

What Do You Mean?

CONCEPTUAL CLARITY IN SOCIAL POLICY

Alessandro Magnoli



Inter-American Development Bank

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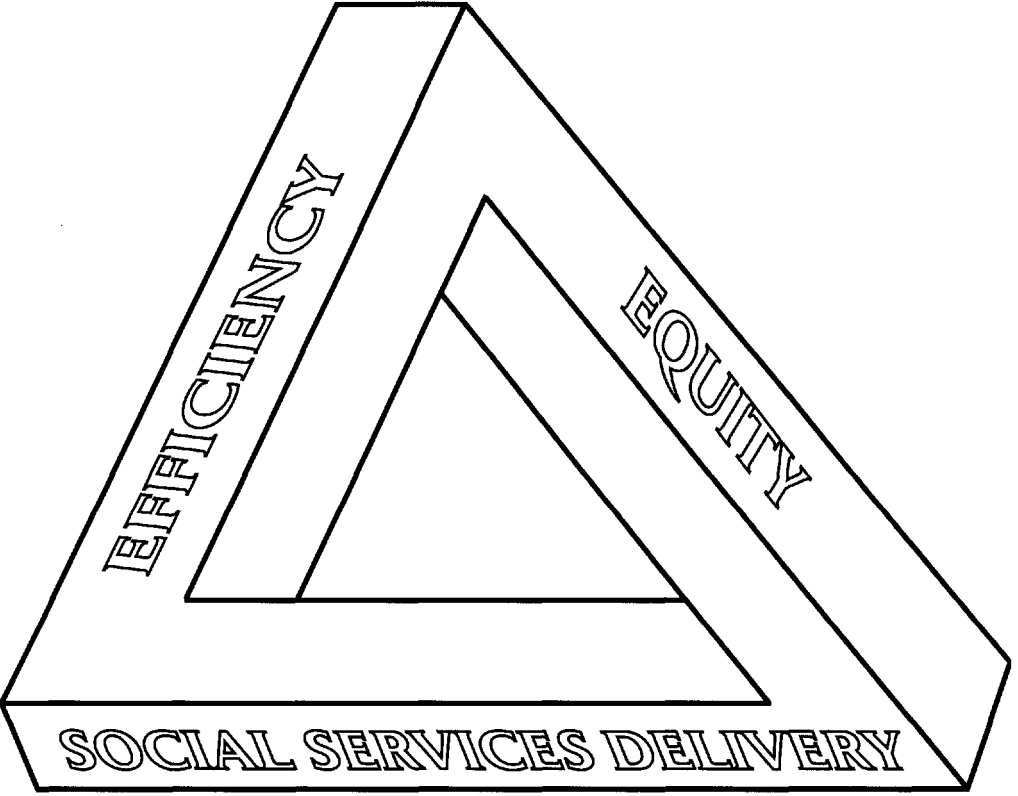
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Introduction

“The political problem of humanity is to combine three things: economic efficiency, social justice and individual freedom.”

John Maynard Keynes, Liberalism and Labour, 1926

The welfare state plays a key role in the protection and promotion of the socioeconomic well-being of its citizens. Public provision of basic education, health and in some cases housing and social insurance are fundamental features of the welfare state. For such a state, the equitable distribution of wealth and the responsibility for those unable to avail themselves of the minimal provisions for a “good life” are matters of public concern and justify progressive systems of personal taxation and anti-poverty programs. Nonetheless, it is widely recognized—from both a theoretical and a practical perspective—that the welfare state as a form of socioeconomic organization is undergoing a crisis. Liberal economists criticize it because they believe that it leads to loss of individual freedom and economic efficiency. Furthermore, experience has shown that, while the benefits of social services have been less than expected, fiscal deficits and debts have grown, leading to macroeconomic instability and unemployment.

Explicit Value Judgments

“A society is rich when material goods, including capital, are cheap, and human beings dear.”

R.H. Tawney

This study is based on the belief that, despite its shortcomings, the welfare state is still a valid socioeconomic model. For example, despite its current crisis, many developing countries have made the establishment of some form of welfare state a goal. Basic implementation of the welfare state can be seen in the United States. More extensive forms can be found in Western European countries, in many cases featuring compre-

hensive health coverage and provision of state-subsidized tertiary education. In the Netherlands and the social democratic governments of the Scandinavian countries, the welfare state provides public aid for the individual in almost all phases of life, "from the cradle to the grave." In socialist countries, the welfare state also covers unemployment and administration of consumer prices.

Historically, a social system has been more likely to survive if it has achieved greater development and a higher level of welfare through a democratic process. On the economic level, the goal of a society is development, defined not just in terms of economic growth but also by improved living conditions, such as life expectancy, health and education (Sen 1994). On the political level, social systems increasingly aim toward democracy, defined here as a political system where freedom and equality are achieved to their highest degree (Bobbio 1995). The welfare state has proven to be a successful model in achieving these goals; however, its social service delivery systems need reform.

The improvement of social service delivery, particularly education and health, is justified on several grounds. First, democratic societies cannot avoid the issue of equity, at least as a principle of distributive justice. Education and health are basic entitlements for all citizens and each person should have access to them regardless of race, gender, social position or income. Second, the equal distribution of education and health—being an investment in human capital—can yield significant gains in both equality and freedom, because it ensures and sustains the development process by reducing gaps in income distribution, and increases active participation in modern dynamic democracies. Third, the skills and capacities of healthy and educated citizens lead to greater economic productivity and growth.¹ As a result, income and welfare increase and services are more easily financed. Fourth, since public finance is a scarce commodity, governments must spend it with the utmost effectiveness while expanding private social service financing and delivery.

In order to progress in the theoretical analysis of social service delivery, it is imperative to overcome the conflict concerning the leadership role between governments and markets that is often present in the literature. For this analysis, the conflict is irrelevant because each sector has a role to play depending on its resources, organization and incentives. The two forces complement each other and their interaction is needed in the redefinition of the welfare state. Even if it is not possible to identify the social benefits of education and health systems with the same degree of precision as production benefits, market incentives can be included in social service delivery, allowing private operators to offer services at a profit. This can improve efficiency and private entities can achieve surpluses in activities in which public sector agencies have usually

¹ The literature on endogenous growth has analyzed if and how markedly skewed income distributions can threaten economic growth possibilities (Shultz 1968; Becker 1993; Barro and Sala-i-Martin 1995; Londoño 1996; Perotti 1996; Persson and Tabellini 1997).

posted losses. In order for the private sector to be able to develop its potential for generating wealth to the fullest, government must perform its role effectively by establishing a set of clear and stable rules that are fair to all social service providers, and by performing regulatory, supervisory and evaluative functions. Whenever markets and governments have worked together, the results have been spectacular (see Zuckerman and de Kadt 1997).

The search for efficiency and equity does not lie in substituting private for public delivery systems or vice versa. It lies in improving the delivery systems per se by mobilizing social resources with funding from public or private sources or a combination of both.² The interaction of competitive markets and government can provide an efficient system of production and distribution of goods and services and can take care of redistribution within a framework of laws and regulations that are as essential for economic activity as they are for social justice. In order to accomplish these goals, conceptual clarity is essential. This study attempts to provide this much-needed clarity.

Purpose of the Study

The objective of this study is to demonstrate that different ideologies lead to different concepts of efficiency and equity, which in turn influence the policy design and consequently the results of social service delivery.

Efficiency and equity are social priorities and, at the same time, they are the cornerstones on which to build the redefined welfare state. Achieving social equity is as important a goal as achieving economic efficiency, but there is confusion regarding these concepts and their dynamics. In the formulation of social policy, clarity is sorely needed to move forward. Two issues are particularly important. First, different ideologies yield different meanings of efficiency and equity. Second, in the provision of social services, specifically education and health, the results of policy implementation differ depending on which of these meanings inspired the policy design.

The analysis clarifies and defines the concepts in order to forecast the impact of each concept on social policy. Clear definitions help to transport the issue from the ideological plane into practice, from a normative approach to a positive one. In fact, the analysis aims to introduce an analytical definition of efficiency and equity because these concepts are essential in the reconceptualization of the welfare state. At the same time, it attempts to provide a much clearer view of how different definitions of efficiency and equity lead to different social policy options, which in turn have varied consequences

² The state and the market are not the only agents for social service delivery. The family, the community and civil society (nongovernmental organizations) are also important and social policy designers must also take these actors into account when planning policy.

Efficiency and Equity in Indonesia and Sri Lanka

Education Policy in Indonesia

Indonesia, a chain of islands stretching 3,000 miles along the equator, is a former Dutch colony that fought for independence in 1958. In the early 1960s, economic growth was slow and income distribution was skewed. In 1965, gross national product (GNP) per capita was US\$90; the upper 20 percent of the population held 52 percent of income and the lower 20 percent held only 6.8 percent (World Bank 2002). In the 1960s, few of the 60,000 Indonesian villages had primary schools, trained teachers were scarce, textbooks were expensive, and many poor rural households were unable to afford school fees. Gross enrollment was 72 percent in primary and 12 percent in secondary school in 1965. In 1971, 43.4 percent of the population aged 15 and older was illiterate (World Bank 2002).

Policymakers believed that investing in the skills and capacity of educated citizens was the key for social and economic development, and that a better education system could increase both economic efficiency and equity in the country. In 1973, the government launched a program funded through loans and oil revenues to improve access to schools for rural children by building primary schools in villages that did not have them. Improvement in the educational level was expected to yield significant gains not only on the side of equity, but also in rural economic efficiency, thus alleviating poverty and stimulating economic growth. The program hired newly trained teachers at the primary level, provided textbooks, and abolished school fees. Parents in rural areas responded to the improved opportunity by sending their children to school. By 1983, after more than 60,000 new schools had been built and more than 100,000 existing schools had been renovated, about 95 percent of children aged 7-12 were enrolled in school. By 1985, 25 percent of the population was illiterate, GNP per capita was US\$520, and enrollment at the secondary level had increased to 41 percent (World Bank 2002).

Health Policy in Sri Lanka

When Sri Lanka gained independence in 1948, the country already had high health standards. Since then, the government has continued to place high priority on health, believing that a healthy citizenry is critical in reducing poverty and inequality, stimulating economic growth, and sustaining the democratic process in general. For these reasons, medical care has been free to all from the beginning and the government has worked to extend the service network to all parts of the island. However, a shortage of funds has continuously hampered these efforts. In addition, the country's hospitals are always crowded and many physicians, seeking higher incomes, emigrate to other countries.

In spite of the obstacles, the country's efforts to provide better health care have prevailed. The provision of additional hospital beds ran ahead of population growth between 1950 and 1980. In the same period, the supply of nurses and paramedics nearly tripled in relation to the population (World Bank 1998). This increase provided essential support for the extension of primary care to rural areas. As a result, the measures of mortality and morbidity have shown striking improvement in the past four decades. Epidemics have been eliminated and diseases such as typhoid, tuberculosis and malaria have declined sharply as causes of death. Crude and infant death rates have fallen, and life expectancy has climbed to 71 years.

for society. The ultimate purpose is to improve the delivery of social services through understanding the link between efficiency and distributive justice problems.

This book offers an instrument that policymakers could use in redefining the welfare state. The study attempts to show how different conceptualizations of efficiency and equity lead to different assessments about the best options for government intervention and market participation in social service delivery. Both descriptive and analytical policy studies use objectives of efficiency and equity in a rather general way, although in practice they may refer only to specific and more limited concepts. The study also seeks to show that in applied research and in actual policy practice, most policy choices are strongly influenced by (often implicit) ideological preferences regarding freedom and equality and by preconceived views as to whether market-based or government-oriented solutions are likely to produce more efficient outcomes.

The analysis applies this hypothesis to the case of voucher systems in education and alternative insurance systems in the field of health care. This analysis is important because clarity regarding the relationship between concepts and options can improve efficiency and equity not only in social service delivery, but also in the social system as a whole. In this manner, social systems can become more sustainable, reach a satisfactory standard of welfare and evolve toward democracy. Indeed, the efficient and equitable provision of education, health, housing, drains and potable water forms the groundwork for a stable and durable social system.

In the process of redefining the welfare state, it is important to determine whether a trade-off between efficiency and equity exists. Too often the debate on this point is merely ideological. The economic literature is not always clear on the meanings of "efficient" and "equitable." One of the contributions of this study is to show that trade-offs, if any, depend on the definition assigned to these two concepts. In the economics of social service delivery, there is a complex and intricate relationship between efficiency and equity, and the existence of a trade-off varies with each particular case. On one hand, efficiency and equity could be achieved together. A case in point would be that

of nations with low rates of socioeconomic development, where it is possible to achieve both by stimulating a virtuous circle. On the other hand, efficiency and equity could be in conflict. For example, in education and health, a trade-off often exists at the moment of allocating resources among alternative programs.

Methodology and Examples

This theoretical analysis looks at the economic functioning of social policies from the perspectives of alternative conceptualizations of efficiency and equity. It redefines three well-known concepts of efficiency and applies them systematically in conjunction with freedom and equality concepts to the analysis of social service delivery systems. In addition, the analysis includes specific case studies and examples to illustrate the hypothesis.

The analysis identifies three types of efficiency: in production, in coordination and in allocation. The foundation for this differentiation comes mainly from the subjective utilitarian economic theory inspired by liberal ideologies. To avoid confusion on the concept of equity, this study proposes to break it down into three types: access, which comes from liberal ideologies in the libertarian meaning; capabilities, whose conceptual roots lie in that part of welfare liberalism that is concerned with an individual's ability; and results, from egalitarian ideologies in their main egalitarianist, socialist view. Policy analyses appear to be restricted to very specific notions of efficiency and equity, mostly without being aware that claims for enhancing efficiency and/or equity may apply in one sense (efficiency in production and equity in access) but not in another (efficiency in allocation and equity in results).

For example, policy designers in Indonesia and Sri Lanka wanted to improve both efficiency and equity (see box). However, their policy choices were strongly influenced by implicit preferences regarding freedom and equality. In Indonesia, public policies were rooted in negative freedom. Accessible education was considered an important factor in improving income and welfare distribution, which would also lead to greater economic productivity. The implicit concept of efficiency was efficiency in production, which shaped the policy goals toward income growth, while the implicit concept of equity was equity in access, which led to an increase in public facilities and resources for education.

In Sri Lanka, the implicit goals were to improve efficiency in allocation, which led to the extension of free primary care in rural areas, and equity in capabilities, which led to the promotion of equal opportunities through the provision of minimum standards of living. These policies also increased long-term workforce productivity and thus efficiency in economic activity. Although access was the main concern in both Indonesia and Sri Lanka, the health policy in Sri Lanka was more concerned with increasing citizens' capabilities, which shows a bias in favor of positive freedom.

At the moment of spending in education or health care, every policy designer

wants to achieve efficiency and equity. However, there are two main points of view regarding spending and each is informed by a different concept of what amounts to an optimal system (see box). According to the first, the best possible standard of education or health care should be achieved independently of concerns about economic resources. Policies with this goal are normally informed by equity in results; efficiency, seen as efficiency in production, is subordinated to the achievement of equal results.

According to the second point of view, cost must be taken into consideration in setting priorities. This perspective comes from the implicit prioritization of efficiency in allocation and the concomitant concept of equity in capabilities, which focuses on the provision of minimum standards. Of course, results are different for a policy designer who implicitly thinks that social policies should serve everyone who asks for the service (on a first come, first served basis) compared with a designer who prefers to set clear priorities in advance.

Structure of the Study

Chapter 1 analyzes the concepts of efficiency and equity within the framework of social policies. It shows that efficiency and equity can each be broken down into three different types: efficiency in production, efficiency in coordination, efficiency in allocation, equity in access, equity in capabilities and equity in results. The relationship between efficiency and equity has its conceptual roots (except when viewed from the utilitarian perspective) in the more complex link between freedom and equality, which, in turn, leads to the debate between liberal and egalitarian ideologies. Therefore, the chapter begins by explaining how the concepts of efficiency and equity have been influenced by political philosophy, in particular by the ideas of freedom and equality. The chapter develops definitions of efficiency and equity and outlines their relationship by studying the different interpretations in the political and economic literature.

The literature tends to debate the existence or the absence of a trade-off between efficiency and equity in broad terms; however, a deeper level of analysis is necessary in order to address the problem more effectively. The dual objective of increasing both efficiency and equity is not always possible. Indeed, sometimes a trade-off between one of the three types of efficiency and one of the three kinds of equity will be inevitable. In other cases, a trade-off may not be necessary. Clarity of meaning at the moment of analysis will reveal the existence or irrelevance of a trade-off. Throughout this analysis, it is important to keep in mind that reality is always more complex than a priori reasoning; this fact is particularly evident in the examples of education vouchers and health insurance that are discussed in chapters 2 and 3.

Chapter 2 analyzes the voucher system as a mechanism of financing education. It shows how different concepts of efficiency and equity can yield different voucher systems and consequently different results in terms of policy, freedom of choice and

Two Positions on Expenditures for Social Services

Serving Those Who Ask

Many countries spend a large share of their total education budget at the tertiary level. For example, India spends 19 percent of its total education budget on colleges and universities; in Africa, 22 percent goes to universities; and in Brazil, 23 percent is allocated to higher education (World Bank 1998). Aside from the fact that the more powerful political groups apply pressure in that direction, there are several technically valid reasons for this phenomenon. Graduate training and research provide sustainability to the education system and yield externalities for society, including suitably trained teachers, teaching materials and technological progress. In addition, the cognitive skills of future generations have positive effects on income distribution and poverty reduction. Market failures also justify public funding at the tertiary level: low-income students receive financial aid for college training while public universities further their research efforts and avoid selection based on ability to pay.

In the field of health care, from this perspective, expenditures are efficient if they offer the best treatment to the patient, regardless of cost.^a Indeed, an optimal health care system provides the highest possible standard of care to every citizen. This position considers the achievement of equal results as the only way to achieve equity, and forgets productive and allocative efficiency.

Precedence Setting

According to the precedence-setting position, countries have limited resources and cannot increase social expenditure indefinitely without eroding their long-term sustainability. The choice in favor of tertiary education leaves the other education levels without the necessary financial resources. If it is true that highly educated people are crucial for improvements in citizenship and economic growth, then subsidized education for every citizen is equitable only if every individual reaches the tertiary level. If not, the person who drops out at the primary level receives less from the state than the person who reaches the secondary level, and even less than the person who goes on to the university level. For example, in Colombia, 60 percent of all higher education subsidies go to the highest income quintile and only 6 percent go to the bottom two quintiles (Birdsall and James 1993).

^a According to this view, health is one of the most important factors contributing to welfare; consequently, a considerable amount of resources are (and should be) spent for its protection. It is often assumed that the higher the health care expenditure, the better the achieved health care standard will be. "It is incumbent on the physician (...) to practice not 'cost-effective' medicine but that which is as safe as possible for that patient under the particular circumstances. Optimization of survival and not optimization of cost-effectiveness is the only ethical imperative. (...) A physician who changes his or her way of practicing medicine because of cost rather than purely medical considerations has indeed embarked on the 'slippery slope' of compromised ethics and waffled priorities." (Loewry 1980)

In many countries, enrollment at the primary level does not reach 100 percent; data for the secondary level are even worse. In India, the majority of rural children do not finish primary school. In Africa, only 2 percent of the relevant age group attends university. In 1990 in Brazil, the average years of schooling were 5.1 for males and 4.9 for females, yet the expenditure per student was US\$526 at the primary level; US\$621 at the secondary level; and US\$5,258 at the tertiary level. In the same year, only 9 percent of Brazil's public education budget was dedicated to secondary education (World Bank 1998). When policy designers take these disparities into account, more money should be spent at the primary level in order to increase coverage because it is not considered cost effective to allocate scarce resources to universities.

In terms of health care, the precedence-setting point of view considers that costs cannot be ignored when making policy choices. For example, the allocation of resources should not be based on keeping patients alive as long as possible if the survival possibility of one patient can only be increased at the expense of the survival prospects of others. The fundamental problems of resource allocation apply to health just as they do to any other area; for any given level of social expenditure, the policymaker has to take into consideration results in relation to goals. Resources have to be allocated for those actions that have the highest efficacy at the lowest cost. Thus, an optimal health care system allocates its resources according to cost effectiveness. Building hospitals, training doctors and nurses, and manufacturing drugs and technical equipment consume scarce resources that could be used for curing low-budget mortal illnesses, such as cholera or diarrhea, or for other social services, such as building schools, training teachers or distributing food.

In this context, the idea that physicians should always provide the best possible treatment regardless of cost makes little sense. Within this framework, access and the provision of minimum standards of living are considered sufficient and necessary conditions for equity; efficiency in allocation is considered more important than any other type of efficiency.

equality. By analyzing the case of market-oriented public support of education in 31 countries, the chapter investigates the effectiveness and legitimacy of voucher systems as a demand-side financing tool. Worldwide, there is an unfinished education agenda as far as efficiency and equity are concerned. Critics of existing education systems say they are excessively supply-driven, causing a substantial lack of appropriate delivery. Advocates of demand-oriented systems claim that they would ensure sustainability. The chapter analyzes how demand orientation would resolve the difficulties found in supply-side education delivery systems. It focuses on the impact of introducing choice, in particular through looking at voucher systems as education policy tools.

An education voucher is a payment made by the government to a school chosen by the parents of the child being educated. The payment can also be given directly to the parents to use in the education of their child. Schools are free to offer diverse education packages in order to meet different parents' preferences. This system encourages

private nonprofit and for-profit schools, thereby introducing competition in the education system. The analysis demonstrates how the design of voucher systems varies depending on the designer's focus on different types of efficiency and equity. This, in turn, will influence the system's overall performance. Four principles guide the analysis of the intended objectives of vouchers: consumer choice, personal advancement, promotion of competition, and wider access to private and religious schools.

Chapter 3 applies the hypothesis of the study to the field of health. It shows how efficiency and equity lead to different results depending on the concept chosen as a goal in the design of a health insurance program. In turn, this design will have different impacts on the initial efficiency and equity. To illustrate this point, for the sake of simplicity, the many existing delivery systems have been classified into three principal categories: free market, tax-financed public delivery and social insurance. The analysis applies the reconceptualized definitions of efficiency and equity to the practice of managed competition in industrial nations and to social insurance in developing countries.

The appropriate management of health insurance is a worldwide concern. In every nation, considerable resources are devoted to the maintenance and preservation of health. Most countries lack universal health insurance coverage, and the health insurance systems that do exist are plagued by rising costs and opportunistic behaviors (moral hazard and adverse selection). Thus, regulations in financing curative health, calibration of incentives, and the definition of rules are crucial activities in the policy design of an efficient and equitable health insurance system and play a central role in optimizing the health care achievements of a country.

There are many ways to design health insurance systems, and the literature on the topic is clear on how they are organized. However, confusion is introduced in how the concepts of efficiency and equity are applied to health care risk coverage.

The chapter details how implicit concepts of efficiency and equity have influenced the design of each delivery system. For example, free market economists advocate private delivery, which privileges a focus on efficiency in production. The positions of welfare liberals and egalitarians influence social insurance and tax-financed public delivery, stressing efficiency in allocation and equity in access. Managed competition derives its design from a focus on efficiency in allocation, efficiency in coordination and equity in access. In short, each system has its roots in different implicit concepts of efficiency and equity.

Chapter 4 summarizes the main positions of libertarians, welfare libertarians and egalitarians in terms of how they mean different things when they talk about efficiency and equity. Since the initial concepts of their arguments differ, they design social policies that yield different results. In the economic literature, eventual trade-offs have been and will be the logical consequence of the priority given to the objective of one concept over the other. The chapter concludes by discussing nine possible combinations among the three concepts of efficiency and of equity.

Efficiency and Equity in Social Policy

Social policies are running into problems. On one hand, countries have limited resources and cannot increase social expenditures indefinitely without eroding their fiscal sustainability. On the other hand, as they confront growing needs, countries are experiencing trouble in terms of coverage and quality in delivering social services. Cost containment as much as targeting is necessary; both efficiency and equity are needed in order to improve sustainability. However, there is some confusion on the meanings of “efficiency” and “equity.”

According to some economists, efficiency is the optimal use of scarce resources in achieving production processes (that is, the biggest quantity with the highest quality at the lowest cost). For others, the keys for achieving efficiency are incentives and transparent information (that is, the optimal functioning of the market in the process of resource allocation). Still others believe that lowering the overall opportunity cost is what really matters in achieving efficiency (that is, the achievement of a first-best equilibrium or Pareto allocation).

Although economists might agree that social policies should provide equal opportunities to every citizen, they lack consensus on how to define “equality of opportunities.” Different ideologies assign radically different meanings to this expression. For some, it could mean the provision of access to social services by building schools or health centers. For others, it could mean breaking vicious circles of poverty and attacking the causes that perpetuate them in order to allow all people to develop their own lives. For still others, it could mean guaranteeing that all people achieve the same education and health results.

What kind of efficiency and what type of equity should social policies pursue? Of course, there is a plurality of positions on this topic due to the political dimension of the economic problem. This dimension raises questions that cannot be answered in an objective and scientific way because value judgments come into play. However, this does not mean that explicitness is impossible to achieve; on the contrary, drawing a clear and explicit map of every implication of these value judgments would definitively help the design of social policy. This kind of clarity can be achieved by defining what efficiency and equity mean and by plotting the results of each concept’s implications.

Different political ideas lead to different concepts of efficiency and equity. The objective of this chapter is to investigate the dissimilar ideologies that are the basis of

these different views. The main ideologies explored here are liberalism (libertarianism and welfare liberalism) and egalitarianism (skipping its influence on socialist ideas). The chapter also discusses utilitarianism because of its important influence on economic theory.

The different concepts of freedom and equality that these ideologies espouse are key to the analysis. For example, libertarianism favors negative freedom, a choice that implicitly shapes its definition of equity: mere access is the only concept compatible with negative freedom. Meanwhile, egalitarianism sets as its goal “equality for all in everything,” a view that influences its conception of efficiency. Efficiency per se is not a goal for the social system but a quality of the process of achieving more equal results. Understanding and explaining the relationship and the trade-off between efficiency and equity require a discussion of ideologies, in particular, on the topics of freedom and equality, which in turn leads to the relationship between the market and the state. This consequential line of reasoning is central in understanding how efficiency and equity have come to mean so many different things.

Efficiency and equity are key aspects of most economic problems and they play a major role in most public policy decisions. In the political domain, concerns about equity—or at least distribution—often outweigh concerns about economic efficiency. Despite this fact, when discussing policy alternatives, most economic analysis has paid much more attention to issues of efficiency than to issues of equity.

There is greater consensus among economists about what constitutes efficiency than there is about what constitutes equity. In fact, economics in general has confined its attention to the allegedly value-free efficiency condition, claiming that questions involving equity or the distribution of benefits are matters for the political process. In welfare economics, enterprises and consumers freely pursue their own interests, acting without restriction in the market. The government intervenes later to correct and/or integrate the distorted effects connected to the market mechanism. During the past few decades, the logic of this separation (with the market guaranteeing efficiency and the public authority guaranteeing justice) has reached a major crisis with the realization that frequently the achievement of the efficiency goal would bring about the simultaneous attainment of values like equity and equality. Moreover, the pursuit of efficiency could not be a value-free, technical matter because it implies the acceptance of a given income distribution (often the existing one), which, in itself, involves a value judgment. Both the libertarian basis of the various process-oriented positions and the welfare foundation of the new welfare economics have experienced difficulties in accounting for the new problems. This explains the renewed interest in this area, beginning toward the end of the 1960s with the topic of distributive justice.

This chapter analyzes how, when applied to economics, different ideologies—with different concepts of freedom, equality, efficiency and equity—present different policy proposals and objectives. Economists inspired by these different ideologies also interpret in a different way the relationship between efficiency and equity. For example,

compared with liberals and egalitarians, libertarians and utilitarians are more likely to consider these concepts in a trade-off.

For instance, for libertarians and subjective utilitarians, the achievement of an efficient allocation of resources implies that a reallocation of resources and/or a rearrangement of production assignments cannot increase net social benefit. However, for welfare liberals and egalitarians, although an efficient allocation is an important aim for any economic system, it is not the only social objective. Indeed, an efficient system does not necessarily imply a fair or equitable one, even if the efficient system produces the maximum net benefit for society. In fact, the meaning of maximum net benefit only refers to the overall level of net benefit for a given (often the initial) distribution of assets; it does not concern itself with the way benefits are distributed between the individual members of society. The notion of equity is not dealt with by the efficiency criterion in the way economists generally use the latter.

This study does not attempt to cut the Gordian knot by indicating whether efficiency or equity should be pursued as a priority. Indeed, it aims to show how alternative methods of economic organization influence policy design because of their implicit concepts of efficiency and equity. The goal is to increase the understanding of the efficiency-equity problem in the delivery of social services.

The Conceptual Roots of the Efficiency-Equity Relationship

Efficiency and equity considerations are two different tensions—simple but extremely strong—that affect every approach to social policies. On one side, analysts refer to an efficient economic system as the *modus operandi* by which people organize their material provisioning and whence society develops its welfare and economic growth. On the other side, analysts point to the need for equality. Many societies share the belief that in order to progress toward civilization, all human beings have to be equal. Are an efficient economy and equality compatible? Can an economic system achieve equitable outcomes and be sustainable in an economically viable and just manner? Different ideologies answer these questions in different ways.

Relevant Positions: Liberalism, Egalitarianism and Utilitarianism

The main doctrines relevant for this study come from political philosophy and are well known: liberalism, egalitarianism and utilitarianism. The first is taken into account because of its influence on free market theory and the concepts of efficiency, the second because of its influence on the concept of equity, and the last because it is broadly used in the economic literature due to its practical answers to technical dilemmas. The selection of these three views is a reduction done for the sake of simplicity. The

appendix to this chapter provides a more detailed description of liberalism, egalitarianism and utilitarianism, and table 1.1 summarizes the three positions.

Liberalism, in both its nuances of libertarianism and welfare liberalism, might be defined as the effort to organize liberty socially and to follow out its implications. By contrast, theories that state the importance of equality as a primary objective of social and economic systems are called egalitarian. According to utilitarianism, the value of any policy is to be judged by its impact on human well-being. In its classical form, the doctrine of utilitarianism is radically egalitarian because all individuals count and all count equally. Liberalism focuses on universal and equal respect for rights; likewise, utilitarianism is a doctrine that is both universal and egalitarian, and claims to provide a way to answer most policy questions.

Individual Versus Common Characteristics

Liberal doctrines in general stress the importance of individual characteristics. Liberalism sees every person as a unique being, and emphasizes the specific peculiarities that distinguish human beings from one another. There is an implicit value judgment: differences are important because the ultimate objective is the free development of the individual personality. In addition, the “freedom to be different” is the main cause of civil progress. Conversely, egalitarian ideologies center on the common characteristics of human beings. Every individual is seen as a generic being, belonging to the genus of humankind. Hence, the focus of speculation rests on the nonspecific traits of every person. In egalitarian theories, the implicit value judgment is that equality is good or even necessary for society.

Preconditions or Results?

Liberalism focuses not on outcomes, but on inputs and preconditions, on the situation that individuals find themselves in, and on the right of free choice. Egalitarianism, as much as utilitarianism (although in different ways), focuses on outcomes. Utilitarians focus on the consequences of an act rather than its intrinsic nature or the motives of the agent. However, for many, utilitarianism is too ruthless because within its framework, ends do justify means. If equality is valuable, there is no limit on the extent of redistributive taxation under utilitarianism; dissatisfaction with this logic often leads to liberalism. Moreover, under utilitarianism, as long as the utility gains to the gainers are greater than the losses to the losers, all such measures are acceptable. This would imply that the few could be sacrificed for the many if there were enough utility gains. Dissatisfaction with this logic often leads to liberal and egalitarian ideologies.

Table 1.1. Political Ideas and Consequent Socioeconomic Settings

| Category | Liberalism | | Egalitarianism | |
|--|---|---|--|--|
| | With subjective utilitarianism | | With objective utilitarianism | |
| CONCEPT OF | | | | |
| Freedom | Negative freedom | Positive freedom | Positive freedom | Positive freedom |
| Equality | Equality in access to processes | Equality in minimum standards of living | Equality in results (satisfaction of needs) | Equality in results (satisfaction of needs) |
| ESSENCE | | | | |
| Organizing principle and objective of society | Individual freedom | Individuals' welfare and capacity | Equality | Equality |
| Stress on the importance of | Individual characteristics | Distributive justice | Common characteristics | Common characteristics |
| Doctrine focus | Inputs and preconditions (respect for rights) Freeing the human spirit in the individual | Results | Results | Results |
| SOCIOECONOMIC SETTING | | | | |
| Economic theory | Neoclassical economics | | | |
| Economic organization | Free market, laissez-faire | Regulated market | Planning | Planning |
| Government intervention at the beginning of the market process | Law and order | Law and order, merit goods wealth distribution | Production processes, resource allocation, wealth distribution | Production processes, resource allocation, wealth distribution |
| Government intervention at the end of the market process | Market failures and distortions | Market failures and distortions, wealth distribution | Production process, resource allocation, wealth distribution | Production process, resource allocation, wealth distribution |
| Cause of progress | Free different development of individuals (engine of economic development) | Minimum standards to achieve freedom to think, discuss and congregate | Overcoming discriminations | Overcoming discriminations |
| Society | Individualistic, conflictual, competitive and pluralistic | Regulated democracies (welfare states) | Autocratic and monistic | Autocratic and monistic |
| Role of the state | Provide guarantees and legal framework: promulgate constitution and code of law Provide guarantees for contracts No redistributive taxation No intervention in the economy | Protection of minorities Delivery of social services Separate legislative, executive and judiciary powers Redistribution (tax collection and public expenditure) Regulative intervention in the economy | Regulatory, interventionist and directive Redistribution Planner | Regulatory, interventionist and directive Redistribution Planner |

Note: The table reads vertically, so that the cells above influence those below them.

Society and the Role of the State

Liberalism and egalitarianism have deeply different conceptions of society and the role of the state. The egalitarian society is autocratic and monistic; every person is part of a homogeneously developed community. The liberal society is individualistic, conflict-ridden and pluralist; every person is autonomous, rational and responsible for his or her decisions and actions. Liberalism sees the state as limited to providing guarantees; egalitarianism views it as regulatory, interventionist and directive.

Nonetheless, it would be ambiguous to define liberalism as the doctrine that prefers above all other values the value of freedom, without specifying the meaning of "freedom" within the liberal (or neoliberal) doctrine. Similarly, it would be simplistic to define egalitarianism as the doctrine that favors above all values the value of "equality," without defining equality and the degree to which it has to be applied within that framework.

Positive and Negative Freedom

Egalitarianism and liberalism have different approaches to the idea of freedom (see Berlin 1969). The core of the problem rests in the distinction between two relevant yet conceptually different meanings within the idea of freedom: negative freedom and positive freedom. This distinction, in turn, enables our understanding of the difference between positive and negative rights.

Negative freedom is freedom of action. There are two kinds of negative freedom: the freedom to do and the freedom not to do (or freedom from). The so-called freedom to do is that a person is free when able to act without constraints. It is the freedom to do something because no law impedes the action.¹ Freedom from—or "not to do"—occurs when a person can abstain from acting. It is the freedom *to not do* something because there is no law enforcing the action.

Negative freedom, which is advocated by liberal ideologies, calls for the establishment and protection of negative rights through the provision of negative-right goods. For example, in order to be free, a person needs protection against any kind of intervention, must not be expropriated, and should not be restricted, especially in terms of economic action. Thus, the establishment of these negative rights is necessary for a person to enjoy negative freedom. Furthermore, the person needs to have access to negative-right goods, the goods used to meet negative rights, which essentially are constitutional boundaries, a stable legislative and judicial system, and protection of private property.

¹ Freedom is to do (or not to do) what laws allow (or do not prohibit). Hobbes: "*Libertas is silentium legis*" (De Cive, XIII, 15). Locke: "(...) the freedom of governed men consists (...) in the freedom of following my own will in everything that is not prescribed by law, without being subject to the inconstant, uncertain, unknown and arbitrary will of another" (Second Treaty on Government, IV, 22). The classical formulation of this view on freedom is by Montesquieu: "*freedom is the right to do everything allowed by law*" (De l'esprit de lois, XII, 2).

Positive freedom is the freedom of will.² A free person has the possibility to make decisions and to direct his or her will toward a goal without being influenced by others. This form of freedom is also called autodetermination or autonomy. As advocated by egalitarian doctrines, positive freedom requires the following: a minimum amount of well-being and prosperity, positive rights and positive-right goods. The reasoning is that in order to be free, a person needs to enjoy education, health, housing and employment. Thus, it is necessary to establish rights to these needs. However, rights are not enough because, in order to be free, a person also needs access to schools and teachers, doctors, health centers and hospitals, food, shelter and jobs. These are considered positive-right goods because they are the goods needed to meet positive rights and only by having these rights can a person enjoy positive freedom (Aristotle, in Ostwald 1962).

In short, negative freedom is a characteristic of action whereas positive freedom is a property of will. The two types of freedom are different and can be independent (a person can enjoy one without having the other); however, the two freedoms are not incompatible and consequently they can be integrated (a person can enjoy both at the same time). For example, when the will is free (positive freedom), a person can determine his or her actions in an autonomous way. However, a self-governing will does not imply that the action that results from that determination—free in the positive meaning—is free in the negative one because it could be limited or compelled by law. Basically, an action is free in the negative meaning when that action is not limited or compelled. A person's will is free in the positive sense when it is autodetermined. Positive freedom could exist even when there are limitations or compulsions from the outside (that is, when a person is not negatively free).

The practical difference between negative rights (to the protection against aggressive actions) and positive rights (to welfare) is that positive rights require equalization and hence justify some kind of coercion in the redistribution of resources. For example, if someone is born into extreme poverty, society should provide that individual with positive-right goods, at least to equalize initial conditions. Thus, positive rights require a positive action by the state in order to mitigate the deprivation of those who are not free because they are in need. By contrast, an individual's negative rights are honored when others—including the state—simply abstain from interfering. Thus, negative rights do not imply any equalization and redistribution is not an issue.

Negative-right goods are mostly public goods, that is, goods whose provision requires public intervention because the market cannot offer them in an efficient manner. Positive-right goods can be partially public (health and education systems) or private goods (food and housing), that is, goods that the market can efficiently produce but may not be able to distribute fairly.

² Rousseau gave the classical definition: "*The obedience to the law we want is freedom*" *Contrat Social*, I, 8. Freedom in the civil state is the possibility of human beings to want a set of laws for themselves and to obey these laws. Kant echoed this concept in his "*For perpetual Peace and Metaphysics of Behaviors*," (II, 46), and Hegel echoed it in his "*Lessons on Philosophy of History*," (vol. I).

There are two main interpretations regarding the existence of a trade-off between positive and negative freedom. First, according to the liberal individualistic point of view, it is questionable whether an individual can be free in both meanings and, strictly speaking, positive rights cannot be considered universal. It is not possible to assimilate positive rights with negative rights because the satisfaction of positive rights necessarily entails a redistribution of resources that would violate the negative rights of legitimate owners. Consequently, there is a trade-off between freedom and equality because freedom implies a protection against any kind of intervention in individual choice. Second, according to the egalitarian perspective, the asymmetry between positive and negative rights should not be demonstrated on the basis of logical-philosophical considerations, but on a practical basis. For example, the right to life is not simply a command to abstain from killing. Thus, positive rights in real terms call for a positive action by the state and therefore some form of redistribution. According to egalitarians, there is no trade-off because both types of freedom are necessary for social and economic well-being.

Concepts of Equality

The concept that “all human beings are equal” is present throughout a considerable part of the spectrum of Western political thought. In order to maintain social harmony, it is necessary that every part has a place assigned according to its merits and, once every part gets its place, the equilibrium reached has to be respected and maintained through universally respected laws. In other words, equality has a value and is good for society only when it points to justice. Justice has the task of establishing (or re-establishing) orderliness in society and of constituting a harmonic cohesion of the parts (the citizens) to the whole (society).

In addition, the statement “all human beings are equal” underlies the value judgment that “equality (to the highest degree possible) among human beings is desirable.” Equality is an important factor in the evolution of society. Overcoming discriminations is viewed as a step toward development and the ideal of equality is considered a stimulus for historic progress.

Different Views

As mentioned earlier, egalitarianism and liberalism endorse different interpretations of equality. Historically, an egalitarian doctrine is one that defends equality for the majority of human beings in the greatest number of goods.³ In the tradition of liberal

³ From a historical perspective, the common nature of human beings has both a religious and a philosophical interpretation. According to the former, human beings are brothers because they are the sons of the same father. The latter is based on the idea of a primitive or natural, substantial equality, which is corrupted by social institutions the moment they introduce inequalities between rich and poor, governors and governed, dominant class and dominated class. Often both interpretations are merged in the same egalitarian doctrine, since the ideal of moral regeneration goes *pari passu* with the idea of social revolution.

thought, what matters is equality before the law (libertarians) or equality in minimum standards of living (welfare liberals). Liberals believe that full egalitarianism limits skills, levels aspirations and brings about an unproductive equalization of the powerful energies of society.

The main difference between egalitarianism and liberalism is well known. As a consequence of the freedom of economic initiative and the freedom of possession, liberalism protects the freedom of accumulation: every individual can accumulate wealth without limit. Egalitarian doctrines do not share this belief and always accuse liberalism of promoting and supporting a society that is economically and hence politically unequal.⁴ For egalitarians, if accumulation of economic goods has no restraint, huge differences in wealth are allowed and, consequently, great social inequalities are created and justified.⁵ On their side, liberals accuse egalitarians of sacrificing individual freedom, based on diversity of skills and attitudes, in the name of the uniformity needed to make individuals as equal as possible.

The egalitarian and liberal points of view differ in their interpretation of the inherent relationship implied within the concept of equality. To get to the heart of the matter, the definition of equality must specify “equality among whom” and “equality in what.” As shown in table 1.2, there are four possible positions (Bobbio 1995):

- A. equality for some in something
- B. equality for some in everything
- C. equality for all in something
- D. equality for all in everything.

Positions A and C are not egalitarian unless they eliminate a precedent inequality. Position B implies equality in everything for a category of persons, which is partial egalitarianism, a view that is compatible with a nonegalitarian conception of society. For the purposes of this work, the more relevant positions are C and D.

Equality for All in Something

Equality for all in something (position C) encapsulates the liberal position. It appeals for equality, but only in something. Indeed, the liberal doctrine calls for a shared minimum standard—fundamental human rights or natural rights—but not equality in everything. Its lemma, “all men have to be (increasingly) free,” refers to personal, civil and political freedom. In practice, this position has often been translated into the following two ideas: equality before the law and equality of initial conditions.

⁴ According to Marx, the French Revolution instituted the juridical equality of all citizens, without categories. The bourgeois class used this equality as an instrument to make free and available (through the useful fiction of the voluntary contract among individuals who are equally free) the workforce necessary for nascent capitalism.

⁵ Not only within advanced capitalist societies, but also between industrial and developing ones.

Table 1.2. Equality: Four Scenarios

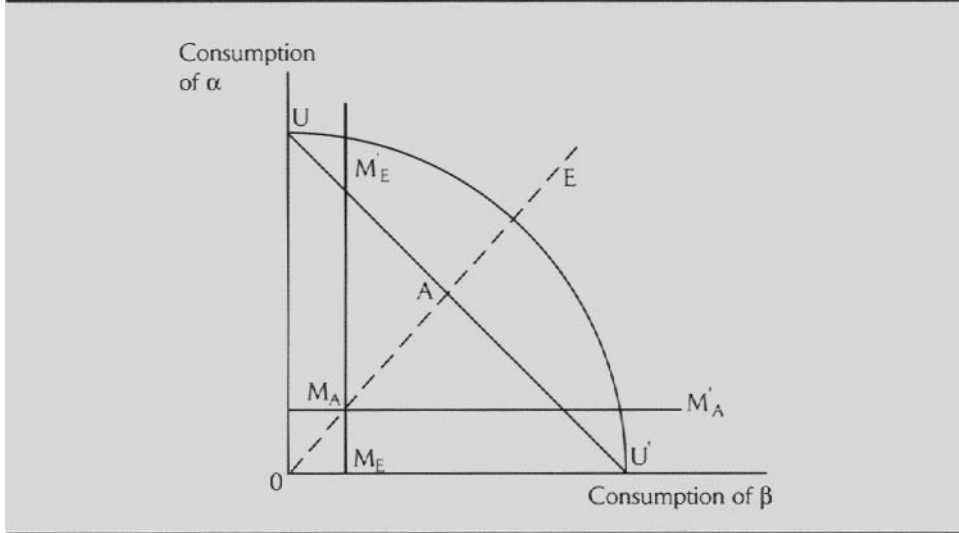
| | | Equality in what | |
|---------------------|-------------|--|---|
| | | Some things | All things |
| Equality among whom | Some people | A. Partial equality/unequal treatment Not egalitarian (unless it eliminates a precedent inequality, e.g. affirmative action) | B. Partial egalitarianism Nonegalitarian conception of society |
| | All people | C. Liberalism Not egalitarian (unless it eliminates a precedent inequality) | D. Egalitarianism Material equality Equality in the criterion of distribution (satisfaction of needs) |

Source: Author's elaboration on Bobbio (1995, p. 30).

Equality before the law is one of the basic principles of the liberal state.⁶ It prescribes the absence of any arbitrary discrimination (by the judge or the legislator), where arbitrary means “not justified.” The meaning of justified is that discrimination is justified when there are relevant differences between individuals or groups of people that place them in a given category. Differences between young and old or between women and men are objective, but not necessarily relevant. The relevance or irrelevance is based on value judgments and, therefore, the call for equality of all human beings has had various historical interpretations. However, the only one that has been universally accepted—under any constitution or ideology—is the one that states that all human beings are equal before the law. In other words, the law applies in equal measure to all.

Social democracy hinges on the basic principle of equality of initial conditions. The principle of equality of starting points, that is, equal opportunities from initial positions, in its extended meaning is the application of the rules of justice to a situation where there are people in competition to achieve a goal that can be achieved by only a few of them. Consequently, this view of equality seeks to give all members of society equal opportu-

⁶ The idea is very old and it can be connected with the classical concept of “isonomia,” which is a fundamental concept in Greek political thought (see Euripides, *Hiketides* [*Suppliants*] in Coleridge and Landes 1999, pp. 429–34). In modern times, the principle is affirmed in the French Constitutions of 1791, 1793 and 1795; in the 1814 Chart (Art. 1); in the Belgian Constitution of 1830 (Art. 6); and in the Albertinian Statute, the first of the Italian State (Art. 24). The XIV amendment of the Constitution of the United States (1868) seeks to provide every citizen with “equal protection under the Law.” The principle was reaffirmed, after World War I in the 1919 Constitution of Weimar (Art. 109 comma 1) and in the Austrian Constitution (Art. 7 comma 1). Since World War II, it has been seen in constitutions inspired by different ideologies, such as in Art. 71 of the Bulgarian Constitution (1947) and in Art. 3 of the Italian Constitution (1948). See Bobbio (1995, pp. 19–20).

Figure 1.1. Equity in Opportunities

nities by way of initial conditions, establishing uniform starting points. Formulated in this manner, the principle remains very vague. In its evolution, along with the acceptance of the concept of a competitive and conflictive society, the principle has acquired two different meanings. The first is equality in the consumption of minimum standards for all, satisfying a minimum level of basic needs without distinctions according to religion, race, gender or social class. The second is equality in the right of people to have abilities and capabilities to compete for the achievement of what is relevant to their lives (such as their professions). The latter meaning extends the principle from equality in order to compete to equality in economic and social minimums.

Suppose that in a two-person society (α and β), agreement has been reached specifying a minimum level of opportunities—obtained through minimum levels of consumption—below which no one should fall. This agreement indicates distributions that would satisfy the equality-of-opportunity criterion as described in position C (equality for all in something). In figure 1.1, this minimum standard objective is depicted in the diagram by the two lines $M_A M'_A$ and $M_E M'_E$. Only points to the northeast of their point of intersection will satisfy the minimum opportunity constraints. These points will be located inside the area enclosed by these two lines and the curve defined as the opportunity possibility frontier UU' , which indicates a range of distributions along the frontier. The line OE , running from the origin at an angle of 45° , shows how different total amounts of opportunities could be distributed equally between α and β and thus indicates distributions—obtained through empowerment—that would satisfy the full equality-of-opportunity criterion (equity in capabilities).

Libertarians criticize a central assumption of this approach. In the example above, it is assumed that the distribution of opportunities between α and β is independent of the total amount of opportunities available, and that the redistribution does not reduce that amount. However, libertarians stress that this may not be the case.

Equality for All in Everything

Position D (equality for all in everything) summarizes the egalitarian position. A situation is more egalitarian the fewer differences there are among human beings. That is, all human beings have to be (increasingly) equal in everything, and the tendency is to reach that objective in successive approximations.

In this case, the criterion of equality is related to the satisfaction of needs through the possession of economic goods. The request for material equality is what distinguishes this ideology from other social ideologies. The more egalitarian principle refers to goods that satisfy people's needs because it assumes that human beings are more equal because of their needs than because of their skills. Thus, equality exists only if different needs are satisfied in an equal way, but not through the delivery of relevant goods to everyone (which is equality in minimum standards). The equality is not in the goods themselves, but in the criterion by which the goods are distributed. This position raises the issue of how a criterion can be more or less egalitarian from an objective point of view.⁷

Some egalitarian thinkers believe it is impossible to reach the ideal extreme of egalitarianism; they take the position of welfare liberalism. To begin with, the logic of the full equality argument is defective: it is not rationally correct to derive a normative statement from a positive one (Bobbio 1995). Consequently, even admitting that human beings are, at least as a genus, more equal than unequal as compared with other species of living beings (positive statement), we cannot conclude that all human beings have to be treated in the same way (normative statement). The liberal position opposes the egalitarian conclusion, aside from its illogical reasoning, for practical reasons. For example, equality in its highest form—an equal consumption bundle for every consumer—is unattainable for three reasons.

First, people could be equal but not necessarily happy. For example, everyone might have exactly the same bundle of goods, but they might not all want to consume that bundle. So they would trade and it is probable that the final allocation would take individual preferences into account.

⁷ "Indeed, if the determination of what we understand by substantial equality did not raise so many questions, so many diverse forms of egalitarian doctrines—often conflicting among them—would not have been proposed throughout our known history, and, since egalitarianism is the more constant and characterizing aspect of communist and socialist doctrines, we would not be facing so many diverse forms of communism and socialism, of which some are totally, others partially, and some absolutely, others relatively egalitarian." (Bobbio 1995, p. 29)

Second, equality in its highest form could sacrifice diversity of skills and attitudes and thus individual freedom, and may not take advantage of the creative and productive energy of individuals. Moreover, getting society to an equal allocation would require transferring wealth from the more productive individuals to the less productive, and the transfer mechanism itself could be a disincentive to the production of the more productive individuals.

Third, an initially fair distribution may not remain fair. For example, take the case of a bundle of goods to be divided in a fair way among n economic agents. In the absence of any further information, the natural choice of allocation is equal distribution. However, if agents have different tastes, they will generally desire to trade the goods among themselves. And although initially the equal division was a fair practice due to symmetric allocation of the bundle, it may not remain fair; the final allocation will not necessarily inherit this desirable property of the original division.

Analytical Definitions

"When I use a word," Humpty Dumpty said in rather a scornful tone, "it means just what I choose it to mean—neither more nor less."

*"The question is," said Alice, "whether you *can* make words mean so many different things."*

Lewis Carroll

This section examines the analytical definitions of efficiency and equity. First, it looks at the definition of efficiency within the parameters of neoclassical theory. The notion of efficiency has been polished in economics; however, every definition of the concept has as its cornerstones technical efficiency of productive processes and Pareto efficient allocation. Second, the section defines equity, which has no similar consensus or starting point about the proper concept of equitable or fair allocations. Here, equity is defined within the framework of equality as the guarantee of some equality for everyone.

Efficiency

Defining efficiency requires making a distinction among three related but different concepts: efficiency in production (technical efficiency); efficiency in coordination;⁸ and

⁸ Efficiency in coordination can also be viewed as market process efficiency, efficiency in the distribution mechanism or efficiency in transmission.

| Table 1.3. The Conceptual Roots of Efficiency | | | | | |
|---|--------------------------|----------------------------|--------------------------|--|---|
| Concept of freedom | Liberalism | | | Egalitarianism | |
| | Utilitarianism | | | | |
| | Subjective | | | | Objective |
| | Neoclassical economics | | | | Planning |
| | Negative freedom | | | | Same concepts (mutatis mutandis and after redistribution) |
| Efficiency | Efficiency in production | Efficiency in coordination | Efficiency in allocation | | |
| | | | Pareto (libertarianism) | Second theorem of welfare economics (welfare liberals) | |

Note: The table reads vertically, so that the cells above influence those below them.

efficiency in allocation. The three concepts are interrelated, but, at the same time, independent. Each one of these types can be more or less efficient; combined, they represent the efficiency of the whole system. In particular, production can be either efficient or inefficient, independently from the degree of efficiency in coordination and allocation. Similarly, the mechanism through which the market coordinates information, incentives and resources can be more or less efficient, independent of production and allocation. Correspondingly, the final allocation of resources can be more (Pareto efficient first-best equilibrium) or less efficient per se.

The first two concepts are related to processes, the productive process and the market process; the third concept is related to a static situation, the final allocation of resources. Liberalism and egalitarianism have similar concepts of efficiency, but different conditions under which efficiency develops (table 1.3).

In the ongoing discussion, it is important to keep two things in mind. First, although these definitions of efficiency make solid common sense and have the quality of conceptual precision, they often have been incapable of capturing the diversity and complexity of economic reality. Second, using such criteria does not mean having to commit to being a utilitarian; instead, it means embracing a particular kind of subjective utilitarianism.

Efficiency in Production

Analyzing production separately from exchange and allocation simplifies the task of defining the concept. In this case, efficiency means attaining optimal (and maximum) output under the constraint of producing an additional unit of output at the minimum cost possible. In particular, efficiency is described as a characteristic of the productive

process under one of the following two circumstances. First, a process is efficient when there are no other means to produce at least one more unit of output, given that the inputs do not change. Second, efficiency exists when the process yields the same output as before, but uses less of at least one unit of input. For a given set of inputs, there are several efficient processes. This definition of efficiency is purely technical and is applicable to every production function for every economic agent. Furthermore, it is strictly internal, related to the productive process, and does not take directly into account its environment (for example, the exchange value of the output or benefits of sales or externalities).

The matter is further complicated by fitting this definition of efficiency within the framework of neoclassical welfare economics. According to that theory, the economic agent produces and sells product Y ; the agent will incur costs because of the purchase of inputs X_1, \dots, X_n and because of the costs of the productive process itself. Efficiency requires not only that the value of the marginal product be equal to the marginal cost, but also that the marginal net benefit associated with producing one more unit of any good be equal to its marginal cost.

The relationship between inputs and outputs is called the firm's production function and its slope is called the marginal product of the given input, normally "labor." The slope of the production function reflects the extra output that is produced by an extra hour of labor. Generally speaking, the economic agent will be efficient when on the production possibilities line; otherwise, production is inefficient.⁹ Looking outward at the mechanism of distribution of goods, services and information (which brings inputs to the firm and distributes the output) requires going beyond the concept of efficiency in production. What is needed is a different concept of efficiency: efficiency in coordination.

Efficiency in Coordination

Economic analysis has only recently (and informally) recognized the mechanism of coordinating economic activities. As von Hayek (1945) points out, knowledge or information, particularly in the context of prices and markets, plays a major role in coordinating economic activity. In this context, the concept of efficiency takes into account the organizational constraints on information processing and transmission without dropping the assumption of perfect competition.

⁹ This reasoning is not only proper in microeconomics, it can also be applied at the macroeconomic level. To explain why some countries grow more rapidly than others or why a country may grow more rapidly during one period of history than another, economists find it convenient to think in terms of a production function. An equation can be written that states that the rate of growth of GNP depends on the rates of growth of the labor force, the capital stock and other variables. A common procedure is to assume that the influence of the separate inputs is additive, that is, the increase in the growth of output caused by increasing the rate of growth of, say, capital is independent of the rate of growth of the labor force.

Neoclassical welfare economics argues that under free market conditions, the market performs the function of coordinating information and incentives through prices. The process that brings the economy into equilibrium is the coordination mechanism; it distributes products and resources among the economic actors and generates gains. The coordination is efficient when the process follows the more cost-effective path to achieving equilibrium.

Information is the basic ingredient necessary to make efficiency in coordination work. Information is spread equally at any given moment in time. Efficiency in coordination is thus related to the market mechanism because it is a characteristic of the process of transmission and distribution of goods, information and services. Acquiring, processing and transmitting information are costly activities subject to constraints imposed by technological and resource limitations. In this process, the higher the transaction costs, the lower the efficiency; the final result is the equilibrium and not a tangible product. Efficiency in coordination tends to be forgotten because it is an accessory to the other two types of efficiency and carries on a service activity.

Efficiency in Allocation

When the coordination mechanism brings the economy to one of several different efficient allocations, it reaches an equilibrium (each possible equilibrium being efficient in terms of maximizing utility and benefits). At this point, gains are no longer generated and each individual possesses some or no amount of wealth. Every allocation of resources is Pareto efficient or Pareto optimal.

Given certain initial conditions, efficiency in allocation or allocative efficiency means that the equilibrium is the best allocation possible in satisfying human wants by providing goods, information and services, staying within resource and technological constraints. All the resources of the system are at their lowest opportunity cost, which is their most productive point. From the perspective of production, an efficient allocation occurs when production is allocated among the entrepreneurs at the lowest opportunity cost possible. Minimizing the marginal cost of every production factor will automatically minimize the total cost. Assuming a given level of technologies for all agents, an efficient allocation implies the allocation of production among the firms.

On the consumption side, efficiency is a characteristic attributed to the distribution of consumption goods. This distribution is efficient when there is no other distribution in which it is possible to increase the utility of at least one agent without, at the same time, decreasing the ordinal utility of any other agent. Allocative efficiency is, in this case, the result of the exchange of given quantities of consumption goods (final outputs) that were initially distributed in a different way among economic actors.

A utilitarian analysis has to consider how many resources are spent in reaching the objective. That sum reflects the opportunity cost—what society has given up (in the form of other goods and services that are not provided)—of production.

Summing Up

There is a close relationship among the three types of efficiency. Efficiency in coordination is a condition for efficiency in production: the market mechanism helps to determine the quantity of production (and hence sales). Market efficiency—coordinating information, goods and services—is also a condition for efficiency in allocation: the market is the mechanism that allows the necessary exchange of goods and services in order to achieve an efficient allocation of resources.

Equity

...when the possession of earthly goods comes into play, it is difficult that men will reason according to justice.

Adso Da Melk

The reality of daily life shows that not all human beings have rights and goods. Some have many, some have few, and some have none at all. The concept of equality has played a complex role in economics and its importance is increasing. However, as a concept it is somewhat too strong and too demanding, whereas the concept of equity offers a less stringent concept, which can be formulated as the search for some equality. “Some equality,” when established for everyone, is the amount at which equity is present. The idea normally used to define equity is “equality of opportunity.” However, even the word opportunity can have different interpretations. In general, equality of opportunity is achieved when—given respect for the different conceptions of humanity and society—all human beings are considered and treated as equals.

Equity is a principle of distributive justice. There are three different but related concepts of equity: equity in access; equity in capabilities; and equity in results (table 1.4). Equity in access is related to negative freedom, and hence to the goods that bring about negative rights, such as juridical capability and freedom of possession. Equity in capabilities is strictly related to positive freedom and its goods, such as free use of reasoning, social dignity and political participation. It especially affects those who are at a disadvantage because of gender, race, ethnic origin, age or physical disability. The third concept of equity, equity in results, is most often linked to equality in its full sense. In economics, it refers to equality in gains and wealth. In the social sphere, it can mean—in its extremes—one social class. Equity in results is a more demanding definition of equality in that it involves equality of outcomes rather than of opportunities.

Table I.4. The Conceptual Roots of Equity

| Concept of | Liberalism | | Egalitarianism |
|---------------------------|-------------------------|-------------------------------|------------------------|
| | Libertarianism | Welfare liberalism | Socialism |
| | Concept of freedom | Negative and positive freedom | Positive freedom |
| Equality of opportunities | Equality before the law | Equality of minimum standards | Equality in everything |
| Equity | Equity in access | Equity in capabilities | Equity in results |

Note: The table reads vertically, so that the cells above influence those below them.

Equity in Access

According to this definition, when the access to processes is equal, there is equity. Equity in access exists when every individual has rights, the law is the same for all and everybody respects the procedures. Consequently, all can acquire resources through the legal system of contracts. This type of equity coincides with equality before the law, one of the basic principles of the liberal state: everyone is treated in an equitable way when procedural justice is guaranteed. This concept refers back to negative freedom. It is assumed that establishing the same procedures for everyone ensures access to the procedures themselves; once access to social and economic processes is guaranteed and the procedures are the same for everyone, then equity exists. This approach is concerned with the rules and processes that govern the distribution of resources and rights of individuals. It implies that the process justifies the final outcome, not vice versa.

Equity in Capabilities

This definition of equal opportunity is more sophisticated because it refers to wealth, geographical location, physical ability, race, gender or ethnic origin, rather than simply to access. Access is subordinated to a minimum level of ability. Capability is obtained through the guarantee of a minimum standard of living, the means to give the same opportunities to all members of society. According to this principle, no person should fall below a socially specified minimum level of income or consumption because this minimum enables all individuals to access equal opportunities. This is the criterion of social choice called *maximin*: to maximize the welfare of the citizens at the lowest level of society.

Equity in capabilities holds that it is not enough to have opportunities; it is also important to have the ability to access these opportunities. The final quantity of resources received by each participant in the distributive process matters as much as the ability to use them, especially because the latter heavily influences the former. Here capabilities also become part of the set of opportunities. Lack of education, health or income will limit the ability to choose and make use of the available opportunities. The concern is not merely availability of goods, it is also the actual capability to use them, viewed not only in terms of utility and welfare, but also through the wider concept of fullness and self-realization.

Indeed, the point is the ability to perform a function and as such this capability is valuable regardless of the utility that the performance of that function may bring. The value judgment that underlies this view is that every human being has to be an active part of society and able to determine his or her condition. To be autonomous in defining their lives, individuals have to be capable of making a choice or at least of producing the conditions that put them in a position where they are able to make a choice. This concept is related to the idea of positive freedom, freedom of will.

Equity in Results

According to this interpretation, everyone should receive equal treatment for equal needs, for example, health care and education. The equality pursued is equality in output distribution.

An allocation in which no agent envies another is known as an envy-free allocation. In theory, equal division is free of envy, but typically there will be many other allocations that satisfy this symmetrical property and hence will accomplish the conditions of equity in results. The argument can be further developed with the idea of coalition-al envy-free allocation, which requires that there be no group of agents that unanimously prefers some other group's bundle to its own.

The Relationship between Efficiency and Equity

A major concern in the analysis of the efficiency and equity relationship is determining whether the two concepts are independent of one another, that is, whether increased equity diminishes efficiency. Another issue is whether the redistribution of opportunities or the concern for equal results will affect the total amount of opportunities. This section analyzes the relations among the different concepts of efficiency and equity and the consequences of these associations for social policy design. It shows how different conceptualizations lead to different assessments of government intervention in the area of delivery of social services (table 1.4). Examples from El Salvador and Sub-Saharan Africa illustrate how the concepts may be related.

Three Interpretations

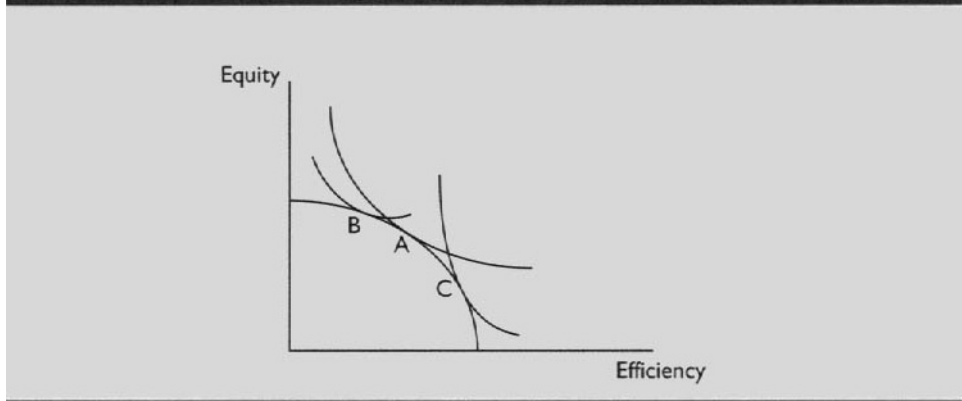
Three interpretations of the link between efficiency and equity offer different perspectives about their mutual reliance: the libertarian view, the utilitarian welfare liberal view, and the egalitarian view. In short, the first interpretation stresses the existence of a negative relationship, the second admits both a negative and a positive relationship, and the third highlights a positive relationship.

