of additional dollars for retirement. This is not necessarily irrational, as some employees may have pressing current economic needs. However, one research study looked at what happened when a large company changed its policy from a matching program that required employees to sign up for it (an "opt in" program) to a similar program in which employees were automatically enrolled but could opt out if they wanted to.3 Under the new (opt-out) program, 86 percent of employees stayed in the program. For comparable employees prior to the change, the participation rate was only 37 percent. The economic advantages were the same in either case, and the huge difference in participation rates is difficult to justify on the basis of the paperwork needed to sign up for the program. Again, the results demonstrate that framing can have a significant influence on people's choices.

An effect similar to framing is known as anchoring, in which people rely on a piece of information that is not necessarily relevant as a reference point in making a decision.

Anchoring Effect: overreliance on a piece of information that may or may not be relevant as a reference point when making a decision

In one powerful example, graduate students at the MIT Sloan School of Management were first asked to write down the last two digits of their Social Security numbers. They were then asked whether they would pay this amount, in dollars, for various products, including a fancy bottle of wine and a cordless keyboard. Assuming rational behavior, the last digits of one's Social Security number should have no relation to one's willingness to pay for a product. However, the subjects with the highest Social Security numbers indicated a willingness to pay about 300 percent more than those with the lowest numbers; apparently, they used their Social Security numbers as an "anchor" in evaluating of the worth of the products. In a real-world example of anchoring, a high-end kitchen equipment catalog featured a particular bread maker for $279. Sometime later, the company began offering a "deluxe" model for $429. Although they did not sell too many of the deluxe model, sales of the $279 model almost doubled because now it seemed like a relative bargain.

The Role of Time in Economic Decisions

Recent economic theory has also explored the role of time in economic decisions. The retirement program example cited above suggests that in making their decisions people might not appropriately weigh the future. In other words, people seem to place undue emphasis on gains or benefits received today without considering the implications of their decisions for the future. Further evidence of this is the large number of people who have acquired significant high-interest credit card debt; indeed, about 6 percent of Americans are considered "compulsive shoppers," who seek instant gratification with little concern for often very troublesome consequences of running up a great deal of debt. But you do not

need to be a compulsive shopper to fall short of the ideal "rational consumer" who knows and weighs all the relevant costs and benefits.

You may know someone who does not pay much attention to the future consequences of his or her actions. Economists would tend to say that this person has a very high time discount rate, meaning that in his or her mind, future events are very much discounted or diminished when weighed against the pleasures of today.

Time Discount Rate: an economic concept describing the relative weighting of present benefits or costs compared to future benefits or costs

On the other hand, you might also know people who seem to have the attitude "I've got to work hard and prepare now; enjoying myself will have to wait for later." Economists would say that people like this have low time discount rates if by their current work they are gaining benefits for tomorrow. The later benefits loom large (that i.e., are not "discounted") in their decisions. Time discount rates are important in all sorts of situations. Economists usually assume that people who invest in a college education has a relatively low time discount rate, because they are willing to forgo current income or relaxation to study for some expected future gain. (Of course, this is not true for individuals who enjoy college or regard it as more appealing than the prospects for post college experience.) Company leaders with high time discount rates may concentrate on making this quarter's financial statement look good, whereas those with more concern about the future will look toward longer-term goals. In deciding on environmental regulations, people who work at government agencies are forced to make decisions about how much weight to give the wellbeing of future generations. The lower their discount rate, the more important safeguarding the well-being of future generations appears.

Economic Rationality

"Rationality" has become a loaded word in economics, bringing with it the baggage of earlier models that did not anticipate the findings of behavioral economics or take into account other everyday observations. In this section we formulate an alternative view of human behavior that is more realistic.

Choosing Goals and Trying to Achieve Them

Economists generally proceed from a belief that people should be free to choose their own goals, even if their chosen goals differ from those of most others. However, what can be considered a rational goal has limits, especially considering that people usually have more than one final goal. Some goals that people pursue may be unachievable. People may also choose reasonable goals, but engage in irrational behavior that leads them away from their achievement rather than toward it. A reasonable definition of rational behavior includes **(1)** selecting goals that are consistent with present and future well-being, and (2) pursuing the goals in a manner that can reasonably be assumed to lead to their achievement.

