Alternative systems of health care provision

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1. Introduction

Around the developed world, many health care systems are in crisis. Populations feel either that the cost of running their systems is too high or that the quality of provision is declining. Possibly these are two sides of the same coin. If there is a fundamental tendency for costs to rise, something must give; either consumers will consume less or budget shares will have to rise. However, from a policy point of view this will create a state of flux. Society will look for ways to get more for less. If there are better institutional and regulatory solutions for the provision of health care, rising costs may be the catalyst to seek them out. This paper looks at cross-country experience in running health care systems since 1960, with a particular focus on the experience of the 1980s. Through this lens, we endeavour to compare the performance of alternative systems of finance and delivery and to discuss directions of policy reform.

We focus on two main driving forces in health care debates. The first is technological change: new medical interventions have appeared continually. For reasons that we discuss below, the issue of who gains access to new technologies is a key feature of any system for delivering medical care. In addition, as Baumol (1993) has recently argued, the health care sector is one in which technological change tends not to be labour-saving and will, therefore, inevitably experience rising per unit costs. This observation is key for understanding some recent debates.

The second driving force is the norm of universal access to health care. Every developed society of the world maintains (in rhetoric at least) a

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commitment to provide universal access to some non-trivial level of health care coverage.\footnote{Although the current US health care debate appears to be about universal access, behind the semantics it is clear that some level of care is available to all through charity and emergency rooms. The US does not let car accident victims go untreated. The real debate, as in our discussion, is about what minimum quality of care everyone should be entitled to and how this is best delivered.} The design of any health care system must include some means of fulfilling this goal. Through time, views about what is a socially acceptable level may also evolve. Many difficult decisions in designing systems for delivering medical care concern whether such things as computerized axial tomography (CAT scans), magnetic resonance imaging (MRI) and kidney dialysis should be covered by the universal norm. These debates have profound significance for the allocation of resources.

Almost every health care system of the world uses a combination of public and private provision. At the risk of excessive simplification, we identify three broad types of health care system among the OECD countries, differentiated according to whether financing and delivery of health care are predominantly public or private. Among the systems that use public financing, the main cleavage is between those which do and do not also use public delivery. We look among the different systems for discernible trends in the 1980s. Private supply, coupled with public finance, seems to be a system to which many countries are converging, although it is too early to say how far this will go.

We argue that the key problem for privately-financed health care systems is in getting universal access to insurance. For this reason most countries have moved towards socialized systems. Moreover, in terms of fulfilling this objective, these systems work. The main margin of debate is therefore on the role of the market given that everyone is guaranteed coverage. Recent calls for privatization and other changes in the regulatory regime are predominantly about this margin. In similar vein, there are questions about the rights of individuals to opt out of the public system or whether the public system should itself be multi-tiered. The generosity of public provision systems colours the redistributive politics of health care. We discuss the political economy of public health care and how public provision at different levels is sustained.

The paper is organized as follows. In the next section, we introduce what we see as the driving forces behind debates about health care reform. Section 3 offers an overview of the health care systems of OECD countries. The next two sections discuss first markets and then public provision. Apart from reviewing the relevant economic analysis of each system, we also discuss the main policy issues that currently confront
alternative systems. In doing so, we relate the analysis back to the OECD experience. In Section 6 we discuss some more direct experience with health care reform. Section 7 offers concluding remarks.

2. Health care reform: driving forces

2.1. Technological change

The dynamics of health care systems are driven in large measure by the dynamics of technology (see eg Weisbrod, 1991, and Newhouse, 1992). If health care allocation decisions were predominantly driven by decisions made at market prices, then as with technologies in other sectors we would probably rest content to let the market decide when to implement them. Thus the micro-computer revolution has not led to talk of crisis, but rather of opportunity in most sectors. Health care is different, as the ultimate consumers of resources almost never face market prices for the resources that they use. In private and public reimbursement insurance systems, the presence of insurance affects the prices that consumers face and in many public delivery systems services are ‘free’ at source. Thus, for health care, profitability at market prices is no guide for whether a technology should be introduced.

Health care systems have to create other (non-price) rules to govern access to new (and existing) technologies. The fact that technology is continually changing means that such rules cannot be static; they require revision as new treatments are introduced. This creates continual debates about how to allocate resources to health care. In theory the rule for access should be profitability at appropriately chosen shadow prices. However, measuring benefits is in practice quite difficult and many types of technologies create social dilemmas. Thus the dynamic of technology change is a constant challenge to the system.

Changing technologies are also key in understanding the challenge to costs in health care systems. While some illnesses can be treated in ways unthinkable twenty years ago, most treatments require considerable use of society’s resources. As the technology frontier is pushing back our ability to restore health, it tends to increase the share of resources spent on health care. Society has better health and spends more to achieve that. We present some evidence on this below. Again, for consumers who face prices in competitive markets, this would not create social issues. The

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2 One idea now widely accepted is that the benefits of health interventions should be measured in terms of the quality-adjusted life years (QALYs) that they generate. The shadow value of an intervention could be measured by valuing QALYs. While many health economists think in these terms, no health system that we are aware of yet allocates resources on the basis of the QALYs.
budget share on electronic goods is higher than thirty years ago, but this is rarely regarded as anything of concern. However, the fact that, in allocating health care, decisions are not made purely at market prices means that there is a potential challenge to the system.

Another aspect of technological change in health care was also emphasized in a recent provocative analysis by Baumol (1993). Certain sectors of the economy tend to experience technological change that is not labour-saving (and could even be labour-using). Among them are health, education and the performing arts. As labour in other sectors becomes more productive, then the cost of delivering a unit of output of a good in the ‘stagnant’ (in terms of labour-saving) sectors, such as health care, inevitably increases. The result is a recurrent increase in the relative price of health care. Moreover, this will continue to happen as relatively labour-using technologies persist in health and productivity in other parts of the economy increases. It is therefore neither surprising nor disturbing that costs rise. To illustrate, Baumol estimates that, if the productivity of labour hours allocated to the production of health care in the US remains fixed at its 1990 level, and if between 1990 and 2040 productivity in manufacturing continues to increase at its historical rate over the previous fifty years and each industry’s real output level rises by the same proportion, the share of GNP devoted to health care will rise from 10% in 1990 to 35% by 2040.

Taking this argument seriously suggests it will be difficult to prevent recurrent debates about rising health care expenditures in GNP and relative increases in costs of delivering health care. The fact is that Baumol’s disease does not present an efficiency problem in well functioning private markets, as consumers will decide how much to spend in the services with rising relative prices. However there is no guarantee that the public sector has any automatic means to determine whether additional health spending is worth its cost.

If, as in many countries that we survey below, health care is financed through the public sector, the government will have to be growing too, and taxes or other methods of financing health care provision will be rising concomitantly. Societies may grow accustomed to this. However, the experience of the 1980s has certainly suggested that trimming the size of government has proven politically expedient and health care has been no exception. We conjecture that cost escalation in health care will continue to be a catalyst for thinking about health care reform in years to come.

2.2. The norm of universal access

The second driving force behind health policy reform is the norm of universal access to health care. This is the idea that nobody, regardless of
their income or the provision that they have made, should be denied access to a certain minimal level of health care. There are three main features of health care, which together underpin this judgment.

The first is paternalism. There is an evident willingness to suspend consumer sovereignty in judgments about health care (see eg Culyer, 1989). This could be because individuals are imperfectly informed, or else because for some reason they fail to value things 'correctly' in their utility functions. The result is that certain patterns of consumption and provision for ill-health are regarded as good for individuals, regardless of whether individuals make that judgment for themselves. For example, most countries engage in some efforts to discourage smoking among their inhabitants. These special attitudes towards health can explain why special significance is attached to reaching a certain level of health care provision when such judgements are not made for many other goods which individuals consume.

Health care also appeals to enter distributional judgements in a special way. Tobin (1970) coined the term 'specific egalitarianism' to describe a situation in which societies attach special importance to limiting the domain of inequality in certain areas. This may be related to the paternalistic attitude that we just discussed. If the rich value directly health care to the poor, then they will be more willing to help them if they know that they are contributing directly to the health of the poor, rather than just giving them cash to spend however they like. Specific egalitarianism may, however, differ from paternalism, embodying some broader non-Utilitarian egalitarianism (eg approaches based on primary goods in Rawls, 1971, or on capabilities in Sen, 1985). Either way, we believe that such views are widespread and may help us to understand health care systems and debates about reforming them.

The third feature of health care which underpins the norm of universal access is the importance of externalities in the consumption of health care. In its crudest form, this may stem from the fact that individuals dislike having to encounter the sick, perhaps because they have infectious diseases or else because they find the sight of them unpleasant. The better off in society could also feel some altruism, which means that they empathize with the pain of others and are willing to pay to alleviate that pain. Providing health care is to some extent providing a public good.

Together these three features of health care suggest why societies pay special attention to its provision. This manifests itself in a desire to provide some minimum level of health care to every citizen. Indeed, it is impossible for any humane society to commit to not treating any of its members who cannot afford to buy many types of health care. Such commitments are not without bound. However, they appear to be quite extensive in modern, developed societies.
This has important implications for discussing alternative health care systems. Discussions about health care reform are inseparable from redistributive politics. Unless free markets can guarantee that the universal norm is satisfied, some government intervention in health care is inevitable. Moreover, this will involve transfers (possibly in kind) to those who would not otherwise attain the norm. However, within society, there is likely to be disagreement about the method or size of transfers needed to fulfill the norm. In other words, the level of health care to which every individual should have access may be contentious, reflecting a variety of views in society. The particular social equilibrium achieved in a given country will determine whose views prevail and some level of access to health care will be determined by the choice of a health care system. In many countries, the universal level of health care to which even the poorest have access is set very high, while in others there are special provisions for the poor which guarantee that they have only a minimal package available.

When technology is changing, the distributive politics of health care become even more involved: the level of health care which society deems reasonable for every citizen will evolve and the consequent transfers may grow. Recognizing the importance of redistribution gives a special poignancy to debates about cutting expenditures on health care, since they are intimately tied to discussions about the appropriate level of redistribution in society. The escalation of costs that many countries have experienced thus strains the altruism of taxpayers and can provoke calls for reform through this route.

3. Health care systems: some facts

This section uses data from OECD (1993a) to characterize the state and recent evolution of the health care systems in the OECD countries. The focus will be primarily on the economic aspects of the health care and, in particular, on the public–private mix of financing and delivery of health care.

The objectives of this section are the following: briefly to describe the evolution of total and public health expenditures, as well as the evolution of health care costs, from 1960 to 1990, with some emphasis on the 1980s for OECD countries; to provide a classification of health care systems based on the role played by the public sector; to describe the recent evolution of the role of government in health care; to summarize empirical research on equity aspects of the financing and delivery of health care; and to examine the correlation between government policy and health care cost changes.
3.1. 1960–90

In the second half of this century, health care policy in most OECD countries has proceeded in two stages. The first stage, which roughly speaking lasted until the first energy crisis in 1973, was a period of expansion, with an increase in the role of government provision of social insurance in general and in the financing and delivery of health care in particular. The second phase has been dominated by some tightening of the public purse and the accompanying rhetoric of cost containment. (See Kimberly and Rodwin, 1984, cited in Ibern, 1990).