Libertarians see efficiency and equity as representing fundamentally distinct objectives. As a result, a trade-off is unavoidable and necessary. According to Okun (1975, p.87), "If equality and efficiency are both considered as values, and neither has priority over the other, then compromises are necessary whenever the two values conflict" For instance, when the objective of the system is its own sustainability through macroeconomic efficiency and growth, efficiency is the objective. The primary concern in judging alternative policies (that may have favorable effects on some people and unfavorable effects on others) is the efficient allocation of resources. Equity stands as a separate point, where interpersonal comparisons of utility are needed.

Utilitarian welfare liberals view efficiency and equity as subgoals generated by some other more fundamental objective. Possible conflicts between efficiency and equity can therefore find only practical solutions with respect to the primary objective.¹⁰ For instance, if the maximization of social development is the objective (examples are for developing countries or investments in education or health), efficiency and equity can increase together. However, once the efficiency-equity constraint is reached, a negative relation starts; the subsequent trade-off must subordinate its solution to the fundamental objective (maximization of social development).

According to the egalitarian interpretation, efficiency in itself is not an objective of the economic system; efficiency can be calculated only in terms of the possibility of achieving the primary objectives of the system. This view underlies the cost-effectiveness approach and finds its setting in objective utilitarianism. For instance, if one of the objectives is equity, efficiency acquires its significance only in relation to equity; efficiency would be a characteristic of a process and equity a primary objective, and there would be a positive relation (Sen 1995). Under this view, a given resource allocation is efficient if it is impossible to further increase the degree of achieving equity, the primary objective. According to the concept of envy-free allocations, many envy-free Pareto efficient allocations are possible and are competitive equilibria. The envy-free characteristic means that equity exists without having the restrictions of being at an equal wealth competitive equilibrium. Conceptualized in this manner, the possibility of a trade-off between efficiency and equity loses all relevance.

¹⁰ This is the case of utilitarianism, according to which the maximization of the social welfare function is the only fundamental value. In his defense of the neo-utilitarian statute, Harsanyi writes: "(...) for a consistent utilitarian, economic and social equality is not an intrinsic moral value." (Harsanyi 1985, p. 124)

Figure 1.2. The Efficiency-Equity Constraint

The Trade-off: Different Views

A negative relation between efficiency and equity would mean that when equity increases, the system loses efficiency. Figure 1.2 shows the trade-off, which can be represented as a nonlinear negative correlation known as the *efficiency-equity constraint*. Graphically, the amount of equity and efficiency in the system depends on the shape of the trade-off curve.

It is not clear what relative value should be assigned to a decrease in inequality as compared with a decrease in efficiency. Egalitarians believe that inequality is the central problem of society and that society should simply minimize the extent of inequality, regardless of the impact on efficiency (Rawls 1971). This position is represented at point B in figure 1.2. According to this view, the marginal utility of equity is higher than that of efficiency. Therefore, egalitarians prefer a basket (of equity and efficiency) where there is more equity, as opposed to point C (the position of libertarians), where efficiency is more desired, or to point A (welfare liberals).

The idea of equity is at a disadvantage when juxtaposed with Pareto efficiency. An allocation X is Pareto optimal only if there is no Y that is Pareto superior to it. Kolm (1972) establishes that in an economy that exchanges endowments only (there is no additional production), there exist allocations that are both equitable and Pareto optimal. A way to arrive at one of these equilibria is to start with an equal allocation of goods and services and then to move via the market to a competitive equilibrium. Since the equilibrium is based on equal allocation, every individual starts with the same budget (goods and services) and ends with the same budget (which might be a different combination of goods and services). At the end of the process, if individual α has the same budget as individual β , α cannot envy β 's bundle because α could have bought the same bundle.

The concept of equality is tempered this way by the concept of equity, which is less stringent because it does not require that people be equal in every imaginable sense and because it allows for individual preferences. However, this seemingly equitable outcome is not true in terms of equity in capabilities. In the example, individual β might not have the minimum amount of education or health necessary to make rational choices. By contrast, with equity in access, this theorem creates a link between equity and the more traditional and fundamental notion of Pareto optimality. In a pure exchange economy, there will exist allocations that are both equitable and Pareto optimal.

Examples in El Salvador and Sub-Saharan Africa

An education management program in El Salvador illustrates how equity in access fostered equity in capabilities and improved efficiency in production and efficiency in allocation. The case of health care in Sub-Saharan Africa shows how policies oriented to improve efficiency in production and efficiency in allocation can increase (or decrease) equity in access.

Education in El Salvador

In El Salvador, the peace agreements that ended the 12-year civil war were signed in 1992. At that time, not all children entered the education system and a significant proportion of those who did enter did not pass from first to second grade. Furthermore, only one in five children finished a secondary program. This situation led to the fact that one in every three adults did not know how to read (IDB 1998).

To make matters worse, the education system operated in a highly inefficient manner: the cost of graduating one student out of basic education (ninth grade) was twice as much as it should have been. In the new economic and social program, which emphasized poverty alleviation, economic growth and equity (Pastor and Conroy 1995), education became a central issue. It became clear that investing in the skills and capabilities of educated citizens could increase both equity and economic efficiency in the country. On one hand, improved education could yield better incomes and hence more balanced distribution of welfare; on the other hand, an improved education level would result in greater economic productivity.

In El Salvador, as in other countries, the level of education is associated with the level of income: two out of every five people among the 10 percent of the population with the highest income have 10 or more years of education. As would be expected, among the 20 percent with the least resources, only two out of 100 have more than 10 years of schooling. Given this situation, an improvement in the education level could yield significant gains in equity because it would increase the likelihood of achieving higher incomes. With respect to economic productivity, the case of rural areas is paradigmatic. Not surprisingly, in the poorest municipalities of the country, access to pre-

primary and lower primary education is a central problem. In El Salvador, members of the urban population who were 15 years of age had completed, on average, seven years of school; in rural areas, members of this same age group had completed only 2.8 years (IDB 1998). An improvement in the education level could yield significant gains in rural economic efficiency and hence poverty alleviation and economic growth.

As a response to the above-described situation, the Ministry of Education developed EDUCO, an innovative plan of education management that would involve community participation. EDUCO began in May 1991 with the goal of expanding access to pre-school education and to the first cycle of primary education in rural areas (the first three grades of primary school). The central feature of the program was to have community associations become the employers of teachers in rural schools. The parents in the community would be organized into Community Associations for Basic Education (ACEs), legal entities that could receive funds from the government in exchange for the provision of services. The logic of the program was quite simple. On one side, the Ministry provided each ACE with enough funds to hire teachers and to buy limited school supplies. For their part, the ACEs hired teachers with one-year renewable contracts, paid them and managed a small fund for school supplies.

The result of the program has been that EDUCO has contributed to the objective of increasing access to pre-school and basic education in the most disadvantaged rural communities. In the first year of the program, six experimental projects were started in rural areas in three provinces: 96 pre-school and 141 first-grade classrooms were established. In 1992, the program was extended to all 14 provinces in the country. The number of community associations increased rapidly from 237 in 1991 to 958 in 1992. The number of classrooms opened under the program increased from 263 to 1,126 in the same period, and the number of students went from 10,520 to 45,040. Thirty-one percent of the students were in pre-school education; the rest were in the first three grades of primary education. By 1993, the program operated in 78 municipalities with the lowest health and education conditions (IDB 1998).

Pre-school enrollment rates in rural areas increased from 2 percent in 1990 to 10 percent in 1993, and enrollment increased in the first three grades of primary education. In terms of infrastructure, in 1993 EDUCO supplied 37 percent of all chairs for pre-school classrooms (IDB 1998). In this sense, the project has been a successful example of targeting the provision of education to the most disadvantaged groups. Children attending EDUCO schools have shown similar performance in standardized achievement tests as children attending traditional schools. There are no significant differences in repetition rates between EDUCO and comparable regular public schools.

Following the utilitarian welfare liberal approach, the policy design was oriented toward equity in access, equity in capabilities and efficiency in production. The program increased equity in El Salvador, especially in the rural areas, by offering more equal opportunities. At the same time, it increased workforce productivity and consequently efficiency in economic activity. A better-educated citizenry is critical in reduc-

Box 1.1. Communities Managing and Financing Health Care in Sub-Saharan Africa

Cameroon

Seven public health facilities were studied in Adamaoua Province, Cameroon. Three facilities introduced user fees with improved quality of services, two introduced fees without corresponding increases in quality, and two were held as controls. The results showed that when efficient low-cost care became available locally, people used it rather than going to a distant facility that might be free.

Central African Republic

Since 1991, the Central African Republic has adopted four different user-fee schemes: a charge for services rendered; a flat charge for each episode of illness; a flat fee per visit; and prepayment for a year of service.

Ghana

In 1986, most of the statutory exemptions to user fees that were granted were given to government employees and their dependents. Exemptions from user fees can pose a serious problem; the revenue that would have been collected if the exemptions had not been in place would have been about 21 percent of total collections for that year.

Guinea-Bissau

Successful prepayment schemes currently operate in Guinea-Bissau. Seventy-five percent of the villages studied in this country were enrolled in prepaid plans. Villages are participating in a prepayment scheme for drugs and basic services through annual collections made shortly after harvest when cash is readily available.

Senegal

Senegal adopted the Bamako Initiative in 1991 to help pay for pharmaceutical products through user fees. A representative national sample revealed that the contribution of user fees to public health facilities was distributed in the following manner: 5–11 percent for hospitals, 8–23 percent for health centers, 14–35 percent for health posts, and 87 percent on average for health huts.

Zaire

Successful prepayment schemes are presently functioning in Zaire. The experience of two districts, Bwamanda and Kasongo, is particularly instructive.

More than 60 percent of the population studied in Zaire's Bwamanda health zone was enrolled in prepaid plans. High rates, high premium levels and financial efficiency characterize this district-based scheme. Since hospital fees are relatively high, diseases requiring hospitalization pose real financial risks. However, the majority of the population can afford the premiums even though the rates are increased every year to keep pace with inflation. Annual collections for the prepayment scheme for hospital services are made when cash incomes are highest. The revenues from premiums and co-payments in the zone are used to finance the operating costs of the local facilities. All hospital costs for beneficiaries were covered by income from premiums in the 1987–88 period. Cost recovery (revenues from cost sharing) in the district hospital increased from 48 percent of total operating costs in 1985 (before the insurance system was introduced) to 59 percent in 1986 and 79 percent in 1988.^a Between 1986 and 1988, user fees accounted for 109 to 111 percent of the operating costs of the health centers. In general, people feel that this scheme provides them with access to high-quality health services.

In Kasongo District, user fees have simultaneously reduced use of the district hospital as a first point of service and increased attendance at local district health centers. The number of patients using the hospital outpatient clinics as the first point of service fell from 11,800 in 1973 to 1,050 in 1989. There were corresponding increases in the number of people visiting health centers (from 13,522 in 1973 to 54,400 in 1987).

^a In the case of Bwamanda Hospital, these statistics can be further broken down. Between 1986 and 1988, the share of operating expenses covered by user fees was 24–30 percent. The fees were supplemented by insurance payments, which accounted for 22–33 percent of operating costs, and by employer billings, which accounted for another 13–22 percent.

Source: Vogel (1990); Griffin and Shaw (1995).

ing poverty and inequality, in stimulating economic growth and in sustaining the democratic process in general.

Investment in Health in Sub-Saharan Africa

The case of health care in Sub-Saharan Africa shows how policies oriented to improve efficiency in production can increase (or decrease) equity in access, by making resources available and bringing about a better allocation of resources (efficiency in allocation).

Investments in health are critical to the formation of human capital and to the sustainability of social and economic development. In Africa, there are scarce resources to deal with changing epidemiological patterns and the growing need for health care. Government expenditures are financed through imports, sales and income taxes, and

account for 37 percent of total health expenditures. These funds normally privilege public hospitals, neglecting the lower levels of health care service delivery. Private out-of-pocket expenses account for more than 40 percent of the total. Most donations go to capital or development budgets rather than to finance recurrent operating expenses such as salaries, drugs, equipment and maintenance. As a result, free or low-cost health care is not available through any of the sources cited above.

Self-financing is an option and cost sharing can give people an incentive to participate. User fees and self-financing health insurance are preconditions needed to mobilize this process and are important tools in moving toward the optimal delivery of health services to Africa's underprivileged and poor population. In fact, such tools allow governments to allocate scarce funds from medicinal services to preventive measures in order to combat such epidemics as HIV, tuberculosis and malaria. There is some potential for governments to reallocate resources to needed subsidies for the poorest segments of the population, which often have the worst access to health facilities. The strategies of user fees and self-financing health insurance are mutually reinforcing.

There are both supply-side and demand-side factors facilitating the development of self-financed insurance in African countries. On the supply side, lower administrative costs may be achieved by initially focusing on areas with denser populations and better-developed infrastructures. There is also a need to reduce the negative effects of adverse selection and moral hazard. This can be accomplished through the assembly of sizable groups to pay for coverage and greater donor involvement in the health system through incentives to invest in new financial systems for private sector development. On the demand side, higher incomes are strongly correlated with higher demand for insurance. In addition, there is greater potential for insurance providers in the private sector where there is a high probability of losses for consumers and reduced prospects for free care from the government.

The Bamako initiative, a cost-sharing scheme launched by the African Ministers of Health in 1987, aims at involving communities in managing and financing health care (see box 1.1). An important principle of the initiative is that everyone is expected to pay at least a nominal amount; the revenues are used to improve primary health care services. Evaluations of those who used medical facilities in the Bamako Initiative estimate that only 10 to 30 percent of households have difficulty paying minor fees. Many of the 29 African countries that have some kind of national system of user fees participate in this initiative.

However, the results of the introduction of cost-recovery are not univocal: statistics from the World Bank (1998) show an increase in attendance at health facilities in four countries (Benin, Niger, Liberia and Zaire), mixed results in three countries (Guinea-Bissau, Nigeria and Senegal) and across-the-board decreases in one (Ghana). In general, progress has been slow in most countries. Nevertheless, with a 40-percent recovery ratio, almost \$1 per capita could be freed up for a total of more than \$400 million, enough to provide essential drugs to all Africans (World Bank 1998).

Concluding Section

Social policy design often has a confusing interpretation of the concepts of efficiency and equity. The roots of this occurrence lie in the differences among political ideas and their different value judgments. Liberalism, egalitarianism and utilitarianism defend distinct interpretations of the idea of freedom (negative and positive), advocate opposite significance for equality (for some or for all and in something or in everything), place diverse emphasis on individual versus common characteristics, and endorse different views of society and the role of the state. These disparities have significant implications when applied to economic and distribution theories and to distributive justice.

The different political ideas lead to different concepts of efficiency and equity, which in turn influence the design of social programs and their implementation. A given concept of efficiency, for instance, will bias the understanding of social services and consequently affect their delivery. In short, the choice of the underlying equity and efficiency concepts may affect policy choices (see table 1.5).

To overcome this conceptual impasse, this chapter has proposed an analytical classification of the concepts of efficiency and equity. In order to formulate effective social policies, it is important to define and clarify their exact meaning explicitly. Three concepts of efficiency (efficiency in production, efficiency in coordination and efficiency in allocation) and three concepts of equity (equity in access, equity in capabilities and equity in results) are identified by modifying standard conceptions in the literature.

The main contribution is not so much the use of the three concepts of efficiency (which are well known in economics), but in redefining them and systematically applying them in conjunction with the equity and freedom concepts to the analysis of social service delivery systems. This book sets out these concepts systematically, where others may either use them in isolation without adequate justification or forget their theoretical and ideological foundations. It is important to analyze the dynamics and interaction (negative and positive relations) among these concepts; this analytical explicitness ameliorates and strengthens the process of decisionmaking, thus improving the effectiveness of delivery of social services. The empirical evidence from El Salvador and Sub-Saharan Africa supports this analysis.

The concepts developed in this chapter are applied in the subsequent chapters. Chapter 2 analyzes education vouchers using the definitions as an analytical tool. The main question the chapter addresses is: Do different concepts of efficiency and equity promote different types of vouchers? Practical examples complement the theoretical analysis, showing how concepts implicit in policy design shape the policy results.

Chapter 3 focuses on the delivery of health insurance. It outlines three approaches: free market, public, and managed competition delivery. The chapter investigates how different concepts of efficiency and equity lead the policymaker to different choices, and hence results.

Table 1.5. Efficiency and Equity: Combinations of Different Concepts and Their Influence on Social Policy Design

| | Equity | | |
|--------------------------|--|--|--|
| | Subjective utilitarianism | Objective utilitarianism | |
| In general | <p>Equity in access</p> <p>Efficiency and equity are fundamentally distinct objectives: negative relation, trade-off always solved in favor of efficiency.</p> <p>To judge equity requires interpersonal comparisons of utility.</p> <p>Social policies operate under and promote negative freedom.</p> <p>Redistribution is not required.</p> | <p>Equity in capabilities</p> <p>Efficiency and equity are subgoals generated by some other, more fundamental, objective negative and positive relation.</p> <p>Every possible trade-off must find practical solutions.</p> <p>Social policies promote negative and positive freedom.</p> <p>Redistribution is required (through government intervention)</p> | <p>Equity in results</p> <p>Efficiency (characteristic of a process) can be calculated only in terms of the possibility of achieving equity (primary objective).</p> <p>There is a positive relation, with trade-offs always solved in favor of equity.</p> <p>Social policies promote positive freedom.</p> <p>Redistribution is required.</p> |
| Efficiency | | | |
| Efficiency in production | <p>Efficiency is calculated as the feasibility for the economic system to achieve its primary objectives (the most cost-effective way to manage a process).</p> <p>Production efficiency frees up resources and makes them available.</p> <p>Market-based solutions are likely to produce more efficient outcomes.</p> <p>Regulation threatens the autonomy of independent agents. Contracts are preferred. Voluntary enrollment is preferred. Choice is very important.</p> <p>Coverage: Individuals who pay and do not hamper the running of the system.</p> | <p>Efficiency acquires its significance only in relation to equity (results of social policies are minimum standard and ability).</p> <p>Incentives and information policy are controlled.</p> <p>Enrollment may be voluntary or mandatory. Choice is important.</p> <p>Coverage: The whole population (minimum needs).</p> | <p>Equity is a quality of the result, whereas efficiency is a quality of the process of achieving that result.</p> <p>Production, incentives and information policy are controlled.</p> <p>Enrollment is mandatory. Choice is not a relevant issue.</p> <p>Coverage: The whole population (full protection).</p> |

| | | | |
|-----------------------------------|---|---|---|
| Efficiency in coordination | <p>Incentives and information policy are stressed.</p> <p>Voluntary enrollment is preferred. Choice is unlimited.</p> <p>Coverage: Individuals who pay and do not hamper the running of the system.</p> | <p>Incentives and information policy are controlled.</p> <p>Enrollment may be voluntary or mandatory (helps imperfect markets). Choice is important.</p> <p>Coverage: The whole population (minimum needs).</p> | <p>Production, the standard benefit package, incentives and information policy are controlled.</p> <p>Enrollment is mandatory (helps imperfect markets). Choice is not relevant.</p> <p>Coverage: The whole population (full protection).</p> |
| Efficiency in allocation | <p>Access is improved when efficiency increases</p> <p>Regulation is minimal (threat to autonomy of independent agents).</p> <p>Contracts preferred to bureaucracy. Incentives and information policy are stressed.</p> <p>Voluntary enrollment is preferred. Choice is very important.</p> <p>Coverage: Increased coverage comes from savings due to efficient allocation. Full protection is a long-term objective.</p> | <p>The minimum standard benefit package, incentives and information policy are controlled.</p> <p>Enrollment is mandatory. Choice is important.</p> <p>Coverage: The whole population (minimum needs). Certain groups (the wealthy) may be excluded to ameliorate allocation.</p> | <p>Equity is a primary objective, therefore efficiency acquires its significance only in relation to equity.</p> <p>Government-oriented solutions are likely to produce more efficient outcomes.</p> <p>Allocation is envy-free (egalitarian equivalent).</p> <p>Production, the standard benefit package, incentives and information policy are controlled if enrollment is mandatory. There is solidarity. Choice is not a relevant issue.</p> <p>Coverage: The whole population (full protection).</p> |

Appendix. The Ideas below the Surface

Different Political Philosophies

Contemporary debate in Western political philosophy revolves around the ideas of justice, freedom and community, especially when evaluating institutions and policies. According to the conventional view, people on the left believe in equality and hence endorse an egalitarian society, while those on the right believe in freedom and hence support free market capitalism. In the middle are the liberals, who believe in both equality and freedom and hence endorse welfare capitalism (Kymlicka 1990). There are, of course, many positions between these three points and many people accept different parts of different theories.

Although there may be some truth to this way of thinking, it has become increasingly inadequate and it ignores issues of historical context (Kymlicka 1990). For example, communitarians believe that evaluating political institutions cannot be a matter of judging them against some independent ahistorical standard, and individuals should not be considered as isolated, individual, moral actors. Communitarianism takes the view that it is important to consider the implications of society on people to ensure citizens' participation in a well functioning society and community. Communitarians also believe that the appropriate norms for a community vary with its stage of development; at any particular stage of historical development, there is a correct or appropriate set of norms for any particular community to follow.

Multiculturalism, by contrast, advances a view based on intercommunity relativism. It says that each community can legitimately seek to advance its own (divergent) norms within the framework of a tolerant state. Indeed, different theories have different foundational values. This is why their differences are not rationally resolvable.¹¹ There is no way to argue for equality over freedom or for freedom over equality because these are foundational values, with no higher value or premise to which both sides can jointly appeal.

Alongside the older appeal to equality (socialism) and liberty (libertarianism), political theories now appeal to the ultimate values of contractual agreement (Rawls), norms changing over time for the common good (communitarianism), intercommunity respect (multiculturalism), utility (utilitarianism) or rights (Dworkin). So we now have an even greater number of ultimate values between which there can be no rational argument. This phenomenon raises an obvious problem for the design of social policy. If there are so many potential ultimate values, should an adequate social policy be based on just one or on a combination of them? A monistic theory of justice does not stand anymore and has to accept bits from most of the existing theories.

¹¹ "The left can argue that if you believe in equality, then you should support socialism; and the right can argue that if you believe in freedom, you should support capitalism." (Kymlicka 1990)

Relevant Political Ideas

Although they have been considered directly opposite alternatives, liberalism and egalitarianism are only partially antithetic. In fact, both doctrines, as well as utilitarianism, have their roots in the concept of equality. However, they rely on different understandings of equality.¹²

Liberalism

Liberalism is a basic approach to individual and collective living. Its locus has been largely in the West since it came out of the intellectual and institutional history of Western nations. The essence of liberalism aims at freeing—and thereby expressing and fulfilling—the human spirit of the individual. Some important elements of liberalism are an open society; the principle not of equality as such, but of access to equal opportunity for all; the importance of consent; economic security without the sacrifice of freedom; channeling what might otherwise become deep class and social conflicts into political conflicts, whose results are accepted even in defeat; and the principle that every individual has a potential that he or she must have a chance to fulfill. The concept that liberty itself is not absolute liberty is central to liberalism.¹³ Liberals have to decide what rights individuals have. Within liberalism, there are two basic approaches: libertarianism and welfare liberalism.

Libertarianism

A basic assumption of liberal thinkers is that individuals are endowed with reason and goodness and it is the institutional frame into which individuals were born that corrupts and enslaves them.¹⁴ The enemy is custom, tradition, institutions and social habit. If interference with the natural order causes all the trouble, then it follows that the best human course is to leave things alone. This view linked liberal intellectuals and the busi-

¹² A theory is egalitarian in this sense if it accepts that the interests of each member of the community matter and matter equally. Put another way, egalitarian theories require that the government treat its citizens with equal consideration; each citizen is entitled to equal concern and respect. This more basic notion of equality is found in Nozick's libertarianism as much as in Marx's communism. Dworkin (1977, 1983, 1986, 1987) and Nagel (1979) suggest that modern political theories do not have different foundational values; instead, every plausible political theory has the same ultimate value, which is equality.

¹³ As Locke (1690) wrote: "No government allows absolute liberty (...) [The individual] has the right to expect political power to be used to preserve his property, in his own person and in his possessions, and the right to freedom of thought, speech, and worship. In fact the one right that he gives up in entering a civil society is the right to judge and punish his fellow man, which is his right in the state of nature. He quits his 'executive power of the law of Nature' and 'resigns it to the public'; he himself makes himself subject to the civil law and finds his freedom in voluntary obedience."

¹⁴ "Man is born free," Rousseau wrote in the *Contrat sociale* "yet he is everywhere in chains." And in *Émile*: "God makes all things good; man meddles with them and they become evil."

Appendix Box 1.1. A Practical Analysis: East Asia Versus Latin America, 1960–98

The countries of East Asia have achieved rapid and sustained growth over the past 30 years. High rates of increase in income per capita began in Japan, spread to the “four tigers”—Hong Kong, the Republic of Korea, Singapore and Taiwan—and became generalized across Indonesia, Malaysia and Thailand. With an impressive expansion of its own in the past few years, even China has joined the group of what had been called—until the crisis in 1998—the high-performing Asian economies. These countries began to reform 30 years ago with relatively equal land and income distributions and have succeeded in further reducing inequality. As a result, human welfare and all its indicators (education, health and housing, among others) have improved dramatically. Almost every analyst agrees that this remarkable experience has occurred over a period long enough to rule out accident and with enough similarity of approach to rule out coincidence.

An analysis of available data shows that between 1960 and 1985, gross domestic product (GDP) per capita in Latin American countries grew at an average annual rate that was 2.5 percent below that of Asian countries, excluding the Indian peninsula (World Bank 2002). In 1960, GDP per capita was 70 percent higher in Latin America than in Asia; by 1985, the reverse was true (World Bank 2002). A partial explanation attributes such a reversal to the fact that the share of physical investment in GDP has been, on average, 5 to 6 percent lower in Latin America over the whole period. However, if the difference in growth achievements were to be explained solely by differences in physical investment, it would be necessary to assume a marginal overall return of capital close to 50 percent to explain the gap between Latin America and Asia. As such, this figure is quite implausible and some specific factors must be found to explain the relatively poor growth performance of Latin American countries since 1960.

The main hypothesis analyzed by several authors is that economic growth in Latin America is negatively affected by the comparatively high inequality in the distribution of productive assets and personal income (Bourguignon 1994). Other economists have noticed a relationship between the persistence of inequality and poverty and the dynamics of human capital formation. For example, in Latin America the slow expansion of education opportunities for young people in the past 25 years has caused inequality in human capital to increase and has been a major contributor to the slow growth of the economy (Londoño 1996).

An important issue in searching for a comprehensive explanation is the need to integrate two different streams of the empirical cross-sectional development literature: the determinants of growth and those of income distribution. There are several interpretations as to why income distribution matters in economic growth. One is that income distribution determines investment and growth through various mechanisms of the political economy (Alesina and Rodrik 1991). Another is that—when the sample is restricted to democracies—there exists a positive relationship between equality in incomes and growth because growth is faster in countries with more equal land and income distribution (Persson and Tabellini 1991, 1992).

Countries in Asia, Africa and Latin America have demonstrated the difficulties in implementing redistribution before achieving economic growth. Redistribution measures have generally failed to achieve their objectives and have often stifled economic growth (Burma, Ghana and Jamaica are cases), especially when undertaken by “soft states” that find it difficult to enforce their own mandates. Bourguignon (1994) observes that income distribution characteristics appear significant in explaining differences in the rate of accumulation of human and physical capital: a more equal distribution of income creates, other things equal, a higher rate of secondary school enrollment and a lower rate of physical investment. Human resources appear as a potentially powerful engine of endogenous growth and income equality. A better-educated population leads to a more egalitarian income distribution, which in turn implies a higher rate of school enrollment.

Greater GDP per capita implies more investment in education, which in turn implies faster and more egalitarian growth. However, regional stylized factors remain extremely important in explaining not only intercountry differences in factor accumulation, but also possibly overall gains in the productivity of labor and physical and human capital. Some critics say that there is a relationship between Latin America’s idiosyncrasies in growth behavior, its performance over the 1960–85 period, and its relatively high level of income inequality. Consequently, if income inequality proves to have a negative influence on growth, then the investment gap between Latin American and Asian countries is, in fact, larger than it appears.

ness class, who wanted free markets, the removal of crippling restrictions on economic activity, and the chance to accumulate wealth and property. According to this view, liberty means maximizing the individual’s freedom to act. In economics, it means the freedom to buy and sell commodities (including the individual’s own labor) and to keep the rewards. In politics, it means the freedom to choose leaders as well as the form of government, and the ability to change both.

Libertarians believe primarily in negative freedom and negative rights. They focus on the right of individuals to free choice and on their exercise of individual liberty. This implies that individuals should be free from outside interference and, in particular, they should be free from coercion by the state. This doctrine leads to a position in favor of property rights and against redistributive taxation and, in its extreme forms, against government regulation. The only rewards that individuals can appropriately claim as their own are those that depend on their own effort.

Welfare Liberalism

For some liberal thinkers, individuals are not completely good by nature, and it is necessary to curb the majority will in favor of the protection of minorities. It is especially necessary to provide for the separation of powers in government, so that the legislative

and executive powers are not fused, and the judiciary can remain independent of both. Thus, laissez-faire in itself is not the whole of the liberal program. It also includes republicanism, popular sovereignty and education. In this interpretation, liberty means maximizing the individual's freedom to think, to believe, to express and discuss views, to create or be part of political parties, and to find employment. This view inspired much of European welfare state policies.

Unlike libertarians, welfare liberals believe not only in negative rights, but also in positive freedom and positive rights. If individuals have to take their lives into their hands, the welfare liberals argue, then they have to have the preconditions for effective choice. Thus, it follows that individuals have the right to satisfy basic needs: some set of basic entitlements with regard to food, shelter, health, education and income. If these positive rights are not satisfied, then real moral action is not possible. Twentieth-century liberalism tended to make freedom responsible rather than anarchic; to move away from the relativism and pragmatism of historical liberalism; and to invoke equality as a goal and slogan, as well as liberty.

In the second half of the 20th century, there were many liberals who would have agreed with Hobhouse's (1911) remark that "liberty without equality is a name of noble sound and squalid meaning." Hence, policymakers emphasized economic and social context, and experimented with economic regulation and controls. Within this framework, property rights are generally thought to be less important than within libertarianism. Instead, redistributive justice is seen as an appropriate goal for state action, generally through taxes, even if high rates are required.

Egalitarianism

Central to the egalitarian doctrine is the idea that much of the actual distribution of wealth results from inheritance and social status or from the undeserved blessing of having a genetic endowment that leads to marketable skills. Egalitarians (including welfare or egalitarian liberals) see both of these factors (sometimes called the social lottery or the natural lottery) as an illegitimate base for property.¹⁵ Modern egalitarianism has its roots in the reflections of various socialist writers opposed to the social and economic effects of the Industrial Revolution.

Although all egalitarians want to bring about a more equal distribution of national income, some hope for an absolute equality of income, whereas others aim only at ensuring an adequate income for all, allowing different occupations to be paid at dif-

¹⁵ Egalitarian ideas have their roots as far back as Plato (*The Republic*, in Jowett 1997), Thomas Moore (*Utopia*, 1516), T. Campanella (*City of the Sun*, 1623), as well as a number of 17th and 18th-century social critics and some figures of the French Revolution.

Appendix Table 1.1. Income Level and Income Inequality

| Country group | Number of countries | Percentage of income received by income group | | Gini coefficient |
|---------------|---------------------|---|--------------------|------------------|
| | | Lowest 40 percent | Highest 20 percent | |
| Low income | 15 | 14.4 | 49.4 | 0.430 |
| Middle income | 27 | 12.7 | 54.0 | 0.473 |
| High income | 21 | 18.3 | 40.5 | 0.337 |
| East European | 7 | 22.6 | 38.7 | 0.285 |

Source: Gillis and others (1992, p. 84).

Appendix Table 1.2. Regional Gini Coefficients, 1988 and 1993

| Region | 1988 | 1993 |
|---|-------|-------|
| Africa | 0.427 | 0.472 |
| Asia | 0.559 | 0.618 |
| Eastern Europe | 0.256 | 0.464 |
| Latin America and the Caribbean | 0.571 | 0.556 |
| Western Europe, North America and Oceania | 0.371 | 0.366 |

Source: Milanovic (1999).

ferent rates. Appendix tables 1.1 and 1.2 show some current income distribution patterns. Appendix box 1.1 describes the effects of different income distributions on economic growth in East Asia and Latin America.

"To each according to his need" has been a frequent battle cry of socialists, but many of them would in fact settle for a society in which each would be paid in accordance with his contribution to the commonwealth, provided that society would first assure all citizens minimum levels of housing, clothing and nourishment as well as free access to essential services such as education, health, transportation and recreation. They believe in a system of social organization in which private property and the distribution of income are subject to social control, rather than to determination by individuals pursuing their own interests or by the market forces of capitalism. (see appendix box 1.2) This system opposes establishing private or real property to the utmost

Appendix Box 1.2. Northern European Egalitarianism

The welfare state exemplified by Sweden, Denmark and Great Britain—where socialist parties won power by parliamentary means and constructed systems of tax-based social services—intended to guarantee a minimum standard of living to all. Sweden, a modern welfare state pursuing quasi-socialist policies, assures cradle-to-grave security and an egalitarian distribution of income for its people. Sweden has built one of the world's most comprehensive networks of social services, financed by means of some of the world's highest tax rates on personal incomes. The country's most important political party, the Social Democratic Labor Party, which is closely allied with the trade unions, held power throughout much of the 20th century (1932–76 and 1982–91).

Denmark has one of the world's oldest and most extensive social welfare systems; it covers all citizens and provides benefits for education, health, old age, disability, maternity, death and sickness. The Social Democratic Party (mainly representing workers and public servants) has been the country's dominant political organization, although a coalition of nonsocialist parties (the Conservative People's Party and the Liberal Party) held power for a decade beginning in 1982.

During the 20th century, the United Kingdom underwent a quiet revolution with the advent of the Labour Party and the creation of a welfare state. The first Labour ministry was established in 1924 under Ramsay MacDonald. In the 1945 elections, the party, espousing a socialist platform, won an overwhelming majority in Parliament and at once embarked on a nationalization program. The state bought out shareholders in the Bank of England, the coal mines, all inland mass transport, aviation, gas and electricity. It passed a cradle-to-grave social insurance plan and also set up the National Health Service to provide free medical care to all.

physical extent possible, and favors the distribution of income as a role of the state. In this aspect, it is at odds with liberalism, where private property is cardinal and distribution is left to ensue from the play of free contract and selfish interest on that basis, no matter what anomalies it may present.¹⁶

¹⁶ In order to define egalitarianism, it is useful to define unegalitarianism. Egalitarianism and unegalitarianism are antithetic: unegalitarian theories positively value inequalities (among individuals with different degrees of physical strength, intelligence or abilities and/or among races or nations); the value judgment under them is opposite to the egalitarian doctrines: inequality is good or even necessary for society and civil progress, so civil order has to respect and not abolish the inequalities among human beings, which are socially and politically important for social progress. Unegalitarianism denies the egalitarian point of view, mainly because of the word "all" in the statement that "all human beings have to be (increasingly) equal in everything." Unegalitarianism asserts that only a few men are equal, or that no man is equal to the other. Liberalism denies the egalitarian point of view not because of the word "all," but because of the word "everything."

Utilitarianism

The fundamental principle of utilitarianism is that an action is right if it tends to promote happiness, and wrong if it tends to produce the reverse of happiness. This refers not just to the happiness of the performer of the action, but to that of everyone affected by it. In normative ethics, utilitarianism belongs to a tradition dating from the late 18th century. The leading proponents of utilitarianism were the English philosophers and economists Jeremy Bentham and John Stuart Mill.

Utilitarianism is among those moral theories, often called teleological (concerning ends or purposes), that derive what is right or wrong from judgments about the quality of certain states of affairs, for example, the quality of people's lives. Mill saw justice as utilitarianism's largest problem and that opinion persists. Among the varieties of consequentialism, the simplest form is classical utilitarianism, which holds that every action is to be judged good or bad according to whether its consequences do more than any alternative action to increase (or, if that is impossible, to limit any unavoidable decrease in) the net balance of pleasure over pain in the world (Moore 1903, 1912). Classical utilitarianism is often called hedonistic utilitarianism.

Many utilitarians have defined new forms of the theory. The classical form is hedonist. Ideal utilitarianism employs values other than or in addition to pleasure. More neutral and popular in economics, preference utilitarianism regards anything as valuable that appears as an object of (rational or informed) desire. Furthermore, negative utilitarianism regards the avoidance of disutility as morally more important than the promotion of utility. Direct utilitarianism applies the test of utility maximization directly to single acts. Rule utilitarianism applies this test indirectly through rules of conduct (Bentham 1789; Mill 1861; Sidgwick 1874; Moore 1903, 1912).

In addition to these schools of thought, there are two main approaches to utilitarianism: objective and subjective. Objective utilitarianism attempts to devise a numerical measure of well-being, offering the (perhaps false) promise of turning policy choice into an objective, technical matter. Such a theory is in opposition to egoism, the view that individuals should pursue their own self-interest, even at the expense of others, and to any ethical theory that regards some acts or types of acts as right or wrong independently of their consequences. The choice of a particular index for measuring education or health outcomes is ultimately an ethical, as well as technical, decision.

In subjective utilitarianism, individuals make their own evaluations from a utilitarian point of view in which using resources efficiently is important. No matter how the gains of a policy are defined, reaching those gains at minimum cost is most desirable; this is called "technical efficiency" and it allows individuals to do more of what they desire. The criterion that economic activity should maximize utility as defined by individual consumers is called "allocative efficiency." Thus, selecting criteria by which to judge policy invokes ethical as well as technical beliefs.

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Vouchers in Education

Worldwide, expenditures on education historically have subsidized inputs but not demand. Governments allocate public funds to finance supply and distribute resources based on the preexisting endowment of inputs: the budget is distributed according to school size, number of classrooms and number and classification of teachers.

Although education does not have the characteristics of a public good, governments perceive it as essential because of its externalities. It generates externalities in production because—by training and allocating the future workforce—it improves productivity and economic development. Education generates externalities in consumption because an educated population enhances the quality of social life.

Two substantial reasons support active government interest in the field of education policy: equity and social development. First, education equalizes opportunities, offsets the tendency for increased social stratification, and enables people to shape their own future. Government intervention is necessary because the private sector alone would not grant education to all members of society. Second, education creates social development by building human capital. Cultural evolution brings about respect for diversity and freedom, and at the same time it propitiates the conditions for social cohesion and political stability. In this way, education strengthens democracy and reinforces the social contract by consolidating cooperative principles and common values. It creates both a sense of belonging to a community and the understanding of society, elements that are indispensable conditions for effective governance.

The state has assumed primary responsibility for financing and providing education services in the majority of industrial and developing countries. As regards financing, governments in general recognize the importance of education in their budget allocation; in the past few decades, almost every country has devoted an increasingly significant amount of resources to education. In terms of provisioning, supply-side delivery dominates worldwide. The public system extends from pre-primary (nursery education for children under age five) through primary and secondary schools, to colleges, polytechnics and universities.

In recent years, the supply-driven expansion of schooling has run into trouble because of factors that are both internal and external to the education delivery system. The internal factors are predominantly poor resource management and inadequate institutional organization. On the one hand, the public sector does not meet the

increasing demand, although the education field absorbs large sums of public money and employs many professionals and administrators. Tax revenues are insufficient to cover the needs and several countries are becoming less able to bear the increasing costs of expanding public education systems. For example, the education system in Latin America has about four million teachers and more than 130 million students (IDB 1998).

On the other hand, institutions—perhaps because of their structures—do not have enough flexibility to articulate the delivery of service, and calls for decentralization further complicate the issue. For example, the education ministries in Latin America are frequently the largest institutions in their countries. In Mexico and Venezuela, the education ministries have more than 340,000 employees. This number exceeds the average size of the top 10 firms in the United States and Japan (Scherer and Ross 1990). Urbanization, demographic patterns, and the need to renegotiate with unions present additional challenges.

Factors external to the education delivery system encompass three main issues. First, technological and political revolutions have taken place during the past few decades (Friedman 1995). These revolutions not only promise a tremendous increase in world output, but also pose a threat: serious social conflict may arise from a widening gap between the highly skilled and the unskilled. Second, differences among ethnic groups call for different methods of delivery. Third, the curriculum should include the needs of disadvantaged minorities and marginalized ethnic clusters. For example, the former Soviet Union must take into account six ethnic groups: Koreans, Germans, Jews, Cossacks, Buriats and Georgians.

Disparities affecting individuals based on gender, indigenous heritage and underprivileged status will presumably persist if the environment within which education decisions are made fails to offer them the necessary consideration. For example, a family's costs and benefits of educating daughters may differ from those associated with educating sons. Specifically, many of the benefits of educating women in developing countries are public, whereas many of the costs are private. This leads to underinvestment in women's schooling and to a persistent gender gap (Magnoli 1998). Children of poorly educated parents are more likely to be left out of the education system and—because of opportunity costs—more likely to be working.

Different economic points of view offer different perspectives on how to solve these problems.¹ The traditional position is to subsidize inputs. According to state interventionists (mainly welfare liberals and egalitarians), public expenditure should keep supplying education inputs. Worldwide, education is financed largely by public funds; in many countries, even private schools are heavily dependent on public assistance. In

¹ More than a hundred years ago, British economist Alfred Marshall wrote: "... there are few practical problems in which the economist has a more direct interest than those relating to the principles on which the expense of education of children should be divided between the State and the parents." (Marshall 1980, p. 180)

most countries (especially the developing ones), the central government is responsible for education decisionmaking. Central government participation in the education agenda is used to enforce minimum academic standards or language requirements nationwide. Similarly, concern about uneven allocation of education opportunities across population groups and unequal management skills and school financing throughout the country call for government intervention. According to the supporters of public intervention, if local governments or parents were given the responsibility for providing physical facilities and instructional materials, then youths residing in poor areas could have access only to underfinanced schools, or perhaps to no schools at all.

Economies of scale in purchasing, revenue procurement or institution building (for example, national assessment systems) may also require central government sponsorship. Moreover, central authorities often have serious concerns about losing control over budgetary allocations and the setting and enforcing of standards in the education system. Intermediate positions maintain that the state should subsidize both supply and demand because only certain combinations of them would attain the necessary flexibility.

At the other extreme, libertarians (mainly neoliberals) believe that demand should be subsidized because changes in the delivery per se would hardly be effective. Supporters of financing mechanisms as a tool believe that school choice could improve the operation of individual schools by delegating control over input allocation and strengthening local control over the use of resources. Education services are ultimately delivered on a personal level through the interaction of teachers and students in the classrooms, often with parent and community involvement in the schools. Moreover, the unequal allocation of public expenditures on education systems often leads to unequal achievement of the students (see the appendix to this chapter for details).

Excessive control has been a problem worldwide: the degree to which the central government dictates the way schools operate—not only at the macro level but also at micro levels—determines school effectiveness. In centralized systems, administrators, students and parents play only a marginal role in determining how school resources are allocated. Typically, school administrators are accountable not to parents and students, but to central authorities, such as the ministry of education. Since the costs of monitoring, inspecting and enforcing detailed guidelines for individual schools are likely to be high, the ministries set norms; for example, norms guide the distribution of budgetary allocations between teachers' salaries and other inputs. If the norms do not match a school's needs or the community's preferences, as is often the case, school administrators have neither the financial power nor the incentive to change them. As a result, the use of school resources is inefficient.

The libertarian or laissez-faire point of view traditionally holds that the social service provisioning model is experiencing problems because it has been oriented to deliver services to people rather than to respond to their demands. The procedure for allocating resources based on their historic supply does not establish any link between output and future financing; hence, service providers have no incentives to increase

either the quantity or quality of their service. Since inputs are independent of productivity, the school principal has no incentives for striving to increase coverage or improve the quality of education. Such efforts would lead only to more students per classroom or more hours devoted to preparing lessons, without bringing in more resources.

According to the libertarian view, the consumer's role cannot be ignored if systems are to function better; consequently, the alternative system of resource allocation is to finance demand. Stimulating the demand side of the education system would create competition and would decentralize decisions and expenditures.² Moreover, formal participation would have the advantage of increasing the transparency of decision-making processes and it would help to educate the population regarding important trade-offs and budget constraints in the provisioning of services.

The topic of vouchers arises because of the difficulties in education delivery. Voucher schemes are not intended to resolve all of the above-mentioned problems, but only a specific set. In particular, the objective of this device is to link resources directly to the beneficiaries of the service because consumers can have a significant impact on the service by affecting the flow of financial resources. With vouchers, rather than allocating the budget in accordance with the way inputs have been assigned in the past, funds are distributed based on the number of students. When consumers have a choice (the ability to select among providers), they have the capacity to reward the better performers with their business.

This procedure for financing demand, called capitation, generates better incentives for service providers. It gives clients a voice and formal participation in decisionmaking through school choice. School choice is not an entirely new concept. In the 1970s in the United States, public schools known as "magnets" offered enrichment programs as an incentive to pull children away from neighborhood schools. Originally, magnet schools were a way to improve racial balance voluntarily. The advantages of the capitation mechanism are that consumers have strong incentives both to seek out higher-quality services and to express their preferences regarding the services they wish to receive. The disadvantages are that in many cases consumers are poorly informed regarding the full range of options and the nature of their own particular needs.

When the use of vouchers introduces the element of choice, it raises several fundamental questions about efficiency and equity. Education systems must face the problem of identifying their optimal size. In general terms, efficiency is reached by minimizing the amount of resources invested in education while maximizing the aggregate net social benefit; consequently, resources must be allocated where their opportunity cost is lowest. To attain efficiency, both the costs and the benefits of providing education need to be identified. Although the costs (teachers' salaries, books and materials,

² According to Friedman (1995), this reform can come about only by privatizing a major segment of the education system, a gradual yet substantial transfer from government to private enterprise achieved by implementing a voucher system.

and school and college buildings) are relatively concrete and easy to identify, the benefits are less tangible and hence more difficult to weigh. However, it is possible to distinguish two categories of education benefits that any system will be expected to produce: production benefits and social benefits. In most cases it is not possible to identify the social benefits of an education system with the same degree of precision as the production benefits. The former assumes diffuse and less perceptible forms. According to the objective approach to utilitarianism, general indicators—such as literacy, enrollment and dropout rates—measure the aggregate net social benefit.

Proponents of the voucher system believe that vouchers can increase efficiency in the system. They think that private sector delivery could increase cost effectiveness and improve efficiency in allocation. According to its supporters, the voucher system increases efficiency in production and equity in access. One of the attempted objectives of a voucher system is to promote school competition. Choice generates greater competition, thereby improving school efficiency and achievement and encouraging nonprofit and for-profit private (and religious) schools. Introducing competition into the public system by removing the direct government subsidy puts public schools in competition for students with every other school. Schools are free to offer diverse education packages to meet the different preferences of parents. Good schools attract many students, redeem many vouchers and prosper. Inferior schools, avoided by parents, are stimulated to improve or must close down. Competition stimulates efficiency in general.

Opponents of the voucher system generally agree that the element of choice has merit in theory, but they argue that it is extremely difficult to make it work optimally in practice. Libertarian opponents fear that voucher-receiving independent schools will be regulated out of recognition. Welfare liberals and egalitarians would go as far as saying that vouchers would destroy the public system, aggravate the poverty problem and encourage segregation. They say that the basic conditions for school competition to occur would not be present for several reasons: the impossibility of correctly estimating costs; reduced quality due to lack of regulation; the absence of enough schools to fuel competition; and the fact that bad schools would not go out of business. The costs of running and attending a private school could be underestimated because studies do not calculate the free services given by clergy, nor do they take into account contributions from fundraising (Sullivan 1981). Some economists have argued that private schools hire less-experienced teachers and pay lower salaries (Chambres 1985). As far as open enrollment, where the family can choose schools across extensive areas, it is sometimes contended that such choice can exclusively be provided within the public sector because, for example, in a given region there is only one private school. And “disproportionate” applications to enroll in a popular school often lead administrators to declare the school full. The excess students would have to attend unpopular schools, which would therefore not face the serious cost of undercapacity and would typically continue to survive.

Equity has always been one of the strongest arguments raised in favor of public expenditures on education. This perspective views education as a primary instrument in providing equality and raising awareness about it; hence, education is not just a consumer service, but a process that has fundamental effects on people's lives. Voucher design must address specific problems and find practical answers. For example, is equity achieved in education systems by providing the same level of investment per child or by ensuring an equal amount of inputs (that is, textbooks) per child? Or should equity be considered in terms of equality of results, which are generally associated with different levels of spending per child? In order to obtain equal results with populations in different social and economic conditions, resources must be focused on those groups that need them most (by means of targeted education programs). In general, voucher supporters think that this instrument would expand access to education by improving resource allocation.

Another consideration is that the chance to provide education opportunities to the population diminishes to the extent that public funds are poorly distributed. Accordingly, considerations of equity are another important argument for improving efficiency in resource allocation. Opponents of vouchers believe that a market system cannot be expected to realize the objectives of the education plan, in particular because of the absence of efficiency in coordination in voucher policies and their effect on equity in capabilities.

Financing Mechanisms

Some governments are exploring new ways of channeling available funds. The first objective is to improve the enrollment and performance of those groups excluded by supply-driven education systems. The second objective is the optimal use of resources in the production of education and the optimal allocation of public funding. An important issue is the division of responsibilities between the central government and the local authority. Governments try to reach the appropriate balance of control by dividing responsibilities for decisionmaking and revenue generation between central and local governments. Previous decentralization experiences indicate that the success of these shared responsibilities depends on the extent to which the partnership is a mutually advantageous one.

In Ghana, Nigeria and Côte d'Ivoire, decentralization was viewed as a failure. The impetus for the reform was not mutual agreement, but an effort by the central government to shift the burden of funding to local government units while maintaining control over resource allocation through mandated programs. Without real authority for local governments to allocate resources, the potential gains from decentralization were not realized (*The Forum* 1993). There is evidence that schools that rely more heavily on parents or other local sources of finance operate more efficiently (Jimenez,

Paqueo and de Vera 1988 for the Philippines; James, King and Suryadi 1993 for Indonesia). More favorable results have been cited in Latin America, although the results differ somewhat by country.

Matching grants in which local revenues are complemented by increased central government funding appear to have been a successful means of effecting the partnership. Such joint funding mechanisms represent mutual commitments to education improvements without creating the suspicion that the central government is simply attempting to shift responsibilities to the local authorities (Prawda 1993). However, problems exist. The division of responsibilities among levels of government is often poorly defined; revenue transfers to local governments are ad hoc in nature and frequently politically negotiated; and local governments are ill-prepared to assume their new functions. In addition, little attention is paid to the design of mechanisms that promote accountability and consumer voice (Winkler and Rounds 1993).

By enhancing flexibility, local funding can improve school efficiency through two channels. First, local school authorities can select a more appropriate input mix than can the central ministry because local authorities are more informed about the relative economic cost of labor and nonlabor inputs in the community. Second, regardless of where management rests, locally financed schools may perform differently than state-financed schools simply because those providing the funds may have different objectives. For example, the central government may be more concerned with political support from teachers and teachers' unions and may require that new funds be used to increase teacher salaries, while parents and local communities may be more concerned with providing culturally relevant curricula or school amenities.

Education control can be shifted from the central government to the local levels by expanding the capacity and numbers of private schools. Private schools already represent a large share of education capacity in many developing countries (James 1993). Because their resources are more sensitive to student demands, private schools may be more responsive to parents' influence and students' needs. However, specific concerns arise in both industrial and developing countries.

The literature on the relative outputs of private and public schools in industrial countries has found that private schools attract a more homogeneous group of students. In general, private school students are more able and come from wealthier and more highly educated families; they tend to be more oriented toward academic pursuits and do better on standardized tests of verbal and mathematical ability. However, the extent of this advantage of private schools over public schools is subject to debate. Although a simple comparison between private and public school students reveals that private school students perform at a higher level, it is less clear how much this higher level of achievement is due to the school or to other factors. After controlling for family socioeconomic background, time spent on homework, and curriculum differences between public and private schools, most or all of the achievement differences disappear (Witte 1992). Even so, some of the gap in achievement can be attributed to high-

Box 2.1. Types of Demand-Side Education Financing^a

A **stipend** is a cash payment that is given to a family by a public agency in order to offset schooling expenses for a child. It covers core expenses (such as books, tuition and transportation) and incidental expenses (such as materials, game fees and clothes). A stipend is also used to compensate families for the loss of the child's labor. In many cases, there is no school choice involved. Rather, the stipend becomes a mechanism that enables poor children to attend school. This mechanism is particularly effective in enabling girls from poor rural families to attend school. For example, Bangladesh's Female Secondary School Assistance Project uses this financing mechanism. Guatemala provides targeted stipends for low-income female students aged 7–14 years. Similarly, Morocco and Mozambique provide scholarships for girls in rural communities.

Community financing can occur through monetary contributions or through nonmonetary support in the form of land, labor, materials and social marketing for the benefit of education. In Chad, community financing is used to build parent-teacher associations that play a vital role in towns and villages to strengthen basic education.

Targeted bursaries are cash payments that may go directly to schools, municipalities or provinces and are earmarked for specific purposes, such as improving the curriculum or increasing school access for minority, indigenous or poor children. They are not given to the students or their families, but are made available to the financial officer or the relevant bursars. In China (the Basic Education in Poor and Minority Areas Project), funds are directed to the bursars of these areas to be used specifically for poor and minority education needs. Guatemala uses this mechanism for correcting gender discrimination. In Mexico (the Second Primary Education Project), bursaries are targeted to help indigenous students pay for textbooks and other learning materials.

School improvement funds are related to targeted bursaries and are used in education projects in Armenia, Chile, India and Paraguay. Such funds are usually provided on a competitive basis to initiatives locally designed to promote increased school participation and autonomy. Allowing schools to decide on whom, where and when to spend additional resources accomplishes these goals.

A **voucher** is a cash payment given by a public entity either directly to students or to the school they attend. Stipends are given to students or their families to pay for school-related expenditures; vouchers provide an additional element of choice because students (or their families) can use the voucher at a school that they prefer. Students are free to choose the school, voting with

^a Based on World Bank data.

their feet, and the money follows the student. The voucher mechanism can help a student from a nonprivileged background to escape a poor-quality neighborhood school or to move to a school that is more culturally appropriate.

In Bangladesh, vouchers are given to females in grades 6–10 under the condition of minimum attendance and progress. In Belize, the government, in partnership with churches, offers vouchers to 75 percent of students at the primary level and 50 percent of students at the secondary level. Chile gives vouchers worth 4,359 pesos (1991) to low-income elementary and secondary school attendees. In Colombia (the Secondary Education Project), a voucher program promotes opportunities and choice for poor children by giving them direct funds in the form of vouchers. Vouchers are used in Gambia. In Guatemala, vouchers worth approximately US\$50 a year are given to selected 7–14 year-old low-income girls in 13 local communities, under the condition of minimum attendance and progress. Lesotho's government—in partnership with churches—provides vouchers to all attendees at the primary and secondary levels. In Poland, vouchers are given to families associated with sponsoring organizations. Until 1995 Puerto Rico used vouchers (US\$1,500 per year)—valid in private and public schools—for families with school-age children and income below US\$18,000.

In several Canadian provinces—Alberta, British Columbia, Manitoba, Québec and Saskatchewan—vouchers are given to families that make use of independent schools, mainly private. The value and regulation of vouchers vary depending on the province (see table 2.2). In Japan, vouchers are used for students over age 15 who are in public and private high schools. As long as financial statements are submitted, the government finances private schools up to 40 percent of the cost per child. In the Netherlands, all students subject to compulsory education in municipal areas receive a voucher to go to any school of their choice; public and private schools are financed on a completely equal basis. Sweden follows a similar criterion and the value of the voucher is at least 85 percent of per pupil cost. The vouchers available in New Zealand are provided to all school-age children; the value of the voucher takes into account the student's socioeconomic status. In the United Kingdom, vouchers are distributed according to merit and income; however, they apply specifically to private schools and only if the Education Department has approved them. The vouchers' per-year value in 1992 was approximately US\$3,500. In the United States, there are two types of vouchers: tax-funded and privately funded. The former is used in Milwaukee for low-income students in private nonsectarian schools. Their value in 1994 was US\$2,900 per year and participating schools had to limit voucher students to 65 percent of their student body. The latter is used under the Golden Rule model for low-income families in all reputable nongovernment schools. Their value in 1995 was US\$6,383 and they were accorded on a "first come, first served" basis. Some programs require parents to make tuition payments.

(Box continues on next page.)

Box 2.1. (continued)

Public assistance is like a voucher but is given to private schools and institutions depending on the number of low-income students they take in. It can increase choice and improve equity if combined with measures that increase access to private schools for low-income students. Thus, it is also like a capitation grant. Public assistance to private schools can come in many forms. In some countries, public assistance is in the form of teacher and staff emoluments, and in others, it comes as subventions for materials, maintenance, transportation and equipment. In the Dominican Republic (the Second Basic Education Project), the government subsidizes private schools that serve children from low-income families.

Student loans are used to help defray costs to the government and also to help a greater number of students receive higher education. Student loans can take the form of commercial private loans or government-guaranteed loans. The government may take an active role by selecting candidates or establishing regulations. In Jamaica, the government makes funds available for students by enlisting the help of commercial banks (the Student Loan Project) and provides the necessary loan guarantees.

Capitation grants are grants given to schools based on the number of students, socioeconomic status and geographical location. They are used in Brazil and in Chile, where they (in conjunction with vouchers) cover the cost of more than a third of all students enrolled. In Gambia and Tanzania, capitation grants are given to all students. In Canada—Alberta, British Columbia, Manitoba, Québec and Saskatchewan—capitation grants are used in secular and religious private schools under the constraint of public inspection. In the Netherlands, the state finances schools for each religion where local demand is demonstrated. Sweden uses this tool in municipal areas for all children subject to compulsory education. Schools must follow the national curriculum and the National Assembly of Education performs the supervision.

Community grants are given to a community of students in a lump sum but are tied to attending a community-created institution. The term “voucher-like” is sometimes used because the amount of money is related to the number of students and the approach has an element of choice. Parents choose to send their children to the community school, thereby making this school eligible for cash payments. Payments may cover some expenses or the full cost of schooling. In Baluchistan (Pakistan) payments take the form of grants for girls to attend community schools. In this case, grants are used to address gender equity issues; the scholarships are lump sums given to schools attended by girls. Related to community grants are social funds, special agencies that have the power to make investments. Social funds solicit proposals from public, private or community groups. By definition, this approach to development is demand-driven.

er private school productivity because some of the differences in homework and curriculum are clearly associated with the school (Jencks 1985).

In developing countries, differences in education outcomes between public and private schools indicate a private school advantage, even holding constant differences in student attributes. Studies of school systems in Colombia, the Dominican Republic, the Philippines, Tanzania and Thailand find that private schools deliver education services at lower cost than public schools do (Jimenez, Lockheed and Paqueo 1991). If these results hold generally, then subcontracting to the private sector will allow a fixed government budget to accommodate more students than will direct government provision of education services. However, the reported cost advantage for private schools is not universally accepted. If existing private schools chose to locate only in areas where it is relatively less costly to provide education services, and if these schools avoid additional costs by selectively admitting only the better students, then comparisons between public and private school costs may be biased in favor of private schools.

This chapter analyzes 31 countries that have explored demand-side financing mechanisms as a pragmatic choice for introducing reforms according to the local situation, the resources available and particular needs.³ Table 2.1 describes demand-side financing mechanisms in the developing countries in the sample. Table 2.2 describes the mechanisms in Organisation for Economic Co-operation and Development (OECD) countries. The analysis focuses on education finance and state subsidies; box 2.1 defines the demand-side financing forms. However, the analysis would not lose validity if subsidies (without major changes in their functioning) were funded from private sources. Other forms of state intervention may be relevant (service delivery and regulation), but will be discussed as subsidiary to the finance mechanisms.

State Transfers: A Formal Analysis

Demand-side delivery of education gives people the capacity to choose. Neoliberals believe that such empowerment is possible through cash transfers that do not specifically restrict the recipients to using these funds on education. Welfare liberals and egalitarians believe that choice should be kept within the education system and, as a consequence, spending the funds on education should be compulsory. The debate has hinged on whether the state should provide transfers in cash or in kind. This issue requires a formal analysis.

³ The 31 countries include 23 developing countries (seven from Africa: Chad, Gambia, Ghana, Lesotho, Morocco, Mozambique and Tanzania; five from Asia: Bangladesh, China, India, Pakistan [Baluchistan] and Thailand; nine from Latin America and the Caribbean: Belize, Brazil, Chile, Colombia, Dominican Republic, Guatemala, Jamaica, Mexico and Paraguay; and two from Eastern Europe: Armenia and Poland)—the case of Puerto Rico is taken into account as a reference—and eight industrial (OECD) countries (one from Asia: Japan; two from the Western Pacific: Australia and New Zealand; two from North America: Canada [six provinces: Alberta, British Columbia, Québec, Manitoba and Saskatchewan] and the United States; and three from Western Europe: The Netherlands, Sweden and the United Kingdom).

Table 2.1. Demand-Side Financing of Education in Developing Countries

| Country | Qualifying population | Location | Mechanisms | Target and modus operandi | Monetary value (per year) |
|------------------------|---|---|---|---|--|
| Armenia | | Local initiatives (provided on a competitive basis) | School improvement funds | Promote school participation and autonomy | |
| Baluchistan (Pakistan) | Girls in community schools | Community schools | Community grants | Raise female primary school enrollment, attendance and achievement Lump sum tied to attending a community-created institution | Varies according to the number of students |
| Bangladesh | Females, grades 6–10 | Selected localities | Vouchers and stipends | Public or private schools, minimum attendance and progress required | From \$12 in G-6 to \$36.25 in G-10 |
| Belize | Elementary and secondary school attendees (75 percent of primary, 50 percent of secondary) | | Vouchers | Government partnership with churches (strong) | |
| Brazil | | | Capitation grants | Matching grant schemes and capitation grants based on numbers of students, socioeconomic status of pupils, and location | |
| Chad | Basic education students | Towns and villages | Community financing | Build parent-teacher associations | |
| Chile | Low-income elementary and secondary school attendees More than one-third of total enrollments, all income groups | | Voucher system Capitation grants | Receiving schools can also charge fees | Average value in 1991: 4,359 pesos |
| China | Low-income and minority groups | Local initiatives (provided on a competitive basis) | School improvement funds | Promote school participation and autonomy | |
| Colombia | Low-income students | Minority areas Operational in 216 municipalities | Targeted bursaries Voucher system | Educational needs Vouchers usable in private schools Program participation renewable if student performance is satisfactory | \$143 |
| Dominican Republic | Children from low-income families | Specific private schools | Public assistance | Government finances private provisioning of education | Depends on the number of low-income students |
| Gambia | Low-income students All students | | Voucher system Capitation grants | | |

| | | | | | |
|--------------------------|--|---|---|---|---|
| Guatemala | Selected low-income female students 7–14 years old | 13 local communities | Vouchers and targeted stipends | Minimum attendance and progress required | Approx \$50 |
| Ghana | | | | Matching grant schemes | |
| India | | Local initiatives (provided on a competitive basis) | School improvement funds | Matching grant schemes, incentives (uniforms, textbooks and attendance allowances) | |
| Jamaica | | | Commercial private loans or government-guaranteed student loans | Promote school participation and autonomy | |
| Lesotho | All secondary and primary school attendees | Most schools | Vouchers | Government enlists the help of commercial banks and provides the necessary loan guarantees | |
| Lesotho | | | | Government partnership with churches (strong) | |
| Mexico | Indigenous students | | Targeted bursaries | Teachers trained and appointed by the government | |
| Morocco | Rural girls | | Scholarships | Pay for textbooks and other learning materials | |
| Mozambique | Rural girls | | Scholarships | | |
| Paraguay | | Local initiatives (provided on a competitive basis) | School improvement funds | Schools decide on whom, where and when to spend | |
| Poland | Families associated with one of 36 sponsoring organizations (including the University of Warsaw) | Private and mainly nonsectarian schools | Vouchers and subsidies | Promote school participation and autonomy | Per capita subsidy level at 50 percent of expenditure |
| Puerto Rico (until 1995) | Families with school-age children and incomes below \$18,000 | Public and private schools | Vouchers | Government approval required to open independent schools, a wide variety of curricula allowed in practice | |
| Tanzania | | Co-educational and girls' schools | Grants | Use of a lottery when demand for vouchers exceeds supply | \$1,500 |
| Thailand | Low-income students in rural areas | | Bicycles | Raise female enrollment and achievement, matching grant schemes | |

Note: Unless otherwise specified, monetary values are in 1996 U.S. dollars.

