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THE DEBATE IN ECONOMICS: IMPLICATIONS
FOR PROGRAM DEVELOPMENT IN
CONSUMER ECONOMICS

A Dissertation
Submitted to
the Temple University Graduate Board

in Partial Fulfillment
of the Requirements for the Degree
DOCTOR OF EDUCATION

by
Idna Maritza Corbett
May, 1995

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ABSTRACT

THE DEBATE IN ECONOMICS: IMPLICATIONS
FOR PROGRAM DEVELOPMENT IN
CONSUMER ECONOMICS

by Idna Maritza Corbett

Doctor of Education

Temple University, May, 1995

Major Advisor: Professor Dolores Silva

The purpose of this study was to examine the propositions of Jean Baptiste Say and two alternative views of economics. The aim of this study was to derive implications for program development in consumer economics

It is argued that current consumer economics programs lack a conceptual basis for selecting and organizing subject matter, and there is no agreement regarding what should be taught in an economics course in high school. It was found that Say's propositions can provide a theoretical basis for describing economics' central premise: the relationship of supply, demand, price, and value.

Milton Friedman and Lester Thurow are recognized as leading representatives of competing viewpoints in economics. It was argued that their propositions regarding

inflation, the role of government, and distribution of resources could extend the characterization of economics to include current economic problems. It was found that neither viewpoint provides a solution for the problem of inflation, and the relationship of freedom and equity to the role of government and distribution of resources remains problematic.

If there is to be systematic program development in economics, it must be based on the accepted core premises that characterize the field of economics. If supply and demand characterize economics, and price is regulated at the equilibrium point of supply and demand, and if inflation, pollution, and megabusiness are persistent episodic economic problems that impact on unemployment and, therefore, on supply and demand of consumption goods, and if consumer economics centers on human survival, then consumer economics must address maintenance or restoration of equilibrium of supply and demand relative to health care, transportation, food, and shelter.

It is a premise of this study that consumer economics is derived from and grounded in economics. Program development in consumer economics for schooling, therefore, must find the source of its subject matter in the propositions that characterize economics, that is, Jean Baptiste Say. Divergent or variant proposals, such as those offered by Friedman and Thurow, must be accurately

represented in so far as they advance arguments that extend the characterization of economics. Subject matter in consumer economics must be selected, organized, and presented/represented to demonstrate the grounding, the implications, and the problems attendant to the variant proposals as they impact on human survival

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CHAPTER 1
THE DEBATE IN ECONOMICS: IMPLICATIONS
FOR PROGRAM DEVELOPMENT IN
CONSUMER ECONOMICS

Statement of the Problem

The purpose of this study was to examine the propositions of Jean Baptiste Say (1821, 1821/1880) and the propositions advanced by Milton Friedman (1975; Friedman & Friedman, 1980, 1984) and Lester Thurow (1980, 1985, Heilbroner & Thurow, 1982). The aim of this study was to derive implications for program development in consumer economics

Definition of Terms

Propositions are claims capable of being confirmed or falsified in the characterization of a domain of study (Silva, 1990)

Program Development is a systematic plan that requires subject matter constraints derived from propositions that characterize an area of study (Silva, 1990)

Delimitations

The examination of the propositions of Jean Baptiste Say (1821, 1821/1880), presented in his books Letters to Mr Malthus and A Catechism of Political Economy (Say, 1821) and

A Treatise on Political Economy: Or the Production, Distribution, and Consumption of Wealth (Say, 1821/1880), centered around Say's propositions regarding the relationship of utility to value, the relationship of value to supply and demand, supply and demand in a free market economy, the role of government, and the impact of consumers' decisions on the economy. Current propositions on "supply-side economics" are "not a revolutionary doctrine" (Hsieh & Mangum, 1986, p. 3), but a reinterpretation of the classical economics of Adam Smith and David Ricardo. Adam Smith's work is recognized as having laid the foundations for modern economics and, according to Samuelson (1980), "the classical, neoclassical, and Post-Keynesian scholars all trace their ancestry through [David Ricardo's] family line" (p. 369). While Adam Smith, David Ricardo, and John S. Mill (cited in Sowell, 1974), are "clearly classical in every sense" (p. 6), there were others "who contributed key concepts to classical economics, [such as] J. B. Say, whose law was embedded in classical tradition" (Sowell, 1974, pp. 6-7). J. M. Keynes (cited in Blaug, 1991) pinpointed Say's law as "the source of all later thinking" (p. ix) and, according to Sowell (1973), it "produced two of the most sweeping, bitter, and long lasting controversies in the history of economics--first in the early nineteenth century and then erupting again a hundred years later in the Keynesian revolution of the 1930's"

(p. 3). In his book, A Rehabilitation of Say's Law, Hutt (1974) describes a recent upsurge of interest in Say's propositions and claims that "Say's law of markets survives as the most fundamental economic law in all economic theory" (p. 3). As the initial proponent of "supply creates its own demand" and "consumption as the source of demand" (p. 4), Say's propositions may serve, for the purposes of this study, as the basis of the discussion of the debate in economics toward derivation of implications for program development in consumer economics

This study centered on the propositions regarding economic growth and freedom, as proposed by Friedman (1975, Friedman & Friedman, 1980, 1984) who is considered one of the "best known and current spokespersons" (Miller, 1993, pp. 7-8) of supply-side economic theory, whose work is "an important one in reminding us of what it is that market pricing accomplishes, and what are some of the penalties to society from disregarding these lessons" (p. 791). This study presented Friedman's propositions as advanced in his most prominent works: (a) An Economist's Protest (Friedman, 1975); (b) Free to Choose (Friedman & Friedman, 1980), and (c) Tyranny of the Status Quo (Friedman & Friedman, 1984)

This study also centered on the propositions advanced by Thurow (1980, 1985; Heilbroner & Thurow, 1982), who is a current follower of post-Keynesian economic theory and a recognized representative of the demand management point of

view in economics. This point of view traces its roots to Thomas Malthus (cited in Hsieh & Mangum, 1986), who is recognized as a pioneer in the field of economics and "the leading critic of Ricardian economics" (p. 63). His writings have served as a foundation for demand-side economists' views on economic growth, government intervention, and distribution of income. After the Great Depression of the 1930s, Keynes (cited in Heilbroner & Thurow, 1982) developed an alternative to classical economic theory which emphasized that "government spending might be an essential economic policy" (p. 30) to assure continued economic growth. Keynes (1936) designated Thomas Malthus as one of his "forerunners" and his analysis was "similarly critical of the classical tradition" (p. 343) as was that of Malthus. According to Arrow (1992), winner of the 1972 Nobel Prize in Economics, the Clinton administration is moving toward a policy that "recognizes the role of government in encouraging [economic growth, as well as] addressing the growing inequality of income" (p. 9). Discussion of Thurow's propositions was concentrated on three of his works. (a) The Zero-Sum Society (Thurow, 1980), (b) Economics Explained (Heilbroner & Thurow); and (c) The Zero-Sum Solution (Thurow, 1985).

Need for the Study

The report, Economic Education in the Schools . A
Report of the National Task Force on Economic Education

(Committee for Economic Development, 1961), served as the starting point for a national effort toward including economics in the high school--9th through 12th grades--curriculum. This report attempted to make a strong case for teaching economics. It stated that there was a need for "more and improved economic instruction in elementary and secondary schools" (Saunders, Bach, Calderwood, & Hansen, 1984, p. 1) and stressed the "importance of taking a more systematic, reasoned approach to the study of economic problems" (p. 1). Furthermore, the report outlined the basic economic concepts for use in the nation's schools and offered a series of recommendations for implementing the report's conclusions.

Boulding (1969), in the first issue of the Journal of Economic Education, asserted that:

An accurate and workable image of the social system in general, and the economic system in particular is . . . increasingly essential to human survival. If the prevailing images of the social system are unrealistic and inaccurate, decisions which are based on them are likely to lead to disaster. . . . Economic education, therefore, along with education in other aspects of the social system may well be one of the most important keys for man's survival. (pp. 10-11)

The Joint Council on Economic Education (JCEE) developed, in 1977, the Master Curriculum Guide in Economics for the Nation's Schools: Part I--A Framework for Teaching Economics Basic Concepts, which was used by over 40% of school districts nationwide to implement the Developmental Economics Education Program (DEEP) at the high school level.

The Master Curriculum Guide in Economics. A Framework for Teaching the Basic Concepts (Saunders et al., 1984) was revised a few years later and DEEP was expanded to include economics education at the elementary and junior high school levels, with corresponding curriculum guides (Gilliard, 1985)

In 1983, the National Commission on Excellence in Education published A Nation at Risk: The Imperative for Educational Reform, which identified the most important problems in American education and made recommendations for reforming it. The report highlights the need to teach students to "understand the fundamentals of how our economic system works and how our political system functions" (p. 26). Although the report claims to make specific suggestions regarding what subject matters should be taught in schools in order to enable students to compete in the international workplace, its "presentation of current economic problems and the resulting forecasts can be shown to be selective and not representative of current thinking in the field of economics" (Serdikoff, 1988, p. 20). The report does not present a balanced view of the economic reality in America, but "takes a supply-side position" (p. 15) while neglecting other prevalent views such as proposals for demand management.

Education continued to be a key issue in the American agenda. Action for Excellence, a report published by the Task Force on Education for Economic Growth (1983), asserted that "the quality of our schools will help determine whether our economy in the future grows vigorously or stagnates. And surely all citizens . . . have a stake in our nation's economic health and growth" (p. 20). Among the "Basic Skills and Competencies for Productive Employment" that this report proposed were two "economic competencies": (a) the ability to understand personal economics and its relationship to skills required for employment and promotability; and (b) the ability to understand our basic economic system (e.g , profits, revenues, basic law of supply and demand, etc) Citizens of the United States not only have to compete with qualified workers from all over the world (Ross, 1994), but are also called upon to judge public policy and make economic decisions almost every day of their lives. Those judgements and decisions must be grounded on at least a working knowledge of economic propositions (Lopus & Maxwell, 1994).

In his kick-off speech for the 1983 National Consumer Week, the U.S. Secretary of Education stated that "a strong connection exists between the vitality of America's economy and the consumer education components of vocational education, basic adult education and the private sector" (Department of Education, 1983). More recently, Samuelson

(1987) stated that "economic education is too serious a business to be left to university professors. There are still millions of people who will never get to college" (p. 107). The call for teaching economics at levels other than post-secondary education is still relevant today (Tay, 1994).

In spite of the call for more economics education and consumer education, the available programs are mostly limited to those sponsored by the JCEE, such as the Scope and Sequence Project, the Advanced Placement Project, the Capstone Project, and its best known program, the aforementioned DEEP. Recently, Gilliard (1991) pointed out that DEEP represented "a break with traditional views on the role of economic education in the K-12 curriculum" (p. 284). However, the Master Curriculum Guide (JCEE, 1977; Saunders et al., 1984), which was supposed to "reflect the consensus of mainstream economists" (Highsmith & Kasper, 1987, p. 101) has been the subject of criticism by professionals in the field, such as Heilbroner, Samuelson, Strober, Thurow, and Galbraith (cited in Highsmith & Kasper). Some of their recommendations range from Heilbroner's (1987) suggestion that students be taught less economic theory and more economic geography, occupational trends, "our economic situation in history" (p. 119), and the "political and moral substratum of economic problems" (p. 119), to Galbraith's (cited in Highsmith & Kasper) entreaty for more attention to

be "devoted to controversies in economic theory, so that students would become aware that much is still unsettled in economics" (p. 103), to Strober's (1987) call for a portrayal of economics "as an unfinished social science, struggling to find answers and inviting the participation of students in that effort" (p. 136).

In their 1988 study, Walstad and Soper found juniors and seniors in high school to be lacking in their understanding of basic concepts in both microeconomics and macroeconomics. However, Bosshardt and Watts (1994) found that if economics is part of a school's required curriculum, students score significantly higher on the Test of Economic Literacy (Soper, 1979). Becker, Greene, and Rosen (1990), in their review of research on high school economics courses, found that to date, "there is no uniformity in the content of high school economics courses or the economics that is taught as a part of social studies, history, and other more general courses" (p. 235). Furthermore, they state that "the question of what economics concepts are to be taught at the high school level is not settled" (p. 235), and call for a "better conceptual basis . . . to integrate the why, how, and what teachers teach" (p. 240) in economics courses. Walstad (1992) concurs with them when he notes that there is great variance from state to state and from school to school in the content and meaning of high school economics courses. Some of these courses emphasize specific

areas of economics, such as free enterprise, consumer economics, or applied economics, while others offer more traditional academic content, such as advanced placement economics courses. Some school districts have chosen the infusion of economic concepts into social studies courses or home economics courses (Wilson, 1991), although the evidence from several studies indicates that the biggest gains in student understanding of economics are made in formal economics courses (Bosshardt & Watts; Soper & Walstad, 1988, Walstad & Watts, 1985; Walstad & Soper, Watts, 1991). Though a growing number of school districts have started to teach economics in their elementary and junior high schools (Washington Council on Economic Education, 1994)-- particularly those involved in DEEP--"most curricula that incorporate economics reserve it as a special high school course" (Grimes, 1994, p. 19). Currently, 28 states mandate the teaching of economics in some form at the secondary level, 16 of them actually require a semester of economics, generally taught at the 11th- or 12th-grade level (Highsmith, 1989).

Various attempts to address economics education in the schools include consumer education programs aimed at specific consumer groups, such as insurance buyers and health care patients (Otis, 1991), or consumer education projects sponsored by private industries or public utilities companies (Fernstrom, 1989). A nationwide study of the

consumer knowledge of high school seniors (Anonymous, 1992), conducted in 1991, showed that teenagers tested "were able to answer only 42% of the questions correctly" (p 11). Though there have been increased efforts by the private sector to spearhead programs aimed at educating consumers, there is still "a great gulf in understanding" (Otis, p. 12) between businesses and consumers

According to Silva (1994), subject matters for schooling "are founded in core premises that present or represent man-made and natural environments--the stuff of the 'disciplines'" (Preface). By identifying the core premises of a given discipline, we can "give order to a broad range of data, interrelate facts and evidence, state probable or necessary conditions under which certain events occur, accommodate discovery, explanation, and prediction, and even what cannot be described, explained, or predicted" (p. 52) Core premises can provide a focus for inquiry and characterize subject matters for schooling. If current high school economics programs lack a basis for the selection and organization of subject matters, and there is no agreement as to what should be taught in an economics course in high school, then an examination of propositions in economics may provide the basis for identifying accurate subject matters for high school economics

Stages of Research

Chapter 2 examines the propositions of Say (1821, 1821/1880), as a special case of the classical view of economics, to identify a central argument of the controversy in economics

Chapter 3 centers on the propositions advanced by Friedman (1975; Friedman & Friedman, 1980, 1984) as a representative of classical and neo-classical economists (or supply-side economists), specifically the notion of a free market economy and laissez-faire government policies

Chapter 4 centers on the main propositions advanced by Thurow (1980, 1985; Heilbroner & Thurow, 1982), as a representative of demand-side economics and of the critics of laissez-faire economics, emphasizing the role of government intervention on the economy

Chapter 5 derives implications for program development in consumer economics

CHAPTER 2

EXAMINATION OF J. B. SAY'S PROPOSITIONS

Introduction

In this chapter, the propositions of Jean Baptiste Say as expressed in Letters to Mr. Malthus and A Catechism of Political Economy (Say, 1821) and A Treatise on Political Economy Or the Production, Distribution, and Consumption of Wealth (Say, 1821/1880) are examined. Both of Say's texts were published in the beginning of the 19th Century, at a time when economics was first being pursued as a rigorous "science." Say's propositions are considered fundamental to classical economics. Classical economics is generally associated with a particular point of view, rather than with a specific period in time. Karl Marx (cited in Sowell, 1972), who "coined" the term, sees classical economics as emphasizing "human relationships in the economic process . . . as contrasted with 'vulgar economics' which emphasizes economic phenomena narrowly defined" (p. 4). Sowell (1974) defines classical economists as those whose doctrines have "established an authoritative tradition that serves as a point of departure for later developments in the same field" (p. 6). Finally, Keynes (cited in Sowell, 1974), the founder of modern economic theory, associates classical

economics directly with Say's propositions. He labels as classical economists "all the post-Ricardian economists who had not repudiated Say's law" (p. 5).

While Sowell (1974) pinpoints Adam Smith, David Ricardo, and John Stuart Mill as "clearly classical," he also identifies J. B. Say among the classical economists who "contributed key concepts to classical economics without sharing all of its methods and conclusions" (p. 7). One of Say's contributions to classical economics is his proposed relationship between value and utility. He steers away from Smith's claim that value equals labor. By proposing that "utility is the primary source of value," Say allows for the inclusion of immaterial value in the accumulation of wealth.