Whereas the first stage reflects a period of optimism and prosperity in which the rapid growth in the standards of living left ample room for society’s pursuit of security and equality, the second period is one where resource constraints are more binding and where government’s performance is judged against tougher standards.

Figures 1a and 1b show the growth of the share of health expenditures in GDP for selected OECD countries during 1960–91. They illustrate clearly that somewhere in the mid-seventies there appears to be a trend shift. This change can also be seen in Figures 2a and 2b, which show the evolution of the share of public expenditures in total health expenditures. In the first period, this share is rising for most countries, and is stable for others. In the second period, the share stabilizes or, for those countries where previously it had been stable, the share falls.

We can decompose the growth of per capita expenditures on health into the sum of the growth rate of the relative price of health care and the growth rate of the ‘real benefits’ per capita. Table 1 shows the evolution of these two components for Europe, Japan and the US. The growth of health expenditures is attributable both to increases in relative prices or ‘unit costs’ and in quantities. Table 1 also shows that the evolution of unit costs differs greatly across regions.

<table>
<thead>
<tr>
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<th>Relative price</th>
<th>Real benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>0.8</td>
<td>0</td>
</tr>
<tr>
<td>Japan</td>
<td>1.1</td>
<td>-1.1</td>
</tr>
<tr>
<td>OECD Europe</td>
<td>0.7</td>
<td>0.4</td>
</tr>
<tr>
<td>OECD</td>
<td>0.9</td>
<td>0.4</td>
</tr>
</tbody>
</table>

Source: OECD (1993b), Table 3.
There are several explanations for why health unit costs should grow relative to other goods and services, mostly based on the differential productivity effects of technological progress across sectors in the economy discussed in Section 2.1 and in the role of medical, technological and scientific progress in introducing new and higher
quality treatments. However, even though these ideas help explain the generalized growth in medical expenditures, they provide no clue as to why there is such diversity in the evolution of health care unit costs across countries.
Exploring this feature of the data is one of the objectives of this paper. Is diversity across countries in the health care policies the source of the diversity in the evolution of unit costs? To what extent does socialization of the health care sector, measured by the share of public health expenditures in total health expenditures, influence overall unit cost growth?

3.2. Health care systems and the role of the public sector

The 24 OECD countries have adopted a wide variety of institutional arrangements for health care. They differ in how much they rely on the private sector and in the specifics of the public sector role. In particular, the distinction between provision and supply of public services is pertinent to health care. As governor of New York State, Mario Cuomo has said: 'It is not the business of government to provide services but to see that services are provided.' Provision of health care (financing) is dominated by the public sector in 22 out of the 24 countries, with the US and Turkey being the only cases where public expenditures are less than 50% of total health expenditures. The same cannot be said about the supply of health care where, even considering only those countries where public provision dominates, we find a spectrum ranging from almost complete public ownership of health care provision centres to no direct delivery of care by government-owned or controlled services.

A characteristic common to all the 24 countries is that direct, out-of-pocket payments are a small share of health care expenditures, with payments by third parties constituting the bulk of those expenditures. This reflects the obvious but important fact that health care and insurance are intimately connected. Even though this connection is taken for granted today, it is a recent development dating back only to the 19th century, with the development of workers' solidarity funds managed by unions on the private or cooperative side and with Bismarck's creation of social insurance on the state's side. Before these institutions became prevalent, health care was provided either as charity by religious institutions or financed out of pocket by patients who could only rely on the informal insurance network of family and friends.

Drawing on Hurst (1992), we can classify systems by the way third-parties are financed: voluntary (or private) premiums and compulsory (or public) contributions and taxes.

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5 Unfortunately, OECD data on health care financing by source is very incomplete, entirely lacking for several countries and not reporting out-of-pocket expenses for any country. Estimates for the importance of out-of-pocket expenses are available for the countries studied in Wagstaff and Doornaert (1992).
As for delivery, we can classify health care systems by the legal nature of the delivery institutions, either public or private. As one quickly recognizes, public delivery and public financing are often attached, though there are exceptions: in Ireland and Portugal doctors often work simultaneously in public hospitals and in private practice. These doctors have the privilege of admitting their private patients to private or semi-private rooms in public hospitals. It is a matter of debate in these countries whether such a situation will be allowed to continue (see Casparie et al., 1990). Exceptions aside, this suggests three basic types of health care system:

Type I: private financing and delivery;
Type II: public financing and (substantial) private delivery; and
Type III: public financing and delivery.

As is always the case for such classifications, one would be hard-pressed to find examples of these pure types in the real world, but most countries' systems do have a 'dominant' component that is recognizable from such a classification. Thus, the US is the only clear example of a country where the core of the system is type I, with mostly private voluntary insurance and private delivery of health care. Despite this private sector predominance, there is still a substantial presence of public provision through demographically-targeted programmes: Medicaid for low-income households, and Medicare for the aged and disabled. A problem with health care systems of type I, as we discuss below, is that there is little to prevent the existence of large numbers of uninsured individuals.

Japan and many continental European countries, such as Germany, the Netherlands, Belgium, and to less extent France and Italy, have a type II system, with a substantial presence of private health care delivery, but also heavy government regulation. This is a very heterogeneous group. One extreme is given by Belgium with almost complete reliance on private delivery, and the other is given by the complex French system where inpatient care is mostly provided by the public sector. In this group government regulation takes mostly two forms. The first is that the government determines the fee schedules ('nomenclature') for provider's reimbursement, often after centralized bargaining with providers' Associations; for example, Ikegami (1991) attributes Japanese success in cost containment and equity to the policy of a nationally uniform fee schedule. The second is tight control over in-care capacity expansion and technology adoption, as in the French 'Carte Sanitaire'.

Finally, examples of type III systems are given by the health care systems of the Scandinavian countries, and countries with a National Health Service, a set that includes the UK and, more recently, the Southern
European countries. The Scandinavian countries have little private delivery (except for dental care), with most health care facilities belonging to local government. The UK system has a small private sector, with recent reforms emphasizing competitive behaviour within the public sector and some privatization of delivery. The Southern European countries have a relatively large fringe of private health care delivery, in part catering to wealthier patients, but mostly being contracted out by the public sector. There is some evidence that these systems are moving towards something like type II systems; we discuss this further below.

3.3. Evolution in the 1980s

3.3.1. Health expenditures, relative prices, employment, and aging. For OECD countries during the 1980s, Table 2 shows the evolution of health care expenditures and relative prices. Of course, the distinction between prices and quantities in health care, for the purposes of producing aggregate data, is notoriously difficult since it is hard to separate quality changes from pure price changes. We will use the available data because it is the best we can do.

Table 2 shows that in a majority of countries the share of GDP spent on health care continues to grow, as does the relative price of health care. But, once again, there is a wide variety of experience across countries. In particular, we can see that the acute crisis in the US health care system, with accelerated growth in both unit costs and expenditures, is not typical of the situation in most other OECD countries. Interestingly, a few countries like Denmark and Sweden managed to bring down the share of health care in GDP. However, this is hardly evidence of a success of the Scandinavian type III model even in this dimension, since Norway, Iceland and Finland can hardly claim success in reducing costs. In fact, if we measure success in cost-containment by the rate of growth of the relative price of health care, Sweden is indeed among those few countries with a decline in health care costs, but not Denmark; and Norway and Finland have the highest cost increases, after the US, Canada and Ireland. In contrast, France has a sizable increase in the health care share of GDP accompanied by the largest fall in the relative price of health care. It is hard to detect a pattern here. The correlation coefficient between changes in the health shares of GDP and relative price growth is 0.065, and −0.181 if the US is taken out of the sample. Both correlation coefficients are statistically insignificant.

An alternative way to look at the resources being used by health care is to look at employment. Table 3 shows the evolution of employment in health care as a proportion of total employment, as well as the evolution of physician density. A remarkable fact is that physician density increased
Table 2. Expenditure on health and relative prices

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>Total expenditure on health (% GDP)</th>
<th>Health relative price index (1985 =100)</th>
<th>% Growth relative prices 81–90</th>
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</tr>
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<td>CANADA</td>
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<td>9.5</td>
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</tr>
<tr>
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<td>6.3</td>
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<td>1.2</td>
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</tr>
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</table>

Source: OECD (1993a).

in all countries for which we have data, even for those where the GDP share of health care declined. In fact, the correlation coefficient between density changes and GDP share changes is zero, which could be interpreted as saying that physicians' employment is insulated from trend shifts in health care markets. The same cannot be said of total employment in the health sector, which generally declines in countries where the GDP share declined or increased little and vice-versa, with a correlation coefficient of 0.65 (statistically significant at 5%).

One of the factors most cited to account for the increase in health care expenditures is the aging of the population. In order to assess the magnitude of this effect, one can use a back-of-the-envelope calculation. Health expenditures are largest in the early and late years of life, but if we neglect transitional effects in mortality rates, such 'point in time' effects
### Table 3. Health employment

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<td>2.9</td>
<td>0.6</td>
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<td>2.9</td>
<td>0.4</td>
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<tr>
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<td>0.2</td>
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<td>0.9</td>
<td>0.3</td>
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<td>2.3</td>
<td>0.3</td>
</tr>
</tbody>
</table>

*Source: As Table 2.*

could well be independent of the age structure of the population (Newhouse, 1992). We need to start with an assumption about the relative health needs of different age groups. Studies for the US show that, on average, individuals 65 years old or older have four times the health care spending of younger people (CBO, 1992). Thus, if we generate a time series of population-weighted cost averages, where the cost of the population over 65 is four and the cost for all others is one, we can estimate the growth in medical expenditures attributable to the aging of the population. Applying this simple technique to the OECD countries using the data in OECD (1993a) for the period 1980–90, the average increase in health care expenditures attributable to aging is about 2.4%, compared with the actual increase of 34% in real expenditures per capita. The countries with the largest aging effect on expenditures were Canada (4.4%), Spain (5.4%), and Japan (7.7%). However, if we focus on the
estimated share of the aging effect in per capita expenditure growth, we find that countries with the largest shares are Ireland (21%), New Zealand (30%), and Sweden (28%). (This is due more to the low growth in total expenditures than to the accelerated aging of the population in these countries.) However, these are exceptional numbers: on average, the estimated share of the aging effect in real per capita health expenditures is below 10%. Our conclusion is then that, despite the graying of the population occurring in all OECD countries, the health care expenditure implications of aging are smaller than one might expect. However, the quantitative significance of the aging effect may increase in the future, as the proportion of the population 65 years and older increases at a fast pace. This will add to the fiscal tensions caused by aging on social security and public pensions programmes. As we discuss below, these fiscal tensions may be driving some countries to decrease the government share in health care financing.

3.3.2. Public sector shares. One should keep in mind that the rise in the relative price of health in the 1980s happened against the proclaimed efforts of active cost containment policies. Since political pressures make it difficult for such cost containment to be obtained by sacrificing the level and quality of health care available to the population, that leaves governments with two options. The first is to increase efficiency in the financing and delivery of public health care, something always easier said than done. The second option is to shift the responsibility for health care financing and delivery to the private sector. This could be done with the argument that the private sector is more efficient, or simply to ease the weight of health care financing in public budgets. How far did government efforts go in the attempt to control health care costs?