Source: World Bank (1995); West (1996). Information on Armenia, Baluchistan, Bangladesh, Belize, Chad, China, Chile, Dominican Republic, Lesotho, Colombia, Guatemala, Mexico and Paraguay: World Bank Chile; Winkler and Rounds (1993). Puerto Rico: Tucker, Allyson and Lauber (1995). Poland: Glenn (1995).

Table 2.2. Demand-Side Financing of Education in OECD Countries

| Country | Qualifying population | Location | Mechanisms | Target and modus operandi | Monetary value (per year) |
|--------------------------|--|--|---|---|---|
| Australia | Low-income students | | Block grants | Revenue-sharing formulas to offset fiscal disparities Grants based on low-income status and number of students | |
| Canada: Alberta | Families making use of independent schools | Private schools | Vouchers, capitation grants and assistance to private schools | Curriculum, teacher qualifications, language requirements | 50 percent of public school costs |
| Canada: British Columbia | Families making use of independent schools | Denominational and secular private schools | Vouchers, capitation grants and assistance to private schools | Schools receiving vouchers have to have been established for a minimum of three years | 30 percent of public school costs per student (\$500 in 1978) |
| Canada: Manitoba | Families making use of independent schools | Private schools | Vouchers, capitation grants and assistance to private schools | Public inspection | Full-time equivalent capitation grants |
| Canada: Québec | Families making use of independent schools | Mainly private secondary schools | Vouchers, capitation grants and assistance to private schools | Public inspection, teachers must have same qualifications as in public schools and the same curriculum must be applied | 60 percent of the costs of public schooling (80 percent for schools deemed to be "in the public interest") |
| Canada: Saskatchewan | Families making use of independent schools | Private schools | Vouchers, capitation grants and assistance to private schools | Curriculum, teacher qualifications, enrollment | 55 percent of public school per capita cost |
| Japan | School children over 15 years old | Public and private high schools | Vouchers, assistance to private schools | Private schools must submit financial statements to the Foundation for the Promotion of Private Schools | 40 percent of the cost in private high schools covered by government (approximately 140 yen per student in the 1980s) |
| The Netherlands | All children subject to compulsory education | All municipal areas (public and private schools) | Vouchers and capitation grants | State finance of schools for each religion where local demand is demonstrated, secular private schools also state-financed Public and private schools are financed on a completely equal basis | |

| | | | | | |
|----------------|--|--|--------------------------------|--|--|
| New Zealand | All school-age children | All public sector schools and selected independent schools | Vouchers | Higher levels of funding for lower-income students (80 percent of funding related to student numbers and 20 percent to student socioeconomic status) Open enrollment system in a considerably decentralized public sector; school autonomy strengthened via local parent-elected boards | Teacher salary grants to independent schools amounted to 20 percent in 1993, with the expressed intention to raise it to 50 percent eventually |
| Sweden | All children subject to compulsory education | All municipal areas | Vouchers and capitation grants | Schools must follow national curriculum, supervision by the National Assembly of Education (NAE) | At least 85 percent of per pupil cost in municipal schools |
| United Kingdom | Low-income students with above average ability | "Assisted Places" in private schools only | Voucher system | Participating schools must be approved by Education Department | \$3,500 (approximately) on average (1992) |
| United States | Low-income students in the city of Milwaukee | Private nonsectarian schools | Tax-funded vouchers | Participating schools must limit voucher students to 65 percent of the student body with a maximum of 1,500 students | \$2,900 (1994) |
| | Low-income families | All reputable nongovernment schools | Privately funded vouchers | Some programs require parents to match the voucher (scholarship) amount in making tuition payments, no heavy burden on reporting requirements First come, first served basis (under the Golden Rule Model) | Average \$6,383 in 1995 |

Note: Unless otherwise specified, monetary values are in 1996 U.S. dollars.

Source: OECD (1995); West (1996). Information on Sweden: OECD (1994). The Netherlands: OECD (1994). Japan: Lynn (1986). Milwaukee (United States): McGroarty (1994). United States (private vouchers): The National Scholarship Center (1995). United Kingdom: U.K. Education Department (1992); World Bank (1995b); Flew (1995). New Zealand: OECD (1994). Canada: Easton (1988).

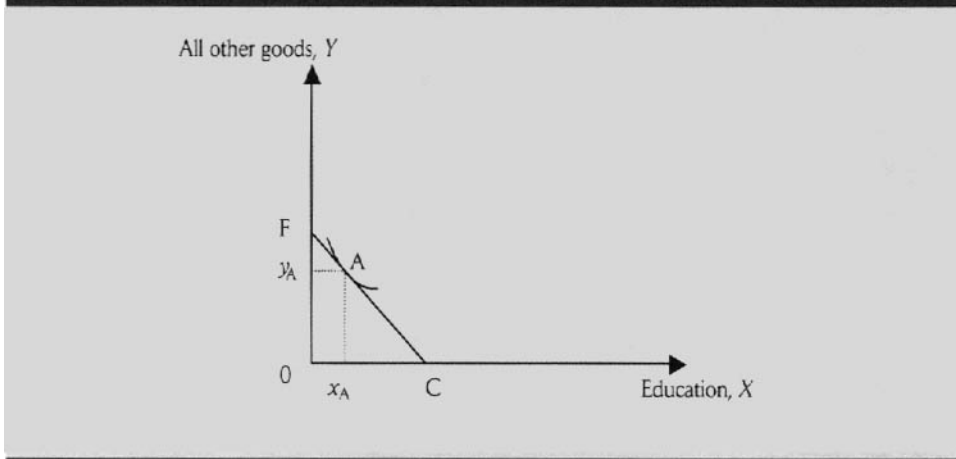
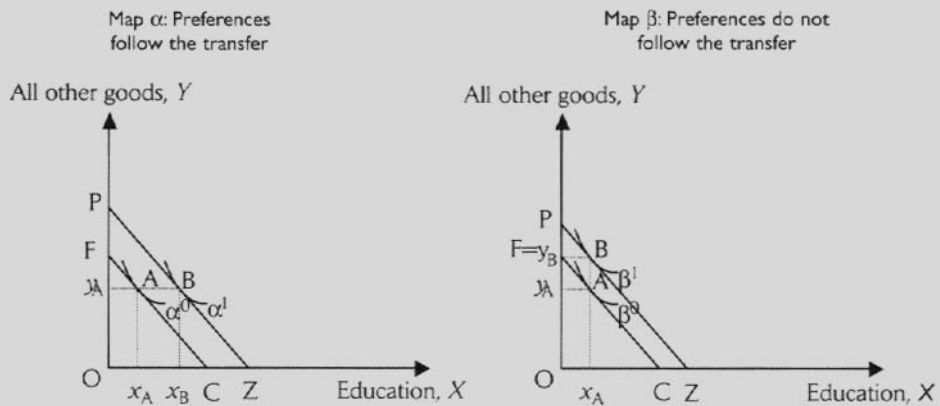
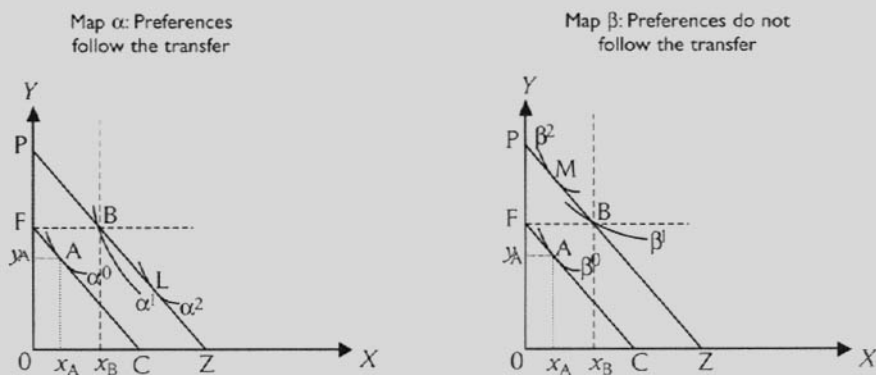
Figure 2.1. Two Commodities: Education and Other Goods

Figure 2.1 presents the simple case of a person whose purchasing ability is limited to two commodities: X (education) and Y (the set of all other goods). Price line FC is the geometric counterpart of the budget constraint and shows all possible combinations of X and Y that the consumer can purchase. The rational individual desires to purchase a combination of X and Y that will provide the highest level of satisfaction, which must be a point on FC . At the same time, the individual desires to reach the highest indifference curve possible, which is the curve that has at least one point—the tangency point—in common with FC . Assume that without public intervention the person would choose set A , given budget constraint FC . The resources would be allocated in purchasing the quantity represented by the segment Ox_A of education (suppose this represents second grade in primary school) and the quantity represented by the segment Oy_A of all other goods.

It is necessary to distinguish between two scenarios because the person could have either of two different sets of preferences: the set α with a bias toward education or the set β , preferring the set of all other goods. Suppose that the person's natural consumption in absence of state intervention is the second grade (in figure 2.2, Ox_A). Further assume that education policy compels primary education until the fourth grade (in figure 2.2, Ox_B) and this is made possible through government transfers. There are two possibilities for financing consumption. In case 1 (figure 2.2), the state subsidizes only the two-year term from second grade to fourth grade; the transfer is $Ox_B - Ox_A$. A fixed level of consumption of X (the segment Ox_B , equivalent to the fourth grade), superior to the optimal consumption of the person, is now mandatory. In the case of map

Figure 2.2. Case 1: Government Finances Third and Fourth Grades**Figure 2.3. Case 2: Government Finances First through Fourth Grades**

α , the consumer's preferences follow the transfer (moving from A to B in map α in figure 2.2). Thus, the subsidy can be the cash value of two grades of primary school, the third and the fourth ($0x_B - 0x_A$).

In the case of map β , the preferences do not follow the transfer and the consumer will use the cash transfer to get additional Y . If preferences do not follow the transfer, then there is substitution: the transfer is used to replace consumption of X (the amount $x_A - x_B$) with Y . The problem of fungibility (the money can be used in several ways) implies that a restricted transfer might be needed. The same constraint could apply for choice between public and private schools. The education policy would be implemented in two ways depending on the person's preferences: the transfer could be circumscribed to the consumption of education (a tied transfer) or unrestricted.

In case 2 (figure 2.3), the state subsidizes primary education through fourth grade; the transfer is $0x_B$. For several reasons, case 2 is easier for the government to carry out: there is no need to discover preferences, there is no need to set administrative control, and it avoids the possibility that the person reduces consumption to a quantity between 0 and x_A . In this case, a fixed level of consumption of X , which is superior to the optimal consumption of the person (the segment $0x_B$, equivalent to the fourth grade), is mandatory. In the case of map α , given that the consumption of $0x_B$ does not need to be compulsory and is offered free of charge, the budget constraint becomes FBZ. All of the available budget will be spent on Y ($F = Y_B$).

There is no *substitution effect* because the price of X does not change and the person does not move along the given indifference curve. However, there is an *income effect* because the person's purchases of X change with changes in income, prices remaining constant. In the case of map β , the consumption of $0x_B$ has to be made compulsory because the point M, with less education and more Y , would be chosen (figure 2.3).

To sum up, a person could have one of two different sets of preferences: map α or map β . Under FBZ (the new budget constraint in figure 2.3) and depending on the person's map, there are two possible situations. First, in map α , the person prefers a higher consumption of X . Equilibrium will not be reached in the corner (B) of the new budget constraint, where the person achieves the utility level measured by indifference curve α^1 . Since optimal consumption of X is superior to $0x_B$, the equilibrium will be reached at point L, where the utility level is measured by (higher) indifference curve α^2 .

Second, in map β , the person does not prefer a higher consumption of X and the equilibrium would be reached in the corner (B) of the new budget constraint, where the person achieves the utility level measured by indifference curve β^1 . If the state transfers to the person an amount of money equal to the value of $0x_B$, the budget constraint will be PZ and the person can reach a superior level of welfare, M, on indifference curve β^2 . If the state wanted the person to consume $0x_B$ by using a monetary transfer, it would have to be much higher in order to reach a higher indifference curve.

According to its supporters, demand orientation ensures sustainability and shows evidence of commitment.⁴ The ability to choose and decide stimulates interest, participation, enthusiasm and dedication. In addition, many government programs subsidize individual recipients with services such as social security, welfare, health programs and student loans. Demand-side instruments, such as education vouchers, extend this principle to education. A way to empower girls, indigenous children, students with disabilities, and minorities in general is to allow them to ask for the services they prefer. Moreover, demand-side financing mechanisms could bring about a more efficient method of spending, either by achieving better education results with the same amount of resources or by using less public finance for the achievement of the same results.

Vouchers are mainly transfers in kind because the government gives a certification note that acknowledges an education credit. Liberals would prefer transfers in cash because transfers in kind hamper freedom. Transfers in kind do not require the state to discover citizens' indifference maps. Therefore, according to welfare liberals and egalitarians, transfers in kind are valuable and increase efficiency and equity.

Demand-Side Financing in Theory and Practice

Choice is part of the conceptual framework of demand-side financing in education and the focus is on the individual or on parents (in the case of basic education). In fact, the calls for parents' choice are usually directly related to efforts to improve education outcomes. However, even when the money is delivered to communities, demand-side tools can encourage choice.

Communities may on their own terms decide on some type of voucher program. In such a scenario, it is up to the community to ensure that the right schooling investment is made in order to encourage parents' support and participation. According to the World Bank's *Participation Sourcebook* (World Bank 1996), efforts to make the provision of education more responsive to community needs should include education vouchers for families. World Bank (1995) highlights the importance of improving education outcomes, and calls for greater participation in the financing and governance of education and in decisionmaking.

These types of financing mechanisms channel public funds directly to individuals or institutions on the basis of expressed demand. The use of demand-side financing mechanisms in the education sector is increasing in both developing and OECD nations. Of the demand-side financing mechanisms listed in this section, developing as well as industrial countries have adopted a type of school-choice voucher system (tables 2.1 and 2.2).

⁴ Voucher system proposals go back to Friedman (1980).

The Voucher System

Two main problems exist in a decentralized education system, where public, private and religious schools compete. The first is the problem of selection: parents must choose the education institution that best matches the family's expectations. The second problem is the implementation of that decision, or how parents carry out their choice. In recent years, vouchers have been widely used in developing and industrial countries precisely to address these two issues.

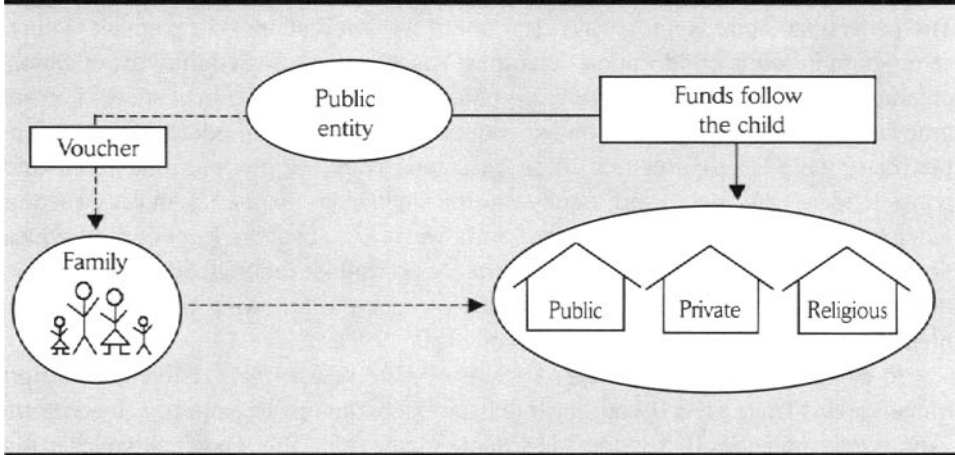
The objective of all voucher plans is to provide families with maximum choice and a practical tool for accomplishing their aims. Parents of school-age children receive the voucher in the form of a certificate. They use the voucher to pay for tuition or other admissions costs at any eligible and participating school (public, private or religious). Under this scheme, children are not assigned to schools by attendance zones or other criteria of the school system. Education is compulsory up to a legal school-leaving age and parents are free—as with compulsory third-party automobile insurance—to choose among the different suppliers of the compelled service.⁵ Parents choose a school from those approved by the government. Once this choice is made, the government pays for the education of the child. The funds go to the selected school either indirectly through the family or directly from the public entity (see figure 2.4).

When the government gives the voucher to the families, it is as a certification note, which acknowledges an education credit. Parents present the voucher to the school they have chosen. The school then presents all vouchers to the relevant government authority and receives the value in cash. The school uses the money it receives to pay for expenses such as teaching materials and salaries.

When the voucher goes to the school, government funds are directly transferred to the school selected by the parents. The government transfers a given sum (the value of the voucher) for each child enrolled. This arrangement, in which *funds follow the child*, is in fact the most common application of the voucher principle throughout the world. In general, the value is the sum needed for a specific term in school (one month, one semester or one year).

All public subsidies to private schools are forms of the voucher system. However, the term has been most commonly associated with the use of coupons, which partially or fully compensate parents for the cost of private school tuition. One feature of voucher systems is that instead of determining which private school to subsidize (focusing on the supply side), the government transfers this power to parents by allowing them to use their voucher in the school of their choice (focusing on the demand side).

⁵ A version of the voucher system can also be seen operating in post-secondary education. Since governments provide grants to universities and colleges in strict proportion to enrollment, funds follow the student. This situation is the essence of the voucher principle, especially when students have a number of institutions from which to choose. West (1996) provides further analysis of the case of higher education and explores the additional unintended voucher effect of several disguised subsidies within the student loan system.

Figure 2.4. Indirect and Direct Transfers

Since the level of funds allocated to public schools usually depends on enrollment size, the choice that parents make directly affects even the survival of the public schools.

Voucher plans have been praised as a means of using market forces to force public and private schools to provide better quality education efficiently. Traditional systems of public education allow parents a limited choice of where their children may attend school. In the absence of private schools, local public schools have monopoly power and lose no resources if they provide a poor education. Another claim made by voucher proponents is that by allowing parents to choose where their children attend school, vouchers will force schools to compete with one another for students. Schools that provide poor education services will be forced to improve or will close, and schools that use resources inefficiently will have to improve or face bankruptcy.

Perhaps the strongest objection to voucher plans is that schools will exercise choice, as will parents. Through the use of selective admissions policies, schools will be able to avoid higher-cost students, those with mental or physical disabilities, the less able and the disruptive. High-cost students will be relegated to public schools that will have fewer resources to deal with such students. In addition, to the extent that poorer children will have greater difficulty meeting entrance requirements at selective schools, the true choices available to poor parents may not expand.

Therefore, the danger is that vouchers may result in greater segregation of students and simply be a means of shifting resources from public schools educating the relatively poor to private schools educating the relatively wealthy. Critics also contend that over-reliance on vouchers would lead to a loss of civic values and weaken a country's common social background by allowing students to select schools with specialized curricula or specific cultural orientation or that serve a particular constituency.

Different Frameworks, Principles and Vouchers

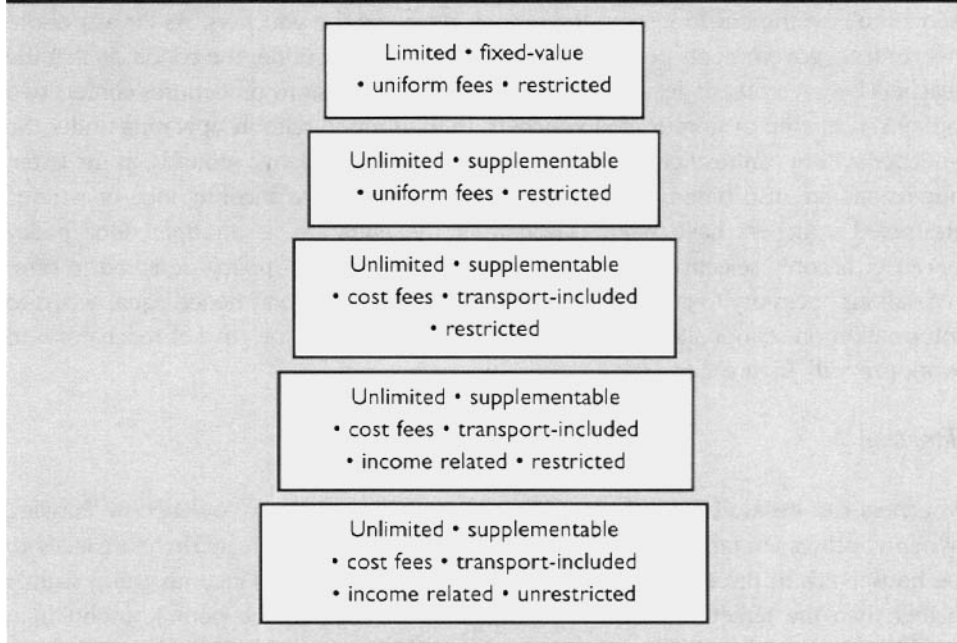
The general literature is not always clear about the implications of a particular voucher program in terms of education outcomes. Vouchers are assessed in terms of various criteria, the most common of which are parents' freedom, cost effectiveness, diversity, innovation, level of total education expenditures, and equality of education opportunities. Blaug (1984) proposes that these six criteria could be grouped into three categories—choice, efficiency and equity—in the following manner: parents' freedom (choice); cost effectiveness (efficiency); and diversity, innovation, level of total education expenditures, and equality of education opportunities (equity). Some other economists believe vouchers should be classified under the following three dimensions: finance, regulation and information (Levin 1980, 1991).

In practice, tax-funded voucher systems operate under many different regulatory frameworks. Blaug's (1984) voucher tree is probably the first attempt to categorize the various interpretations in a systematic scheme (figure 2.5). The top of the voucher tree contains one extreme, the restricted voucher. The other extreme, the income-related unrestricted voucher, which includes fees, costs and transport, is at the bottom of the voucher tree. (However, Blaug warns that the voucher tree does not capture all the nuances that may be conveyed by a particular interpretation of the concept of education vouchers.)

Figure 2.5 shows how vouchers differ from one another in fundamental ways. Different vouchers have different effects on children whose families have limited income. For example, transportation allowances may help the poor, whereas add-ons, as proposed by Friedman (1962), may adversely affect the poor if information about them does not reach all people equally to ensure fair choice. Add-ons are private funds added to the value of vouchers given by a public entity. In Blaug's (1984) terminology, these are called supplementable vouchers. This study analyzes the voucher as an instrument for financing education under the following five criteria: financing, regulation, targeting, value and choice.

Financing

Vouchers can be financed in three ways: by public entities, by private entities or by a combination of the two. Key questions are who should pay for schooling and whether the state should support public and private education (Cohn and Geske 1990). These questions logically lead to a discussion of whether public subsidies, if justified, should be given directly to education institutions or indirectly to individuals in the form of vouchers. Vouchers are tax funded when the government finances payments through fiscal revenues. In this case, it is important to define what share of the total cost should be borne by the taxpayer instead of the direct beneficiary. In a privately funded voucher system, industry voluntarily donates funds to finance scholarships for a wide choice of private schooling.

Figure 2.5. The Voucher Tree

Source: Blaug (1984, p. 164).

Regulation

Neoliberals are strong believers in negative freedom; therefore, they oppose regulation and want to see more competition in the education system. Moreover, they fear that voucher systems would seriously threaten the autonomy of independent schools.⁶

By contrast, welfare liberals and egalitarians (and, to some extent, utilitarians) think that some guidelines are necessary. Welfare liberals and egalitarians normally want governments to set up specific criteria that schools must follow if they want to be eligible

⁶ In the United States, Richman (1994) writes: "It is likely that before schools could accept vouchers, they would be required to meet a raft of standards that before long would make the private schools virtually indistinguishable from public schools." Voucher initiatives that insisted on zero regulation would stand no chance of acceptance because, "as the opposition would inevitably point out, the voucher plan would appear to authorize appropriation of 'public' money to institutions not accountable to 'public authorities.'" Expressing a similar opinion in the United States, North (1993) argues: "We will have federal guidelines operating in every voucher-using school, equal opportunity policies and quota systems of every kind, teaching hiring and firing policies, racially and religiously mixed student bodies. There will be a whole army of federal bureaucrats, not to mention state bureaucrats policing every 'private' school." In response to the government's regulatory take-over threat to private schools, Henderson (1994) points out that these institutions do not have to accept vouchers with all their tie-ins. Others also argue that the recipients of vouchers can and will lobby their government against heavy regulation, but political objections to funding both public and private schools will create increased regulation, in particular for public schools (Lieberman 1991b). Consequently, Lieberman observes, supporters of vouchers must argue that in order to approach parity, what is needed is to decrease regulation of public schools, and not to increase regulation of private schools.

in a voucher program. These criteria usually involve controls on curricula, personnel and admissions. Curriculum controls impose a minimum common background and allow the government to inspect the schools receiving the vouchers. As far as personnel controls, governments permit vouchers to operate only under the condition that the teachers be government licensed. The regulation of admissions procedures confers two options: restricted or unrestricted vouchers. In the former, schools operating under the voucher system can restrict admissions based solely on academic grounds; in the latter, admissions are also based on nonacademic factors, such as income, race or gender. Restricted vouchers have been classified in the literature as an open-door policy because the only selective criterion is merit. An information policy designed to offer regulations necessary to guarantee efficiency in coordination and hence equal access to information on school alternatives is a prerequisite to allow the market mechanism to work properly (figure 2.6).

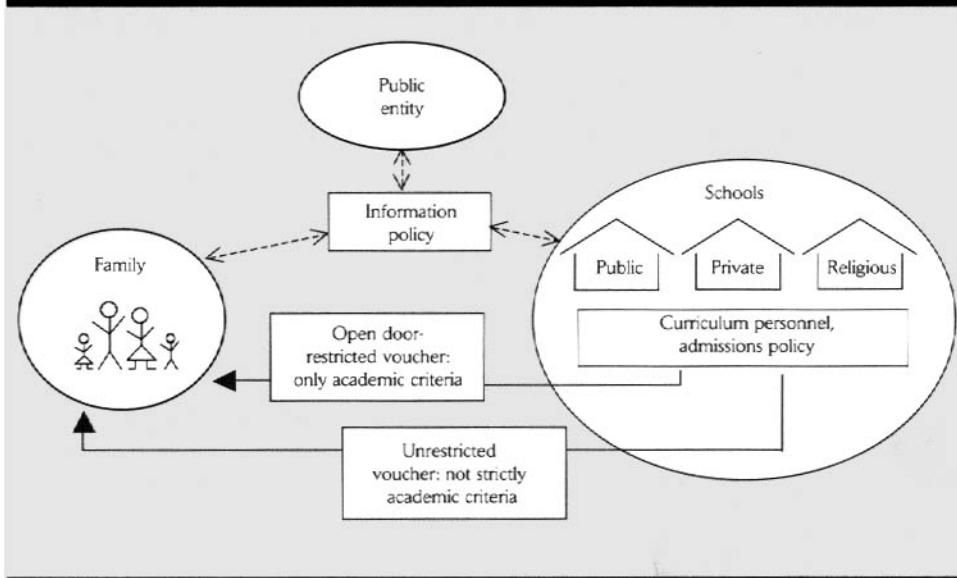
Targeting

Vouchers can be available either to all families or exclusively to low-income families. When vouchers are targeted, the targeting is not likely to be perfect. There are likely to be households in the eligible neighborhoods who belong to an income group slightly higher than the targeted group; similarly, there are likely to be poor households in wealthier neighborhoods who would have been eligible for the program had they been located in eligible neighborhoods. To receive vouchers, individuals must live in qualified neighborhoods within a qualified municipality. Furthermore, they must apply for the voucher and be accepted into a qualified private school.

Selective vouchers can be made available only to families receiving less than a given income level. This is done mostly to increase equity and it is achieved by taxing the voucher or reducing its value in direct proportion to declared family income. However, in targeted programs, where there is a need to measure the effectiveness of the voucher program, some municipalities will be given additional vouchers (the treatment group) and some will be given no additional vouchers (the control group). This scenario decreases the possibility for any particular child to get a voucher in a control municipality. There will be variation across municipalities in the number of funded vouchers because the municipality chooses the amount. This will yield variation in the intensity of the treatment across municipalities, which should affect the probability of getting a voucher.

Compared with an education tax rebate, vouchers help even those who pay little in direct taxes. Such vouchers can of course be found outside the context of education. Examples of noneducation selective vouchers are selective housing vouchers, health vouchers, and the U.S. federal government's food stamp program. Food stamps are selective food vouchers. The federal government uses an income test to determine eligibility for food stamps. Recipients of food stamps use the stamps instead of cash to

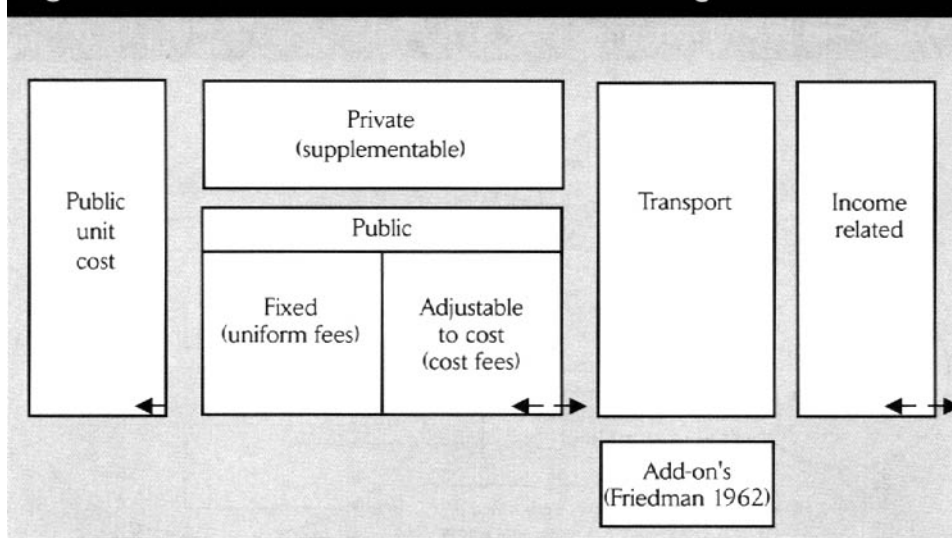
Figure 2.6. Government Regulation: Curriculum, Personnel, Admissions and Information



buy groceries. The grocery stores then return the stamps to the federal government and receive cash. This method is similar to the version of education vouchers distributed as certificates. However, the food stamp system is seriously threatened by black market operations; school vouchers would largely avoid this problem because it would be quite difficult to transfer or sell the rights to education.

Value

The value of a voucher varies widely (figure 2.7). It starts from a minimum, which can be equal to or somewhat less than government expenditure per student in public schools. Schools may take the voucher as the only form of payment. However, in many cases the costs of private and even public schools are higher than the revenues (public unit cost multiplied by the number of students). Consequently, schools may want to charge more than the value of the voucher. When private schools charge fees that exceed the public unit costs, parents will have to be allowed to complement the value of the voucher by means of supplementable vouchers. The state also allows public schools to charge fees to cover these additional costs. This can be done in two ways: with fixed supplements, called *uniform fees*, or by allowing parents to complement vouchers with their own money. This second option is known as *cost-fees vouchers*, a scheme that is similar to the supplementable vouchers used in private schools.

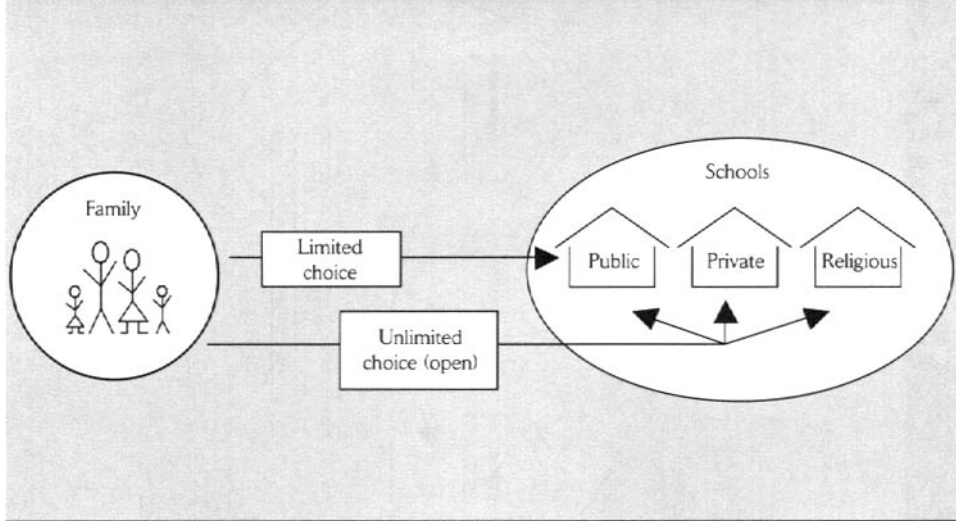
Figure 2.7. The Value of a Voucher: Different Increasing Levels

However, in the case of students who live far from school, a system of supplementable, cost-fees vouchers would not increase choice for parents unless transportation costs were also covered. Furthermore, in those cases where the opportunity cost of sending a child to school is too high, the value of the voucher could be made to vary inversely with family income.

Choice

Vouchers can provide access to public schools only, private schools only, or to all types of schools (public, private and religious schools). A limited voucher means that parents can only choose among public schools. In effect, it amounts simply to the dezoning of schools. An unlimited voucher allows parents to choose among public, private and religious schools (figures 2.8 and 2.9).

In the United States, choice does not include religious schools. Choice is considered mostly in the context of public schools. This situation curbs parents' preference for certain kinds of influences and values, especially for poorer families, who do not have the option of opting out of the public school system. However, experiments launched during the 1996/1997 academic year allowed parents to choose private and religious schools. Due to constitutional provisions, earlier school choice experiments did not include religious schools. Because the U.S. Constitution upholds the separation of church and state—a constraint not present in some developing countries—caution is needed in transferring lessons from the United States to other countries.

Figure 2.8. Choice: Limited Versus Unlimited Vouchers

Vouchers in Chile and Colombia

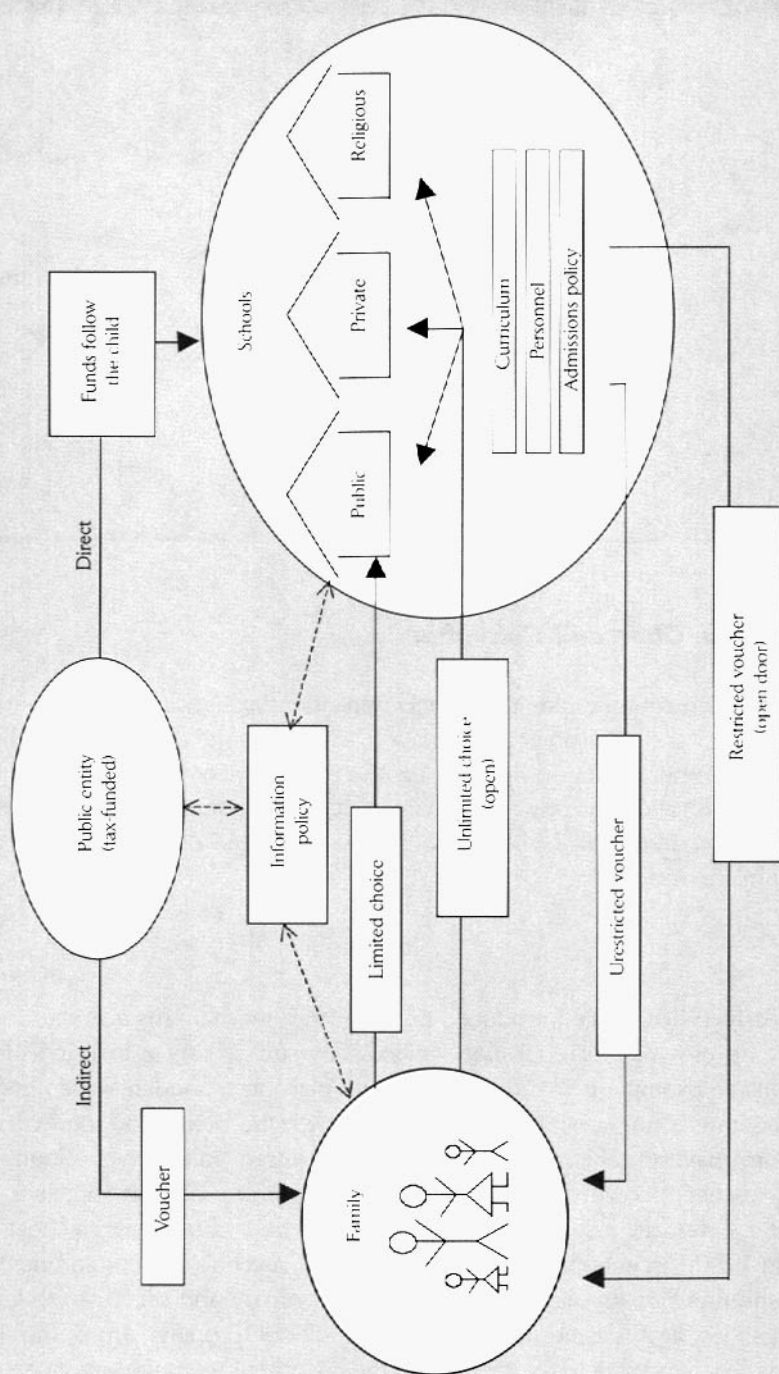
Latin American countries are increasingly implementing education reforms to promote accountability and consumer participation. Reforms introduce elements of school choice and competition and decentralize the responsibility for providing primary and secondary education. At present in many countries, these experiments are still in the planning stage. However, Chile and Colombia are ahead of schedule with respect to the rest of the region.

Chile

In the early 1980s, Chile introduced both voucher mechanisms and the decentralization of the provision of education services. The major caveat in using the Chilean reform as an example is that the reform took place in a nondemocratic political context. This case is not applicable in countries where the design and implementation of the reform have to take into account freely expressed political opposition, especially among teachers. However, the availability of data from Chile is sufficient reason to attempt a systematic assessment of the policy change and measure its effects.

The 1980 Decentralization Act assigned new revenue sources and new expenditure responsibilities—the largest of which were primary and secondary education—to municipalities and transferred to them all school property from the Education Ministry. Teachers were terminated as central government employees, given severance

Figure 2.9. Voucher Functioning: Overview



pay, and transferred to municipal payrolls. A sound institutional environment was a very favorable factor in implementing the reform. By the standards of other developing countries, management capacity at both the central and municipal level is relatively high, and the degree of public corruption is perceived to be low. As a result, it was possible to implement a financing mechanism that requires accurate counts of numbers of students in the classroom and that effectively penalizes schools for inaccurate reporting.

Chile is the only country in Latin America to have a national system of student testing. In principle, this can provide both municipalities and parents with information on their schools' performance. In practice, the results are not widely disseminated and parents seldom know either the results for their schools or for their children's performance.

All levels of government in Chile use the same standardized government accounts for budgeting and expenditure reporting, with municipal expenditure reports submitted on a monthly basis to the Finance Ministry. This financial information system provides the basis for periodic audits of municipal accounts by the country's Controller General, and helps ensure that central government grants are used as intended. Sound financial management has also been important in implementing the decentralization component of the reform as well as the specialized expertise that the Chilean public sector has contracted over the past two decades. For example, municipalities contract consultants to develop the detailed plans required to obtain central government financing of capital investment.

The central government introduced school attendance grants (or vouchers) to finance primary and secondary education. The grants provide a minimum expenditure level that municipalities may choose to augment through transfers from their other, non earmarked revenues. Municipalities receive vouchers based on the number of students attending class each month, with the base voucher level adjusted for differences in costs. In addition, the Education Ministry directly provides textbooks to schools and directly contracts for the provision of school lunches to poor children, while municipalities may also receive grants for school construction and rehabilitation from the central government's Regional Development Fund. In the early stages of decentralization, the Ministry provided municipalities with a 3–5 percent overhead grant on salaries to cover administrative expenses. Municipalities were expected to supplement the school attendance grants they received.

Vouchers can be used in any school, public or private, that does not charge tuition. Municipal and private schools obtain attendance vouchers of equal value: when the reform was initiated in 1980, the voucher was set equal to the Education Ministry's expenditures per student. By directly tying school revenues to school enrollments, they provided schools with an incentive to compete for students.

Municipal schools receive three additional types of financial assistance: in-kind transfers of school buildings from the Education Ministry to the municipalities; cash

transfers from the Regional Development Fund for municipal school construction and rehabilitation; and cash transfers from municipal general funds. The result is that municipal school revenues per student exceed subsidized-private expenditures. Private schools have considerably greater flexibility than public schools in setting teacher pay and employment conditions and in removing teachers for poor performance. In general, private schools pay lower teacher salaries than do the public schools and often employ public school teachers on a part-time basis.

When the full-cost voucher was introduced, all paid-private schools (those charging tuition) that were spending less than the voucher amount had a clear incentive to accept the voucher and become subsidized-private schools. The percentage of all primary and secondary school students in municipal schools has continuously declined since the introduction of the reform, and the share of all students in subsidized-private schools has continuously grown. Between 1979 and 1982, subsidized-private enrollments increased 35 percent. In the early 1990s, private school enrollment represented about one-third of total enrollment (Winkler and Rounds 1995). Meanwhile, the share of students in paid-private schools initially decreased (by about 27 percent between 1979 and 1982) and subsequently increased. Interviews with subsidized-private school directors suggested the trend of conversions from subsidized-private to paid-private status would continue (Winkler and Rounds 1995).

However, as the real value of the voucher declined throughout the 1980s (by 1990 its real value had decreased by almost 40 percent), paid-private school enrollments grew. The main variables that influenced this growth were heterogeneity in tastes associated with socioeconomic status or education levels of households, households' ability to pay, and school quality. Of these variables, the most difficult to measure is school quality. Among the perceived indicators of quality in Chile are the school name, the presence of school uniforms, and the background of school peers (Winkler and Rounds 1995). By 1989, paid-private enrollments were larger than they were prior to the reform and were 50 percent higher than they were in 1982.

The decrease in the real value of the voucher has also caused rapid growth in municipal finance of municipal schools: by 1991, municipal finance represented 10.5 percent of total municipal school revenues. There are two possible reasons for the large increase in private market share between 1982 and 1989 at a time when the real voucher level was decreasing. First, the demand for private education shifted sufficiently rapidly to offset the reduction in supply resulting from reduced real vouchers. Second, input prices, especially teacher salaries, decreased even more rapidly than voucher levels, resulting in continued supply increases.

Excess demand, as measured by comparing the size of the age cohort with the supply capacity of the public sector, is likely to explain demand in many developing countries. However, it is unlikely to be an important factor in Chile, where 80 percent of the primary and secondary school-age cohort is enrolled in school and where public supply is most deficient in rural municipalities. The relatively homogeneous cultural and

Table 2.3. Student Characteristics and Achievement by Type of School in Chile, 1990s

| Indicator | Public school | Subsidized private school | Paid-private school |
|---|---------------|---------------------------|---------------------|
| <i>Characteristic</i> | | | |
| Household size ^a | 5.1 | 5.1 | - |
| Monetary income ^a (thousands of pesos per month) | 110.6 | 153.3 | - |
| Percentage of households not receiving any school meals ^a | 58.3 | 76.7 | - |
| Average socioeconomic level of parents (1 low, 4 high) ^b | 0.94 | 1.27 | 2.16 |
| Years of education of head of household ^a | 7.8 | 9.3 | - |
| Average education level of parents (1 low, 5 high) ^b | 2.18 | 2.41 | 3.63 |
| <i>Achievement</i> | | | |
| Average repetition rate ^b | 9.7 | 7.8 | 2.2 |
| Average fourth-grade math score, by socioeconomic level of schools' jurisdiction ^c | | | |
| 4 (highest) | - | 65.3 | 74.9 |
| 3 | 56.7 | 58.3 | 67.2 |
| 2 | 48.4 | 51.8 | - |
| 1 (lowest) | 47.2 | 49.6 | - |
| Average fourth-grade math score ^b | 49.86 | 60.26 | 77.06 |
| Average fourth-grade Spanish score ^b | 55.46 | 61.47 | 77.41 |

- Not available.

a. For 72 municipalities in the CASEN 3 (1990) sample (Winkler and Rounds 1995). The validity of the data is constrained by three factors. First, the observations were at the municipal and not the individual student level. Second, the sample consisted of only the 70 largest municipalities in the country. Third, the measures of current (grade 8) and lagged educational achievement (grade 4) were for different students within the same municipality, and the researchers had school input data for only one year (1989).

b. For 325 municipalities from the 1990 SIMCE test and teacher questionnaire (Winkler and Rounds 1995).

c. In metropolitan areas, 1988 (Morales Frias 1990).

religious composition of the population also suggests these taste factors are likely to play a relatively unimportant role in explaining demand for private schooling. Table 2.3 presents household and school characteristics and levels of achievement for children in public, subsidized-private and paid-private schools in Chile. These data show that public and subsidized-private schools appear to be more similar than do subsidized-private and paid-private schools. Moreover, household income, education and socioeconomic status are all higher in private schools than in public schools. Finally, students in private schools have higher socioeconomic status and higher education achievement levels than do students in public schools.

Disaggregating these data by the average socioeconomic status of the jurisdiction or school, public schools perform on average about the same as subsidized-private schools in jurisdictions with high poverty rates and less well than private schools in jurisdictions with low poverty rates. The relative performance of public and private schools is measured here by the ratio of the fourth-grade score of public school students versus the fourth-grade score of private-subsidized school students in the same municipality.

The supply of private education is larger in densely populated areas that are likely to have the following characteristics: greater ease of market entry; households of high socioeconomic status, which are more likely to prefer private schooling; and group characteristics, whether measures of achievement or economic status, that affect school choice. In Chile, education outcomes would appear to be a better indicator to parents of the quality of schooling than would public school spending, which does not always reflect the quantity of school resources received by public school children.

Colombia

In the past 20 years, Colombia has invested poorly in education. Its investment was among the lowest per capita in Latin America in the 1970s and was no more than 7.5 percent of gross domestic product (GDP) throughout the 1980s (World Bank 1999). Although the country has nearly reached universal primary education among its urban labor force, less than half of its children go on to acquire secondary schooling. Currently, there is insufficient public school capacity to accommodate all fifth-grade graduates. Only a few cities have a sufficient number of public secondary schools, but the poor neighborhoods within those cities do not. Most public schools operate on two and even three shifts, and 40 percent of the country's secondary schools are run by church groups or other private voluntary organizations (IDB 1999).

In 1991, Colombia's government undertook a program that grants individual students the use of vouchers in private schools. The purpose was to increase the education opportunities open to the poorest children, and to alleviate the country's secondary education deficit. The school voucher program aimed to provide poor students with access to private schools. It was designed to increase enrollment by 546,000 in 1991–94, thus raising secondary school enrollment from 46 to 70 percent (van der Gaag 1995).

Administration and financing of the voucher program are a partnership between central and local authorities. The municipal government bears 20 percent of the voucher costs; the central government pays the remaining 80 percent. Municipalities are given more responsibility to plan and allocate resources; they determine the number of vouchers they need and can afford to co-sponsor under the secondary school voucher program, up to the maximum set by the central government. Central and local authorities share the promotion, collection/dissemination of information, and monitoring aspects of the program. Private schools also participate.

In order to qualify to participate in the voucher program, private schools had to have adequate health and education facilities and needed to be licensed by the Secretary of Education to grant the baccalaureate degree. Additional requirements include giving achievement tests in mathematics and language skills to all students at the beginning and end of the academic year. If their students' scores on national exams were at least equal to those achieved by students in public schools, then private schools were judged to provide an adequate quality of education.

Consumer and Producer Surplus

The voucher works as a uniform pricing scheme and its differential welfare effect can be illustrated with standard economic techniques. This section discusses areas and gains associated with consumer and producer surplus.

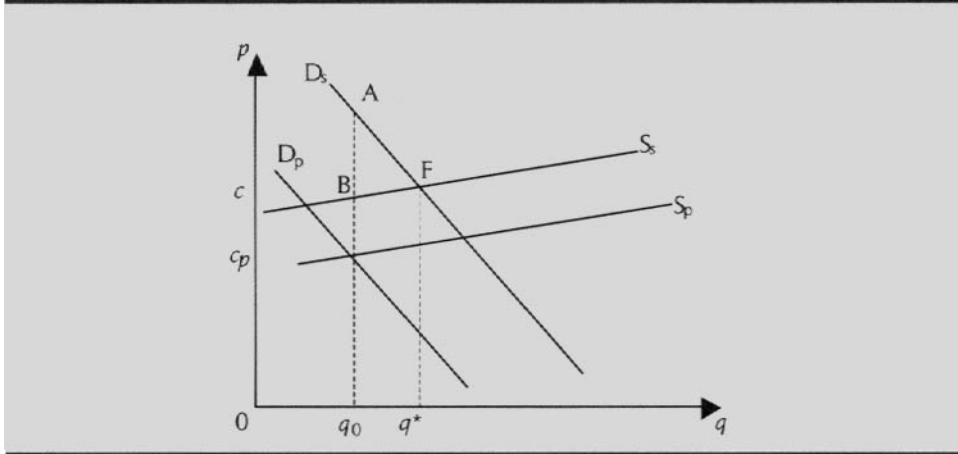
Definitions

The consumer surplus is the area under the social demand curve for good q (education). The producer surplus is the excess of revenue over what is minimally required (in the short run, the total variable cost; in the long run, the total cost) to induce the producer to keep producing. Producer surplus depends on whether the system achieves full capacity. The sum of consumer surplus and producer surplus is the welfare of society. Losses of welfare are losses of efficiency.

For this example, assume that prices are zero for primary education because vouchers are delivered. Private (D_p) and social (D_s) demand for education are not equivalent for reasons such as externalities, failures in related markets and concerns about equity. The total social marginal cost of providing the service is assumed to be constant at c . This unit cost is the sum of directly incurred private costs (c_p), exclusive of prices, and the unit cost (value of the voucher) borne by the government provider (cc_p). Public provisioning may have price-insensitive supply; hence, the supply curve is vertical. Of course, if full capacity is achieved, the producer surplus does not increase. Conversely, private providers are price sensitive. The aggregate supply curve here is supposed to be positively sloped. This assumption, probably wrong for public schools, is due to the underutilization of private schools. Overall, the example assumes that full capacity is not achieved.

The socially optimal amount of the education service that should be provided and consumed is that amount at which the additional gain to society from another unit of consumption would equal the additional cost. In figure 2.10, this is q^* , where D_s is equal to c .⁷ In figure 2.10, the presence of private costs inhibits demand too much, and

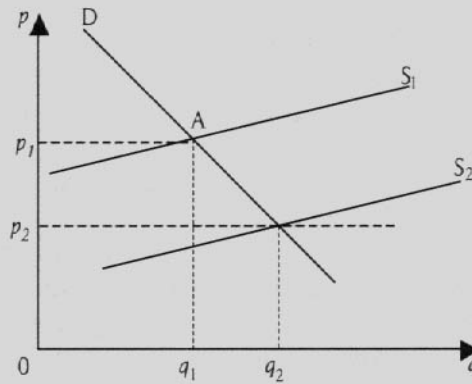
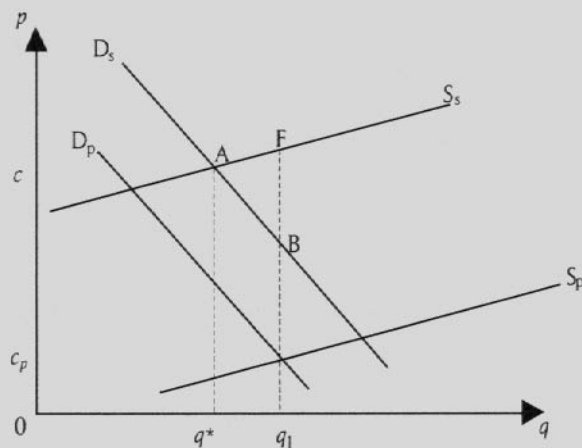
⁷ Although for some countries q^* may be equivalent to declared social objectives, such as universal primary education, these objectives may imply magnitudes beyond q^* . They are frequently formulated without regard to c , the cost to society of providing them.

Figure 2.10. Underutilization of Free Education

consequently vouchers are needed to avoid an inefficiently low use of the service. Thus, q_0 is less than q^* . This figure might depict the case for primary education, particularly in rural areas. Transport and opportunity cost would be the principal components of private costs. The area ABF in figure 2.10 represents the social loss.

Gains (or losses) in producer and consumer surplus are gains (or losses) in efficiency. The dimension of these gains (or losses) depends on the slope of the demand and supply curves and has an impact on equity issues. For example, one of the assumptions underlying efficiency in production is that an increase in consumer surplus (which is an efficiency improvement) frees resources for alternative uses. Of course, the equity improvements depend on who receives that additional surplus. On the other side, if producer surplus increases and the producer is the public sector, the efficiency improvement (decreased expenditure) makes resources available for investment, for example, in targeted programs, improving equity in capabilities.

Figure 2.11 gives a graphical explanation of efficiency in production and efficiency in allocation, in which vouchers result in overutilization of the service. Some services, such as secondary and tertiary education, may have substantial externalities, and private costs are a small proportion of the total cost because of scholarships. In figure 2.12, this results in overutilization so that q_1 is greater than q^* . Other services may imply high private costs, but with little externalities. Area AFB in figure 2.12 depicts the service losses if the service is not rationed.

Figure 2.11. The Effects of Vouchers on Supply**Figure 2.12. Overutilization of Free Education with Low Private Cost**

The Effects of Vouchers on Choice, Enrollment and Achievement

Vouchers are expected to increase private school enrollments both by easing the supply constraint and by lowering the price of attending private schools for children of less affluent families. Whether the vouchers will indeed increase total enrollment depends on how well they are targeted. In the case of voucher recipients who would have elected to go to private school anyway, the voucher is simply a cash transfer, with no impact on the choice of attending a public or private school. For voucher recipients who would have gone to a public secondary school without the voucher, the voucher causes private school enrollments to go up and public enrollments to decline, with no change in total secondary enrollments. Some voucher recipients would not have attended school at all without the voucher and their enrollment will increase private school enrollments as well as total enrollments. Table 2.4 sums up this logic, assuming that funds follow the child.

With vouchers, there are additional benefits when students transfer from public to private school. To the extent that public secondary schools are oversubscribed, especially in developing countries, such transfers will relieve the enrollment pressure in those schools, raise teacher-student ratios, and reduce textbook shortages. If these shifts signal an improvement in public school quality, some students who might otherwise drop out may remain in school longer as a consequence. Therefore, transfers induced by the voucher plan may not have neutral effects on total enrollments.

The effect of vouchers on achievement is likely to differ for each of the six groups outlined in table 2.4. For recipients who would have attended the same school even in the absence of vouchers, the voucher plan will have no effect on achievement (other things equal). Students who switch from public to private school as a result of the voucher plan have a strong incentive to improve achievement due to the threat of losing the voucher if they fail to meet the requisite grades. In addition, students who switch to private schools may improve their achievement to the extent that their new private school offers a better education than their old public school. Conversely, students who switch from private to public school would have improved achievement if public schools offered a better quality of education. The voucher plan is clearly associated with higher achievement for students who would not be in school at all (due to no enrollment or dropping out) without the help of the vouchers.

Efficiency and Equity: How Different Concepts Yield Different Voucher Programs

In the literature on vouchers, the terms efficiency and equity have different meanings in different contexts. This section attempts to clarify these concepts by scrutinizing the objectives of different voucher programs in several education systems in terms of the six main categories of efficiency and equity developed in chapter 1. The analysis addresses

Table 2.4. Effects of Vouchers on Choice and Enrollment

| Choice of recipients | | Impact of voucher policy on | | | | | Significance of voucher | Surplus | | Countries with this type of program |
|----------------------|----------------|-----------------------------|----------|----------|----------|--|---|----------|--------------------|--|
| Without voucher | With voucher | Choice | Public | Private | Total | Achievement | | Consumer | Producer | |
| Private school | Private school | None | None | None | None | None (same school) | Cash transfer to recipient/school | Increase | Same | Chile, Colombia |
| Public school | Public school | None | None | None | None | None (same school) | None | Same | Same | Japan, the Netherlands, Sweden |
| Public school | Private school | Yes | Decrease | Increase | None | Increase (if private schools are better) because of threat of losing voucher | Incentive to switch from public to private school | Increase | Increase (private) | Belize, Canada, Chile, Colombia, the Netherlands, Sweden, Puerto Rico, New Zealand, United Kingdom |
| Private school | Public school | Yes | Increase | Decrease | None | Increase if public schools are better (industrial countries) | Family saves money (no private tuition) | Increase | Same | New Zealand |
| No school | Private school | Yes | None | Increase | Increase | Increase | Incentive to enroll (covers opportunity cost) | Increase | Increase | Baluchistan (Pakistan), Canada, Dominican Republic, Puerto Rico, Poland, Milwaukee (United States) |
| No school | Public school | Yes | Increase | None | Increase | Increase | Incentive to enroll (covers opportunity cost) | Increase | Same | Bangladesh, China, Guatemala, Gambia, Morocco, Mozambique, Lesotho, Puerto Rico, Jamaica |

whether different kinds of efficiency and equity influence the design of a voucher system and examines the effect of the voucher instrument on efficiency and equity.

Efficiency

This study aims not only to evaluate whether vouchers increase efficiency in the system, but also to look at the kind of efficiency and the objective of the voucher policy. In short, it examines whether the original objectives have shaped the voucher design and have eventually been met. This section describes efficiency in terms of efficiency in production, efficiency in coordination and efficiency in allocation (see chapter 1).

Efficiency in Production

Vouchers in Belize, Canada, Chile, Colombia, Japan, Lesotho and the Netherlands have been designed mainly to increase efficiency in production and hence improve efficiency in allocation. The underlying assumption is that efficiency of education production functions will increase. It is possible, under a voucher system, for children to score higher on tests with less input; in this way vouchers can improve the quality of education delivery. The key of the argument is the promotion of competition. Vouchers present an incentive that might lead to competition, which in turn brings about lower costs, increased average quality of education, and dynamic innovation. Proponents of this view generally agree that private schools are more efficient at producing private benefits through more effective teaching of the basics such as reading, writing and arithmetic. The reasoning is that private schools are motivated by competition and therefore produce greater output (in terms of the basics) per dollar spent than public schools, which are usually monopolies.

However, forgetting all other types of efficiency, it could look as if competition would have negative effects.⁸ In Chile, Colombia, the United Kingdom and the United States (privately funded vouchers), one of the most frequent arguments of teacher and administrator unions within the government sector is that a voucher system will destroy the public school system. According to Wilkinson (1994), this kind of argument rests on the questionable assumption that the public school system will refuse to adjust in the face of competition from private schools.⁹

⁸ For example, a forerunner of the voucher system was in place in England from 1862 to 1897. In this program, school resources were tied to student attendance and measured achievement. As a result, school enrollments increased, more students passed standard ability tests, and several schools closed due to bankruptcy. However, the policy led to significant rote learning based on the need for students to master the information covered on the standard tests. Better students were ignored, as teachers spent more time trying to get the weaker students up to standard (Rapple 1992).

⁹ Holmes (1990), another supporter of this view, maintains that, "there is no reason why inner-city schools of the future, where alternatives are available [with vouchers], will be worse than the ones at the moment where there is no choice."

Bearing in mind the great variety of cultural aspirations present in modern societies, family consumers of private benefits from education could claim that the education quality that they seek is not adaptable to a common curriculum.¹⁰ The transaction costs of delegating such a colossal task to the government are prohibitive and make such a delivery of varied services impossible. Advocates of vouchers claim that private schools, as well as public schools, are direct producers of externalities (Hettich 1969), although they also generate them indirectly (West 1991). The indirect assistance provided by private schools in the production of public benefits is just as important as the immediate and direct production of education, such as increased workforce productivity, economic growth and reduced poverty and inequality.

A further concern of voucher opponents is that the use of vouchers in education might result in fraudulent practices, thereby decreasing productive efficiency. Murnane (1983) makes the analogy with food stamps in the United States, where experience has shown that unscrupulous parties make claims for fictitious individuals. However, Schmidt (1995) shows that serious shortcomings of fraud and dishonesty are already present in the public school system.

In Chile, municipal schools and subsidized-private schools improved efficiency in production. Municipal (public) schools often had excess physical and teaching capacity; thus, enrolling an additional student generated revenues (the voucher) in excess of marginal cost and permitted reductions in municipal finance. Subsidized-private schools, whose recurrent costs were lower than those of the public schools, could also maximize profits (in the form of director/owner salaries) by enrolling students up to the school's physical capacity.

Private education in Chile differs because of ownership and price. The traditional private school has an affiliation with some nonprofit (religious or civic) organization, often has an elite clientele and charges high tuition levels. In addition, its access to donated capital and volunteer labor reduces its costs. The supply of education at traditional schools is likely to be relatively inelastic with respect to input prices and voucher levels, although vouchers are likely to influence decisions about accepting tuition. The new, nontraditional private school is sectarian, frequently owned by former teachers in the public system, and typically receives most of its revenues from the government voucher. Although it is required to be a nonprofit institution, it may be *de facto* profit seeking with surplus revenues captured by the owner/director of the school. Hence, the supply of education by new schools is likely to be more elastic with respect to input prices (mainly teacher salaries) and the voucher level. Since public schools already exist in all municipalities, private supply is also affected by the opportunity for market entry, which is likely to be easier in larger metropolitan areas that could support both public and private schools.

¹⁰ Some economists contest this claim. Cohn (1979), for instance, observes that, in practice, public schools in the United States have successfully resisted attempts to homogenize their procedures so that "a student in one school district might receive an entirely different set of common values than his counterpart in another school district."

Efficiency in Coordination

Efficiency in coordination has often been forgotten because it is assumed as a given; however, this is where voucher systems have failed the most. Proponents of the voucher system claim that vouchers will make education delivery more efficient because schools will attract students with the appropriate vocational aspirations, qualities and backgrounds. In terms of economic theory, this is the process that brings the appropriate inputs to producers. It is often argued that vouchers and school choice will help increase vital access to information. Proponents claim that vouchers will increase market transparency and therefore access; every student (or the parents) will know about every school and will have the possibility to enroll in the chosen one. At the end of the process, the marginal cost to the school will be equal to the value of the voucher.

Some opponents of the voucher system believe that this mechanism would not achieve efficiency in coordination. For example, Krashinsky (1986) focuses on what he calls the transaction costs of obtaining the public benefits of education. His position is that since the public benefits are so subtle, the transaction costs are disproportionately high and the government cannot afford to contract out to private suppliers. Others would say that this argument is weak because the central government still faces similar transaction costs in issuing instructions to thousands of school districts, which in turn face even higher costs in supervising tens of thousands of individual public schools.

Opponents think that maintaining the conditions for efficiency in coordination (avoiding market failures and distortions and, in particular, providing information) would be expensive and infeasible. Market-oriented choice may require unusual amounts of regulation that would be costly and unmanageable to maintain and enforce (Murnane 1986). Under the market system, more information is necessary and, because of the element of change, the dissemination of this information is necessarily costly. The overall costs of sustaining information, regulation and other parts of the market system while providing at least a minimum level of social protection could be very high relative to the public-choice approach (Levin 1991).

Proponents observe that low-income families are residentially stratified and their children are typically sent to the schools nearest their homes. Therefore, if low-income parents want to choose a better public school in a middle-class area, they are obliged to purchase a home there. Usually, however, the housing prices are so prohibitive as to prevent the move. Middle-class families have greater mobility because they are less financially restricted. Under this system, public schools deliver education regressively and the provision is heterogeneous, with the poor, on average, receiving the worst quality. Vouchers would help remove the barriers to mobility by allowing the poor to attend schools outside their neighborhood without having to buy a house.¹¹ This would

¹¹ Friedman and Friedman (1980) assert that the voucher system also promotes the reduction of poverty and the promotion of equal opportunity. They claim that liberty, equality of opportunity and the reduction of poverty are complementary and not competitive goals of the voucher system.

improve the coordination mechanism, leading to an efficient process of allocating students (inputs) to schools (the producers of education).