Say's (1821, 1821/1880) other major contribution to economics is the opposing relationship of supply and demand and the notion that supply creates demand equal to its value, which is widely known as Say's Law of Markets. Hutt (1974) asserts that, "fairly interpreted, Say's Law of Markets survives as the most fundamental economic law in all economic theory" (p. 3). Sowell (1972) claims that Say's Law "has been debated for more than a hundred years, and its origins go back more than two hundred years" (p. 4). He adds that Say's doctrine "has produced two of the most sweeping, bitter, and long-lasting controversies in the history of economics--first in the early nineteenth century and then erupting again a hundred years later in the

Keynesian revolution of the 1930's" (p. 3). The first wave of controversy resulted in a "resounding victory" for Say's followers, the second one led to victory for his opponents. However, over the last 20 years, Keynes' positions have been challenged "to a point approaching a counterrevolution" (p. 4). Say's Law of Markets has regained status, with Milton Friedman (cited in Sowell, 1972) as one of its best known advocates.

In addition to his contributions to economic theory, Say was one of the first economists to conceive of political economy as a science. He saw political economy as a positive science, that is, "a body of systematized knowledge concerning what is" (Keynes, 1891, p. 34), rather than a normative or regulative science, that is, "a body of systematized knowledge discussing criteria of what ought to be" (p. 35). Say (1821/1880) claimed that "the science of political economy, to be of practical utility, should not teach, what must necessarily take place, if even deduced by legitimate reasoning, and from undoubted premises" (p. xlvii). Rather, "it must show, in what manner that which in reality does take place, is the consequence of other facts equally certain. It must discover the chain which binds them together, and always, from observation, establish the existence of the two links at their point of connection" (p. xlvii).

Say (1821/1880) conceived of political economy as "the investigation of social wealth, which is founded on exchange and the recognition of the right of property, both social regulations" (p. xv). Political economy inquires into the nature of wealth and generates conclusions from "facts always carefully observed" (p xviii). Through the knowledge of the nature of wealth, mankind deduces the "means of its creation, unfolds the order of its distribution, and the phenomena attending its destruction . . . With respect to wealth, it is a knowledge of effects and of their causes" (p. xviii).

Value as Utility

Premise

One of Say's (1821/1880) fundamental claims in his seminal work, A Treatise on Political Economy Or the Production, Distribution, and Consumption of Wealth, is his characterization of value as utility. According to Say, "the knowledge of the groundwork of the quality value, or rather exchangeable value, leads to the perception of the origin [of wealth]" (p. 286) Say distinguishes between natural and social wealth. Natural wealth consists of "spontaneous offerings by nature" (p. 286), such as air or water. Mankind does not earn them or exert any effort to produce them; therefore, they technically do not have exchangeable value. On the other hand, social wealth "is the only part of human wealth that can form the subject of

human research" (p. 286). Social wealth carries with it the requirement of an act of exchange which is, in itself, a social act, and the guarantee of personal or private property that can only "be secured by social institutions" (p. 286).

"Wealth consists in the value of matter or substance, not in the substance or matter itself" (Say, 1821/1880, p. 105) Thus, we must inquire into the nature of value, that value which is the result of a process of production, value that is attached only

. . . to the products of agriculture, commerce, and manufacture, in all their infinite ramifications because the very act of production implies an act of mutual exchange, in which the producer has given his personal agency for the product obtained by its exertion. (p. 286)

Value is not a characteristic that is inherent in an object, but is bestowed upon it by the granting of utility through a process of production. "Give to anything utility, and you give it a value, that is, you make a product of it, you create wealth" (Say, 1821, p. 7). Mankind attaches value to objects depending on the use that can be made of them "When men attribute value to any thing, it is in consideration of its useful properties" (Say, 1821/1880, p. 62) However, the utility of a product "is not confined to one human being, but applies to a whole class of society at the least" (Say, 1821/1880, p. 286) Furthermore, an object that has no useful properties for a

given community will have no value in that community, but may possess immense value in another community that can make great use of it.

Accordingly, Say's (1821/1880) characterization of value establishes that wealth can only exist where there are things "possessed of real and intrinsic value" (p. 61). The utility of an object is what mankind considers valuable and worth paying a price for. Utility is, therefore, the "groundwork" of the value of a product and it is the accumulation of that value which constitutes wealth.

Supporting Arguments

Say (1821) supports the premise regarding the relationship of utility to value by presenting two main arguments. (a) production of wealth is the creation, not of matter, but of utility, and (b) exchangeable value, or price, is an index of the recognized utility of a product.

The first supporting argument is based on the law of physics which asserts that matter cannot be created or destroyed. Mankind cannot "create or destroy a single atom" (Say, 1821, p. 17). All that mankind can do is reproduce existing materials in another form, "change the combination of things" (p. 17), which may give them a utility they did not possess before, or which may enhance utility they may already have. What mankind adds through the process of production is immaterial; it is value. As opposed to matter, value, and, therefore, wealth, are "susceptible of

creation and destruction, of increase and diminution" (Say, 1821/1880, p. 70) Value is created and/or increased as a result of production; it is decreased and/or destroyed as a result of consumption. An object may become useful through "productive agency" or it may be rendered useless as a result of consumption

Say (1821/1880) provides a detailed description of how the process of production, through the creation of utility, creates or enhances the value of an object. The need or desire for an object and, consequently, its value, originates in its utility; therefore, it is the ability to create that utility which makes the process of production effective. The process of production requires the collaboration of the three "great agents of production," that is, industry, capital, and natural agents. According to Say, "no other but these sources can produce value, or add to human wealth" (p. 76).

The first agent of production, industry, is nothing more or less than "the human employment of natural agents" (Say, 1821/1880), p. 65). Industry may be divided into three branches: (a) agricultural, (b) manufacturing, and (c) commercial industry. Each of these may, in turn, be again subdivided. All three branches are uniform in their mode of contributing to the act of production. They all either confer utility to a substance that possessed none before, or increase the utility which it already possessed.

Agricultural industry is the "bare collection of natural products" (p. 64); manufacturing industry is the "severing, compounding, or fashioning the products of nature, so as to fit them to the satisfaction of our various wants" (p. 64), and commercial industry consists of "placing within our reach objects of want which would otherwise be beyond reach" (p. 64). In whatever class of industry a person is engaged, he or she subsists upon the profit he or she derives from the additional value, or portion of value, no matter in what ratio, that his or her work adds to the product on which he or she works. Furthermore, production is not to be estimated by the length, the bulk, or the weight of the product, but by the utility it represents.

The second agent of production, capital, consists of "positive value vested in material substance" (Say, 1821/1880, p 351) It is made up of the "values devoted to reproductive consumption, which values necessarily assume an infinite variety of successive forms" (p. 164). Capital is subject to "a continual wear and consumption in the process of production" (p. 73); it is continually replaced by the very operation of production. Its value, when destroyed under one form, reappears under another.

In order for industry to function, it must be provided with pre-existing products or capital. These pre-existing products may be: (a) the tools and implements of the several arts; (b) the products necessary for the subsistence

of the industrious agent, as long as he or she is occupied in completing his share of the work of production, and (c) the raw materials, which are to be converted into finished products by the industrious agent. The value of all these items constitutes productive capital. Further, "the value of all erections and improvements upon real or landed property" (Say, 1821/1880, p. 71) also constitutes capital. Another item of productive capital is money. However, since money is but a convenient medium of exchange and, by itself, does not confer utility on a product, entrepreneurs usually do not have a considerable portion of their capital invested in the form of money.

Independent of the aid that industry receives from capital, it also uses a variety of agents "offered spontaneously by nature," and from the cooperation of this third agent of production, natural agents, industry "derives a portion of the utility" it conveys to things (Say, 1821/1880). According to Say, nature is "the fellow-laborer of man and his instruments" (p. 75). Some natural agents are "susceptible of appropriation" (p. 77). Others cannot be appropriated but remain liable to public use.

Industry, capital, and natural agents combine in production and are "indispensable to the creation of products" (Say, 1821/1880, p. 77). However, it is not absolutely necessary that they should all belong to the same individual. They can be rented, just as any other product

possessed of value. "The price paid for the loan of industry is called wages The price paid for the loan of capital is called interest. The price paid for the loan of land is called rent" (p. 77).

The process of production, therefore, is a necessary condition for the creation of value and, by implication, wealth All types of production take a product "in one state and deliver it in another in which it has a greater utility and a higher value" (Say, 1821, p. 12) Say claims that the distinction among the different types of industry--agricultural, manufacturing, and commercial--is made to facilitate the study of their results but that, in reality, it is very difficult to separate one from the other. No matter which means are used, "the moment we create or augment the utility of things, we augment their value, we exercise an industry, we produce wealth" (p 12).

Say (1821/1880) also describes the production of values which he calls immaterial values These values "must have reality, because they are in high estimation, and purchased by the exchange of costly and durable products, which nevertheless have themselves no durability, but perish the moment of their production" (p. 119) He cites as examples a physician's advice and a musician's performance "Immaterial products are the fruit of human industry" (p. 121). They are also the fruit of capital since these products are, for the most part, "the result of some talent

or other, which always implies previous study; and no study can take place without the advances of capital" (p. 121) Though the "nature of immaterial products makes it impossible ever to accumulate them, so as to render them a part of the national capital" (p. 120), its production is achieved through the "same process, as . . . we have shown to be followed by industry in general" (p. 122).

In his Letters to Mr. Malthus and A Catechism of Political Economy, Say (1821) extends his argument and qualifies all value as immaterial, not just the obvious services of physicians and musicians, but all value is immaterial because value refers to the utility added to products not to any alteration of their physical characteristics. "It is this value, [i.e., utility] which is immaterial, . . . that we daily, annually consume, and upon which we live; for consumption is a change of form given to matter" (p 17).

The second supporting argument refers to the process, not of creation, but of measurement of value. Say (1821/1880) asserts that "price is the measure of the value of things, and their value the measure of their utility" (p. 62).

The act of ascribing value to an object is "nothing more or less than the affirmation that it is in a certain degree of comparative estimation with some other specified object; and any other object possessed of value may serve as

the point of comparison" (Say, 1821/1880, p. 284). Say emphasizes that the only fair criterion of the value of an object is the "quantity of other commodities at large that can be readily obtained for it in exchange, whenever the owner wishes to part with it" (p. 285). Consequently, the quantity and not the perceived individual value of that other product is the measure of value of the object in question. In every act of valuation, the object valued is the fixed datum and the quantity of other values given in exchange represents the price.

The current value of a product depends on the "value of an infinity of products compared one with another" (Say, 1821/1880, p. 287), as well as the needs of an infinite number of human beings. The perception of utility of a product does not depend on a single individual, but on whole communities or societies. "Valuation is vague and arbitrary when there is no assurance that it will be generally acquiesced in by others" (p. 285). But, when a large number of individuals has a need for the same object, the extent of the demand for the particular utility the object represents, as well as the quantities available for exchange at a given time, will determine the current price.

As opposed to other economists of his time, Say (1821/1880) did not consider that the value of an object was dependent on the amount of labor or "productive agency" involved in producing it. He concluded that.

[T]he value of products is not founded upon the value of productive agency as some authors have erroneously affirmed, and . . . since the desire of an object, and consequently its value, originates in its utility, it is the ability to create the utility wherein originates that desire, that gives value to productive agency; which value is proportionate to the importance of its cooperation in the business of production, and forms, in respect to each product individually, what is called the cost of its production. (p. 287)

When one man sells any product to another, he sells the utility vested in that product; the buyer buys it only for the value of its utility, of the use he can make of it. If the price that the buyer pays for the product is above the value that its utility represents for himself, this additional amount does not constitute additional utility, but the buyer pays for a portion of value that does not exist, and consequently he does not receive (Say, 1821/1880).

Critical Review

The underlying premise of the relationship of utility to value is that if wealth can only exist where there are things possessed of real and intrinsic value, and if there is no production of wealth without the creation or augmentation of utility, then utility is the primary source of value. On the surface, Say's (1821/1880) premise seems consistent. He makes a case for the importance of utility

in the determination of the value of a product His argument relative to wealth is consistent with his premise relative to value

However, there remain questions that Say (1821/1880) does not address. He utilizes the word, value, in a variety of ways. Value is described as real and intrinsic, but on other occasions, value is described as relative and determined by individuals' perception of utility Say affirms that the value of a specific article is always "vague and arbitrary," (p 285) so long as it remains unacknowledged. Acknowledgement occurs ex post, while the "real and intrinsic" value implies ex ante; if acknowledgement of the object's value denotes willingness to exchange a certain quantity of another product for it, the exchange and, by implication, valuation, will also occur ex post. Furthermore, the act of valuation requires a variable quantity to determine price; such price may also be dependent on "the degree of estimation in the mind of the valuer" (p. 284). Unless estimation is consistent from one valuer to another, value cannot be considered inherent in an object.

In what seems to be a circular argument, Say (1821/1880) asserts that utility consists of "the value that human industry, in aid and furtherance of natural agents, communicates to things" (p. 70). Because the utility of things is "the groundwork of their value, and their value

constitutes wealth" (p. 62), the accumulation of wealth cannot occur without the accumulation of value. If price is the measure of the value of things, and their value the measure of their utility, how can value be a measure of utility if utility is inherent in value? Moreover, measure carries with it the assumption of a standard outside of the object being measured. Can value equal utility and, at the same time, serve as its standard of measurement?

Say (1821/1880) diverges from his contemporaries, Adam Smith and David Ricardo, by asserting that utility, not labor, determines value. However, he also says that "the price paid for every product, at the time of its original attainment or creation is the charge of the productive agency exerted, or the cost of its production" (p 298) If, by productive agency, Say means labor, and if price is the measure of value, then labor, although not necessarily the determinant of value, is at least a major contributing factor in value

Supply Creates Demand

Premise

One of the propositions which has created great controversy in the field of economics is what is known as Say's Law of Markets (Say, 1821/1880). The cornerstone of this proposition is that aggregate supply equals aggregate demand. Say bases this premise on the assumption that, in a free market, the value that individuals can buy is

necessarily equal to the value they can produce, that is, individuals can only purchase the same amount of production that they have themselves produced, therefore, the general demand for products is in direct proportion to the activity of production.

Production, as discussed previously, consists in the creation of utility, that is, value. The process of production implies an act of exchange in which "the productive services of industry, land, and capital are given [and consumed] in order to obtain the production" (Say, 1821, p. 82). The exchange occurs throughout the entire process since "production itself is an exchange, in which we offer (or supply) productive means, and demand in return the thing of which we feel the greatest want" (pp. 30-31). In this process, the producers are the possessors of capital, land, or industrious agency; the product is the value created or enhanced in a particular object. Similarly, at the end of the process of production, which results in the creation of articles possessed of value, the producers exchange them for other commodities or products.

The sum of all productions is known as supply, which Say (1821/1880) describes as.

[T]he whole of any commodity which owners for the time being are disposed to part with for an equivalent; in other words, to sell at the current rate, and not merely of what is actually on sale at the time. The whole of this is also called the circulating or floating stock. (p. 289)

Production has no purpose unless there are consumers willing to buy its products, that is, "production cannot be effected without consumption" (Say, 1821/1880, p. 387). The needs and wants of the consumer determine the demand for products. Demand refers to the amount of products that individuals need and for which they are willing to part with an equivalent amount of their accumulated values. Consumption, therefore, "is the source of demand" (p. 407)

Demand can only exist when the consumers possess the resources with which to purchase products; they must have something to give in exchange for them. According to Say (1821/1880), the only way in which consumers can acquire the necessary wealth is through engaging themselves in the process of production or using the productive agency of others to pay for desired products. Say claims that.

[T]he demand for every product is great, in proportion to the degree of its utility, and to the quantity of other products possessed by others, and capable of being given in exchange. In other words the utility of an object, and the wealth of the purchasers, jointly determine the extent of the demand. (p. 315)

But what about the role of money? Is it not money that is used to pay for the products we consume? Money by itself "is not an object of consumption" (Say, 1821/1880, p. 221) Money has no other inherent quality than its ability to be universally accepted in exchange for products. It performs only "a momentary function" (p. 134) of exchange. Money is "a convenient measure of value" (p. 242), because a precise

measure of value, or of its intensity, has not yet been devised. It is only a "transient agent [which] facilitates the arrival of consumable objects at their ultimate destination" (p. 393).

Say (1821/1880) agrees with a notion advanced by earlier economists that money is only a convenient means to transfer products and that its aggregate abundance or scarcity does not affect demand. However, it is important to note that individual scarcity of money does affect an individual's demand for products. This individual scarcity is not due to lack of availability of currency in the market place, but to the individual's inability to produce values that will generate enough income to pay for those products.

Supporting Arguments

In order to support his premise that supply equals demand, Say (1821/1880) argues that when a producer creates utility, he gives value to product X. The producer cannot expect this value to be appreciated and paid for unless others have the means of purchasing it. The means for purchasing can only be derived from the values of other products which have been exchanged for money. Therefore, if the production of other values A, B, and/or C provide the means for purchasing X, then the production of A, B, and/or C, in effect, have created a demand for product X. Say states it as:

A product is no sooner created than it, from that instant, affords a market for other products to the full extent of its own value . . . nothing is more favorable to the demand of one product than the supply of another. (p. 135)

How does this process occur? When a product is sold, the money received is not itself an object of consumption. The seller requires money for each purchase, but this money, in turn, is used to procure other products. The money is used to buy raw materials, others' labor, stocks for his trade, or nourishment for himself and his family. In effect, the sale of one product creates a demand for all those other products. Likewise, the buyer could not have acquired that money unless it was exchanged for some other equivalent value, be it his labor, capital, or other products. That money then, is not only the result of a previous exchange but will go on to serve, as soon as the exchange is completed, as the means for a subsequent exchange, and so on continuously.