Table 4 shows the evolution both of the share of government in total health care expenditures and of public health expenditures as a share of total public expenditures. This provides us with a measure of the degree to which health care has to compete with other government activities for tax revenues.

Table 4 shows that the majority of OECD governments reduced their share in health care expenditures. The largest reductions come from countries with National Health Services, namely the UK, Portugal, and Greece. These were countries where the health GDP share increased slightly, which means that there was a significant growth in private expenditures. At the other end, we find Belgium and Australia, where the share of public health expenditures increased by more than 6%. Not surprisingly, there is a statistically significant correlation coefficient of 0.6 between changes in the public share of health expenditures and the share or health expenditures in total public expenditures. This confirms the
### Table 4. The public sector and health expenditures

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>1981</th>
<th>1990</th>
<th>Change 81-90</th>
<th>Public health expenditure as % of total public expenditure</th>
</tr>
</thead>
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<tr>
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<td>6.4</td>
<td>13.5</td>
</tr>
<tr>
<td>AUSTRIA</td>
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<td>-2.8</td>
<td>11.4</td>
</tr>
<tr>
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<td>81.5</td>
<td>88.9</td>
<td>7.4</td>
<td>9.1</td>
</tr>
<tr>
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<td>72.9</td>
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<td>13.7</td>
</tr>
<tr>
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<td>83.2</td>
<td>-1.8</td>
<td>9.7</td>
</tr>
<tr>
<td>FINLAND</td>
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<td>80.0</td>
<td>0.3</td>
<td>14.1</td>
</tr>
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<td>FRANCE</td>
<td>79.5</td>
<td>75.1</td>
<td>-4.4</td>
<td>12.8</td>
</tr>
<tr>
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<td>72.2</td>
<td>-2.8</td>
<td>13.1</td>
</tr>
<tr>
<td>GREECE</td>
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<td>75.0</td>
<td>-9.4</td>
<td>13.1</td>
</tr>
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<td>15.4</td>
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<td>91.1</td>
<td>-1.8</td>
<td>11.0</td>
</tr>
<tr>
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<td>15.4</td>
</tr>
<tr>
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<td>11.9</td>
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<tr>
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<td>80.9</td>
<td>2.2</td>
<td>13.8</td>
</tr>
<tr>
<td>SWEDEN</td>
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<td>89.2</td>
<td>-2.7</td>
<td>13.6</td>
</tr>
<tr>
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<td>-0.1</td>
<td>15.2</td>
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<td>-5.5</td>
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<td>42.0</td>
<td>41.9</td>
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<td>12.2</td>
</tr>
</tbody>
</table>

*Source: As Table 2.*

The idea that decreases in the public share of health expenditures are, at least partially, obtained by favoring other public services.4

#### 3.3.3. Social protection

It is important to trace the implications of the decrease in the role of government in health care. Did it affect the population covered by social insurance or was it reflected in higher coinsurance rates for patients? Table 5 answers this question.

For most countries there is no change in the percentage of the population covered by social insurance. The exceptions are countries that

---

4 The correlation between income and sickness might decrease as countries get richer. Thus government could be shifting income redistribution expenditures from medical to other types of transfers. Testing this interpretation, suggested by Michael Keen, is an interesting topic for future research.
Table 5  Social protection, 1981–90

<table>
<thead>
<tr>
<th>COUNTRY:</th>
<th>% of population covered</th>
<th>% costsharing</th>
</tr>
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<tbody>
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</tr>
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<td>99</td>
</tr>
<tr>
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<td>98</td>
</tr>
<tr>
<td>CANADA</td>
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<td>100</td>
</tr>
<tr>
<td>DENMARK</td>
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<td>100</td>
</tr>
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</tr>
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<td>92.2</td>
</tr>
<tr>
<td>GREECE</td>
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<td>100</td>
</tr>
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<td>ICELAND</td>
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</tr>
<tr>
<td>IRELAND</td>
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<td>100</td>
</tr>
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<td>100</td>
</tr>
<tr>
<td>JAPAN</td>
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<td>100</td>
</tr>
<tr>
<td>LUXEMBOURG</td>
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<td>100</td>
</tr>
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<td>69</td>
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<tr>
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</tr>
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<td>100</td>
</tr>
<tr>
<td>UNITED STATES</td>
<td>42</td>
<td>44</td>
</tr>
</tbody>
</table>

*Source: As Table 2.*

are still expanding their social insurance system, like Greece, which initiated a National Health Service in the 1980s, and also Turkey and Australia. On the other hand, there is a loss in coverage in the Netherlands (we discuss the Dutch case further in Section 6).

As one should expect, we find that the share of medical bills paid by government is either unchanged or decreased during the period considered, with the consequent shift of financing to out-of-pocket money or private supplementary insurance.

3.4. Health outcomes

Earlier parts of this section were concerned with the financing of health care. This part considers whether the resources spent in health care produced results, and in particular whether there has been an improvement in the health of the populations in OECD countries. It is notoriously difficult to find a single scalar measure of health levels
Health care

(especially a country-wide aggregate) to measure outcomes. We will focus on several indicators representing just a few aspects of improved health, so that the picture here is quite incomplete. Tables 6a and 6b show the changes during the 1980s in these health status indicators.

The first four columns of Table 6a show that life expectancies have been increasing in all OECD countries, both at birth and at age 40. Given that these increases come after decades of improvement, bringing life expectancies ever closer to their biological limit, the changes reported in the table are indeed remarkable. Some of the sources of this increase in life expectancies, and important health indicators in their own right, are the changes in infant and perinatal mortality rates shown in Table 6a. All these figures are negative, showing improving success of the OECD health systems in their maternal and neonatal care programmes. However, the improvements in life expectancy do not come only from better care at the

<table>
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<th>COUNTRY:</th>
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<th>Females</th>
<th>Males</th>
<th>Females</th>
<th>Males</th>
<th>80-90</th>
<th>80-90</th>
<th>Infants/100</th>
<th>Perinatal/100</th>
<th>Population/1000</th>
</tr>
</thead>
<tbody>
<tr>
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<td>80-90</td>
<td>80-90</td>
<td>80-90</td>
<td>80-90</td>
<td>Perinatal</td>
<td>Rate</td>
<td>Rate</td>
<td>Rate</td>
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<td>Rate</td>
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<td>-0.32</td>
<td>-1.3a</td>
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### Table 6b. Changes in health during the 1980s

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>Premature life years lost/100,000</th>
<th>Renal dialyses/1 million pop.</th>
<th>Functional grafts/100 renal patients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>female 90-80</td>
<td>male 90-80</td>
<td>91-81</td>
</tr>
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<td>170</td>
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<td>302</td>
</tr>
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<td>-1,185&lt;sup&gt;a&lt;/sup&gt;</td>
<td>454</td>
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</table>

Notes: a = 1979–89, b = 1980–90.

Early stages of life. The life expectancies at age 40 have also improved, and standardized mortality rates, which control for the age and sex structure of the population, have uniformly declined (see final column of Table 6a).

The health improvements previously discussed, though presumably attributable in large part to health care prevention and intervention efforts, can also result from healthier life-styles or better environmental policies; see, for example McKeown (1979) for a provocative and controversial account of the role of medical interventions in reducing morbidity and increasing longevity throughout history. Consequently, it is of interest to look at output measures that can be traced directly to health care interventions. Table 6b shows in the first two columns the changes in the rate of potential life years lost (determined by estimating deaths for persons under age 65 avoidable through application of known medical
Health care

techniques and the enforcement of public rules against unhealthy or risky behaviour; see OECD, 1993b) per 100,000 females and males. Almost all figures show a decline in avoidable loss of life.

Finally, we also include in the last columns of Table 6b the changes in the frequency of two types of interventions for which the OECD data set is reasonably complete: renal dialysis and functional renal grafts. There is an increase in the dialysis rate per one million population for all OECD countries, but the same is not true for renal grafts, where 5 countries registered a decrease.5

Unequivocally, the overall picture is one of substantial improvement. Whatever the changes occurring on the economic and financing side, OECD countries seem to have maintained the trend towards better health.

3.5. Equity in the financing and delivery of health care

The data available from OECD (1993a) consists of national aggregates and therefore is unsuitable to study the distribution of burdens and benefits among the households in a given country. To analyse distributional issues we need microdata, samples with a large number of households and with detailed information on health-related costs and benefits reported at the household level. It is no small feat that OECD-CREDES was able to report aggregate data following basic uniformity standards across countries, so one can only imagine the complexity of trying to perform consistent cross-country comparisons of statistics from household surveys. Despite this problem, there have been attempts to study equity issues. Here, we will summarize briefly the results from Wagstaff and Van Doorslaer (1992) and Van Doorslaer and Wagstaff (1992), the most comprehensive studies to date. These studies use two equity yardsticks: first, that financing of health should generate a distribution of burdens according to ability to pay; second, that delivery of health care should be according to need.

Table 7 shows the distribution of burdens. In each country a team of national researchers used household surveys, other data sources and sometimes guesswork to produce the joint distribution of incomes and health-related costs including taxes, social security contributions, private insurance premiums, and out-of-pocket payments.

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5 Do reductions in the rate of renal grafts represent substitution in favor of other treatment techniques or are they caused by cost control measures? The correlation coefficients between changes in renal grafts and (i) changes in the GDP share of health care, and (ii) changes in the health expenditure share of the public sector are, respectively, −0.02 and −0.24 (not significant at the usual levels). This seems to disprove the cost control hypothesis.
Table 7. Equity in the financing and delivery of health care

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>Financing</th>
<th>Suits</th>
<th>Delivery HI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Kakwani</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DENMARK</td>
<td>(81)</td>
<td>-0.015</td>
<td>-0.021</td>
</tr>
<tr>
<td>FRANCE</td>
<td>(85)</td>
<td>-0.072</td>
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<tr>
<td>IRELAND</td>
<td>(87)</td>
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<td>0.017</td>
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<td>ITALY</td>
<td>(87)</td>
<td>0.022</td>
<td>0.017</td>
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<td>NETHERLANDS</td>
<td>(87)</td>
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<td>-0.046</td>
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<td>PORTUGAL</td>
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<td>UNITED KINGDOM</td>
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<td>0.031</td>
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<tr>
<td>UNITED STATES</td>
<td>(81)</td>
<td>-0.145</td>
<td>-0.16</td>
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</tbody>
</table>


Table 7 summarizes the results obtained in terms of two alternative measures of progressivity, the Suits and the Kakwani indices, both based on concentration curves. Positive (negative) numbers reveal a progressive (regressive) distribution of costs. A broad conclusion that Table 7 supports is that type III health care systems, those with National Health Services and funding of public health care from general taxation, have the highest levels of progressivity. Next come type II systems, with social security taxes. These countries exhibit some (low) levels of regressivity. Finally, and no surprise, type I systems, with substantial or even dominant private financing have the highest levels of regressivity.

The measurement of the distribution of benefits proceeds along similar lines. From a joint distribution of income and expenditure (standardized for need), concentration curves are generated. The index HI in Table 7 summarizes the overall pattern of distribution. A negative (positive) HI means a distribution of benefits tilted in favor of the poor (rich). The results presented in Table 7 (the robustness of which Van Dooslaer and Wagstaff, 1992, carefully examine) show that there is some cross-country diversity. Furthermore, there is no necessary correlation between regressivity in financing and in the delivery of health care. Switzerland, for example, was a country with a regressive financing structure but with a pro-poor distribution of benefits. Spain was an example of the opposite case.