The Role of Constraints and Information

It is important to note that economic decisions are always made subject to constraints, including limits on income and other resources and on physical or intellectual capacities. A universal constraint is time. Every day you face the choice of how to allocate 24 hours

among competing activities such as sleeping, studying, going to class, eating, and entertainment. You cannot decide to allocate 10 hours each day to sleeping, 5 hours to studying, and 10 hours to hanging out with friends because you do not have 25 hours available. To put this in economic terms, your "production possibilities frontier" has only 24 hours per day.

Another important factor in an economic model of rationality is information. In assessing their options, economic actors make use of their existing knowledge but often need to collect additional information. Consider the decision to purchase a new automobile. Numerous factors go into such a decision. Should you buy a new car or a used one? What is the relative importance of fuel economy, safety, and luxury features? What about resale value and maintenance costs? Making a rational decision requires that you obtain information on these various factors.

Optimizing Behavior: behavior that achieves an optimal (best possible) outcome.

The neoclassical approach tends to assume that rational behavior is optimizing behavior, based on the further assumption that rational economic actors have "perfect information." A slightly more modest version says that people will collect information until the perceived costs of acquiring additional information exceed the perceived benefits. However, there is no way of guaranteeing either that people can know enough to make that "cost/benefit" calculation (i.e., to make an informed decision about when to stop gathering information) or that, when they do stop gathering information, they will know enough to make an optimal or even a good choice.

One challenge to the traditional assumption of rationality comes from Herbert Simon, another psychologist who received a Nobel Memorial Prize in economic science (in 1978). Considering the matter of whether it is indeed possible for people to identify the optimal point at which one should cease gathering additional information, Simon logically showed that, in fact, one first needs to have complete knowledge of all choices in order to identify that optimal point! Moreover, determining what additional information might be out there and then gathering it can be very costly in time, effort, and money. Accordingly, Simon maintained, people rarely optimize. Instead they do what he called satisficing; they choose an outcome that would be satisfactory and then seek an option that at least reaches that standard.

Satisfice: to choose an outcome that would be satisfactory and then seek an option that at least reaches that standard

Given constraints of time and so forth, satisficing seems to be a reasonable behavior. If an individual finds that the "satisfactory" level was set too low, a search for options that meet that level will result in a solution more quickly than expected or perhaps even multiple solutions. In this case, the level may then be adjusted to a higher standard. Conversely, if the level is set too high, a long search will yield nothing, and the "satisficer" may lower his or her expectations for the outcome.

Ameliorating: starting from the present level of well-being and continuously attempting to do better

Another deviation from rational behavior as traditionally defined has been called ameliorating—defined as starting from the present level of well-being and then taking any opportunity to do better. A simple example is a line fisherman who has found a whole school of haddock but wants to keep

only one for his supper. When he catches the second fish, he compares it to the first one, keeps the larger, and releases the other. Each subsequent catch is compared to the one held in the bottom of the boat. At the end of the day, the fish that he takes home will be the largest of all those caught.

Path Dependence: situations in which what is possible, or what is chosen, in the present depends on what has happened in the past.

One result of using amelioration as the real-world substitute for theoretical optimization is its implication that history matters: People view each successive choice in relation to their previous experience. It is commonly observed, for example, that people are reluctant to accept a situation that they perceive as inferior to previous situations. This psychological path dependence—the idea that where you are going depends on where you have been—is relevant to feelings about rising prices and even more so to attitudes about declining wages.

Bounded Rationality: the hypothesis that people make choices among a somewhat arbitrary subset of all possible options due to limits on information, time, or cognitive abilities.

Satisficing and ameliorating may both be included under the term bounded rationality. The general idea is that, instead of considering all possible options, people limit their attention to some more-or-less arbitrarily defined subset of the universe of possibilities. With satisficing or meliorating behavior, people may not choose the "best" choices available to them, but they at least make decisions that move them toward their goals.

The Role of Influence

The discussion above cautions that in modeling[5] human behavior, it is necessary to recognize that there is no known decision rule within human capabilities that guarantees an entirely satisfactory conclusion, let alone the "best of all possible" conclusions. A very important aspect of decision making relates to the outside influences on us.