Efficiency in Allocation

Allocative efficiency means that the system is at the point where every child is enrolled at the school that matches parents' preferences and that best enables the development of the child's potential. Allocation is efficient when the opportunity cost of a child receiving a given education is at its lowest level. According to voucher proponents, consumer choice allows the achievement of allocative efficiency. In the field of education, consumer choice is parents' choice because parents choose schools for their children. Under a voucher plan, government caters to the consumers of education, parents, rather than the suppliers of education, schools. Vouchers provide a means for changing the way the central government allocates funds to local agents, and vouchers increase the participation of the private sector. According to voucher proponents, allowing local agents to influence the allocation of funds will result in more efficient use of the funds than in a traditional, centrally directed project. This line of reasoning corresponds to the need for institutional innovations that lead to decentralization and privatization.

When vouchers are designed to improve efficiency in allocation, they have to solve the public good problem. The belief that public school possesses an absolute advantage in producing the benefits of public goods remains strongly entrenched among education policymakers as well as among some economists. They emphasize that the education of a child provides not only private benefits to the child's family (mainly by increasing income or the expectation thereof), but also public (or external) benefits to society (Krashinsky 1986). Public benefits include poverty reduction and the pursuit of common values, which bring about greater social well-being and a population more open to democracy.

Some participants in the voucher debate, such as Krashinsky (1986) and Levin (1991), claim that public schools have a unique ability to produce common values. Some economists object to school choice provided by vouchers because they believe families will not trade private for public benefits, but will allocate their expenditures on the basis of their private benefits exclusively. This is the famous public good problem: maximization of private benefits does not coincide with maximization of public benefits. Consequently, the system will produce less than optimal public benefits.

Other economists claim that there is a trade-off between private and public benefits. If the education system adopts the economic model of joint supply, then increased public benefits would lead to fewer private benefits. In the allocative efficiency debate, the costs involved in tax collection are a key concern that swings the pendulum in favor of private schools (West 1991). According to the Reason Foundation Study, these costs amount to 50 to 80 cents per dollar. Most studies find that public education is more costly than private education (Lott 1997).

In the Reason Foundation Study conducted in 1992, 52 percent of the respondents said that they would use a voucher to send their children to private schools. If those parents were to carry out their intentions, the savings to the state of California would equal \$3 billion, almost 14 percent of the state education budget (Beales 1992). The reason for such big savings would be that fewer students would attend public schools, lowering their costs. Furthermore, according to this study a voucher program would break even if only 17 percent of students crossed over to private schools. However, it is important to point out that the savings are all earned at the state level, not at the district level. For a voucher program to be efficient at the district level, the number of students who leave district schools to attend private schools must be large enough to reduce fixed costs (buildings, transportation, libraries and debt repayments).

Some opponents claim that instituting a voucher system would inefficiently allocate public funds because the element of rational choice would not be present among poor people due to their lack of awareness, that is, they would not be able to make a wise decision about where to enroll their children. This suggests a case of possible asymmetric information. Other opponents of the voucher system focus on what they call the inequitable windfall gains for families (usually the wealthy) who customarily purchase private education. In other words, state expenditure would increase by the extension of vouchers to rich private school clients currently not financed by the government (Gemello and Osman 1983); the case of Chile is a clear example. However, West (1985) and Seldon (1986) point out that total costs to government could fall depending on the value of the voucher as a proportion of per capita public school costs. According to Friedman (1993), government savings would occur if the voucher value were 75 percent of public school costs. The implication of this reasoning is that the cost of the windfall gain to accustomed users of private schools would be offset by the savings generated by public-to-private-school migrants who would now cost the government 25 percent less than before.

Voucher supporters emphasize that private schools can deliver education at lower cost than public schools. Consequently, their argument in support of vouchers looks more consistent if private schools receive vouchers valued at less than 100 percent of the average cost per pupil spent in public schools. The windfall gains problem could also be handled by making vouchers subject to tax. Moreover, the choice of a selective voucher restricted to low-income families would be even more effective. In such cases, high-income families now patronizing private schools would automatically be prevented from enjoying windfall gains. Every action focused on improving the organizational design brings about an improvement of efficiency in allocation, which does not always come along as automatically as Friedman asserts.

A final pro-voucher argument is the organizational issue. Friedman separates the voucher issue into three levels: whether education should be compulsory, whether it should be financed by the government or privately, and how it should be organized. His position is that, whatever the answers on the first two levels, a voucher scheme will

undoubtedly produce a better and more effective organization than the present one. Friedman's position indicates that he (as well as Richman and North) believes that there are also benefits in eventually removing compulsion and government finance. But Friedman is concerned with the question of how to get there from here. He believes that vouchers are still a practical transitional measure (Friedman 1993). For Friedman, vouchers remain a superior alternative to a system of schools that the government runs and finances.

Equity

In the literature, the term equity can mean equal access, equal resources, student achievement or future income. Moreover, often it is not clear whether equity should be achieved among persons, regions or states. This section describes equity in terms of equity in access, equity in capabilities and equity in results (see chapter 1).

Equity in Access

Vouchers in Chile, Guatemala and New Zealand are designed to achieve equity in access. This kind of equity is achieved when a student—who is willing and able to benefit from a particular type of education—does not have to face a higher-than-normal burden because of irrelevant or discriminatory criteria such as income, region, race, gender or religion. In this context, an equitable distribution of education does not necessarily mean that everyone should receive exactly the same amount of education because needs and capabilities may vary. Rather, it usually means that there should be universal equality of access to the education process, even if it is true that some students get more out of it than others.

According to proponents of voucher programs, one of their objectives is to provide low-income families with access to private schools and the programs achieve this objective by providing choice. West (1994) and Becker (1995) advocate selective education vouchers that enable low-income families to gain increased access to private schools.¹² Furthermore, by increasing access to information, vouchers would promote access to willing and able students. Coleman (1990) shows that racial segregation in the public school system is greater than in private schools. Lieberman (1991) finds that the single largest group of for-profit schools in the United States caters to the disabled.

¹² Becker's recommendation is based partly on fiscal considerations, "but mainly because the bottom quarter or so of the population are most in need of better education." He quotes various studies that show that "students from disadvantaged backgrounds tend to gain the most from attending private schools." These studies also find U.S. private schools to have higher performance than public schools. This better performance is not necessarily because private schools are better, but because students going there come from richer and better-educated families. This happens, he observes, "in light of the more extensive choices available to middle-class and rich students;" vouchers would give the same option of choice to low-income families.

Meanwhile, Blum (1985) provides evidence that urban private schools maintain a higher level of discipline than do public schools. Consequently, children from low-income sectors, minorities, the disabled, and those with disciplinary problems would greatly benefit from voucher systems that provide them greater access to more suitable schools.

Opponents agree that choice has merit in theory, but they have several reservations regarding its practical application. Some opponents object that vouchers will create two standards of education delivery: the private, which would cater to the best students, and the public, which would be burdened by the excessive cost of education to all the rest. Such a situation would aggravate poverty and racial segregation because of the logic of the free market. Krashinsky (1986) argues that with the introduction of vouchers, middle and upper-class parents would desert the public system in favor of private schools that discriminate in various ways against poor, disadvantaged or minority applicants. The poor would be left in gutted, underfunded and decaying public schools.

In particular, opponents believe that low-income families would not benefit because the poor are not able to make the best choices; therefore, a voucher-based education finance system would increase social stratification. Shanker and Rosenberg (1992) argue that, under a voucher system, for-profit schools would reject difficult-to-educate children. Others fear that independent schools receiving vouchers will be overly regulated so as not to be independent anymore.

Equity in Capabilities

Welfare liberalism supports the concept of equity in capabilities. According to this view, the objective of providing full education to every citizen is desirable but not always possible to achieve because available resources are limited. Thus, a less stringent definition of equity is adopted: equity is achieved when everyone is given the same minimum amount of education that guarantees equal opportunities. Welfare economists believe that this should be a basic right. In practice, some students may obtain more education than others, but none should be denied the basic minimum amount because it is not only essential in enhancing personal positive freedom, but it is also a social necessity.

Proponents claim that vouchers should be designed to provide the minimum amount of education necessary for equal opportunities. In fact, vouchers would not only increase negative freedom, they would also foster positive freedom, which is a prerequisite for equity in capabilities. The goal of the education system is to enable individual will and the provision of more general social skills. Positive freedom would be achieved because vouchers provide the minimum guaranteed education, stimulate personal advancement, and give people the ability to shape their own destinies.

An example of the achievement of equality in capabilities through voucher plans is when the value of the voucher is adjustable to situational needs, for instance, transportation, access to information, admissions criteria and family income. This helps the poor because all of these adjustments are made specifically to alleviate problems that

they encounter in gaining a minimum amount of schooling. A practical example of how the targeted use of vouchers increases equality of opportunity is seen with selective vouchers, which can be allocated on the basis of gender as well as income. In Bangladesh, for instance, vouchers are supplied exclusively to females in grades 6–10. Another case is Guatemala, where the government provides vouchers to selected low-income families with females aged 7–14 years.

As usual, proponents and opponents of vouchers have different views on the issue. According to the proponents, the voucher system attempts, in general, to increase citizens' choice, in particular, parents' awareness and discretion. Parents who have until now been denied choice will, after some initial experience, become more savvy when making choices. Given that consumer choice is a type of personal advancement, vouchers would improve positive freedom and equity in capabilities. In a democracy, if there are serious impediments to decisionmaking by parents, such problems will also show up at the ballot box when parents choose political representatives that will make decisions on education. Moreover, empirical studies have shown that parents who themselves have only modest amounts of education make rational choices for their children (Fossey 1994).

Opponents agree that choice has merit in theory, but disagree on its practical effects. Some opponents object that vouchers will invalidate public delivery and aggravate the problem of finding opportunities. A common argument against vouchers is that parents cannot be expected to make sound choices for their children (Carnegie Foundation 1992; Levin 1991; Bridge 1978; Wells and Crain 1992). This suggests a case of possible asymmetric information.

Parents' education plays an important role in average education levels among children. In Latin America, the average increase in school attainment for a child whose mother has secondary or greater education, as opposed to a mother with no education, is 3.5 years in nonindigenous areas. Similar differences exist in indigenous areas. Where comparisons are available, the impact of parents' education is greatest in less indigenous areas. The employment of the head of the household also has a clear impact on a child's average education attainment.

Opponents of vouchers argue that this tool is irrelevant in poor areas or rural regions because often, with only one school (or few schools) available in a rural village, there is no choice to be made. Therefore, there is no point in instituting a voucher system. However, pro-voucher economists respond by saying that even in such areas, parents still have a choice to make. Given the high levels of poverty and the low quality of education, parents may choose not to send their children to school at all. In some rural areas, enrollments decline continuously and public school teachers continue to be paid, even when they do not show up for classes. Therefore, the issue of choice is not irrelevant in rural areas because of opportunity costs. Moreover, vouchers would give parents awareness of the fact that they have the right to send their children to school and that they are entitled to funds that will finance this right.

Given the paucity of experience, most empirical studies simulate responses based on estimates of private school demand. For example, Lankford and Wyckoff (1992) predict that religious school enrollment in New York would more than double if tuition were set to zero, the equivalent of a voucher plan that paid tuition in full. More-educated, higher-income parents were found to be more likely to participate in the voucher program, although the school composition effects were small. Manski's (1992) simulations show that wealthy families have a greater propensity to send their children to private schools, with or without voucher plans, but vouchers do tend to increase the share of poor children in private schools.

Equity in Results

The concept of equity in results is the most complex one because of the need to define the results. According to voucher proponents, if results are student achievement and costs, then access to private schools will provide greater equality in results. Generally, studies of the relative performance of public and private schools in developing countries appear to match those in the United States. For instance, an analysis done by Lockheed and Jimenez (1994) of private and public secondary schools in five developing countries reveals a significant private school advantage in terms of both student achievement and unit costs.

Moreover, according to voucher proponents, results should take into account personal preferences, and narrow assumptions about self-interest should be abandoned because individuals maximize welfare as they conceive it.¹³ This view is supported by the Reason Foundation study conducted in California, which found that 52 percent of those surveyed would use a \$2,600 voucher to send their children to private schools because they would get better "results" (Beales 1992). The greatest support expressed for such a program came from households earning less than \$25,000 a year. Two-thirds of African-American parents with school-age children and about 58 percent of all minorities (including Latinos and Asians) indicated that they would use the vouchers.

Voucher supporters say that this tool would increase the possibilities of low-income groups getting better education results. In fact, Krashinsky's fear that middle-income parents would desert the public school system with the aid of vouchers would have no basis if vouchers were allotted exclusively to low-income families. This is the case in such widely different places as Bangladesh, Chile, Colombia, Puerto Rico, the United Kingdom and the United States. By most reports, these systems are improving the condition of the poor relative to the rest of society.

¹³ One pertinent example is the case of the members of the Polish Civic Education Association in the late 1980s objecting to the national school system inherited from the collapsed communist regime. Their position was that they wanted to maximize welfare as they, as individuals, perceived it, and this was to be a welcome change from having welfare defined and imposed by "totalitarian authorities or highly-centralized bureaucracies." (Glenn 1995)

According to opponents, vouchers would exacerbate differences in results: the poor would go to the public schools with lower quality, texts, teachers and infrastructure, and would thus receive a lower quality of education. The middle and upper classes would attend private schools that would provide them with greater education results. Moreover, opponents say that a voucher program would bring about an inequitable allocation of public resources because private schools would make money from it, and this would increase education differences among the population. Market-oriented choice may require an additional cost to society in ensuring adequate education results. For example, Krashinsky's (1986) implicit assumption is that the public school system benefits the poor in a way that is superior to any alternative.

Williams and Echols (1992) examine the effects of moving to a system of limited parent choice in Scotland. In 1979, the United Kingdom passed legislation that gave parents the right to request placement of their children in schools outside their home district. This decision essentially meant choosing one public school or another. The study shows that parents with higher education and more prestigious occupations were more likely to request transfers for their children. As a result of the program, schools that had a net gain in students tended to have higher average test scores and students from higher socioeconomic groups. Moreover, students did marginally better in the chosen schools than they might have been predicted to do in their home school.

Colombia has taken action in order to progress toward equity in results. One of the goals of the secondary education project is to expand access to quality schools. To upgrade the quality of schools, the national government also established incentives for commercial lenders (similar to guarantees offered for lending to small businesses) to encourage lending to finance improvements in private schools. In this way, the private sector has helped the government to find a solution to the problem.

Concluding Section

In the majority of countries, expenditure on education has historically subsidized inputs but not demand. The state has assumed primary responsibility for financing and in most cases for providing education services. In recent years, both internal (mainly poor resource management and inadequate institutional organization) and external (prevalently technological and political revolutions and multicultural issues) factors have caused supply-driven expansion of schooling to run into trouble. These difficulties in education delivery correspond with increased interest in vouchers, which supporters believe will generate better incentives for service providers and give clients a voice and formal participation in decisionmaking through school choice.

Nonetheless, the real effectiveness of vouchers as a policy instrument is unclear, especially because economists' underlying value judgments influence their main findings in the literature. For example, the design of a voucher program as an instrument

Table 2.5. Types of Vouchers Associated with Different Combinations of Efficiency and Equity

| Equity | | | |
|-----------------------------------|--|---|--|
| Efficiency | In access | In capabilities | In results |
| Efficiency in production | <ul style="list-style-type: none"> Financing: public (tax funded), private or mixed (add-ons and supplementable) Regulation: minimal (threat to autonomy of independent schools) Targeting: availability to all families Value: equal to or less than government expenditure Choice: unlimited (open). More competition, higher efficiency Voucher type: limited, fixed-value, uniform fees and restricted | <ul style="list-style-type: none"> Financing: public (tax funded), private or mixed (add-ons and supplementable) Regulation: controls curricula, personnel, admissions (restricted vouchers), incentives and information policy Targeting: all families or low-income families (selective vouchers) Value: uniform fees, cost-fees, supplementable and transport (add-ons) Choice: unlimited (open) Voucher type: unlimited, supplementable, cost-fees, transport-included and restricted | <ul style="list-style-type: none"> Financing: public (tax funded) or mixed public-private (add-ons and supplementable) Regulation: controls curricula, personnel, admissions (unrestricted vouchers), incentives and information policy Targeting: exclusively low-income families (selective vouchers) Value: uniform fees, cost-fees, supplementable, transport (add-ons) and income-related Choice: only public schools (limited) Voucher type: unlimited, supplementable, cost-fees, transport-included, income-related and unrestricted |
| Efficiency in coordination | <ul style="list-style-type: none"> Financing: public (tax funded), private or mixed (add-ons and supplementable) Regulation: stresses incentives and information policy Targeting: availability to all families Value: uniform fees, cost-fees and supplementable Choice: unlimited (open) Voucher type: unlimited, supplementable, uniform fees and restricted | <ul style="list-style-type: none"> Financing: public (tax funded), private or mixed (add-ons and supplementable) Regulation: controls curricula, personnel, admissions (unrestricted vouchers), incentives and information policy Targeting: all families or low-income families (selective voucher) Value: uniform fees, cost-fees, supplementable and transport (add-ons) Choice: unlimited (open) | <ul style="list-style-type: none"> Financing: public (tax funded) or mixed public-private (add-ons and supplementable) Regulation: controls curricula, personnel, admissions (unrestricted vouchers), incentives and information policy Targeting: exclusively low-income families (selective voucher) Value: uniform fees, cost-fees, supplementable, transport (add-ons) and income-related Choice: only public schools (limited) |
| Efficiency in allocation | <ul style="list-style-type: none"> Financing: public (tax funded) or mixed public-private (add-ons and supplementable) Regulation: restricts vouchers, stresses incentives and information policy Targeting: availability to all families Value: uniform fees, cost-fees and supplementable Choice: unlimited (open) | <ul style="list-style-type: none"> Financing: public (tax funded) Regulation: controls curricula, personnel, admissions (unrestricted vouchers), incentives and information policy Targeting: all families or low-income families (selective vouchers) Value: uniform fees, cost-fees, supplementable, transport (add-ons) and income-related Choice: unlimited (open) Voucher type: unlimited, supplementable, cost-fees, transport-included, income-related and restricted | <ul style="list-style-type: none"> Financing: public (tax funded) Regulation: controls curricula, personnel, admissions (unrestricted vouchers), incentives and information policy Targeting: exclusively low-income families (selective vouchers) Value: uniform fees, cost-fees, supplementable, transport (add-ons) and income-related Choice: only public schools (limited) |

for financing education has to take into account the following five criteria: financing, regulation, targeting, value and choice. However, the interpretation of each of these criteria depends on implicit concepts of efficiency and equity. In fact, a voucher can be financed by a public entity, a private one or a combination of the two.

Regulation may be considered necessary or detrimental. For example, neoliberals oppose regulation because they fear it will compromise the autonomy of independent schools. By contrast, welfare liberals and egalitarians want governments to set up specific criteria (usually controls on the curriculum, personnel and admissions) that schools must follow if they want to be eligible in a voucher program. As far as targeting is concerned, vouchers can be available either to all families or exclusively to low-income families. Moreover, the value of a voucher can vary widely from a minimum of the government's expenditure per student to a maximum related to income. Finally, vouchers can provide access to public schools only, private schools only, or to all types of schools (public, private and religious schools).

Despite these difficulties, a clear and explicit map of every implication of these value judgments can illuminate policy analysis and debates on voucher design, and at the same time define guidelines for policy decisions. Table 2.5 uses the criteria of efficiency and equity established in chapter 1 to plot the results of each concept's implications. Table 2.6 assesses the implications of different types of vouchers.

This chapter has described the voucher programs in Chile and Colombia. Notable examples of school choice through vouchers are also found in Bangladesh, Belize, Guatemala, Lesotho, Poland, Sweden, the United Kingdom and the United States (Milwaukee). However, it is important to note that the issue of choice differs in fundamental ways at each education level. Moreover, these cases involve not only increases in classrooms or textbooks, but also reforms in the way central government funds are allocated to schools and in the participation of local governments and the private sector in the education process.

Therefore, it is important to consider the country as a whole and to introduce a financing mechanism according to the country's needs. For example, in Bangladesh, as well as in Guatemala, it was appropriate to provide stipends for girls at the secondary level. In the United States, the G.I. Bill, a financial incentive for discharged military personnel to pursue higher education, has been successful in enabling veterans to afford college education. Different systems have different problems. For example in the United States, the problem is quality (at every level but graduate school); in Yemen, it is lack of capacity; and in Chile it is equity.

Different weights between efficiency and equity objectives in voucher policy lead to different results because the use of one or another combination of concepts affects the type of voucher system selected. For example, in a voucher system, the state might support only public schools or all types of schools. Decisions about the targeting mechanism and the value of the voucher depend on implicit concepts of efficiency and equity.

Tables 2.5 and 2.6 show how the policy design varies depending on different con-

Table 2.6. The Impact of Different Types of Vouchers on Choice, Efficiency and Equity

| Voucher type | Efficiency | | | Equity | | |
|--|---------------|---|--|---|---|--|
| | Choice | Production | Coordination | Allocation | Access | Capabilities |
| Limited • fixed-value • uniform fees impact • restricted | Very weak | Weak impact | Weak impact | Weak impact | Weak impact | Weak impact |
| | | No competition with private or religious schools because of limited choice | Depends on information policy. Lower economic coordination of resources | Lower overall opportunity cost: efficient allocation only in public sector | Access to public schools only (limited choice) | Admissions based on academic criteria limits access to children with moderate capacity because of nonacademic factors |
| Unlimited • supplementable • uniform fees • restricted | Little impact | Weak/little impact | Little impact | Moderate impact | Little impact | Weak impact |
| | | Open choice favors competition among all schools (public, private and religious) In public schools uniform fees may hurt competition because they do not adjust to variable cost | Depends on information policy | Most education resources are at their lower opportunity cost | Access to public and private schools Wider access to private schools because of supplementable Uniform fees in public schools allow coverage of additional costs, but are fixed | Admissions based on academic criteria limits access to those children that have moderate capacity because of nonacademic factors (such as income, race or gender) Uniform fees act as a constraint in public schools when cost of qualified teachers and quality materials grow |
| Unlimited • supplementable • cost-fees • transport-included • restricted | Little impact | Little/moderate impact | Moderate impact | Moderate impact | Little impact | Little impact |
| | | Open choice stimulates competition among all schools (public, private and religious) Cost-fees allow public schools to adjust to variable costs | Depends on information policy Transport-included vouchers allow children in remote areas and faraway schools to lower their opportunity costs The majority of educational resources are at their lower | Transport-included vouchers allow children in remote areas and faraway schools to lower their opportunity costs The majority of educational resources are at their lower | Transport-included vouchers allow access to children in remote areas Cost-fees vouchers in public schools allow increased access | Admissions based on academic criteria limits access to those children that have moderate capacity because of nonacademic factors (such as income, race or gender) Results depend on school quality Transport-included |

| The inclusion of transport cost increases choice because it allows remote schools to compete and faraway scholars to access schools | | mechanism | opportunity cost | vouchers increase access of children in remote areas | | |
|---|---|--|--|---|--|---|
| | | | | | | |
| Unlimited • supplementable • cost-fees • transport-related • income-related • restricted | Moderate impact Income-related vouchers | Moderate impact Depends on information policy Income-related vouchers, when the value of the vouchers varies inversely with family income, are a tool for redistribution | Little/moderate impact All educational resources are at their lower opportunity cost, but children that have moderate capacity because of nonacademic factors (such as income, race or gender) are not taken into consideration | Moderate/strong impact Income-related vouchers increase access in those cases where the family's opportunity cost of sending a child to school is too high | Little/moderate impact Admissions based on academic criteria limits access to those children that have moderate capacity because of nonacademic factors (such as income, race or gender) | Moderate impact Income-related vouchers increase access |
| Unlimited • supplementable • cost-fees • transport-related • income-related • unrestricted | Moderate/strong impact Unrestricted vouchers favor more access, more students; some neoliberals complain about the quality of inputs lowering efficiency in production | Moderate impact Depends on information policy If effective, all educational resources are put in condition to participate in the coordination mechanism | Moderate/strong impact All educational resources are at their lower opportunity cost | Strong impact Unrestricted vouchers favor increase in access, admitting those children that have moderate capacity because of nonacademic factors (such as income, race or gender) | Strong impact Unrestricted vouchers allow admissions based on nonacademic criteria, increasing access of those children that have moderate capacity because of nonacademic factors (such as income, race or gender) | Strong impact Unrestricted vouchers favor additional access, and since there is unlimited choice (public, private or religious school), supplement and cost-fees to adjust to higher costs, transport-related, and income-related, this voucher gives every student equal opportunity to achieve equal results |

cepts of efficiency and equity. For example, if efficiency in production and equity in access are privileged, the most important variables in voucher design will be choice, school autonomy, competition and profits. Consequently, financing will be indifferently public (tax-funded), private or a mix (add-ons and supplementable). Regulation will be minimal because this perspective perceives government intervention as generating bureaucracy and hence a threat to the autonomy of independent schools. In addition, vouchers will be available to all families for a value equal to or less than government expenditure. Finally, choice will be unlimited (open), according to the logic that more competition brings about higher efficiency. In short, the policy will likely entail limited, fixed-value, restricted vouchers with uniform fees.

Another example in table 2.5 shows the policy design based on efficiency in allocation and equity in capabilities. This case more likely involves public (tax-funded) financing, takes advantage of economies of scale and implies redistribution. Equity-in-capabilities policies control curricula, personnel, admissions (unrestricted vouchers), incentives and information policy. Moreover, they target low-income families (selective vouchers) with income-related vouchers and the value of the vouchers includes uniform fees, cost fees and supplementable transport (add-ons) and other fees. Finally, they provide unlimited (open) choice.

In general, vouchers, especially those in developing countries, tend to have as objectives efficiency in production and equity in access, which are assumed to automatically improve efficiency in allocation. The aim is to increase efficiency of resource use while improving the quality of education services. Practical experiences show that focusing on equity in access can create two standards of education delivery, the private for the wealthy and bright and the public burdened by the excessive cost of the rest of the student population. Reforms in Chile combine a voucher system for poor students as well as capitation for all students. Peru has implemented five different mechanisms that shift management of schools from government control to an autonomous agent (for example, parent associations, teachers or private groups).

Equity in capabilities is also important. For example, Baluchistan (Pakistan) developed a primary education program that distributes scholarships to girls, giving families the means to send their daughters to private schools for girls. The resulting increase in demand will increase the incentives for rural communities and urban educated women to establish private schools. The aim is to raise female primary school enrollment, attendance and achievement. Education levels in Pakistan are very low, even by developing country standards. Gross enrollment rates in primary school are half that of India and about three-quarters that of Bangladesh and Nepal. The problems of low school participation and illiteracy are especially pronounced in rural areas. Baluchistan has the lowest enrollment rates of all the provinces in Pakistan. Only 34 percent of children aged 4 to 9 are enrolled in school. Enrollment rates for girls are even lower, with only 15 percent of school-aged girls participating in the education system.

Colombia put in place a secondary education project. Tanzania has created and funded a nongovernmental organization for the purpose of supporting existing community and other nongovernment secondary schools through matching grants. The grant scheme will apply only to co-education and girls' schools, reflecting the goal of raising female enrollment and achievement. New Zealand's recent reforms established a system that provides a higher level of funding to lower-income students by linking 80 percent of funding to the number of students and 20 percent to their socioeconomic status.

Efficiency in coordination plays an important role in many cases, including Chile and Colombia. Policies that omit efficiency in coordination (in particular, incentives and information policies) develop the problems of imperfect markets, which threaten the voucher mechanism, in particular choice and hence school quality.

Whether voucher policies promote equity in results, that is, whether vouchers increase total enrollment, depends on how well they are targeted. Vouchers will likely have a different effect on achievement depending on the quality of the chosen school. The welfare effects must be taken into account in order to quantify the efficiency and equity effects (see table 2.4).

Appendix. Expenditures and Performance

Appendix table 2.1 presents data on expenditures on education in 26 countries. Appendix figures 2.1 and 2.2 show average public expenditures on education by region. The empirical evidence shows that these countries invest a significant share of GDP and important portions of their budget in education.

In setting up the structure of their education systems, governments have spent a considerable amount of resources. Widening access to education has been a major policy goal for the past three decades, particularly in developing countries. Governments assign financial resources and determine the allocation of the expenditures in regional and community education systems through a top-down process. The provisioning of schooling is done mainly through central government intervention by means of supply-driven systems. The private sector tends to have a minimal role (at least in official statistics).

Unequal Indicators

Large investment in education has brought about indisputable progress. Indicators like literacy, enrollment and dropout rates have improved everywhere, and the education gender gap and the gap between indigenous and nonindigenous populations have decreased over time. Nevertheless, despite the amount of resources, education systems still perform inadequately.

In both developing and industrial countries, the expansion of education has not reached all members of society equally. This appendix describes the gender gap in developing countries, poor indicators of education achievement by indigenous Guatemalans, urban-rural differences in education, and education needs for children with disabilities. Appendix table 2.2 shows how years of schooling have varied across gender, race and regions over time in Brazil.

The Gender Gap in Developing Countries

Evidence from many countries points to strong links between the education of women and national development. Education of girls has an important effect on every dimension of development: lower child and maternal mortality rates; reduced fertility rates; increased education attainment by daughters and sons; higher productivity; and improved environmental management. Together, these can mean faster economic growth and wider distribution of the fruits of growth. In addition, educating girls opens the door to economic and political opportunity for future generations. Yet women's education still lags far behind men's in most developing countries, with far-reaching adverse consequences for both individual and national well-being (Magnoli 1998).

Appendix Table 2.1. Public Spending on Education, 1980-95
(Percentage of gross national income)

| Country | 1980 | 1985 | 1990 | 1995 |
|----------------|------|------|-------------------|-------------------|
| Argentina | 2.67 | 1.47 | 1.12 | 3.33 |
| Australia | 5.48 | 5.55 | 5.33 | 5.45 |
| Bangladesh | 1.12 | 1.39 | 1.47 | 2.23 ^a |
| Bolivia | 4.42 | 1.99 | 2.47 | 5.93 |
| Brazil | 3.6 | 3.78 | 4.55 ^b | 5.07 |
| Canada | 6.88 | 6.53 | 6.75 | 6.91 ^c |
| Chile | 4.63 | 4.38 | 2.67 | 3.1 |
| Colombia | 1.86 | 2.89 | 2.52 | 3.67 |
| Ecuador | 5.59 | 3.7 | 3.08 | 3.44 |
| Gambia | 3.16 | 3.67 | 4.13 | 5.61 |
| Ghana | 3.09 | 2.57 | 3.29 | 4.78 |
| Guatemala | 1.81 | 1.56 | 1.39 | 1.7 |
| India | 2.98 | 3.53 | 3.93 | 3.31 |
| Japan | 5.79 | 5.02 | 3.57 ^d | 3.60 ^c |
| Lesotho | 5.1 | 4.34 | 3.72 | 8.43 ^a |
| Mexico | 4.73 | 3.94 | 3.73 | 4.87 |
| Morocco | 6.09 | 6.32 | 5.48 | 5.83 |
| Mozambique | 3.11 | 2.9 | 4.12 | |
| Netherlands | 7.65 | 6.44 | 5.95 | 5.2 |
| New Zealand | 5.79 | 4.74 | 6.55 | 7.53 |
| Poland | | 4.94 | 5.39 | 5.21 |
| Sweden | 8.96 | 7.68 | 7.69 | 8.07 |
| Tanzania | | | 3.36 | |
| Thailand | 3.42 | 3.79 | 3.59 | 4.14 |
| United Kingdom | 5.56 | 4.9 | 4.92 | 5.33 |
| United States | 6.65 | 4.89 | 5.25 | 5.36 ^c |

^a 1989.

^b 1992.

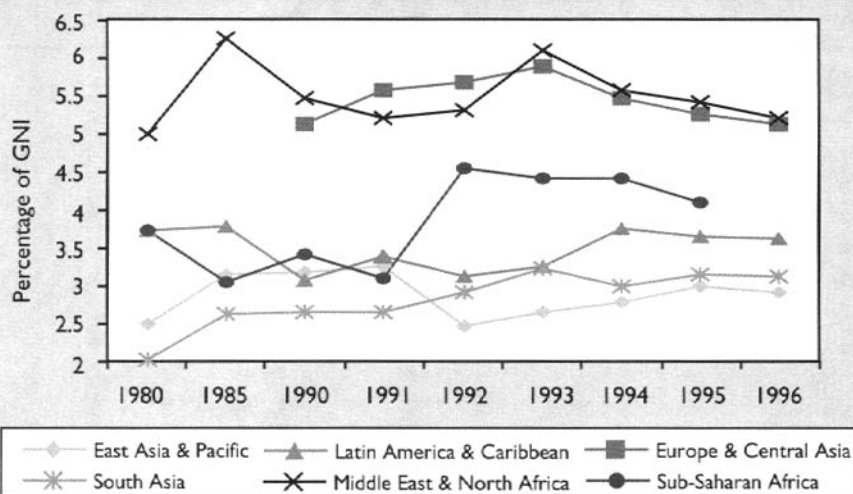
^c 1991.

^d 1996.

^e 1994.

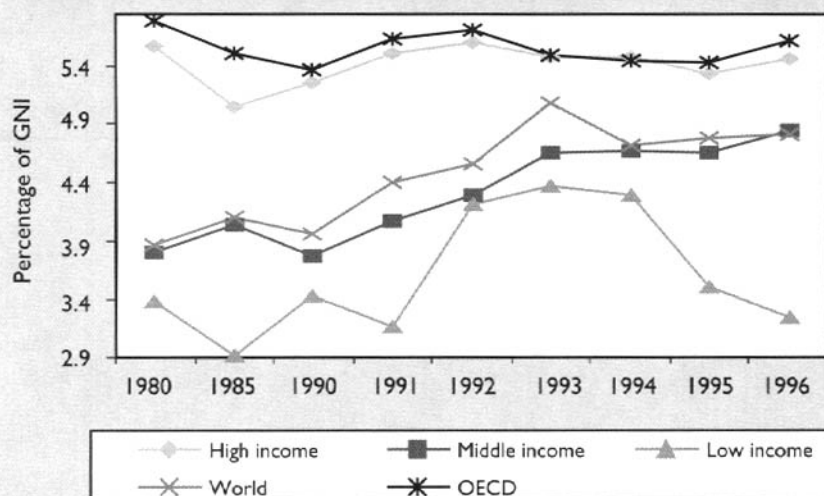
Source: UNESCO in World Bank (2002).

Appendix Figure 2.1. Average Public Expenditures on Education by Region, 1980-96



Source: UNESCO.

Appendix Figure 2.2. Average Public Expenditures on Education by Income, 1980-96



Source: UNESCO.

Appendix Table 2.2. Average Years of Schooling for Different Social Groups in Brazil, 1960–95

| Social group | 1960 | 1970 | 1980 | 1990 | 1995 |
|-------------------|------|------|------|------|------|
| <i>Gender</i> | | | | | |
| Male | 2.4 | 2.6 | 3.9 | 5.1 | 5.4 |
| Female | 1.9 | 2.2 | 3.5 | 4.9 | 5.7 |
| <i>Race</i> | | | | | |
| White | 2.7 | - | 4.5 | 5.9 | - |
| Black | 0.9 | - | 2.1 | 3.3 | - |
| Mixed | 1.1 | - | 2.4 | 3.6 | - |
| Asian | 2.9 | - | 6.4 | 8.6 | - |
| <i>Region</i> | | | | | |
| North Center-West | 2.7 | - | 4.0 | - | 5.6 |
| Northeast | 1.1 | 1.3 | 2.2 | 3.3 | 4.1 |
| Southeast | 2.7 | 3.2 | 4.4 | 5.7 | 6.2 |
| South | 2.4 | 2.7 | 3.9 | 5.1 | 6.0 |

- Not available.

Note: Data for 1995 were calculated by MEC/INEP/SEEC.

Source: Relatório sobre o Desenvolvimento Humano no Brasil (1996); PNUD/IPEA (1996); Evolução da Educação Básica no Brasil, 1991–1997, Ministério da Educação e do Desporto, Brasília (1997).

Several indicators—including measures of literacy, enrollment and years in school—reveal an evident and generalized gender gap. There are 900 million illiterate people in the developing world, and illiterate women still outnumber men by two to one. In 14 of the 51 developing countries for which school data or estimates are available for the 1980s, female adult literacy was less than 20 percent. In none of these countries was the male literacy rate as low (World Bank 1994a; Magnoli 1998). Worldwide, in 1990 there were 77 million girls between the ages of 6 and 11 who were not attending school, compared with 52 million boys. Dropout rates are also higher: on average, 9.6 percent of girls in low-income countries leave primary school before finishing, as compared with 8.2 percent of boys.

The Indigenous Population in Guatemala

In developing countries, ethnicity and indigenous origins are still closely associated with lack of formal education. In all countries for which data are available, the rate of illiteracy among the indigenous population is much higher than for the nonindigenous population (Psacharopoulos and Patrinos 1994). Overall, in countries where many languages are spoken, linguistic minorities and indigenous people are underserved and the rate of illiteracy is high. Indigenous children are less likely to attend classes conducted

solely in the official or main language. And there is a vicious circle: illiterate parents do not send their children to school. Those indigenous children who do attend school are more likely to repeat grades at the primary level and are more likely to drop out altogether. Nine percent of nonindigenous children and 21 percent of indigenous children are reported as being employed.

Guatemala is a multilingual country with 26 languages (15 of which have 10,000 or more speakers). The majority of Guatemala's indigenous people have no formal education and of those who do, very few have progressed beyond the primary level. The rate of illiteracy among the indigenous population is 79 percent, compared with 40 percent among the nonindigenous population. It is obvious that deficiencies in education are closely related to poverty and inequality. The majority, 65.6 percent, of the population of Guatemala is poor, with 38 percent of all households living below the extreme poverty line. The indigenous population is disproportionately poor: 86.6 percent of all indigenous households are below the poverty line and 61 percent are below the extreme poverty line.¹⁴ Indigenous males in the labor force have, on average, 1.8 years of schooling, while females have only half that amount (0.9 years). Only 21 percent of the indigenous population is literate.

Rural-Urban Gap

There is a wide gap in terms of education services made available to urban versus rural populations. Heads of households who work in nonagricultural pursuits in either indigenous or nonindigenous areas have children with higher levels of education attainment than otherwise employed heads of households (Psacharopoulos and Patrinos 1994). In Indonesia, 3 percent of the urban population did not receive any schooling at all, compared with 10 percent in rural areas (World Bank 1995).

Furthermore, in rural areas, gender disparities are more acute. For example, in Pakistan in 1990, the school attendance rates in urban areas were 73 percent for girls and 83 percent for boys; the rural rates were 40 percent for girls and 70 percent for boys (UNESCO 1997). In rural areas, indigenous populations and linguistic minorities are more likely to be underserved. In the rural areas of Peru, for example, 70 percent of Quechua-speaking indigenous people aged five years and older have never been to school, compared with 40 percent of nonindigenous Peruvians (Psacharopoulos and Patrinos 1994).

¹⁴ Data are from country analyses by Psacharopoulos and Patrinos (1994), utilizing an income-based uniform poverty line of US\$60 per person per month in 1985 purchasing power parity (PPP) dollars and an extreme poverty line of US\$30 per person per month in 1985 PPP dollars.

Children with Disabilities

There are heterogeneous pathologies under the classification of “disabilities,” which can include children with severe sensory handicaps (the deaf and the blind), or those who have motor handicaps, learning disabilities, mental retardation or speech problems. For example, people with disabilities account for a conspicuous number of the population in Brazil (about 1.5 percent), and hence their needs ought to be taken into consideration (Instituto de Geografia e Estatística 1991).

Part of the process of evaluating the problem is recognizing that people with disabilities require customized infrastructures and methods for their education.¹⁵ In terms of infrastructure, wheelchairs, modified desks and other apparatus that aid in mobility and manipulation of classroom materials help children to adapt to the environment and to their disability. As far as methods are concerned, what is needed are the following: prolonged periods of more intensive and individualized instruction, better techniques to maintain interest, more active participation and much repetition of similar material in varied forms.

Unequal Allocation of Expenditures

All over the world, public spending on education is often assigned with guidelines that do not respond to allocative efficiency criteria. There are historical reasons for this phenomenon: as a rule, the distribution of expenditure has disproportionately benefited pressure groups or high-income social clusters.

Pressure Groups

Public funds are allocated in response to a political process; most countries historically have accorded priority to higher education for several reasons, not the least of which is the push from middle and higher-income groups in that direction. Universities’ growing demands for resources brought about higher expenditures and have prevented many countries from allocating more money to equipment, textbooks or school meals at the basic, primary and middle levels.

Moreover, teachers at all levels have been one of the strongest and best organized pressure groups in most countries, and salaries are by far the largest item in education expenditure.¹⁶ Furthermore, salaries are not rigorously linked to teachers’ educational

¹⁵ Medical personnel, physicians, clinical psychologists and psychiatrists, together with social workers and educational personnel, determine the children’s eligibility for assignment to special programs.

¹⁶ For instance, practically everywhere in Latin America, teachers belong to one of the largest, best-organized and most powerful lobbies.

background or even used as incentives to improve performance. It is clear that groups less favored in terms of income, ethnicity or gender have the greatest difficulty in having their appeals heard at the central government level. In this sense, centralized systems contribute to inequity in the delivery of education services because they reduce accountability and minimize the "voice" of those sectors with the greatest needs.

Primary and Tertiary Expenditures

In those countries that have yet to achieve near-universal enrollment at the primary and lower-secondary level, one dollar spent at those levels has greater impact and higher effectiveness on welfare than one dollar spent on tertiary education.¹⁷ Despite this fact, many countries continue to oversubsidize at the university level.

For example, in Africa the expenditure per student in higher education is about 44 times greater than the same expenditure at the primary level. Appendix table 2.3 shows that in Brazil in 1990, expenditures on tertiary education were almost 10 times more than on primary education. Many countries spend a large portion of their total budget at the tertiary level. Africa spends 22 percent on universities; India spends 19 percent. Brazil spends only 9 percent of its public education budget on secondary education, but 23 percent on higher education. In Latin America, only seven countries devote more than 40 percent of education expenditure to primary education (data from UNESCO and IDB 1997).

This phenomenon is inequitable for three reasons. First, the allocation among primary, secondary and tertiary education does not reflect real needs. The pattern is regressive: spending the most at the tertiary level does not allow education access to the nonuniversity population. In Africa, only 2 percent of the relevant age group attends university; in India, the majority of rural children do not even finish primary school.

Second, every level has different demographic weight: a large expenditure at the tertiary level is concentrated on a small number of advantaged students as opposed to the smaller expenditure on primary education, which benefits a large number of poor individuals. This creates a conflict between efficiency and equity: higher expenditure at the primary level would increase system efficiency and opportunities. However, some might argue that a country needs university research in order to develop.

Third, the tertiary level benefits upper-income groups because university students are more likely to come from upper social clusters. This structure is deeply regressive and hence inequitable because of the different socioeconomic backgrounds of the beneficiaries.

In developing countries, in general, even if public universities do not have price barriers to entry, it would be erroneous to assume that anyone can attend. In fact,

¹⁷ See Psacharopoulos (1995) on the profitability of investment in primary school education.

Appendix Table 2.3. Current Expenditure per Student by Level of Education in Brazil, Chile, Colombia and Guatemala, 1990 and 1996

| Level of education | Brazil | Chile | Colombia | Guatemala |
|---|--------------------|-------|------------------|-------------------|
| <i>1990 PPP dollars, 1990</i> | | | | |
| Tertiary | 5,258 | 1,795 | 1,782 | 1,110 |
| Secondary | 621 | 557 | 495 | 146 |
| Primary | 526 | 619 | 297 | 88 |
| <i>Percentage of per capita GNI, 1996</i> | | | | |
| Tertiary | 111.6 ^a | 20.6 | 35.4 | 31.1 ^b |
| Secondary | 11.8 ^c | 11.8 | 12.0 | 5.2 |
| Primary | 11.1 ^b | 10.9 | 5.3 ^d | 6.2 |

a 1990.

b 1995.

c 1985.

d 1980.

Source: IDB (1997) and World Bank (2002).

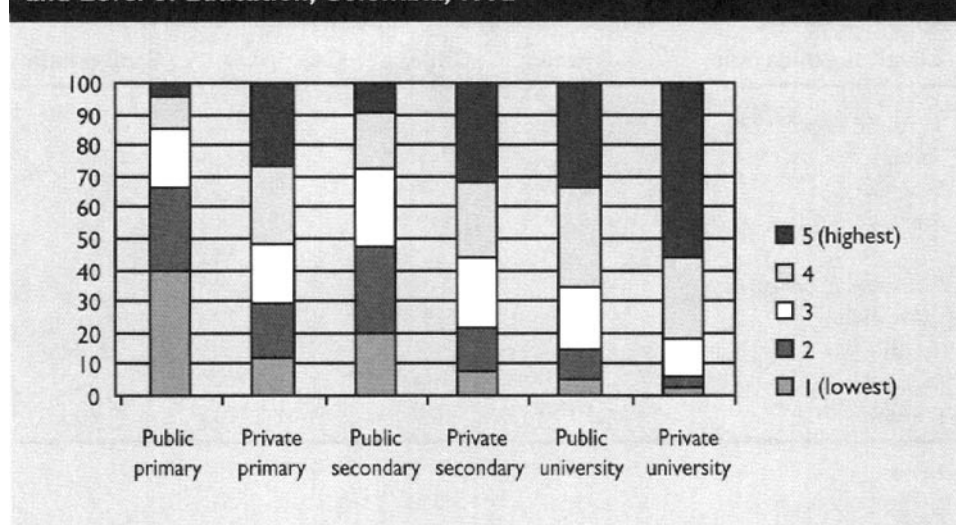
Appendix Table 2.4. Enrollment by Level of Education and Income Quintile in Colombia, 1992

(Percent)

| Family income quintile | Primary | | | Secondary | | | University | | |
|------------------------|---------|---------|-------|-----------|---------|-------|------------|---------|-------|
| | Public | Private | Total | Public | Private | Total | Public | Private | Total |
| 1 (lowest) | 39.8 | 11.8 | 33.9 | 20.1 | 7.6 | 15.7 | 5.5 | 2.2 | 3.4 |
| 2 | 26.5 | 17.2 | 24.6 | 26.9 | 13.9 | 22.3 | 9.4 | 4.0 | 6.1 |
| 3 | 19.0 | 19.5 | 19.1 | 25.4 | 22.2 | 24.3 | 19.2 | 11.8 | 14.6 |
| 4 | 10.5 | 24.5 | 13.5 | 17.9 | 24.2 | 20.1 | 32.5 | 25.9 | 28.4 |
| 5 (highest) | 4.1 | 27.0 | 8.9 | 9.6 | 32.0 | 17.6 | 33.5 | 56.2 | 47.5 |
| Total | 99.9 | 100.0 | 100.0 | 99.9 | 99.9 | 100.0 | 100.1 | 100.1 | 100.0 |

Source: Encuesta Nacional de Hogares, Etapa 77, September 1992; and calculations by FEDESARROLLO.

Appendix Figure 2.3. Enrollment by Type and Level of Education, Colombia, 1992



Note: Shading represents family income quintile. For example, for public primary school, the bottom segment of the bar represents the percentage of public primary school students in the lowest income quintile; the top segment is the percentage of public primary school students in the highest income quintile.

Source: Encuesta de Hogares (1992); Fedesarrollo (1993).

implicit deterrents are the opportunity cost (tertiary education forces the deferment of earnings) and academic barriers such as selection tests (entrance exams). Both of these are more likely to be surmounted by high-income families whose children complete primary school, attend a high-quality secondary school and benefit from after-school tutoring. In Brazil, 95 percent of all students at public universities come from middle and high-income families. In Mexico, a person from a high-income family is 10 or 20 times more likely to attend a public university compared with a person from a low-income family. The top income quintile receives more than 50 percent of higher-education subsidies and the bottom quintile less than 10 percent in Chile, Colombia, Costa Rica, the Dominican Republic and Uruguay (Birdsall and James 1993).

Public and Private Schools

Appendix figure 2.3 presents the case of Colombia in 1992 (see also appendix table 2.4). At the primary level, the lower quintiles attended public schools, whereas the higher quintiles attended private schools. The same phenomenon can be observed at the secondary level. At the tertiary level, the presence of the first quintile drops dramatically, almost disappearing in private universities.

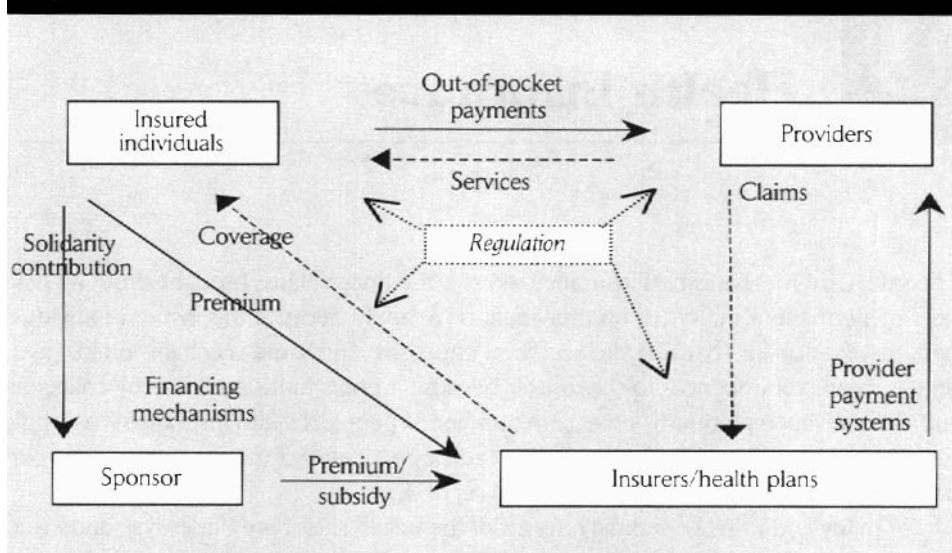
Health Insurance

The safeguard mechanism of insurance reduces the financial loss brought about by sickness or permanent injury for an individual or a family because the insured individual pays in advance for (part of) such medical expenses. The same mechanism also guarantees small consequences to the insurer because it pools funds and risks by collecting sufficient advance premiums on a large number of people. Health insurance may apply to a limited or comprehensive range of medical services and may provide full or partial reimbursement of the costs of specific services.

In many countries, economic reforms of the health sector are under way and insurance systems play a central role in the process, influencing its efficiency and equity. These reforms include a reorientation of the design of health interventions from the supply side to consumer demand, the use of prices for allocating scarce resources, private sector delivery of curative services, public policies to improve equity, and efforts to improve cost recovery and the targeting of subsidies. This chapter focuses on the policy issues related to risk sharing in terms of health insurance and its role in the efficient and equitable provision of health care.

In the health insurance market, exchanges take place among four sets of actors (see figure 3.1): insured patients (consumers of health care), doctors and hospitals (providers or producers of health services), sponsors (employers), and insurers (third-party payers or financing institutions that supply insurance). Depending on the development and complexity of the system, the roles of the provider, sponsor and third-party payer can be played by the same agent, which is typically the case in developing countries, or by separate agents.

Sponsors are intermediate actors between insured patients and insurers. Often the government is an important actor because of its regulatory authority. It also may participate directly in the market as a third-party payer or as a provider. A number of social insurance schemes in industrial countries (particularly in Eastern Europe) and developing countries (particularly in Latin America) combine the insurer and provider functions. These systems own and operate facilities that provide health services to enrollees. Figure 3.1 shows the linkage patterns among the actors and illustrates three types of market transactions. Resources are exchanged for direct provision of health care (between the insured and the provider), for protection against the risk of financial loss due to illness (between the insured and the insurer and between the insured and the

Figure 3.1. The Health Care Market

Source: Reinhardt (1989); La Forgia, Griffin and Bovbjerg (1993); van de Ven and Ellis (1998).

sponsor), and for provision of services to insured persons (between insurers and providers). Transactions occur at three levels: between individuals (patients and physicians), between individuals and institutions (patients and hospitals, and physicians and insurers) and between institutions (hospitals and insurers).

Consumers receive benefits (health care) through insurance coverage. At the same time, consumers pay taxes or premiums to third-party payers and make out-of-pocket payments to providers. Sponsors negotiate with insurers and contribute to the premiums. Third-party payers consist of institutions that finance or manage the financing of health services and assume the risk associated with health care, supplying insurance coverage to consumers. Insurers also transact with providers through a variety of payment mechanisms. In return, providers deliver health care (benefits) to consumers. Of course, the integration of these patterns of transactions and linkages varies greatly across countries and depends on history, culture, values and traditions.

Many factors contribute to an individual's health status, including the environment (education, diet, working conditions, housing amenities, standards of living and social services), the availability and quality of health care received, and public health measures (sewage disposal and garbage collection). However, the achievement of good health also depends on the way health care is financed and delivered. The design of a health insurance system, the calibration of its incentives, and the definition of its rules are activities that play a central role in a country's health achievements.

Throughout the world, considerable resources are devoted to the maintenance and preservation of health. Because of the large amount of funds involved, economic analysis has increasingly been applied to health and health care in order to clarify the problems of resource allocation. Worldwide, the funds that governments can devote to health care are limited (or declining), the epidemiological profiles constantly evolve and the cost of modern medicine continues to rise, putting adequate medical services beyond the reach of many. On one hand, the fundamental problems of production, economic coordination and resource allocation apply to health just as they do to any other area of economics. On the other hand, the general aim of an equitable provision of good health to every citizen raises problems of distributive justice.

Although health care costs are an increasing concern around the world, it is difficult to measure health benefits and hence problematic to define efficiency. The costs of providing health care are considerable and have been growing at a rapidly increasing rate in both developing and industrial countries.¹ Moreover, demand has increased for greater funding in health education and preventive measures specifically targeted to the poor. However, there is no consistent evidence that shows that more spending on health care leads to improved health levels.

Health care is a different type of “commodity” than other goods and services because of uncertainty about the incidence of disease and the efficacy of treatment and because information is not perfectly distributed among consumers and providers (Arrow 1963). Thus, it is not always the case that utility-maximizing consumers, who purchase an excludable good or service from profit-maximizing producers, maximize efficiency and welfare. Consequently, problems arise when applying the neoclassical model to judge the efficiency of health insurance systems.

Equity considerations have influenced thinking about health care for many years. Although there may be widespread agreement that a health care system should be equitable, there is little agreement on the appropriate definition of fairness or equity. This chapter focuses on how the discordant definitions of equity impact the design of health insurance plans and, consequently, health care delivery systems.

The following two examples show that the design of health insurance has powerful effects on equity. First, access has been a great political concern in the past few decades and governments have allocated increasing resources in order to improve access in the field of health services. However, improving access for one part of the population can at the same time worsen access for others, especially if the insurance scheme is designed primarily to provide coverage for people with stable employment in the formal sector. Second, if careful underwriting to screen out those who are trying to take advantage of the insurance mechanism is implemented to restrain adverse selec-

¹ The rise has been sharp, especially in the United States, Germany and Sweden; in Britain it has been less rapid (WHO 1998).

tion, those individuals most likely to have losses will have difficulty acquiring health insurance. This phenomenon undoubtedly denies coverage to many people who need protection.

There are four main categories of funding health services: government finance raised through taxes, social insurance, private insurance and direct payment for services by patients (Normand and Weber 1994). With the exception of direct payment, these systems all provide an element of risk pooling and services are provided free or at prices below cost on the basis of rights derived from past contributions. Through sharing, there is protection from the risk of ill health.

The distinction between government finance, social insurance and private programs is not always clear. Normally, when the insurer is the state, the law specifies health services. Payments made through the tax system do not contribute directly to a specific fund; instead, they go into the national budget. By contrast, social insurance systems pay for health services through contributions to a health fund. The most common basis for contributions is the payroll, with contributions from both employer and employee. Finally, when the insurer is a private entity, health services are specified in an insurance policy and payments are premiums that contribute to a common fund used to pay for all or part of the health services.

Until recently, if a system was financed by compulsory contributions mandated by law or by taxes and its provisions were specified by legal statute, it was a government or social health insurance plan.² Alternatively, if a system was voluntary and not regulated, the delivery was assumed to be prevalently private and carried out through the market process.

The relationship between compulsion and state management has recently lost its strength. In many countries, private health insurance programs exist along with or as part of the government program. Furthermore, some governments have started to subsidize private insurance programs. Various combinations of programs are possible and there is widespread private delivery in countries where health insurance is both compulsory and its provisioning is specified by law. For example, in Austria, Denmark, the Netherlands, Norway and Spain, the government pays for medical care provided by private physicians. The opposite is also true: there are countries where health insurance is voluntary and where there are cases of government delivery. For example, in the United States, health insurance is not compulsory, but there are government health insurance programs such as Medicare (for the elderly) and Medicaid (for the poor).

Eastern Europe and Latin America have experience with government-financed health care and social insurance; North America has experience with privately provided health services. Less developed countries, where risk-pooling programs have been

² This type of medical insurance plan dates from 1883, when the government of Germany initiated a plan based on contributions by employers and employees in particular industries.

scarce historically, increasingly are implementing government-funded health services, social insurance and private provision. The lack of financial risk-sharing devices in developing countries contrasts with the extraordinary development of social risk-sharing devices, such as extended families, clans, sharing mechanisms within communities, the accumulation of community wealth in easily tradable agricultural assets, and the pricing practices of traditional healers. Modern medical care imposes risks that strain these traditional institutions and economic development tends to undermine the economic basis of clan or family-based risk-sharing institutions. Yet development, through the process of urbanization and extension of the market economy, creates much larger groups that can share financial risks impersonally through markets.

The advantages and disadvantages of the different configurations, particularly in terms of their consequences on costs and coverage, are the subject of considerable debate and research in industrial countries (Glaser 1991; Reinhardt 1989; Evans 1983). In developing countries, researchers have turned to examining the institutional features of emerging insurance schemes and, to a lesser extent, to measuring their impact on efficiency and equity in the health sector (Vogel 1990; Kutzin and Barum 1992; Mesa-Lago 1992).

Specificities of Health Care

Market failures and other characteristics are inherent in health care and insurance markets.

Market Failures

Health markets deviate from perfect competition. The major source of market failures is imperfect information. In addition, if left to the market, health insurance coverage would not be universal and renewal would not be guaranteed. Full coverage of a potential loss is optimal under the following conditions: no moral hazard, actuarially fair insurance and a risk-averse consumer (Newhouse 1996). Full insurance above a deductible is optimal with positive loading charges but no moral hazard (Arrow 1963).

Imperfect Information

The inherently irreducible uncertainty of the health market prevents perfect information for producers and consumers. That is, information can be asymmetrical and, hence, not perfectly available to every agent. This phenomenon creates adverse selection and moral hazard.

One of the main problems in health care is that consumers do not have information on what informed producers know or how they behave. This is called asymmet-

ric information: health care professionals act both as advisers—telling patients what services are appropriate—and as providers of those services, while consumers face uncertainty and ignorance. For any one person, it is very uncertain whether or when there will be a need to use health services. This is combined with the asymmetry of knowledge about illness and health care between patients and health professionals. In order to protect the public and ensure a basic level of competence, health care professionals are licensed. There are constraints on entry into the professions, there is a structure of ethical principles within which professionals must operate, and there are rules governing access to care. One of the tasks of health policy is to ensure that the monopoly power of health care professionals does not work against the interests of the patient.

This is an issue of agency theory because the agent knows more about his own ability and effort, the character of services demanded, and the outcomes than does the principal. The asymmetry of information between consumers and producers could allow the latter to take advantage of the former. Of course, it is not just in terms of health care that the producers know more about goods than consumers do; this is also true for many other goods traded in the market. The market response in both cases is for consumers to rely on the producer's reputation, second opinions (personal comparisons of different products) and third-party recommendations (for instance through consumer surveys). The level of consumer information depends on the consumer's preferences and the costs of acquiring the information.

In insurance markets, companies lack perfect information about the specific risks individuals face. The person or organization selling the service knows only the average cost, while the individual purchasing the service has more information about his or her specific risks and expected costs. However, average cost pricing is not an efficient pricing mechanism because the cost of providing services differs across people who are placed in the same risk class. Since individuals differ in the cost of services they will use, uniform pricing will not be fully efficient. Even if premiums differ by demographic category, there will be significant cost differences among individuals in single categories. Of course, it is impossible to avoid the presence of a second-best pricing problem. However, rules for (second-best) efficient uniform pricing can be set by balancing alternative distortions (Diamond 1992).

People sort themselves across insurance plans at least partly on the basis of risk. The least healthy disproportionately prefer the most generous policies and healthier people are more willing to enroll in cheaper plans with more restrictions. As a result, the ratio of bad risks to good risks among the insured will rise, claims will increase and the cost of insurance, the premiums, will go up. More good risks will not buy insurance. Adverse selection occurs when a group of high-risk individuals dominates an insurance pool, eliminating the benefits of pooling risk through an insurance scheme. If adverse selection is important, the end result will be fewer persons with insurance coverage. Moreover, it could reduce the benefits of more competitive policies and even lead to a "death spiral," that is, the most generous plans would disappear from the market over time.

Insurance companies encounter the problem of moral hazard when insured individuals use health facilities more often than they would have without insurance coverage. This phenomenon occurs when a person's behavior changes as a consequence of being insured. It can be manifested by insured individuals undertaking risky activities because they know their health care is assured, or by overusing services for which the individual does not have to pay the full cost. The insurer's lack of information could provide the insured with an "incentive to change his unobservable state in response to insurance coverage." (Pauly 1974, p. 45)

Universal Coverage

In many industrial and developing countries, the market does not provide full insurance coverage. In some cases, people cannot purchase insurance. In other cases, people are uninsured because the policy costs more than the perceived benefits.³ It is useful to divide the uninsured population into three groups: the poor, those with risk misperception, and individuals who practice self-exclusion.

First, for the poor, health care is expensive relative to their incomes and normally they use ex post, free medical care, if available. This phenomenon is common in developing countries, but it also exists in industrial nations. For example, in the United States, one-third of those who are without insurance live below the poverty line and 60 percent of the uninsured have an income that is less than twice the value of the poverty line (Diamond 1992).

Second, the lack of insurance is sometimes due to the type of jobs that some workers—especially the young—tend to hold. Commonly, employers do not provide health insurance for such jobs. The individuals may be sufficiently well off to afford insurance, but choose not to buy it because they misperceive the risks or consequences of their decision. For example, in the United States, 18.6 percent of uninsured 19–24-year-olds are uninsured for this reason (Diamond 1992).

Third, some people do not purchase individual or employer-offered insurance because they feel that they belong to a lower-than-average risk category within their group. In economic terms, they are without insurance because the premium is very high relative to the premium charged to others. Relative premiums vary for two reasons. One is the difference in transaction costs associated with the organization of the demand side of the market. Second is the pooling of the risk associated with a particular individual with the risks of others, which results in an averaged price. This issue is

³ In evaluating the economic explanation of this decision, it is useful to keep in mind that these people choose to be without "insurance" and not the "opportunity to buy medical care" within their budget constraints, which is higher because they do not pay a premium. They are also not renouncing the "opportunity to receive some care and not pay for it" (Diamond 1992). A rough estimate shows that the uninsured in the United States receive about half the medical care they would receive if they were insured (Garrison 1990).

very important for risk allocation. Furthermore, these individuals feel that the premium is too high relative to their incomes, which are not necessarily low. Self-exclusion is the extreme situation of adverse selection because it brings about the extinction of certain policies. In such situations, economists call health insurance a merit good.

Renewal

An important condition of health insurance is that of renewal. In fact, the insured may become ill with a chronic disease and discover that upon renewal the policy excludes all future coverage for this disease. In public systems, renewal is guaranteed. Consequently, the issue is more relevant in private delivery, where continuous coverage is assured only by policies that are both noncancelable and guaranteed for renewal, which, of course, are much more expensive.

Inherent Characteristics

Rising costs, renewal problems and trade-offs characterize health care markets. Arrow (1963) highlights the distinction between the characteristics of health care and those of other goods and services. He argues that what makes health care inherently different is the uncertainty associated with the incidence of disease and the efficacy of treatment. These uncertainties cannot be remedied. Consequently, when placing health care in a market system, “social adjustments” might be necessary, in some cases requiring government intervention.⁴

Rising Costs

Free markets have brought about an increase in overall health costs. It is the experience in nearly all countries with health insurance schemes—from the United States to China—that costs tend to rise faster than gross domestic product (GDP) and salaries. Increased costs lead to higher contribution rates (in salary-based systems) or to contributions rising faster than GDP (Normand and Weber 1994). Various factors explain this trend. First, there is a tacit alliance between providers and patients to prescribe, deliver and consume more and better products and services. Second, to a large extent, services and products are not paid for at the point of service delivery, but before and after by means of contributions. Third, technology in medicine is improving and getting more and more expensive (which to some extent is related to the improvement in services described above). Fourth, the demand for health services remains relatively stable

⁴ The question is whether institutional government intervention can improve on the observed “market adaptations to the existence of uncertainty in the incidence of disease and in the efficacy of treatment” (Arrow 1963, p. 941).

even if the price rises. Fifth, to some extent, providers can define the demand for their services, and thus their income. Sixth, incomes, wages and prices often rise faster in the health sector than in the rest of the economy. And seventh, the very existence of health insurance creates a rising demand for health (Normand and Weber 1994). Hence, cost control mechanisms are necessary.