At the aggregate level, the success of one type of industry "promotes that of all the others" (Say, 1821/1880, p. 137), and the prosperity of one nation "promotes that of all other nations" (p. 139). This is possible because:

[T]he more others gain, the more easily we shall sell our produce . . . there is only one way to gain, namely, to produce, either by our own labor, or by that of the capital or lands we possess . . . the more producers, the more consumers there are; [and] by the same rule, every nation is interested in the prosperity of every other nation, and . . . all are interested in having the

easiest communications with each other, for every difficulty is equivalent to an increase of expense. (Say, 1821, p. 60)

The only true consumers are those who are themselves able to produce, because only they can afford to buy the production of others. Say (1821/1880) asserts that

In every community the more numerous are the producers, and the more various their productions [supply], the more prompt, numerous, and extensive are the markets for those productions [demand]; and, by a natural consequence, the more profitable are they to the producers, for price rises with the demand. (p. 137)

In order for a nation to sell its products in the international marketplace, other nations must have productions with which they can pay. Conversely, there is no such thing as an unfavorable balance of trade because, in order to purchase foreign products, our nation must have produced an equivalent amount of products with which to buy them. Accordingly, "production opens a demand for products" (p. 133) because "production alone furnishes the means for consumption" (p. 139).

Say (1821) extends his argument to address the role of income in the relationship between supply and demand. Production of a given output necessarily generates incomes sufficient to purchase that output. That is, collectively, all the producers of a certain object have the means of acquiring their entire production. The total value of the products pays for the profits of those who have invested in their production, for unless the price received compensates

for the costs of production, products will not be created. "Every product, when completed repays by its value the whole amount of productive agency employed in its completion" (Say, 1821/1880, p 315) At each point of the process, there is an advance in capital and labor, which is reimbursed by each subsequent successor in the order of production, until finally, the last producer or retail dealer, "is compensated by the consumer for the aggregate of all these advances" (Say, 1821/1880, p 316).

The crux of this argument is that supply can only create demand if the stock is sold. This can only happen if the exchange is made with equivalent values. If a farmer X produces 100 tons of grain and sells it in the marketplace, the income he derives is sufficient to buy back those 100 tons if he wants to do it. Generally, what occurs is that the farmer acquires enough money to buy values equivalent to 100 tons of grain. If he had produced more, his ability to purchase other values would be increased in proportion to the value he has created.

But what happens if not all the available supply is sold? Say (1821/1880) claims that when a product is not sold, it is for one of two reasons: (a) other people (potential consumers) have not produced enough other products with which to pay for the grain, that is, the superabundance of grain is due to the deficiency of other products; or (b) the asking price is too high. In the first

instance, in order to create the necessary demand for grain, other products must be made and exchanged for money with which to buy it. In the second instance, the natural action of the free market will eventually balance supply and demand at an equilibrium price at which the sellers are willing to part with their products and the buyers are willing to acquire them.

Say (1821/1880) argues that gluts in the market cannot be general, but only particular to a product or products for which there is an oversupply. His argument refutes the notions of other economists of his time who believed that the economy could only grow up to a certain point and that once production reached a point of saturation, the market would be overstocked and there would be a general glut of commodities. Say's proposition contradicts this notion and shows that when the market is let free, commodities will be produced only to the extent of their demand. Price adjustments also depend on the demand for that particular value and, therefore, overstocks will be only temporary and specific.

Say (1821/1880) maintains that supply and demand are opposite extremes of a beam and the price is its point of equilibrium, where the momentum of the one ceases and that of the other begins. The rise of price is "in direct ratio to the demand, and inverse ratio to the supply" (p. 290).

That is, "the supply will be more abundant when the current price is high, and more scanty when that price has declined" (p 290).

Critical Review

Say's (1821/1880) proposition regarding the relationship between supply and demand can be stated as follows: If each individual produces only because of, and to the extent of, his demand for other goods, and if, individuals can only purchase the same amount of production (value) that they have themselves produced, then supply creates demand equal to its value.

Say's (1821/1880) arguments to support his proposition assume that money does not matter and that, in all commercial exchanges, products can only be bought with other products. While it is true that money is just a conduit for the transfer of values, in the modern world where the quantity and value of money depend more on government policy rather than the forces of supply and demand, the role of money in the free market is much more important. To illustrate, his argument that all producers--collectively--are able to buy the whole of their productions can only be valid if that purchase is done immediately or within a short period of time of their original production and subsequent sale. Inflation and its corresponding depreciating effect on the value of money would make it impossible for producers to buy back their own production after a lapse of time.

Correspondingly, the depreciation of money decreases the producers' ability to purchase equivalent values in other products and, therefore, supply cannot in all instances create a demand equal to its value.

Say (1821/1880) also argues that "the aggregate value of a product refunds to its different concurring producers the amount of their advances, with the addition in most cases of a profit that constitutes their revenue" (p. 321). But, what about the addition of taxes and other levies? Should they not be included in the cost of production as well? Say asserts that taxes are detrimental to the free exchange of values and uses this as a basis for his argument against government intervention in the marketplace. He adds that profit is added to the price of products as part of the cost of production, and it constitutes the revenue of the capitalist, who gets paid for his role as an investor, but the revenue of government is empty, nothing has been given in exchange for it and, therefore, no additional value enters the marketplace to create a demand for other products. Even though Say admits that government does play an important role in providing services that it would not be profitable for private enterprises to engage in, he fails to admit that government services, such as infrastructures and enforcement of regulations, contribute to the smooth operation of the marketplace and, therefore, a value is returned for the taxes levied on products

Because Say (1821/1880) asserts that the total value of the productions necessarily must pay for the cost of production, his description of supply seems limited. Supply refers only to those commodities that the producers are willing to part with for an equivalent value. What happens if the retailer cannot find buyers who are willing to relinquish values equivalent to the cost of production? Does that part of the production which cannot be sold at a price high enough to reimburse for the cost of production not form part of the supply? The process of production requires the disbursement of capital and productive agency which must be made up through revenue from sales. The producer must then wait for the market to correct this shortfall and production cannot continue.

Say's (1821/1880) portrayal of supply and demand as opposite extremes of a beam, with price at its point of equilibrium, seems to leave out a concept that is central to his first proposition, that is, price as a measure of value. If, as he says, the rise of price is in direct ratio to the demand, and inverse ratio to the supply, then what is the role of value in this process? He asserts that:

Although price is the measure of the value of things, and their value the measure of their utility, it would be absurd to draw the inference that, by forcibly raising the price [of productions], their utility can be augmented. (p 62)

But, does an increase in the utility of a product connote a raise in the price? How can utility--and, therefore, value --of a product be measured in order to set a specific price? Utility seems to play a definitive role in determining the extent of demand, that is, if buyers perceive an increased utility, more of them will want to purchase the products and more of them will be willing to give up larger amounts of their accumulated value in exchange for them. An increased number of buyers raises demand and, because of the opposing roles of supply and demand, it results in a higher price for productions. However, is there a limit to the degree of utility that consumers are willing to pay for? How does the producer determine the initial price of a product for which he does not know the extent of demand? While the notion of exchangeable value is useful in determining degree of utility, further discussion is necessary to address the role of value vis-à-vis price in the dichotomy of supply and demand.

Over the last 150 years, the world economy has become increasingly complex. Economic theories have created major controversies which resulted in a division into two major schools of thought: (a) supply-side economics, and (b) demand-side economics. Nevertheless, Say's (1821, 1821/1880) propositions provide a theoretical basis for describing economics' central premise: the relationship of supply, demand, and value. His propositions may serve as a

starting point, for no matter which school of thought is adhered to, the relationship of supply, demand, and value is inherent in any discussion of the marketplace. The next chapter centers on Friedman's (1975, Friedman & Friedman, 1980, 1984) propositions in an effort to characterize supply-side economics in modern times.

CHAPTER 3

MILTON FRIEDMAN'S PROPOSITIONS

This chapter centers on the propositions advanced by Milton Friedman (1975; Friedman & Friedman, 1980, 1984) concerning the relationship of supply, demand, and value under free market conditions, as well as the role of government in a free market economy. This description is based on three of Friedman's books: (a) An Economist's Protest (Friedman, 1975); (b) Free to Choose (Friedman & Friedman, 1980), and (c) Tyranny of the Status Quo (Friedman & Friedman, 1984). Friedman has written extensively since the last of these books was published. Two books, Monetarist Economics (Friedman, 1991) and Money Mischief: Episodes in Monetary History (Friedman, 1992), deal with the relationships central to this chapter. It must be noted, however, that in the later works, Friedman (1991, 1992) does not change his position as presented in his earlier, most prominent texts (Friedman, 1975; Friedman & Friedman, 1980, 1984) which continue to represent his current views

Friedman's (1975; Friedman & Friedman, 1980, 1984) propositions center around the pursuit of freedom, which he describes as the ability to choose and to act upon those choices. He claims that in a capitalist society, such as that of the United States, the prime objective of social

arrangements is individual freedom. Freedom may be an economic as well as a political issue. Economic freedom means freedom to choose how to use our income, whether to spend it on ourselves, to save it, or to give it away. Essential to economic freedom are the freedom to own property and to use it according to our values, and the freedom to choose a career or start a business enterprise, so long as we do so on a strictly voluntary basis without using force to coerce others.

For Friedman (1975), restrictions on economic freedom inevitably affect freedom in general. However, freedom cannot be absolute. Because we live in a society where we all depend upon each other, we must be willing to allow some restrictions on our freedom in order to "avoid other, still worse, restrictions" (p 69). The pursuit of individual freedom does not mean total anarchy or the rejection of a command structure. Friedman asserts that "just as no society operates entirely on the command principle, so none operates entirely through voluntary cooperation. Every society has some command elements" (p 11). Nevertheless, even if some command elements are necessary, the preeminence of voluntary cooperation through the free market is still the best road to individual freedom.

Friedman (Friedman & Friedman, 1980) bases his argument on historical evidence. He claims that wherever a society has been built where there are included a large element of

individual freedom, citizens who enjoy some measure of progress in the material comforts, and widespread hope of further progress in the future, it is also the case that the free market is the primary organizing force for economic activity

Friedman (1975) echoes Adam Smith's proposition that freedom in a capitalist society requires voluntary cooperation. Since voluntary cooperation is the basis for all exchanges in a free market economy, the free market is, thus, a "necessary condition" (p. 11) for economic prosperity and freedom. He says that, while voluntary cooperation is a subtle process whose results are not easily foreseen or identifiable in detail, its general principles of operation can be readily grasped by most people. Voluntary cooperation makes it possible that, under free market conditions, "economic order can emerge as the unintended consequence of the actions of many people, each seeking his own interest" (pp. 13-14). By "own interest" he means that if an exchange between two parties is voluntary, it will not take place unless both believe they will benefit from it. In their pursuit of individual benefit, the parties involved are not looking out for their own interests in myopic selfishness, but are seeking to attain whatever interests they value, whatever goals they

pursue. As an unintended result of that exchange, they indirectly make everyone better off and contribute to society's interests.

Friedman (1975) believes that most "economic fallacies" have emerged from the neglect of this simple insight into voluntary cooperation, as well as from the assumption that there is a fixed pie, that is, that one party can gain only at the expense of another. The free market system is a mechanism that allows economic order to exist without central direction, often without requiring people to speak to one another or even to like one another. No other system "enables people to cooperate in some areas to their joint benefit while permitting them to go their own way in other areas of their life" (p. 210) It follows, therefore, that if freedom is the ultimate goal of social arrangements, if political freedom depends on economic freedom, and if economic freedom can only be achieved under free market conditions, then individuals can have political freedom only in a free market economy

The Price System

According to Friedman (Friedman & Friedman, 1980), the free market, that is, the price system, is a "remarkably efficient system" that brings buyers and sellers together and assures that the quantities available for sale match the

quantities buyers want or need. Under the price system, the forces of supply and demand act as a balance whose equilibrium point is the price.

Prices perform three functions in organizing economic activity which are closely interrelated. (a) they transmit information, (b) they provide an incentive to adopt those methods of production that are least costly and thereby use available resources for the most highly valued purposes; and (c) they determine who gets how much of what product, that is, distribution of income (Friedman & Friedman, 1980).

As part of the first function, the price system transmits information on the conditions of supply and demand in the market place to the people who need to know it. (a) producers, and (b) buyers. However, not all information is important. The information that is relevant for the organization of production is "primarily about relative prices--the price of one item compared with the price of another" (Friedman & Friedman, 1980, p. 18) This information is transmitted in two directions. (a) it goes from buyers to retailers to wholesalers to manufacturers and to owners of capital, that is, from demand to supply; and (b) from the capitalists on down to the retail buyers, that is, from supply to demand. Anything that prevents prices from accurately reflecting the conditions of demand and supply in the market interferes with the transmission of information. A prime example of this type of interference

is monopoly, that is, when one producer or cartel of producers has control over a particular commodity. Nonetheless, Friedman asserts that as disturbing as the information distortions from monopolies may be, no other entity interferes as much with the information function as government. Government interference may occur through the imposition of tariffs and other restraints on international trade; implementation of domestic policies that fix or otherwise affect individual prices, including wages; regulation of specific industries; enforcement of monetary and fiscal policies that produce erratic inflation; and numerous other practices.

In its second function, the price system provides "an incentive to act on information not only about the demand for output but also about the most efficient way to produce a product" (Friedman & Friedman, 1980, p. 18). Movement in prices tells the suppliers that there is a demand for a particular product which will bring profits if production costs can be held at or below a particular level. The price information may be about occupational wages, rents for land or real estate property, or return on capital based on its form of investment. Though the information is used to make decisions related to production, it is not the only factor. For example, the decision to whom we will sell our labor depends not only on what wages our labor will bring and how much it will cost us to obtain the necessary training, it

also depends on our interests and abilities, and on the perceived monetary or nonmonetary advantages and disadvantages of an occupation.

The third function--distribution of income--is closely interconnected with the second function. The products with the highest demand influence not just what will be produced, but also who will be the producer. Those who produce the products with the highest demand will get the highest income, that is, the difference between the amount generated by the sale of output and the costs incurred to produce that output. This income is derived from payments for the use of productive resources such as labor, land, or capital. The amount of each kind of productive resource owned may be partly the result of chance, partly the result of choices exercised by the producer or others. Similarly, the price that the market sets on the use of those resources is affected by "a bewildering mixture of chance and choice" (Friedman & Friedman, 1980, p. 22). The choice may be made by the consumers of services, whose demand determines the relative market prices of different items, or by the producer who decides where to live, how to use personal resources, or to whom to offer his services

According to Friedman (Friedman & Friedman, 1980), the effect of the price system on distribution of income is unavoidable because "it simply is not possible to use prices to transmit information and provide an incentive to act on

that information, without using prices also to affect, even if not completely determine, the distribution of income" (p. 23). The distribution of income is a source of dissatisfaction in every society. In a command society, dissatisfaction is directed to the rulers; in a free market system, it is directed to the market itself. In free market systems, many people misdirect their anger at businesses and corporations, believing that the highest recipients of income are the huge business conglomerates. Friedman asserts that it is futile to argue that entities such as corporations or agencies are the recipients of income because "only people have incomes and they derive them through the market from the resources they own, whether these be in the form of corporate stock, or of bonds, or of land, or of their personal capacity" (pp. 20-21)

Friedman (1975) says that however we might wish it otherwise, if prices are prevented from affecting the distribution of income, then some other authority has to decide who should produce what and how much. This is what occurs in command systems where a central government decides not just who produces but also what is produced, how much is produced, and, by implication, who will benefit most from that production. Friedman submits that command systems are "the road to tyranny, inequality, and misery; and that a free market is the only feasible road to freedom and plenty" (p. 203).

Freedom and the Pursuit of Equality

Friedman (Friedman & Friedman, 1980) professes that in the name of equality, societies have often compromised individual freedom and have established controls in the market place. He discusses three interpretations given to the term equality throughout the history of the United States: (a) equality before God, (b) equality of opportunity, and (c) equality of outcome.

In the first--equality before God--equality is interpreted to mean personal equality. Because people are individuals with different tastes, values, and capacities, personal equality requires respect for the right of people to lead very different lives, not the imposition on them of someone else's values or judgment. In this case, "'Liberty' is part of the definition of equality, not in conflict with it" (Friedman & Friedman, 1980, p. 129). Friedman claims that it was the intention of the founding fathers to establish a government to protect the right of every person to be his own ruler, not to give a majority unbridled rule. Friedman accepts this interpretation of equality, but finds equality of opportunity to be a more comprehensive interpretation.

In the second interpretation, equality of opportunity does not mean literal equality in the sense of "identity." Friedman (Friedman & Friedman, 1980) claims that equality as identity is impossible because people do not have identical

opportunities open to them at birth, nor do they have the means to make it so. He adopts a French expression dating from the French Revolution--"a career open to the talents."

The crux of this argument is that:

[N]o arbitrary obstacles should prevent people from achieving those positions for which their talents fit them and which their values lead them to seek. Not birth, nationality, color, religion, sex, nor any other irrelevant characteristic should determine the opportunities that are open to a person--only his abilities. (p 132)

As with personal equality, equality of opportunity is not inconsistent with liberty; on the contrary, it is an essential component of liberty. Under free market conditions, freedom of opportunity is possible and desirable.