In the discussion of behavioral economics, we saw examples of ways that others can affect our decisions by setting a "frame" or providing extra emphasis on one conclusion at the expense of others. Available information is, of course, a critical feature, and actors other than the decision maker may have a strong influence on which information is available. The literature in behavioral economics provides a wide array of other ways that decision making can be distorted by influences not related to the goals of the particular actor.

These realities have long been well known to politicians and advertisers, who, since the early part of the twentieth century, have often based their successes on assuming irrational consumers and voters.

For example, food companies are well known to cater to the innate physical preference for sugar, fat, and salt. These three elements are crucial for health when eaten in appropriate

[5] we employ the term "model" to mean a description of human behavior that emphasizes what is most important to understand how people act most of the time when engaging in economic activities. Such a model obviously cannot explain all human actions, but it should be sufficient to provide a general outline of what to expect.

amounts, but they were rarely available in sufficient quantity during most of human evolution. We are all therefore born with some degree of craving for these substances; learning is required to recognize when we have had "enough." Makers of potato chips and other sweet, salty, fatty, prepared foods would prefer that this learning not take place.

And just as corporations gravitate toward behavior that fattens profits, even if their products do more harm than good, politicians also often find it hard to resist the easy appeal to emotions of greed, even fear, rather than offering sound information on which voters can make good decisions.

Self-Interest, Altruism, and the Common Good

We have referred to the neoclassical model of economic behavior that is deduced from the axiom: "Rational economic man acts so as to maximize his utility." This could be—and often has been—interpreted by teachers, students, and practitioners of economics to mean: "Rational people try to get what they want." That in turn was often understood as saying, "Rational people are only self-interested—any non-self-interested acts are irrational." Many students found this approach so unappealing that they dropped economics as their major, while others who stayed with these courses more or less bought in to the lesson that "Only self-interested behavior is rational."

Altruistic Behavior: actions focused on the well-being of others, with no thought about oneself.

This probably explains a good deal of why economics students (and economics faculty) have frequently been shown, in tests, to be less altruistic than others (see the following topic, "Economics and Selfishness"). The opposite of pure self-interest is altruism, which means a concern for the well-being others, with no thought about oneself. Although it would be excessively idealistic to assume that altruism is the prime mover in human behavior, it is reasonable to assert that some elements of altruism enter into most people's decision making—contrary to the simple neoclassical model of "rational" selfishness.

Economics and Selfishness

Are people who have studied economics more likely than other individuals to behave selfishly? For more than 30 years, various research studies have explored this question. In one example, economics students expressed a lower willingness than other students to contribute money to pay for public goods. The same was found of economics faculty, though their average pay was higher than that of the faculty in the other disciplines to which they were compared.

Another study found that economics students offered less to others in the Ultimatum Game (see Box 7.3 for a description of the Ultimatum Game). Although most studies have found that economics students tend to be relatively more selfish, one study found that students in upper-level economics classes were more likely than students in other upper-level classes to return a lost envelope containing cash. According to the authors of one research study, "We . . . found evidence that the giving behavior of students who became economics majors was driven by nature, not nurture: Taking economics classes did not have a significant negative effect on later giving by economics majors."

The same study did find, however, that taking economics classes did reduce the generosity of students who did not go on to become economics majors. These non-

majors may have experienced a "loss of innocence" as a result of being exposed to economic theories such as efficiency and profit maximization. The authors conclude:

"Our research suggests that economics education could do a better job of providing balance. Learning about the shortcomings as well as the successes of free markets is at the heart of any good economics education, and students— especially those who are not destined to major in the field—deserve to hear both sides of the story."

Source: Yoram Bauman and Elaina Rose, "Selection or Indoctrination: Why Do Economics Students Donate Less Than the Rest?" Journal of Economic Behavior and Organization 79(3) (August 2011): 318–327; Yoram Bauman, "The Dismal Education," New York Times, December 16, 2011.