Critics say that health insurance, by its very existence, helps to escalate rising medical care costs (Diamond 1992; Enthoven 1993; Feldman and Dowd 1993; Newhouse 1996). For example, insured medical losses tend to run higher than noninsured losses because physicians often charge according to ability to pay, and insurance increases this ability. Insurance also makes it easier to transfer rising hospital costs to the patient. Consequently, the marginal cost, marginal benefit and price can be far from the same level.

Trade-offs

The health insurance market is characterized by peculiar trade-offs. The most remarkable trade-offs are the ones between cost sharing and moral hazard and between efficiency in production and adverse selection.

The trade-off between cost sharing and moral hazard is well known in insurance economics. Risk aversion pushes people to obtain more insurance coverage, which in turn induces greater moral hazard because it implies less risk bearing by the insured. This relationship between risk aversion and moral hazard has given rise to the health economics literature on the desirability of cost sharing in health insurance. Many analysts believe that some initial cost sharing would be optimal in preventing moral hazard (Manning and Marquis 1996). The essence of this trade-off is captured by the cost that the patient bears at the time of use, for example the size of the deductible (Newhouse 1996).

Widespread health insurance creates a trade-off between efficiency in production and selection. Efficiency in production is the least-cost treatment of a patient's medical problem, holding quality constant. Thus, efficiency includes the quantity of services used to treat the problem, as well as the unit price of those services. Selection is the action of economic agents on either side of the market to exploit unpriced risk heterogeneity and break pooling arrangements, with the result that some consumers may not obtain the insurance they desire. The more efficient in production a plan is, the more likely it is to exclude higher-risk individuals. The essence of the selection-efficiency trade-off is captured by the cost that the health plan or medical provider bears at the time of use, or the amount of supply-side cost sharing (Ellis and McGuire 1993). Analogous to co-insurance on the demand side, supply-side cost sharing in its simplest form is a linear combination of fee-for-service and capitation pricing, but non-linear schedules are also possible (Ellis and McGuire 1993).

Insurance Design: Three Ideal Types

A health insurance plan can be designed in several ways: costs can be covered by contributions from the insured (modality of self-insurance), from the employer of the insured (corporate plans and social insurance), from the state (through tax financing), or from a combination of all these sources. The benefits can be independent of contributions (government-financed insurance) or tied to them (private insurance). The coverage can be provided to groups or to individuals. The system can be voluntary (usually the case of private insurance) or compulsory in both the subsidized and non-subsidized versions (government-financed insurance), or it can be a combination of compulsory for basic policies and voluntary for supplemental policies (managed competition). The manner of payment to doctors can be done through salary or with capitation. This section considers three ideal types of health insurance systems: private insurance, government-financed insurance and social insurance.

The main issues to be taken into consideration when planning the design of a health insurance plan are population coverage, the benefit package, the organization of health insurance, provider payment mechanisms, cost estimation and control, financing, administration and management, individual choice, the insurer's ability to discriminate, and the extent to which administrative costs (including advertising and commissions) should be passed on to the insured (table 3.1).

Private Insurance

Private insurance is based on a free market, individual decisions and private opportunity costs. The conceptual roots of this position can be found in classical liberalism. According to this view, individual sovereignty and negative freedom have to be protected because they provide the backdrop for market activity. Some economists favor a free market approach to health insurance because they consider efficiency to be a social objective and they believe it can only come from the free interaction of market forces (Green 1993; Tirole 1994; Feldstein and Gruber 1994; Barnum, Kutzin and Saxenian 1995; Berman 1995; Feldstein 1996; Israel 1996). Others who favor a free market approach think that respect for autonomy is a precondition of moral action (Arrow 1963; Sen 1988, 1995; Birdsall, Ross and Sabot 1995). According to these economists, the only state initiatives permitted are preventive medicine and health education because they are considered merit goods necessary for the promotion of healthy lifestyles and social cohesion. The role of voluntary insurance associations and charities is viewed as essential in integrating market delivery.

Libertarians advocate for private insurance because they think that government failure in health markets leads to worse outcomes than those arising from the workings of a necessarily imperfect market (Green 1993; Feldstein and Gruber 1994; Barnum, Kutzin and Saxenian 1995; Feldstein 1996; Israel 1996). In particular, access held con-

Table 3.1. Designing Health Insurance Ideal Types

| System | Costs | | | | | Contributors | Individuals' choice across insurance companies | Insurers' incentive to seek low-risk individuals | Insurers' ability to discriminate |
|-------------------------|--|--|--|--|--|---|--|---|---|
| | Population coverage | Administrative (including advertising and commissions) | Cost control (depending on the benefit package and the way providers are paid) | | | | | | |
| Private | Very weak Voluntary; group or individual coverage | Very high | Some control Doctors are paid a salary or capitation | | | Insured individuals (self-financing) and/or employers (corporate plans) | Ample choice | Very strong Benefits tied to contribution; risk-related payments | Very high Insurers seek low-risk individuals through the structure of incentives; the premium varies according to health status or behavior; age and income of individuals |
| Tax-financed | Very strong Compulsory group coverage (subsidized or not) | High | Weak control Doctors are paid a salary | | | Government, tax financing | No choice | Very weak Benefits independent of contribution; no risk-related payments | Very weak |
| Social insurance | Strong Group coverage; compulsory for basic policies, voluntary for supplemental policies | Moderate | Some control Doctors are paid a salary or capitation | | | Financed by taxes, employers and self-financing | No choice/ some choice | Very weak No risk-related payments | Very weak |

stant, cost analysis implies thinking about prices and, if it is a fee-for-service system, about how prices affect quantities. Hence, it is impossible to focus just on access because any proposal that increases access will tend to increase cost. In capitation systems, this role is played by fixed annual payments. In some countries (for example, the United States), cost issues are the most important element in the political pressure to change. In other countries (for example, in Western and Eastern Europe), universal access has played a more important role.

Others criticize the application of the free market logic to either the private or the public sector (Sen 1988; Birdsall, Ross and Sabot 1995; Sen 1995). Welfare liberals and egalitarians claim that providers of private health services discriminate in favor of the best risks, try to exclude the irremediably sick, and outbid government providers in obtaining trained doctors and nurses. Furthermore, private providers place a heavy emphasis on sophisticated and expensive curative services in urban areas when the main need is for preventive services to cut the incidence of infectious diseases in both urban and rural areas.

Welfare liberals stress that it is not necessary to focus only on costs because access is a central issue in improving allocation. Egalitarians claim that the introduction of user fees or costly membership fees in insurance plans would decrease access to modern health services for the poorest people. They believe that government-provided health insurance creates more equity when access to health services is completely free for the poorest segments of society. Even if there is a great variety of private insurance plans available to the consumer, it does not mean that resources accommodate demand.

The Market System

Private health insurance is typically voluntary and administered by an insurance company or other private agency, and its provisions are specified in a bilateral contract. Private insurance is based on risk. People pay premiums based on the expected average cost of providing services for them: high-risk groups pay more and low-risk groups pay less (see table 3.1).

Private health insurance is usually financed on a group basis, but most plans also provide individual policies. Private group plans are usually financed by groups of employees whose payments may be subsidized by their employer, with the money going into a special fund (as is the case in Chile and the United States). Insurance that covers hospital costs is the most prevalent form of private health insurance. Another popular type of insurance covers major medical expenses; it provides protection against large medical costs, but avoids the financial and administrative burdens involved in insuring small costs. Although health insurance contracts are not highly standardized, the major types of coverage include regular medical, major medical, hospitalization, surgical, dental, disability income and long-term care. Private health insurance contracts are in general quite restricted in coverage. They also lend them-

selves to abuses such as overutilization, multiple policies and insuring for more than 100 percent of the expected loss.

A central idea is that individuals are partially responsible for health behavior (see table 3.1). Consequently, they should have the autonomy to make market and personal decisions as far as their own health is concerned. Under this view, medical assistance is only one preference among many and should be based largely on consumer choice and ability to pay.

Proponents of the market system believe that free markets are more effective and cheaper than regulated markets. Thus, placing health insurance within the free market environment would increase efficiency in production (health insurance policies would be of higher quality and offered at a lower cost) and in allocation (market forces lower opportunity costs, optimizing the amount of resources dedicated to health). However, few economists would argue that health care ought to be entirely supplied according to the free market. Most recognize the importance of the inherent characteristics and imperfections of health markets. Still, many free market-oriented policies for health care delivery have been proposed in recent years, modifying the output of free market health systems only by use of some sliding scale of support and entitlement for low-income families.

Feldstein (1994) advances a proposal in which each family would be responsible for its own medical bills up to a certain percentage depending on income level, up to a maximum of 9 percent for household income greater than \$25,000. According to Feldstein and Gruber (1994), a health insurance plan that has a 50-percent co-insurance rate but limits out-of-pocket spending to 10 percent of income can substantially reduce total medical spending. This is true although a substantial part of health expenses are incurred by families spending 10 percent or more of family income on health care. Incentives to reduce health delivery costs could be increased through prices or vouchers for health insurance for families with modest incomes. In this manner, every family could spend money as it sees fit—a condition that guarantees the negative freedom necessary for the market to work. This would be a variation of a guaranteed annual income crafted onto a comprehensive medical insurance option. But the use of price alone as an incentive for rationing raises several problems.

Even if price rationing problems could be overcome, a difficulty remains. Under the Feldstein plan, the private insurance industry is virtually cut off from lucrative markets and hence it would oppose such legislation with considerable vigor. Hospitals and other constituents from the health care industry would see their profit margins shrink and would join in the opposition. Organized labor would also join the private carriers' opposition because union contracts take full advantage of the nontax provisions for medical fringe benefits. According to Feldstein, this legislation would strip the advantage away from such contracts and at the same time give better coverage to the working poor and others of modest incomes who are not covered by tax-free fringe benefits gained from collective bargaining.

Box 3.1. Voluntary Insurance Associations in the United Kingdom

Voluntary insurance associations arose as a form of market-based innovation in the United Kingdom during the 19th century.^a At that time, many friendly societies provided medical benefits under voluntary insurance and made their own contracts with doctors.

Before the National Health Service was set up, the United Kingdom had developed forms of health care financing.^b Consumers joined mutual aid associations, which negotiated a price/service package with individual doctors and framed rules for the conduct of doctors and patients. Standards were upheld by competition and by an internal complaint mechanism with minimum government involvement.

In the 19th century, friendly societies were the most important providers of social welfare. They were self-governing mutual benefit associations founded by manual workers to provide against hard times. The societies insured against illness and death; any assistance was not a matter of beneficence, but of entitlement.^c The friendly societies represented the consumer and sought to improve the quality of medical care and to contain pressure for fee increases through competition.

By 1911, when compulsory national insurance was introduced to cover 12 million people, at least nine million were already covered by voluntary insurance associations, chiefly provided by the friendly societies (Green 1993). It also appears that membership in friendly societies was higher in poorer areas; however, many people found it difficult to keep up the contributions. These people were usually low paid, often in irregular or seasonal work (Green 1993). The Lloyd George's National Insurance Act of 1911 began the trend toward public financing of health care, substituting private social welfare services with public services. Supporters of the free market see this shift as detrimental to the efficiency and equity of the health system.^d

^a Some economists think that the United Kingdom was similar to many developing countries (Green 1993). Its past experience may be of relevance for market-based health care systems in developing countries.

^b Between 1911 and the establishment of National Health Service in the United Kingdom, benefits in kind were administered by statutory committees for each area, as a result of pressure from the medical profession. This meant that any general practitioner who wished to participate could do so.

^c "They strongly distinguished their guiding philosophy from the philanthropy which lay at the heart of charitable work (...) They began as local clubs (...) but the 19th century saw the gradual evolution of national federations with hundreds of thousands of members and carefully managed investments." (Green 1993, p. 30)

^d "The 1911 Act led to the dismantling of these arrangements by the state at the behest of the doctors." (Green 1993, p. 87) Friendly societies were in constant conflict with the organized medical profession. The doctors particularly resented "the supervision and impertinence of the committee of the Friendly Society (...) and [being] treated as a servant" (Green 1993, p. 74). The differing class composition of doctors and members of the friendly societies did not help matters. "As the 19th century progressed the medical profession organized itself with ever-growing determination to eliminate competition by whatever means were available." (Green 1993, p. 76)

According to some economists, this is an example of how pressure by interest groups (doctors and medical professionals) nullifies a positive outcome of free markets. "The development of these organizations was stifled by the monopolists of the NHS." (Green 1988, p. 87) The National Health Service wanted to control advertising and "canvassing" by doctors and to regulate their fees. With the 1948 nationalization of medicine, "all alternatives to the NHS monolith were excluded. Due partly to government efforts to satiate professional demands, but also to a misguided faith in the omniscience and organizational capacity of government, the final vestiges of competition in the supply of health care were driven out of existence." (Green 1993, p. 120)

Charity

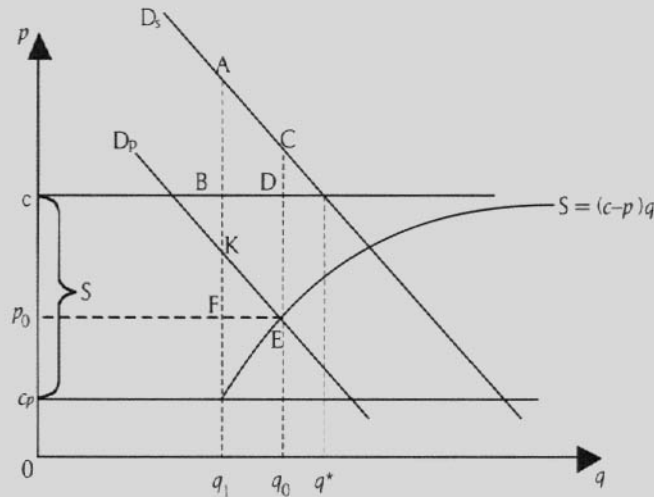
Supporters of private insurance point out that insurance can be offered by private agents and that market failures can be better solved by charities than by government assistance. They say that charities, if allowed to develop freely, would be optimal in covering the areas not covered by the market, and that the combination of market and charity is optimal because it offers the possibility of delivering health care while respecting people's autonomy. For example, in 19th-century England, friendly societies were an important source of medical insurance for indigent people (see box 3.1). Even if some relied on government intervention and some on the Poor Law for their medical needs, a large section of the indigent population obtained care free of charge through charities such as free hospitals and clinics.

Co-payments

Cost sharing and self-financing are options for the delivery of health insurance. In addition, they create incentives that increase the sustainability of the delivery system.⁵ According to the free market approach, the government should use these mechanisms. The quantity of health care consumed could increase if the public sector charged a fee because of the high externalities and the constraint of a fixed budget.

Figure 3.2 illustrates the rationale of government co-payments, where the private demand for a service is denoted D_p , the social demand curve as D_s , constant total marginal cost as c and private cost as c_p . The curvilinear line S represents the relationship between the prices charged by the hospital (or government health provider) and the amount the government (insurer) can provide, given its unit cost, cc_p , and a fixed subsidy allocation S . For example, at zero price, the public hospital can provide q_1 and the implied government unit subsidy is cc_p . If the price revenue $c_p p_0$ is used to expand the service, at a price p_0 , the government can provide q_0 . The implied unit government subsidy is cp_0 . If the service were provided free of charge, it would be efficient to raise fees to the level p_0 to expand the service to q_0 . Any fee increase beyond p_0 would constrain demand too much. The producer surplus is equal to the area q_1FE , and the consumer surplus to KFE in figure 3.2. Area $ACDB$ represents the sum of social welfare gains.

⁵ To take one example, in 19th-century England, many people paid a fee for service. The fees varied according to income: rent was taken as the main indicator of the ability to pay. Another large segment of the population relied on prepayment schemes to manage their health care needs. This was "(...) commonly called contract practice, based in on the payment of a fixed annual capitation fee" (Green 1993, p. 70). These schemes were either based in factories or organized by charities; some were run on commercial lines, some by individual doctors, some by local associations of doctors. The greatest number were organized by friendly societies.

Figure 3.2. Pricing with High Externalities under a Budgetary Constraint

Source: Jimenez (1987, p. 69).

Tax-Financed Insurance

"That any sane nation, having observed that you could provide for the supply of bread by giving bakers a pecuniary interest in baking for you, should go on to give a surgeon a pecuniary interest in cutting off your leg, is enough to make one despair of political humanity."

George Bernard Shaw
The Doctor's Dilemma, 1911

In tax-financed insurance based on public opportunity cost, health insurance is considered a public good. Government tax-funded systems pay for health services out of general government revenue (see table 3.1). There may also be some special health taxes, for example, on health-damaging goods or activities (Silow-Carroll and Sardegna 1991). The conceptual roots of this approach are found in the welfare liberalism that informed modern industrial states and, in its extremes, in the egalitarian ideology that inspired socialism.

Value Judgments

According to welfare liberalism, the state must step into the delivery of health insurance with various means to protect the public interest and to provide a minimum of health services, in particular for the poor. According to socialism, the provision should be state-managed, allocated according to need (without any kind of distinction), and should grant coverage for the large majority of health problems and illnesses. Egalitarians privilege public intervention as a means of granting greater equality.

According to supporters of public intervention, there must be ethical judgments and consequential actions at the political level. Not surprisingly, they criticize fee-for-service delivery and do not welcome the outcomes of pure laissez-faire. They believe that risks related to serious illness and age should be covered as part of the health insurance plan. Moreover, they believe that the contributions of lifestyle to illness should be largely irrelevant. Although healthy behaviors increase longevity, supporters of public provision claim that people who lack knowledge about healthy lifestyles cannot be held accountable, in particular because they are not positively free. In addition, income should not present a barrier to reasonable and adequate health services.

Social Responsibility

Many diseases have a large impact and society needs to take responsibility for them. People with AIDS, syphilis, tuberculosis, malaria and other diseases should be protected regardless of how they contracted the disease. For these reasons, supporters of public delivery argue that government should control medical delivery and that such delivery should work within government-established budgets.

Reduced Costs

An additional reason in support of government-financed health insurance is that public delivery would homogenize the health package. Decreased variety in insurance plans would help to reduce providers' administrative costs, thus increasing allocative efficiency (see table 3.1). Furthermore, making the purchase of insurance mandatory would lower the cost of providing health services to those individuals who choose not to be insured because the system provides some free care for the insured.⁶ In this manner, the mandatory purchase of health insurance increases allocative efficiency.

⁶ Another way to solve the problem of those who choose not to be insured because free care is available is the use of vouchers for purchasing insurance (Pauly and others 1991; Diamond 1992).

Public Systems

Many countries provide health insurance as a state-funded service. Socialized medicine and government medical care programs are usually financed by general tax revenues; doctors and other professional staff are employed, directly or indirectly, by a government agency on a full-time or part-time salaried basis; and hospitals and other health facilities are owned or operated by the government. Decisions about the overall funding of services are made as part of the overall planning of government expenditure. This has been the practice in Australia, Brazil, Canada, Chile, Greece, Ireland, Mexico, New Zealand, Sweden, Turkey and the countries of Eastern Europe.

In other countries, the government manages parts of the health insurance system. The National Health Service in the United Kingdom and the veterans' hospitals in the United States (operated by the Department of Veterans' Affairs) are examples of such systems. In the United States, where health insurance is mostly provided by the private sector, the government provides medical services in mental hospitals and also runs a public health insurance program for citizens aged 65 and over (Medicare) under the Social Security Act amendments of 1965. Eligibility for benefits is conferred on the basis of employment or contributions regardless of income or assets (see table 3.1). Benefits may consist of the right to certain medical services or reimbursement to the insured for specific medical costs and may sometimes include income benefits for working time lost due to sickness or maternity leave.

Renewal

Continuity when changing health insurance providers is a concern. Financing health insurance through income-related taxes, adjusted for age and location, prevents the effects of the market mechanism that enables companies to attract low-risk clients and to discourage renewal by higher-risk ones.⁷ The difference in pricing of alternative insurance packages reflects alternative basic coverage or the possible selection of a supplemental plan.

Alleviating Underinvestment

A main point of public intervention is to offer health as a merit good, which means creating the conditions for insuring people who would not invest in their health by obtaining insurance. Simple tools of economic analysis illustrate the crucial role of pricing policy in alleviating underinvestment. In figure 3.3, the private demand for a service

⁷ In the health economics literature, low-risk clients are called "good risks" and higher-risk clients are called "poor risks." According to van de Ven and van Vliet (1990), companies engage in a variety of activities to attract low-risk individuals and thus make profits. They call this phenomenon "cream skimming."

Social Insurance

Social insurance is a public safeguard program that in general provides protection against various economic risks—loss of income due to sickness, old age or unemployment—and in which participation is normally compulsory.⁸ In this definition, health insurance is a subgroup of social insurance; consequently, it is beneficial to review the background of the broader category of social insurance (see box 3.2).

Social insurance systems pay for health services through contributions to a health fund. The most common basis for contributions is the payroll, with contributions from both employer and employee (see table 3.1). Contributions are based on ability to pay and access to services depends on need. The health fund is usually independent of government, but works within a tight framework of regulations. It is normal under social insurance for entitlements to services to be listed in detail, and for contribution rates to be set at a level intended to ensure that these entitlements can be met (Normand and Weber 1994).

Germany was the first country to use social health insurance. In Thailand, social insurance is being introduced into a mainly government-funded system. Egypt has a mature system of social insurance covering a minority of people. Costa Rica has a comprehensive system of social insurance.

Social insurance differs significantly from other forms of public aid. Social insurance systems tend to be self-financing, with contributions placed in specific funds for that purpose (see table 3.1). In some countries, social insurance programs resemble private insurance in that the required contribution levels reflect varying degrees of risk. However, social insurance programs differ from private insurance in several ways. Contributions are normally compulsory and may be made by the insured individual's employer and the state as well as by the insured individual. In addition, benefits are not as strictly tied to contributions as in private insurance. The financing of social insurance programs varies considerably across countries. Australia, Sweden and Denmark are among those in which the state bears a high proportion of the costs. The distribution of costs also varies within each country according to the particular program in question.

Functioning

Payroll contributions—typically calculated as a percentage of income—accumulate in the health fund, with employer and employee each contributing. For example, if the total social health insurance contribution for a worker is 10 percent of the wage, this may

⁸ Although social insurance and social security are sometimes used interchangeably, here social insurance is considered a type of social security.

Box 3.2. The Adoption of Social Insurance: A Brief History

The first compulsory social insurance programs on a national scale were established in Germany under Chancellor Otto von Bismarck: health insurance in 1883, workmen's compensation in 1884, and old age and invalid pensions in 1889. Austria and Hungary soon followed Germany's example. Elsewhere in Europe, the issue was debated between those who advocated compulsory social insurance and those who preferred a voluntary, subsidized system. Great Britain adopted national compulsory health insurance in 1911 and greatly expanded it in 1948. After 1920, social insurance on a compulsory basis was rapidly adopted throughout Europe and in the Western Hemisphere. In the United States, government insurance programs were exclusively the responsibility of state or local governments until 1935, with the passage of the Social Security Act. At that time, the government adopted three federal insurance programs: retirement and survivor benefits, health care for persons over age 65, and insurance against disability.

be made up by contributions of 7 percent from the employer and 3 percent from the employee. If contributions to the insurance fund are tax free, there is little analytical difference between employer and employee contributions, although there may be important differences in the effects on resource allocation. For example, employer contributions encourage employers to seek cost containment.

Advantages

Social health insurance is one method of financing health services, as either the main or a supplementary funding mechanism. Normand and Weber (1994) consider it convenient for the following reasons: it can provide a stable source of revenue for services; the flow of funds into the health sector is visible; it can help to establish patients' rights as customers of the health care providers; it combines risk pooling with mutual support by allocating services according to need and distributing financial burdens according to the ability to pay; and it can operate in pursuance of government health policy goals, but it can maintain a degree of independence from government.

Introducing social health insurance can improve access for some groups in the population and may widen coverage by bringing additional resources into the health sector. Funds released by moving part of the population from a government-funded to a social insurance-funded system of care could allow other priority services to be developed. For example, such resources could be used to improve the provision of services to population subgroups not covered by social health insurance.

Disadvantages

The main disadvantages of social insurance financing are high administrative costs, overutilization of services and hence problems of cost containment, problems in ensuring coverage for workers in agriculture and the informal sector, lack of transparency or accountability for decisions on resource allocation, and development of unrealistic public expectations.

Concerns

In social financing, there are two basic concerns. One concern is about issues related to the extension of coverage of small systems to both a larger share of the lower-income population and a broader range of health interventions. Another concern is the choice faced by insurance systems, particularly by social insurance schemes, between acting as direct providers or as financiers of health care delivered by others. The first issue is important for a broad range of countries, especially the poorer ones where insurance coverage is minimal. Many have either small insurance schemes (usually facility-based or area-specific) or employer-based arrangements that can serve as a basis for extension. The second issue is a more pressing concern for countries with older, relatively large social insurance systems, but it is a generic issue that all countries with direct delivery systems face at some point.

Social financing is viewed as one solution to the demand for pooling financial risks associated with catastrophic illness. However, social insurance often creates equity problems in health care. These problems are difficult to alleviate in developing countries because solutions demand a certain level of economic and institutional development that is often lacking.

Administration Costs

Social health insurance may involve higher costs than a tax-funded and government-provided health care system, owing to the need to pay for the separate or quasi-separate collection of contributions, claims handling and management of services. Administration costs depend on the number of organizations and their sizes.

The skills needed to administer a system of social health insurance are different from those used in other types of health service management and financing. Staff need to be equipped to manage the collection of contributions, support the process of identifying entitlements, arrange for access to the services to which members are entitled and monitor the quality and appropriateness of care. Health services can be provided by the government, which builds facilities, trains staff and buys the equipment, or indirectly, with government encouraging the provision of health services by private and nongovernmental bodies.

Different Types of Contributions and Their Impact on Solidarity

The main difference between varying types of contributions is the effect on the distribution of health costs among the members (solidarity effects). Compulsory membership may be necessary to avoid fraud. For example, if flat-rate contributions are not combined with compulsory membership, people will only register when they become a bad risk (when they become sick or old). An alternative is restricted access to social health insurance, which allows people to join only if they are below a certain age. In France, there are some mutuals that charge wage-related contributions and at the same time allow voluntary access up to a specified age only. However, this might conflict with the objective of universal coverage (efficiency in production and equity in access). An additional possibility for avoiding fraud is to introduce a qualifying period before an individual is allowed access to benefits and to exclude people with existing diseases or chronic illnesses.

In most countries, contributions are in some way related to wages. They may be a percentage of the wage or a fixed amount for people whose wage falls within a certain range. The latter is easier to administer in countries where there are problems with the exact assessment of wages or income. The advantage of wage-related contributions is that they take into account the individual's ability to pay, so that everybody can afford social health insurance (equity in capability). This point becomes increasingly important as income differentials rise in a country.

The disadvantage of wage-related contributions is that there can be large differences in the contributions paid by different individuals. Therefore, wage-related contributions may have an upper limit or ceiling. Only the wage or the income up to the ceiling is taken into account in calculating the contribution, and no contribution is payable on income above the ceiling. The advantage of a ceiling is that it helps to maintain equivalence between contributions and entitlement to benefits. Otherwise, the contributions of people with high incomes would be much higher than the expected value of their entitlements. This may cause problems of equity and acceptability for the system. However, a contribution ceiling means that people with higher incomes pay comparatively low premiums, which runs counter to the principle of ability to pay.

Insurance Design in Practice

Managed Competition

According to supporters of managed competition, a good mix of market mechanisms and government intervention is the basis for an optimal method of financing and managing health care delivery (Diamond 1992; Enthoven 1993; Feldman and Dowd 1993; Newhouse 1996). On one hand, supporters of managed competition think that private

markets—in their present configuration, even without distortions created by government (the free market approach)—have not produced acceptable results. It is important to emphasize that they do not reject the market system; instead, they believe that it does not work as it has been configured and that incentives have to be restructured. In short, the market is a powerful tool that needs to be rethought, redesigned and restructured. On the other hand, supporters of managed competition recognize that any market system must have particular rules; hence, they propose to establish rules designed to create the right incentives for efficient and equitable delivery. The viability of market-based solutions is always fragile and is beset with many challenges: the delicate design of government-market structures, the careful calibration of market and political incentives, and the need to be wary of a hidden agenda.

According to the managed-competition approach, in situations where there is uncertainty about market performance, there is an alternative to heavy regulation: the planned entry of a publicly managed competitor. Managed competition is the central feature of several proposals to restructure the health care system in fundamental ways that address the dual concerns about rising health care costs and universal health insurance coverage. Enthoven and Kronick (1991) best articulate the theory of managed competition. Their proposal includes mandated employer-provided health insurance, premium contributions from all employers and employees, a limit on tax-free employer premium contributions, and public sponsors to structure and manage the demand side of the health insurance market.

Combining Regulation and Competition

Supporters of managed competition have suggested some guidelines for combining regulation and competition (Diamond 1992; Enthoven 1993; Newhouse 1996). First, health insurance should be provided only through large groups formed by the government, which can use its power of compulsion on a geographic basis. There would be multiple large groups in any given area to promote the conditions for competition.

Second, private insurance should be preserved in order to maintain current incentives to explore managed care options. Furthermore, private insurance companies could compete for the large groups. Having all individuals in similar large groups would alter the relationship between insurance companies and medical providers, allowing a negotiation approach to cost-containment strategies. The group represents a risk pool from the perspective of the insurance company, but not fully from the perspective of the insured individual (Diamond 1992).

Third, a new semi-autonomous government agency should be created to serve the role for each group that (in industrial countries) is played by employee benefit offices in large firms to oversee the organization and pricing of choices offered from a short menu to individuals in each group. Risk sharing of aggregate group expenses would be allowed either by having a re-insurance market or a partially cost-based payment

arrangement between the government agency and the insurance company. Laffont and Tirole (1991) and Diamond (1992) detail the role of cost sharing in regulation and procurement.

Fourth, financing should be a combination of taxes and out-of-pocket payments for premiums.

Responses to Rising Costs

Managed competition seeks to create price-elastic demand so that there will be powerful incentives for health plans to cut prices and costs. It designs a series of interventions to take the system from inelastic demand to elastic demand within a functioning market. There would be an annual open enrollment period for everyone with side-by-side comparisons of premiums, a limit on tax-free employer contributions, a standardized benefit package, risk-adjusted premiums, a program of consumer information about quality, and individual choice of plan.

In a monopolistic competitive setting, pricing behavior depends on the elasticity of demand. Insurance changes the elasticity of demand. This is true if there are proportional co-payments present and even if there is fixed reimbursement. There are three approaches to the pricing implications of the changed elasticity of demand. One is direct price regulation by the government. The second is to vary the rules for reimbursement in order to influence the elasticity of demand. The third is to engage in ex ante negotiations with providers to determine prices. A typical example of influencing elasticity is a cap on the amount that will be reimbursed. In this way, all insurance covering fee-for-service medical care will work in equilibrium: either prices will be negotiated ahead of time between the insurers and the providers or reimbursement limits will be cost-indexed. Of course, general costs would be the reference for indexing, not the costs of the particular provider (Diamond 1992).

Managed competition tends to design a system with incentives focused on improving the quality and efficiency of care, rather than on selecting risks (cherry picking). The design includes a single point of entry, contracts for each health plan to accept all members of a sponsored group, guaranteed continuity of coverage, inclusion of persons with preexisting conditions, community rating within the sponsored group, a standardized benefit package, and risk-adjusted premiums.

Under the managed-competition strategy, employers offer workers a broad menu of insurance plans and contribute the same amount to each plan, regardless of which plan is chosen. By making individuals pay for the marginal full cost of insurance, it is assumed that insurance choices will be more efficient. Moreover, plans facing a higher elasticity of demand may reduce their markups or strive to make their product more competitive. Reforms toward managed competition have been proposed for public programs as well as employment-based pools.

A Menu of Policies

The design of the menu of insurance policies and the aggregate and individual prices present some uncertainty. Two options are discussed: specifying the entire menu of policies and allowing competition solely on price, and allowing submissions by insurance companies that vary in details and are subject to design negotiations.

The literature on the topic of managed competition is inclined to favor the first option: insurance companies would offer the members of a covered group a short menu of alternatives. Given that a menu is rarely specified in detail, Diamond (1992) suggests the first of these two options by letting groups of companies bid on the entire menu rather than having separate companies bid on separate items on the menu. This menu would begin with the basic health insurance policy that has been decided by collective choice (for example, through the action of the government) as the minimum policy that everyone should have. The company would generally offer other managed care alternatives. Individuals in the group would have to take one of the basic options because selection of some basic policy would be mandatory. In addition, they would pay a premium covering some of the cost of basic insurance. For individuals too poor to pay for their own coverage, the government would pay for premiums or provide co-payments. For example, in the United States, Medicaid would help pay for premiums and would either provide for co-payments or require the use of a health maintenance organization (HMO) (Diamond 1992; Newhouse 1996).

The insurance company would also have the opportunity to offer supplementary policies to provide additional coverage. Individuals would pay in full for any supplementary policies that they selected from the basic insurance provider or from other carriers who offer supplementary policies to all members of a group. These might cover services not covered in the basic policy because they were not sufficiently important or sufficiently cost effective for the basic policy. In the United States, supplementary policies might cover deductibles and co-payments, as with Medigap policies (Diamond 1992). The Health Technical Panel (1991) raises the possibility of having separate high-tech and low-tech Medicare options. Allowing such offers would increase competition in supply, but some policies could increase utilization (and costs) of the basic policy.

When supplementary policies do not come from the same company selling the basic policy, their price would not reflect marginal cost. According to Diamond (1992), it would be best to require all health insurance to be from a single source. The premium bill would be partly financed by a tax on employers and partly from general revenue. Thus, the amounts received by the insurance company for a particular group and paid directly by individuals in the group are not tightly related, allowing for cross subsidization to accomplish social insurance goals. This sort of cross subsidization with flexible prices does not result in the allocative disruptions of cross subsidization without price flexibility, which tends to interfere with market clearance (Diamond 1992).

In an effort to preserve the efficiency of the insurance industry and to provide some scope for individual choice, two issues need to be addressed. One is whether to let groups form voluntarily or by government organization. For example, in the United States, Medicare is a government-formed group based on age and disability. The second issue is the design of the group plan, in particular whether it should be a government-designed plan or a choice from a private market-designed menu. Managed competition does not favor one approach over the other, but suggests integrating both. Diamond (1992) suggests combining government group formation with private market insurance design.

According to supporters of managed competition, providing a choice in insurance plans is better than having a single, uniform, government-designed plan. The reason for this is that there are differences in preferences over the way individuals receive medical services. In particular, people have diverse preferences about the degree of choice across doctors and other providers. Some people want to be able to choose doctors with no interference from the insurance mechanism, some want that choice to be made for them, and others fall in between the two extremes. Advocates of managed competition believe it is efficient to preserve choice and to use pricing to guide choice because the cost of providing services and the usefulness of co-payments differ across modes.

Age-varying premiums are preferred because income no longer increases with length of life after retirement, but expenditures do. This fact suggests different pricing principles before and after retirement age. In short, the optimal retirement income system depends on the pattern of medical expenses (Enthoven 1993). Since medical expenses might grow at a different rate from incomes, a more stable system might be achieved by explicitly choosing separate systems for retirement and medical insurance for retirement, rather than having age-independent health insurance premiums.

Often pricing does not protect individuals against the risk of drastically changed premiums. This could be accommodated by requiring insurance companies to charge the same rate to everyone (or everyone in a small number of risk classes based on observables such as age), together with periodic open enrollment, which requires insurance companies to accept anyone who wants to purchase insurance. However, this creates a large incentive to be part of a large (possibly self-insured) group in order to escape the cross subsidization of less-healthy people lumped into the open enrollment pools. This approach maintains the incentive for insurance companies to induce self-selection, but it also maintains much of the large transaction costs associated with individual insurance.

The inefficiency of average cost pricing leads supporters of managed competition to want groups of companies to bid on the entire menu, although alternative cross-subsidy rules can be used instead (Diamond 1992). Bidding by companies involves bidding both on the cost of the package and on the price differentials associated with different policies.

Health Insurance in Developing Countries

Developing countries have serious difficulties financing and providing health care to their populations. Many governments provide preventive and curative services to their citizens through special programs and government-owned facility networks. In many countries, the public sector pays for a significant proportion of the cost of curative care. For the most part, outlays are directed to hospital-based services, which tend to favor relatively well-off population groups residing close to urban hospitals, while large segments of the population have little or no access to health care of any kind. Often health ministries own and run the facilities, which are financed through general tax revenues. However, financial crises resulting from economic downturns during the 1980s reduced budgetary support for many public health systems. Insufficient spending combined with productive and allocative inefficiencies and inequitable distribution of benefits plague government services, leading to deterioration in quality (World Bank 1998). Cost-effective public health and primary care services usually receive less priority and are the first to be sacrificed when budgets are reduced. Stock-outs, queues, low productivity and high lengths of hospital stays are a few of the symptoms of this situation.

Health Insurance as a Financial Mechanism

The governments of developing countries realize they cannot afford to pay for all types of health care services for their entire population. Faced with the prospect of decreasing or eliminating the provision of some services, many are exploring alternative coverage and financing systems. Attempts are being made to alleviate financial crises through risk sharing, but more information is needed on which schemes have been successful in extending coverage and solving economic problems and which schemes have failed. Health insurance has emerged as a financial mechanism with perhaps the best potential to achieve financially sustainable health care provision.

Stylized Facts about Developing Countries

With the exception of several Latin American countries, risk-sharing schemes cover a small segment of the population in developing countries and an even smaller proportion of low-income households. In 1987, the World Bank estimated that approximately 15 percent of the population in developing countries (excluding China) participates in a health insurance scheme. In comparison, private and government-mandated risk-sharing arrangements cover 80–100 percent of the population in industrial countries. The schemes in most developing countries protect relatively well-off civil servants and private sector workers residing in urban areas and participating in the formal economy.

Apart from Cuba, which has a National Health Service, only three countries in Latin America (Argentina, Brazil and Costa Rica) have health insurance coverage for 80

percent or more of the population.⁹ However, coverage may not necessarily mean that services are equally available. Coverage extends to about half the population in Mexico, Panama and Uruguay, and to more than a quarter in Bolivia and Venezuela. In the remaining countries, coverage includes only 10 percent or less of the population. By no means do all of these countries extend the same rights to the spouse and children of the insured person. Several provide only maternity care and pediatric care for dependents. Coverage is more easily provided for the employees of larger establishments, which tend to be concentrated in urban areas. Even in urban areas, those excluded tend to be the self-employed, domestic servants and itinerant workers.

The obstacles to expanding rural coverage include much lower levels of earnings, geographic dispersion, less formal employment conditions and more extensive self-employment and seasonal employment. Most important of all, some schemes have become too costly to extend on the same basis with tax subsidies to cover the whole population. Thus, the remaining population must depend on poorly financed and staffed services provided by ministries of health. Population coverage of state-affiliated, compulsory social insurance systems in Latin America range from 6 percent in the Dominican Republic to nearly 80 percent in Costa Rica (McGreevey 1990). But social insurance schemes cover less than half of the population in 12 Latin American countries. Moreover, within-country coverage may vary considerably, with a heavy concentration of enrollees in large urban areas (Mesa-Lago 1989).

Private insurance covers a small but growing proportion of the population in Latin America, varying between 3 and 10 percent for most countries; exceptions are 20 percent in Brazil, 35 percent in Uruguay and 16 percent in Chile (La Forgia, Griffin and Bovbjerg 1993). The poor are usually not covered through Latin American social insurance schemes, in part because these systems exclude the participation of low-income households whose main source of income is derived from self-employment, informal sector activities, traditional farming, temporary work and domestic employment (Mesa-Lago 1992). In several countries, a significant share of the economically active population may participate in these activities. Chile, Costa Rica, Ecuador, Mexico and Panama have attempted to extend social insurance coverage to low-income groups.

In Asian countries, social and private insurance schemes combined cover an insignificant proportion of the population, usually less than 3 percent (Griffin 1992; International Labour Office 1990). However, insurance schemes cover 66 percent of the population in China, 47 percent in Korea, and 38 percent in the Philippines. Health insurance has developed slowly in India, as resources have become available for doing so in particular states. In absolute numbers, a social insurance scheme in India is one of the largest in the developing world, providing protection to over 27 million people, but coverage represents only 4 percent of that country's population (ILO 1990). South

⁹ Based on La Forgia, Griffin and Bovbjerg (1993) and World Bank (2002).

Table 3.2. Health Insurance Schemes in Developing Countries

| Country | Scheme | Sources of financing | | Source of provision | Distinguishing feature | Approach |
|--------------------|--|---|---|---|---|---|
| | | Public/statutory tax system | Private contributions | | | |
| Chile | Social Security Institutes (ISAPRE) | Statutory payroll tax | Premiums and cost sharing greater than 25 percent | Private | Privatization | National insurance systems (employment-based but with intention of national coverage) |
| | National Health Fund (FONASA) | State subsidy and statutory payroll tax | Cost sharing greater than 25 percent | Public statutory and private ^a | Privatization | |
| China | Employee, labor, collective, rural and private | | | | | |
| | Government Employee Insurance System (GEIS) | State subsidy | | | Evolving public-private mix | National insurance systems (employment-based but with intention of national coverage) |
| | Labor Insurance System (LIS) | Statutory payroll tax | Cost sharing greater than 25 percent | | Evolving public-private mix | |
| Costa Rica | Integration of Social Security and Ministry of Health | State subsidy ^b and statutory payroll tax ^c | | Public statutory | Institutional reform | Social security coverage extension |
| Dominican Republic | Teachers' HMO (SEMMA) | State subsidy | Premiums and cost sharing greater than 25 percent | Private | Social security substitute | Pre-payment plans (government/social security linkages to private provider) |
| Ecuador | Peasant Social Security | State subsidy ^b and statutory payroll tax ^c | | Public statutory | Rural coverage extension | Social security coverage extension |
| Guinea-Bissau | Village health insurance | State subsidy | Premiums | Public statutory | Village-based | Community-based risk-sharing. Rural health insurance |
| Kenya | National Hospital Insurance Fund | Statutory payroll tax | Cost sharing greater than 25 percent | Private | Mandate to extend coverage and benefits | Limited catastrophic coverage |
| Korea | Multiple insurance systems (employees, civil servants and teachers, occupational self-employed and regional self-employed) | | | | | |

| Industrial and special | Statutory payroll tax | Cost sharing greater than 25 percent | Private | Organizing and rationalizing the system | National insurance systems (employment-based but with intention of national coverage) |
|---------------------------|--|---|--------------------------------------|---|---|
| Occupational and regional | State subsidy | Premiums and cost sharing greater than 25 percent | Private | Organizing and rationalizing the system | National insurance systems (employment-based but with intention of national coverage) |
| Mexico | Institute for Social Security (IMSS), in Coordination with Plan for Depressed Zones and Marginal Groups (COPLAMAR) | State subsidy and statutory payroll tax ^c | Public/statutory | Rural coverage extension | Social Security coverage extension |
| Panama | Integration of Social Security and Ministry of Health | State subsidy ^b and statutory payroll tax ^c | Public/statutory | Institutional reform | Social security coverage extension |
| Philippines | Medicare | Statutory payroll tax | Private | Mandate to extend coverage and benefits | Limited catastrophic coverage |
| | Medicare-HMO tie-up | Statutory payroll tax | Cost sharing greater than 25 percent | Experimental | Pre-payment plans (government/social security linkages to private provider) |
| Thailand | Health card funds | State subsidy | Premiums | Village-based | Community-based risk-sharing. Rural health insurance |
| Uruguay | Institute for Collective Medical Assistance (IAMC) | Statutory payroll tax | Private | Strong government-private linkages | Pre-payment plans (government/social security linkages to private provider) |
| Zaire | Health zones | Premiums and cost sharing greater than 25 percent | Public/statutory | Facility/sub-regional based | Community-based risk-sharing. Rural health insurance |

^a Affiliates can choose private or public providers.

^b Government contribution is paid irregularly.

^c Transfers from regular social security to extension program.

Source: La Forgia, Griffin and Bovbjerg (1993); World Bank (1998, 2002).

Korea has introduced health insurance for the urban employed population and has provided rights to those with low incomes in urban areas; the problem of covering the remaining half of the population in rural areas remains to be solved.

Insurance coverage is even less prevalent in Africa. Social insurance schemes exist in three countries: Kenya, Mali and Zambia. Insurance is an important actor in the health sector only in Kenya, where 11 percent of the population is covered. Private insurance schemes exist in Nigeria, but less than 1 percent of the population is enrolled (Vogel 1990).

The lack of well-developed insurance markets in most developing countries is almost a pure case of incomplete markets. Governments can help to resolve the causes of incomplete markets by, among other possibilities, using their purchasing power, considerable institutional and organizational resources, and exclusive ability to develop a legal and regulatory framework for markets. They can also create and underwrite re-insurance plans, temporarily subsidize private activities that are not economically viable in the current environment, improve the operation of capital markets, and control the legal and financial resources required for communications and transportation infrastructure. Governments have used these tools in other sectors, but they have responded to market problems in the health sector by providing health services or health insurance directly through a public care delivery system (La Forgia, Griffin and Bovbjerg 1993).

The problems of adverse selection, moral hazard and high administrative costs make insurance infeasible although the existence of traditional risk-sharing devices is an indicator of the underlying demand for insurance. Social financing—in the form of payroll taxes earmarked for health care or worker compensation, community health funds, employment-based insurance or health components within social security systems—has been a politically popular method for raising large sums of money for health services in many different settings. Market advocates believe that cost recovery should be incorporated into the agenda for financing publicly provided health services (Tirole 1994; Berman 1995). Governments' attempts to solve risk problems through social financing must be viewed in terms of their effects on economic efficiency and equity.

Table 3.2 provides a schematic overview of the health insurance schemes in 15 developing countries. The appendix to this chapter describes the schemes in detail for five countries.

Efficiency and Equity: How Different Concepts Lead to Different Results

The literature on health insurance tends to confuse the meanings of the terms efficiency and equity. This section refers to the six main categories developed in chapter 1. The aim is to clarify whether emphasizing different types of efficiency and equity influences

the design of health insurance systems. Box 3.3 applies the methodology of this study to the case of health insurance in Zaire.

Efficiency

Chapter 1 developed the concepts of efficiency in production, coordination and allocation. This section looks at how these concepts of efficiency impact the design of health insurance, making reference to managed competition in industrial nations and to social insurance schemes in developing countries.

Efficiency in Production

In order to “produce efficiently,” the private health insurance market needs to avoid policy-induced distortions. Some economists suggest that a way to do this is by abandoning the system of tax-financed social insurance because it would lead to underfunding. According to its supporters, private insurance avoids selection problems by minimizing price competition and by using fee-for-service as a payment mechanism (Newhouse 1996). A public or private insurance plan or an HMO would contract with hospitals. An employer, a coalition of employers, or the government would contract with the health plans. The change in health care spending would reduce the loss that results from the excessive consumption of health care induced by low co-insurance rates. Shifting to a major risk policy could reduce aggregate health spending significantly; the reductions would be greatest among higher-income individuals (Feldstein and Gruber 1994).

According to those who support government-financed insurance, the market does not necessarily produce in an efficient way because it does not take advantage of economies of scale. Taking administrative expenses into consideration implies taking advantage of returns to scale through group design rather than individual arrangements.¹⁰ Public delivery avoids the problem of transferring administrative costs to the consumer. Administrative costs make insurance premiums higher in the private health market and they will not correspond to actuarially fair contracts in the ideal perfectly competitive market (Arrow 1991; Culyer 1971). Furthermore, the market has failed to produce the best product at the least cost for two reasons. First, price-inelastic demand is compounded by the lack of incentives to reduce the price and cost of health plans. Second, insurance firms inevitably end up competing for the best risks rather than cutting costs and improving the quality of care (Diamond 1992; Newhouse 1996).

¹⁰ The administration of health insurance is expensive and inadequately managed in a model of ideal insurance with premiums equal to expected benefits. It is estimated that roughly 12 percent of the revenue of the U.S. health insurance industry goes to administrative expenses (Division of National Cost Estimates 1987, table 21).

Box 3.3. The Methodology Applied to the Case of Health Insurance in Zaire

Efficiency

In Zaire, efficiency in production is the underlying concept of efficiency. The country's insurance schemes have few ties to the central government and are sponsored by relatively autonomous government administrative units, the health zones. In addition, individuals who wish to receive coverage under a plan must obtain a referral from a health center or health post. This requirement helps to achieve efficiency in allocation and deters self-referral to and excessive and inappropriate use of hospitals, hence saving resources for better alternative uses.

However, efficiency in allocation is not completely addressed because the program does not pay specific attention to efficiency in coordination. In fact, despite the referral requirement, the zero price faced by salaried employees combined with the hospital's financial incentive to collect the cost plus co-payment for this group result in significantly higher utilization levels. Enrollment is voluntary, but to avoid adverse selection, if one member subscribes, all family members must enroll. In general, the lack of clarity about the type of efficiency to be pursued hampers clear implementation.

Equity

Equity in access and equity in capabilities are the main (implicit) goals. The Bwamanda insurance plan has achieved relatively important levels of coverage (about 60 percent of the eligible population, but distant subpopulations obtain considerably less) among low-income rural populations. An affordable premium, acceptable quality of care, investment in community education and outreach activities, and efficient administration explain the broad coverage.

However, the program does not explicitly address equity in capabilities. Access inequities persist between the insured and uninsured populations, and between different segments of the insured population. Salaried employees, representing about 5 percent of zone population, pay a cost-plus fee. As stipulated by law, employers pay both the premiums and co-payments for this group. Imperfect information represents a problem, hampering efficiency in allocation and hence equity in capabilities. Salaried employees are four to 20 times more likely to be hospitalized, representing 5 percent of the population but 17 percent of hospitalizations. Nonsalaried insured patients have the second-highest utilization rates; they are from two to seven times more likely to receive hospital care than their uninsured counterparts.

Source: La Forgia, Griffin and Bovbjerg (1993); World Bank (2002).

Supporters of social insurance say that income distribution fosters adverse selection in individual and small group markets, which are characterized by high turnover. The income distribution problem could be overcome by direct regulation of the insurance market, income redistribution, or a combination of both. High turnover, a phenomenon that occurs due to lack of information, increases costs and affects productive and allocative efficiency. One way to solve this problem is to increase efficiency in coordination by screening out people who take advantage of this turnover. When the delivery is managed by social insurance, there are few alternative health insurance policies because there is a small menu or a single policy.

Pauly (1980) shows that in the United States, fees above the competitive fee gave providers an incentive to induce imperfectly informed patients to consume more services than fully informed consumers, and that the incentive to overservice increased with the fee. Consistent with this finding, Chassin and others (1987) find that among the three commonly performed procedures in the fee-for-service system, a sixth to a third provided zero or negative clinical benefit. Thus, the market system seems to produce the treatment of a given medical problem inefficiently. The trade-off between selection and production efficiency tilts sharply in favor of minimizing selection.

Opponents of social insurance think that even if there is some demand-side cost sharing, social insurance weakens consumers' incentives to search for a cheaper and better-quality plan. Over time, individual preferences over policies will change as tastes, medical technology, incomes and health status change. Since individuals do not have choices about insurance plans, there is no efficient pricing for choice of plan.

According to the supporters of managed competition, competition among insurance companies guarantees quality and low cost. When insurance companies bid on the entire menu of policies and not on separate items, competition among alternative basic insurance options is based primarily on productive efficiency and individual preferences over different ways of managing care and not on the attempt to attract the best risks. This does not mean that managers of the alternative branches of the single insurer would not like to attract the better risks, but the incentive to do so would be greatly diminished. The U.S. insurance market has changed in that direction. More than half of American employees now have a choice of insurance plans at their place of employment, with the employee paying part or all of the plan's incremental premium (Pauly 1980; Diamond 1992). Thus, unlike the traditional health insurer for whom price competition was overwhelming, the integrated plan now faces price competition in the costs of medical care. As a result, plans have stronger incentives than before to produce efficiently as well as to select good risks.

Rising drug costs, low productivity and underutilization of installed capacity, and patient dissatisfaction are problems of efficiency in production that can be addressed through the introduction of choice, competition for scarce resources, and regulation of drugs and providers. Health insurance schemes in Mexico, China and the Philippines provide examples of efficiency in production.

In Mexico, per capita expenditures of the General Coordination of the Plan for Depressed Zones and Marginal Groups (COPLAMAR) are significantly lower than other social insurance schemes and government health service systems. For example, the Ministry of Health and the Mexican Social Security Institute spend six and nine times, respectively, more per capita than IMSS-COPLAMAR. The direct delivery system depends on highly motivated recent graduates of medical schools. Absenteeism and work shirking are uncommon in part because of the isolated location, vigilance by the communities and constant supervision. Personnel turnover has become a problem, however.

In China, in general, for the schemes for which information is available, per capita spending on health has escalated significantly.¹¹ This increase is related to the retrospective fee-for-service system and general absence of co-insurance common to all schemes. In addition, government pricing policies contribute to the diffusion and use of high-technology hospital services, which in turn contribute to higher costs. The government sets prices for pre-1950 treatments and drugs at 1950 costs (below current costs), while new treatments are apparently set above costs. This practice provides an incentive to hospitals to expand the range and increase the volume of newer treatments.

In the Philippine Medicare system in 1990, although Medicare represented only 3 percent of total health expenditures, it covered 38 percent of the population.¹² Medicare has accumulated relatively large reserves in part because of low reimbursement levels, limited benefits and low administrative expenses. There is increasing public pressure to extend population coverage and raise benefit levels. In the Philippine Medicare-HMO tie-up, perceived quality is considered high because few tie-up enrollees have opted out of the program. Although the tie-up HMOs own and operate health care facilities, they also contract services to a large number of affiliated facilities. The HMOs are sophisticated operations that have installed several cost containment measures. All hospitalizations as well as expensive diagnostic services require prior authorization. The HMOs employ gatekeepers that monitor all hospitalizations of tie-up members at affiliated facilities. The tie-up is profitable for the two HMOs participating in the program. This relates to low utilization rates, which in turn result from effective controls, a young and relatively healthy membership, and reverting of catastrophic cases to the regular Medicare scheme.

¹¹ Based on La Forgia, Griffin and Bovbjerg (1993) and World Bank (2002).

¹² Based on La Forgia, Griffin and Bovbjerg (1993) and World Bank (2002).

Efficiency in Coordination

In health, it is commonly accepted that the perfectly competitive norm is difficult to attain because of pervasive and irreducible uncertainty, which often results in the absence of many health markets. Imperfect information limits the creation of health markets and prevents the automatic mechanism of efficiency in coordination. Information is the cornerstone of market coordination (Hayek 1978).

According to private insurance supporters, it is vital to establish competition through incentives in order to give consumers—young and old, healthy and sick, rich and poor alike—real power of choice. There is efficient coordination when, in deciding how much health insurance to offer, the price of a product can be set according to marginal cost.

According to the supporters of public delivery, the advantages of competition are contingent on perfect information, which is exactly what the insurance market lacks. Moral hazard and adverse selection will increase insurance costs, the lack of information will limit the action of the market mechanism, resources will be poorly allocated, and the poor will not be covered. Perfect information is the prerequisite for efficiency in coordination.

Supporters of social insurance share this view. In practice, when individuals decide how much health insurance to purchase, they do not behave according to free market theory. Among other things, people will not switch from plan A to plan B to save \$20 a month in premiums because they fear exclusions based on “the fine print” (Diamond 1992). Consequently, some form of socialized medicine is required. The perfect information assumption is required for perfectly competitive economies, but greater competition in the health market is impossible due to the absence of a market mechanism that allows the coordination activity.

Efficiency in coordination can be achieved by defining the rules for switching policies and for how much to charge new policyholders after the change. Moreover, it is important to define the division between basic and supplementary policies and their pricing; these are ongoing problems requiring continuous revision. According to public intervention supporters, this is a natural role for government.

In managed competition, the insurance company and the group negotiate premiums for basic coverage for the entire group, preserving the options of considering alternative bids, rejecting the current company if it offers inadequate service, and opening bidding only to other companies (see Diamond 1992). The chosen company will have some cost advantage over rivals. A semi-autonomous government agency monitors quality and handles complaints about the insurance company (quality assurance). This agency also helps the insurance company with cost containment and sets minimum standards for the insurance options offered. The funds received by the insurance company come partially from the insured and partially from the semi-autonomous government agency, which redistributes funds across groups on social insurance principles.

The market mechanism in its coordination activity should guarantee that the premium paid by an individual varies according to choice of insurance policy, location (reflecting cost differences across locations in wages and rental charges) and possibly individual characteristics. Although the premium can vary according to the criteria described, assignment to a particular group should not vary, except in given circumstances. There is a tendency to combine policies if insurance companies differ in access to different providers (an important part of competition) and if creation of new companies attracts low-risk clients.

In general, efficiency in coordination refers to clearer information policies (for example, functional referral systems) and organizational and institutional incentives to avoid the typical problems of incomplete markets. Health insurance programs in Thailand and Chile illustrate efficiency in coordination.

In Thailand's community financing schemes, there is some evidence of adverse selection and moral hazard in health card schemes. Utilization of curative care services by cardholders is higher than for the general population, and families with ill members appear more likely to purchase a card. From a different perspective, the health card fund may encourage use of ambulatory facilities, decreasing the flow of self-referrals to district hospitals. In addition, even if membership in a fund provides discounts for family members, the fees charged for outpatient services in public facilities are already low. This situation may discourage the purchase of health cards. For example, the price of a family card, permitting curative care for six or eight episodes, was US\$12. But the median patient charge in health centers for patients without a card was only US\$0.40.¹³

In Chile, the Social Security Institutes (Institutos de Salud Previsional, ISAPREs) use a number of devices to reduce losses due to moral hazard and adverse selection, including co-payments, risk screening and use of actuarial tables to establish rates. Competition among open ISAPREs for enrollees provides incentives to reduce costs and raise quality. The National Health Fund (Fondo Nacional de Salud, FONASA) relies on a voucher-based cost-recovery system that permits enrollees to select three levels of care according to their income and need. Although there are no limits on utilization, the high co-payment inherent in the voucher system may act as a deterrent to unnecessary use. Providers redeem the vouchers, originally purchased by the patient, for cash. This system has eliminated several abuses, such as fraudulent claims, that were prevalent in the former fee-for-service reimbursement system.

¹³ La Forgia, Griffin and Bovbjerg (1993); World Bank (2002).

Efficiency in Allocation

Arrow (1963) lays out the difficulties of resource allocation in medical care. The health market economy deviates from the norm of a perfectly competitive economy because it lacks a fundamental characteristic: complete markets for all current and future commodities indexed by date, place and state of nature. For this reason, health care is very costly and tends to diverge from the minimization of opportunity costs. In the end, it is possible that resources will be allocated inefficiently not only within the health care sector, but at the aggregate level of national resources.

For example, nearly all the Organisation for Economic Co-operation and Development (OECD) countries are devoting a rising share of their gross national product (GNP) to medical care. The United States is in the lead in this type of expenditure. In 1960, the mean share of GNP going to health expenditures in OECD countries was 3.8 percent; in 1970, it was 5.3 percent; and in 1985, 7.4 percent (Schieber and Poullier 1989, table 1). Between 1960 and 1987, nominal health spending in the United States grew 34 percent more rapidly per year than did nominal GNP. In Germany, this elasticity was almost the same (33 percent more rapid growth). Other countries had substantial growth in the share going to health, with France, Italy and Japan having between 20 and 25 percent more rapid growth, and Canada and the United Kingdom at 14 and 17 percent, respectively (Schieber 1990, table 1). Although growth has recently slowed in many OECD countries, it is still unclear whether the share has stabilized.

According to the supporters of private insurance, if there were a single policy with no choice, a Pareto improvement would be made by introducing choice. If there were any alternative that would be accepted by some group when priced at or above the marginal aggregate cost, then offering that alternative would involve a Pareto gain (Diamond 1992; Wilson 1977). Of course, it is not always the case that there is an acceptable price that covers marginal cost. Switching to an alternative policy involves both utility gains and cost increases. For any price differences that occur when switching policies, those with utility gains in excess of the price difference will certainly switch policies. If the average cost increase from the switching population is less than the price difference, then switchers are better off, nonswitchers are unaffected, and the resource constraint has been eased. Thus, there is a Pareto gain. This analysis assumes that the aggregate distribution of insurance choices has no impact on the costs for a single individual. This is not a fully appropriate assumption in health insurance, although it helps in isolating some of the issues.

According to the supporters of government-financed insurance, the insurance market is subject to information problems that can result in a noncompetitive equilibrium (Rothschild and Stiglitz 1976; Wilson 1977). Given that it is impossible to achieve a fully satisfactory allocation of resources in medical care, the government is best positioned to do a better job and it can only try to optimize allocation against a

background of shifting conditions. The government must be involved in the allocation of medical care expenses across the population (including tax-financed benefits and tax expenditures). This involvement has to be independent from the pursuit of a universal coverage system.

According to the fundamental theorems of welfare economics, efficiency in allocation is achieved when a competitive equilibrium is Pareto efficient. According to public intervention advocates, the Pareto optimum in health is of little practical relevance given the lack of any ethical consensus nationally or internationally on distributional issues.

Choice does not necessarily lead to efficient allocation. In particular, the use of average cost pricing combined with wider choice (for example, going from a single choice to a pair of choices) could result in a Pareto worsening. In the case of adverse selection, the use of underwriting is part of the problem because it increases the differences across risk pools.¹⁴ The design of policies is another way in which self-selection can be induced to generate similar problems, with some policies being more attractive to healthy individuals (Diamond 1992).

Another source of problems for an optimal resource allocation is the problematic relationship between renewal and job mobility. Some of these problems stem from the high labor mobility present in certain countries. For example, in the United States, it is estimated that close to seven million workers move either into or out of employment each month (Diamond 1992). In some cases, the adverse selection problem of insurance purchase is naturally transferred to the employment process. Workers may seek out jobs specifically for the expected benefits of the available health insurance. Switching jobs because of insurance has adverse efficiency implications that are not present from switching jobs in order to have better working conditions. This process is detrimental not only to health insurance companies and employers, but also to the economy as a whole because people are not being suitably matched to their jobs. Insurers and employers have been trying to protect against such practices by limiting coverage of preexisting conditions. The downside of such practices is that they prevent renewal. These problems are typical in individual or small group insurance systems. However, as long as health insurance is significantly linked with employment, these problems will persist in large groups (even if reforms of the small group market were to take place).

According to its supporters, managed competition has a large role in lowering opportunity costs. In fact, this system induces the insured to take more risks when choosing a health insurance plan (major risk policies), which reduces the excess consumption of health services and increases aggregate economic efficiency. Increased effi-

¹⁴ Underwriting is the technical term for screening applicants in order to determine risk class and acceptability, including the possibility of refusing to sell to individuals because they are not viewed as profitable given the risk classification and rates used.

ciency depends on demand elasticities and the degree of risk aversion. With modest values of both demand sensitivity and risk aversion, Feldstein and Gruber (1994) find that shifting to a major risk policy would raise aggregate national efficiency in the United States by \$34 billion a year. Thus, greater demand sensitivity and/or greater risk sensitivity could lead to larger gains. The analysis is limited to the population under age 65. It takes into account the impact of switching from existing coverage to a policy with a 50-percent co-insurance rate and a limit of spending 10 percent of income on out-of-pocket expenditures, as well as several alternative combinations of a high co-insurance rate with a limited out-of-pocket payment.

According to its supporters, managed competition generates the large groups that are necessary for efficient provision of insurance. Group formation is compatible with different approaches to organizing insurance: it avoids disrupting the flow of labor to its most efficient uses. Group formation is also compatible with a wide range of alternative financing patterns and with alternative mechanisms for quality assurance and cost containment. The combination of competition, private markets, government rules, the flexibility of insurance organization and the efficiency of relying on large groups makes managed competition attractive. Furthermore, this approach presents a balanced mix of political and individual decisionmaking in determining health expenditures; political decisionmaking becomes dominant for basic coverage, while individual choice becomes dominant for supplemental coverage.