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6 The Gini inequality index is based on the income concentration curve (Lorenz curve). These indices are based on the comparison between income and tax concentration curves.
These equity results are interesting and revealing, but they do have some serious limitations. The techniques and data used for the incidence of benefits are somewhat coarse (though it is hard to see what could have been done better with the data available). The measurement of the financing costs' incidence faced difficult problems. First, except where earmarked taxes completely finance health care, we have to make arbitrary assumptions on the incidence of the taxes and social security contributions used. Second, there was no attempt to determine tax shifting and the ultimate distribution of the burden, its economic incidence. Finally, it is not even clear that we could do this meaningfully. Fungibility of tax revenues may lead, through political redistributive games, to a de facto marginal impact of health care expenditures on the distribution of the overall tax burden that is only indirectly connected with the legal instruments used. For example, health may be financed from general revenues, but the marginal impact of additional public health expenditures may differ according to whether sales taxes or income taxes are used to cover additional revenue needs. Official rhetoric may claim income taxes were used, but we could simultaneously see revenue-neutral adjustments in taxes so as to maintain the previous incidence pattern.

The necessary use of a few arbitrary assumptions, needed to get the results in Table 7, should make us cautious about putting too much weight on those point estimates. This does not mean the research summarized is of little value; quite the opposite. It is of great importance to repeat those studies using consistent definitions, methodology and data sources. The use of repeated and consistent studies should give us solid information about the equity trends in health care. Meanwhile, one result should not be contentious: different systems, with different financing structures, also have very different redistributational implications. This fact should be kept in mind when we try to interpret major shifts in health policy.

3.6. Privatization and cost containment

Even though we cannot establish causality, an important line of inquiry is discerning whether the trend towards less government is systematically associated with changes in the health GDP shares on one hand and the growth of relative prices on the other. The answer is no, on both counts. The correlation coefficient between changes in the government share of health care expenditures and changes in the share of health care expenditures in GDP is 0.25 (0.226 without the US), which is not significant at the usual confidence levels. A stronger result is obtained for the correlation between changes in the government share of health care
expenditures and the growth rate of the relative price level for health care: it is 0.054 for the entire sample and 0.0058 if the US is excluded. On the basis of this evidence, it is hard to argue for privatization as a strategy for cost containment. How can one justify then the fact that the majority of countries reduced the share of government in health care? Several explanations are plausible.

Our simple correlations may fail to uncover some stronger causality that only the right structural model could capture. However, attempts to model incentives in public and private firms, such as Laffont and Tirole (1993) chapter 17, reveal that the theoretical effects of privatization on efficiency are ambiguous. Notwithstanding, such evidence as is currently available does tend to suggest that public provision of services costs more than similarly provided private services. Mueller (1989), chapter 14, surveyed evidence from fifty studies of the relative unit costs of public and private provision of similar services, finding that in only two was the cost of providing services lower in the public than in the private sector. Moreover, for the four case studies that he surveyed bearing on health care provision, comparisons of for-profit or proprietary versus not-for-profit hospitals in the US, found lower costs in the former.

In contrast to the microeconomic studies cited above, data on the administrative share in total and public expenditures for six countries in OECD (1993a) paints quite a different picture, suggestive of greater private sector inefficiency. In 1987, the average share of administrative expenditures in total and public expenditures was, respectively, 3.7% and 2.9%. This implies an average share for non-public (which we take as private) expenditures of 5.3%. The administrative shares of public and non-public expenditures do have substantial cross-country variation. One extreme is France, where the public share is 0.3% and the private is 5.4%. The other extreme is Germany where the shares are respectively 6.9% and 5.8%. Given differences in accounting practices we are unsure about the data's ability to settle the issue of cost advantage. However, Germany apart, these results appear to show that the public sector is 'leaner' than the private sector. These results have been a source of controversy in the US, where advocates and opponents of a 'single payer' plan compare the US and Canadian performance on administrative costs (see Woolhander and Himmelstein, 1991; Danzon, 1992). OECD (1993a) finds that in 1987 the US shares for public and private administrative

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7 The countries are Australia, Canada, France, Germany, the Netherlands and the US.
8 The French figure does not include administrative outlays of the Social Security system and other government administrative expenditures; see OECD (1993b), pp. 98-99.
expenditures were respectively 2.6% and 6.1%, while the Canadian shares were 0.9% and 2.0%.

Danzon (1992) argues that private administrative expenditures may not be true dead-weight losses. Choice in health insurance may be desirable for consumers with heterogeneous tastes but can generate higher costs. Administrative costs may also represent desirable monitoring to control consumption of medical care. Some economic costs of public insurance are also omitted from the overhead figures, for example the hidden cost or public insurance imposed on patients to deal with moral hazard, such as when controls on physicians' fees lead to proliferation of multiple short visits generating excessive time costs. Danzon also points to controls on hospital budgets that lead to a preference for longer-term versus acute care. Overall, it is hard to come up with a solid conclusion on the relative efficiency of public and private insurance from the crude figures available. Danzon's arguments certainly suggest an important caveat to the 'raw' data.

One should, however, be clear that higher unit costs are not necessarily evidence of inefficiency; they may merely be symptomatic of the ability of certain groups (such as public sector employees) to capture rents in public sector provision. Hence the shift towards privatization may not be motivated by the idea of efficiency at all, but instead by trying to redistribute rents and deal with fiscal crises. Shifting health care to the private sector can then be viewed as a way of trying to redistribute away from public-sector employees and others involved in public-sector procurement. For governments facing pressures on government budgets, this might be expedient. It gives quite a different perspective on recent privatization trends than the standard efficiency-motivated story.

4. Markets for health care financing and delivery

Every country uses markets to allocate health resources to some degree. However, among the OECD, only in the United States and Turkey is this is the dominant method of finance and delivery of health care. There are two key dimensions in which one can appraise the effectiveness of market systems: efficiency of delivery and the meeting of other social constraints such as equity. In practical terms, the latter often means ensuring that individuals get access to a basic level of care.

Since health care needs are unpredictable, finance basically means obtaining insurance. History and experience tell us that, without insurance, individuals would have to rely on accumulated savings, help from friends, charities or governments, if they are compelled to pay for health care. Thus in privately-financed systems individuals typically will wish to insure themselves against the risk of falling ill.
4.1. Perfect markets

In an idealized economy, health insurance would be provided competitively. Deviations from actuarial fairness in the price of insurance would be due only to costs of writing and administering insurance contracts. The markets in which individuals purchased medical care would also be perfectly competitive. The resulting allocation of resources would be efficient.

However, the assumptions required for this result are well known to be stringent. Apart from markets being competitive (requiring a large number of buyers and sellers), externalities would have to be absent. Insurance opportunities would also have to be complete (all losses associated with sickness being covered). Any contracts that individuals agreed to would also have to be honored after the event and, if they desired, individuals would have to be able to buy insurance for life so that if an individual discovered that she had a long-term sickness, that would not increase her insurance premium if she had signed a contract to that effect.

If a new technology became available, the criterion of profitability at market prices would ensure that technologies would only be used if they were socially worthwhile. Access to them would be also be efficient if they were priced at their social marginal cost to consumers.

While an idealized market economy would be efficient under appropriate assumptions, it would not be guaranteed to satisfy any other constraints, such as every individual having access to a minimum level of health. Those who were very poor to begin with might be willing to write insurance arrangements that limited their access to future health care, in order to limit the costs of their insurance. This might result in their not getting full access to health care that is deemed desirable according to appropriate social norms.

Thus some role for government could be envisaged, even in a world of perfect markets. This might take the form of redistribution of initial assets or redistribution of health care directly to the poor.\footnote{The latter would be desirable because of the paternalism implicit in the objective function (see Garfinkel, 1973).} Note, however that it makes sense (in a market economy) to have those interventions targeted to those who fail the minimum access constraint. This is interesting, since it appears to characterize the main kind of redistributive health expenditures in the predominantly market system in the US. Hence, in a perfect market economy, we would expect to see targeted public
provision schemes or subsidy schemes that affect the group for whom the market is inadequate, usually the poor and long-term sick.

4.2. Imperfect markets

It is widely appreciated that markets for health care and insurance deviate from the theoretical ideal of a perfect market. For a comprehensive overview of this, see the excellent review in Pauly (1986). Our more narrow concern is in understanding how market failures contribute to government interventions in health. The main two issues at the forefront of the debate about reform of the market-oriented US health care system are attempts to control cost escalation in health care and finding effective ways to guarantee universal access, the two driving forces that we discussed at the beginning of this paper. Our discussion relates market failure to these concerns.

4.2.1. Market failure and cost control. Moral hazard is at the heart of the cost control problem in market systems. This has two main aspects. First, patients rarely face market prices for health care because reimbursement insurance acts like a subsidy at the margin for many health care purchases. This kind of moral hazard problem was discussed in detail by Pauly (1968) and Feldstein (1973). It may imply that health care consumption will be excessive from a social point of view. Second, there is the physician-patient agency problem. Patients must rely on the advice of doctors in making health care choices. Again, health care may not be consumed efficiently, with a tendency towards excessive consumption. There is also no reason to think that decisions to use new technologies will be efficient either since their profitability would not be assessed at market prices. The increased costs show up in higher insurance premiums that consumers have to pay in order to gain access to a given level of medical care.

The market does provide institutional responses to moral hazard problems, such as mandatory pre-admission referral by Peer Review Organizations (PROs) before hospitalization. The growing popularity of health maintenance organizations in the US can also be viewed as the market response to attract cost-conscious consumers who wish to lower insurance costs. However, governments also intervene, sometimes with direct attempts to regulate prices in markets for medical care. Cost inflation may also reflect barriers to entry in markets for medical resources such as physicians and drugs when market demands increase.

One way to counter cost inflation would be 'no-frills' insurance policies which guarantee access to only limited health care needs. To some
extent US health maintenance organizations serve this function. However, there is increasing evidence that such contracts cannot always be sustained, and the reason is interesting. The incentives of individuals who buy such policies are quite different ex post, once they discover that the policy does not cover some treatment which they would like. Moreover, evidence suggests that courts and public opinion are very generous to plaintiffs who challenge the contracts, even though these were apparently freely entered into. The social problem is most acute for life-threatening diseases where denial of a claim is tantamount to a death sentence for the plaintiff. The market failure here is commitment of society and individuals who take out insurance. Our views about willingness to forego medical interventions may differ quite sharply depending on when the decision is made, and it may be difficult to commit a future self.

4.2.2. The uninsured problem. The other key problem with operating market-based systems of insurance is the uninsured problem. In practice, significant segments of the population are unable to obtain medical insurance. One significant reason stems from heterogeneity in individuals' underlying healthiness or propensity to ill-health. Either because individuals are born with different genetic endowments or because of things which befall them through life, the propensity to be ill is unevenly distributed throughout the population. There are two sets of problems. The first is adverse selection, which occurs if insurance companies cannot observe the underlying health status of individuals. The terms on which a single individual can obtain insurance in such cases can be quite unfavorable (at the average of the rate available to someone with their characteristics). The good risks will therefore end up subsidizing the bad risks if they are pooled together. If the good risks can find some way of distinguishing themselves, then they are better off while the bad risks are worse off. Except under extreme conditions, adverse selection does not result in individuals failing to obtain insurance at all. If any group is inclined to drop out, it will actually be the good risks.