Especially relevant to economics is the fact that much economic behavior may be motivated by a desire to advance the common good—the general good of society, of which one's own interests are only a part. Striving to advance the common good means seeing your own well-being as connected to the larger well-being of society. That is, people are often willing to participate in the creation of social benefits as long as they feel that others are also contributing. Economists are increasingly realizing that a well-functioning economy cannot rely only on self-interest. Without such values as honesty, for example, even the simplest transaction would require elaborate safeguards or policing. Imagine if you were afraid to put down your money before having in your hands the merchandise that you wished to purchase—and the merchant was afraid that as soon as you had what you wanted, you would run out of the store without paying. Such a situation would require police in every store—but what if the police themselves operated with no ethic of honesty? Without ethical values that promote trust, inefficiencies would overwhelm any economic system. If all those in business cheated whenever they thought they could get away with it, business would grind to a halt. If everyone in the government worked only for bribes, meaningful governance would disappear. In addition, people have to work together to overcome problems from externalities. And it is hard to imagine how the human race could survive if altruism was not common enough that people would be willing to make sacrifices of time, convenience, and resources to meet the needs of those who cannot take care of themselves, such as children or sick people. Fortunately, recent experiments on human behavior demontrate that people really do pay attention to social norms, and they are willing to reward those who follow these norms and to punish people who violate them, even when this has a cost in terms of their narrow self-interest. (See **"The Ultimatum Game".**

The Ultimatum Game

A famous behavioral economics experiment is known as the "Ultimatum Game." In this game, two people (who are in situations in which they cannot communicate with each other) are told that they will be given a sum of money, say $20, to share. The first person gets to propose a way of splitting the sum. This person may offer to give $10 to the second person or only $8 or $1 and plan to keep the rest. The second person cannot offer any input to this decision but can only decide whether to accept the offer or reject it. If the second person rejects the offer, both people will walk away empty-handed. If the offer is accepted, they get the money and split it as the first person indicated.

If the two individuals act only from narrow financial self-interest, then the first person should offer the second person the smallest possible amount—say $1—in order to keep the most for himself or herself. The second person should accept this offer because, from the point of view of pure financial self-interest, $1 is better than nothing.

In fact, researchers find that deals that vary too far from a 50–50 split tend to be rejected. People would rather walk away with nothing than be treated in a way that they perceive as unfair. Also, whether out of a sense of fairness or a fear of rejection, individuals who propose a split often offer something close to 50–50. In the context of social relations, even the most selfish person will gain by serving the common good and thus walking away with somewhere around $10, rather than just looking at his or her own potential personal gain and quite possibly ending up with nothing.

The Model of Economic Behavior in Contextual Economics

Many real-world problems would be difficult, if not impossible, to solve in the absence of a reasonable number of people willing to work for the common good. These people are often especially concentrated in the public purpose sphere, while individual altruism is most often evident in the core sphere of the economy. Does that mean that business is the sphere that operates only on self-interest? From about 1970 to the end of the twentieth century, economists, especially from what was known as the "Chicago School," pressed this case. Even early in this period concern arose that individuals who acted solely to achieve their personal goals could not be counted on to operate a business in ways that would be good for the business itself. This concern resulted in various efforts to reward business leaders for the success of their business.

These efforts had the unintended consequences of escalating compensation of top management in the United States to levels that were many times greater than anything that had previously been considered normal (or were normal in other countries). They also resulted in an increasingly short-term vision on the part of business leaders, whose compensation was set up to provide large rewards for quick profits. Large-scale frauds, Ponzi schemes, tax evasion, and environmental and human costs that businesses externalized during this period have made it increasingly evident that society cannot afford to encourage a definition of economic activity in which normal human motivations are stripped down to selfish pursuit of personal gain.

Modern research in behavioral economics suggests that the neoclassical rationality axiom does not stand up to tests of logic, experience, or the needs of society. (And some feminist economists have pointed out that the reference to "rational economic man" may be related to this one-dimensional view of human nature.) With that said, the following statements concerning motivations and behavior may provide a better grounding for economic theory.

We start with a definition of rationality that includes: 1) choosing goals such that (a) when the actor achieves the goals, she or he will be glad to have done so; or (b) the pursuit of the goal itself contributes to well-being; and 2) pursuing those goals in a manner that the actor expects will lead toward their achievement.

This definition does not insist that the goals be either entirely self-interested or entirely altruistic. Rather, based on common experience and observation, it appears that most people operate with some mixture of these kinds of goals.