In a case study from Panama, allocative efficiency was not an explicit priority; decisionmaking was based on political criteria and motivations and not on the efficient allocation of resources. In Panama, the integrated systems have invested heavily in (often unnecessary) high-technology equipment while underfunding primary health care interventions. Investments were fueled by the general curative orientation of the Social Security Fund (CSS), which dominated the decisionmaking process, and by the demands of specialists whose ranks increased significantly during the post-integration period. Because of government financial constraints, the Ministry of Health was unable to maintain its contribution to the rapidly expanding service system. By the early 1980s, the CSS was financing two-thirds of recurrent costs and nearly half of capital investments. Faced with its own liquidity crisis in the mid 1980s, the CSS reduced its financing of integrated service delivery and increased outlays to nonintegrated Panama City and to services to which only the insured had access (for example, subsidized inpatient care in private hospitals). The government was unable to fill the gap and the quality of care deteriorated rapidly.

Equity

According to free market supporters, clear legislation should guarantee access to insurance services. If law and order are guaranteed and discriminatory practices are avoided, then purchasing and selling without regulation is a prerequisite for equality in

opportunity. This view assumes a particular account of distributive justice: individuals judge for themselves and participate in the market process.

Supporters of public delivery stress that public intervention is required to deal with physical externalities that are Pareto relevant. Opponents also recognize this fact (Buchanan and Stubbeline 1962). Since access to and consumption of health care undoubtedly generate externalities, public intervention is justified. Moreover, to the extent that health care is privately financed, the variance in income will result in unequal access to health care. Free market economists neutralize this argument by stating that if affluent individuals are able to purchase greater privileges, it is because they deserve them. Depending on the concept of equity, full protection of the whole population is a long-term objective or an immediate objective.

Equity in Access

One of the problems of the medical insurance market is the trade-off between efficiency in production and the selection of consumers (Newhouse 1996). Efficiency in this case means least-cost treatment of a patient's medical problem, holding quality constant. The selection of consumers refers to the action of the agents on either side of the market to exploit risk heterogeneity, with the result that some consumers may not obtain the insurance they desire. There may be a trade-off between health care services (quantity and price) and the extent of coverage of the population. Individuals who are bad risks are more likely than the good risks to demand insurance at a given price. However, with no way of telling a good risk from a bad risk, insurance companies will set their premiums to reflect the average risk of all the insured. As a consequence, some of the good risks may not buy insurance because the price will be above what they would be willing to pay.

According to supporters of government-financed insurance, rationing health care by price alone disproportionately affects low-income groups who have less discretionary monetary power. Even the smallest deductible could cut them off from access. Under the free market scheme, insurance companies have incentives to design their benefits, fees and marketing strategies to attract only wealthier, healthier, lower-risk adults. As a result, only lower-risk individuals may be able to obtain insurance. Moreover, when prices come into play, even affluent individuals would cut back on global medical expenses, not only on care for minor illness, but also on drugs, ambulatory care and even chronic illnesses. In particular, preventive health care is the first to be cut although it happens to be the most cost-effective measure for the health status of the entire population. Rationing preventive care through price will not result in savings for individuals (especially the poorly educated) or society. According to economists who support public intervention, the issue of access boils down to a problem of prioritizing the search for a method that guarantees universal access rather than prioritizing the methods of cost control (Diamond 1992).

Under the scheme of managed competition, the objective of universal access should be taken into account at the moment of deciding the applicability of cost recovery. This approach is needed more and more because of the growing class of expenditures and the increased availability of expensive diagnostic tests and treatments. When the insurance package is offered, the division between basic and supplemental policies needs to reflect the ability of society to refuse some medical care *ex post* to those who did not select supplemental coverage. Even with medical benefits, some services are not worth the cost. According to Diamond (1992), the presence of a large distinction between basic and supplemental policies is of some help. High-cost treatments, which are too expensive for the basic plan, would fall under supplementary policies.

Korea and Chile provide examples of equity in access in health insurance programs. In Korea, the policy design was focused on universal insurance coverage, which has proven difficult to achieve. Inequities remain in terms of geography, utilization and finance. The low per capita supply of physicians and facilities has meant that access to health care in rural areas is significantly less than in cities. Utilization rates by the insured are more than twice the rates of the uninsured. Co-insurance rates, the sum of co-payments and deductibles, are among the highest in the world, at 40–62 percent for outpatient services and 20 percent for inpatient care.

In Chile, social insurance systems cover about one-fourth of the population. By law, the ISAPREs are required to offer a basic package of services covering primary and hospital care. Most offer a set of plans that contain additional benefits, smaller co-payments and fewer exclusions. ISAPRE members are comparatively high users of health services, averaging nearly twice the number of outpatient consultations than their uninsured counterparts. ISAPRE members spend nearly five times more on health care than users of the public system. Because of the generally lower co-payments, in 1990, the medical consultation rate per enrollee was 4.4 percent higher in closed ISAPREs than in open ISAPREs. Enrollees in FONASA can receive care at public facilities at level I prices. Most private providers are affiliated in level III care. Specialists are concentrated at this level. However, even level III prices are considered too low for private hospital care. Most enrollees seek inpatient care in public facilities.

Equity in Capabilities

The guarantee of a minimum health standard is necessary for equity in capabilities because a person who is not sufficiently healthy is not positively free. The state has a natural role in dealing with this issue because redistribution may be necessary to guarantee a minimum health standard to all. Since individuals do not have a single lifetime intertemporal budget constraint, the debate is whether premiums should vary with age. According to egalitarians, income-varying premiums are preferred to age-varying premiums given that the life-cycle pattern of earnings and public intervention is needed to design an optimal system. Moreover, if the health sector were unprepared for an exten-

sion in the demand for services, additional funds would simply inflate the price of health services without improving use.

In a social health insurance system, protecting everyone in the population against the financial burden of health care in case of sickness is an expression of social solidarity. There are many examples of countries with established social health insurance systems that do not include certain groups. In Korea, coverage started with employees of big firms; later, small firms were included, followed by other population groups, such as the self-employed. In Germany, self-employed people, civil servants, military personnel and priests are not covered by social health insurance. In the Netherlands, employees with wages over a certain limit are excluded.

According to supporters of managed competition, the consequences of individual actions or public choices cannot be viewed only in terms of utility and welfare. They should be viewed through the wider concept of fullness and self-realization. Indeed, the ability to perform a function is valuable regardless of the utility that the actual performance of that function may bring.

Costa Rica and Uruguay provide case studies of equity in capabilities in social health insurance systems. In Costa Rica in the mid 1980s, the government established a social welfare program, known as state insurance, that covered the indigent, unemployed and other groups not covered by the Social Security (CCSS) system. In theory, the government reimburses the CCSS for curative services provided to groups covered under the state insurance scheme. To obtain health care, Costa Ricans not covered by the CCSS must obtain coverage through the state insurance program. This can be a laborious process involving considerable delays that may reduce access. Without enrollment in either the CCSS or state insurance schemes, a person can be denied both Ministry of Health and CCSS services. By 1990, nearly the entire population had access to health care, and approximately 85 percent were insured through the CCSS. Groups covered by the CCSS social insurance health program include urban and agricultural workers, the self-employed, pensioners and domestic servants. The remainder are covered through social welfare and public health programs.

In Uruguay, the social security system enables the Instituciones de Asistencia Médica Colectiva (IAMCs) to provide a standard package of benefits to enrollees, usually at a negotiated price.¹⁵ Although individual and group plans are regulated to an undetermined extent, premiums and benefit plans vary. The IAMCs must provide the mandated comprehensive package of services either through their own network of physicians and facilities or through contracts with others.

¹⁵ The IAMCs originated from the mutual aid societies founded by occupational and immigrant groups in the mid 1800s to cover social risks. Their functioning is similar to HMOs in the United States.

Equity in Results

Libertarians believe that individuals should be allowed to choose among expensive corrective or life-extending medical measures. According to the free market approach, rationing medical care is not a problem because there are explicit rules and supply limitations. For example, luxury features such as private hospital rooms would be allocated on a price basis, with coverage depending on purchase of supplementary policies. In short, pricing would be used for rationing. According to this view, it is appropriate to design different insurance packages that have different degrees of access to expensive treatments and diagnostic tests.

With respect to group distribution, supporters of the market prefer the differentiation of groups by age rather than income. Liquidity constraints make an age-varying pattern seem attractive. There is a trade-off between equity in access (same price independent of expected cost) and adverse selection.

In order for public delivery to guarantee equal health outcomes, health plans could be provided according to each person's needs. Even supporters of public delivery make some distinctions regarding risk behavior and health status. According to them, people should insure their risks over time, preserving the price link between future insurance costs and behavior, but not between future insurance costs and random outcomes.¹⁶

The Croatian health system provides an example of how an approach that favored equity in results is running into problems. A payroll tax, with some supplemental financing from general revenues for high-end tertiary services, finances the program. The payroll tax approach, although quite workable under Soviet and Eastern European socialist systems (with large state enterprises and full-employment guarantees), is creating problems in transition economies. As Croatia moves to a new, market-based economy, the payroll tax could distort the labor market, hurt job formation and discourage capital formation. Small and medium-size firms are the engines of economic growth.¹⁷ They often face intense competition, an incentive to avoid payments, thus hurting compliance and collection of revenues. In addition, the payroll tax is often regressive, further distorting the goals of the government's policy to maintain equity and social solidarity.

To counteract these emergent issues, new and more diverse sources of financing must be identified and considered both for reasons of equity and sustainability. Some options include the value-added tax, general revenues or new dedicated taxes such as a tobacco tax. In the shorter term, co-payments might be restructured, both as a source of revenue and as a disincentive to the overuse of health services. At present, formal

¹⁶ "That is, we want higher premiums for smokers and hockey players, not necessarily for those who have contracted lung cancer or bad knees." (Diamond 1992)

¹⁷ Most new jobs will be created in firms of 50 or fewer employees, as in OECD countries (Croatian Institute for Health Insurance 1999).

co-payments are only a very small share of revenues, perhaps as low as 1 percent, although informal payments comprise as much as 20 percent of system revenues according to some estimates (Croatian Institute for Health Insurance 1999).

Ecuador provides another example. Its Seguro Social Campesino (SSC) spending per enrollee is about one-fifth of the outlays per enrollee by the higher-level social security institutes (IESS). This difference is reflected in the types of services offered by the two schemes and in utilization. For example, outpatient visits by IESS enrollees are triple the average rate of their SSC counterparts.

Concluding Section

Because of its contribution to the health of citizens and its role in the allocation of health resources, the design of a health insurance system has a significant influence on efficiency and equity. There are different ways of organizing risk-sharing mechanisms, pricing medical services, and adapting to changes in technology; each of these alternatives will have an impact on the effectiveness and fairness of the health system. Thus, an optimal design for health insurance delivery has to deal explicitly with efficiency and equity.

In general, insurance systems have emerged in every country as a result of the peculiarities of health care markets (market failures and inherent characteristics) and government policy. However, different concepts of efficiency and equity can lead to different policy designs of health insurance systems, thus bringing about different results. The following issues must be taken into consideration: population coverage; definition of the benefit package; organization of health insurance; provider payment mechanisms; cost estimation and control; financing; administration and management; individual choice; the insurer's ability to discriminate; and the extent to which administrative costs (including advertising and commissions) should be passed on to the insured.

This chapter has considered three ideal types of health insurance systems: private insurance, government-financed insurance and social insurance. Private insurance, based on a free market, individual decisions and private opportunity costs, has its conceptual roots in classical liberalism. According to this view, individual sovereignty and negative freedom have to be protected because they provide the backdrop for market activity. Private health insurance is hence voluntary, administered by an insurance company or other private agency, and has provisions specified in a bilateral contract. Table 3.3 shows the typical private insurance preference for efficiency in production and equity in access, which will result in multiple funds (privileging choice, competition and profits, and avoiding bureaucracy). Full protection is a long-term objective, so that only those who pay are guaranteed coverage. Normally, there is a qualifying period before an individual is allowed access to benefits, and people with existing diseases or chron-

ic illnesses can be excluded. The risk mix privileges good risks and the premium is related to age and risk. The benefit package is set after a check of morbidity patterns. Co-payments are frequently used: the patient pays for the service and gets a refund from the insurance provider (that covers all or part of the cost). The payment of providers is usually on a fee-for-service basis, with bonus payments as an incentive to achieve the objectives.

According to egalitarians, the provision of health insurance should be state-managed, should reach all individuals according to their needs (without any kind of distinction), and should grant coverage for the large majority of health problems and illnesses. Tax-financed insurance, based on public opportunity cost, considers health insurance a public good and government pays for services out of general revenues. These value judgments have an impact on the practicalities of policy design (see table 3.3). For example, tax-financed insurance will provide a standard benefit package and will relate its contributions to regional availability of infrastructure.

According to welfare liberals, the state must step into the delivery of health insurance with various means to protect the public interest and to provide a minimum of health services, in particular for the poor. Social insurance systems pay for health services through contributions to a health fund; the restricted number of funds is due to the clear preference conferred on efficiency in allocation. The most common basis for contributions is the payroll, with contributions from both employer and employee. Contributions are based on ability to pay and access to services depends on need. The health fund is usually independent of government, but works within a tight framework of regulations. Usually, the health fund is a government body, the insurance is mandatory to guarantee a good risk mix, and coverage responds to solidarity principles (government subsidies cover the health cost of certain groups) because full protection is the immediate objective. The risk mix does not discriminate between good and bad risks, and the premium is normally related to wages, taking into account the ability to pay.

The analysis in the chapter has been supported by examples of managed competition and social financing in developing countries. Managed competition is of interest because it is the central feature of several proposals to restructure the health care system. It addresses the dual concerns of rising health care costs and universal health insurance coverage. Table 3.3 indicates that with managed competition, health insurance should be provided through large groups formed by the government, which can use its power of compulsion on a geographic basis. There would be multiple large groups in any given area to promote the conditions for competition. The presence of a single fund would guarantee lower administrative costs and an easy-to-monitor system, offset the monopoly power of physicians and remove adverse selection. Moreover, the health fund is normally an independent body. Private insurance should be preserved in order to maintain current incentives to explore managed care options. The risk mix would be balanced in order to include good and bad risks. Transfers guarantee equity in access and equity in capabilities, whereas incentives for the self-employed to enroll offset

Table 3.3. Types of Health Insurance Programs Associated with Different Combinations of Efficiency and Equity

| Equity | | | | |
|--------------------------|---|---|---|--|
| | In access | In capabilities | In results | |
| Efficiency in production | Multiple funds (choice, competition, profits and no bureaucracy) | Limited funds | Few funds ^a | |
| | Voluntary insurance (no solidarity—risk of adverse risk mix) | Mandatory insurance | Mandatory insurance | |
| | Coverage: those who pay (full protection is a long-term objective) | Coverage: whole population (full protection of minimum needs is immediate objective) | Coverage: whole population (full protection is immediate objective) | |
| | Qualifying period before an individual is allowed access to benefits; exclusion of people with existing diseases or chronic illnesses | Restricted access—only below a certain age—to social health insurance (France) | | |
| | Risk mix: good risks (discrimination also on mental health) | Risk mix: good and bad risks | Risk mix: good and bad risks | |
| | Premium: age and risk-related | Premium: wage or income-related | Premium: wage or income-related | |
| | Benefit package: standard (after a check of morbidity patterns) | Minimum standard benefit package | Standard benefit package | |
| | Co-payments | Co-payments | | |
| | Method of payment: the patient pays for the service and gets a refund from the insurance (that covers all or part of the cost) | | | Method of payment: the patient has access to services without directly paying the provider |
| | Providers: contractors | | | Providers: employees |
| Private insurance | Payment of providers: fee for service and bonus payment (incentive to achieve objective) | Payment of providers: capitation | | |
| | Trade-off: equity in access (same price independent of expected cost) and adverse selection ^b | Combination of implicit concepts frequently found in social insurance in developing countries | | An equal contribution rule does not guarantee the same welfare to everyone when adverse selection is large |
| | Administrative costs (including advertising and commissions) passed on to the insured | | | |

| | | | |
|-----------------------------------|--|--|--|
| Efficiency in coordination | Multiple funds (choice, competition, profits and no bureaucracy) | Few funds (better incentives to lower production costs) | Few funds (better incentives to lower production costs) |
| | Voluntary insurance (no solidarity—risk of adverse risk mix) | Mandatory insurance (helps imperfect markets) | Mandatory insurance (helps imperfect markets) |
| | Coverage: those who pay (full protection is a long-term objective) | Coverage: whole population (full protection of minimum needs is immediate objective) | Coverage: whole population (full protection is immediate objective) |
| | Deductible (risk aversion) to discourage moral hazard, transfers and risk adjustment to discourage adverse selection ^c | | |
| | Risk mix: good and bad risks | Risk mix: good and bad risks (likely will define the rules for switching policies and how much to charge new policyholders after the change) | Risk mix: good and bad risks |
| Efficiency in allocation | Premium: age and risk-related | Premium: wage or income-related (with ceiling) | Premium: wage or income-related |
| | Benefit package: standard (after a check of morbidity patterns) | Minimum standard benefit package | Standard benefit package (likely will define, with changing technology and preferences, the division between basic and supplementary policies and their pricing) |
| | Co-payments | Transfers (subsidies) | Transfers (subsidies) |
| | | Risk adjustment (in a capitation system adjustment for catastrophic cases) | Risk adjustment (in a capitation system adjustment for catastrophic cases) |
| | | Deductible (risk aversion) to discourage moral hazard | Deductible (risk aversion) to discourage moral hazard |
| Efficiency in allocation | Single fund (lower administrative costs, and easier to monitor the system, offset monopoly power of physicians and remove adverse selection); health fund independent body | Single fund | Single fund (health fund as a government body) |
| | | Mandatory insurance (guaranteee of a balanced risk mix), high cost for the self-employed (transfers) | Mandatory insurance (guaranteee of a balanced risk mix) |
| | | Coverage: whole population (full protection of minimum needs is immediate objective), may exclude certain groups (Germany, the Netherlands) | Coverage: whole population (full protection is immediate objective); government subsidies to cover the health cost of certain groups (greater population coverage) |
| | | Risk mix: good and bad risks | Risk mix: good and bad risks |
| | | | (Table continues on next page.) |

Table 3.3. (continued)

| Equity | | |
|--|------------------|---|
| | Equity in access | Equity in capabilities |
| Efficiency in allocation | | Equity in results |
| <p>Transfers Incentives to self-employed to enroll; set lower limit to the amount of income required to establish health insurance Co-payments^d</p> <p>Premium: contribution ceilings</p> <p>Government subsidies to cover investment costs to influence resource allocation (construction of hospitals)</p> <p>Payment of providers: fee schedule, controlled prices</p> | | Premium: wage or income-related (with ceiling) |
| | | Minimum standard benefit package |
| | | Gatekeeping (restricted access to providers) |
| | | Payment of providers: capitation fee; in order to encourage competition and high-quality service, the insured person should have the right to change provider on a regular basis (annually), because of the risk of adverse selection |
| | | Payment of providers: budget (France, Canada); Capitation fee varies according to various parameters (age, gender and area of residence) (British system) |
| Managed competition | | Social insurance/tax financed |
| <p>Economic efficiency is considered in a general equilibrium sense: resources cannot be reallocated in any way to make people better off. Deductible can cut poor off from access</p> | | |

^a Private insurance supporters argue that if there is a single policy, and so no choice, introducing choice will make a Pareto improvement.

^b If there is separate competition for each of the items on the menu of alternatives, there will be a tendency for average cost pricing of the different items or for each of the identified risk classes. Thus, there will be an adverse selection problem across items on the menu offered to a group (Diamond 1992).

^c If the insurance companies have full information about the actions of buyers. As a result, certain people will not be able to buy insurance and will not have coverage against the costs of medical care.

^d Uncertainty is a key element in cost sharing, hence economic efficiency should take into account different equilibria and complete markets.

adverse selection. Co-payments are used to prevent moral hazard and guarantee efficiency in production. The premium has contribution ceilings and government subsidies cover investment costs to influence resource allocation (such as construction of hospitals). The payment of providers is normally done with fee schedules and controlled prices.

The governments of developing countries realize they cannot afford to pay for all types of health care services for their entire population. Faced with the prospect of decreasing or eliminating the provision of some services, many are exploring alternative coverage and financing systems. Health insurance has emerged as the financial mechanism with perhaps the best potential to achieve financially sustainable provision of health care. The policy design is normally influenced by the implicit concepts of efficiency in production and equity in capabilities (table 3.3). Scarce or limited funds administer mandatory insurance. Full protection of minimum needs is the immediate objective; hence, coverage is intended for the whole population. The risk mix includes good and bad risks and the premium is related to wages or income. A minimum standard benefit package is set and providers are paid with co-payments and/or capitation.

Appendix. Health Insurance in Practice

This appendix lists the types of private health insurance and describes examples of managed competition. It also provides case studies of health insurance in practice in five developing countries.

Types of Private Health Insurance

Private health insurance normally covers the major items listed below. These policy provisions should be considered as typical, not universal or invariant.

- *Regular medical.* Such contracts indemnify the insured for expenses such as a doctor's home or office visits, medicines and other medical expenses.
- *Major medical.* These contracts are distinguished from other health insurance policies by offering coverage without many specific limitations; usually there is only a maximum per person, a deductible amount and a percentage deductible. The percentage deductible is called co-insurance, under which the insured usually pays 20 percent of each medical bill above the deductible amount.
- *Hospitalization.* Hospitalization insurance indemnifies for room and board in the hospital, laboratory fees, use of special facilities, nursing care and certain medicines and supplies. Contracts contain specific limitations on coverage, such as a maximum number of days in the hospital and maximum allowances for room and board.
- *Surgical.* Surgical expense insurance covers the surgeon's charges for given operations or medical procedures, usually up to a maximum for each type of operation.
- *Dental.* This type of insurance, usually sold in a group plan and sponsored by an employer, covers dental services such as cleanings, fillings and extractions, and may partially cover crowns, bridgework and dentures. Most policies contain relatively low annual limits of coverage as well as deductibles and co-insurance provisions. Some policies limit benefits to a percentage of the cost of services.
- *Disability income.* Disability income coverage provides periodic payments when the insured is unable to work as a result of accident or illness. There is normally a waiting period before the payments begin. Definitions of disability vary considerably. A broad definition requires only the inability to perform the duties of the individual's usual occupation. A more strict definition requires that the individual be unable to perform each and every duty of his or her regular occupation for a given period, say two years, and thereafter be unable to perform the duties of any occupation for which he or she is trained or experienced.
- *Long-term care.* This type of insurance has been developed to cover expenses associated with old age, such as care in a nursing home or home care visits.

Although it is relatively new, long-term care insurance is already attracting strong interest because of the rapid growth of the elderly population in Europe and the United States. Policies specify a maximum limit per day plus an overall maximum benefit amount, with the result that the insurance typically covers expenses for a maximum of four or five years in a nursing home. A common provision is a 20-day waiting period before benefits begin. Some policies exclude certain conditions, such as Alzheimer's disease, and do not cover custodial care. For an additional premium, some long-term care policies offer an inflation provision, which increases the daily benefit by some percentage, such as 5 percent a year.

Examples of Managed Competition

This section presents two examples of managed competition: the Dutch reform and Diamond's (1992) proposal to create a Health Fed.

The Dutch Reform

In the mid 1980s, the Dutch health system provided compulsory coverage of unusual medical expenses for all residents.¹⁸ Compulsory coverage of normal medical expenses was provided to around 60 percent of the entire population (based on an income criterion) and to civil servants, who made up around 5 percent of coverage. Private sector insurance accounted for the remaining 35 percent of the population (the wealthier end of the income distribution). In addition, those already covered by the public plans could also purchase supplementary private plans. Although the system had merit, it was plagued by the following problems: a fragmented funding structure, lack of incentives to encourage cost consciousness and efficiency, inadequate coordination of health and social services, and inflexibility of the system due to excessive regulation (Ministry of Welfare, Health and Cultural Affairs 1988). Major reforms were needed. In March 1987, a government-appointed committee published a report recommending the introduction of compulsory basic health insurance organized through regulated competition by private insurers. As a consequence, since 1989, a gradual restructuring of the Dutch health care system has been taking place and new laws on the relationships between insurers and providers have been promulgated.

In the new system, the government designed a benefit package of compulsory basic insurance to cover more than 95 percent of all medical costs. An income-based premium covers at least 85 percent of the aggregate insurance cost, with the revenue going to the Central Fund. The remaining 10 to 15 percent of cost is covered by a flat premium paid directly by the individual to the insurance company of his choice (see

¹⁸ The main source for this section is Diamond (1992).

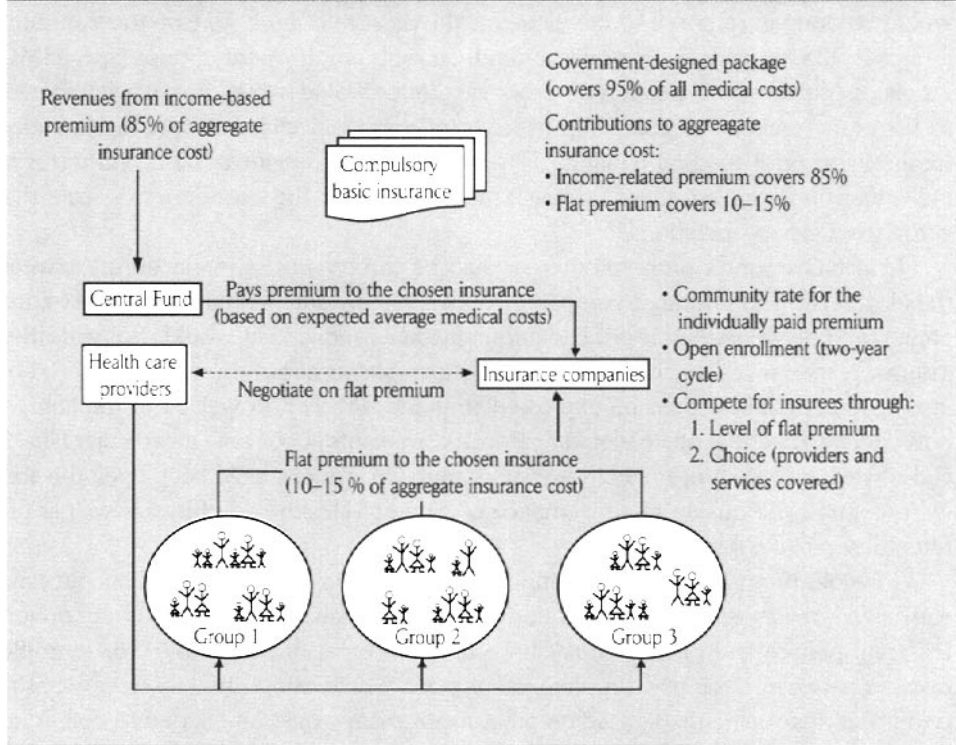
appendix figure 3.1). The Central Fund pays premiums to the chosen insurance companies based on expected medical costs. Thus, insurance companies receive payments from individuals and from the Central Fund. Insurance companies must charge the same rate for the individually paid portion and must have open enrollment on a two-year cycle. Insurance companies negotiate with providers of medical care and set a flat premium. They compete for individual insurees through the level of the flat premium and the combination of choice of medical care providers and rules covering access to medical services. The government reduces the incentive to seek low-risk individuals through risk-related payments from the Central Fund, open enrollment rules and a government-designed benefit package.

Compared with mandatory group coverage, the Dutch approach has more choice across insurance companies for individuals, with presumably greater administrative costs, including advertising and commissions. The cross subsidization across companies from the Central Fund is based on average cost considerations rather than on the marginal optimization considerations possible with a short menu from a single insurer. By having such a large fraction of expenses covered by the basic plan, policy design in terms of what services are covered is done by the government rather than through a mechanism that involves both the government and the market. In addition to demand organization, the importance of this distinction depends on the degree of direct budgeting usage or supply controls.

A critical question is the degree to which insurance companies will waste resources in the continuing quest for better risks. There are two dimensions to this problem. First, insurers can affect selection through directed advertising and by varying the ease or difficulty of purchasing a policy. Second, insurers can design coverage with specific details, such as the selection of specialists. Moreover, the government formula for payments to insurance companies could fall considerably short of the ability of insurance companies to identify good risks. Thus, the incentive for selection will remain sizable. There is another basis for concern in the differential willingness to switch insurance companies based precisely on health considerations. That is, those individuals in good health are usually those who tend to least value their ongoing relationships with medical providers. Evidence for such a correlation with switching has been observed in the United States in the tendency to switch from basic coverage to both HMOs—where a single institution provides primary care—and preferred provider organizations (PPOs)—where choice among primary health care providers is limited (Strumwasser and others 1989).

Diamond's Proposal: A Health Fed

In Diamond's (1992) proposal, the government would create a Federal Health Insurance System, modeled on the Federal Reserve System, that divides the entire population of the United States into many large groups for administrative advantages and

Appendix Figure 3.1. The Dutch Health Insurance System

to avoid selection problems (see appendix figure 3.2). Regional and central offices would have some independence and some political accountability. Such a Health Fed would have a precise role in group formation, organization, support and insurance selection, cost containment and quality assurance. The groups would replace employment-based groups, individual insurance purchase, and the option of being uninsured. This organization would also replace the care portion of Medicaid, although a residual need for financial help for the poor with premiums, co-insurance and deductibles would remain.

The Health Fed would organize families into groups of between 20,000 and 200,000, and their composition would vary both within and across locations. Groups should be large enough to take advantage of the economies of scale in insurance administration, but small enough so that most areas will have a number of independent groups, possibly being serviced by different insurance companies in order to allow yardstick competition. Some groups should be small enough to guarantee that competition among insurance companies is not limited to giant companies. Groups should have a geographic base to permit HMO and PPO options.

Changing location and marriage are events that could trigger the shift of individuals between groups, with reassignment done by the Health Fed. Further reorganization would be done in response to the effects of the passage of time. To ease the transition, groups could initially be formed around current employment groups and HMO enrollees. Similarly, the creation of insurance groups would allow insurance companies to know the makeup of the group in terms of important characteristics (age, gender, location and prior medical conditions) without having to evaluate the health status of individuals in detail. All these factors form the basis for the economies of scale that come from group operations.¹⁹

Under Diamond's proposal, there would be three types of interactions: between the Health Fed and insurance companies, between individuals and their insurance companies, and between the Health Fed and individuals. Individuals would deal with their insurance companies much as they do now. Complaints about the services offered by insurance companies could be expressed to the Health Fed as well as to the companies directly. A central office would deal with complaints about how a particular Health Fed office handles a group. The presence of multiple groups would keep open the ability to contrast the quality of performance of different Health Fed offices as well as different insurance companies.

To avoid the necessity of enacting annual legislation, the Health Fed should have earmarked revenues. Direct legislation to affect expenditure growth is an option. Different political authorities would make different types of decisions.²⁰ For example, division between basic and supplementary plans would affect the choice of what to cover. Without such a division, some other mechanism would be needed to determine the circumstances under which services are considered too expensive.

Health Insurance Schemes in Selected Developing Countries²¹

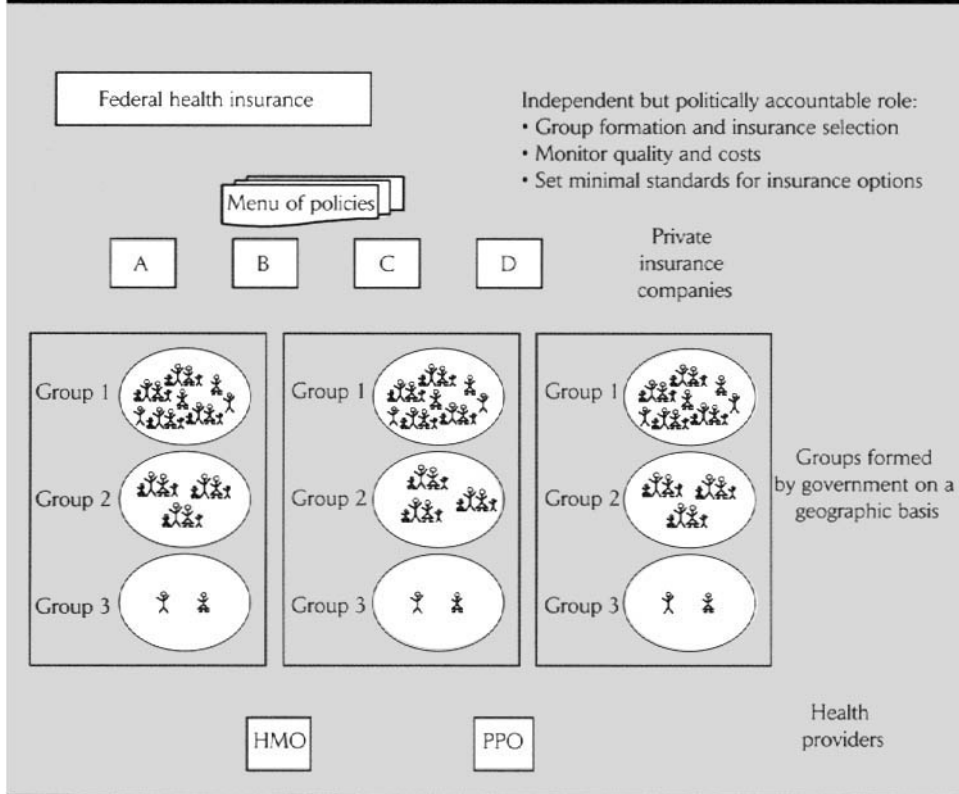
Health Insurance in China

During the 1980s, China implemented economic reforms that have shifted away from health care financed and delivered through collective-based insurance and publicly financed facilities and services. The public share of health expenditures has decreased significantly.

¹⁹ The existing institutional analog for these groups is the creation of mortgage-backed securities by the Federal National Mortgage Association (Fannie Mae), securities created by pooling large numbers of individual mortgages into groups. Investors can purchase shares of the mortgage pools, examining the characteristics of the set of mortgages in the pool, but not troubling to evaluate individual mortgage borrowers in detail.

²⁰ "One can consider the possible differences between locating the division between basic and supplemental policies in legislatures or in an analog to the Federal Open Market Committee, which directs short-run monetary policy." (Diamond 1992)

²¹ Based on La Forgia, Griffin and Bovbjerg (1993) and World Bank (2002).

Appendix Figure 3.2. Diamond's Proposal to Create a Health Fed

FUNCTIONING. Five health insurance schemes cover about one-fourth of China's population. The Government Employee Insurance System (GEIS) is for government workers financed from general tax revenues. The Labor Insurance System (LIS) covers workers and their families in state-owned enterprises. Private insurance plans cover employees of private firms and workers hired under employment contracts. The Collective Insurance System (CIS) provides coverage for county-level enterprises. And the Rural Cooperative Insurance System (RCIS) covers rural farmers through the former production brigades.

Dependents are not covered by the GEIS scheme; they are only partially covered by the LIS and CIS. The RCIS scheme, once the largest insurance program in Asia, appears to be dysfunctional in many areas as rural residents increasingly pay out of pocket for health services. The collapse of the RCIS is the principal reason for the observed decrease in health insurance coverage since 1980.

FINANCING. Currently, the system is characterized by provider self-financing (through user fees and, to a lesser extent, insurance) and out-of-pocket spending by individuals. User fees are the principal source of financing for public facilities. The largest insurers, GEIS and LIS, cover care for primary members and do not require co-payments or deductibles. The absence of a referral system results in higher spending and the use of hospitals for common illnesses. The CIS requires a 20–30 percent co-payment and places ceilings on the total amount of benefit payments. RCIS enrollees are entitled to free care and drugs provided at the village health station. However, this plan pays only half the bill for services provided at county and city facilities if the patient is referred. All public facilities depend on fees to cover their recurrent costs and operations, and are increasingly taking on features of private business. The state subsidizes capital investments.

Health Maintenance Organizations as a Substitute for Social Security in the Dominican Republic

In the Dominican Republic, in part because of the perceived low quality of care, teachers rejected enrollment in the Dominican Social Security Institute (IDSS) and pressured the government to help finance and manage an HMO. As a result, the teachers' union and the Ministry of Education formed the HMO insurance scheme SEMMA (Seguro Médico para Maestros) through a collective agreement.

FUNCTIONING. SEMMA provides medical services to primary and secondary school teachers and is financed through premium payments. It contracts private providers through a capitation system. Providers generally include hospitals and their associated physician groups. In the Dominican Republic, most private hospitals are linked to physician groups that in turn have formed HMOs, known as *iguales*. In general, the purpose of a facility-linked HMO is to channel volume to the physician owners. SEMMA tends to contract facilities that operate an *igual* or that are at least under contract with one, but does not contract *iguales* directly. Instead, it contracts hospitals or physician groups that have experience with pre-payment plans. In 1990, SEMMA contracted more than 60 facilities located throughout the country to provide services to enrollees.

FINANCING. The government contributes 75 percent and the remainder is deducted from the teachers' salaries. In 1990, SEMMA's enrollment reached more than 103,000 teachers, dependents and retirees. The plan covers a comprehensive package of outpatient and inpatient services at about half the premium charge by other *iguales* for a similar package. However, SEMMA members have more limited choice of providers, greater restrictions on utilization, and higher co-payments for some services than enrollees in other *iguales*. SEMMA capitates all affiliated facilities to provide the services stipulated in the benefit package. Each teacher must select one facility at which to

receive all benefits; the choice applies to the teacher's family. Once a year, teachers have the option to change providers.

SEMMA is attractive to providers because of the large volume of enrollees, especially in urban areas. However, many providers find the low premium unattractive. Providers compete for SEMMA enrollees, especially in large cities. Some providers have profited from SEMMA contracts while others have cancelled their ties to SEMMA because of their inability to contain costs. The performance of the more successful providers results from efficient utilization management, perceived high quality of care by members, the large volume of enrollees, and relatively low compensation for physicians.

Peasant Social Security in Ecuador

In Ecuador, higher-level social security institutes (IESS) make up a large and generous social security system that covers mostly urban workers in the formal sector. In 1969, the government founded an organization dependent on the IESS, the Seguro Social Campesino (SSC), to provide social insurance coverage to low-income traditional farmers and their families. Since its founding, the SSC has increased coverage from 3,000 to nearly 700,000 enrollees. In 1992, it covered approximately 14 percent of the rural population. However, the SSC has fallen short of its goal of achieving one million enrollees.

FUNCTIONING. The SSC operates more or less autonomously from the IESS, with a separate budget, administrative apparatus, facility network and personnel. Unlike the IESS, the SSC covers the entire family. Members are enrolled in the SSC through local organizations including cooperatives, agricultural farms, producer associations, traditional community groups and organizations established by community groups for the specific purpose of SSC affiliation. General practitioners and nurse auxiliaries who staff small countryside dispensaries provide basic curative and preventive services. SSC members have access to (IESS) specialty and hospital services through a pre-authorization process that may require a waiting period.

FINANCING. The family is the principal enrollment unit and the head of the household is responsible for paying the monthly premium, a token payment representing 1 percent of the minimum wage (less than US\$1 in 1992). No user fees are collected and drugs are distributed free of charge. Revenues derived from the premium are insignificant. In theory, the SSC is financed through a tripartite arrangement based on the social solidarity principle that the payment is divided in nearly equal shares among government, employer and employee. However, the government is chronically negligent in its contributions. Consequently, the SSC is entirely financed by employer and employee contributions drawn from a 1-percent payroll tax assessed on the wages of IESS enrollees and from other IESS funds.

Kenya National Hospital Insurance Fund

In 1966, Kenya established the National Hospital Insurance Fund (NHIF), a statutory scheme that provides coverage for inpatient care. The original objective was to alleviate crowding in public facilities by providing middle-income groups access to higher-quality private hospitals. Compliance with the mandatory affiliation law is lax in part because the NHIF has little institutional capacity to monitor contributions or the evasion thereof.

FUNCTIONING. The NHIF covers mainly salaried workers and their families. It excludes persons over 65 years of age. The benefits covered include most inpatient services in approved hospitals, nursing homes and maternity homes. Employers collect the contributions through wage deductions and transfer them to the NHIF. Employers do not contribute to the NHIF on behalf of their employees. However, most employers provide subsidies to defray out-of-pocket medical expenses. Reimbursement consists of flat fees per bed-day that vary according to how the NHIF classifies a facility. Within a given category, the same rate is paid regardless of the type or quantity of services provided. The lowest rate applies to public hospitals and the highest to prestigious private facilities in urban areas. In the latter facilities, the reimbursement rate may represent an insignificant proportion of the total bill. In rural mission hospitals, however, the reimbursement rate is higher than the charges and may subsidize free care provided to the poor.

FINANCING. The NHIF is financed through a payroll tax that is assessed according to employee income. Income categories are used to determine the exact contribution. The finance mechanism is progressive in the sense that those with higher incomes pay higher fees. Although there is no co-insurance, reimbursements are insufficient to cover costs in most private hospitals. These facilities require payments from patients to make up the difference.

Health Insurance in Korea

In 1977, Korea introduced statutory health insurance for industrial workers and their dependents. It achieved universal coverage in 1989. Mandatory universal health coverage is mostly self-financing, has improved access to health care for low-income groups, and avoids adverse selection.

FUNCTIONING. Four insurance schemes cover approximately 90 percent of the population. The Industrial Establishment Medical Insurance—which groups its enrollees into a single insurance society—covers industrial workers and their families. Members of the remaining three schemes are splintered into more than 300 nonprofit and noncom-

petitive regional insurance societies that are organized along occupational, regional or subregional lines. In particular, the Special Scheme covers civil servants, military personnel and private school teachers and their dependents; Rural Regional Insurance is for farmers and fishermen; and Urban Regional Insurance covers the urban self-employed and unemployed. The remaining 10 percent of the population, mostly the poor and indigent, is protected by a government-sponsored medical aid program.

The Ministry of Health and Social Affairs is a heavy regulator. For example, the government often determines benefits and prices, but societies collect premiums and pay providers and, to a lesser extent, decide premium rates. Most societies are small, enrolling less than 200,000 members. Smaller societies and those with a higher number of low-income members tend to face higher health risks.

FINANCING. The insurance schemes are financed through a payroll tax that ranges between 3 and 8 percent of wages. Contributions are shared equally among workers and employers. In the Urban and Rural Regional Schemes, rates are based on family assets and income. Only the Rural Regional Scheme receives a government subsidy. All insured individuals face deductibles and co-payments. Co-payments are applied to all groups regardless of income and may place a heavy financial burden on low-income members. Under the government's medical aid program, the poor receive free care or pay nominal fees.

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Conclusions

“We are a thread, and we want to know the whole cloth.”

Gustave Flaubert

The analysis of efficiency and equity is a complex and slippery task. Nonetheless, this study has focused on these concepts because they are too often poorly defined, which tends to give rise to confusion in policymaking. Generally speaking, equity is the absence of inequalities in opportunities among individuals, and efficiency is the most cost-effective way to manage a process while maintaining the lowest opportunity cost. However, there is no consensus in the literature on a precise definition for these two terms, and the various nuances that do exist often depend on implicit value judgments stemming from specific and varied ideologies.

Social policy design and results depend on policymakers' underlying ideological views about freedom, equality and human behavior in general. These views lead to different conclusions regarding distributive justice and the roles of the state and the market. Consequently, concepts matter: the interpretation given to efficiency and equity in social service delivery plays an important role. Clarity in the initial concepts of efficiency and equity is the cornerstone of the argument in this book, which has aimed to demonstrate how different initial concepts can bring about varying approaches to policy design, which, in turn, yield different options and lead to different results.

The analysis has focused on the following concepts of efficiency and equity:

- efficiency in production
- efficiency in coordination
- efficiency in allocation
- equity in access
- equity in capabilities
- equity in results.

Different Views, Different Concepts

Libertarians, welfare liberals and egalitarians each have a different perception of what efficiency and equity mean. Economists with implicit or explicit policy views close to libertarian ideology are more concerned with efficiency than with equity. They focus on efficiency in production and efficiency in coordination. They use the Pareto criterion for efficiency in allocation because they do not consider redistribution a priority. In terms of equity, they advocate equity in access because they believe that giving equal access guarantees equal opportunity. Libertarians are not concerned with equity in capabilities or equity in results by virtue of their ideological position. In fact, they believe that guaranteeing negative freedom (law and order) is sufficient and necessary for the establishment of a sound economy and a democratic society. There is a consensus among such economists that competitive forces certainly lead to a high degree of efficiency and that competition provides an important spur to innovation, which is what really matters to them. When libertarians propose a social policy, they privilege efficiency in production and equity in access in its design.

By contrast, welfare libertarians are equally concerned with both efficiency and equity. They implicitly focus on efficiency in production and efficiency in coordination. However, they are uncomfortable with the Pareto definition of efficiency in allocation because they are concerned with redistribution. Welfare libertarians give much credence to the need for positive freedom as a precondition for effective equal opportunity. Hence, they champion equity in capabilities because they believe that society must provide a minimum level of education, health and other social services for each person. According to neoclassical welfare theorists, positive freedom is the most important type of freedom that a democratic society should pursue because it leads to long-term economic growth. Once these preconditions are achieved, the market will produce a more efficient and equitable solution. However, some of these economists have come to recognize that there are some important instances where the market does not work as perfectly as its supporters would suggest. When designing policies, welfare libertarians shape policy options in favor of equity in capability because they consider it a precondition for efficiency.

Economists with implicit or explicit policy views close to egalitarian ideology privilege equity over efficiency or, at least, they believe that the latter is heavily dependent on the former. Their definition of efficiency focuses on both efficiency in production and efficiency in allocation. They tend to overlook efficiency in coordination, considering it implicit in the planning of economic activity. Egalitarians are interested in equity in results in the delivery of social services. For example, they believe that all children should achieve the same level of literacy and understanding of abstract concepts. In health, it is important that all citizens enjoy "good health," the only acceptable output of an efficient health care system. Egalitarians are concerned with access to schools, books, hospitals, doctors and medicine insofar as these are instruments for improving

measurable results, such as literacy rates and infant mortality. Egalitarian-minded economists design social policy that is oriented toward equity in results, which can be reached through efficient planning.

The book has analyzed how the confusion in describing the concepts of efficiency and equity influences analytical statements about a trade-off between the two. The debate between prioritizing efficiency over equity or vice versa is a long-lived dispute in economics and at times these two concepts have been considered dichotomous objectives. A trade-off is the logical consequence of the common position that there is a priority given to one objective over the other.

Vouchers in Education

The debate about vouchers has not produced any definite conclusions because economists cannot even agree on the definitions of efficiency and equity and, generally, have based considerations on the topic on conflicting predictions. Moreover, in making judgments about the effects of vouchers, policymakers do not know many things, including the effects of choice on learning and the level of education at which choice is most appropriate. It is nonetheless important to render the topic intelligible because different concepts of efficiency and equity do bring about different policy criteria that generate different approaches to policy design. In short, they influence the practicality of implementing choice and the administration of public institutions and private education suppliers; therefore, they generate different results in terms of the impact of vouchers.

Decisions about whether the state should support not only public but also private and religious schools, and whether the government should set common rules in order to maintain quality or favor school independence depend on implicit concepts of efficiency and equity. These decisions also have an effect on supply-side responses to interventions on the demand side. For example, in Chile and Colombia, private education suppliers emerged and expanded because of vouchers. In the Netherlands and Sweden, public institutions reformed in order to attract choice pupils. What is remarkable is that different results have been achieved by applying different criteria of efficiency and equity. Thus, it is important to note here as a conclusion that in conducting policy design, value judgments need to be made explicit.

In terms of education delivery, different ideological positions have different interpretations of efficiency, result in different policy objectives, and achieve different goals in terms of equity. Explicit objectives in terms of access, capabilities and results will help in developing the appropriate options to obtain the right impact.

Education is at the crossroads of two sometimes antagonistic interests: the need to have common values in a democratic society and the right of people to choose experiences, influences and values for their lives. In economic terms, the question is how to

reconcile individual desires and social needs in the delivery of education. The unsolved dilemma that underlies the voucher debate is that for some, individual choice is more important than the requirements of society; for others, it is the other way around. Advocates of choice assume that the social purpose of education is satisfied when families choose education on the basis of their own tastes and judgments. Their view of efficiency stresses efficiency in production, whereas efficiency in allocation and efficiency in coordination will be addressed only if policies save resources and justify the absence of state intervention. In terms of equity, advocates of choice focus on access because they believe that access already implies parity of opportunities. Equity in results is not an issue for them because everyone will get what they deserve. Negative freedom informs their ideological framework.

Advocates of a common education experience believe that students should have shared schooling. They say that a common background is essential for democratic and participatory societies because it preserves and supports political, social and economic institutions and enables democratic changes. Their view of efficiency stresses efficiency in allocation; efficiency exists when resources are allocated where their opportunity cost is at its lowest point and this can be achieved through state intervention. Efficiency in production and efficiency in coordination are important only if they take into account opportunity cost. From this perspective, equity centers on capabilities and results. Equal opportunities exist only when everyone is able and empowered to achieve the same results. Education systems should strive for positive freedom.

School choice is probably more than just an education issue and education choices should be seen in the larger social, political and economic context. The challenge, therefore, is to provide a common experience that also allows for some choice (Levin 1991). Financing mechanisms need to be more transparent, and have an accurate balance between direct, demand-focused subsidies and indirect, supply-side subsidies. The main problem with supply-side subsidies is that they can create serious distortions in public expenditures; they have disproportionately spilled over to the middle and upper-income groups, bringing the system toward inequity.

Health Insurance

The purpose of insurance is to protect individuals against unexpected expenses. However, the presence of insurance alters the behavior of the insured in ways that increase the expected magnitude of losses. Designing the optimal insurance policy therefore involves balancing the gains from protection against the losses that result from the distortion of behavior. Medical care is commonly discussed in terms of access (equity in access), quality (efficiency in production and efficiency in allocation) and cost.

Libertarian economists think that the private sector could achieve important results because of the free market's powerful role in achieving efficiency. Egalitarians think that

public delivery is more appropriate under both the equity and allocative efficiency points of view. In fact, public intervention (regulation) can guarantee equal access and a minimum of health to every citizen by providing health care for everyone and minimizing administrative costs through the use of economies of scale. Welfare liberals prefer managed competition, believing it combines the best of the two previous systems. Supporters of managed competition believe that although the role of markets is fundamental, there is still considerable scope for further public intervention to improve quality. When health insurance delivery is regulated through managed competition, the concepts of efficiency and equity reflect a combination of the other two positions.

There are several fundamental choices to be made in the design of health insurance. In particular, the design will depend on whether the scheme is mandatory or voluntary, the choice between a single fund and several funds, and the definition of the ownership of health funds. A mandatory system would have improved risk pooling and would avoid some incentives to free ride. In addition, it would be difficult to use a voluntary system to meet health policy goals.

A critical decision is whether to set up a single fund or several funds. Using a single fund reduces administrative costs, is easier to monitor, is likely to offset the monopoly power of physicians and other providers, and removes the incentives for selecting only good risks. With a single fund, it is possible to ensure greater efficiency in allocation and equity in access. The disadvantages of having only one health fund are that subscribers have no choice of insurer, which eliminates the possibility of competition and weakens efficiency in production. In addition, a single fund can become ungainly, difficult to manage and overly bureaucratic.

Efficiency in production privileges multiple funds. However, even if there are multiple health funds, it is difficult to achieve genuine competition (Normand and Weber 1994). In Germany, for example, there are many funds, but they serve particular sections of the community and many people do not have real choice of insurer. To understand the practical difference between efficiency in production and efficiency in allocation, a clear distinction must be made between the strong argument for using market mechanisms and competition in the provision of health services and the weaker argument for competition among funding organizations.

The option of having several funds may become more attractive as a country's number of subscribers increases and the economy develops.¹ However, a single fund can achieve economies of scale in the collection and management of health fund contributions. The main point is that choice and competition will not necessarily offset the advantages of simplicity and economy of scale. The option of having several funds should thus be treated with caution.

¹ In richer countries, more people will be able to afford the luxury of choice (Normand and Weber 1994).

Health funds can be owned by private profit-making, private nonprofit-making, quasi-public or public organizations. If health funds always operate within a clearly defined policy framework, these distinctions are quite unimportant. However, the formal ownership of the health fund or funds can be very important if the aim is to establish or license organizations that are legally independent of government. This legal independence does not reduce the need for a policy framework covering contribution rates, payment for services and enrollment. And independence does not remove the need to seek ways of containing costs in the health sector and managing the collection of contributions. Profit-making organizations have strong incentives to be efficient, but some part of the premium must be retained to pay the profit.

Managed competition is an alternative to pure market and state intervention models that combine government regulation with competition. Many health economists worried about restructuring the health care system have proposed managed competition as a way to address both rising costs and access problems. Although supporters of managed competition recognize that government intervention per se can create distortions, they also recognize that health markets need rules. These rules are established to create incentives to achieve the highest standard of health at the lowest cost, thus discouraging hidden agendas and taking stakeholders into account. Establishing such rules allows the free action of the market to have positive effects. For the most part, industrial countries have experimented with managed competition.

Little is known about the economic and institutional aspects of health insurance in developing countries. As they attempt to alleviate financial crises by extending risk sharing, countries need more information about the impact of insurance on the efficiency and equity of health finance and delivery, and the institutional mechanisms used to extend coverage and handle efficiency and equity issues.

The Importance of Efficiency in Coordination

This book has shown the importance of efficiency in coordination. The generation and dissemination of information are key for effective delivery of health insurance. In perfectly competitive, full-information markets, efficient insurance contracts would easily differentiate between different types of risks. The market would offer differential contracts with actuarially fair premiums based on each individual's "riskiness" and would fully insure the risks. This separation of risks, labeled cherry picking by public delivery supporters, would thus be an essential feature of perfectly efficient contracts. However, no contract that pools risks by charging a common premium for different risks would be Pareto superior to these differential contracts.

With imperfect competition, that is, with imperfect information, there would again be a separation of contracts, with full-insurance contracts to attract the high risks and partial-insurance contracts (with deductibles) to attract the low-risk individuals. The

high-risk individuals would be as well off as in the case of perfect information even under contracts devised to overcome adverse selection. The low-risk individuals would be worse off. However, this does not imply that a politically enforced pooling contract would be Pareto superior. Furthermore, in those cases where some pooling is Pareto superior, it is likely that competitive insurance companies would offer a mix of contracts, some of which could involve pooling.

Public delivery would require legislation to enforce a pooling contract and would imply that low-risk individuals subsidize high-risk ones. Aside from distribution considerations, there is no efficiency justification for these enforced transfers and enforced pooling of all medical risks could be Pareto inferior. Given uncertainty, it is unlikely that the technocratic design of an ideal system based on Walrasian general equilibrium theory would replace the search for more Pareto efficient contracts through the market (including pooling).

Under managed competition, the market is used as a mechanism to motivate competition and achieve the lowest cost and highest quality. The design of the system would be dedicated to maximizing efficiency in coordination and would avoid the degree of moral hazard and adverse selection typical of free market solutions. State intervention would guarantee equity and the formation of groups that avoid adverse selection and are big enough to lower administrative costs.

Policy Implications of Different Concepts of Efficiency and Equity

This section reviews the policy implications of various combinations of efficiency and equity. Although country experiences cannot be generalized to other contexts, they still provide empirical evidence for the central thesis. For example, voucher design (table 2.5) and health insurance design (table 3.3) depend heavily on the chosen combination of efficiency and equity concepts. Table 4.1 shows how each combination results in a particular type of delivery system. Analysis of the nine scenarios provides information about the existence or absence of a trade-off between efficiency and equity.

Efficiency in Production and Equity in Access

The mutual reliance between perfect competition and efficiency in production is one of the principal scientific arguments in support of economic liberalism, as long as equal access to production processes is guaranteed. In this case, efficiency is a quality of a process: being efficient means using the least amount of scarce resources in order to obtain the greatest output. In this study, the primary objective of efficiency in production has been the production of social services.

Equity in access guarantees that every individual has the same access as others to the production process and that the rules that govern this process will be the same for

Table 4.1. Policy Objectives as Combinations of Efficiency and Equity: Implications for Social Service Delivery Systems

| | Equity | |
|---------------------------------|--|---|
| | In access | In results |
| Efficiency in production | <p>Libertarian point of view prevails; distinct objectives; trade-off exists, always solved in favor of efficiency (for example, access and adverse selection)</p> <p>Financing: tax-funded, private or mixed</p> <p>Regulation: minimal (threat to autonomy of independent agents); no bureaucracy; contracts preferred</p> <p>Choice: very important (negative freedom, competition, higher efficiency); voluntary enrollment preferred</p> <p>Targeting: not a relevant issue, no solidarity, co-payments</p> <p>Coverage: those who do not hamper the running of the system (for example, chronic illnesses) and pay (full protection is a long-term objective)</p> <p>Payment of providers: fee for service, bonus payment (incentive to achieve objective)</p> <p>Insurance: private insurance</p> <p>Voucher: limited • fixed-value • uniform fees • restricted</p> <p>No intervention in economic action</p> | <p>Welfare liberal point of view prevails; efficiency and equity are subgoals generated by other fundamental objectives (for example, minimum standards); negative and positive relation, trade-offs find practical solutions</p> <p>Financing: tax-funded, private or mixed</p> <p>Regulation: control of incentives and information policy</p> <p>Choice: important (negative and positive freedom, competition, higher efficiency); voluntary and mandatory enrollment</p> <p>Targeting: all families or low-income families (redistribution), co-payments wage or income-related</p> <p>Coverage: whole population (full protection of minimum needs is immediate objective)</p> <p>Payment of providers: capitation</p> <p>Voucher: unlimited • supplementable • cost-fees • transport-included • restricted</p> <p>Intervention in economic action</p> |
| | <p>Egalitarian objective utilitarianism prevails; efficiency (characteristic of the process) is calculated only in terms of the possibility of achieving equity (primary objective); positive relation, trade-off always solved in favor of equity (for example, standard benefit package, empowerment vs. economic growth)</p> <p>Financing: mainly tax-funded or mixed public-private</p> <p>Regulation: control of production, incentives and information policy</p> <p>Choice: not a relevant issue; mandatory enrollment</p> <p>Targeting: exclusively low-income families (redistribution)</p> <p>Coverage: whole population (full protection is immediate objective)</p> <p>Payment of providers: wage or income-related</p> <p>Voucher: unlimited • supplementable • cost-fees • transport-included • income-related • unrestricted</p> <p>Intervention in economic action, redistribution</p> | |

| | | | |
|-----------------------------------|---|--|--|
| Efficiency in coordination | Libertarian point of view prevails; distinct objectives; trade-off exists; always solved in favor of efficiency (social policies promote negative freedom); redistribution is not required Financing: tax-funded, private or mixed | Welfare liberal point of view prevails; social policies promote negative and positive freedom; redistribution is required (for example, to guarantee minimum standard benefit package) Financing: tax-funded, private or mixed | Egalitarian objective utilitarianism prevails; social policies promote positive freedom; redistribution is required Financing: mainly tax-funded or mixed public-private |
| | Regulation: minimal; stress on incentives and information policy | Regulation: control of incentives and information policy | Regulation: control of production, standard benefit package, incentives and information policy |
| | Choice: unlimited (negative freedom, competition, higher efficiency); voluntary enrollment preferred | Choice: important (positive and negative freedom, competition, efficiency); voluntary and mandatory (helps imperfect markets) enrollment | Choice: not relevant; mandatory enrollment (helps imperfect markets) |
| | Targeting: not a relevant issue, no solidarity, co-payments | Targeting: all families or low-income families (redistribution), co-payments wage or income-related (with ceiling) | Targeting: exclusively low-income families (income-related redistribution) |
| | Coverage: those who do not hamper the running of the system and pay (full protection is a long-term objective) | Coverage: whole population (full protection of minimum needs is immediate objective) | Coverage: whole population (full protection is immediate objective) |
| Efficiency in allocation | | Transfers (subsidies) | Transfers (subsidies) |
| | No intervention in economic action; "law and order" is enough to grant automatic market coordination | Voucher: unlimited • supplementable • uniform fees • restricted | Intervention in economic action, redistribution to grant enlightening information to fulfill individuals' needs |
| | Libertarian point of view prevails; distinct objectives; trade-off exists, always solved in favor of efficiency; social policies promote negative freedom; redistribution is not required; access is improved when efficiency increases; economic efficiency should be considered in a general equilibrium sense; resources could not be reallocated in any way to make people better off | Welfare liberal point of view prevails; social policies promote negative and positive freedom; redistribution is required | Egalitarian objective utilitarianism prevails; equity is a primary objective, hence efficiency acquires its significance only in relation to equity; social policies promote positive freedom; redistribution is required; envy-free allocations are egalitarian equivalent; government-oriented solutions are likely to produce more efficient outcomes |
| | | | |
| | | | |

(Table continues on next page.)

Table 4.1. (continued)

| Efficiency | Equity | | | |
|------------------------------------|---|--|---|--|
| | Equity in access | Equity in capabilities | Equity in results | |
| Efficiency in allocation | Financing: tax funded, private or mixed Regulation: minimal (threat to autonomy of independent agents); no bureaucracy; contracts preferred, stress on incentives and information policy | Financing: tax funded Regulation: control of minimum standard benefit package, incentives and information policy | Financing: public (tax funded) Regulation: control of production, standard benefit package, incentives and information policy | |
| | Choice: very important (negative freedom, competition, higher efficiency); voluntary enrollment preferred Targeting: not a relevant issue, no solidarity, availability to all families, co-payments | Choice: important (positive and negative freedom, competition, efficiency); mandatory enrollment Targeting: mainly low-income families (redistribution), co-payments wage or income-related (with ceiling) Transfers | Choice: not a relevant issue; mandatory enrollment; solidarity Targeting: exclusively low-income families, related to the region, depending on the availability of infrastructure (redistribution); capitation fee varies according to various parameters (age, gender, area of residence) | |
| | Coverage: increased coverage comes from savings of the efficient allocation; full protection is a long-term objective; transfers, contribution ceilings, government subsidies to cover investment costs to influence resource allocation Payment of provider: fee schedule, controlled prices Insurance: managed competition | Coverage: whole population (full protection of minimum needs is immediate objective); may exclude certain groups to ameliorate allocation [gatekeeping (restricted access to providers)] Payment of providers: capitation fee Insurance: managed competition/tax financed | Coverage: whole population (full protection is immediate objective); government subsidies for greater population coverage Payment of providers: wage or income related, budget Insurance: tax financed/social insurance | |
| No intervention in economic action | No intervention in economic action | Voucher: unlimited • supplementable • cost-fees • transport-included • income-related • restricted | Intervention in economic action to grant the fulfillment of each individual's needs | |
| | | Intervention in economic action; redistribution, minimums of education and health to guarantee positive freedom | | |

all (see table 4.1). Respecting the rules of the game means that the acquisition of inputs and the transfer of information (and technology) have to be done using a valid title. Policymakers that pursue these two objectives admit that all agents—the public sector, the private sector, communities and families—can produce social services efficiently.

There seems to be no trade-off when pursuing efficiency in production and equity in access in combination. It is the most common combination of concepts in developing countries and, for example, has been pursued in the implementation of voucher systems in Chile and Colombia (see box 4.1).

Efficiency in Production and Equity in Capabilities

Efficiency in production means that apart from the chosen process, no other process exists that is capable, given unchanged inputs, of producing at least one more unit of output (in this case social services) or of obtaining the same output using less (of at least one) input. Equity in capabilities implies that all members of society must have the same opportunities to develop their potential and the delivery of social services is designed in a manner that accomplishes this objective. Hence, a minimum of health, education and information must be provided to all people because they need these resources (production factors) to achieve positive freedom (see table 4.1).

According to this view, equity in capabilities is the precondition for efficiency in production. Redistribution is needed to change initial conditions and give everyone these minimum levels of social services. Normally, economists who design social policy stressing these two concepts argue that all agents (public, private, community and family) can produce social services if given the capability to do so in an efficient way. Furthermore, they believe that efficient targeting of social expenditures can make a country's social programs much more efficient and effective. Equity is a quality of the result; efficiency is a quality of the process (effectiveness is a quality of the result). In this combination of objectives, there is no trade-off.

Efficiency in Production and Equity in Results

The combination of efficiency in production and equity in results is used in social policies that have as an objective the optimal distribution of output so as to fulfill the needs of all. Redistribution is the implicit course of action according to this view (see table 4.1). In terms of efficiency of production, not all agents can achieve the same results even if they have been given the minimums. Agents with different abilities are like agents with different degrees of handicaps (Dworkin 1981). In terms of production, the extension of the concept of envy-free allocation is not immediate because one agent cannot directly consume another agent's leisure. If one agent's consumption set is not identical to another's, then the concept of envy-free allocation is not necessarily well defined. Pazner and Schmeidler (1974) and Varian (1974) consider an economy in

Box 4.1. Education Vouchers in Chile and Colombia

Chile

Chile's voucher policy had as objectives the combination of efficiency in production and equity in access. These implicit concepts had significant effects on the delivery of education and its results. In particular, the lack of consideration for efficiency in coordination and efficiency in allocation brought about several distortions, and the absence of mechanisms to promote equity in capabilities (or equity in results) had, in some cases, regressive effects.