The goal of the third interpretation, equality of outcome, is "fairness," a concept that Friedman (Friedman & Friedman, 1980) has difficulty describing and with which he disagrees. The notion of fairness is essentially an individual one, it is in the eye of the beholder. He pointedly asks, "If what people get is to be determined by 'fairness,' who is to decide what is 'fair'?" (p 35). If what people get is determined by "fairness" and not by what they produce, where will the payments come from? What incentive do people have to work and produce? Fairness is an ideal that has as many definitions as there are people. This lack of agreement makes it impossible to take this concept into practice.

Over the years, the government measures taken in the name of equality of outcome have shared the same fate--they have restricted individual liberty. They have failed to achieve their objective because it has proved impossible to define "fair shares" in a way acceptable to all, or to make sure that the members of the community perceive that they are being treated "fairly." Friedman (Friedman & Friedman, 1980) says that the key point is not merely that practice departs from the ideal, but that a fundamental conflict exists between the ideal of fair shares, that is, to each according to his needs, and the ideal expressed as personal liberty. Even though several societies have tried, this conflict has plagued every attempt to make equality of outcome the overriding principle of social organization. Accordingly, Friedman maintains that government promotion of personal equality or equality of opportunity enhances liberty, while government promotion of fair shares reduces liberty.

Dissatisfaction has mounted with every additional attempt to implement equality of outcome, and everywhere in the world there continue to be gross inequalities of income and wealth. Friedman (Friedman & Friedman, 1980) denounces the myth that free market capitalism increases such inequalities, that it is a system under which the rich exploit the poor. He says that nothing could be further from the truth.

Wherever the free market has been permitted to operate, wherever anything approaching equality of opportunity has existed, the ordinary man has been able to attain levels of living never dreamed of before. Nowhere is the gap between rich and poor wider, nowhere are the rich richer and the poor poorer, than in those societies that do not permit the free market to operate. (p 35)

To Friedman (Friedman & Friedman, 1980), a society that puts equality of outcome ahead of freedom will end up with neither equality nor freedom. But a society that puts freedom first will end up with greater equality because "a free society releases the energies and abilities of people to pursue their own objectives" (p. 148). It allows diversity as well as mobility, that is, the opportunity for today's disadvantaged to become tomorrow's privileged. In summary, a society that functions within a free market system provides the opportunity for people to use their unequal talents, wherever they are needed most and will yield the greatest profit, to strive for equality and individual freedom.

The Role of Government

Friedman (Friedman & Friedman, 1980) advocates a free market system with as little intervention by government as possible. He says that, "to some extent government is a form of voluntary cooperation, a way in which people choose to achieve some of their objectives through governmental entities because they believe that is the most effective means of achieving them" (p 28). A good example of this

form of voluntary cooperation is local government, where citizens have a more direct involvement in decisions and actions. However, government at a larger scale is much more than that. It is the agency that has a monopoly on the legitimate use of force, or the threat of force, as the means through which some of us can legitimately impose restraints upon others.

The main question Friedman (Friedman & Friedman, 1980) addresses in Free To Choose concerns the role that should be assigned to government in a society whose participants desire to achieve the greatest possible freedom to choose as individuals, as families, as members of voluntary groups, as citizens of an organized government. He addresses this question by quoting Adam Smith's (cited in Friedman & Friedman) proposition in A Wealth of Nations.

[F]irst, [government has] the duty of protecting the society from the violence and invasion of other independent societies; second, the duty of protecting, as far as possible, every member of the society from the injustice or oppression of every other member of it, or the duty of establishing an exact administration of justice; . . . third, the duty of erecting and maintaining certain public works and certain public institutions, which it can never be for the interest of any individual, or small number of individuals, to erect and maintain . . . (pp. 28-29)

Friedman adds a fourth duty, that of protecting members of the community who cannot be regarded as "responsible" individuals, such as small children and the mentally ill. He claims that we can shape our society's institutions and

limit government's role to these four duties. Though physical and human characteristics may limit the alternatives available to us, it is possible to build a society that "relies primarily on voluntary cooperation to organize both economic and other activity, a society that preserves and expands human freedom, that keeps government in its place, keeping it our servant and not letting it become our master" (p. 37).

Government does have a role as an arbiter and enforcer of rules in order to avoid anarchy and conflict. Friedman (1975) claims, however, that we have gone far beyond that point. There are so many restrictions imposed by government that the urgent need today is to eliminate restrictions not add to them.

In its role as arbiter and enforcer of rules, two government activities have the greatest influence on the market (a) monetary policy, and (b) fiscal policy. Both monetary and fiscal policy influence economic growth--most notably through the control of interest rates and inflation --which in turn influences consumer spending.

Monetary Policy and Inflation

It is not possible to discuss monetary policy without first addressing the role of money in the economy. Money has been used in almost every society known to date. People have used a variety of items to represent money, from stones to shells, from metal to tobacco, from seeds to paper. What

these items have in common is that, at a particular place or time, they have been accepted in return for other goods and services, in the faith that others would likewise accept them. Today, the most widely used form of money is through paper bills and coins issued by each of the countries of the world. Lately, even that has been substituted for by simple ledger book entries in bank accounts, to the point that millions of transactions take place everyday without a single bill or coin changing hands. The fact that governments are the only institutions empowered to issue money makes them quite influential in today's economy, particularly in terms of the quantity of money issued and the quantity of money in circulation at any given time.

Ever since all modern countries ceased to regulate the value of their currency according to the amount of gold kept in their vaults, governments have been able to control the supply of money with either the printing press or ledger entries in bank accounts. Given that the commonly accepted medium of exchange today has no direct relationship to any particular commodity, as in the case of gold, the quantity of money is determined by government. Consequently, Friedman (1975) asserts, it is government alone that is responsible for any rapid increase in the quantity of money and, therefore, inflation. According to Friedman, failure

to accept this causal relationship has been "the major source of confusion about the cause and the cure of inflation" (p. 253).

Friedman (Friedman & Friedman, 1980) is a firm believer that money plays a significant role in the economy. He says that "though the value of money rests on a fiction, money serves an extraordinarily useful economic function" (p. 249). However, money is not the ultimate end of economic transactions, nor is it the true measure of wealth. The true measure of the wealth of a nation is found in the capacities of its citizens, their industry and ingenuity, the resources available to them, and their mode of economic and political organization.

According to Friedman's (Friedman & Friedman, 1980) Quantity Theory of Money, there is a direct relationship between the supply of money and its value (see Figure 1). At play is the basic theory of supply and demand. An increasing supply of money (S), concurrently with a decreasing or stagnant demand (D) for it, decreases its price (p), that is, its value. As the value of money decreases, inflation (i) rates go up. As inflation rates rise, purchasing power decreases and we are not able to buy the same amount of goods at the same price we did before.

The value of money is expressed in terms of interest rates. Friedman (Friedman & Friedman, 1980) believes that throughout United States history, monetary policy to control

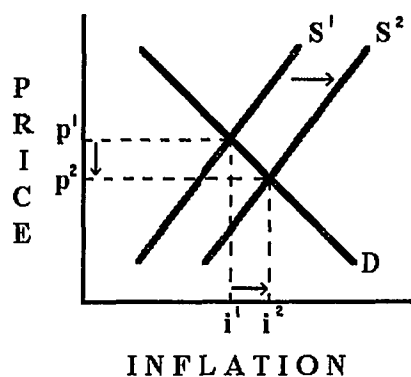


Figure 1. Relationship of Money Supply and Inflation to Supply and Demand

inflation has been wrongly based on the push for fine control of interest rates, while the basis of sound monetary policy, he maintains, should be the control of the money supply.

Friedman (Friedman & Friedman, 1980) says that inflation is our chief economic problem. Inflation is analogous to a disease, "a dangerous and sometimes fatal disease, a disease that if not checked in time can destroy a society" (p. 253). Friedman (1975) says that the fact that inflation is always and everywhere a monetary phenomenon is proof that "money matters and matters very much" (p. 56). Friedman (Friedman & Friedman, 1980) proposes that there is a direct and evident correlation between the law of supply and demand, and the quantity of money and inflation. If the quantity of money increases at a more rapid pace than the

quantity of goods and services available for purchase, prices will rise in terms of that money. The reason for the increase in the quantity of money is irrelevant. What matters is that the higher the supply of money, the less value it will purchase.

Inflation occurs when "the quantity of money rises appreciably more rapidly than output, and the more rapid the rise in the quantity of money per unit of output, the greater the rate of inflation" (Friedman, 1975, p. 254). If the quantity of goods and services available for purchase, or "output," were to increase as rapidly as the quantity of money, prices would tend to be stable, but because there is more money available than goods available for purchase, the price of these goods rises progressively to match the rise in the quantity of money. Because output is limited by the physical and human resources available, and by producers' knowledge and capacity to use them, it can only grow slowly. On the other hand, modern forms of money--paper and bookkeeping entries--have no physical limits; they are limited only by government policies.

Friedman (1975) refers to inflation as a monetary phenomenon because "what happens to the quantity of money tends to dwarf what happens to output" (p. 254). While there is no precise one-to-one correspondence between the rate of monetary growth and the rate of inflation, every business cycle in history when there has been substantial

inflation that lasted for more than a brief time has been accompanied by a roughly correspondingly rapid increase in the quantity of money. Conversely, almost every example of a rapid increase in the quantity of money has been accompanied by "a roughly correspondingly substantial inflation" (pp 255-256)

But does the simple fact that these phenomena have occurred concurrently or successively in history denote a causal relationship? Which causes which? Does the increase in the quantity of money cause inflation, or does the increase in prices cause an increase in the money supply? Friedman (Friedman & Friedman, 1980) declares that "the behavior of the quantity of money is the senior partner, [the behavior] of output, the junior partner" (p 264). He says that many phenomena can produce temporary fluctuations in the rate of inflation, but they can have lasting effects only insofar as they affect the rate of monetary growth. The historical evidence is undeniable.

Changes in monetary growth affect the economy only slowly; it may be 6 or 12 or 18 months or even more before their effects are evident. This is why the connection between these phenomena may have been overlooked. While the position that substantial inflation is always and everywhere a monetary phenomenon is widely accepted among economists, governments have refused to accept responsibility for causing it. Inflation is usually attributed to high

consumer spending, high wages obtained by trade union disputes, or greedy businesses that raise their prices to increase their profits. The fact is that individual businesses, consumers, and union wages can produce high prices for individual items but they cannot produce rising prices for goods in general. They can cause only temporary ups or downs in the rate of inflation. The only one able to produce continuing inflation is the one who controls "a printing press on which it can turn out those pieces of paper we carry in our pockets" (Friedman & Friedman, 1980, p 264). Some claim that inflation is a capitalist phenomenon. Friedman denies this, he calls it a modern world, printing press phenomenon.

Friedman (1975) uses the example of the United States history of up and down monetary growth to illustrate how inflation is related to monetary growth. At first, when the Federal Reserve Bank, in charge of controlling the money supply, has increased the quantity of money, monetary growth has stimulated production but has had little effect on prices. However,

. . . As rapid monetary growth continues, the pressure of demand raises prices as well as production. The only way to make an expansion of this kind last is to continue to accelerate monetary growth. However, that would produce still more rapid inflation. (p. 41)

To stem the increased inflation, the Federal Reserve Bank reduces the monetary growth. This tapering off of monetary growth, like the initial monetary expansion, will at first

affect production more than prices. Since prices and wages are set in anticipation of inflation, they will continue to rise. Inflation cannot be stopped on its tracks; it has a momentum of its own. However, with lower monetary growth, total spending is not sufficient to support higher prices or support full employment. Lower spending will check the rise in prices somewhat and produce some unemployment. Prices will rise less than anticipated, thus discouraging production and employment.

There is an added effect to the reduction of the quantity of money. Initially, the effect is to raise interest rates. The Federal Reserve Bank reduces monetary growth by either selling bonds or buying a smaller amount, which will lower the price of bonds and raise their yield. However, just as inflation is not felt until about six to nine months after the increase in the money supply, "a monetary slowdown affects prices only after a considerable delay" (Friedman, 1975, p. 50). The monetary growth starts to affect income and spending after a few months, which, in turn, produces a decline in the demand for loans. The decline in loans eventually causes the delayed effect of lower interest rates and, by implication, a cheaper supply of money.

Governments have tried to halt inflation through strict control of prices. Friedman (1975) claims that using price controls to stem inflation is analogous to "freezing the

rudder of a boat and making it impossible to steer, in order to correct a tendency for the boat to drift 1 degree off course" (p. 15). Price changes reflect changes in conditions of demand and supply of particular goods and services. Prices are the way that we steer the economy. If we manipulate or control them, we are, in effect, paralyzing the economy's steering mechanism, without doing anything to alter the basic force producing the average 1% rise in prices. The real problem is that the rise in money demand for goods and services is faster than the rise in the physical supply.

Friedman (1975) also maintains that, as a result of extensive research, two propositions are well established in the economic community:

(a) there is a close, regular and predictable relation between the quantity of money, national incomes and prices over any considerable period of years, (b) the same relation is much looser from month to month, quarter to quarter, or even year to year. In particular, monetary changes take time to affect the economy, and the time delay is itself highly variable. (p. 66)

The first proposition means that, over the long run, a steady price level will require that the quantity of money grow at a steady rate, roughly equal to the average rate of growth of output. The second proposition, on the other hand, means that government cannot use monetary policy for fine-tuning price levels because it is likely to induce additional instability. This is, indeed, what has happened

when the Federal Reserve Bank has tried to change monetary policy based on current data, and it and the public expected immediate results.

Based on this evidence, Friedman (1975; Friedman & Friedman, 1980) proposes that, to end inflation and prevent a further recession, the Federal Reserve Bank should at once act to increase or limit, whichever the case may be, the quantity of money at a rate of about 4 to 5% per year of the money supply--that is, the currency outside banks plus demand deposits adjusted, plus commercial bank deposits--and keep it there. The quantity of money would then be consistent with roughly stable prices. If, on the other hand, the quantity of money is not allowed to grow at all, total dollar income is very likely, after some delay, to stop growing also or even to decline. Therefore, a zero rate of growth of total dollar income would mean that the real income would decline at 4 to 5% a year.

With steady monetary growth, other forces would still affect the economy, requiring change and adjustment. However, steady monetary growth would provide "a monetary climate favorable to the effective operation of those basic forces of enterprise, ingenuity, invention, hard work and thrift that are the true springs of economic growth" (Friedman, 1975, p. 7). Of course, some retardation in growth and some increase in unemployment is an inevitable, if unwelcome, by-product of stopping inflation, but erratic

monetary growth is a far worse alternative. Friedman asserts that there is no known case in history in which inflation has been eliminated without an economic slowdown, and that, although it seems paradoxical that output must be slowed down in order to stop prices from going up, it is the only way to reduce the pressure of demand.

Regulations

Government affects the economy not only through the control of the money supply, but also through direct or indirect restrictions on business activities. The imposition of tariffs and controls is one of the most common forms of government intervention. According to Friedman (Friedman & Friedman, 1980), most regulations, and particularly tariffs, run against the ideal of the free market system. He challenges several current arguments supporting tariffs.

The first, and most popular, argument is that tariffs create and protect jobs, that the creation of jobs is a desirable end, in and of itself, regardless of what the persons employed do. Friedman (Friedman & Friedman, 1980) counters by saying that "our real objective is not just jobs but productive jobs--jobs that will mean more goods and services to consume" (p. 41). Work is the price we pay to get the things we need and want. If the work we do does not

create products that can be exchanged in the market place, we cannot obtain the necessary means to acquire the things we need and want.

A second argument is that tariffs and import restrictions protect the high standard of living of American workers. Friedman (Friedman & Friedman, 1980) asserts that "the fallacy in this argument is the loose use of the terms 'high' wage and 'low' wage" (p. 44). He claims that there is no way to compare wages in dollars and wages in another currency, because there is no constant criterion to determine the exchange rate. In the real world, the balance of payments is not an issue as long as the price of the dollar, in terms of the other currency, is determined in a free market by voluntary transactions. American workers are not threatened by low wage workers from other countries. If another American company discovered a cheaper way to produce a product, the same situation would occur, that is, market competition. Competition is at the heart of the high standard of living of the American worker. Friedman contends that "if we want to benefit from a vital, dynamic, innovative economic system, we must accept the need for mobility and adjustment" (p. 44). What then determines what we are to produce in order to keep the high standard of living? Friedman advocates applying the principle of comparative advantage, that is, concentrate on doing those

things we do best, those things where our superiority is the greatest, and leave the rest to other countries where certain products can be produced for the least cost.

Another common argument alleges that American manufacturers face unfair competition from foreign companies who receive subsidies from their governments, which allows them to sell in the United States below cost. Friedman (Friedman & Friedman, 1980) responds that because foreign governments must tax their own citizens in order to pay for the subsidies, it is those countries' citizens who ultimately pay for the subsidies. The American customers benefit in the end because they acquire the products at a price below cost.