Our model then posits that most adults attempt to act rationally. However, sometimes lack of information, the influence of conflicting emotions, or influence from others who

are pursuing different goals may cause rational actors to choose goals that are not consistent with well-being or to do things that lead away from their goals.

Although, compared to the rationality axiom, these statements are obviously much more inclusive, and closer to reality, they are also much looser and cannot be used in the same, deterministic manner. For example, because they do not claim that people optimize or maximize, they provide less opportunity for developing mathematical models based on simple axioms about behavior. Nor is there any claim that these statements are all that the economist needs to know about human behavior. Explanations or predictions of economic phenomena sometimes require individual judgment, experience, or inputs from other social sciences. Thus, they do not conform to the ideal of "scientific" social science pursued by neoclassical economists.

However, many people have come to believe that neoclassical economics, which achieved many fruitful insights in its early decades, has explored all the territory that it initially opened up and has contributed less and less value as time has gone on. Moreover, its narrow view of human nature and lack of contextual awareness are criticized for leading to some of today's problems. Neoclassical economists almost uniformly failed to see the growth of the financial and real estate bubbles that led to the Great Recession, beginning in 2007. More broadly, some people believe the emphasis on selfishness has been used to justify a "culture of greed", the dramatic increase in income and wealth inequality in recent decades, and ever greater concentration of economic and political power in ever larger corporations.

Once again, we face tradeoffs. If we are to develop economic theories equipped to deal with the critical issues of the twenty-first century, we probably need to give up a degree of tidiness, amenability to mathematical modeling techniques, and the appearance of completely value-free objectivity.

The Economics of Collective Decision Making[6]

Introduction

The important point of this part is to recognize that a government will not always implement policies that promote the general welfare. Public-choice analysis applies the principles of economics to the operation of the political process. It uses the same self-interest (everyone does what is best for himself/herself) principle that is used in understanding the market (the invisible hand theory).

Main Points

- **How large is the government sector, and what are the main activities undertaken by government?**
- **What are the differences and similarities between market and government actions?**

As we already knew, the protection of property rights, evenhanded enforcement of contracts, and provision of a stable monetary environment are vital for the smooth and efficient operation of markets. Governments that perform these functions well will help their citizens prosper and achieve higher levels of income. Governments may also help allocate goods difficult for markets to handle. However, it is crucially important to recognize that government is simply an alternative form of economic organization. In most industrialized nations, the activities of governments are directed by the democratic political process. In this part, we will use the tools of economics to analyze how this process works.

The size and growth of the U.S. Government

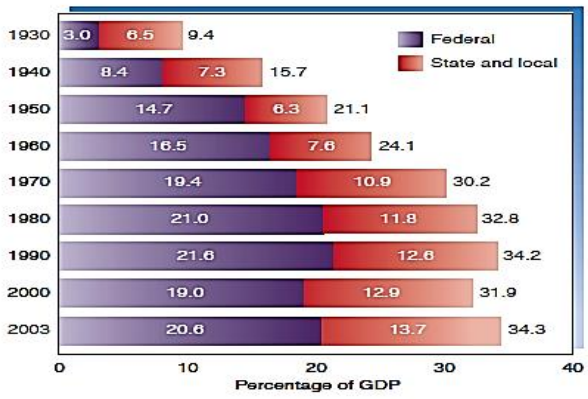
What exactly does government do? Has its role in the economy shrunk or grown over time? Data on government spending sheds light on these questions. As **Exhibit 1** illustrates, total government expenditures (federal, state, and local combined) were only 9.4 percent of the U.S. economy in 1930. (note: GDP is generally how economists measure the size of the economy. The term will be explained more fully in a macroeconomics course). At the time, this made the federal government about half the size of all state and local governments combined.

However, between 1930 and 1980, the size of government grew very rapidly. By 1989, government expenditures had risen to 32.8 percent of the economy, more than three times the level of 1930. Moreover, the federal government grew to about twice the size of all state and local governments combined- despite the fact that they were growing rapidly, too. Over the last two decades, total government spending as a share of the economy has been relatively constant at approximately one-third of GDP.

Exhibit 2 shows the major categories of government spending for both the federal government and state and local governments. The major categories of federal spending are health care, national defense, social security, and other income transfers. Education, administration, and public welfare and health constitute the largest areas of spending for state and local governments.