A more serious problem, which does lead potentially to some individuals being unable to insure, arises if the heterogeneity in health status is observable. This is also known as the pre-existing conditions

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10 The legal side of this in the US is discussed in an interesting paper by Hall and Anderson (1991).
11 This might reflect a special problem with the US legal system, rather than an endemic problem with market systems. A key question is whether the problem could be dealt with by appropriate legislation to prohibit courts from making judgments in favor of patients.
problem. Individuals with certain ailments already diagnosed may face predictably high medical costs. This is true, for example, for those who are diagnosed as HIV positive. If they have to buy insurance on actuarially fair terms, given their diagnosis, then they actually get very little insurance at all as compared to if they had to pay all of their medical costs out of pocket. However, that would for most individuals be prohibitively expensive and lead them to be effectively or actually uninsured. Thus if insurance contracts are short-term, changing to reflect any new information about an individual's medical condition, those who end up with long-term conditions end up losing effective insurance. With improvements in genetic testing and other long-range diagnoses, this problem is only likely to grow in future.

The problem can be overcome only if individuals can obtain long-term insurance coverage where they are guaranteed that the rate will not change as they age and discover more about their health status. Market failure arises if insurance companies cannot commit to guaranteeing terms independent of future information. The root problem is the fact that, for long-term conditions, what was initially an insurance arrangement becomes a redistributive scheme ex post, from the healthy to the sick. With imperfect information, this can be sustained; with perfect information it cannot. Individuals who lose access to health insurance with pre-existing conditions will find it difficult, if not impossible, to find insurance coverage. The market failure problem here can be viewed as a problem of writing binding long-term contracts.

Lack of insurance can also be driven by a quite different commitment problem, which stems from the fact that society is committed to providing health care to all of its members (see Coate, 1993). If some individuals in society (for example, the poor) anticipate that the rich will provide them with medical care whether or not they insure, this will undermine their

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12 In fact the problem is more severe than this if individuals in the pool with long-term sick can exit to another pool with other healthy individuals; then the long-term sick would all be left in the poor-quality insurance pools. Maintaining the terms originally guaranteed to individuals would require some system of subsidies across insurance pools. These ideas are currently being developed formally in joint work by Besley with Ian Jewitt. See also Cutler (1994b).

13 If, as in the US, access to health insurance is predominantly employer-based, this results in inefficient 'job-lock' in which individuals do not change jobs because their insurance is not transferable (see Madrian, 1992).

14 As Jacques Drèze has reminded us, the argument for the government to intervene in order to guarantee that this does not happen to individuals is ex ante efficiency, not redistribution. Risk-averse individuals should be willing to consent to a social insurance contract that protected individuals against such things ex ante. In practice, society is unwilling to adopt this perspective in designing its policies. In the context of Rawls' (1971) theory of justice, once individuals cease to be behind the veil, there is no good practical reason to expect the rich and powerful to go along with it. Indeed the extent of inequality in the real world suggests that citizens are unpersuaded by Rawlsian reasoning.
incentive to buy insurance. Ironically, this would not be a problem if it were not known that the rich will help out the poor who do not insure; the problem would not arise if the rich could commit not to helping those who have no insurance. This general problem is known in economics as a ‘Samaritan’s dilemma’ problem. Here it leads to an inefficiency as it would be better for both rich and poor if the former helped out the latter ex ante and the latter bought insurance. On this view, the universal norm of access to health care is to some extent self-defeating and results in some individuals not buying health insurance.

When some individuals do not have insurance, there may be cross-subsidies from those who do. Medical care is financed for the uninsured by raising prices to the less cost-sensitive insured. However, this further exacerbates the problem of individuals choosing strategically not to insure, anticipating that their needs will be financed by others.

Difficulties in not being able to buy no-frills insurance also exacerbate the problem, since individuals cannot afford insurance that entitles them to every kind of treatment. Thus even if insurance is actuarially fair, the cost of insurance may be so high that individuals cannot afford to buy medical insurance.

4.3. Policy intervention in a market economy

There are many policy interventions that might improve the working of a market-based system of health care provision and which deal directly with the problems discussed above. One obvious kind of intervention is direct regulation of prices and payment schedules, limiting the amount that hospitals and drug companies can charge. Government regulation of new and experimental technologies may also reflect concerns about costs. Such policies are widespread in systems that use private markets for the delivery of health care, whether insurance is public or private, where cost inflation is a concern. They are also unpopular in many quarters, not least among those whose prices are regulated. The obvious objection is that the cost inflation is only a symptom and that regulation or reform of insurance would make more sense. Notwithstanding, it remains a widely used regulatory scheme in almost all countries in the OECD, as we discuss further below.

Interventions also try to deal directly or indirectly with the uninsured problem. Governments may provide a substitute for insurance by directly funding health care for the poor and long-term sick. (Medicaid in the US serves the first of these two groups.) Such insurance may come close to the no-frills packages that are not provided in the market, or else may be at the same level that could be obtained through private insurance. Access
may be conditional on a means test or some other measure of eligibility.

An alternative solution is to make insurance compulsory, thereby gaining universal access to health insurance as well as health care. Provided that individuals are pooled appropriately, this would also help to deal both with problems of heterogeneity in individuals' initial health conditions and with the fact that governments are committed to providing care (as discussed by Coate) and the fact that there is cost-shifting from the insured to the uninsured (which raises the former's health insurance costs).

However, implementing compulsory insurance while maintaining a mainly market system is not easy. First, there is the question of reaching the uninsured group. Second, there is the question of finance, especially for those with low incomes. The latter typically requires use of general funds or specific levies. In practice, both are used as we discussed in Section 3. Once insurance is compulsory and partly (or wholly) financed by taxation, the distinction between public and private sector becomes blurred as governments take the upper hand in regulating schemes. Schemes based on insurance pools with compulsory contributions, as found in Germany for example, are effectively indistinguishable from public insurance. Thus, we conjecture that any serious attempt to get complete coverage will ultimately end with something close to a type II scheme. Indeed the origin of many such schemes is in the extension of coverage to the whole population. The Clinton health plan, reviewed in detail below, would have constituted a firm step in the direction of a type II system for the US.

As was clear from our theoretical discussions of market economies, dealing with the uninsured problem is largely a debate about redistribution of resources. The government may be able to reduce the cost of providing health services to the uninsured, by using a more efficient method of financing to lessen the moral hazard problem. However, there would be a reduction in overall public outlays only in so far as the previously uninsured did not increase too much their consumption of medical care. While type II schemes have fared rather better in controlling costs than the type I scheme operated in the US, one would need to combine a move towards compulsory insurance with significant cost containment measures. Some kind of cost containment would seem to be the sine qua non of a successful universal insurance scheme. We will discuss below why public insurance schemes seem to have

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15 We should enter the caveat that since the US is the only type I scheme that we see in the OECD, one should be wary of making too many general claims based on its experience.
had a better track record on cost containment than those based on private sector insurance.

5. Public provision of health care

Most OECD countries rely for the most part on public provision of health insurance and/or health care. In this section, we discuss the economic theory relevant to the public provision of private goods. While, as we argued above, there are externalities associated with health care consumption, models that discuss the reasons and consequences of providing private goods in the public sector are more appropriate for understanding health care. The main focus of this literature is on the role of public provision in attaining distributional objectives. Since the main failures of pure market systems are the treatment of the poor and the uninsured, it is natural to think of equity as being the main advantage of public provision. To understand the operation of public provision, one also needs to understand the political economy of redistribution and what sustains the transfers implicit in public provision of health care.

Before passing to the theory, we note that most models were not explicitly designed for thinking about health care provision. Thus, while they are relevant to such discussions, they do not build in some institutional features that might be important. Most models do not, for example, distinguish between health care financing and delivery, a central cleavage among predominantly public systems. Nonetheless, it is useful to begin with some simple abstract models, building up to greater realism as we proceed.

5.1. Public provision of private goods: theory

5.1.1. Normative Models. Arrow (1971) first formalized the problem of public provision of private goods to attain Utilitarian distributional ends. He supposed that the government could directly allocate given amounts of a private good to different members of the population. It was assumed that there were no markets for this good, so that the government had complete control over it. He studied the resulting allocation and how it varied with characteristics of the recipients, showing the conditions under which a public provision scheme would be progressive, i.e. targeting greater provision towards the poorest individuals in society.

Arrow's model implicitly assumed a very sophisticated government with information good enough to choose each individual's consumption of health care. In practice, the government can only dictate broader things,
such as budgets available for health care and rules of access, leaving it to
individual actions to determine exactly what allocation of health care
ensues. The hallmark of public provision systems is the relative uniformity
in the level of consumption that individuals enjoy in the public sector.
This will still tend to be redistributive toward the poor: the same level of
health care provided will tend to be a larger fraction of a poor individual’s
income than that of a rich individual. Nicholls and Zeckhauser (1982)
extended the normative framework to include informational constraints.
They emphasised the advantages that in-kind transfers have in mitigating
disincentives associated with cash transfers.

Arrow’s model ignores markets altogether. Models which allow for
markets include Stiglitz (1974), Besley and Coate (1991), Gouveia (1993),
and Ireland (1990). These will be discussed in greater detail below.
Another drawback with the Arrow model is that it simply assumes public
provision, begging the question of why it exists; the model, like many
normative approaches, has no clear underlying political economy to
explain the institutional outcome then analysed.

5.1.2. Positive Models. Political economy models aim to explain patterns of
public provision observed in practice. This approach views public-sector
activity as a product of purposeful action by interested parties. Many such
models are based on voting. However, activities of pressure groups might
also be important as we discuss below.

Usher (1977) coined the phrase the socialization of commodities to
describe a situation in which a society decides to appropriate the whole
supply of a commodity and redistribute it among its citizens according to
non-market criteria. He supposes that for health care to be publicly
provided, such a policy would have to be supported by a majority of
voters. To simplify matters, he made three key assumptions: (i)
socialization implies provision of the commodity uniquely by govern-
ment; (ii) once a commodity is socialized, it is provided uniformly to all
individuals; (iii) government finances its purchases by a proportional
income tax.

Thus, public provision implies some redistribution of welfare from
higher to lower incomes: taxes increase with income but public provision
levels are independent of income. Provided the losers from this
arrangement are a minority, other things equal this redistribution is a
powerful force leading to majority approval of the public provision of the
private good. Since a proportional income tax is assumed, all those with
incomes below the average are subsidized by those above the average.
Given the empirical fact that income distributions are right skewed, a
majority of voters has income below the average. Thus, in general, a
majority of individuals will receive an implicit transfer if the commodity is socialized.

However, there are also forces working against socialization. Individuals are heterogeneous in their tastes. Other things equal, different individuals prefer different levels of consumption even when incomes are the same. However, if the commodity is socialized, individuals are offered uniform levels of provision. In contrast, if the good is provided by a market mechanism, individuals are free to purchase the quantities that maximize their welfare. This tension between equality (or redistribution) and heterogeneity was also the theme of the classic paper by Weitzman (1977), dealing with the advantages and disadvantages of rationing.