Efficiency

The education reform introduced competition for students between schools. The implicit idea underlying the reform was to pursue efficiency in production. Instead of the usual monopoly model of public education, competition should increase efficiency in producing outcomes, which in turn would influence school choice. This strategy was confirmed by the modality of unlimited choice (open voucher), which favors competition. However, the value of the vouchers created distortions because private schools got less than public schools, creating a difference in prices.

The overall cost of primary and secondary education in Chile has decreased considerably since the reform. The real expenditures of all publicly financed schools decreased 25 percent between 1981 and 1989. In addition, the overhead administrative costs of the Education Ministry decreased. However, much of the decrease in education expenditures was the result of reduced teacher salaries and the reduction in employment from 18,522 to 8,305 employees between 1981 and 1989. Expenses for textbooks and school lunches declined as well.

Subsidized-private schools appear to be more cost-effective than municipal schools. Controlling for socioeconomic status, test scores are approximately equal in municipal and subsidized-private schools, but the latter schools have lower unit costs. Additional expenditures in subsidized-private schools yield slightly higher returns than those in public schools.

Although the unit costs of primary and secondary education have decreased since the reform, the evidence in education outcomes is mixed, with some declines in test scores for all types of schools between 1984 and 1988. The ambiguity of the achievement data makes it difficult to determine changes in efficiency in the use of resources. Moreover, Chile's stress on efficiency in production may have harmed the allocation of resources. Cost-effectiveness improved because education expenditures declined more rapidly than test scores over the past decade, due to reductions in real school inputs. However, it is unclear whether this phenomenon improved efficiency in allocation and whether the overall opportunity cost is optimal. Similarly, the observation that test scores are higher and expenditures per pupil are lower in subsidized-private schools compared with municipal public schools says nothing about the efficiency of these school types in producing education.

The reform did not take into account efficiency in coordination and did not uniformly disseminate information. The result is that incentives for maximizing performance are more transparent and direct for private schools than for public schools. The owners/directors of private schools can directly benefit from the increased enrollments that result from better performance. The principal benefit to public schools from increased enrollments is reduced municipal finance; public school managers may in fact find that increased enrollments make for extra work.

No action was taken to counterbalance the fact that mobility is not that high (students go to schools in their jurisdiction), or that parents select private schools based on the characteristics of their children. Since the demand for private schooling increases with socioeconomic status, private schools have a continuing advantage in terms of student background characteristics. No mechanisms were put in place to impede the change of status of a large number of schools from paid-private to subsidized-private, resulting in a significant short-term increase in government-financed education spending. No action was taken to balance the reductions in the real value of the voucher that led paid-private schools to regain their earlier market share.

Equity

Chile's education reform identified as its objective equity in access. However, equity in capabilities was also taken into account in the original objectives. In fact, as part of the stated objective of giving school choice to everyone, government regulations prevent subsidized-private schools from using entrance examinations to select students. In addition, the voucher varies among jurisdictions to compensate for differences in costs between levels of education and student and community characteristics, including needs of the physically challenged. The purpose of the central government's relatively large contribution (almost 90 percent of total financing) is to ensure that all pupils receive a relatively high minimum level of school services.

However, the objectives of the reform were not fully accomplished. For example, despite the voucher scheme, not all students in Chile can choose the school they attend. Of the total of 325 municipalities, 234 have subsidized-private schools and only 72 have paid-private schools. Both types of schools are concentrated in urban areas, where private school enrollments are as high as public school enrollments. In 91 predominantly rural municipalities, students have no choice but to attend public schools.

Equity in capabilities was not pursued in practice. The major criticism of the Chilean voucher scheme is that it may lead to greater inequality of education opportunity among children. The difference in values of the vouchers constitutes a problem because richer regions have a higher value. For example, no action was taken to overcome the fact that students in subsidized-private schools have home environments that are more conducive to learning and have a higher level of knowledge upon starting school than do students in municipal public schools. The formula that determines the voucher level does not adjust for the compensatory requirements of poor or low-achieving children. In fact, the only extra resources those children receive are in

(Box continues on next page.)

Box 4.1. (continued)

the form of free school lunches. The voucher financed by the central government provides a high base level of minimum spending that either municipal or subsidized-private schools can increase from other revenue sources. Despite the apparent equity of the basic voucher, inter-municipal variations in fiscal capacity generate inequities in school expenditures per pupil.

No correction was made to counteract the evidence that within public schools the performance of students with higher socioeconomic backgrounds improved and that of students with lower socioeconomic backgrounds worsened between 1982 and 1988 (Winkler and Rounds 1995). Education outcomes, as measured by repetition rates and mathematics and Spanish test scores, differ greatly between public, subsidized-private and paid-private schools, with public schools having the worst outcomes and paid-private schools the best outcomes. Disaggregated achievement scores by four levels of household socioeconomic status show the same ranking of performance by school type, controlling for average socioeconomic status in the schools. The difference between municipal and subsidized-private schools, however, is small compared with the difference in test scores between socioeconomic levels.

Colombia

Colombia pursued a voucher policy with the objectives of raising secondary school student enrollment (equity in access) and increasing attendance, achievement and school completion or graduation (equity in capabilities). The former objective was achieved more than the latter.^a The only practical action that was taken to achieve equity in capabilities was to give vouchers for private schools to poor students in areas with insufficient public school capacity. To receive vouchers, students must be 15 years old or younger, come from the lowest two economic quintiles, and have graduated from elementary school.

Efficiency in production was the other implicit goal of policymakers: the project was designed to improve the efficiency of public schools through competition with private schools. By 1995, only 87 schools had been chosen to participate, each in a municipality with at least three secondary schools and a population of at least 10,000. In 1993, the average voucher cost the government US\$143.

Efficiency in coordination was overlooked because the reform did not clearly establish a regulation policy. The program lacked controls on curricula, personnel and admissions; the information policy was weak and the design of incentives was deficient. In addition, vouchers did not cover cost fees, were not supplementable, and did not include transport add-ons. Thus, it was difficult for the lower quintiles of the population to take advantage of the program.

^a Overall, this voucher program was designed to reach 45 percent of Colombia's school-age population. The program distributed 72,000 vouchers in 1992 and 25,000 each year in 1993–95.

Some municipalities have evaded their co-financing responsibilities, thereby putting the future of the program in danger. As a result, the program has been beset by troubles. The problem of substitution is a major concern—students use vouchers to change schools so that overall enrollment has not increased.

In an effort to determine whether vouchers actually increased overall school enrollment and influenced the education decisions of the poorest people, the government studied two sample populations—one that received vouchers and one that did not. Effects on achievement were determined by comparing these two populations. The results show that the effectiveness of the voucher program has been poor in terms of equity in results and efficiency in allocation. The system reinforced the existence of two standards of education delivery. Private schools performed relatively better than public schools in measures of grade-point averages, test scores, attendance records, juvenile delinquency rates, rates of transition to tertiary education, and rates of employment after leaving school.

which an individual's utility depends not only on consumption, but also on the number of hours worked. They find that it is possible that there may be no Pareto optimal distribution of consumption goods and work hours that is also equitable in results.

Various possible solutions have been suggested to resolve the trade-off between Pareto optimal allocation and equity in results (Pazner and Schmeidler 1976, 1978). One proposal is to imagine an economy in which everyone shares equal property rights. This may lead to the existence of allocation that is both equitable and optimal, but it makes the skilled create wealth for those who are unskilled. Another proposal, suggested by egalitarians, is that of a theoretical economy in which the utility distribution depends on an equivalent allocation of consumption bundles. Pazner and Schmeidler (1978) show that even in economies with production, there could be equivalent allocations that are also Pareto optimal.

Efficiency in Coordination and Equity in Access

Efficiency in coordination is a quality of the process of transmitting and distributing social services. Its primary objective is to streamline the mechanism for making choices about scarcity. The more quickly and effectively prices carry the right information to the right place, the greater this type of efficiency will be. When a policy privileges these two objectives, equity in access means that the acquisition and transmission of information and goods (within the market mechanism) have to be done respecting the rules of the game, and the transfer of property among different subjects has to be done using a valid title. There is no trade-off between efficiency and equity in this case. However, a trade-off can exist when the market is not efficient because of distortions, which is often the case in terms of social service delivery.

Efficiency in Coordination and Equity in Capabilities

Efficiency in coordination is related to the market distribution mechanism. There is efficient coordination when, in deciding how much of a social service to offer, the government or the private sector sets the price of a product according to the marginal cost of producing one extra unit. In deciding how much of a social service to consume, individuals equate the marginal benefit they receive from consuming one extra unit with the marginal cost of purchasing an extra unit, which is the price they have to pay.

In conjunction with efficiency in coordination, equity in capabilities means that all members of society have the opportunity to participate in this mechanism (see table 4.1). There is a trade-off between these two concepts because the fact that no person is allowed to fall below a socially specified minimum level of social service consumption is incompatible with the market mechanism. Redistribution is not needed because market theory, the framework of efficiency in coordination, assumes that agents are rational. When the market is efficient, equity in capabilities implies a loss of resources; when it is inefficient, it is under the control of pressure groups (efficiency in coordination is absent).

Efficiency in Coordination and Equity in Results

Efficiency in coordination could be defined as the efficiency of the market process; it is achieved through the coordination of information and incentives. Since knowledge must be dispersed, efficient outcomes can be achieved through coordination of economic activity. When social policy designers pursue efficiency in coordination, it means that social services must be provided and distributed through a mechanism of resource allocation. Equity in results means that each participant in the distributive process is entitled to receive an equal quantity of social services (see table 4.1). When combining these two concepts, a trade-off exists because the market mechanism ends up excluding the less able.

Efficiency in Allocation and Equity in Access

Efficiency in allocation exists when a policy that is carried out within resource and technological constraints brings about the greatest satisfaction of human wants in the provision of goods, information and services. This situation, a primary objective within market theory, is described as the optimization of scarce resources. Equity in access means that the procedures necessary to achieve efficient allocation (acquiring and transferring information and goods) have been carried out respecting the rules of society (for example, transfer of property must be done using a valid title). There is no trade-off in the pursuit of these two policy objectives (see table 4.1).

Within this context, allocations that are both Pareto efficient and envy-free are particularly interesting because voluntary trade will not disturb them. An envy-free allocation is sometimes referred to as an equitable allocation and an envy-free Pareto efficient allocation is often called a fair allocation (Varian 1974). Can a competitive equilibrium characterized by equal division necessarily be an envy-free and efficient allocation? Some believe that it can be because the first theorem of welfare economics guarantees efficiency, and equal division (all agents have the same amount of wealth) guarantees the envy-free property. Other types of allocative mechanisms may not necessarily preserve the symmetry of equal division. For example, there are equal division allocations in which some agents envy others.

The particular feature of equity in access is that it guarantees the possibility of trade. In a competitive market, if all agents have the same trading opportunities, they cannot prefer another agent's choices to their own once equilibrium is achieved (Schmeidler and Vind 1972). For example, in countries where the demand for schooling may exceed the public sector's capacity to build and manage schools, vouchers represent a relatively inexpensive way to expand opportunities for children who, because the public schools are oversubscribed, would otherwise be unable to enroll. Thus, the policy issue may not be to make public schools compete with private schools as much as to make better use of available excess capacity in the private schools.

Even if they do not raise total public and private enrollments, vouchers are beneficial if they shift students from overcrowded public schools to private schools, thereby easing the pressure on resources in public schools and possibly improving the capacity of public schools to provide better-quality education. In addition, if private schools provide higher-quality services than do public schools, the shift could indeed increase overall student achievement.

Efficiency in Allocation and Equity in Capabilities

Efficiency in allocation is a characteristic assigned to the distribution of goods. The distribution is efficient when no other distribution exists in which it is possible to increase the utility of at least one agent without at the same time decreasing the utility of any other agent. An allocation is efficient when nobody can gain from exchange. Allocative efficiency results from the exchange of given quantities of consumption goods (final outputs of individual productive processes), initially distributed in a different way among economic actors. Unless there is some kind of distortion, not much room is left for government intervention.

Equity in capabilities means that the only way to guarantee the same opportunities to all members of society is by granting them the ability to use social services, for which a minimum standard of living is a prerequisite. Consequently, a given quantity of social services has to be received by each participant in the distributive process in order to give them the capability of participating in the socioeconomic process. There is a trade-

off between efficiency in allocation and equity in capabilities when they are both objectives of a social policy because the first (inspired by neoclassical economics) does not—with few exceptions—take into account that redistribution is needed to provide everyone with the capability of enjoying positive rights.

According to their supporters, voucher systems need not define the way public subsidies are distributed. They do not have to be universal as in the Chilean program, in which any student can attend public or private school. Rather, they can be targeted toward the poor as is the case in the Colombian program and in the Milwaukee, Wisconsin (United States) system, or toward particular demographic groups as is the case in the Bangladesh secondary school scholarship program for girls. When used properly, targeting helps to avoid the problem that vouchers could constitute a net subsidy of the wealthy by the poor (see table 4.1).

Efficiency in Allocation and Equity in Results

In this scenario, any resource allocation has to consider the attainment of efficiency and the promotion of social justice. The juxtaposition of these two objectives is complex because the value judgments associated with each objective are inherently antagonistic. In theory, this situation occurs when there is a Pareto equilibrium in which everyone has the same share of goods. The problem is how to get there. In fact, even if traders start with equal allocation and make Pareto movements, they may end up with unequal results, which according to equity in results is an inequitable allocation (Feldman and Kirman 1974). In fact, if traders start at an equitable allocation and make a Pareto move to a competitive equilibrium, they may end up at an allocation where one envies another.

An efficient allocation of resources means that a reallocation of resources and/or a rearrangement of production cannot increase net social benefit. This would indeed seem to be an important aim for any economic system. However, an efficient system does not necessarily imply a fair or equitable one, although an efficient system is defined as one that produces the maximum net benefit for society. But the meaning of maximum net benefit refers only to the overall level of net benefit for a given distribution of income; it does not concern itself with the way benefits are distributed between the individual members of society. The notion of equity is not dealt with by the efficiency criterion in the way the latter is generally used by economists.

Equity in results implies redistribution (see table 4.1). Historically, there has always been a trade-off between the allocative objective and the redistributive one. However, some economists point out that it is not necessary to think of these two objectives in terms of a trade-off because a trade-off would lead to a reduction in both efficiency and equity.

Suggestions for Further Application of the Methodology

The method of analysis used here could be developed for further research. For example, it could be used to look at the quantity and quality of schooling under a voucher system rooted in efficiency in production and equity in access in which government subsidizes selected schools in strict proportion to enrollment. The results could be compared with a program that pursues efficiency in coordination and equity in capabilities. Evidence collected in several countries, provinces and states so far offers no clear support for the predictions (see tables 3.2 and 2.2, and West 1996). An analytical application of this methodology to individual case studies could reveal which forms of voucher programs and health insurance have been most successful so far in terms of education and health results.

Experience in all countries that have comprehensive health services shows that problems in the health sector cannot be addressed without some level of government involvement. Simple market solutions, which are common in other sectors of the economy, do not work well in the health sector due to a number of market failures. Before plans for health insurance are developed in detail, health policy goals and targets should be clearly stated. The insurance plans must be compatible with policy goals. Policy goals must be stated at the level of overall objectives and in terms of targets associated with these goals.

Concepts are very important when designing social policies. Policy options and results arise from alternative concepts of efficiency and equity. Different concepts of efficiency and equity generate different approaches in policy design that lead to different options and results. In any case, a policymaker can try to systematically map the ethical implications of the current situation or proposed policy option, paying attention not only to the short run but also to the longer-run implications.

Much of the philosophical discussion tends to be posed as if the current situation (or any alternative) will continue for the foreseeable future. Such analysis tends to be in the form of "option A versus option B," where each is an alternative static picture of the world. In real life, the dynamic properties of any situation may be crucial. For example, a society may be willing to sacrifice short-run efficiency in order to build up its nation's institutional capacity in ways that will facilitate larger improvements tomorrow.

Since there is room for mutual gains for every participant until equilibrium is reached in the production, consumption and exchange of goods and services, distributive justice takes care of establishing the rules of the distribution of these gains. For example, if the Pareto efficient equilibrium has to be broken (for example, through taxes), then distributive justice will set the rules for carrying out redistribution.

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Bibliography

- Aaron, Daniel. 1969. *Men of Good Hope: A Story of American Progressives*. New York: Oxford University Press.
- Aaron, Henry J. 1994. Issues Every Plan to Reform Health Care Financing Must Confront. *Journal of Economic Perspectives* 8(3) Summer: 31–43.
- . (ed.) 1996. *The Problem That Won't Go Away: Reforming U.S. Health Care Financing*.
- Aarts, Leo J. M., Richard V. Burkhauser, and Philip R. de Jong (eds.). 1996. *Curing the Dutch Disease: An International Perspective on Disability Policy Reform*. Aldershot, UK: Avebury Publishers.
- Ackerman, Bruce. 1980. *Social Justice in the Liberal State*. New Haven, CT: Yale University Press.
- Adelman, I. 1975. Development Economics—A Reassessment of Goals. *American Economic Review Papers and Proceedings* 65.
- Adler, Mortimer Jerome. 1958. *The Idea of Freedom: A Dialectical Examination of the Conceptions of Freedom*. Garden City, NY: Doubleday.
- . 1987. Moral Development and the Personal Point of View. In E. Kittay and D. Meyers (eds.), *Women and Moral Theory*. Savage, MD: Rowman and Littlefield.
- Afsa, Cedric. 1996. La complexité en question: les prestations familiales sont-elles simplifiables? (Complexity Questioned: Can Family Allowances Be Simplified? With English summary.). *Économie et prévision* 0(122): 47–58.
- Aganbegyan, Abel, and Timor Timofeyev. 1988. *The New Stage of Perestroika (East-West Special Report)*. New York, NY: Institute for East-West Security Studies.
- Agénor, Pierre-Richard, and Peter J. Montiel. 1996. *Development Macroeconomics*. Princeton, NJ: Princeton University Press.
- Ahonen, Esa. 1996. Vouchers in Higher Education. *Higher Education Management* 8(1) March: 19–25.
- Akin, John S. 1989. *Economics of Health Insurance: Theory and Developed Countries Experience*. Washington, DC: The World Bank.
- Alesina, Alberto, and Dani Rodrik. 1991. *Distributive Politics and Economic Growth*. CEPR Discussion Paper no. 565. Centre for Economic Policy Research, London, UK.

- Alexander, L., and M. Shwartzschild. 1987. Liberalism, Neutrality, and Equality of Welfare vs. Equality of Resources. *Philosophy and Public Affairs* 16(1): 85–110.
- Allen, A. 1988. *Uneasy Access: Privacy for Women in a Free Society*. Totowa, NJ: Rowman and Allanheld.
- Allen, D. 1973. The Utilitarianism of Marx and Engels. *American Philosophical Quarterly* 10(3): 189–199.
- Almestica, Cindy. 1998. *Managed Care and Capitation Systems: The Question of Process Efficiency and Cost-Effectiveness in Pediatric Care*. School of Management and Technology, National University, San Diego, CA.
- Amin, Ash, and Damian Thomas. 1996. The Negotiated Economy: State and Civic Institutions in Denmark. *Economy and Society* 25(2) May: 255–81.
- Anderson, G. M. 1990. Parasites, Profits and Politicians: Public Health and Public Choice. *Cato Journal* 9: 557–78.
- Anderson, G. M., et al. 1993. Use of Coronary Artery Bypass Surgery in the United States and Canada. Influence of Age and Income. *JAMA* 269(13) April: 1661–6.
- Antman, K. 1993. Reimbursement Issues Facing Patients, Providers, and Payers. *Cancer* 72(9 Supplement) November: 2842–5.
- Aptekar, Lewis S. 1982. Providing Services to the Handicapped in Times of Budget Retrenchment. Paper presented at Conference of the Rocky Mountain Educational Research Association, November 12, Albuquerque, NM.
- Arch, Surg. 1996. The Shift toward a Managed Care Environment in a Multispecialty Group Practice Model. *Looking for Reciprocal Benefits* 131(10) October: 1027–31.
- Aristotle. 1962. Translated by Martin Ostwald. *Nichomachean Ethics*. Englewood Cliffs, NJ: Prentice Hall.
- Arneson, R. 1981. What's Wrong with Exploitation? *Ethics* 91(2): 202–227.
- . 1985. Freedom and Desire. *Canadian Journal of Philosophy* 5(3): 425–448.
- . 1987. Meaningful Work and Market Socialism. *Ethics* 97(3): 517–545.
- . 1989. Equality and Equal Opportunity for Welfare. *Philosophical Studies* 56: 77–93.
- Arnold, P. J., and T. L. Schlenker. 1992. The Impact of Health Care Financing on Childhood Immunization Practices. *Am J Dis Child* 146(6) June: 728–32.
- Aron, Raymond. 1998. *Essai sur les libertés*. Paris: Hachette Littératures.
- Arrow, K. 1963. Uncertainty and the Welfare Economics of Medical Care. *American Economic Review* 52: 941–73. Reprinted in P. Diamond and M. Rothschild (eds.), *Uncertainty in Economics*. New York, NY: Academic Press, 1978.
- . 1965. A Reply. *American Economic Review* 55: 154–58.
- . 1968. A Reply. *American Economic Review* 58: 531–38.
- . 1973. Some Ordinalist Utilitarian Notes on Rawls' Theory of Justice. *Journal of Philosophy* 70: 245–263.

- Arrow, K., and G. Debreu. 1954. Existence of Equilibrium for a Competitive Economy. *Econometrica* 22: 265–290.
- Arrow, Kenneth Joseph. 1963. *Social Choice and Individual Values*. NY: Wiley.
- . 1991. A Utilitarian Approach to the Concept of Equality in Public Expenditures. *Modern Public Finance*. Volume 1. Aldershot, UK and Brookfield, VT: Elgar.
- Arthur, J. 1987. Resource Acquisition and Harm. *Canadian Journal of Philosophy* 17(2): 337–347.
- Atkins, Fiona. 1986. *Land Reform: A Failure of Neoclassical Theorisation*. Discussion Papers in Economics 87/3, Birkbeck College, London, UK.
- Baier, A. 1987. Hume, the Women's Moral Theorist? In E. Kittay and D. Meyers (eds.), *Women and Moral Theory*. Savage, MD: Rowman and Littlefield.
- . 1987. The Need for More than Justice. *Canadian Journal of Philosophy* 13 (supplement): 14–56.
- . 1988. Pilgrim's Progress. *Canadian Journal of Philosophy* 18(2): 315–330.
- Baker, C. 1985. Sandel on Rawls. *University of Pennsylvania Law Review* 133(4): 895–928.
- Baker, Judy L., and Jacques van der Gaag. 1993. Equity in Health Care and Health Care Financing: Evidence from Five Developing Countries. In Eddy van Doorslaer, Adam Wagstaff, and Frans Rutten (eds.), *Equity in the Finance and Delivery of Health Care: An International Perspective*. Oxford and New York: Oxford University Press.
- Baker, Laurence C., and Alan B. Krueger. 1997. Medical Costs in Workers' Compensation Insurance. *Journal of Health Economics* 16(5): 625–626.
- Barnum, H., J. Kutzin, and H. Saxenian. 1995. *Incentives and Provider Payment Methods*. Human Capital Development and Operations Policy Working Paper Series No. 51, World Bank, Washington, DC.
- Barnum, Howard, and Joseph Kutzin. 1993. *Public Hospitals in Developing Countries: Resource Use, Cost, Financing*. Baltimore, MD and London, UK: Johns Hopkins University Press for the World Bank.
- Barr, N. 1987. *The Economics of the Welfare State*. London, UK: Weidenfeld and Nicholson.
- . 1992. Economic Theory and the Welfare State: A Survey and Interpretation. *Journal of Economic Literature* 30: 741–803.
- Barro, Robert J., and Xavier Sala-i-Martin. 1995. *Economic Growth*. New York, NY: McGraw-Hill.
- Barzel, Yoram. 1977. *Efficiency and Information in Medical Insurance*. Health Policy Research Series Discussion Paper no. 6., Center for Health Services Research, Dept. of Health Services, School of Public Health and Community Medicine, University of Washington, Seattle, WA.
- . 1978. Efficiency and the Medical Insurance Contract. University of California at Los Angeles. Law-Economics Workshop, Wednesday, May 3, 1978.

- Basle, and National Economic Research Associates (NERA). 1995. *Risk Adjustment and Its Implications for Efficiency and Equity in Health Care Systems: Examples from the Czech Republic, England, Germany, The Netherlands, Switzerland, the United States of America: A Report*. Pharmaceutical Partners for Better Healthcare, London, UK.
- Bast, Joseph L., et al. 1997. *Vouchers and Educational Freedom: A Debate*. Policy Analysis No. 269 (Position Paper), Cato Institute, Washington, DC.
- Bastian, Ann, et al. 1985. *Choosing Equality: The Case for Democratic Schooling*. New York, NY: New World Foundation.
- Bay, Christian. 1965. *The Structure of Freedom*. Stanford: Stanford, CA: University Press.
- Beales, J. Howard, and Timothy J. Muris. 1993. *State and Federal Regulation of National Advertising*. Washington, DC: American Enterprise Institute Press.
- Becker, Carl. 1965. *The Heavenly City of the Eighteenth-Century Philosophers*. New Haven, CT: Yale University Press.
- Becker, Gary. 1993. *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education*. Third Edition. Chicago, IL: Chicago University Press.
- . 1993. *Business Week* (December).
- . 1993. Nobel Lecture: The Economic Way of Looking at Behavior. *Journal of Political Economy* 101(3) June: 385–409.
- . 1995. *Human Capital and Poverty Alleviation*. Human Resource and Operation Policy Working Paper No. 52, World Bank, Washington, DC.
- Bennet, S. 1992. Promoting the Private Sector: A Review of Developing Country Trends. *Health Policy and Planning* 7: 97–110.
- Bennet, S., G. Dakpallah, P. Gardner, L. Gilson, S. Nittayaramphong, B. Zurita, and A. Zwi. 1994. Carrot and Stick: State Mechanisms to Influence Private Provider Behaviour. *Health Policy and Planning* 9(1): 1–13.
- Bentham, Jeremy. 1789. *An Introduction to the Principles of Morals and Legislation*. London, UK: Printed for T. Payne.
- Berlin, Isaiah. 1969. *Four Essays on Liberty*. Oxford, NY: Oxford University Press.
- Berman, P. (ed.) 1995. *Health Sector Reform in Developing Countries: Making Health Development Sustainable*. Harvard Series on Population and International Health. Harvard University Press, Cambridge, MA.
- Berman, Peter. 1998. *National Health Insurance in Poland: A Coach without Horses?* Harvard School of Public Health, Boston, MA. Unpublished.
- Bierer, M. F., and N. A. Rigotti. 1992. Public Policy for the Control of Tobacco-related Disease. *Med Clin North Am* 76(2) March: 515–39.
- Bigelow, V., and C. B. Trees. 1991. A Model for Primary Care Delivery to a Widely Dispersed Medically Indigent Population. *JAMA* 266(4) July: 563–4.
- Birdsall, N., and E. James. 1993. Population Growth, Externalities, and Poverty. In Lipton and van der Gaag (eds.), *Including the Poor*. Oxford: Oxford University Press.

- Birdsall, Nancy. 1993. Pragmatism, Robin Hood, and Other Themes: Good Government and Social Well-Being in Developing Countries. In Lincoln C. Chen, Arthur Kleinman, and Norma C. P. Ware (eds.), *Health and Social Science in International Perspective*. Cambridge, MA: Harvard University Press.
- Birdsall, Nancy, and Estelle James. 1993. Efficiency and Equity in Social Spending: How and Why Governments Misbehave. In M. Lipton and J. van der Gaag (eds.), *Including the Poor*. Oxford: Oxford University Press.
- Birdsall, Nancy, David Ross, and Richard Sabot. 1995. Inequality and Growth Reconsidered. *The World Bank Economic Review* 9(3).
- Blank, Rebecca M. (ed.) 1994. *Social Protection Versus Economic Flexibility: Is There a Trade-Off?* Chicago, IL: University of Chicago Press.
- Blanpain, Jan. 1978. *National Health Insurance and Health Resources: The European Experience*. Cambridge, MA: Harvard University Press.
- Blaug, Mark. 1984. Education Vouchers—It All Depends on What You Mean. *Privatisation and the Welfare State*. London, UK; Boston, MA; and Sydney, Australia: Allen and Unwin.
- . 1984. The Methodology of Economics: Conclusions. *Appraisal and Criticism in Economics: A Book of Readings*. Boston, MA; London, UK; and Sydney, Australia: Allen and Unwin.
- Blazic, Helena. 1994. *Opravidanost ukljucenja nestandardnih olaksica u hrvatski porez na dohodak*. (Justifiability of Including Non-standard Reliefs in Croatian Income Tax). Zbornik Radova Ekonomskog Fakulteta Rijeka.
- Blendon, R. J., et al. 1992. The Uninsured and the Debate over the Repeal of the Massachusetts Universal Health Care Law. *JAMA* 267(8) February: 1113–7.
- Blinder, Alan S. 1987. *Hard Heads, Soft Hearts, Tough-Minded Economics for a Just Society*. Readings, MA: Addison-Wesley.
- Blomqvist, Åke. 1997. Optimal Non-linear Health Insurance. *Journal of Health Economics* 16(3): 303–321.
- Blum, V. C. 1985. Private Elementary Education in the Inner City. *Phi Delta Kappan* 66(9): 645.
- Boadway, Robin W. 1995. Fiscal Federalism and Social Policy Reform. *Canadian Journal of Regional Science* 18(2) Summer: 199–220.
- Boaz, David, and R. Morris Barrett. 1996. *What Would a School Voucher Buy? The Real Cost of Private Schools*. Cato Institute Briefing Papers 25 and 26, Cato Institute, Washington, DC.
- Bobbio, Norberto. 1955a. Della libertà dei moderni comparata a quella dei posteri. In *Politica e cultura*. Torino, Italy: Einaudi.
- . 1955b. *Politica e cultura*. Torino, Italy: Einaudi.
- . 1984. *Il futuro della democrazia*. Torino, Italy: Einaudi.
- . 1986. *Liberalismo e democrazia*. Milano, Italy: F. Angeli.
- . 1991. *Il futuro della democrazia*. Torino, Italy: Einaudi.

- . 1995. *Eguaglianza e libertà*. Torino, Italy: Einaudi.
- Bogetic, Zeljko, and Arye L. Hillman (eds.). 1995. *Financing Government in the Transition: Bulgaria: The Political Economy of Tax Policies, Tax Bases, and Tax Evasion*. Washington, DC: World Bank.
- Boschee, Floyd, and Madgie M. Hunt. 1990. Educational Choice and Vouchers: Where Do You Stand? *NASSP Bulletin* 74(524) March: 75–86.
- Bossert, T. 1992. An Analysis of the Chilean Health Reform. Latin American and Caribbean Health and Nutrition Sustainability Project, Washington, DC.
- Bourguignon, François. 1994. Sustainable Growth in the Long Run: Comment. *Economic Growth and the Structure of Long-Term Development: Proceedings of the IEA Conference Held in Varenna, Italy*. New York, NY: St. Martin's Press; London, UK: Macmillan Press, in association with the International Economic Association.
- Boyle, M. H., et al. 1983. Economic Evaluation of Neonatal Intensive Care of Very-low-birth-weight Infants. *New England Journal of Medicine* 308: 1330–37.
- Bradford, W. David. 1996. Efficiency in Employment-Based Health Insurance: The Potential for Supra-Marginal Cost Pricing. *Economic Inquiry* 34(2).
- Brander, James A., and Barbara J. Spencer. 1994. Trade Adjustment Assistance: Welfare and Incentive Effects of Payments to Displaced Workers. *Journal of International Economics* 36(3–4) May: 239–61.
- Breyer, Friedrich. 1995. The Political Economy of Rationing in Social Health Insurance. *Journal of Population Economics* (May).
- Bridge, Gary. 1978. Information Imperfections: The Achilles Heel of Entitlement Plans. *School Review* 86: 504–529.
- Brock, W. R., et al. 1996. Economic Development and Infrastructure: The Case of Balochistan Province. *Pakistan Development Review* 35(1) Spring: 85–93.
- Brooks, John M., Dor Avi, and S. Wong Herbert. 1997. Hospital Insurer Bargaining: An Empirical Investigation of Appendectomy Pricing. *Journal of Health Economics* 16(4): 417–434.
- Broome, J. 1993. Qalys. *Journal of Public Economics* 50(2): 149–167.
- Brown, Eleanor (ed.). 1988. *Readings, Issues, and Questions in Public Finance*. Irwin Series in Economics. Homewood, IL: Irwin.
- Buchanan, J. 1986. *Liberty, Market and the State*. Brighton, UK: Wheatsheaf.
- Buchanan, J., and C. Stubblebine. 1962. Externality. *Economica* 29: 371–84.
- Buchanan, J., Tollinson, and G. Tollick. 1980. *Toward a Theory of the Rent-Seeking Society*. College Station, TX: Texas University A&M Press.
- Buchanan, James M. 1977. *Freedom in Constitutional Contract: Perspectives of a Political Economist*. College Station, TX: Texas A & M University Press.
- Calderón, Alberto. 1996. *Voucher Program for Secondary Schools: The Colombian Experience*. HCD Working Papers, World Bank, Washington, DC.
- Calvino, Italo. 1993. *Six Memos for the Next Millenium*. New York, NY: Vintage International.

- Campanella, Tommaso. 2000. *La cité du soleil*. Paris, France: Éditions Mille et une nuits.
- Campanella, Tommaso, and Tobias Adami. 1623. *Realis philosophiae epilogisticae partes quatuor: hoc est De rerum natura, Hominum moribus, Politica, cui Civitas solis iuncta est, and Oeconomica*. Francofurti: Impensis G. Tampashii.
- Cantor, Joel C., and Richard M. Scheffler. 1995. *Health Policy Reform and the States*. Greenwich, Conn.: JAI Press.
- Card, David, and Brian P. McCall. 1996. *Is Workers' Compensation Covering Uninsured Medical Costs? Evidence from the "Monday Effect"*. Princeton, N.J.: Princeton University Press.
- Cardoso, Eliana, and Ann Helwege. 1992. *Latin America's Economy: Diversity, Trends and Conflicts*. Cambridge, MA: MIT Press.
- Carnegie Foundation for the Advancement of Teaching. 1992. *School Choice*. Princeton, NJ: Carnegie Foundation.
- Carnoy, Martin. 1995. Is School Privatization the Answer? Data from Other Countries Help Burst the Voucher Bubble. *American Educator* 19(3) Fall: 29–30.
- Castañeda, T. 1992. *Combating Poverty: Innovative Social Reforms in Chile during the 1980s*. San Francisco, CA: International Center for Economic Growth.
- Cato Institute. 1993. *Patient Power: The Cato Institute's Plan for Health Care Reform*. Cato Institute, Washington, DC.
- Chambers, Jay G. 1985. Patterns of Compensation of Public and Private School Teachers. *Economics of Education Review* 4(4): 291–310.
- Chassin, Mark R. 1988. Standards of Care in Medicine. *Inquiry* 25(4) Winter: 437–50.
- Chetty, V. K. 1998. Stochastic Technology, Production Organization and Costs. *Journal of Health Economics* 17(2): 185–208.
- Chieuw, Juliet S. F., and Nadine H. Mandolang. 1992. Literature Review on Decentralization: Strengthening Local Educational Capacity. Educational Policy and Planning Project. A Government of Indonesia-USAID Project. Learning Systems Institute, Florida State University, Tallahassee, FL.
- Chile, Government of. Ministry of Health. 1992. *Health Care Situation and Health Care in Chile*. Santiago.
- Clare, F. L., et al. 1987. Trends in Health Personnel. *Health Affairs* Winter: 101–2.
- Clow, Suzanne L. 1984. *The Voucher Project. Final Report*. Phoenix Institute, Salt Lake City, UT.
- Cohn, Elchanan. 1979. *The Economics of Education*. Cambridge, MA: Ballinger Publishing Company.
- Cohn, Elchanan, and Terry G. Geske. 1990. *The Economics of Education*. Third edition. Oxford; New York; Toronto and Sydney: Maxwell Macmillan Pergamon, Pergamon Press.
- Coleman, J. 1990. *Equality and Achievement in Education*. Boulder, CO: Westview Press.
- Collard, D. 1978. *Altruism and Economy*. Oxford, NY: Martin Robertson.

- Connor, Kim, and Melinda Melendez. 1993. Analysis of the Parental Choice in Education Initiative: A Proposed Constitutional Amendment on the November 2, 1993 Ballot. Senate Office of Research, California State Legislature, Sacramento, CA.
- Consalvo, Robert W. 1994. Quality Education Not School Reform: A Modified Choice Proposal. Paper presented at the Annual Meeting of the Eastern Educational Research Association, February 11, Sarasota, FL.
- Cooley, William W. 1991. *School Choice or School Reform?* Pennsylvania Educational Policy Studies Series No. 12., Learning Research and Development Center, School of Education, Pittsburgh University, Pittsburgh, PA.
- Corwin, Ronald G. 1993. *Private Schools and Parental Choice: Dubious Assumptions, Frail Claims, and Excessive Hyperbole*. Los Alamitos, CA: Southwest Regional Laboratory.
- Corwin, Ronald G., and Marcella R. Dianda. 1993. What Can We Really Expect from Large-Scale Voucher Programs? *Phi Delta Kappan* 75(1) September: 68–72, 74.
- Cox, D., and E. Jimenez. 1990. Achieving Social Objectives through Private Transfers: A Review. *World Bank Research Observer* 5(2): 205–18.
- Cox, Donald, and Emmanuel Jimenez. 1991. The Relative Effectiveness of Private and Public Schools: Evidence From Two Developing Countries. *Journal of Development Economics* 34 (November): 99–121.
- Cranston, Maurice William. 1954. *Freedom: A New Analysis*. London, UK: Longmans Green.
- Crawford, Vincent P. 1977. *A Procedure for Generating Pareto-Efficient Egalitarian Equivalent Allocations*. UCSD Discussion Papers No. 77–6.
- Creedy, John. 1996. *Fiscal Policy and Social Welfare: An Analysis of Alternative Tax and Transfer Systems*. Cheltenham, UK: Elgar, and Brookfield, VT: Ashgate.
- Creedy, John, and Patrick François. 1992. Higher Education and Progressive Taxation: Equity, Efficiency and Majority Voting. *Journal of Economic Studies* 19(4): 17–30.
- Croatian Institute for Health Insurance. 1999. First Croatian Health Project Assisted by the World Bank, Zagreb. Unpublished.
- Croce, B. 1941. Principio, ideale e teoria: a proposito della teoria filosofica della libertà. In *Il carattere della filosofia moderna*. Bari, Italy: Laterza.
- Culyer, A. J. 1971. The Nature of the Commodity “Health Care” and its Efficient Allocation. *Oxford Economic Papers* 23: 189–211. (Reprinted in A. J. Culyer, (ed.), *The Economics of Health*. Aldershot, UK: Edward Elgar Publishing, 1991.)
- Culyer, A. J. (ed.) 1991. *The Economics of Health: The International Library of Critical Writings in Economics*, No. 12. Aldershot, UK: Edward Elgar Publishing.
- Culyer, A. J., and Bengt Jönsson. 1986. *Public & Private Health Services: Complementarities and Conflicts*. Oxford, UK: Basil Blackwell.
- Culyer, Anthony J. 1991. Health, Health Expenditures, and Equity. Centre for Health Economics, University of York, York, England.

- Cummings, W. K., and Riddell. 1994. Alternative Policies for the Finance, Control and Delivery of Basic Education. *Educational Research* 21: 751–783.
- Cutler, D. M., and J. Gruber. 1995. *Does Public Insurance Crowd Out Private Insurance?* NBER Working Paper Series no. 5082, National Bureau of Economic Research, Cambridge, MA.
- Cutler, David M., and Richard J. Zeckhauser. 1997. *Adverse Selection in Health Insurance.* Working Paper no. 6107, National Bureau of Economic Research, Cambridge, MA.
- Cutler, David M., and Sarah Reber. 1996. *Paying for Health Insurance: The Trade-off between Competition and Adverse Selection.* Working Paper no. 5796, National Bureau of Economic Research, Cambridge, MA.
- Cykert, S., G. Kissling, R. Layson, and C. Hansen. 1995. Health Insurance Does Not Guarantee Access to Primary Care: A National Study of Physicians' Acceptance of Publicly Insured Patients. *J Gen Intern Med* 10(6) June: 345–8.
- Dahrendorf, Ralf. 1979. *Lebenchancen. Anlaufe zur sozialen und politishen Theorie*, Frankfurt am Mein, Germany: Suhrkamp.
- . 1987. *Fragmente eines neuen Liberalismus*. Stuttgart, Germany: Deutsche Verlags-Anstalt.
- Dalkir, Serdar. 1995. *Competition and Efficiency in the U.S. Managed Healthcare Industry*. Ithaca, NY: Cornell University.
- Dalton, B. A., and J. S. Harris. 1991. A Comprehensive Approach to Corporate Health Management. *J Occup Med* 33(3) March: 338–47.
- Dantzig, G. B. 1951a. The Programming of Interdependent Activities. In T. Koopmans (ed.), *Activity Analysis of Production and Allocation*. New York, NY: Wiley.
- . 1951b. Maximization of a Linear Function of Variables Subject to Linear Inequalities. In T. Koopmans (ed.), *Activity Analysis of Production and Allocation*. New York, NY: Wiley.
- Danzon, Patricia M. 1997. Tort Liability: A Minefield for Managed Care? *Journal of Legal Studies* (June).
- Dayton, Julia, and Lionel Demery. 1994. *Public Health Expenditure and the Rural Poor in Kenya*. Washington, DC: The World Bank.
- de Oliveira, Francisco, and E. Barreto (eds.). 1994. *Sistemas de seguridad social en la region: problemas y alternativas de solución*. Washington, DC: Inter-American Development Bank.
- De Ruggiero, Guido. 1927. *The History of European Liberalism*. London and New York: Oxford University Press.
- Dehzi, Y. 1992. *Changes in Health Care Financing and Health Status: The Case of China in the 1980s*. Innocenti Occasional Papers, Economic Policy Series 34, UNICEF, Florence, Italy.
- Deiningner, Klaus, and Lyn Squire. 1996. Measuring Income Inequality: A New Database. *World Bank Economic Review* (September).

- Demsetz, H. 1969. Information and Efficiency: Another Viewpoint. *Journal of Law and Economics* 12: 1–22. (Reprinted in H. Demsetz, *The Organization of Economic Activity*. Vol 2. Oxford, UK: Blackwell, 1988.)
- Dewey, Douglas D. 1996. An Echo, Not a Choice. *Policy Review* 80 (November–December): 28–32.
- Dewey, John. 2000. *Liberalism and Social Action*. Amherst, NY: Prometheus Books.
- Diamond, P. 1992. Organizing the Health Insurance Market. *Econometrica* 60: 1233–1254.
- Diamond, P., and M. Rothschild (eds.). 1978. *Uncertainty in Economics*. New York, NY: Academic Press.
- Dinwiddie, Caroline, and Francis Teal. 1996. *Principles of Cost-benefit Analysis for Developing Countries*. Cambridge, NY and Melbourne, Australia: Cambridge University Press.
- Doyle, Denis P. 1984. *From Theory to Practice: Considerations for Implementing a Statewide Voucher System*. Sequoia Institute, Sacramento, CA.
- Doyle, Denis P., and Chester E. Finn, Jr. 1983. *Educational Quality and Family Choice: Toward a Statewide Public School Voucher Plan*. Washington, DC: National Institute of Education.
- Drake, Brenda, and Andrew M. Tieman. 1994. National Childhood Vaccine Injury Act of 1986: Using Tax Revenues to Assure Vaccine Availability. *Public Budgeting and Finance* (Summer).
- Drake, David F. 1994. *Reforming the Health Care Market: An Interpretive Economic History*. Washington, DC: Georgetown University Press.
- Dworkin, R. 1994. Is Clinton's Plan Fair? *New York Review of Books* 41: 20–25.
- Dworkin, Ronald. 1977. *Taking Rights Seriously*. Cambridge, MA: Harvard University Press.
- . 1978. Liberalism. In S. Hampshire (ed.), *Public and Private Morality*. Cambridge, UK: Cambridge University Press.
- . 1981. What is Equality? Part I: Equality of Welfare; Part II: Equality of Resources. *Philosophy and Public Affairs* 10(3–4): 185–246, 283–345.
- . 1983. In Defense of Equality. *Social Philosophy and Policy* 1(1): 24–40.
- . 1985. *A Matter of Principle*. Cambridge, MA: Harvard University Press.
- . 1986. *Law's Empire*. Cambridge, MA: Belknap Press.
- . 1987. What is Equality? Part III: The Place of Liberty. *Iowa Law Review* 73(1): 1–54.
- . 1988. What is Equality? Part IV: Political Equality. *University of San Francisco Law Review* 22(1): 1–30.
- . 1989. Liberal Community. *California Law Review* 77(3): 479–504.
- Eastaugh, Steven R. 1987. *Financing Health Care: Economic Efficiency and Equity*. Dover, MA: Auburn House.
- Easton, Stephen T. 1988. *Education in Canada: An Analysis of Elementary, Secondary and Vocational Schooling*. Vancouver, Canada: Fraser Institute.

- Einaudi, Mario. 1948. *The Constitution of the Italian Republic*. Baltimore, MD.
- Ekirch, Arthur Alphonse. 1973. *The Decline of American Liberalism*. New York: Atheneum.
- Ellis, Randall P. 1998. Creaming, Skimping and Dumping: Provider Competition on the Intensive and Extensive Margins. *Journal of Health Economics* 17(5) October: 537–55.
- Ellis, Randall P., and Thomas G. McGuire. 1993. Supply-Side and Demand-Side Cost Sharing in Health Care. *Journal of Economic Perspectives* 7(4) Fall: 135–51.
- Elster, Jon. 1979. *Ulysses and the Sirens. Study in Rationality and Irrationality*. Cambridge, UK: Maison des Sciences de l'Homme and Cambridge University Press.
- . 1983. *Studies in the Subversion of Rationality*. Cambridge, UK: Maison des Sciences de l'Homme and Cambridge University Press.
- . 1992. *Local Justice. How Institutions Allocate Scarce Goods and Necessary Burdens*. New York, NY: Russel Sage Foundation.
- Encyclopaedia Britannica Educational Corporation. 1999. *The Constitution of the U.S. (1868)*. Chicago, IL.
- Enthoven, Alain C. 1988. *Theory and Practice of Managed Competition in Health Care Finance. Professor Dr. F. De Vries Lectures in Economics*. Vol. 9. Amsterdam, Oxford and Tokyo: North-Holland; New York, NY: Elsevier Science.
- . 1993. The Effects of Managed Competition. Theory and Real World Experience. In Robert B. Helms (ed.), *Health Policy Reform: Competition and Controls*. Washington, DC: The AEI Press.
- . 1993. Why Managed Care Has Failed to Control Health Costs. *Health Affairs* 12(3) Fall: 27–43.
- Enthoven, Alain, and Richard Kronick. 1991. Universal Health Insurance through Incentives Reform. *Journal of the American Medical Association* 265(19) May: 2532–36.
- Ericson, David S. 1984. Liberty and Equality in Education: A Summary Review. *Educational Theory* 34(1) Winter: 97–102.
- Escarce, José J., and Mark V. Pauly. 1998. Physician Opportunity Costs in Physician Practice Cost Functions. *Journal of Health Economics* 17(2): 129–150.
- Ettner, Susan L. 1997. Adverse Selection and the Purchase of Medigap Insurance by the Elderly. *Journal of Health Economics* 16(5): 543–562.
- Euripides, Edward P. Coleridge (translator), and William-Alan Landes (editor). 1999. *The Suppliants*. Studio City, CA: Players Press.
- Evans, Robert G. 1983. *We Have Seen the Future, and They Is Us: Health Care and the Greying of Canada*. UBC Economics Department Discussion Paper no. 84–02, University of British Columbia, Vancouver, Canada.
- Eysenbach, M. L. 1974. Voucher Plans, Voting Models, and the Efficiency of Local School Finance. *Journal of Political Economy* (July/August).
- Fabel, Oliver. 1995. Disability Insurance in an Optimal Pension Scheme. *Journal of Economics* (Zeitschrift fur Nationalökonomie).

- . 1996. Institutional Change, the Demand for LTC Insurance, and Savings. *FinanzArchiv*.
- Farley, Pamela J. 1986. Theories of the Price and Quantity of Physician Services: A Synthesis and Critique. *Journal of Health Economics* 5(4) December: 315–33.
- Faulkner & Gray, Inc. 1993. *Japan's Health System: Efficiency and Effectiveness in Universal Care*. Washington, DC: Healthcare Information Center.
- Faure, Michael. 1995. Economic Models of Compensation for Damage Caused by Nuclear Accidents: Some Lessons for the Revision of the Paris and Vienna Conventions. *European Journal of Law and Economics* (March).
- Fein, R. 1991. The Health Security Partnership. A Federal-State Universal Insurance and Cost-Containment Program. *JAMA* 265(19) May: 2555–8.
- Feldman, Allan M., and Alan Kirman. 1974. Fairness and Envy. *American Economic Review* 64(6) December: 995–1005.
- Feldman, Roger, and Brian Dowd. 1993. The Effectiveness of Managed Competition in Reducing the Costs of Health Insurance. In Robert B. Helms (ed.), *Health Policy Reform: Competition and Controls*. Washington, DC: The AEI Press.
- Feldstein, Martin S. 1995. *Tax Avoidance and the Deadweight Loss of the Income Tax*. Cambridge, MA: National Bureau of Economic Research.
- . 1996. Health Care Reform: The Clash of Goals, Facts, and Ideology: Comment. *Individual and Social Responsibility: Child Care, Education, Medical Care, and Long-Term Care in America*. Chicago and London: University of Chicago Press.
- Feldstein, Martin, and Jonathan Gruber. 1994. *A Major Risk Approach to Health Insurance Reform*. Working Paper no. 4852, National Bureau of Economic Research, Cambridge, MA.
- Feldstein, Paul J. 1994. *Health Policy Issues: An Economic Perspective on Health Reform*. Arlington, VA: AUPHA Press; Ann Arbor, MI: Health Administration Press.
- . 1998. *Health Care Economics*. Fifth Edition. Albany, NY: Delmar Publishers.
- Feltessé, Patrick. 1992. Les mutualités en Belgique: Entre un système public pur d'assurance maladie et un système privé d'économie sociale. (Mutuals in Belgium: In Between a Pure Public Health Insurance System and a Private Social Economy. With English summary.) *Annals of Public and Cooperative Economics* 63(4): 661–82.
- Fischer, Ronald D., and Pablo Serra. 1996. Análisis económico del sistema de seguros de salud en Chile. (With English summary.) *Revista de Análisis Económico* (November).
- Fishback, Price V., and Shawn Everett Kantor. 1996. The Durable Experiment: State Insurance of Workers' Compensation Risk in the Early Twentieth Century. *Journal of Economic History* (December).
- Flam, Sjur Didrik, and Alf Erling Risa. 1995. Market Insurance, Social Insurance, and Education. *Journal of Population Economics* (May).

- Flew, Antony. 1995. *All the Right Places*. London, UK: Adam Smith Institute.
- Folland, Sherman, Allen C. Goodman, and Miron Stano. 1997. *The Economics of Health and Health Care*. Second Edition. Upper Saddle River, NJ: Prentice Hall.
- Ford, Earl S., and Richard S. Cooper. 1995. Implications of Race/Ethnicity for Health and Health Care Use: Racial/Ethnic Differences in Health Care Utilization of Cardiovascular Procedures: A Review of the Evidence. *Health Services Research* 30(1) (Part 2, April): 237–52.
- Fossey, R. 1994. Open Enrollment in Massachusetts: Why Families Choose. *Education Evaluation and Policy Analysis* 16(3): 320–334.
- Fowler, Jr., William J. 1996. *Selected Papers in School Finance*. National Center for Education Statistics (ED), Washington, DC.
- Frankel, Charles. 1977. *The Case for Modern Man*. Reprint Edition. North Stratford, NH: Ayer Company Publishers.
- Frankena, William K. 1963. *Ethics*. Englewood Cliffs, NJ: Prentice Hall.
- Frankford, David M. 1993. Neoclassical Health Economics and the Debate over National Health Insurance: The Power of Abstraction. *Law & Social Inquiry: Journal of the American Bar Foundation* 18(2).
- Frey, D. 1992. Can Privatizing Education Really Improve Achievement? An Essay Review. *Economics of Education Review* 11: 427–438.
- Friedman, David D. 1980. In Defense of Thomas Aquinas and the Just Price. *History of Political Economy* 12(2) Summer: 234–42.
- Friedman, Jeffrey. 1995. Economic Approaches to Politics. *Critical Review* 9(1–2) Winter-Spring: 1–24.
- Friedman, M. 1962. *Capitalism and Freedom*. Chicago, IL: University of Chicago Press.
- Friedman, Milton. 1993. *Letter to the Editor of the Freeman* 43: 285–304.
- Friedman, Milton, and Rose Friedman. 1980. *Free to Choose*. New York, NY: Harcourt, Brace Johanovich.
- Friedrich, C. J. (ed.) 1962. *Nomos. IV Yearbook of the American Society for Political and Legal Philosophy*. Liberty, NY.
- Fromm, Erich. 1969. *Escape from Freedom*. New York: Avon Books.
- Fuchs, Victor R. (ed.) 1996. *Individual and Social Responsibility: Child Care, Education, Medical Care, and Long-term Care in America*. National Bureau of Economic Research Conference Report Series. Chicago, IL and London, UK: University of Chicago Press.
- Fuller, Bruce. 1995. Who Gains, Who Loses from School Choice: A Research Summary. National Conference of State Legislatures, Denver, CO.
- Galabawa, C. J. 1990. *Implementing Educational Policies in Tanzania*. World Bank Discussion Paper no. 86. Africa Technical Department Series, World Bank, Washington, DC.
- Garrison, Charles B. 1990. Friedman versus Keynes on the Theory of Employment. *Milton Friedman: Critical Assessments*. Volume 4. London and New York: Routledge.

- Gemello, John, and Jack Osman. 1983. The Choice for Public and Private Education: An Economist's View. In Thomas James and Henry M. Levin, *Public Dollars for Private Schools*. Philadelphia, PA: Temple University Press.
- Gerard, Karen, and Ken Wright. 1990. *The Practical Problems of Applying Cost-Effectiveness Analysis to Joint Finance Programmes*. Centre for Health Economics, University of York, York, England.
- Getzen, Thomas E. 1996. *Health Economics: Fundamentals and Flow of Funds*. Somerset, NJ: John Wiley & Sons.
- Giersch, Herbert (ed.). 1997. *Reforming the Welfare State*. Heidelberg, Germany: Springer-Verlag.
- Giles, Corrie. 1995. The Training of School Principals: Emerging Themes in England and Wales. Paper presented at the Annual Meeting of the American Educational Research Association, April 18–22, San Francisco, CA.
- Gillion, C., George Schieber, and Jean-Pierre Poullier. 1985. *Measuring Health Care, 1960–1983: Expenditure, Costs, and Performance*. Paris, France: Organisation for Economic Co-operation and Development; OECD Publications and Information Center.
- Gillis, Malcolm, et al. 1992. *Economics of Development*. Third Edition. New York, NY: W.W. Norton & Company.
- Ginzberg, Eli. 1994. *Critical Issues in U.S. Health Reform*. Boulder, CO: Westview Press.
- Girvetz, Harry K. 1951. *From Wealth to Welfare: The Evolution of Liberalism*. Stanford, CA: Stanford University Press.
- Glaessner, P. J., K. Y. Lee, Anna Sant'Anna, and J. J. de St. Antoine. 1994. *Poverty Alleviation and Social Investment Funds: the Latin American Experience*. Discussion Paper no. 261, World Bank, Washington, DC.
- Glaser, William A. 1991. *Health Insurance in Practice: International Variations in Financing, Benefits, and Problems*. San Francisco and Oxford: Jossey-Bass.
- Glasse, L. 1992. Breast Cancer Screening in Older Women: The Consumer Perspective. *Journal of Gerontology* 47 (November): 137–41.
- Glenn, Charles L. 1995. *Educational Freedom in Eastern Europe*. Washington, DC: Cato Institute.
- Glewwe, P., and H. G. Jacoby. 1995. An Economic Analysis of Delayed Primary School Enrollment in a Low Income Country: The Role of Early Childhood Nutrition. *The Review of Economics and Statistics* 77: 156–169.
- Glied, Sherry, and Mark Stabile. 1997. *Graduation to Health Insurance Coverage: 1981–1996*. Working Paper no. 6276, National Bureau of Economic Research, Cambridge, MA.
- Golden, Olivia. 1991. *Poor Children and Welfare Reform. Executive Summary of the Final Report*. New York, NY: Foundation for Child Development.
- Goldman, Eric Frederick. 2001. *Rendezvous with Destiny*. Chicago, IL: Ivan R. Dee.

- Gómez-Castellanos, Luisa, and George Psacharopoulos. 1990. Earnings and Education in Ecuador: Evidence from the 1987 Household Survey. *Economics of Education Review* 9(3): 219–27.
- Goodin, R., and J. Le Grand. 1987. *Not Only the Poor*. London, UK: Allen and Unwin.
- Goodman, J. C., and G. L. Musgrave. 1992. *Patient Power: Solving America's Health Care Crisis*. Washington, DC: Cato Institute.
- Government of Bulgaria. 2001. *Constitution of the Republic of Bulgaria*. 1947. Sofia, Bulgaria: Nova Zvezda Publishers.
- Gowrisankaran, Gautam, and Robert J. Town. 1997. Dynamic Equilibrium in the Hospital Industry. *Journal of Economics and Management Strategy* (Spring).
- Graaff, J. de V. 1957. *Theoretical Welfare Economics*. London, UK: Cambridge University Press.
- Gray, John. 1995. *Liberalism*. Second edition. Minneapolis, MN: University of Minnesota Press.
- Green, D. 1985. *Which Doctor? A Critical Analysis of the Professional Barriers to Competition in Health Care*. Research Monographs 40. Institute of Economic Affairs, London, UK.
- . 1986. *Challenge to the NHS—A Study of Competition in American Health Care and the Lessons for Britain*. Hobart Paperback 23. Institute of Economic Affairs, London, UK.
- . 1988. *Everyone a Private Patient—An Analysis of the Structural Flaws in the NHS and How They Could Be Remedied*. Hobart Paperback 27. Institute of Economic Affairs, London, UK.
- . 1993. *Reinventing Civil Society—The Rediscovery of Welfare without Politics*. Choice in Welfare Series 17. IEA Health and Welfare Unit, Institute of Economic Affairs, London, UK.
- Griffin, C. 1989. *Strengthening Health Services in Developing Countries through the Private Sector*. International Finance Corporation Discussion Paper 4. World Bank, Washington, DC.
- Griffin, Charles C. 1992. *Health Sector Financing in Asia*. World Bank Report no. 8553-ASI. Asia Information Center, The World Bank, Washington, DC.
- Grosh, Margaret E. 1990. *Social Spending in Latin America: The Story of the 1980s*. World Bank Discussion Paper no. 106, The World Bank, Washington, DC.
- Gruber, Jonathan. 1992. *The Efficiency of a Group-Specific Mandated Benefit: Evidence from Health Insurance Benefits for Maternity*. Dept. of Economics, Massachusetts Institute of Technology, Cambridge, MA.
- Hadorn, D. C., and R. H. Brook. 1991. The Health Care Resource Allocation Debate. Defining Our Terms. *JAMA* 266(23) December: 3328–31.
- Hakim, Simon (ed.), et al. 1994. *Privatizing Education and Educational Choice: Concepts, Plans, and Experiences*. Westport, CT: Praeger Publishers.

- Hammond, Peter J. 1991. Theoretical Progress in Public Economics: A Provocative Assessment. In P. J. N. Sinclair, and M. D. E. Slater (eds.), *Taxation, Private Information and Capital* (OPE Special Issue). New York, Oxford, Toronto and Melbourne: Oxford University Press and Clarendon Press.
- Harberger, Arnold C. 1963. The Dynamics of Inflation in Chile. In Carl F. Christ (ed.), *Measurement in Economics*. Stanford, CA: Stanford University Press.
- Hare, Richard M. 1963. *Freedom and Reason*. Oxford, NY: Clarendon Press.
- . 1981. *Moral Thinking*. New York, NY: Oxford University Press.
- . 1989. *Essays in Ethical Theory*. Oxford, NY: Clarendon Press.
- . 1989. *Essays on Political Morality*. Oxford, NY: Clarendon Press.
- Harrington-Lueker, Donna. 1993. Vouchers: The Battle Continues. *American School Board Journal* 180(12) December: 19–21.
- Harris, J. S., and W. S. Custer. 1991. Health Care Economic Factors and the Effects of Benefits Plan Design Changes. *J Occup Med* 33(3) March: 279–86.
- Harsanyi, John C. 1985. Rule Utilitarianism, Equality, and Justice. *Ethics and Economics*. Oxford and New York: Blackwell for the Bowling Green State University, Social Philosophy and Policy Center.
- Hart, Herbert. 1961. *The Concept of Law*. Oxford, NY: Clarendon Press.
- Hartz, Louis, and Tom Wicker. 1991. *The Liberal Tradition in America*. Second edition. Fort Washington, PA: Harvest Books.
- Haslinger, Franz, and Per-Johan Horgby. 1997. High-Cost Protection in Health Insurance: A Proposal for the Reorganization of Health Insurance in the Presence of Asymmetric Information. *FinanzArchiv*.
- Hasnain-Wynia, Romana. 1995. Issues in Equity and Access to Health Care: An Exploration of Workers' Compensation Medical Benefits. Brandeis University.
- Hau, Timothy D. 1985. *Distributional Cost-Benefit Analysis in Discrete Choice*. Working Paper Series 260, Department of Economics, University of California, Davis, CA.
- Hayek, Friedrich A. 1978. Competition as a Discovery Procedure. *New Studies in Philosophy, Politics, Economics and the History of Ideas*. London, UK: Routledge.
- . 1978. *The Constitution of Liberty*. Chicago, IL: University of Chicago Press.
- . 1982. *Law, Legislation and Liberty*. London, UK: Routledge.
- . 1996. *Individualism and Economic Order*. Reprint edition. Chicago, IL: University of Chicago Press.
- Heller, Agnes. 1957. *Beyond Justice*. Oxford, UK and New York, NY: Basil Blackwell.
- Helliweg, M. 1987. Some Recent Developments in the Theory of Competition in Markets with Adverse Selection. *European Economic Review* 31: 319–325.
- Helms, Robert B. (ed.) 1993. *American Health Policy: Critical Issues for Reform*. Washington, DC: AEI Press.
- Henderson, David R. 1994. Why We Need School Choice. *Insight* (January): 22–24.
- Henderson, James M., and Richard E. Quandt. 1980. *Microeconomic Theory, A Mathematical Approach*. Third edition. NY: McGraw-Hill.

- Heneveld, W. 1995. *Planning and Monitoring the Quality of Primary Education in Sub-Saharan Africa*. AFTHR Technical Note 14, World Bank, Washington, DC.
- Hettich, Walter. 1969. Mixed Public and Private Financing of Education: Comment. *The American Economic Review* LIX (March): 210–212.
- Hill, Lewis E., and Robert F. McComb. 1996. A Post-Mortem on the Clinton Healthcare Proposal: Lessons from History and Hopes for the Future. *International Journal of Social Economics*.
- Hill, Paul T. 1996. The Educational Consequences of Choice. *Phi Delta Kappan* 77(10) June: 671–75.
- Hill, Steven C., and Barbara L. Wolfe. 1997. Testing the HMO Competitive Strategy: An Analysis of Its Impact on Medical Care Resources. *Journal of Health Economics* 16(3): 261–285.
- Himmelfarb, G. 1983. *The Idea of Poverty*. New York, NY: Knopf.
- Hirsch, Donald. 1994. *School: A Matter of Choice*. Paris, France: OECD.
- Hirsch, Werner Z., and Evan Osborne. 1994. The Funding of Government Mandates. *Kyklos* 47(3): 421–36.
- Hirshleifer, J., and J. Riley. 1992. *The Analytics of Uncertainty and Information*. Cambridge, UK: Cambridge University Press.
- Hobbes, Thomas, and A. P. Martinich. 2002. *Leviathan*. Peterborough, ON: Broadview Press.
- Hobhouse, L. T. 1911. *Liberalism*. New York, NY: Oxford University Press, Inc.
- Hoenack, Stephen A. 1997. An Application of a Structural Model of School Demand and Supply to Evaluate Alternative Designs of Voucher Education Systems. *Economics of Education Review* 16(1) February: 1–14.
- Hofstadter, Richard. 1960. *The Age of Reform*. New York, NY: Random House.
- Holahan, J., M. Moon, W. P. Welch, and S. Zuckerman. 1991. An American Approach to Health System Reform. *JAMA* 265(19) May: 2537–40.
- Holmes, Mark. 1990. The Funding of Independent Schools. In James E. Lam, and G. Benjamin (eds.), *Public Policy and Private Education in Japan*. London, UK: Macmillan.
- Holtmann, Alphonse G. 1991. Beyond Efficiency: Economics and Distributional Analysis. In David L. Weimer (ed.), *Policy Analysis and Economics: Developments, Tensions, Prospects. Recent Economic Thought Series*. Norwell, MA and London, UK: Kluwer Academic Publishers.
- Holtz-Eakin, Douglas. 1993. *Health Insurance Provision and Labor Market Efficiency in the United States and Germany*. NBER Working Paper no. 4388, National Bureau of Economic Research, Cambridge, MA.
- Hoxby, C. M. 1994. *Do Private Schools Provide Competition for Public Schools?* NBER Working Paper no. 4978, National Bureau of Economic Research, Cambridge, MA.
- Huber, G. L., et al. 1991. Passive Smoking: How Great A Hazard? *Consumers' Research* (July).