[6] James Gwartney, Richard Stroup, Russel Sobel, & David Macpherson (2010). Economics: Private and Public Choice. 13th ed.

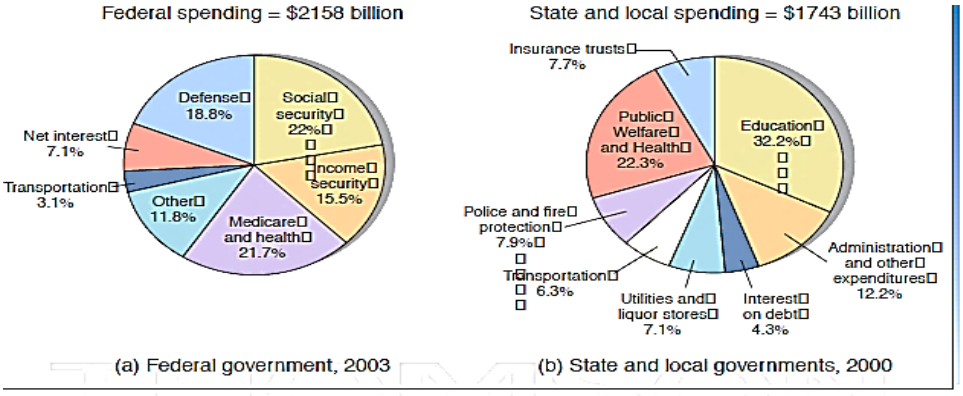
Exhibit 1: The Growth of Government Spending between 1930 and 2003



Source: Bureau of Economic Analysis, www.bea.gov. Grants to state and local governments are included in federal expenditures.

Notes: U.S. government expenditures as a share of the economy's gross domestic product have risen dramatically over the past 70 years.

Exhibit 2: Government Spending by Category



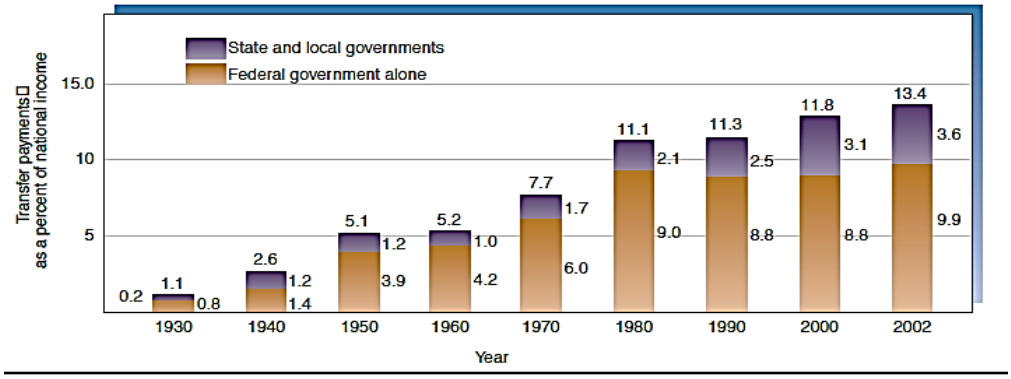
Source: Economic Report of the President, 2004, and *Statistical Abstract of the United States*, 2003.

Notes: The major categories of federal government spending are health care, social security, national defense, and income security (welfare programs). The Major categories of state and local government spending are education, health care, and welfare programs

Transfer payment are transfer of income from some individuals (who pay taxes) to others (who receives government payments). Social security, unemployment benefits, and welfare are examples of transfer payments. Direct income transfers now account for almost 40 percent of the total spending of the government. As exhibition 3 illustrates, government spending on income transfers has grown rapidly. In 1930, income transfers summed to only 1.1 percent of total income. By 1970, the figures had jumped to 7.7 percent, and by 2002 it had risen to 13.4 percent of national income. Obviously, the government has become mush more involved in tax-transfer activities during the last several decades.

Given the size and growth of government, analyzing how political process works and what impact it is likely to have on the economy is a vitally important topic. the remainder of this section will address this issue.

Exhibit 3: The Growth of Government Transfer Payments



Source: Bureau of Economic Analysis, www.bea.gov.