A common source of debate is the idea that the dollar must be protected, its value must be kept from falling in terms of other currencies. Friedman (Friedman & Friedman, 1980) responds that if we allow foreign exchange rates to be determined by the market, they will "settle at whatever level will clear the market" (p. 47). There is no reason to legislate the value of the dollar in terms of other currencies because, just as the price system is useful to determine the prices of goods and services, it serves the same function to determine the value of the dollar, that is, "it transmits information and provides an incentive to act on that information because it affects the incomes that participants in the market receive" (p. 47). The forces of

supply and demand will sooner or later make the price reach an equilibrium point, which will increase the demand for dollars and thereby correct the low price.

Friedman (Friedman & Friedman, 1980) finds only three arguments in favor of tariffs that may be valid in principle. The first one, that tariffs protect national security, can be justified if we "compare the cost of achieving the specific security objective in alternative ways and establish at least a prima facie case that a tariff is the least costly way" (p 48) The second argument, that temporary tariffs help protect potential industries in their infancy until they are strong enough to stand on their own, is only justified if the tariffs are really temporary. It is common for firms to experience losses in their early years, when they are getting established. Since they usually recover from those losses later, a subsidy is not really needed. In reality, this argument is a "smoke screen" (p 48) The so-called infants never grow up. Once imposed, tariffs are seldom eliminated.

The third argument, the "beggar-thy-neighbor" argument, maintains that:

A country that is a major producer of a product, or that can join with a small number of other producers that together control a major share of production, may be able to take advantage of its monopoly position by raising the price of the product. (Friedman & Friedman, 1980, p. 39)

The way to raise that price is through the imposition of export tariffs on the side of the producing country or, similarly, the imposition of import tariffs by the purchasing country. Friedman states that this nationalistic approach usually promotes retaliation from other countries, by raising tariffs on other goods and, consequently, offsetting each other in the end.

To further support his proposition for a free market system and against tariffs and controls, Friedman (1975) asserts that tariffs, subsidies, and other similar restrictions always obstruct the price system's function to provide information. In a democratic society, at least, governments leave individuals free to respond to that distorted information. However, in collectivist countries, it is not possible to conduct transactions without the intervention of government. As a matter of fact, one side of the supply-demand equation is often represented by government officials, the government is the only one who controls supply. This leads to inevitable political frictions, not just within those societies, but also with traders from other countries. Even if individuals were free to respond, there are no signals generated by the price system because it does not exist. Friedman concludes that only the market provides an effective permanent form of control over wages and prices. Replacing the market with

sweeping government controls would be certain "to halt economic growth and destroy personal and political freedom" (p. xv).

International Trade

Regarding international trade, the conventional wisdom is that exports are good and imports are bad, therefore, we should try to reduce the so-called unfavorable balance of trade with other countries. Friedman (Friedman & Friedman, 1980) argues that "our gain from foreign trade is what we import; exports are the price we pay to get imported products" (p. 41). Consequently, if we export more than we import, we are paying a higher price for the goods we import.

Friedman (Friedman & Friedman, 1980) advocates "a free trade world". Societies, and economic systems, today cannot exist without interdependence. No one person or one country can produce everything; therefore, interdependence exists among industries and among countries. Similarly, economic freedom and political freedom are interdependent. Transactions will take place only if all parties believe they will benefit from them. Cooperation, not conflict, rules the market. However, when governments intervene, cooperation is more difficult. Protectionist interventions by one government on behalf of local enterprises, through the creation of tariffs or subsidies, leads enterprises in the countries affected by these restrictions to seek the aid

of their own government to counteract the measures taken by the foreign government. As a result, "private disputes become the occasions for disputes between governments [and] every trade negotiation becomes a political matter . . . Conflict, not cooperation, is the rule" (p 52)

In international trade, as in domestic trade, tariffs and controls are not the answer. Free market conditions are the way to pursue freedom and prosperity Friedman (Friedman & Friedman, 1980) proposes that free trade not only promotes material welfare but also fosters peace and harmony among nations Free trade has the added benefit of promoting domestic competition. Because the gains to some producers from tariffs and other restrictions are more than offset by the loss to other producers, and especially to consumers in general, free trade at home and abroad is the best way that a poor country can promote the well-being of its citizens

Fiscal Policy

Friedman (Friedman & Friedman, 1980) believes that a fiscal policy that complements his propositions for monetary policy should advocate moderate government expenditures, limited government activity, and lower taxes. Throughout the last few decades, fiscal policy in the United States has been leaning toward greater and greater government expansion. Revenues have not kept up with spending, which has led to high budget deficits. Furthermore, fiscal policy

has been used as a means to attempt to halt inflation, often with catastrophic results. Friedman believes that this policy is kept alive by two factors: "the tendency to look only at the direct effects of government spending and taxes and to neglect the indirect effects, [and] the failure to keep fiscal effects separate from monetary effects" (p. 68).

Government spending has been seen as a mechanism to balance consumer spending in order to keep the economy growing. Direct effects of government spending do create an increase in demand which raises output, but only temporarily. Furthermore, the money that the government spends has to come from somewhere. The only ways in which government can finance its spending are through taxes or through producing more money, thereby causing inflation. Either way, the consumer finances government spending because, though no government will admit it, inflation is a form of tax. Friedman (Friedman & Friedman, 1980) asserts that, not only is inflation a tax, but "it is a tax twice over" (p. 81). Inflation is a tax on income because it lowers the real value of personal exemptions and raises the rate applied to our incomes by pushing us into higher tax brackets. It is also a tax on cash balances because, when prices rise, all of us must add to the number of dollars we hold in order to keep the purchasing power of our cash balances constant. In order to acquire these extra dollars, we must give up some real resources, whether in the form of

labor or of the goods we failed to purchase. Thus, the real resources are given up to the government and, to some extent, to the banks.

To create or adopt government programs, Congress must find the funds to run them. As outlined above, the source of these funds is the consumer. Programs, however, are often created on the basis of political objectives, and continue to exist long after they have outlived their usefulness. While some programs have been started as a solution to temporary problems, it has been increasingly difficult to end them. Friedman (Friedman & Friedman, 1980) says that:

The postwar experience has demonstrated two things. First, that Congress will spend whatever the tax system will raise--plus a little (and recently a lot) more. Second, that, surprising as it seems, it has proved difficult to get taxes down once they are raised. The special interests created by government spending have proved more potent than the general interest in tax reduction (p. 71)

Taxes are supposed to be raised in proportion to the need for money to run government programs. Friedman (Friedman & Friedman, 1980) claims that the opposite is often true. In theory, the decision about how much to spend and the decision about how to finance the spending are largely independent although related decisions. However, in the long run, political practice has dictated that "the level of taxes comes closer to determining the level of spending than the other way around" (p. 68).

What effectively occurs is that, once a new level of taxes is in place, the tendency is for its demand to become permanent at or near that level. Thereafter, spending is largely tailored to the amount of taxes the revenue structure will raise. The main effect of raising taxes is likely to be higher spending rather than savings reserved toward the reduction of the federal deficit. Furthermore, Friedman (Friedman & Friedman, 1980) asserts that the reason the level of taxes is important is their power to affect how much of our resources is used through government spending and how much is used through individual spending, rather than the ability of the level of taxes to control the short-run course of income and prices

The reason often quoted for raising taxes is the need to reduce the deficit. However, even if taxes are raised to keep down the deficit, government's tendency to spend whatever monies are received will simply effect a higher norm for government spending. The deficits will just increase again and Congress will again claim the need for raising more taxes.

Friedman (1975) asserts that although deficits have often been connected with inflation, this connection is vague at best. Deficits can only produce inflation if they have been financed through an expansionary monetary policy, that is, by creating money. If government deficits are financed via the printing press, the resulting monetary

growth will stimulate spending. It is thus easy to attribute this effect to the deficits, per se, rather than to the method of financing them. However, if the deficits are financed "by borrowing from the public, at whatever interest rates are necessary, they may still exert some minor inflationary pressure, [but] their major effect will be to make interest rates higher than they would otherwise be" (p 73). In any case, Friedman asserts that high interest rates in the short term are preferable to long periods of high taxes.

The scope of government today is, of course, much more extensive than the three functions envisioned by Adam Smith or even Friedman's (1975) proposed four functions. Friedman affirms that government has gone beyond its role of protecting the freedom of its citizens and has increasingly undertaken the task of transferring resources from some to give to others in the name of security and equality. Government spending has become the problem, not the solution to most of our economic woes. Furthermore, government intervention "erodes your freedom and mine" (p 35) rather than enhancing it.

Friedman (1975) identifies six areas in which government power has intervened in the freedom of individuals. Two of those areas have already been discussed. (a) equality, in the context of the case for a free market; and (b) the control of inflation, in the

context of Friedman's propositions for monetary policy. The other four areas are: (a) education, (b) consumer protection, (c) labor unions and wage control, and (d) social welfare.

Friedman (1975) believes that, in all of these areas of government intervention, taxpayers' money has been wasted or ill-spent. He denounces a public educational system where individuals are not free to choose where or how their children will be educated. Friedman proposes that the only way to improve public schooling is to introduce free market competition. He proposes a voucher system whereby parents would have the freedom to choose schools for their children and use the vouchers to pay for them. Schools would compete for the parents' business and parents could put pressure on the schools to improve their services. Furthermore, parents would have a wider range of alternatives from which to choose. The result would be that "supply would rapidly develop to meet the demand" (p. 190) and, as in the free market, voluntary cooperation and competition would bring about benefits for all.

For higher education, Friedman (Friedman & Friedman, 1980) proposes either a "contingent-loan financing system" (p. 188)--a system through which college graduates would pay back a specified fraction of their earnings after college--or, alternately, a voucher system similar to that proposed for elementary and secondary schools.

Government has generated thousands of policies and created hundreds of agencies to police businesses under the guise of consumer protection. Friedman (Friedman & Friedman, 1980) alleges that "all the [consumer-oriented] movements in the past two decades have had one thing in common. All have been antigrowth" (p. 191) Government control of business has hindered new developments and imposed heavy costs on industries to meet ever stricter and more detailed regulations. These regulations not only control quality of products but have the added effect of controlling supply, that is, they have prevented the production or sale of some products and they have induced capital investment for nonproductive purposes as specified by government bureaucrats rather than by an accurate assessment of consumer needs and wants. However, regulations have not always resulted in better products. Friedman claims that the products that are least satisfactory to the consumer and that improved the least over time are the result of government intervention

If government cannot be counted on to protect the consumer and regulate the production of quality goods and services, what should be done? Who should provide that protection? Friedman (1975) again proposes a free market solution. When the market forces are free to operate, the outcome is not predictable. Product development depends on consumer demand and tastes, not on some well-meaning

bureaucrat's concept of what a product should be. The basic difference between a market-dependent outcome and outcomes determined by political agencies is that individuals are free to choose. It is individuals' choices that drive production, when they are free to pay only for what they want or for what meets their needs. Friedman concludes that "time and time again laws passed to protect the consumer have ended up by restricting competition, and so doing the consumer far more harm than good" (p. 148).

Under the guise of protecting the worker, government has also intervened in the labor market, mainly through support for labor unions, wage controls, and the enactment of laws such as child labor laws and affirmative action laws. Though Friedman (Friedman & Friedman, 1980) admits that some of these laws have improved workers' conditions, he claims that others have done more harm than good, mainly by creating overlapping government jobs and demanding so much paperwork that more employees are required to assure compliance with government regulations than those needed to actually manufacture products.

Friedman (Friedman & Friedman, 1980) again advocates a free market system for labor. He says that "the most reliable and effective protection for most workers is provided by the existence of many employers" (p. 246). The only way to assure protection and job security for workers

is through competition for their services. Also, the more employers who desire their services, the higher the wage workers will command.

Programs designed for the welfare of citizens take up a large share of government spending. These programs are of a wide variety, including farm price supports, public housing, urban renewal, and model city programs among others. The largest of the welfare programs at the federal level is Social Security--old age, survivors, disability, and health insurance (Friedman & Friedman, 1980). Friedman rates all welfare programs as inherently deficient. Because in most cases, bureaucrats spend someone else's money on someone else, it increases the likelihood that the spending will be "wasteful and ineffective" (p. 102). The wastefulness increases the pressure for more and more spending, more and more programs. In order to continue spending, government must increase revenue which, as outlined earlier, can only be done by raising taxes or increasing the quantity of money, both forced on the taxpayer. At the heart of the welfare state is the use of force, use of force to take away citizens' money in order to transfer it to someone else. This use of force in the welfare state seriously threatens our freedom. Furthermore, the main disadvantage of current welfare programs is "their effect on the fabric of our society" (p. 127). Friedman claims that those programs

weaken the family structure; they reduce the incentive to work, save, and innovate; and they reduce the accumulation of capital.

In order to reform the welfare system, Friedman (Friedman & Friedman, 1980) proposes the replacement of all current welfare programs with a "single comprehensive program of income supplements in cash" (p. 120), that is, implement a negative income tax. Furthermore, he proposes the elimination of Social Security and allowing people to make their own arrangements for their retirement. These provisions would add to people's net income which, in turn, would add to savings, investment, and capital accumulation. It would also stimulate growth in private pension plans. Finally, it would increase people's freedom to choose how to use their money as they best see fit.

Friedman (1962) does admit that there are two occasions when the market "fails," when strictly voluntary exchange is not feasible and, therefore, government intervention is desirable. These are the cases of technical monopoly and third party or neighborhood effects. Because "exchange is truly voluntary only when nearly equivalent alternatives exist" (p. 28), in cases when it is more efficient to have only one producer of a good or service, the only alternatives are a private monopoly, a public monopoly, or public regulation. No one of these alternatives is better than the others and the choice must be made depending on the

factual circumstances. We must beware, however, of the "tyranny of the status quo" (Friedman, 1975, p. 198); once a monopoly is created, particularly a public monopoly, it is very difficult to eliminate it, such as the case of the U.S. Postal Service, which is no longer justifiable, but the government continues to protect it and makes it illegal to compete with it.

The second case occurs when it is not feasible to identify all the people affected by a situation and it is not possible to compensate or charge them. In this case, some people have to incur an involuntary exchange. When it is possible to identify the persons affected by our actions, then it is possible to compensate them for that effect and, thereby, transform an involuntary into a voluntary exchange, or at least government regulation can require individual compensation such as a class action suit. However, government intervention does not always work, because it is just as difficult for government agencies to identify all the people affected by certain circumstances, such as pollution of a river or the smoke produced by a steel mill. Friedman (Friedman & Friedman, 1980) proposes that "third-party effects of private actions [do] occur that are sufficiently important to justify government action" (p. 32). In those cases, the benefits and costs of government actions must be examined and a clear balance of benefits

over costs must be established before adopting them to avoid the creation of unproductive agencies or burdensome regulations that may later be impossible to terminate

Friedman's (1975; Friedman & Friedman, 1980, 1984) propositions find their basis in Say's (1821, 1821/1880) propositions. In addressing inflation, its causes and possible solutions, Friedman's Quantity Theory of Money presumes that if supply and demand are opposing forces, with price as their point of equilibrium, then an increase in money supply will lower its price. If the supply of money is controlled, then inflation can be controlled. Friedman is also clearly classical in his belief that the role of government in the economy should be limited. He bases his propositions on the notion that political freedom cannot exist if there is no economic freedom; laissez-faire economic policies are the only policies that preserve individual and, therefore, political freedom. However, Friedman's supply-side economics is only one view of how economic policies should be created and implemented. The next chapter will describe an opposing viewpoint. Thurow's (1980, 1985; Heilbroner & Thurow, 1982) propositions which center around industrial policies, demand management, and government as a major force in the market place

CHAPTER 4

LESTER THUROW'S PROPOSITIONS

Thurow's (1980) landmark work, The Zero-Sum Society, examines the most critical problems that the American economy faces at the end of the 20th Century. Inflation and lack of competitiveness in world markets. These problems result in slow economic growth and an economy in which poor people share a disproportionate amount of the burden. As a response to critics of his book, Thurow (1985) wrote The Zero-Sum Solution, which outlines his proposal for the implementation of an economic plan that effectively links macroeconomic policies, industrial policies, and a revised tax system. He also calls for the consideration of equity in the implementation of this plan, to ensure that "all were carrying their fair share of the load" (Thurow, 1985, p. 13) and generate a more equitable distribution of income.

The Zero-Sum Game

Thurow (1980) describes the United States economy as an economy that has a "substantial zero-sum element" (p. 11). An example of a zero-sum situation is a sporting event. In sports, victory is achieved only when one team defeats another team, that is, one team has to lose. Zero-sum games carry with them the issue of loss allocation. Theoretically, in a sporting event, within the rules of the

game, loss allocation is a direct result of individual or team ability, coaching ability, and a well-executed game plan.

Because economic resources are finite, economies are like zero-sum games. When those resources are allocated, in order for some sectors to receive a larger share, other sectors' shares must decrease, that is, winnings must equal losses. In the economic zero-sum game, the political process has no problem allocating economic gains. Political constituents are satisfied when their representatives are able to obtain grants-in-aid, new jobs, or regulations to protect local industries, which serve to enrich their coffers. Conversely, when economic losses are to be allocated, the political process seems to grind to a halt, and "with political paralysis comes economic paralysis" (Thurow, 1980, p. 12). When an economic decision generates large losses, even if sometimes economic gains exceed economic losses, the losses negate a very substantial fraction of the gains. Usually those gains and losses are not equitably distributed among individuals and/or groups. Thus, economic zero-sum games have a direct impact on distribution of income.