Each voter decides to support socialization if, on an individual basis, the gains from redistribution are larger than the losses implied by uniform rationing. Usher's model makes two predictions about the likelihood that any given commodity will be socialized: it should increase with the degree of income skewness and it should decrease with the heterogeneity in tastes for that particular commodity.

Usher's model has been a paradigm for the study of public provision of private goods, in particular health care. It has an immediate intuitive appeal and, despite lack of formal empirical testing, seems to be consistent with aspects observed in the real world. For example, in the case of health, since decisions about the consumption of medical care are mostly the responsibility of doctors and thus tend to reflect the standard medical practices, diversity in tastes is negligible. Thus, unsurprisingly, health care is mostly a government business in many countries, as opposed to the provision of other private goods such as clothes, entertainment, and so on.

Another interesting feature of Usher's approach is that the level of health care provision will be that favored by the median voter. If we view such an individual as 'middle class', this is compatible with the idea that welfare state activity is organized in the interests of middle classes, what Stigler (1970) called Director's Law. There has been much work substantiating the fact that public provision seems to be set at levels to favor the middle classes (for example, Goodin and Legrand, 1987).

Arguably, a weakness with the basic Usher model is its focus on redistribution using health care, rather than cash.\textsuperscript{16} Given that the

\textsuperscript{16} On this point political economy models can learn from the normative models which have typically been more careful in considering when in-kind transfers are preferable to cash transfers, based on incentives or other features of the underlying environment. The reason is probably the attachment to voting models based on the median voter theorem, which only works for one-dimensional policy issues.
majority can force the rich to contribute to health care, it is unclear why they could not be forced into cash redistribution. There are a number of reasons why this is not a problem. First, if there is a norm that says every individual should have health care above some level, some non-cash redistribution would be necessary. The socialization solution would deal with the fact that, under the free market, some people would not have access to health care at the socially acceptable minimum. However, in Usher’s model, the level of health care provided will be that favored by the median voter; there is no need to think that this coincides with the social minimum. Hence, the model is compatible with evidence that the poor appear to enjoy a much higher level of health care consumption in public systems than when provision to the poor is through targeted subsidies as in the US. Relatively high-income individuals are willing to support public provision in socialized systems.

Second, redistribution via health care is not just to all those below the median, but to those with specific needs for health care. Designing a system of cash transfers to replicate this would be very different from generalized redistribution from high to low income individuals. Hence if high income individuals have paternalistic preferences and care especially about the sick, they are more tolerant of redistribution in the form of health care provision, rather than cash. This would explain why most rich might not begrudge transfers to the sick middle classes even if they did not want to make general cash transfers to that group.

Third, one could appeal to the likely superior incentive consequences of redistribution via health care rather than cash. One expects health care provision to be a complement with labour supply. Cash transfers will likely have the opposite effect, reducing work effort among recipients of the transfer. Hylland and Zeckhauser (1979) show that the effect of the in-kind transfer has to operate other than via an income effect for this argument to hold water. Overall, however, a social equilibrium would probably have redistribution via public provision of health care, even when some cash transfers are also available.

Usher’s median voter model suggests that the structure of the tax system, by changing the tax prices of health care provision, will affect the level of public provision. In particular, the progressivity of the tax structure financing public health care expenditures and the morbidity distribution in the population should be positively correlated with publicly-financed health expenditures. As a crude test, we used cross-section data from a sub-set of the OECD countries in 1980 to estimate the relationship between the share of public health expenditures (Shg) and GDP per capita (measured in purchasing power parities), a proxy for morbidity (Dem65, the percentage of the population 65 or more years old) and Prog an indicator of progressivity (the tax revenue income
elasticity of the individual income tax.\textsuperscript{17}

\[
Shg = \alpha_0 + 0.18 \text{Prog} + 0.02 \text{Dem65} - 0.20 \text{Log(GDPpc)}
\]

\[
(1.89) \quad (1.92) \quad (1.98)
\]

\[R^2 = 0.52, \text{ 17 observations, } t\text{-statistics in parentheses.}\]

The coefficients for the progressivity index and the demographic variable have the right sign and are significant at the 10\% level. The results are not particularly strong and the method is extremely crude. However, the finding is broadly in line with simple political economy models like that of Usher. Perhaps the major interpretational problem is in taking the tax system as given. Societies that have a stronger redistributive ethic may have more progressive tax systems and generous public health systems, but the former does not lead to the latter. The regression may then be better read as saying that countries with more redistribution through income tax appear also to make more public provision.

Usher assumed that the best policy response was to socialize commodities through public provision. Wilson and Katz (1983) propose a model where socialization involves subsidies rather than uniform public provision. This idea is inspired by the fact that health care expenditures in the US are given preferential tax treatment because employers can deduct employees health insurance premiums as business costs. The implications of Wilson and Katz (1983) differ from Usher. First, the deadweight loss associated with subsidizing prices has to be considered. Goods with large compensated price elasticities are bad targets for socialization, because subsidies lead to too much wasteful consumption. Second, the income elasticity of the good matters considerably. Provided the income elasticity of the good is greater than zero, the total subsidy received by a household is positively correlated with income. Maintaining the assumption of proportional income taxation, subsidizing a good with income elasticity greater than one leads to a redistribution towards the rich. Presumably then, the skewness of the income distribution implies that a majority of voters will favor the socialization of only commodities with low (below unit) income elasticities.

How do these general implications translate to the health care? The available estimates of the demand price elasticity for health care are in the range from $-0.1$ to $-0.3$ (see Feldstein, 1983, or Phelps, 1992). Since

\textsuperscript{17} Data from OECD (1993a); tax elasticities from OECD (1984). As noted above, Usher assumed proportional taxes. Gouveia (1993), discussed below, includes an extension with more general tax structures.
income elasticity estimates point to values near one and health expenditure income shares of 10% are reasonable, we may be looking at compensated price elasticities of demand in the range from 0 to \(-0.2\). It is hard to say whether a particular value of an elasticity is high or low; but one can safely assume that the upper bound of the earlier interval is low. Thus, as far as deadweight costs are concerned, subsidization of health care seems to be consistent with the Wilson–Katz story. However, when one considers the income elasticity estimates the theory is no longer on firm ground.

The major problem though, is that the subsidy theory does not fit the facts of most OECD countries except for the US. It is true that we do not find uniform levels of consumption of medical care across income levels. But the consumption of medical care publicly provided does not follow a market mechanism with those willing to pay for more care also receiving more. Instead, health care publicly provided is allocated by some type of non-market rationing.

Katz and Wilson’s solution is also inadequate in cases where a minimum provision level is sought since subsidies to a particular good may be a cumbersome way to achieve that objective. Thus even if everyone’s access is subsidized, it may still be necessary to consider ancillary interventions for the very poor, as in the US where, despite the tax subsidy given to health insurance, there is still a need for the Medicaid programme.

The Usher model is a useful starting point for understanding the reasons behind public provision of health care, in particular the forces that make it a social equilibrium. It also puts distributive politics at the centre. To go further we need to add more institutional features, in particular (i) the distinction between finance and delivery of health care and (ii) the role of markets.

5.2. The role of the market in public health care

Having explored the forces that can lead to socialization of health care, we now turn to questions about the role of the market. We discuss these issues on two counts. First, we discuss issues to do with supplementation and the ability of individuals to opt out of the public sector. We also discuss multi-tiered public sector options. Second, we discuss the distinction between public-sector financing and public-sector delivery. This also concerns the role of the market: it is a key difference between type II and type III systems outlined in Section 3.

5.2.1. Opting out and supplementation. Relative uniformity in health care provision is the hallmark of public systems. This tends then to create pressures for individuals to cater for their heterogeneity, finding some
way to opt out of the public system or to supplement what they receive there. These pressures change over time. For example, in the UK increases in waiting lists in the National Health Service precipitated an increase in private supplementary insurance. In reality, the market remains active, even in countries where public health care is apparently universal.

Crudely speaking, two types of heterogeneity result in individuals seeking solutions in the market. The first is heterogeneity in incomes. If the rich and the poor are treated the same in the public sector, the latter may prefer a more generous level of provision, which they can find by using the private sector. Second, individuals may differ in their tastes. For example, relatively well-informed health care shoppers may prefer the care that they choose to receive in markets.

Opting-out tends to occur in systems where delivery of medical care is in the public sector, i.e. for the type III systems of section 3. It will occur when it is impossible for an individual to consume a service simultaneously in the public and private sectors. An individual who needs hip replacement surgery faces a choice. If he/she is unhappy about the public provision, however, there is no way of just supplementing what is available there; it is necessary to opt out completely. The key dimension in thinking about such decisions is the quality of services provided in the public sector. For example, individuals may have to wait to receive treatment in the public sector, whereas private sector treatment is immediate. Models of public provision of private goods with this character have been developed in Stiglitz (1974), whose focus was on education, Ireland (1990), and Besley and Coate (1991) who consider a world in which individuals consume one unit of a good which can be found in varying quality levels. Given a quality level of public provision, they choose whether or not to consume in the market or in the private sector (the choice is indivisible). The key policy choice for the government is quality and this determines the extent of opting out that occurs in equilibrium.

Opting-out may actually benefit those who remain in the public sector: for a given budget, it increases the resources spent on those who remain in the public sector. At the same time, it reduces the size of the coalition that supports the current level of public provision. If quality of public health care does determine the extent of opting out, then repeated attempts to cut quality in the public sector may ultimately not benefit those who remain there as the budget for public health care shrinks. In Usher's model the coalition for health care provision could not be destabilized by opting out because that possibility was ruled out by assumption. In fact the political economy of such models is quite complex. Stiglitz (1974) shows that this type of model does not display
single-peaked preferences and a solution using a standard median voter model is therefore problematical.\(^\text{18}\)

An alternative model of market supplementation is the top-up model where individuals increase the quantity that they consume via market purchases. This applies very naturally for type II systems where public provision is in the form of health insurance but health care provision is via the market. The best example of this is the French system, where there is a second tier of providers ("Secteur 2") with above-average reputations or 'market value' which are allowed to charge patients fees above the levels regulated by the national convention ('Droit au D'épassement'). The patients are reimbursed by government but only up to the 'nomenclature' levels and so are responsible for the difference (see the French chapter in Casparie et al., 1990, or in Hurst, 1992). These differences can be either reimbursed by supplementary private health insurance or paid out-of-pocket. Similar schemes apply to other type II countries and also in the Southern European countries with National Health Services. Interestingly, supplementation is also common in the limited public provision existing in the US. The Medicare programme which covers the elderly and disabled can be supplemented by an array of so-called Medigap private insurance policies.

Pauly (1992) deals with the case where the public sector provides a minimum health insurance package (an approach very much in the spirit of our basic premise that society has a commitment to provide universal access to some level of health care coverage) but individuals are free to supplement public coverage with additional private insurance. In particular, he dwells on the question of whether a publicly-guaranteed package should be the exclusive source of health care insurance or whether a minimum package with supplementation is a better policy. Pauly argues that there is a trade-off. An exclusive plan will necessarily offer coverage at levels compatible with middle class standards, and so will be an expensive plan, offering benefits beyond what lower-income individuals would choose if given access to perfect insurance markets. This also implies that some middle and upper income classes will vote against public provision of such a programme. In contrast, by allowing supplementation, voters are likely to prefer a less generous programme, but one with a higher likelihood of being approved if a referendum on such a policy was to be held.