- . Passive Smoking and Your Heart. *Consumers' Research* (April).
- Hurd, Michael D., and Kathleen McGarry. 1997. Medical Insurance and the Use of Health Care Services by the Elderly. *Journal of Health Economics* 16(2): 129–153.
- IDS. 1994. *Financing Rural Health Services in China: Adapting to Economic Reform*. IDS Research Report no. 26. Brighton: IDS.
- Iliffe, J. 1987. *The African Poor*. Cambridge, UK: Cambridge University Press.
- Instituto Brasileiro de Geografia e Estatística (IBGE). 1993. *Censo de 1991*. <http://www.ibge.gov.br>.
- Inter-American Development Bank. 1994. *Economic and Social Progress in Latin America, 1994 Report*. Washington, DC: Inter-American Development Bank.
- . 1997. *Latin America after a Decade of Reforms: Economic and Social Progress in Latin America, 1997 Report*. Washington, DC: Inter-American Development Bank. <http://www.iadb.org/oce/ipcs>.
- . 1998. *Facing up to Inequality in Latin America: Economic and Social Progress in Latin America, 1998–99 Report*. Washington, DC: Inter-American Development Bank. <http://www.iadb.org/oce/ipcs>.
- . 2002. Statistical Department. <http://www.iadb.org>.
- International Fund for Agricultural Development (IFAD). 1992. *The State of World Rural Poverty: An Inquiry into Its Causes and Consequences*. New York, NY: New York University Press.
- International Labour Office. 1990. *Employment and Manpower in the Philippines: A Sectoral Review Report*. Manila, the Philippines.
- Israel, A. 1987. *Institutional Development: Incentives to Performance*. Baltimore, MD: Johns Hopkins University Press.
- James, E. 1987. The Public/Private Division of Responsibility for Education: An International Comparison. *Economics of Education Review* 6: 1–14.
- . 1989. *The Nonprofit Sector in International Perspective: Studies in Comparative Culture and Policy*. New York, NY: Oxford University Press.
- . 1991. Private Higher Education: The Philippines as a Prototype. *Higher Education* 21: 189–206.
- James, Estelle. 1984. Benefits and Costs of Privatized Public Services: Lessons from the Dutch Educational System. *Comparative Education Review* 28(4) November: 605–24.
- . 1993. Why Do Different Countries Choose a Different Public-Private Mix of Educational Services? *Journal of Human Resources* 28 (Summer): 571–592.
- James, Estelle, Elizabeth M. King, and Ace Suryadi. 1996. Finance, Management, and Costs of Public and Private Schools in Indonesia. *Economics of Education Review* 15(4) October: 387–98.
- James, Thomas, and Henry M. Levin. 1983. *Public Dollars for Private Schools*. Philadelphia, PA: Temple University Press.

- Jamison, Dean. 1985. China's Health Care System: Policies, Organization, Inputs, and Finance. In Scott B. Halstead, Julia A. Walsh, and Kenneth S. Warren (eds.), *Good Health at Low Cost*. New York, NY: Rockefeller Foundation.
- Janssen, Richard, Eddy van Doorslaer, and Adam Wagstaff. 1994. Health Insurance Reform in The Netherlands Assessing the Progressivity Consequences. *Economic and Social Review* (July).
- Jencks, Christopher. 1996. Rationalizing School Spending: Efficiency, Externalities, and Equity, and Their Connection to Rising Costs: Comment. *Individual and Social Responsibility: Child Care, Education, Medical Care, and Long-Term Care in America*. Chicago, IL and London, UK: University of Chicago Press.
- Jimenez, E. 1986. The Public Subsidization of Education and Health in Developing Countries: A Review of Equity and Efficiency. *World Bank Research Observer* 1: 111–129.
- Jimenez, E., and J. P. Tan. 1987. Decentralized and Private Education: The Case of Pakistan. *Comparative Education* 23: 173–90.
- Jimenez, E., and M. Lockheed. 1991. Private versus Public Education: An International Perspective. *International Journal of Education* 15: 353–498.
- . 1994. *Public and Private Secondary Schools in Developing Countries*. HRO Working Paper 43, World Bank, Washington, DC.
- Jimenez, Emmanuel. 1987. *Pricing Policy in the Social Sectors: Cost Recovery for Education and Health in Developing Countries*. Baltimore, MD and London, UK: Johns Hopkins University Press for the World Bank.
- Jimenez, Emmanuel, Marlene E. Lockheed, and Vicente Paqueo. 1991. The Relative Efficiency of Private and Public Schools in Developing Countries. *The World Bank Research Observer* 6 (July): 205–218.
- Johansson, Per-Olov. 1993. *An Introduction to Modern Welfare Economics*. Cambridge, MA: Cambridge University Press.
- Johnson, W. G., et al. 1992. The Economic Consequences of Medical Injuries. Implications for a No-Fault Insurance Plan. *JAMA* 267(18) May: 2487–92.
- Jorgenson, Dale W. 1984. *Efficiency versus Equity in Economic Policy*. Harvard Institute of Economic Research Discussion Paper no. 1088. Cambridge, MA.
- Kalimo, Esko. 1979. *Evaluation of Physician Services in Primary Health Care: Measurement of Coverage, Effectiveness and Efficiency of Different Patterns of Health Care: Short Survey on Finland*. Research Institute for Social Security of the Social Insurance Institution, Publications of the Social Insurance Institution, Helsinki, Finland.
- Kane, Edward J. 1994. *The Federal Deposit Insurance Fund That Didn't Bark in the Night*. Cambridge, MA: National Bureau of Economic Research.
- Kant, Immanuel. 2001. *Projet de paix perpétuelle*. Paris, France: Éditions Mille et une nuits.
- Kant, Immanuel, and Ole Hansen-Løve. 2000. *Fondement pour la métaphysique des mœurs*. Paris: Hatier.
- Karni, Edi, David Schmeidler, and Karl Vind. 1983. On State Dependent Preferences and Subjective Probabilities. *Econometrica* 51(4) July: 1021–31.

- Karon, James P. 1985. Maintaining Comprehensive High School Programs in a Time of Declining Enrollment. Paper presented at conference, Small Schools, May 23, Bristol, RI.
- Karsten, Siegfried G. 1995. Health Care: Private Good vs. Public Good. *American Journal of Economics and Sociology* (April).
- Katz, Jorge. 1995. Industrial Organization, International Competitiveness and Public Policy in Latin America in the Nineties. *Revue d'Économie Industrielle* 0(71): 91–106.
- Kelly, Elizabeth A. 1995. *Education, Democracy, and Public Knowledge. Interventions: Theory and Contemporary Politics*. Boulder, CO: Westview Press, Inc.
- Kemerer, Frank R., and Kimi Lynn King. 1995. Are School Vouchers Constitutional? *Phi Delta Kappan* 77(4) December: 307–311.
- Kemerer, Frank R., et al. 1992. Vouchers and Private School Autonomy. *Journal of Law and Education* 21(4) Fall: 601–628.
- Keynes, John Maynard. 1926. Liberalism and Labour. In *Laissez-Faire and Communism*. John Maynard Keynes. New York: New Republic.
- Khandker, Shahidur R., et al. 1994. *Schooling and Cognitive Achievements of Children in Morocco: Can the Government Improve Outcomes?* Discussion Paper no. 264. World Bank, Washington, DC.
- King, Elizabeth M., and M. Anne Hill (eds.). 1993. *Women's Education in Developing Countries: Barriers, Benefits, and Policies*. Berkeley, CA: University Press Books; Baltimore, MD: The Johns Hopkins University Press.
- Kirkpatrick, David W. 1990. *Choice in Schooling: A Case for Tuition Vouchers*. Chicago, IL: Loyola University Press.
- Kittay, E., and D. Meyers (eds.). 1987. *Women and Moral Theory*. Lanham, MD: Rowman & Littlefield.
- Kleindorfer, Paul R. 1985. *Intergenerational Equity and Fund Balances for Statutory Health Insurance*. Discussion papers/IIM/Industrial Policy, Wissenschaftszentrum Berlin, (International Institute of Management. Labour Market Policy), Berlin, Germany.
- Kleinman, Mark, and David Piachaud. 1992. *European Social Policy: Models and Rationales*. Working Paper no. WSP/77. Suntory-Toyota International Centre for Economics and Related Disciplines, London School of Economics, London, UK.
- Kniesner, Thomas J., and John D. Leeth. 1995. *Simulating Workplace Safety Policy*. London, UK: Kluwer Academic Publishers.
- Kobayashi, Yasuki, and Eiji Yano. 1991. Structure, Process, Effectiveness and Efficiency of the Check and Review System in Japan's Health Insurance. *Health Policy* 19(2–3).
- Kolm, Serge-Christophe. 1972. Introduction à l'économie de l'environnement. (Introduction to the Economics of Environment. With English summary.) *Schweizerische Zeitschrift für Volkswirtschaft und Statistik* 108(38) September: 329–46.

- Koopmans, T. C. 1951a. Analysis of Production as an Efficient Combination of Activities. In T. Koopmans (ed.), *Activity Analysis of Production and Allocation*. New York, NY: Wiley.
- . 1951b. Efficient Allocation of Resources. *Econometrica* 19: 455–465.
- . 1957. *Three Essays on the State of Economic Science*. New York, NY: McGraw-Hill.
- Kopits, George. 1991. *Fiscal Reform in European Economies in Transition*. IMF Working Paper WP/91/43, International Monetary Fund, Washington, DC.
- Krashinsky, Michael. 1986. Why Educational Vouchers May Be Bad Economics. *Teachers College Record* 88(2) Winter: 139–151.
- Kraus, Michael. 1957. *The North Atlantic Civilization*. Princeton, NJ: Van Nostrand.
- Kreps, David M. 1990. *A Course in Microeconomic Theory*. Princeton, NJ: Princeton University Press.
- Krieger, L. 1973. *The German Idea of Freedom: History of a Political Tradition*. Chicago, IL: University of Chicago Press.
- Kronick, Richard. 1991. Health Insurance, 1979–1989: The Frayed Connection between Employment and Insurance. *Inquiry* 28(4) Winter: 318–32.
- Kuhn, H., and A. Tucker. 1951. Nonlinear Programming. In J. Neyman (ed.), *Proceedings of the Second Berkeley Symposium on Mathematical Statistics and Probability*. Berkeley, CA: University of California Press.
- Kuhse, H., and P. Singer. 1988. Age and the Allocation of Medical Resources. *Journal of Medicine and Philosophy* 13: 101–16.
- Kutzin, Joseph, and Howard Barum. 1992. Institutional Features of Health Insurance Programs and Their Effects on Developing Country Health Systems. *International Journal of Health Planning and Management* 7: 51–52.
- Kymlicka, Will. 1990. *Contemporary Political Philosophy, An Introduction*. NY: Clarendon Press; Oxford: Oxford University Press.
- Laffont, Jean-Jacques. 1990. *The Economics of Uncertainty and Information*. Cambridge, MA: MIT Press.
- Laffont, Jean-Jacques, and Jean Tirole. 1991. The Politics of Government Decision-Making: A Theory of Regulatory Capture. *Quarterly Journal of Economics* 106(4) November: 1089–127.
- La Forgia, Gerard M., Charles C. Griffin, and Randall R. Bovbjerg. 1993. *Extending Coverage and Benefits of Social Financing Systems in Developing Countries*. Washington, DC: The Urban Institute.
- Lal, D. 1983. *The Poverty of Development Economics*. London, UK: Institute of Economic Affairs; Cambridge, MA: Harvard University Press.
- . 1987. Comment on Harberger. In G. M. Meier (ed.), *Pioneers in Development*. Second Series. New York, NY: Oxford University Press.
- . 1987. Markets, Mandarins and Mathematicians. *Cato Journal* 7: 43–70.
- . 1994. *Participation, Markets and Democracy*. Human Resources Development and Operations Policy Working Paper 20, World Bank, Washington, DC.

- Lankford, Hamilton, and James Wyckoff. 1992. Primary and Secondary School Choice among Public and Religious Alternatives. *Economics of Education Review* 1 (December): 317–33.
- Laporte, Bruno. 1993. Financing Education and Training in Central and Eastern Europe: A New Social Contract. *Education Economics* 1(2): 115–27.
- Larrañaga J., Osvaldo. 1996. Descentralización y equidad: el caso de los servicios sociales en Chile. (With English summary.). *Cuadernos de Economía* 33(100) December: 345–65.
- Larroulet, Christian (ed.). 1993. *Private Solutions to Public Problems*. Santiago, Chile: Instituto Libertad y Desarrollo.
- Laski, Harold J. 1936. *The Rise of European Liberalism*. New York, NY: AMS Press.
- Le Grand, Julian. 1992. *Equity and Choice: An Essay in Economics and Applied Philosophy*. New York, NY, and London, UK: Routledge.
- Leigh, J. P., et al. 1997. Occupational Injury and Illness in the United States. Estimates of Costs, Morbidity, and Mortality. *Arch Intern Med* 157(14) July: 1557–68.
- Leigh, J. Paul, and Michael M. Ward. 1997. Medical Costs in Workers' Compensation Insurance: Comment. *Journal of Health Economics* 16(5): 619–623.
- Lerner, Max. 1943. *It Is Later than You Think*, rev. ed., *America as a Civilization*, 1957.
- Lessler, D. S., and A. L. Avins. 1992. Cost, Uncertainty, and Doctors' Decisions. The Case of Thrombolytic Therapy. *Arch Intern Med* 152(8) August: 1665–72.
- Levin, H. 1992. Market Approaches to Education: Vouchers and School Choice. *Economics of Education Review* 11: 279–285.
- Levin, H. M. 1991. The Economics of Educational Choice. *Economics of Education Review* 10(2): 137–158.
- Levin, Jay H. 1980. The Dynamics of Stabilization Policy under Flexible Exchange Rates: A Synthesis of the Asset and Neo-Keynesian Approaches. *Oxford Economic Papers* 32(3) November: 411–27.
- Lewis, M., and G. Kenny. 1988. *The Private Sector and Family Planning in Developing Countries: Its Role, Achievements, and Potential*. Population and Human Resources Department Working Paper 96, World Bank, Washington, DC.
- Lieberman, M. 1991a. *Privatization and Education Choice*. New York, NY: St. Martin's Press.
- . 1991b. *The Case for Voluntary Funding of Education*. Policy Study no. 37, The Heartland Institute, Chicago, IL.
- Liljas, Bengt. 1998. The Demand for Health with Uncertainty and Insurance. *Journal of Health Economics* 17(2): 151–168.
- Lindley, Robert M. 1996. The School-to-Work Transition in the United Kingdom. *International Labour Review* 135(2): 159–80.
- Lines, Patricia M. 1985. Peaceful Uses for Tuition Vouchers: Looking Back and Looking Forward. Education Commission of the States, Denver, CO.
- . 1986. Peaceful Uses for Tuition Vouchers. *Equity and Choice* 2(3) June: 53–61.

- Locke, John. 1690. *Two Treatises of Government*.
- Lockheed, Marlaine E., and Emmanuel Jimenez. 1994. *Public and Private Secondary Schools in Developing Countries*. Human Resources and Operations Policy Working Paper 43, World Bank, Washington, DC.
- Loewry, E. 1980. Cost Should Not Be a Factor in Medical Care. *New England Journal of Medicine* 302, 697.
- Londoño, Juan Luis. 1996. *Poverty, Inequality, and Human Capital Development in Latin América, 1950–2025*. Washington, DC: World Bank.
- Long, Stephen H., M. Susan Marquis, and Jack Rodgers. 1998. Do People Shift Their Use of Health Services over Time to Take Advantage of Insurance? *Journal of Health Economics* 17(1): 105–115.
- Lott, Jr., John R. 1997. Does Political Reform Increase Wealth? Or, Why the Difference between the Chicago and Virginia Schools Is Really an Elasticity Question. *Public Choice* 91(3–4) June: 219–27.
- Lucas, Jr., Robert E., 1988. On the Mechanics of Economic Development. *Journal of Monetary Economics* 22 (January): 3–42.
- Lundberg, David. 1994. *Calling the Tune. Market Responsive Vocational Education: A Discussion Paper*. National Centre for Vocational Education Research, Leabrook, Australia.
- Lynn, R. 1986. The Japanese Example of Indirect Vouchers. *IEA Economic Affairs* 6(6).
- Magnoli, Alessandro. 1998. *Mind the Gap. Suggestions on How to Bridge Gender Gaps in Developing Regions*. INDES Working Papers, Inter-American Development Bank, Washington, DC.
- Mancino, Nicola. 2000. *Costituzione della Repubblica Italiana* (Constitution of the Italian Republic). Italy: Servizio degli Affari Generali Ufficio dell'Archivio e delle Informazioni Parlamentari.
- Manning, Willard G., and M. Susan Marquis. 1996. Health Insurance: The Tradeoff between Risk Pooling and Moral Hazard. *Journal of Health Economics* 15(5): 609–639.
- Manski, Charles F. 1992. Educational “Choice” (Vouchers) and Social Mobility. *Economics of Education Review* 11(4) December: 351–69.
- Marciniak, Edward. 1989. Educational Choice: A Catalyst for School Reform. City Club of Chicago, Chicago, IL.
- Marcuse, Herbert. 1971. *An Essay on Liberation*. Boston, MA: Beacon Press.
- Marglin, S. 1963. The Social Rate of Discount and the Optimal Rate of Investment. *Quarterly Journal of Economics* (February).
- Marmor, Theodore R. 1994. *Understanding Health Care Reform*. New Haven, CT: Yale University Press.
- Marquis, M. Susan, and Stephen H. Long. 1995. Worker Demand for Health Insurance in the Non-Group Market. *Journal of Health Economics* 14(1): 47–63.
- Marshall, A. 1980. *Principles of Economics*. Eighth Edition. London, UK: Macmillan.

- Mashaw, Jerry L., et al. (eds.) 1996. *Disability, Work and Cash Benefits*. Kalamazoo, MI: W. E. Upjohn Institute.
- Massaro, T. A., J. Nemec, and I. Kalman. 1994. Health System Reform in the Czech Republic. Policy Lessons from the Initial Experience of the General Health Insurance Company. *JAMA* 271(23) June: 1870–4.
- Matte, Patricia, and Antonio Sancho. 1993. Primary and Secondary Education. In Christian Larroulet (ed.), *Private Solutions to Public Problems*. Santiago, Chile: Instituto Libertad y Desarrollo.
- Mayston, David J. 1996. Educational Attainment and Resource Use: Mystery or Econometric Misspecification? *Education Economics* 4(2) August: 127–42.
- McGreevey, William. 1990. *Social Security in Latin America: Issues and Options for the World Bank*. World Bank Discussion Paper no. 110, The World Bank, Washington, DC.
- McGroaty, Daniel. 1994. School Choice Slandered. *The Public Interest* 117 (Fall).
- McGuire, Alistair, Paul Fenn, and Ken Mayhew (eds.). 1991. *Providing Health Care: The Economics of Alternative Systems of Finance and Delivery*. Paperback Reprint. Oxford, UK and New York, NY: Oxford University Press.
- McGuire, Thomas G., and Mark V. Pauly. 1991. Physician Response to Fee Changes with Multiple Payers. *Journal of Health Economics* 10(4): 385–410.
- McLaughlin, Catherine. 1976. *The Inefficiency of Health Insurers: Wise Fiscal Policy?* Research Report Series no. 29, Health Economics Research Center, University of Wisconsin, Madison, WI.
- Meerman, Jacob. 1979. *Public Expenditure in Malaysia: Who Benefits and Why*. New York: Published for the World Bank [by] Oxford University Press.
- Merquior, José Guilherme. 1991. *Liberalism, Old and New*. Boston, MA: Twayne Publishers.
- Merrill, J. M. 1991. Access to High-Tech Health Care. Ethics. *Cancer* 67(6 Supplement) March: 1750–2.
- Mesa-Lago, C. 1983. Social Security and Extreme Poverty in Latin America. *Journal of Development Economics* 12: 83–110.
- Mesa-Lago, Carmelo. 1989. *Ascent to Bankruptcy: Financing Social Security in Latin America*. Pittsburgh, PA: University of Pittsburgh Press.
- . 1991. *Social Security and Prospects for Equity in Latin America*. Discussion Paper no. 140, World Bank, Washington, DC.
- . 1992. *Health Care for the Poor in Latin America and the Caribbean*. Washington, DC: Pan American Health Organization and the Inter-American Foundation.
- Meyer, J. A., S. Silow-Carroll, and C. J. Sardegna. 1991. Universal Access to Health Care. A Comprehensive Tax-based Approach. *Arch Intern Med* 151(5) May: 917–22.
- Middleton, Roger. 1996. *Government versus the Market: The Growth of the Public Sector, Economic Management and British Economic Performance, c 1890–1979*. Cheltenham, UK and Williston, VT: Edward Elgar Publishing.

- Milanovic, Branko. 1999. *True World Income Distribution, 1988 and 1993: First Calculations Based on Household Surveys Alone*. World Bank Working Paper no. 2244, World Bank, Washington, DC.
- Mill, John Stuart. 1861. *Utilitarianism*. London, UK: J. Fraser.
- . 1863. *Utilitarianism, in Essential Works of John Stuart Mill*. New York, NY: Bentam Matrix Edition.
- Mills, Miriam K., and Robert H. Blank (eds.). 1992. *Health Insurance and Public Policy: Risk, Allocation, and Equity*. Westport, CT: Greenwood Publishing Group.
- Milne, A. J. M. 1968. *Freedom and Rights*. London, UK: Allen and Unwin.
- Ministério da Educação e do Desporto, Brasília. 1997. *Evolução da Educação Básica no Brasil, 1991–1997*.
- Minnesota, Office of the Governor. 1991. *Health Care Efficiency Availability Reform Today and Tomorrow*. Office of the Governor, State of Minnesota, St. Paul, MN.
- Miron, Gary. 1996. Free Choice and Vouchers Transform Schools. *Educational Leadership* 54(2) October: 77–80.
- Molina, Carlos Gerardo, and Carlos Alberto Herrán. 1993. *Coyuntura social: Seguimiento a programas de gobierno. Perfiles educativos por departamento: Colombia un país desigual*. Bogotá, Colombia: Fundación para la Educación Superior y el Desarrollo (FEDESARROLLO). <http://www.fedesarrollo.org>.
- Montesquieu, Charles de Secondat, baron de. 1794. *The Spirit of Laws*. London, UK: J. Evans.
- Moody, Harry R. 1996. *Ethics in an Aging Society*. Reprint Edition. Baltimore, MD: Johns Hopkins University Press.
- Moore, G. E. 1912. *Ethics*. London, UK: Williams and Norgate.
- Moore, G. E., and Thomas Baldwin (ed.). 1994. *Principia Ethica*. New York, NY: Cambridge University Press.
- Morales Frías, Joaquín. 1993. *Economía de la educación*. Santiago, Chile: República de Chile, Ministerio de Educación, Centro de Perfeccionamiento, Experimentación e Investigaciones Pedagógicas.
- Morris, George Sylvester, and Georg Wilhelm Friedrich Hegel. 1892. *Hegel's Philosophy of the State and of History*. Chicago, IL: S. C. Griggs and Company.
- Morrison, Linda. 1991. Why Conventional Education Reform Fails: The Case for Market-Based Restructuring. Commonwealth Foundation for Public Policy Alternatives, Harrisburg, PA.
- Moy, E., B. A. Bartman, and M. R. Weir. 1995. Access to Hypertensive Care. Effects of Income, Insurance, and Source of Care. *Arch Intern Med* 155(14) July: 1497–502.
- Murnane, R. J. 1983. The Uncertain Consequences of Tuition Tax Credits: An Analysis of Student Achievement and Economic Incentives. In Thomas James and Henry M. Levin (eds.), *Public Dollars for Private Schools*. Philadelphia, PA: Temple University Press.

- Murnane, Richard J. 1983. How Clients' Characteristics Affect Organization Performance: Lessons from Education. *Journal of Policy Analysis and Management* 2(3) Spring: 403–17.
- . 1984. Comment: Alternative Views of the Quality of U.S. Education. *Education and Economic Productivity*. Cambridge, MA: Harper and Row, Ballinger.
- . 1996. Costs of Achieving High Performance: Comments. *Holding Schools Accountable: Performance-Based Reform in Education*. Washington, DC: Brookings Institution.
- Murnane, Richard J., Stuart Newstead, and Randall J. Olsen. 1997. Comparing Public and Private Schools: The Puzzling Role of Selectivity Bias. *Market Approaches to Education: Vouchers and School Choice*. Oxford; NY and Tokyo, Japan: Elsevier Science, Pergamon.
- Murray, C., R. Govindaraj, and G. Chellaraj. 1994. *Global Domestic Expenditures in Health*. Background Paper Series for the World Development Report 1993: Investing in Health, World Bank, Washington, DC.
- Musgrave, Richard A. 1986. *Public Finance in a Democratic Society: Fiscal Doctrine, Growth and Institutions. Collected Papers of Richard A. Musgrave*. Volume II. New York, NY: New York University Press.
- Musgrove, P. 1995. Public and Private Roles in Health. Human Development Department, World Bank, Washington, DC.
- Musgrove, Philip. 1986. The Measurement of Equity in Health. *World Health Statistics Quarterly* 39: 325–335.
- . 1996. Un fundamento conceptual para el rol público y privado en la salud. (With English summary.) *Revista de Análisis Económico* 11(2) November: 9–36.
- Nagel, Ernest. 1984. Assumptions in Economic Theory. *Appraisal and Criticism in Economics: A Book of Readings*. Boston, MA; London, UK; and Sydney, Australia: Allen and Unwin.
- Nagel, Thomas. 1993. Rawls on Justice. *Social Choice Theory. Volume 3: Social Justice and Classical Liberal Goals*. Aldershot, UK: Elgar.
- Nathan, Joe. 1993. Shouldn't We Give Vouchers a Try? *Learning* 12(1) August: 74–76, 78–79.
- National Scholarship Center. 1995. *Just Doing It*. Washington, DC: The Washington Scholarship Fund.
- Naylor, C. David. 1992. *Canadian Health Care and the State: A Century of Evolution*. Montreal, QC: McGill-Queen's University Press.
- Nedde, Ellen. 1995. Health Care Cost Containment. Working Paper 95/126, International Monetary Fund, Washington, DC.
- The Netherlands, Ministry of Welfare, Health, and Cultural Affairs. 1988. Change Assured. Policy document.
- Neudeck, Werner, and Konrad Podcizek. 1996. Adverse Selection and Regulation in Health Insurance Markets. *Journal of Health Economics* 15(4): 387–408.

- Newhouse, Joseph P. 1996. Reimbursing Health Plans and Health Providers: Efficiency in Production versus Selection. *Journal of Economic Literature* (September): 1236–1263.
- Normand, Charles, and Axel Weber. 1994. *Social Insurance: A Guidebook for Planning*. Geneva, Switzerland: World Health Organization and International Labour Office.
- North, Gary. 1993. Education Vouchers: The Double Tax. *The Freeman* 43(6).
- Nozick, Robert. 1974. *Anarchy, State and Utopia*. New York, NY: Basic Books.
- . 1981. *Philosophical Explanations*. Cambridge, MA: Harvard University Press.
- Nuijens, W. J. F. I. 1992. The Collectivisation of Health Insurance. *Social Science & Medicine* 34(9) May.
- Oberholzer-Gee, Felix, Iris Bohnet, and Bruno S. Frey. 1997. Fairness and Competence in Democratic Decisions. *Public Choice* 91(1) April: 89–105.
- O'Donnell, Owen. 1995. Labour Supply and Saving Decisions with Uncertainty over Sickness. *Journal of Health Economics* 14(4): 491–504.
- Okun, Arthur M. 1975. *Equality and Efficiency: The Big Tradeoff*. Washington, DC: The Brookings Institution.
- Organisation for Economic Co-operation and Development. 1994. *School: A Matter of Choice*. Paris, France. <http://www.oecd.org>.
- . 2002. Education Statistics. OECD Education Database. http://www1.oecd.org/scripts/cde/viewbase.asp?DBNAME=edu_uoe.
- Over, M. 1991. *Economics for Health Sector Analysis: Concepts and Cases*. Economic Development Institute Technical Materials, World Bank, Washington, DC.
- Oyarzo M., César, B. Galleguillos, and April Sylvia. 1995. Reforma del sistema de salud chileno: marco conceptual de la propuesta del Fondo Nacional de Salud. (With English summary.). *Cuadernos de Economía*.
- Pamies, R. J., and L. J. Woodard. 1992. Cancer in Socioeconomically Disadvantaged Populations. *Prim Care* 19(3) September: 443–50.
- Pan American Health Organization. 1994. *Health Conditions in the Americas*. Washington, DC: PAHO.
- Park, Ju Moon. 1994. The Determinants of Physician and Pharmacist Utilization and Equity of Access under Korean Universal Health Insurance. University of Texas Health Science Center at Houston, School of Public Health, Houston, TX.
- Parry, Taryn Rounds. 1996. Will Pursuit of Higher Quality Sacrifice Equal Opportunity in Education? An Analysis of the Education Voucher System in Santiago. *Social Science Quarterly* 77(4) December: 821–41.
- Pastor, Jr., Manuel, and Michael E. Conroy. 1995. Distributional Implications of Macroeconomic Policy: Theory and Applications to El Salvador. *World Development* 23(12) December: 2117–31.
- Pauly, M. V. 1991. The Economics of Moral Hazard: Comment. In A. J. Culyer (ed.), *The Economics of Health*. Aldershot, UK: Edward Elgar Publishing.

- . 1978. Overinsurance and Public Provision of Insurance: The Roles of Moral Hazard and Adverse Selection. In P. Diamond and M. Rothschild (eds.), *Uncertainty in Economics*. New York, NY: Academic Press.
- . 1991. Taxation, Health Insurance, and Market Failure in the Medical Economy. In A. J. Culyer (ed.), *The Economics of Health*. Aldershot, UK: Edward Elgar Publishing.
- Pauly, Mark, Patricia Danzon, Paul Feldstein, and John Hoff. 1992. *Responsible National Health Insurance*. Washington, DC: AEI Press.
- Pauly, Mark Vincent. 1968. Efficiency in Public Provision of Medical Care. University of Virginia, Charlottesville, VA.
- . 1974. Overinsurance and Public Provision of Insurance: The Roles of Moral Hazard and Adverse Selection. *Quarterly Journal of Economics* 88(1) February: 44–62.
- . 1983. More on Moral Hazard IHealth Insurance and the Demand for Medical Care. *Journal of Health Economics* 2(1) March: 81–85.
- . 1991. The Economics of Moral Hazard: Comment. *The Economics of Health*. Volume 1. Aldershot, UK and Brookfield, VT: Elgar.
- Pauly, Mark V., and Allison M. Percy. 2000. Cost and Performance: A Comparison of the Individual and Group Health Insurance Markets. *Journal of Health Politics, Policy and Law* 25(1) February: 9–26.
- Pazner, Elisha A., and David Schmeidler. 1974. Difficulty in the Concept of Fairness. *Review of Economic Studies* 41(3) July: 441–43.
- . 1976. Social Contract Theory and Ordinal Distributive Equity. *Journal of Public Economics* 5(3–4) April–May: 261–68.
- . 1978. Egalitarian Equivalent Allocations: A New Concept of Economic Equity. *Quarterly Journal of Economics* 92(4) November: 671–87.
- Peach, Richard W. 1994. *Health Care Reform: The Issues and the Options*. Federal Reserve Bank of New York Research Paper 9419.
- Pearce, David, and Ennio Stacchetti. 1997. Time Consistent Taxation by a Government with Redistributive Goals. *Journal of Economic Theory* 72(2) February: 282–305.
- Pearson, Judith. 1993. *Myths of Educational Choice*. Westport, CT: Praeger Publishers and Greenwood Publishing Group.
- Penner, M., and S. Penner. 1990. Excess Insured Health Care Costs from Tobacco-using Employees in a Large Group Plan. *J Occup Med* 32(6) June: 521–3.
- Penning, Nick. 1992. Saying No to “Choice.” *School Administrator* 49(4) April: 34–35.
- Perlman, M. 1976. Some Economic Aspects of Public Health Programs in Underdeveloped Areas. In S. J. Axelrod (ed.), *The Economics of Health and Medical Care*. Ann Arbor, MI: University of Michigan Press.
- Perotti, Roberto. 1996. Growth, Income Distribution and Democracy: What the Data Say. *Journal of Economic Growth* (June).

- Persson, T., and G. E. Tabellini. 1997. *Political Economics and Macroeconomic Policy*. NBER Working Paper no. 6329, National Bureau of Economic Research, Cambridge, MA.
- Persson, Torsten, and Guido Tabellini. 1991. *Is Inequality Harmful for Growth? Theory and Evidence*. NBER Working Paper no. 3599. National Bureau of Economic Research, Cambridge, MA.
- . 1992a. *Federal Fiscal Constitutions. Part I: Risk Sharing and Moral Hazard*. CEPR Discussion Paper no. 728. Centre for Economic Policy Research, London.
- . 1992b. Growth, Distribution and Politics. *European Economic Review* 36(2–3) April: 593–602.
- . 1992c. Growth, Distribution and Politics. *Political Economy, Growth, and Business Cycles*. Cambridge, MA and London, UK: MIT Press.
- Pestieau, Pierre. 1994. Social Protection and Private Insurance: Reassessing the Role of Public Sector versus Private Sector in Insurance: The Eighteenth Annual Lecture of the Geneva Association. *Geneva Papers on Risk and Insurance Theory* 19(2) December: 81–92.
- Peterson, Paul E, et al. 1996. School Choice in Milwaukee. *Public Interest* 125 (Fall): 38–56.
- Pigou, Arthur C. 1978. *The Economics of Welfare*. New York, NY: AMS Press.
- Pioneer Institute. for Public Policy Research. 1996. *Two Perspectives on the Continuing Debate over School Choice*. Dialogue Series Position Paper no. 13, Pioneer Institute for Public Policy Research, Boston, MA.
- Pipho, Chris. 1992. School Finance in a Transformed Education System. *Educational Technology* 32(11) November: 27–30.
- Plato, and Benjamin Jowett (translator). 1997. *The Republic*. New York: Barnes and Noble.
- PNUD. 1996. *Relatório sobre o Desenvolvimento Humano no Brasil*. PNUD/IPEA.
- Posey, Lisa Lipowski. 1997. Two Approaches to Subsidizing a Given Level of Charitable Hospital Care: Welfare Implications for the Insured. *Journal of Risk and Insurance* (March).
- Prawda, Juan. 1993. Lessons in Educational Decentralization: A Note for Policymakers. *The Forum* 2 (May): 8.
- Psacharopoulos, George. 1986. *Financing Education in Developing Countries: An Exploration of Policy Options*. Washington, DC: World Bank.
- Psacharopoulos, G., and M. Woodhall. 1986. *Education for Development. An Analysis of Investment Choices*. New York, NY: Oxford University Press for the World Bank.
- Psacharopoulos, G., and N. X. Nguyen. 1992. *Fighting Poverty: The Role of Government and the Private Sector*. World Bank Human Capital Development and Operations Policy, World Bank, Washington, DC.
- Psacharopoulos, G., J. P. Tan, and E. Jimenez. 1986. *Financing Education in Developing Countries*. Institute of Development Studies Bulletin no. 20, World Bank, Washington, DC.

- Psacharopoulos, George. 1995. *The Profitability of Investment in Education: Concepts and Methods*. HCO Working Papers, The World Bank, Washington, DC.
- Psacharopoulos, George, and Harry Anthony Patrinos (eds.). 1993. *Indigenous People and Poverty in Latin America: An Empirical Analysis*. Regional Studies Program Report No. 30, Latin America and the Caribbean Technical Department, The World Bank, Washington, DC.
- . 1994. *Indigenous People and Poverty in Latin America: An Empirical Analysis. Regional and Sectoral Studies*. Washington, DC: World Bank.
- Puckett, John L. 1993. Educational Vouchers: Rhetoric and Reality. *Educational Forum* 48(1) Fall: 7–26.
- Qian, Yingyi. 1992. Equity, Efficiency, and Incentives in a Large Economy. *Journal of Comparative Economics* 16(1) March: 27–46.
- Rackham, H. 1971. *Aristotle: The Athenian Constitution. The Eudemian Ethics. On Virtues and Vices*. Cambridge, MA: Harvard University Press.
- Raffel, M. W. 1984. *Comparative Health Systems: Descriptive Analyses of Fourteen National Health Systems*. University Park, PA: Penn. State University Press.
- Rangazas, Peter. 1995. Vouchers and Voting: An Initial Estimate Based on the Median Voter Model. *Public Choice* (March).
- . 1995. Vouchers in a Community Choice Model with Zoning. *Quarterly Review of Economics and Finance* (Spring).
- Ranis, Gustav, and Frances Stewart. 1994. Decentralisation in Indonesia. *Bulletin of Indonesian Economic Studies* 30(3) December: 41–72.
- Rapple, Brendan A. 1992. A Victorian Experiment in Economic Efficiency in Education. *Economics of Education Review* 11 (December): 301–316.
- Rawls, John. 1971. *A Theory of Justice*. Cambridge, MA: Harvard University Press.
- Rebelo, Sergio. 1991. Long-Run Policy Analysis and Long-Run Growth. *Journal of Political Economy* 99 (June): 500–521.
- Reinhardt, Uwe E. 1989. *The U.S. Health Care Financing and Delivery System: Its Experience and Lessons for Other Nations*. International Symposium on Health Care, Taipei, Taiwan.
- Rendell, M., et al. 1993. The Health Care Status of the Diabetic Population as Reflected by Physician Claims to a Major Insurer. *Arch Intern Med* 153(11) June: 1360–6.
- República de Colombia. 1992. Departamento Administrativo Nacional de Estadística, Encuesta Nacional de Hogares, Bogota. <http://www.dane.gov.co>.
- Richman, Sheldon. 1994. *Separating School and State: How to Liberate America's Families*. Fairfax, VA: Future of Freedom Foundation.
- Riddell, A. R. 1993. The Evidence on Public/Private Educational Trade-offs in Developing Countries. *International Journal of Educational Development* 13: 373–386.
- Riddle, Wayne. 1986. Vouchers for the Education of Disadvantaged Children: Analysis of the Reagan Administration Proposal. *Journal of Education Finance* 12(1) Summer: 9–35.

- Robertson, David. 1993. *The Penguin Dictionary of Politics*. London, UK: Penguin Books.
- Roemer, John E. 1990. The Economics of Equal Educational Opportunity: Public and Voucher Regimes. Working Paper 360, Economics Department, University of California at Davis.
- . 1992. *Providing Equal Educational Opportunity: Public vs. Voucher Schools*. Economic Rights. Cambridge: Cambridge University Press.
- Romer, Paul. 1986. Increasing Returns and Long-Run Growth. *Journal of Political Economy* 94 (October): 1002–37.
- . 1990. Endogenous Technological Change. *Journal of Political Economy* 98 (October): s71–s102.
- Roosevelt Center for American Policy Studies. 1985. *Education as a Public Good: Reconnecting People to Their Schools*. Working Paper 5, Roosevelt Center for American Policy Studies, Chicago, IL.
- Rosenau, Pauline (ed.). 1995. *Health Care Reform in the Nineties*. London, UK: Sage Publications.
- Rosero-Bixby, Luis. 1985. Infant Mortality Decline in Costa Rica. In Scott B. Halstead, Julia A. Walsh, and Kenneth S. Warren (eds.), *Good Health at Low Cost*. New York, NY: Rockefeller Foundation.
- Roth, G. 1987. *The Private Provision of Public Services in Developing Countries*. New York, NY: Oxford University Press.
- Rothschild, Michael, and Joseph E. Stiglitz. 1976. Equilibrium in Competitive Insurance Markets: An Essay on the Economics of Imperfect Information. *Quarterly Journal of Economics* 90(4) November: 630–49.
- Rousseau, Jean-Jacques. 1755. *Discours sur l'origine et les fondements de l'inégalité parmi les hommes*. Amsterdam, Netherlands: M. M. Rey.
- Russo, G. 1994. The Role of the Private Sector in Health Services: Lessons for ASEAN. *ASEAN Economic Bulletin* 11.
- Rycroft, Robert W. 1978. Bureaucratic Performance in Energy Policy Making: An Evaluation of Output Efficiency and Equity in the Federal Energy Administration. *Public Policy* 26(4) Fall: 599–627.
- Saks, Judith Brody. 1997. The Voucher Debate: Should Public Money Follow Kids to Private Schools? *American School Board Journal* 184(3) March: 24–28.
- Salvadori, Massimo. 1957. *Liberal Democracy*. Garden City, NY: Doubleday.
- Salveson, Paul, et al. 1994. Gateway to Learning: Empowering Individuals? Department of Adult Continuing Education, University of Leeds, Leeds, UK.
- Sandefur, G. D. 1986. American Indian Migration and Economic Opportunities. *International Migration Review* 20: 55–68.
- Sandefur, G. D., and A. Pahari. 1989. Racial and Ethnic Inequality in Earnings and Educational Attainment. *Social Service Review* 63: 199–221.
- Sandefur, G. D., and A. Sakamoto. 1988. American Indian Household Structure and Income. *Demography* 25: 71–80.

- Sandefur, G. D., and W. J. Scott. 1983. Minority Group Status and the Wages of Indian and Black Males. *Social Science Research* 12: 44–68.
- Sandy, Jonathan. 1992. Evaluating the Public Support for Educational Vouchers: A Case Study. *Economics of Education Review* 11(3): 249–56.
- Schapiro, J. Salwyn. 1988. *Liberalism, Its Meaning and History*. Malabar, FL: R. E. Krieger.
- Scherer, F. M., and David Ross. 1990. *Industrial Market Structure and Economic Performance*. Boston, MA: Houghton-Mifflin.
- Schieber, G. J., and J. P. Poullier. 1991. International Health Spending: Issues and Trends. *Health Affairs* (Spring): 106–116.
- Schieber, George. 1987. *Financing and Delivering Health Care: A Comparative Analysis of OECD Countries*. Paris, France: Organisation for Economic Co-operation and Development.
- Schmeidler, David, and Karl Vind. 1972. Fair Net Trades. *Econometrica* 40(4) July: 637–42.
- Schmidt, P. 1995. Looking the Other Way. *Education Week* 14(21): 23–27.
- Schmidt-Hebbel, Klaus. 1995. *Colombia's Pension Reform: Fiscal and Macroeconomic Effects*. Discussion Paper no. 314, World Bank, Washington, DC.
- Schneider, E. L., and J. M. Guralnik. 1990. The Aging of America: Impact on Health Care Costs. *JAMA* 263(17) May: 2335–40.
- Schramm, C. J. 1991. Health Care Financing for All Americans. *JAMA* 265(24) June: 3296–9.
- Schultz, T. W. 1968. Investment in Human Capital. In M. Blaug (ed.), *Economics of Education*. London, UK: Penguin Books.
- Schwartz, R. A. 1970. Personal Philanthropic Contributions. *Journal of Political Economy* 78: 1264–91.
- Schweinhart, L. J. 1995. Elements of Early Childhood Program Quality in Developing Countries. Paper submitted by the High/Scope Educational Research Foundation, Ypsilanti, MI.
- Scott, Gary. 1997. Learning Capital: The Economic Idea and Causes of School Quality. *Canadian Journal of Economics*.
- Seldon, Arthur. 1986. *The Riddle of the Voucher*. London, UK: Institute of Economic Affairs.
- Selowsky, Marcelo. 1979. *Who Benefits from Government Expenditure? A Case Study of Colombia*. New York, NY: Oxford University Press.
- Sen, Amartya K. 1967. Isolation, Assurance and the Social Rate of Discount. *Quarterly Journal of Economics* 81: 112–24.
- . 1980. *Equality of What?* In S. McMurrin. New York, NY: Russel Sage Foundation; Cambridge, MA: Harvard University Press.
- . 1987. (With contributions by John Muellbauer, Ravi Kanbur, Keith Hart, and Bernard Williams). In Geoffrey Hawthorn (ed.), *The Standard of Living*. Cambridge, UK: Cambridge University Press.

- . 1988. The Concept of Development. In Hollis Chenery and T. N. Srinivasan (eds.), *Handbook of Development Economics, Volume I*. Amsterdam, Netherlands: North-Holland.
- . 1994a. The Formulation of Rational Choice. *American Economic Review* 84(2) (May): 385–90.
- . 1994b. Growth Economics: What and Why? *Economic Growth and the Structure of Long-Term Development: Proceedings of the IEA Conference Held in Varenna, Italy*. New York, NY: St. Martin's Press; London, UK: Macmillan Press, in association with the International Economic Association.
- . 1995a. *Inequality Reexamined*. Reprint Edition. Cambridge, MA: Harvard University Press.
- . 1995b. Rationality and Social Choice. *The American Economic Review* (March).
- Senate Republican Health Care Task Force (U.S.). 1993. Health Equity and Access Reform Today: Presentation of Health Care Reform Outline. Washington, DC
- Shanker, A., and B. Rosenberg. 1992. Politics, Markets and American Schools: A Rejoinder. In P. R. Kane (ed.), *Independent Schools, Independent Thinkers*. San Francisco, CA: Jossey-Bass.
- Shapiro, M., et al. 1989. Out-of-Pocket Payments and Use of Care for Serious and Minor Symptoms. Results of a National Survey. *Arch Intern Med* 149(7) July: 1645–8.
- Shaw, R. Paul, and Charles C. Griffin. 1995. *Financing Health Care in Sub-Saharan Africa through User Fees and Insurance. Directions in Development Series*. Washington, DC: World Bank.
- Shires, Michael A., et al. 1994. The Effects of the California Voucher Initiative on Public Expenditures for Education. Institute for Education and Training, Rand Corporation, Santa Monica, CA.
- Sidgwick, Henry. 1874. *The Methods of Ethics*. London, UK: Macmillan and Co.
- Sjaastad, Larry. 1983. Failure of Economic Liberalization in the Southern Cone of Latin America. *World Economy* 6 (March): 5–26.
- Skocpol, Theda. 1995. *Social Policy in the United States: Future Possibilities in Historical Perspective*. Princeton, NJ: Princeton University Press.
- Smith, Adam. 1776. *An Inquiry into the Nature and Causes of the Wealth of Nations*. Reprint Edition, Edwin Cannan, (ed.). Chicago, IL: University of Chicago Press.
- . 1790. *The Theory of Moral Sentiments*. Reprint Edition. D. D. Raphael and A. L. Macfie (eds). Indianapolis, IN: Liberty Fund.
- Smithson, Paul. 1993. *Public Sector Health Financing and Sustainability in Pakistan*. London, UK: The Save the Children Fund.
- Snipp, M., and G. D. Sandefur. 1988. Earnings of American Indians and Alaskan Natives: The Effects of Residence and Migration. *Social Forces* 66: 994–1008.
- Spicer, Michael W., and Edward W. Hill. 1990. Evaluating Parental Choice in Public Education: Policy beyond the Monopoly Model. *American Journal of Education* 98(2) February: 97–113.

- Stacchetti, Ennio, and David Pearce. 1993. *Time Consistent Taxation by a Government with Redistributive Goals*. Working Paper no. 93-13, University of Michigan Center for Research on Economic and Social Theory (CREST), Ann Arbor, MI.
- Steuerle, C. Eugene. 1997. A Principled Approach to Educational Policy. *National Tax Journal* 50(2) June: 351-65.
- Stevens, Joe B. 1993. *The Economics of Collective Choice*. Boulder, CO and Oxford, UK: Westview Press.
- Stigler, G. 1961. The Economics of Information. *Journal of Political Economy* (June).
- Stiglitz, J. 1977. Monopoly, Non-linear Pricing and Imperfect Information: The Insurance Market. *Review of Economic Studies* XLIV: 407-30.
- St. Peter, R. F., P. W. Newacheck, and N. Halfon. 1992. Access to Care for Poor Children. Separate and Unequal? *JAMA* 267(20) May: 2760-4.
- Stuart, Bruce Cameron. 1970. *Distributive Equity in the Financing of American Medical Care, 1950 and 1960-61*. Washington State University.
- Study of Public Elementary and Secondary Education. 1992. Bulletin no. 93-3. Nevada State Legislative Counsel Bureau, Legislative Commission, Carson City, NV.
- Suárez, R. 1995. *Gasto nacional en salud y su financiamiento en países de América Latina y el Caribe: estudios de caso y base de datos*. Research Proposal. Pan-American Health Organization, Washington, DC.
- Sugden, R. 1982. On the Economics of Philanthropy. *Economic Journal* 92: 341-50.
- . 1983. Who Cares? An Economic and Ethical Analysis of Private Charity and the Welfare State. Occasional Paper 67, Institute of Economic Affairs, London, UK.
- Sullivan, John L., et al. 1981. The Sources of Political Tolerance: A Multivariate Analysis. *American Political Science Review* 75(1) March: 92-106.
- Sun, Li-The. 1990. Ethical Implications of Time in Economic Analysis. *International Journal of Social Economics* 17(5): 54-62.
- Tabarrok, Alexander. 1994. Genetic Testing: An Economic and Contractarian Analysis. *Journal of Health Economics* 13(1): 75-91.
- Taylor, Lance. 1983. *Structuralist Macroeconomics*. New York, NY: Basic Books.
- . 1990. *Socially Relevant Policy Analysis*. Cambridge, MA: MIT Press.
- Thurrow, Lester C. 2001. *The Zero-Sum Society: Distribution and the Possibilities for Economic Change*. New York, NY: Basic Books.
- Tirole, J. 1994. The Internal Organization of Government. *Oxford Economic Papers* 46(1).
- Tobin, James. 1994. *Health Care Reform as Seen by a General Economist*. Minneapolis, MN: Industrial Relations Center, University of Minnesota.
- Tucker, Allyson, and William F. Lauber. 1995. *School Choice Programs: What's Happening in the States*. Washington, DC: The Heritage Foundation.
- Udow, M., V. K. Smith, and M. H. Mason. 1991. The Caring Program for Children. The Michigan Experience. *Am J Dis Child* 145(5) May: 579-80.

- Udvarhelyi, I. S., K. Jennison, R. S. Phillips, and A. M. Epstein. 1991. Comparison of the Quality of Ambulatory Care for Fee-for-Service and Prepaid Patients. *Ann Intern Med* 115(5) September: 394–400.
- United Kingdom Education Department. 1992. *Choice and Diversity*.
- United Nations Development Programme (UNDP). 1990. *Human Development Report*. New York, NY: Oxford University Press.
- United Nations Educational, Scientific and Cultural Organization (UNESCO). 2002. <http://www.unesco.org>; Statistics web page: <http://www.uis.unesco.org/en/stats/stats0.htm>
- United Nations International Childrens' Education Fund (UNICEF). 1995. *Profiles in Success: People's Progress in Africa, Asia and Latin America*.
- United States Congress. House Committee on Government Operations. 1995. *Efficiency and Cost Effectiveness of the U.S. Health Care System. A Comparison with Canada: Hearings before the Committee on Government Operations*. House of Representatives, One Hundred Second Congress, First Session, June 4, 11, and 18, 1991. Washington, DC: U.S. G.P.O.
- United States Department of Health and Human Services. 1990. *Health Care Financing Review: 1989 Annual Supplement*. Health Care Financing Administration, Baltimore, MD.
- Usher, Dan. 1997. Education as a Deterrent to Crime. *Canadian Journal of Economics* (May).
- Uzzell, Lawrence A. 1984. Robin Hood Goes to School: The Case for a Federal Voucher Program. In Connaught Marshner (ed.), *A Blueprint for Education Reform*. Chicago, IL: Regnery/Gateway.
- Valsecchi, Irene. 1998. L'ipotesi del buono scuola tra equità ed efficienza. (The Voucher System Hypothesis between Equity and Efficiency). *Rivista Internazionale di Scienze Economiche e Commerciali* (January).
- van de Ven, Wynand P. M. M., and Randall P. Ellis. 2000. Risk Adjustment in Competitive Health Plan Markets. In Anthony J. Culyer and Joseph P. Newhouse (eds.), *Handbook of Health Economics: Volume 1A*. Amsterdam, Netherlands: North-Holland.
- van de Ven, Wynand P. M. M., and René C. J. A. van Vliet. 1992. How Can We Prevent Cream Skimming in a Competitive Health Insurance Market? The Great Challenge for the 90's. *Health Economics Worldwide*. Norwell, MA and Dordrecht, Netherlands: Kluwer Academic.
- . 1995. Consumer Information Surplus and Adverse Selection in Competitive Health Insurance Markets: An Empirical Study. *Journal of Health Economics* 14(2): 149–170.
- van de Walle, Dominique. 1992. *The Distribution of the Benefits from Social Services in Indonesia, 1978–87*. Working Paper no. 871, World Bank, Washington, DC.
- van den Doel, Hans, and Ben van Velthoven. 1993. *Democracy and Welfare Economics*. Second Edition. Cambridge, UK: Cambridge University Press.

- van der Gaag, Jacques. 1995. *Private and Public Initiatives: Working Together for Health and Education*. Washington, DC: The World Bank.
- van der Ploeg, Frederick. 1994. *The Handbook of International Macroeconomics*. Cambridge, MA: Blackwell.
- van Doorslaer, E., A. Wagstaff, and F. Rutman. 1993. *Equity in the Finance and Delivery of Health Care*. New York, NY: Oxford University Press.
- van Parijs, Philippe (ed.). 1992. *Arguing for Basic Income: Ethical Foundations for a Radical Reform*. London and New York: New Left Books, Verso.
- Varian, Hal R. 1974. Equity, Envy, and Efficiency. *Journal of Economic Theory* 9(1) September: 63–91.
- Vogel, Ronald J. 1990. *Health Insurance in Sub-Saharan Africa*. Working Paper WPS 476, Africa Technical Department, The World Bank, Washington, DC.
- von Hayek, Friedrich A. 1945a. *The Road to Serfdom*. Sydney, Australia: Dymock's Book Arcade.
- . 1945b. *The Use of Knowledge in Society*. Menlo Park, CA: Institute for Humane Studies.
- Wagstaff, Adam, and Eddy van Doorslaer. 1997. Progressivity, Horizontal Equity and Reranking in Health Care Finance: A Decomposition Analysis for the Netherlands. *Journal of Health Economics* 16(5): 499–516.
- Walberg, Herbert J., and Joseph L. Bast. 1993. School Choice: The Essential Reform. *The Cato Journal* 13(1).
- Walras, L. 1954. *Elements of Pure Economics*. London, UK: Allen and Unwin.
- Waring, Jim. 1996. Educational Vouchers: The Case for Public Choice Reconsidered. *Public Budgeting and Finance* (Fall).
- Wells, A. S., and R. L. Crain. 1992. Do Parents Choose School Quality or School Status? A Sociological Theory of Free Market Education. In P. W. Cookson (ed.), *The Choice Controversy*. Thousand Oaks, CA: Corwin Press.
- West, Edwin G. 1985. The Real Cost of Tuition Tax Credits. *Public Choice* 46(1).
- . 1991. Public Schools and Excess Burdens. *Economics of Education Review* 10(2).
- . 1994. *Education and the State: A Study in Political Economy*. Third Edition. Indianapolis, IN: Liberty Fund, Inc.
- . 1996. *Education Vouchers in Practice and Principle: A World Survey*. Human Capital Development Working Paper no. 64, The World Bank, Washington, DC.
- Wilensky, G. R. 1984. Solving Uncompensated Health Care. *Health Affairs* (Winter): 50–62.
- Wilkerson, John D., Kelly J. Devers, and Ruth S. Given (eds.). 1997. *Competitive Managed Care: The Emerging Health Care System*. San Francisco, CA: Jossey-Bass Publishers.
- Wilkinson, Bruce W. 1994. *Educational Choice: Necessary But Not Sufficient*. Ogdensburg, NY: Renouf.

- Williams, J. Douglas, and Frank Echols. 1992. Alert and Inert Clients: The Scottish Experience of Parental Choice of Schools. *Economics of Education Review* 11 (December): 339–350.
- Willis, Israel Lee. 1995. *Equity of Health Care Services: Focus on Heart Disease Procedures Performed on Insured vs. Uninsured Patients*. San Diego State University.
- Wilson, Leonard S. 1977. The Interaction of Equity and Efficiency Factors in Optimal Pricing Rules. *Journal of Public Economics* 7(3) June: 351–63.
- Winkler, D. 1990. *Higher Education in Latin America: Issues of Efficiency and Equity*. Discussion Paper no. 77, World Bank, Washington, DC.
- Winkler, Donald R., and Taryn Rounds. 1993. *Municipal and Private Sector Response to Decentralization and School Choice*. Human Resources and Operations Policy Working Paper no. 8, World Bank, Washington, DC.
- . 1996. Municipal and Private Sector Response to Decentralization and School Choice. *Economics of Education Review* 15(4) October: 365–76.
- Wise, Arthur E., and Linda Darling-Hammond. 1983. Educational Vouchers: Regulating Their Efficiency and Effectiveness. *Educational Researcher* 12(9) November: 9–18.
- . 1984. Education by Voucher: Private Choice and the Public Interest. *Educational Theory* 34(1) Winter: 29–53.
- Witte, John F. 1992. Private School versus Public School Achievement: Are There Findings That Should Affect the Educational Choice Debate? *Economics of Education Review* 11 (December): 371–394.
- Witte, John F., and Christopher A. Thorn. 1996. Who Chooses? Voucher and Interdistrict Choice Programs in Milwaukee. *American Journal of Education* 104(3) May: 186–217.
- Wood, D., and R. B. Valdez. 1991. Barriers to Medical Care for Homeless Families Compared with Housed Poor Families. *Am J Dis Child* 145(10) October: 1109–15.
- World Bank. 1984. *China: The Health Sector*. A World Bank Country Study, Washington, DC.
- . 1988. *Brazil: Public Spending on Social Programs: Issues and Options*. Vols. 1 and 2. Washington, DC: World Bank.
- . 1990a. *Primary Education*. Policy Paper, World Bank, Washington, DC.
- . 1990b. *Costa Rica: Public Sector Social Spending*. Washington, DC.
- . 1990c. *World Development Report 1990: Poverty*. New York, NY: Oxford University Press.
- . 1991a. *Vocational and Technical Education and Training*. Policy Paper, World Bank, Washington, DC.
- . 1991b. *Indonesia: Health Planning and Budgeting*. A Country Study, World Bank, Washington, DC.
- . 1991c. *World Development Report 1991: The Challenge of Development*. New York, NY: Oxford University Press.

- . 1992a. *Malaysia: Fiscal Reform for Stable Growth*. Washington, DC.
- . 1992b. *Zimbabwe: Financing Health Services*. Washington, DC.
- . 1992c. *China: Long-Term Issues and Options in the Health Transition*. Washington, DC.
- . 1992d. *China: Strategies for Reducing Poverty in the 1990s*. Washington, DC.
- . 1993a. *Indigenous People in Latin America*. HRO Dissemination Notes no. 8, World Bank, Washington, DC.
- . 1993b. *The East Asian Miracle: Economic Growth and Public Policy*. World Bank Policy Research Reports. New York, NY: Oxford University Press.
- . 1993c. *World Development Report 1993: Investing in Health*. Washington, DC: World Bank.
- . 1993d. *Indonesia: Public Expenditures, Prices, and the Poor*. Washington, DC.
- . 1994a. *Higher Education: The Lessons of Experience*. Development in Practice. World Bank, Washington, DC.
- . 1994b. *Philippines Devolution and Health Services: Managed Risks and Opportunities*. Report no. 12343-PH, World Bank, Washington, DC.
- . 1994c. *Poverty in Colombia*. A Country Study, World Bank, Washington, DC.
- . 1995a. *Advancing Social Development*. Washington, DC.
- . 1995b. *Investing in People: The World Bank in Action. Directions in Development*. Washington, DC.
- . 1995c. *Fighting Poverty: The Role of Government and the Private Sector*. Human Resources and Operations Policy, World Bank, Washington, DC. Unpublished.
- . 1995d. *Education Reform in the United Kingdom: Autonomy with Accountability*. Human Development Department. Washington, DC.
- . 1995e. *Priorities and Strategies for Education: A World Bank Review*. Washington, DC: World Bank.
- . 1996. *The World Bank's Participation Sourcebook*. World Bank, Washington, DC.
- . 1997a. *Hashemite Kingdom of Jordan: Health Sector Study*. A Country Study, World Bank, Washington, DC.
- . 1997b. *Indigenous People and Poverty in Latin America: An Empirical Analysis*. Technical Department, Latin America and the Caribbean Region Report RPO677-68, World Bank, Washington, DC.
- . 1998. *Social Indicators of Development*, CD-Rom. World Bank, Washington, DC.
- . 2002. *Social Indicators of Development*, CD-Rom. World Bank, Washington, DC.

World Health Organization (WHO). 1991. An Interregional Meeting on the Public-Private Mix in National Health Systems and the Role of the Ministries of Health. Hacienda Cocoyoc, State of Merelos, Mexico, Division of Strengthening Health Services, Geneva, Switzerland.

- . 1993. *Implementation of the Global Strategy for Health for All by the Year 2000*. Second Evaluation. Geneva, Switzerland: World Health Organization.
- . 2002. <http://www.who.int/home-page/> WHO Statistical Information System (WHOSIS) Evidence and Information for Health Policy <http://www3.who.int/whosis/menu.cfm>.
- Wrigley, E. A. 1988. *Continuity, Chance and Change: The Character of the Industrial Revolution in England*. Cambridge, UK: Cambridge University Press.
- Yamashiro, Kyo, and Lisa Carlos. 1995. *Private School Vouchers. Issues at a Glance*. San Francisco, CA: WestEd.
- Yang, Bong-Min. 1991. Health Insurance in Korea: Opportunities and Challenges. *Health Policy and Planning* 6(2): 119–129.
- Yaniv, Gideon. 1998. Phobic Disorder, Psychotherapy, and Risk-Taking: An Economic Perspective. *Journal of Health Economics* 17(2): 229–244.
- Yoshikawa, J. Bhattacharya, Vogt, and Jack Reamy. 1997. Health Economics of Japan: Patients, Doctors, and Hospitals under a Universal Health Insurance System. *Inquiry* 34(3).
- Young, R. 1992. Evaluating Long-Lived Projects: The Issue of Inter-Generational Equity. *Australian Journal of Agricultural Economics* 36(3) December: 207–32.
- Ysseldyke, James E., et al. 1992. *School Choice Programs in the Fifty States. Enrollment Options for Students with Disabilities*. Research Report no. 7, College of Education, University of Minnesota, Minneapolis, MN.
- Zajac, Edward E. 1996. *Political Economy of Fairness*. Cambridge, MA: MIT Press.
- Zubkoff, Michael. 1975. Increasing Hospital Efficiency through Third Party Reimbursement Plans. Thesis, Columbia University, New York, NY.
- Zuckerman, Elaine, and Emanuel de Kadt. 1997. The Public-Private Mix in Social Services: Health Care and Education in Chile, Costa Rica and Venezuela. Social Agenda Policy Group, Inter-American Development Bank, Washington, DC.

POLITICAL ECONOMY

Efficiency and equity are priorities in the social policies of both industrial and developing countries. However, policy studies use efficiency and equity objectives in a general way, while in practice they may refer to specific concepts. This study looks at the political dimension of the economic problem—different value judgments lead to different concepts of efficiency and equity. The design of social policies depends on the interpretation—rarely explicit—of policy-makers. *What Do You Mean?* shows how conceptual clarity can improve social services delivery.

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