Another reason why zero-sum economic situations are so contentious is that often the case is not "us versus them." The citizens of this country are not competing with the citizens of another country. In domestic problems, the case

is "us versus us." The economic decisions affect us, our families, and our neighbors. Also, domestic problems "tend to have a much longer time horizon" (Thurow, 1980, p. 15). Decisions regarding issues such as energy independence or environmental conservation take much longer to evolve and do not have the urgency of an armed conflict. Citizens may not be willing to sacrifice in the short term for benefits that will only materialize in the long term.

In an economic zero-sum game, a democratic government is placed "in the middle of an adversary relationship" (Thurow, 1980, p. 15). Demands for favor and/or protection come from all directions. Thurow maintains that democracies must assume that "public decisions are made in a framework where there is a substantial majority of concerned but disinterested citizens who will prevent policies from being shaped by those with direct economic self-interests" (p. 16). Unfortunately, the general welfare of the nation's citizens is not always the main concern of those who wield the most economic or political power. Special interest groups solicit special protection from government officials and leave to others the privilege of sacrificing to benefit the majority. Everyone wants to be part of the winning side of the equation. Yet, for the equation to be balanced, someone has to be on the losing side.

The Economic Problem

Inflation has long been viewed as one of the most serious economic problems in the United States and other capitalist societies. Thurow (1980) asserts that inflation may have been caused by a combination of a series of periods of bad luck and poor judgment exercised by government officials. In the period following World War II, the United States economy has gone through several cycles of inflation and recession. As it is structured, the economy periodically goes through boom periods when there is high demand-side stimulus and high employment coupled with high rates of inflation.

These economic cycles have historically proven that the Phillips curve theory is correct. The Phillips curve theory (see Figure 2) states that there is an inverse correlation between unemployment and inflation, that is, as unemployment increases, inflation decreases, and vice versa. To curtail inflation, the government steps on the economic brakes, deliberately manipulating unemployment to stop wages and prices from rising. An increase in idle capacity controls inflation, but it also causes recessions and affects productivity rates. Additionally, high rates of unemployment affect investment because no one is going to "invest in major new facilities when more than 35 percent of capacity is idle" (Thurow, 1985, p. 304) due to layoffs. High unemployment has become so prevalent that economists

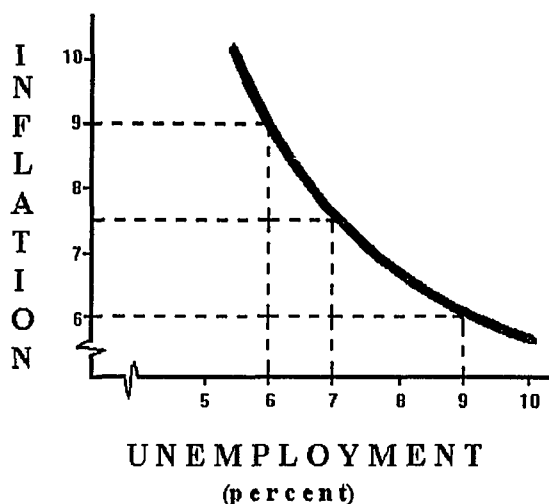


Figure 2. Phillips Curve (From Principles of Macroeconomics (4th ed., p 430) by C. Mansfield, 1983, New York: W. W Norton.)

have come to accept high (7%) rates of unemployment as natural. Furthermore, in a recessionary economy, everyone is more concerned with short-term, self-interested economic solutions rather than long-term common problems.

Runaway inflation in the post-World War II period was first caused by President Lyndon Johnson's refusal to increase taxes to pay for the Vietnam War. Because the economic pie is limited, during war periods consumer spending must give way to government military expenditures. When military spending was "not compensated by taxes to roll back consumption" (Heilbroner & Thurow, 1982, p 81), people's demand for products, in competition with the military demand, drove prices up. Instead of an outright payment in the form of income or sales taxes, people then

paid an implicit tax--inflation Inflation is an implicit tax because, just as taxes decrease the amount of money that people have available to spend, inflation affects purchasing power by decreasing the value of money. Thurow (1980) claims that "lags and shifts in the distribution of income" (p. 47) are a direct consequence of inflation. He says that, in an inflationary period, "shifts in the basic supply and demand conditions of the economy cause the real incomes of different individuals to rise and fall" (p. 50) Though inflation causes most people's cash income to increase, real income, that is, purchasing power, decreases, because prices of consumer products rise as fast or faster than cash income.

Thurow (1980) cites inflation as the "paradigm zero-sum game" (p. 42) When the price of a product goes up, whoever buys that particular product finds that his purchasing power has decreased On the other hand, the seller who receives that higher price sees his cash income increase. Inflation redistributes income, although it does not lower or raise the total value to be divided. Since this total value depends on production output rather than price level, as incomes are redistributed, if someone benefits when prices go up, someone else's income must decrease as a result; there must be winners and losers. According to Thurow, this is not just an economic hypothesis but an "algebraic necessity" (p. 42). To illustrate, consider the algebraic

equation, $y = mx + b$, which represents a relationship between two variables. The slope [m] characterizes that relationship as directly or inversely proportional. In an inflationary zero-sum situation the relationship between buyer's and seller's income (the two variables) is an inverse proportion, that is, as one variable increases, the second one decreases. If the relationship is inversely proportional, then the slope must be represented by a negative number. The algebraic equation to find the slope of the relationship is shown in Equation 1:

$$m = \frac{Y_2 - Y_1}{x_2 - x_1} \quad (1)$$

Let y_1 be the seller's income before inflation and y_2 be his income after an inflationary increase. Similarly, let x_1 and x_2 be the buyer's purchasing power before and after inflation, respectively. Because the income of y increases with inflation and the income of x decreases with inflation, the subtraction of $y_2 - y_1$ will always be a positive number and the subtraction of $x_2 - x_1$ will always be a negative number. Since the division of a positive number by a negative number results in a negative number, the slope will be negative, that is, an inverse proportion.

According to Thurow (1980), "inflation is endemic in a modern economy for a very simple reason. Whenever upward

price shocks occur, inflation will occur unless other prices and incomes fall" (p. 54). Both citizens and the government have learned to keep up with inflation by implementing measures such as indexing wages and prices, guaranteeing cost-of-living increases in salary negotiations and commercial contracts, or raising income transfer payments to the poor and elderly to protect their real incomes. That the economy has learned to cope with inflation does not mean that it is not a serious problem. While the economy in general has had steady, if slow, growth in the past decades, and most Americans have seen a rise in living standards, many individuals have been hurt by inflation. Thurow claims that the largest culprit is indexing. He says that, if indexes are not abolished, only three things can bring down the rate of inflation: (a) exogenous downward price shocks, (b) basic wage settlements (leaving out the cost-of-living escalator) that are less than the rate of growth of productivity; and (c) a recession or depression so large that the private cost-of-living escalator clauses are knocked out of the economy. Those solutions will stop inflation, especially a sharp recession, but they "can have more adverse distributional consequences than the disease itself" (p. 53).

According to Thurow (1985), while inflation remains a significant economic problem, it is not the most serious obstacle to maintaining Americans' current high standard of

living. He maintains that the main stumbling block to economic prosperity is America's lack of competitiveness in world markets. At the heart of the competitiveness problem lies "anemic productivity growth" (p. 69). Productivity is the output generated per hour of work. As a general measure, productivity defines a country's ability to generate a high and rising standard of living for each of its citizens.

A higher standard of living grants individuals the necessary purchasing power to buy the products they need and want. In order to maintain that purchasing power, people's real incomes must be safeguarded. No matter how high their needs and wants may be, people need incomes to translate those needs and wants into action. Even though demand is a major force in the economy, "it is not a driving force, but a driven one" (Heilbroner & Thurow, 1982, p. 82). People's ability to consume "ultimately depends on [their] ability to produce" (Thurow, 1980, p. 76). Real incomes must be backed by increased production of goods and services to be sold in world markets. Countries (or individuals) cannot buy products unless they themselves have produced something to pay in exchange for those products. As productivity decreases, higher costs of production make our goods or services more expensive and, consequently, generate less profit with which to purchase other products. Unless people

produce more per hour, their share of the economic pie will decrease. It is not possible to divide what is not produced.

Three factors affect the growth of productivity. First is the degree of movement toward higher productivity activities, that is, how rapid is the development of new technologies and how high is the rate of investment. The acquisition of new technology is dependent on investment in research and development (R & D) activities of business and government. Investment capital, as well as R & D investment, is a "driving, not a driven, part of the economy" (Heilbroner & Thurow, 1982, p. 86). It is like the engine that propels a vehicle forward. Although investment, like consumption, is influenced by how much income people receive, it is, to a large extent, affected by the cost of borrowing money, that is, interest rates. In order to introduce cost-saving technology, industries must borrow capital to renovate their plants. High interest rates discourage industries from making long-term investments. To calculate their rates of return on investment, future returns are discounted with the firm's cost of capital, that is, interest rate. In calculating the return on an investment of \$1 10 years from now, we find that if the interest rate is set at 5%, \$1 in returns is worth 61 cents today. If the interest rate rises to 10 or 20%, today's value of \$1 to be earned 10 years from now plunges to 39

cents and 16 cents, respectively. The higher the interest rate industries have to pay, the less willing they are to invest in products where profits are far in the future.

The second factor is the speed with which the economy is discarding low-productivity activities, that is, how rapid is the rate of disinvestment. Disinvestment or withdrawal of labor and capital from low-productivity areas represents a loss to the workers and employers in those low-productivity industries. Disinvestment, as well as investment, involves a substantial zero-sum element. It requires that decision-makers inquire into the costs of pulling out resources from one or another industry to allocate them to others. Thurow (1980) says that disinvestment is a "necessary precondition" of economic growth.

The third factor is the rate of distribution of activities between the extremes of new investment and disinvestment. Movement toward increased investment or disinvestment to accelerate economic growth inevitably results in "income reductions for someone because, to increase investment, someone's share of the national product must decline" (Thurow, 1980, p. 77). Either path implies consequences affecting distribution of income. The question is: Who will determine what is the distribution between the two extremes? While supply-side economists believe that "the demand generated by the normal investment activities of

the private sector, once onerous taxes and regulations are removed, will suffice to generate sufficient growth" (Heilbroner & Thurow, 1982, p. 79), demand-side economists, Thurow among them, believe that government will probably have to play a supportive role.

In order to determine productivity growth to make investment or disinvestment decisions, we must examine the industry's learning curve. The learning curve is associated with the process of acquisition of on-the-job skills as employees learn to work together as a team. When a new process is introduced, the number of hours of work to produce the first products is high. As the products are being built, new and better ways of building them are found with experience, which decreases the number of hours of work needed to build each unit. The accumulation of many small improvements results in a sharp rise in productivity as a plant goes down the learning curve. The industry that moves fastest down the learning curve has lower costs of production. Higher productivity is thus evidenced by low costs of production, which lead to higher profit margins. Thurow (1980) says that the heart of the solution "lies in quickly advancing down the learning curve" (p. 93). Many American industries have slow learning curves due to high employee turnover, low job security, and/or lack of skilled workers. They also cling to outmoded and labor-intensive technology in order to save jobs.

Industries with slow learning curves are not run as efficiently as growing industries. If output does not grow, efficiency falls. If efficiency falls, then the productivity rate also decreases. Moreover, low productivity is a deterrent to investors who know that "only superior productivity brings superior rates of return on investment" (Thurow, 1985, p. 138) Thurow claims that, even though many economists believe that cutting consumption and investing a higher percentage of the Gross National Product (GNP) than we currently do would increase productivity, increased consumption is not the problem. He says that the problem is that we do not seem to have enough profitable investment opportunities, "more investment would now be occurring if it were profitable to do so" (p. 82).

Employee training, cooperation, and loyalty also affect the learning curve. Unskilled workers have a hard time handling advanced technology and need extra training time to incorporate new processes into their work. Additionally, it is essential that individual workers invest personally in the idea of team productivity and be willing to adjust to changes brought about by new technology. Thurow (1985) claims that, "America's biggest handicap is found in its inability to generate an environment where the labor force takes a direct interest in raising productivity" (pp. 148-149). If an industry has a high turnover rate or habitually lays off workers, its productivity level will be low because

a large percentage of its labor force will either be unfamiliar with the production processes or lack the necessary experience to fully contribute to the team's work. However, if workers know that their jobs are safe, they will have "an incentive to maximize productivity by welcoming technical change, learning new skills, and contributing to industrial teamwork" (Thurow, 1980, p. 84) They will also remain loyal to their employers and be more willing to share in the sacrifices during lean or slow times.

Job security--the certainty of future income--is critical to promote a downward movement along the learning curve because technical progress may threaten employment or wages Economic security, or job security, is one of the greatest political demands on the marketplace in a capitalist society because everyone wants security, and the government is seen as "the vehicle for guaranteeing it" (Thurow, 1980, p. 19). Decisions that promote economic progress are difficult because government is, in fact, literally expected to guarantee that current economic opportunities will not disappear and that those who fail will not be economically punished. This guarantee locks employers and governments into maintaining the economic status quo and does not allow the economy to shift to new products and technological processes that lead to growth and progress. According to Thurow, the push for economic security is difficult to accommodate in our mixed

capitalistic economy. If government delivers economic security, it undercuts the implicit assumptions of capitalism because "capitalism is, after all, a doctrine of failure. The inefficient (the majority) are to be driven out of business by the efficient (the minority), and in the process productivity rises" (p. 81). He claims that, in the long run, economic security cannot come from transfer payments or guaranteed cost-of-living increases. Economic security can only be obtained if productivity increases and incomes are pushed up by real gains in output.

Solutions to the Economic Problem

Because unsolved problems such as inflation and low productivity reinforce each other, Thurow (1985) exhorts government to find solutions that not only promote economic growth, but that also insure that vast numbers of people do not bear an undue share of the burden. His proposal to solve the productivity problem in the American economy is a complete social reorganization. Rather than try to fine-tune the economy through the manipulation of one or two economic factors, he proposes that government, labor, and business join forces and play a stronger role in addressing the roots of the problem instead of the symptoms.

Thurow's (1985) social reorganization includes three closely related and interdependent recommendations. First, he proposes the implementation of macroeconomic policies oriented toward lower interest rates and a more realistic

currency valuation. Second, he advocates the implementation of overt industrial policies toward socially absorbing R & D risks, developing a concerted national investment strategy, and fostering increased productivity rates. And third, Thurow supports a revision of the tax system toward more equity in sharing the burden of government funding, by either implementing a value added tax or modifying the current tax system.

Macroeconomic Policies

Thurow (1985) maintains that the cure for inflation is not found in manipulating the money supply, as Friedman (Friedman & Friedman, 1980) and the monetarists propose, but in targeting interest rates. He believes that interest rates affect investment and that there is a direct correlation between interest rates and inflation. As illustrated in Figure 3, as interest rates decline, so does inflation, so long as there is also increased investment and productivity.

Thurow's (1985) proposed macroeconomic solution begins with "a restructuring of America's monetary institutions" (p. 325). It requires ending the independence of the Federal Reserve Board and placing it under the jurisdiction of the President, the elected leader whom all citizens hold responsible for economic stability. Under the President's guidance, the Federal Reserve Board should lower interest rates by targeting the real inflation-corrected Federal Fund

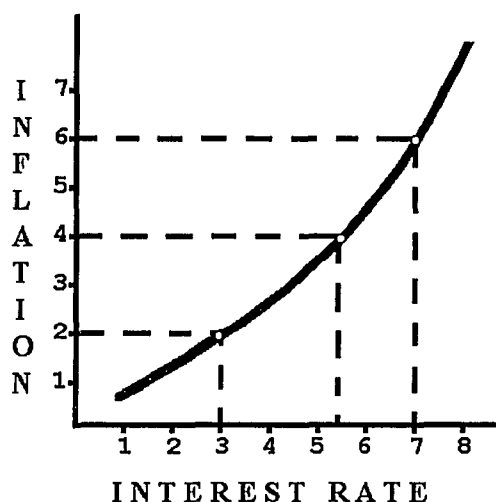


Figure 3 Relationship of
Interest Rate
and Inflation

rates rather than nominal interest rates. The real interest rate is the percentage increase in real purchasing power that the borrower pays the lender in return for making the loan. On the other hand, the nominal interest rate is the percentage increase in money that the borrower pays the lender in return for making the loan. The critical difference between the real and the nominal rate of interest is that the former is adjusted for inflation, and the latter is not.

According to Thurow (1985), there are two major advantages of targeting real interest rates. (a) they are easier to control, since they are set in the New York bond market; and (b) "investors and savers think in terms of interest rates and not in terms of the rate of growth of the

money supply" (p. 330). Lower rates make money cheaper to borrow, encourage investment, and increase aggregate demand. Also, at full employment, long-term interest rates are a more accurate reflection of the relative supply and demand for savings. A high savings rate is desirable because it gives the country the investment resources necessary to rebuild its economy.