Peterson (1986) looks at the general problem of voting over the levels of public provision of private (but uniformly provided) goods when there

\(^{18}\) However, Besley and Coate (1994) developed an approach to political economy that can handle non-single peaked preferences and derive an equilibrium for the Stiglitz model.
is a parallel private market for the same good. In the case where individuals face an exclusive choice between using the public or the private sector a political equilibrium of the 'median-voter' type may not exist. We may be in a situation where cycling occurs: any status quo can be defeated by some other policy. However, Peterson also notes that when we have private market supplementation of public provision the induced preferences over the levels of public provision become single-peaked, and we can find a simple majority rule equilibrium policy.

Gouveia (1993) formalizes the problem of determining a majority rule equilibrium for the case of health care. In his model individuals differ because they have different incomes and different health risks. The private sector is a competitive insurance market. There is an income effect by which wealthier individuals buy more health insurance than poor individuals. The public sector, in contrast, has uniform provision of health care for those who are sick, financed from tax revenues. Taxes are not constrained to be proportional or to any other particular shape. In particular they can be progressive. Public provision of health care thus implies income redistribution in two ways.

First, there is a transfer from the healthy to the sick. Tax payments of any particular individual do not depend on that individual’s morbidity. But in a competitive market, cream-skimming and the self-selection problems we examined earlier lead to experience rating: higher-morbidity individuals pay more for the same benefits when sick (but also use them more often). Thus, the public provision of a uniform package of benefits for those who are sick does not imply that this entitlement has an equal dollar value for all citizens. In fact, higher morbidity individuals receive an insurance package that would be more expensive in a competitive market than the insurance package publicly provided to healthy individuals.

The second way income is transferred by public provision is through its financing. Suppose everybody had the same risks, and thus unit prices of insurance coverage were the same for all. Then the competitive market value of a uniformly provided public insurance entitlement would be the same for all citizens, and the only tax structure that would not imply redistribution would be a head-tax. Since all realistic forms of taxation imply taxes that increase with income (even when they are regressive) they imply redistribution.

In an environment with both public and private provision, individuals' preferences over public provision levels are formed by solving a two-stage problem. In the first stage, individuals vote and decide by majority rule on the level of public provision of health care. In a second stage, they take the public provision as given and decide if they want to supplement it by participating in the private health insurance market. If the individuals
participate in private markets they also have to decide how much additional insurance to purchase. The result of this process turns out to be simple: individuals compare the price of private insurance and the tax price of public insurance. If a taxpayer has high morbidity or low income then her tax price is lower than the price of private insurance. This taxpayer will vote in favor of some positive amount of public provision and, in fact, she has a desired or 'bliss' level of public provision determined by her demand for insurance, which is a function of her income, morbidity and tax price. On the other hand, a taxpayer with high income or excellent health will have health care tax prices that are higher than the private insurance prices. This taxpayer will prefer to use only the private sector, and consequently will vote for no public provision. Alternatively, if these voters have some health care specific altruism they will not oppose some minimal package of publicly-provided health care benefits to the poor, but for themselves they will prefer using only the private sector. This model has an equilibrium: the median level of public coverage desired.

Despite this median voter flavor, the result differs from traditional median voter models. First, all individuals with high tax prices vote for zero public provision. Assuming these are \( \alpha \) percent (with \( \alpha \) less than 50) of the voter population, they only need to be joined by 50-\( \alpha \) percent of the voters to determine a majority rule equilibrium. When all individuals have the same risks, and income is the only characteristic determining variations in the demand for health care, the median voter is in the 50-\( \alpha \) percentile of the income distribution. Also, this type of equilibrium implies that the poorest and richest individuals in society favor a decrease in public health care relative to the status quo, whereas the middle class favor an increase. Provided the joint distribution of income and morbidity in the population does not have an extreme correlation between the two characteristics, this characterization extends to cases where populations are heterogeneous both in income and in morbidity.

Another implication of this equilibrium is that the same groups of the poorest and wealthiest voters will vote against any attempt to ban the private sector. The wealthy will do so because they are better off using the private sector to supplement their entitlement to government provided health care. The poor vote against the ban because the equilibrium level of public service would rise if the ban was implemented (all the wealthy individuals are now forced to consume in the public sector, so they shift the median quantity preferred up) and that means the poor would be paying for too much health care, relative to their demand. A final implication of the Gouveia model is that the more progressive the financing of health care is, the higher the likely levels of public provision; in fact, regressive structures may even generate a political equilibrium
where the majority prefers no public provision. The regression presented
above provides some support for that.

5.2.2. Pressure groups. While majority rule voting can yield important
insights into the political economy of health care, it is far from the
whole story. We must also consider pressure groups. There is no simple
theory of how they influence policy outcomes. The main theory of
pressure groups is due to Becker (1983). A pressure group's success
depends on the cohesiveness of its organization, its available resources,
and similar characteristics of opposing groups. Such theories are as yet
rather crude and unsatisfactory, typically assuming some kind of 'black
box' relating groups actions to policy implementation\(^\text{19}\), yet they do
provide insights and explain facts and institutions that simple median
voter models cannot rationalize.

Pressure groups influencing health care policy include insurance and
pharmaceutical companies and hospital associations. A key pressure
group is usually the association of physicians. Such groups are already
organized to set performance standards through peer review and to
administer entrance requirements for practice; it is only natural that they
should also be a force for political action. Given the dispersed nature of
patients and many other interested parties, the ability of physicians to
influence policy is likely to be significant. However, their objectives may
not be clear cut.

Physicians care about their own living standards and conditions but also
about the quality of the health care delivered to patients. Many conflicts
arise when physician autonomy is under threat. Most attempts at cost
cutting have this effect and hence may meet with physician resistance.\(^\text{20}\)

One safe conclusion is the need for cooperation of the medical
profession in major health care reform. For example, founding of the
National Health Service in Britain became possible only after the British

\(^{19}\) Austen-Smith (1998) discusses problems with this approach and surveys models where pressure
groups rely on money (campaign contributions) and the strategic provision of policy-relevant
information.

\(^{20}\) Feldstein (1985) gives a broad overview of pressure group activity in the US health sector. Wilford
(1991) contrasts the power of physicians' associations in France and the US. The immediate
legislative targets of physicians' pressure groups are reminiscent of the monopoly-union model:
increase demand for their output (increasing the generosity of the standard benefits package
provided by government), increase the price and reduce the quantity of substitutes (outlawing
'alternative medicines' or refusing the licensing of foreign medical graduates), decrease the price
and increase the availability of complements (prolonging training and residency requirements,
favoring subsidies to the education of auxiliary manpower), and limit increases in supply (limiting
admissions to medical schools; subsidizing medical schools rather than students directly, since that
would force schools to compete for students; at present most medical schools face excess demand).
Medical Association agreed to drop their objections (see Webster, 1988). When Aneurin Bevan, the architect of the British NHS, was asked how he managed to persuade the BMA to sign on to the reforms, he replied in characteristic style with 'I stuffed their mouths with gold' (Abel-Smith, 1964). It remains to be seen whether substantive health care reform in the US is politically feasible without the full cooperation of the American Medical Association.

5.2.3. Public sector and constraints on health care consumption. If health care markets were completely absent, public provision would not only provide a lower bound on health care consumption, but also an upper bound. Implicit in all public health care systems are rules that dictate how much care an individual is entitled. Even though most societies accept the need for a lower bound, creating a ceiling is more controversial.

Perhaps the key concern which can lead to pleas to restrict market alternatives is the apparent difficulty for private markets for health insurance in overcoming a tendency to overconsumption. In public health care systems, these problems seem less severe because control through public budgets creates a set of shadow prices that constrain consumption. We discuss some specific examples in Section 6.1.

Supplementation and opting out do not seem intrinsically to affect the integrity of public systems. Indeed one could argue that both result in a more efficient outcome: those who opt out and purchase supplementary insurance contracts reveal that they are better off and there is no obvious route by which others suffer. This argument might hold even if the private market works quite inefficiently.

Even so, many countries try to limit how much individuals can supplement their public sector allocations. One can think of two arguments for this. The first is fairness. People may believe in a ceiling for individual health care to prevent too much inequality in access to health care. The second argument is that there is some kind of pecuniary externality from private health care consumption. If some inputs are scarce and used excessively by the private sector, then the cost to those who use the public sector alternative will rise and reduce the level of public services enjoyed there for a given budget. However, some kind of compensatory tax on private insurance would often be better than a binding ceiling on health care levels.

Similar to allowing individuals to opt out is the creation multi-tiered public health systems, abandoning a universal standard. One way to bring this about is to create a pricing scheme within the public sector, as in Denmark where about 5% of the population receives (and pays for) higher-quality health care from the public sector (see Casparie et al, 1990). Such a scheme has similar effects to allowing individuals to use
markets. However, it tends to push the government to subsidize more than just the most basic health care package.

The political economy of multi-tiered public sector schemes has not been much discussed. How redistribution via the public sector would be affected would depend on the details of how each tier was structured. It does create the possibility of reducing the quality of care enjoyed by the poor, while allowing the middle classes to continue to use the public sector and for the system to remain basically one of public provision. Given the strains on public budgets, finding schemes to differentiate levels of coverage within the public sector and allowing opting out either into higher (paying) tiers in the public sector or by buying supplementary coverage or insurance seems quite likely. This may be the only way in which commitment to universal access will be maintained in the face of more complex technologies and other facets of rising costs.

5.2.4. Public versus private delivery. The second area in which the role of the market has been debated in public health care systems is in delivery of care. This constitutes the main dimension of difference between predominantly public health care systems in the OECD. Recent concerns about the costs of public health services has led to calls for greater use of markets in delivering health services. We discussed some of the relevant evidence in Section 3.6.

Type III systems have traditionally used both public financing and delivery of health care. However, in the 1980s many began privatization. These reforms aim to move towards a type II system. While the difficulties of securing universal coverage through the private sector favor some kind of universal public health insurance scheme, the case for public supply of health care seems weaker. Moreover, the advantage of type II systems seems to stem from having more competition in the supply of medical services. On the other hand, there is no widely accepted evidence showing that direct public provision is any less efficient. One possible rationale for public supply might be if the kinds of hands-on management of health care that it enable reduced moral hazard problems. As yet, there is scant evidence of this.

It is hard to provide an economic rationale for public supply of health care; yet it is understandable that governments are nervous in moving away from such systems. Procurement through the private sector will tend to begin, therefore, with contracting-out services such as laboratory tests and routine examinations whose quality can be easily monitored. Although movement towards a wholesale privatization of health care is a major step when socialization has been accepted from many years, it is in tune with broad international trends for a greater role for the private sector. Whether increased efficiency is real or perceived is not yet clear.
Nonetheless we anticipate that such trends will continue, suggesting a process of convergence to type II health systems which have public financing and private supply of health care.