Notes: The government taxes approximately 13 percent of national income away from some people and transfers it to others. Means-tested income transfers-those directed toward the poor- account for only about one-sixth of all income transfers. Government income-transfer activities have grown substantially over the past 70 years.

The differences and similarities between governments and markets.

When political decisions are made democratically, the choices of individuals will influence outcomes in the government sector- just as they do in the market sector. Therefore, when we analyze the political process, we focus on individuals and how incentives influence their choices, just as we do when we analyze markets. There are both differences and similarities between political and market decision-making. Let's take a look at several of them.

1. Competitive behavior is present in both the market and public sectors.
   The nature of the competition and the criteria for success differ between the two sectors, but people compete in both. Politicians compete for elective office. Bureau chiefs and agency heads compete for taxpayer dollars and the authority to regulate others to meet their bureau or agency goals. Public-sector employees compete for promotions, higher incomes, and additional power, just as they do in the private sector. Lobbyists compete for program funding, for favorable bureaucratic rulings, and for legislation favorable to the interest groups they present- including both private and government clients. The nature of the competition may differ between the two sectors, but it is present in both.
2. Public-sector organization can break the individual consumption-payment link.
   In the market sector, goods are allocated to those who are willing to pay the price: there is a one- to- one relationship between a person's payment and receipt of a good. This is often not the case when decisions are made politically. Sometimes people receive very large benefits from the government even though they do not pay mush of the cost to cover them. In other cases, individuals are required to pay dearly for a government program even though they derive few, if any, benefits.
3. Scarcity imposes the aggregate consumption-payment link in both sectors.
   Although the government can break the link between a person's payment for a good and the right to consume it, the reality of the aggregate consumption- aggregate payment link remains. Resources used by the government have alternative uses. Therefore, it is costly to provide goods and services through the government. This is true even if the good is provided "free of charge" to certain customers.

4. Private-sector action is based on mutual agreement; public-sector action is based on majority rule.

   In the market sector, when two parties engage in trade, they do so voluntarily. Corporations like General Motors and Microsoft, no matter how large or powerful, cannot take income from you or force you to buy their products. On the other hand, when collective action occurs in a democratic setting, majority rule is the key, either through direct voting or through legislative procedures involving elected representatives. If a legislative majority decides on a particular policy, the minority must accept the policy and help pay for it, even if they strongly disagree. Similarly, if government regulators mandate that private parties must provide a wildlife habitat, wetlands, or housing at below-market prices, for example, both providers and potential buyers must comply. Although market action is based on mutual benefit, government action through the political process generates losers as well as winners.

5. When collective decisions are made legislatively, voters must choose among candidates who represent a bundle of positions on issues.

   On election day, the voter cannot choose the views of one politician on poverty and business welfare and simultaneously choose the views of a different politician on national defense and tariffs. This greatly limits the voter's power to make his or her preferences count on specific issues. Since the average representative is asked to vote on roughly 2000 different issues during a two-year term, the size of the problem is obvious. The situation in markets, however, is quite different. A buyer can purchase some groceries or clothing from one store, while choosing related items from different suppliers. There is seldom a bundle-purchase problem in markets.

6. Income and power are distributed differently in the two sectors.

   People who supply more highly valued resources in the marketplace have larger income. The number of these dollar "votes" earned by a person in the marketplace will reflect his or her abilities, ambitions, skills, past savings, inheritance, good fortune, and willingness to produce for others, among other things. Bill Gates is a good example. Many people have "voted" for his products. Consequently, Gates has become quite wealthy. This process results in an unequal distribution of income and power in the market sector.

   On the other hand, in a democratic government, one citizen, one vote is the rule. But there are ways other than voting to influence political outcomes. People can donate both their money and their time to help a campaign. They can also try to influence friends and neighbors, write letters to legislators, and speak in public on behalf of a candidate or cause. The greatest rewards of the political process go to those best able and most willing to use their time, persuasive skills, organizational ability, and financial contributions to help politicians get votes. People who have more money and skills of this sort- and are willing to spend them in the political arena- can expect to benefit more handsomely for themselves and their favorite causes. Thus, while the sources of success and influence differ, there is an unequal distribution of influence and power in both sectors.

The End