Thurow (1985) also cautions that loose monetary policies and low interest rates need to be accompanied by tight budget surplus fiscal policies. He says that, "if budget surpluses are to be generated, monetary policies have to be aggressively run to encourage investment so that rising investment demands can counterbalance falling consumption demands" (p 325). Government must control its spending carefully to avoid falling into the trap of budget deficits. To offset the United States' growing trade imbalance, the government has had to borrow billions of dollars, thereby expanding the budget deficit. Thurow claims that the problem with budget deficits is not just that they cause inflation or high interest rates but that, in the long-run, they lower the aggregate savings rate. With a low savings rate, fewer funds are available for investment and the country's growth rate falls below levels necessary to remain competitive.

Also, international cooperation is necessary to support a low-interest-rate monetary policy, so that investors do not leap from one country to another to find the best rates, thereby undercutting the desired effects of the policy. Similarly, fiscal stimulus must be coordinated so while one country is trying to accelerate the economy, others are not stepping on the economic brakes. Cooperation is essential because not only will consistent monetary and fiscal policies lead to higher standards of living for all, but will also provide customers for American products. Wealthy trading partners are necessary for a healthy economy, since it would be futile to increase productivity and generate more output if others do not have the necessary resources to buy what we produce.

An unpleasant but necessary side effect of lower interest rates is a decrease in the value of the dollar. The American dollar can be kept up with tight monetary policies, but an overvalued dollar makes American products more expensive and foreign products cheaper, particularly in an economy in which labor costs are higher than in most industrialized countries. Higher labor costs, coupled with low productivity rates, effectively price American products out of the world market. Thurow (1985) asserts that "with low productivity growth there is no alternative. The dollar must and will fall" (p 97). However, the key is to achieve a dollar valuation that is consistent with the country's

productivity. Again, international cooperation is necessary to avoid an overfluctuation of the dollar and other currencies. Thurow proposes a system of "crawling pegs" with a band of approximately 10% fluctuation, within which currencies would freely move without government intervention. Governments would intervene in a cooperative way to keep fluctuations within this band and "to let the band itself float up or down as seemed warranted given differences in inflation and productivity" (p 354). Readjustment to that band could be made every six months or so, using inflation, productivity, and trade surpluses or deficits as a guide.

Industrial Policies

Capitalist economies are based on the belief that the free market is the key to success, that is, if the laws of supply and demand are free to operate, the market will regulate itself and promote steady economic growth. However, letting the market rule does not guarantee that we will come out as winners. To win the free market game, we need to be organized as well as willing to play. Although many successes are due to letting the market balance itself, the United States economy is a combination of free market strategies and government regulation, so many of its successes are also due to social organization.

Thurow (1985) asserts that economic battles are won by combining free markets and individual initiative with social organization. Successful societies are those which have a well-educated labor force, limit consumer credit to raise personal savings rates, and are willing to raise spending on research and development. "Individuality is needed, but so is social organization" (p. 60).

According to Thurow (1985), the avenue to social organization is the implementation of industrial policies. Industrial policies "outline the basic strategy the nation intends to follow in maximizing economic growth and meeting foreign competition" (p. 263). The implementation of these policies requires a tripartite bargaining team composed of members from government, business, and labor. The goal of this corporate investment committee is to reach an agreement regarding the basic directions in which the economy ought to move. To implement policies stemming from this agreement, government must create an agency to partially finance industrial research to develop new products as well as new processes to manufacture old products; develop new policies that increase the availability of capital such as the re-establishment of private and public merchant banking or the restriction of consumer credit to make more funds available to industry, and implement systematic procedures for dealing with "sick" industries. Thurow claims that the creation of an industrial policy is, above all, an educational process.

It involves government, business, and labor sharing information so that "each can learn about the problems of the others and how they can mutually interact to solve their joint problems" (p. 265).

Industrial policies do not involve centralized, detailed government planning for the economy. Government is but a cooperative market player on this committee, whose aim is to

. . . Strengthen the industries that are now sunrise industries, to restructure old industries so that the parts which remain exist as world-class competitive entities, to manage decline where decline must occur, and to finance civilian research-and-development projects with long- to medium-term payoffs. In coordination with other policies industrial policies can play a positive role in achieving this result. They are not "the" solution, but they are part of "the" solution. (Thurow, 1985, pp. 289-290)

Thurow affirms that democracies cannot exist without industrial policies. Industrial policies have existed in the United States since the beginning of the Industrial Revolution, but they have been disguised under many different names because, politically, the government has not been willing to admit to explicit industrial planning strategies.

Thurow (1985) denounces the United States' low rate of spending on R & D through the 1980s and alleges that most of the research is conducted for military purposes with little application to the civilian economy. He proposes an investment rate target of at least 25% of GNP. Because the

most serious failing in our R & D strategies is the lack of process research, more funds should be earmarked for this purpose.

Investing in developing new products is a high risk because demand for them does not yet exist. On the other hand, investing in improving the ways we make existing products pays off for the economy much sooner and has a higher impact on productivity rates. One of the reasons that industries are reluctant to invest in process research is that they need strong financial backing. Here, the government can play a major support role by allowing joint public and private investment. No private bank is willing to risk large amounts of money for processes or products that are created literally ahead of demand, but the incorporation of public financing essentially socializes risk by having all taxpayers share it. Conversely, when research projects pay off, government should share in the profits and get equity participation as compensation for the risks and costs incurred.

Public investment is also necessary to deal with industries which are past their prime or need heavy restructuring. While a private bank cannot insist on conditions such as lower wages, new managers, new private investment, and so forth, public banks could make those conditions part of the requirements for funding. Furthermore, private banks are more concerned with short-

term profits, as they are concerned with earning dividends for their shareholders. Public banks, on the other hand, can afford to look at long-term and collective returns such as an increase in GNP or improvement in productivity rates.

Industrial policies are necessary to deal with difficult decisions such as which industries should be saved, which ones should be abolished, how to "transfer unneeded resources to the rest of the economy with less pain, and to remake an industry into a viable international competitor" (Thurow, 1985, p 281). In such cases, governments cannot let free market forces work by themselves. Too many citizens are adversely affected by the failure of major companies. Also, many companies will hang on as long as possible, even to the point that their losses may weaken other, more efficient companies. A concerted industrial policy could not only limit the losses, but also help workers move out into other good jobs, thereby controlling unemployment.

It is important to note that the implementation of industrial policies is not a government guarantee that mistakes will not be made. Businesses would be free to reject recommendations made by the government. Furthermore, industrial policies should not be seen as corporatism or protection. As a matter of fact, protectionism is one of the last options that the corporate investment committee should consider. The major objective is to use the United

States' comparative advantage to invest in what we produce best to enable our industries to be more competitive in world markets. In the long run, successes should outweigh the risks.

Ideally, industrial policies would lead to increased research and investment. However, technological advances require an educated, cooperative, and efficient labor force, operating within flexible work rules. According to Thurow (1985), to attain a high-quality labor force two conditions must be met. (a) a reconception of the theory of the American firm, and (b) better educational opportunities for all citizens.

The traditional American firm, where most decisions are handed down from the top and productivity is solely a management function, is at a competitive disadvantage in world markets. To be successful, firms are "going to have to become not a battleground but a partnership of labor, management, and shareholders collectively trying to maximize the firm's value added" (Thurow, 1985, p 158). Firms will have to provide a positive work environment with economic security, in which workers are more willing to accept new products and new processes, and are more interested in collectively moving down the learning curve, precisely because they know that their jobs are not in jeopardy.

Thurow (1985) proposes a system in which workers not only share in the decision-making, but also share in the profits from higher productivity. A long-run solution requires a change in the structure of wage-determination. According to Thurow, in order to live in a society with low unemployment and low inflation, Americans will have to "discover an acceptable way to cope with bad news on the productivity or terms-of-trade fronts" (p. 308). He proposes eliminating indexing as a technique for handling inflationary price increases, basing labor contracts on productivity rates, and negotiating all union contracts simultaneously so that everyone "would be in a position to insure a fair distribution of the sacrifices necessary to prevent inflation" (p. 322).

Workers must be willing to accept flexible wages in order to avoid layoffs during slow periods. Thurow (1985) recommends that at least one-third of a worker's annual wages should be paid in the form of bonuses based on increases in value added per hour of work. If workers move down the learning curve faster and increase productivity, their bonuses will be substantial, but, if their productivity decreases, their bonuses will be lower. This system would provide:

. . . Specific individual incentives to encourage individual workers to be interested in promoting technical change, and where [traditional union wages are replaced by] wages tied to individual skills and seniority and not to the job that the worker happens to be doing at the moment. (p. 176)

A bonus system also promotes a higher savings rate, since it has been demonstrated that people save more when they receive income in lump sums rather than in small weekly or monthly increments. As stated before, higher savings promote increased productivity because they make more funds available for investment.

The issue of better educational opportunities is paramount in Thurow's (1985) proposal. He argues that "there still is an enormous gap between American workers and foreign workers when it comes to educational performance" (p. 186). Without a doubt, modern economies need well-educated labor forces, so the improvement of public education is imperative. Accordingly, Thurow asserts that a high-quality educational system begins with a public that demands high-quality performance from its teachers and students, provides financial support, and refuses to concentrate on failures. Insistence on high quality standards raises the work ethic in schools as much as it does in industry.

Thurow (1985) claims that a more efficient quality control system is necessary to improve school systems, but that quality requires investment. Educational investments

"are just as vital to private free market efficiency as any investments in private plant and equipment" (p. 261)

Thurow concedes that, unfortunately, today's Americans are not willing to pay for a quality education at all levels. A large proportion of America's resources are channelled to college education, while most of the training necessary for skilled manufacturing jobs is done informally on the job. America needs to become a "real equal-opportunity society [that invests] in the human capital of its non-college citizens to the same extent that it now invests in its college citizens" (p. 205)

To have training programs that are effective, trainees need to know that, if they work hard to acquire technical skills, there are jobs waiting for them when they are graduated. Thurow (1985) proposes that training programs be closely linked with and often run by private employers. However, the financial burden of training should not be borne entirely by private industry. Since private enterprise is incapable of guaranteeing jobs for everyone who wants to work, then government, and, in particular, the federal government, must institute the necessary programs. A guaranteed jobs program must offer real jobs, produce worthwhile economic outputs, pay competitive wages, be open-ended--providing jobs to everyone who is able and willing to work regardless of age, race, sex, or education--and not be viewed as a temporary antirecessionary measure. Such a

program would prove that "equity . . . can be used to create efficiency--a more productive economy" (p. 206)

Furthermore, the addition of jobs for their own sake does not increase productivity; rather, it adversely affects rate of output per hour of work. Accordingly, a guaranteed jobs program should be implemented in sunrise industries that are able to compete in world markets

A Revised Tax System

Thurow (1985) affirms that "if America is to reach a 25 percent investment rate, government will have to contribute at least 2 percent of the total" (p 221) This contribution cannot be made unless the federal government eliminates budget deficits and secures a budget surplus. According to Thurow, this shift away from deficits is supported by three basic economic reasons: (a) deficits take funds away from investment; (b) deficits must be eliminated to control inflation; and (c) deficits interfere with countercyclical fiscal policies, particularly when recessions break out. To increase revenue to achieve a surplus, government can do only two things: (a) cut spending, or (b) raise taxes. In an economy where most spending benefits particular interest groups, cutting spending is not enough to eliminate deficits. The only solutions are either to implement major tax increases or to make the current collection methods more efficient.

In analyzing the current tax system, Thurow (1985) concludes that neither corporate income taxes nor payroll taxes are "capable of bearing the burdens that are being placed upon [them]" (p. 223). He argues that corporations do not really pay taxes; individuals do. In an effort to tax the rich through corporate income taxes, the government is placing a higher burden on the consumer, corporate taxes turn out to be disguised sales taxes. Moreover, every shareholder, rich or poor, is taxed at the same rate. Accordingly, the small investor ends up paying higher taxes in proportion to his or her income than the large investor. Thurow argues that though corporate income taxes are not equally distributed among the rich and the poor, "efficiency is even more important. An efficient corporate income tax would raise revenue with the fewest possible distortions" (p. 224). However, the current corporate tax structure is so distorted that it creates inefficient patterns of investment which cripple the United States' efforts to compete with the rest of the world. Investors choose industries that have the most favorable tax advantages rather than those that have the best productivity records. Furthermore, there are so many loopholes and tax shelters that corporations have been able not only to avoid taxes, but also to attain government subsidies. Therefore, corporate income taxes should be abolished and replaced with a more equitable and efficient system of collecting revenue.

Payroll taxes have historically included at least personal income taxes, Social Security taxes, and unemployment insurance. Payroll taxes are unfair because, even with progressive tax rates, by using loopholes and shelters, the upper class is paying proportionally less tax than the middle or lower classes. But again, the real objection is that payroll taxes are as inefficient as corporate taxes. They are inefficient because payroll taxes make labor more expensive and create incentives for businesses to substitute machines for human workers.

Thurow (1985) calls for at least a reduction, if not an elimination, of payroll taxes, and the eventual imposition of a personal consumption tax. This proposal fits into Thurow's previous proposal for a bonus system. By taxing only fixed wages and leaving bonuses tax-free, both workers and employers would welcome a higher percentage of salaries in the form of a bonus which, if tied to productivity rates, would also meet the goal for increased efficiency. Because lower payroll taxes are high on both workers' and employers' agendas, the political process should not have trouble passing laws to that effect. Such laws would also provide an incentive for businesses to move toward a bonus system because this would lower their labor costs. This is one case in which "political self-interest and economic efficiency work in the same direction" (p. 230).

To substitute for corporate and most personal income taxes, Thurow (1985) proposes a value added tax. The value added tax is determined by "subtracting a firm's purchases of materials or components from its gross selling revenue and levying a tax upon the difference--the firm's value added" (p. 230). Because the value added tax targets spending, it creates incentives to consume less and save more. It is levied at some flat rate onto all goods and services. Also, the value added tax is partially self-enforcing. To cheat on its value added taxes a firm would have to transfer the burden to either its suppliers or its customers, who could not let that happen because they would then have to pay the corresponding taxes.

The value added tax and the personal consumption tax also make possible the targeting of incomes that usually go unreported. Government is able to levy the taxes at the point of sale; it does not have to rely on personal reporting. To offset the effects of the value added tax on the poor, Thurow (1985) suggests a per capita refundable tax credit. He also cautions that, even though the value added tax would raise the costs of production, it should not have a "big inflationary effect" (p. 233). To avoid false inflationary shocks, the tax should be left out of the computation of cost-of-living indexes.

In Thurow's (1985) view, social insurance taxes cannot be excluded, but they can be modified. He proposes that Social Security benefits be indexed to the per capita GNP rather than the consumer price index. If productivity increases at a fast enough rate, social insurance taxes would not have to rise even if the ratio of retirees to employed workers increases. Additionally, if more funding were needed, it should be financed with the value added tax. This makes benefits contingent on economic success and makes economic prosperity as much a goal of the retirees as of those in the work force.

Thurow (1985) also makes a case for imposing a gasoline tax similar to that levied in many other countries. A high gasoline tax forces people to curtail their driving, which not only reduces frivolous spending, but is also better for the environment. Additionally, a gasoline tax is a "big revenue raiser" which would contribute significantly to eliminating the federal budget deficit.

Together, a value added tax, a personal consumption tax, social insurance taxes, a gasoline tax, and indirect business taxes (see Figure 4) would constitute Thurow's (1985) revised tax structure. He claims that:

A 15 percent value-added tax with an offsetting income tax credit and a \$1 per gallon gasoline tax could raise enough revenue to pay for the elimination of the corporate income tax, the reduction of the payroll tax, and to produce a Federal surplus equal to 1 percent of the GNP.
(p. 239)

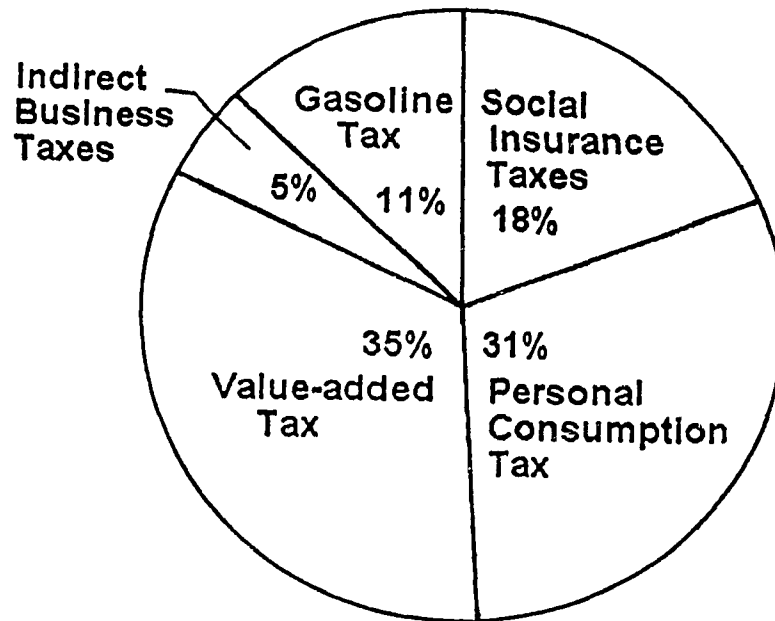


Figure 4. Thurow's Revised Tax System

The tax system should be restructured so that government can raise substantial amounts of revenue fairly to have enough funds to finance massive public investment, create budget surpluses to generate more savings, finance high-quality education programs, implement large compensation systems, finance increases in income transfer payments, and allow tax cuts for the middle class. Thurow admits that the tax structure he proposes is not politically feasible at the moment. In order to pass laws to change the way the government raises revenue, the current political boundaries would have to be widened. Furthermore, partial implementation of his proposed reforms--macroeconomic policies, industrial policies, and a revised tax system--would not provide the additional revenue needed to make the

American economy competitive again. If they are to work, they must be implemented in connection with each other. They cannot be viewed in a vacuum or implemented in isolation. Adjustments will have to be made as we move up the productivity scale. Investment decisions will have to be changed according to current priorities and supply-and-demand conditions. Interest rates could be adjusted as the dollar value moves toward a more realistic level. Tax breaks could be introduced as the distribution of market earnings becomes more equitable.

No matter what adjustments are necessary, decisions cannot be made without considering the people affected by them. If government implements economic solutions, these solutions will affect people's share of the economic pie. All changes will require that governments make decisions about equity in the distribution of income.

The Issue of Equity

The American economy is no longer an economy where the main question is "How should the economy growth dividend be allocated?" (Thurow, 1985, p. 116), but one where the current question is "From whom should the resources be taken to provide the funds necessary to restore productivity growth?" (p. 116). Distributional decisions cannot be avoided because, due to the economy's zero-sum situation, economic construction cannot be carried out without some form of economic destruction. In the process of creating

new products, some products will become obsolete. People employed in those obsolete industries will lose, while those who introduce the new product will gain. Also, in order to invest a higher percentage of the GNP, someone's capacity to consume must go down. Economic growth often implies that there will be losers.

Distributional issues are highly antagonistic, and they are precisely the kind of issues that democracies have the most difficulty solving. If the government steps in to promote a just distribution of resources and income, there will be a large number of dissatisfied voters. In order to implement measures that will solve economic problems and alter the distribution of income, the government must know what is equitable. Equity determines whose income will decrease and, conversely, whose income will increase as a result of collective economic progress.

Historically, we have been able to avoid or mask distributional decisions by using economic growth as a catalyst. The assumption was that distribution of income would automatically become more equal with growth; that if the economic pie continued to grow, more people would benefit and we would not have to worry about who is getting more or less as long as everyone gets something, that if everyone's incomes were increasing, then society would not have a pressing need to address the divisive issue of

equity, and individuals would be happy regardless of their relative status. Thurow (1980) contends that this assumption is false.

"Economic growth for everyone cannot solve the problem because the demands are not for more but for parity" (Thurow, 1980, pp. 189-190) Individuals' perception of equity depends on their perceptions of their relative income position in their society. Once physiological needs are met, "individual perceptions of the adequacy of their income performance depend almost solely on relative as opposed to absolute position" (p. 18). Because individuals' needs rise in proportion to their income, there is no minimum absolute standard of living that will make people content. The poor in the United States will still be unhappy, even if their standard of living is much higher than that of the majority of the rest of the world. Government is forced into a situation where it must decide the just distribution of resources. According to Thurow, "the difficulties of specifying economic equity neither obviate the need for equity decisions nor stop such decisions from being made" (p. 17) American society has reached a point where, in order to advance, it must make equity decisions.

Equity, however, does not mean equality. Equity does not mean that everyone is treated equally regardless of circumstances or contribution, but that everyone is treated "fairly." While Thurow (1985) calls for a standard of

fairness if a society is to undergo restructuring to remain competitive, he does not provide criteria for developing that standard. He describes fairness as a social phenomenon, a concept that changes depending on a society's history, institutions, and values. The perception of fairness is particularly important in a democracy because it helps create the common bonds that hold a democratic society together

Economic restructuring requires sacrifices on the part of certain population groups who, in order to vote for those sacrifices, must feel that (a) they have something to lose if society's problems are not solved; (b) solutions are not possible unless everyone is willing to sacrifice, and (c) they are being fairly treated in terms of the sacrifice asked (Thurow, 1985). In a democracy, minorities need to feel that their voices are heard, even though the majority rules. Also, for free markets to work within a democracy, society must have a clear view of what is fair and unfair so it can appropriately judge the validity of any group's claim to be exempted from market forces.

The whole issue of group versus individual has been controversial in the American economy. The myth that the foundation of American success is due to "rugged individualism" has led us to see "the whole issue of group justice" (Thurow, 1980, p. 178) as illegitimate. Our economic traditions are, at heart, "economics of the

individual" (p. 178) Group welfare has been seen as simply a sum of all the individual cases in a group. The belief that individuals and not groups may have been treated unfairly in the past leads society to call for remedies at the individual level, not at the group level.

While the American society professes belief in "equal opportunity" for individuals, this equality of opportunity is difficult to measure Thurow (1980) claims that if this were a deterministic world, where certain inputs such as talents, efforts, and human capital yielded equivalent outputs, that is, income levels, equality of opportunity would be easy to measure. However,

Since those variables that we normally think of as deterministic variables--education, skills, age, and so forth--only explain 20 to 30 percent of the variance in individual earnings, our economy is one where the stochastic shocks (or unknown factors) are very large relative to the deterministic (or known) part of the system.
(p. 179)

It is almost impossible to determine which individuals have been unfairly treated in this type of economy. Even though discrimination affects individuals, it can be identified only at the group level Only when the aggregate data are examined are we able to estimate differences that indicate systematic discrimination. Society cannot control random discrimination, which can happen to any individual no matter to what group he or she belongs, but it can take measures to control systematic discrimination. Again, we run into the individual versus group issue: "the inability

to identify anything except group discrimination creates an inability to focus remedies on anything other than the group" (Thurow, 1980, p. 180). A concern for groups is, therefore, unavoidable

Because remedies at the individual level are not possible, equity decisions must be made at the group level. Thurow (1980) claims that, because only groups can be treated equally, society must learn to accept that what may be fair for a group may be unfair for individuals in that group. A trade-off must be made between efficiency and justice for individuals. He maintains that "to shift from a system of group discrimination to a system of individual performance is to perpetuate the effects of past discrimination into the present and the future" (p. 189) Society must confront the fact that to increase the relative income of a group that has been historically discriminated against is to decrease the relative income of another group. It is, again, the paradigm zero-sum game. Gains are counterbalanced by losses.

Economic equity decisions are the fundamental starting point for any market economy. "Individual preferences determine market demands for goods and services, but these individual preferences are weighted by incomes before being communicated to the market" (Thurow, 1980, p. 194). To make his or her preferences felt, an individual must have economic resources. Only when income and wealth are

distributed in accordance with equity (whatever that may be) can individual preferences be properly weighted and the market efficiently adjust to an equitable set of demands.

Thurow (1980) affirms that "equity decisions cannot be deduced from purely factual or logical statements" (p 200).

In a capitalist economy, the common belief is that people should compete for a distribution of market prizes.

However, not everyone has an equal chance to win those prizes in our present market system. Thurow claims that the group that has had the ideal conditions of a natural lottery has been fully employed white males. He suggests that, to establish a general equity goal, we must strive for a distribution of earnings "no more unequal than that which now exists for fully employed white males" (p. 201).

Thurow's analysis of the data demonstrates that this group's distribution of income is much more equitable than that of the rest of the population. If the current difference between the top quintile and the bottom quintile is about 5:1, then the general population distribution should not have a wider gap than that

Nevertheless, the ideal is not to derive a system of transfer payments to restructure the distribution of income. What needs to be done is to "change the structure of the economy so that the entire economy generates the kinds of jobs that are now open to white males and ensures that there are enough of these job opportunities to go around" (Thurow,

1980, p. 203), resulting in a distribution of income comparable to that of white males. Everyone who wants a job should have one.

Any economic decision must address the issue of equity. To illustrate, to the question, "What criteria should be used for research-and-development spending, for investment banking aid, and for implementing industrial triage?" (Thurow, 1985, p. 292), Thurow responds that "there are no criteria that are universally valid across all three of these areas" (p. 293) because the problems are too diverse. No one criterion--high value added per worker, linkage industries, future competitiveness--is always right. Decisions that affect people's livelihoods cannot be made by using reasons of "immutable mathematics," but must employ judgment. Judgment should be guided by reasons of equity so that the most efficient and least painful method is found to make sure no one has to suffer more than his or her share of the burden. We must remember that the elimination of protection, regulations, and subsidies causes large numbers of individuals to suffer economic losses. If industrial policies are adopted, a system must be created that provides transitional aid to individuals to help them deal with temporary unemployment.

Similarly, to make equity judgments regarding taxes, we must look at both taxes and expenditures. "If expenditures are distributed so that low-income individuals get more

benefits than upper-income individuals relative to their incomes" (Thurow, 1985, p. 229), as is the case with Social Security and unemployment taxes, then the tax system can be categorized as equitable.

Thurow (1985) proposes that the changes necessary to solve the productivity problem in the American economy are congruent with what needs to be done to make the distribution of income more equitable. His call for a complete social reorganization will require sacrifices on the part of many constituencies; therefore, it must be done with equity in mind so that people will be more willing to embrace it. Again, the perception of fair treatment is essential to promote voluntary cooperation. Cooperation and team work are what make an economy efficient. In order to develop a well-motivated, cooperative, high quality economic team, the team members must believe they are being treated fairly. Thus, "equity [i e., fair treatment] is the essence of efficiency" (p. 126).

The American economy faces serious problems at the end of the 20th Century. Problems such as inflation and the United States' inability to compete in the global markets do have potential solutions. Those solutions will have strong effects on the distribution of income. Since distribution of income is a political issue, governments cannot implement solutions without also implementing measures to recompense those who will be negatively affected. Therefore, a

restructuring of the economy should not only improve productivity but also accomplish a more equitable distribution of earnings.

Thurow's (1980, 1985; Heilbroner & Thurow, 1982) proposal addresses not just the symptoms, but also the causes of stagnant economic growth. Though different from Friedman's (1975; Friedman & Friedman, 1980, 1984), his proposition for controlling inflation also assumes an opposing relationship between supply and demand, as proposed by Say (1821, 1821/1880). If price is the point of equilibrium between supply and demand, then by controlling the price of money, that is, interest rate, increases and/or decreases in the supply of money can be controlled as well. Further, he extends Say's argument that supply creates demand equal to its value, by proposing that inflation does not change the value of supply, but that value remains constant, and that in a zero-sum society, inflation redistributes value thereby affecting distribution of income. Thurow's proposal for increased productivity as the solution for slow economic growth also extends Say's notion that only those who are engaged in productive activities are the true consumers in the market place, for they possess the economic resources to affect demand of consumer products.

Thurow (1980, 1985; Heilbroner & Thurow, 1982) introduces the issue of equity to the "science" of economics. If economics is a social science, it cannot be

studied without considering the individual lives that are affected by its influence. Rather than letting the market take care of itself, affecting individuals and groups in a random fashion, Thurow proposes manipulating supply and demand. As opposed to Friedman (1975; Friedman & Friedman, 1980, 1984) and the classical supply-side economists, Thurow will not adopt a "laissez-faire" approach. His proposal carries with it the requirement of a social conscience expressed through governmental action.

As illustrated by the divergent views of Friedman (1975, Friedman & Friedman, 1980, 1984) and Thurow (1980, 1985; Heilbroner & Thurow, 1982), the debate in economics is still current. Furthermore, by basing their propositions on Say's (1821, 1821/1880) argument, they give it currency. If program development is informed by the propositions that characterize a domain of study, then the propositions described in Chapters 2, 3, and 4 should inform program development in consumer economics. The next chapter derives implications for program development in consumer economics.

CHAPTER 5
IMPLICATIONS FOR PROGRAM DEVELOPMENT
IN CONSUMER ECONOMICS

The purpose of this study was to examine the propositions advanced by Jean Baptiste Say (1821, 1821/1880) in order to identify the central arguments of the domain of economics. Say's main proposition states that supply and demand are opposite extremes of a beam, with price as its point of equilibrium. That is, the point at which supply and demand attain balance is determined by price. Imbalance is the result of too high or too low price. Furthermore, according to Say, price is the measure of value and, in the aggregate, supply creates demand equal to its value. That is, supply is a greater force than demand in determining value as measured by price. Say's propositions can be described as foundational for the domain of economics. The relationship among supply, demand, and price characterizes economics and is the base from which all economic schools of thought derive.

Several attempts have been made to extend Say's (1821, 1821/1880) argument. Two of the most notable are Milton Friedman's (1975; Friedman & Friedman, 1980, 1984) supply-side economics and Lester Thurow's (1980, 1985, Heilbroner & Thurow, 1982) demand management propositions. Both modern

scholars have attempted to find solutions to economics' most difficult modern problems. Inflation and equitable distribution of resources. Friedman adheres to Say's argument regarding the relationship among supply, demand, and price, and extends it in his Quantity Theory of Money when he proposes controlling the supply of money to preserve its price and, therefore, its value, to address the problem of inflation. Thurow's proposal for controlling inflation is also based on Say's argument, but, rather than addressing the supply of money, he proposes to control its price interest rate. Friedman and Thurow's proposals have been inconclusive. Neither proposal when followed has succeeded in halting or controlling inflation and the problem remains unresolved.

To address the issue of equitable distribution of resources, Friedman (1975, Friedman & Friedman, 1980, 1984) and Thurow (1980, 1985; Heilbroner & Thurow, 1982) differ in their approach. Friedman proposes that the relationship of supply, demand, and price must be free of government intervention, because economic freedom is essential for the achievement of political freedom. Furthermore, Friedman claims that because freedom is essential to preserve our economic system, any attempt to influence the distribution of resources infringes on freedom and is, therefore, beyond the purview of economics. On the other hand, Thurow's advocacy for industrial policies and government intervention

proposes manipulation of economics to control supply, demand, and price toward the achievement of social equity. No agreement has been reached as to the meanings of freedom or equity. Both terms are ambiguous: their interpretation is relative, subject to the influence of the political forces of the moment.

If there is to be systematic program development in economics, it must be based on accepted characterizations of economics. Only such characterizations can inform the identification, selection, and organization of subject matter for schooling. If Say (1821, 1821/1880) provides a basis for characterizing economics, then program development must account for that characterization. Furthermore, although both Friedman (1975, Friedman & Friedman, 1980, 1984) and Thurow (1980, 1985; Heilbroner & Thurow, 1982) base their proposals on the characterization described by Say, the issue of the meanings of freedom and equity has not been resolved, and if a solution for the problem of inflation has not been found, then to base program development only on these variant proposals would be misleading, since there is no agreement or resolution relative to the primary issues on which the variant proposals diverge.

If supply and demand characterize economics, and price is regulated at the equilibrium point of supply and demand, and if inflation, pollution, and megabusiness are persistent

episodic economic problems that impact on the unemployment rate and, therefore, on supply and demand of consumption goods, and if consumer economics centers on human survival, then consumer economics must address maintenance or restoration of equilibrium of supply and demand relative to health care, transportation, food, and shelter

If value enters into considerations relative to inflation, pollution, and megabusiness within the restraints of supply and demand, then central to consumer economics are considerations of, for example. How much inflation can we afford? How do we limit its damage? How much pollution is tolerable? How do we limit its damage? How much megabusiness impact on competition is tolerable? How do we limit its impact?

If inflation, pollution, and megabusiness affect the unemployment rate and, therefore, affect human survival, then consumer economics program development must account for historic representations of and consumer reactions to inflation, pollution, and megabusiness, and design and present problems for the investigation of probable future effects of unchecked inflation, pollution, and megabusiness. If equilibrium is comparable to an equation, and if the future effects of inflation, pollution, and megabusiness on unemployment are unknown variables in making projections, then consumer economics program development must represent the problematic in algebraic terms. If central to consumer

economics is human survival, then program development for consumer economics must identify literary works that present (fiction) or represent (nonfiction) the human condition in struggling with inflation, pollution, and megabusiness. If the sciences are concerned with human survival, then consumer economics program development must identify the scientific-technological developments that contribute to or limit inflation, pollution, and megabusiness.

Economic development and the attainment of economic equilibrium are not smooth processes; the interplay of multiple factors causes disruptions that challenge human survival. Unchecked inflation diminishes income and produces unnatural suppression of demand. Unchecked pollution damages the ecology, mechanical devices, and plant and animal life cycles. Unchecked corporate power distorts or precludes the natural attainment of equilibrium by manipulating supply, demand, and price. Unemployment disrupts economic order for the individual and for society in the acquisition and distribution of health care, transportation, food, and shelter--the stuff of human survival.

It is a premise of this study that consumer economics is derived from and grounded in economics. Program development in consumer economics for schooling, therefore, must find the source of its subject matter in the propositions that characterize economics, that is, Jean

Baptiste Say (1821, 1821/1880). Divergent or variant proposals, such as those offered by Friedman (1975, Friedman & Friedman, 1980, 1984) and Thurow (1980, 1985; Heilbroner & Thurow, 1982), must be accurately represented in so far as they advance arguments that extend the characterization of economics. Subject matter in consumer economics must be selected, organized, and presented/represented to demonstrate the grounding, the implications, and the problems attendant to the variant proposals as they impact on human survival

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