It should be noted that type II systems have also wrestled with cost containment. Type II systems tend to use strict market regulations on prices and technologies. One should not equate market provision with free market provision. If anything the trend appears to be away from this. Government insurance schemes face the same moral hazard problems as private insurance. Neither doctors nor patients face market prices. If such schemes do appear to been able in many cases to manage costs, it may be because of their ability to place ceilings on treatment available in the public sector. Public sector provision, unlike most health insurance in the US, can credibly limit the frills that individuals obtain in their health care purchases.

6. Health care reform in practice

This section fleshes out our discussion by specific examination of international experience under three headings: cost control, increasing competition, and universal access. Universal access lies at the heart of reform proposals in the Clinton plan in the United States, and in the Dekker reforms in the Netherlands.

6.1. Alternative approaches to cost containment

There are broadly three ways to directly control health expenditures: controlling prices, controlling quantities and controlling total expenditures.

6.1.1. Setting a fee schedule. In Japan the government sets a uniform national fee schedule. This schedule not only regulates the costs of health care and assures uniformity of quality in the provision of care to the entire population, but also influences relative prices. In particular, the system rewards less-expensive ambulatory care by general practitioners and penalizes in-patient care. This is both an effective cost control strategy and the result of a political equilibrium where the general practitioners dominate the Japan Medical Association. The JMA also supports quantity controls such as capping the number of hospital beds. The success of the Japanese health care system is thus the result of a political equilibrium where the dominant forces had a vested interest in cost control.

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21 This discussion is based on Ikekami (1991).
The US public sector has also experimented with cost containment for the Medicare programme using prospective payment schemes such as Diagnosis Related Groups (DRGs). The success of these in curbing costs is still debated (see, for example, Scheffler and Nauenberg, 1991). Traditional systems of payment for physicians' services under Medicare were at rates deemed to be 'customary, prevailing and reasonable'. The use of relative value scale (RVS) payments try to tie reimbursement directly to work effort, overhead and malpractice insurance premiums. Such rates are set centrally by Congress and seem to parallel the kinds of cost containment measures used elsewhere in the OECD.

6.1.2. Controlling quantity. French governments have pursued an aggressive policy of cost-containment relying on rigid quantity controls. The policy includes limiting the number of medical students, the 'Numerus Clausus', and limiting hospital capacity, which must conform to the national plan, the Carte Sanitaire, which includes private hospitals. Public hospitals are also constrained by global budgets. Good capacity and technology management may be the reason why the relative price of French health care fell in the 1980s.

6.1.3. Setting overall budgets. Germany has recently experimented with setting global budgets: the 'Bayern-Vertrag' (see Casparie et al, 1990, and Hurst, 1992). This was a contract between the Bavarian State Association of Sickness funds and the state physicians' association in 1979. The contract set limits to the overall growth of health care expenditures, but allowed physicians' costs to exceed the target growth rate if there were savings in excess of the target in other areas controlled by physicians, such as, hospital referrals and pharmaceutical consumption. The short-run impact of this contract was a reduction in the growth of these two expenditure categories and a higher than average growth in physician's costs. Overall expenditures grew less in Bavaria compared with the average for West Germany. However, the following years expenditure grew in Bavaria above the German average, with no obvious savings in costs.

This experiment does not seem to be well known in the US, where there is talk of global budgets as a potential tool to use in health care reform. Many economists would have predicted the ineffectiveness of such a policy, vulnerable to standard free-riding arguments: a policy needs to give incentives at the individual level to be effective.

On the provider side, there is also increased reliance on the idea of physician as gate-keeper. In the UK each citizen has traditionally been allocated to a physician with an associated capitation fee. This contrasts with the fee for service orientation of the US and Canada. Many countries are moving towards a capitation system, a characteristic of recent German
and Dutch reforms. The main advantage of this system is that it removes the incentive for physicians to overprescribe treatments to patients. It may help combat moral hazard and also give physicians an incentive to find a cost-minimizing method of treatment.

6.1.4. Co-payments. Finally, the increasing reach of co-payments appears to be a method of trying to implement cost controls. This is central to the recent German reforms and a creeping feature of public health systems worldwide. There is no certainty that this will reduce medical costs. However, it certainly sensitizes the public to costs in a way that free provision does not. Some health care systems, as in France, have long required co-payments by patients. Others, as in the UK, Canada and Scandinavia have basically relied on free provision. We predict that co-payments will become an increasing feature of the landscape.\(^{22}\)

6.2. Competition and contracting out

Another trend in recent reform is trying to inject greater competition into health care provision even in predominantly state systems. For example, the 1992 German reforms emphasise the importance of allowing sickness funds to compete for patients in terms of the costs and quality of insurance that they offer. Similar ideas lie behind the Dutch reforms and the notion of Managed Competition in the Clinton plan discussed below.

Another aspect of competition is on the provider side, as in recent reforms in the UK where the National Health Service (NHS) had traditionally functioned under centralized budgets dictating health care priorities. Recent reforms following the White Paper of 1989 have emphasised decentralization and greater freedom for health care providers to contract. Previously state-owned hospitals have, in many cases, been reconstituted as trusts that are free to contract with providers to find least-cost methods of health care provision. Similar reforms for General Practitioners have also been instituted. Blomqvist (1994) argues that the Thatcher reforms in the UK provide a useful blueprint for the Canadian health care system currently facing cost cutting pressures after a decade of rising public expenditures.

6.3. Guaranteeing universal access: US and Dutch reforms

6.3.1. The Clinton plan. Nowhere in the developed world is the sense of a crisis in the state of health care provision more keenly felt than in the

\(^{22}\) Evidence from the Rand health insurance experiment (Manning et al, 1987) found evidence of sensitivity of consumers to co-insurance rates in private insurance contracts.
United States. The debate is fueled by the twin evils of accelerated increases in costs (Tables 1 and 2) and the high levels of health insecurity. Previous attempts at health care reform garnered little political support, perhaps because the middle class was broadly satisfied with a system based on private health insurance, for the most part provided as part of compensation from employers. However, the problems accumulated, with the number of uninsured growing to 39 million people (15% of the population) in 1992, with the number who are uninsured at some time during the year being estimated at three times larger than this (Economic Report of the President, 1994, Chapter 4). Also important was the general economic downturn that began in 1990, with its attendant industrial and corporate restructuring in which the middle classes appeared much more vulnerable to sacking and unemployment. The costs of insurance linked to employment thus became particularly apparent to white-collar workers. This helped to shift the debate about health care reform from one about redistribution (to the poor and aged) to thinking more in terms of social insurance. Increases in health care premiums for those employed were also leaving take-home pay stagnant (Economic Report of the President, 1994, Chapter 1). Health care reform became a serious part of the political agenda.

President Clinton followed with his Health Security Act. Its major provision is its universal coverage of all citizens irrespective of employment changes or previous conditions. Coverage implies a package of minimum benefits, including hospital care, emergency services, ambulatory care, diagnostic tests, hospice and home health care, and prescription drugs. The programme also includes free preventive care such as immunizations. The following outlines the main features of the plan.

Businesses would be mandated to provide health insurance for all employees and citizens would get a national health identification card entitling the bearer to the standard package of benefits. All businesses with less than 5,000 employees would enroll in regional health-care alliances, and pay 80% of the health insurance premiums, the other 20% being out-of-pocket. These alliances, covering geographically non-overlapping areas, would serve as brokers between consumers on one side and insurance companies and care providers on the other. Alliances would also help to deal with underinsurance problem by providing

25 There are three sources of health insecurity due to labour market volatility: loss of health insurance during unemployment; uncertainty about the quality or even availability of health insurance when the unemployment spell finishes; and the danger that a 'previous' condition might develop during the unemployment period, effectively eliminating possibilities of future coverage. In addition to these, there are the problems of job-lock mentioned before.
insurance to unemployed and those low-income households currently covered by Medicaid. The elderly and retired currently covered by Medicare would be integrated in the system at a later stage. Large corporations with more than 5,000 workers could also elect to participate in corporate alliances. A National Health Board would be responsible for cost control, overseeing the health care system and imposing global limits on the growth of health care expenditures, mainly by limiting the increase in premiums.

The plan is a serious effort to bring the US into line with the rest of the OECD. Given the history of the US system and the relatively wide freedom of choice that insured consumers have enjoyed, there is understandable scepticism about many aspects of the plan. There are also economic anomalies, the most obvious being the use of employer mandates to finance insurance. The redistributive implications of the plan are also significant. Even if the American public is ready for some kind of health care reform it still remains to be seen how far they are willing to go in making access to health care for the poor more generous than it has traditionally been (for further discussion of US reforms, see Cutler, 1994a).

6.3.2. The Netherlands and the Dekker health care plan. Table 5 shows that during the 1980s there was a drop in the health insurance coverage of the Dutch population. This case is interesting because the Netherlands was the only wealthy country, apart from the US, where a significant portion of the population (about 30%) was not subject to compulsory insurance (for acute risks) and where private insurance was frequent. The fall in public coverage may thus be associated with an increase in the number of uninsured individuals. Even though the details and the targeted populations are different, the Dutch situation does have some parallels with the current status quo in the US.

The Dekker-inspired reforms underway will solve this problem by making insurance compulsory. The main features of the Dekker plan are as follows. A basic insurance package covering essentials should be introduced and made compulsory for everyone. Legal measures should be taken to outlaw exclusion of patients with pre-existing conditions from health plans. A supplementary package should be made available on a voluntary basis, covering deductibles and co-payments. Insurers would receive per capita budgets from central fund which depended on an individual’s age, gender and health status. Insurers should act as

24 This description draws heavily on Kirkman-Liff (1994).
intermediaries between suppliers of health care and patients, and compete for patients on the basis of premiums charged.

For the Dutch, this involves a more decentralized and market-oriented system than they have traditionally used to provide and finance health care. It also deals with the problem of incomplete insurance coverage. Essentially, the Dekker program amounts to a health voucher, together with regulation ensuring the voucher is enough to meet the basic health needs of the population.

7. Concluding remarks

Designing systems for the delivery of health care is an issue of immense significance. While we believe that there is broad social agreement to provide some non-trivial level of health care to every citizen, the diversity of systems for doing this bears witness to the fact that there is little agreement across countries about the right way to achieve this. On the other hand, there is some evidence of convergence towards type II systems. This probably reflects three main benefits of such schemes.

First, market failure problems that result in individuals living without insurance are eliminated and access to some basic level of care is guaranteed. This is the main advantage of type II and type III systems over type I. Second, the government can set overall goals for health care achievements that are reflective of prevailing social norms and try to see that the basic package is provided with reasonable efficiency. This happens in both type II and type III systems. Third, however, is the use of competition in supply in type II systems, which sets them apart from type III systems. There is a perception that procurement in private markets can enhance efficiency by increasing competition. While it is true that the theoretical argument for direct government delivery of health services in advanced countries is rather weak, the data have yet to show that such moves have borne fruit, if efficiency improvements are the objective. However, it may be too early to tell.

An alternative interpretation of recent history is to see the health care debate as predominantly a response to underlying redistributive implications of public health care precipitated by two factors. First, technological change that makes costly new treatments available. Second, Baumol's argument that, unless the health sector finds ways to become less labour-intensive in future, productivity growth in other parts of the economy will inevitably raise the cost of providing a given level of health care. Put together with the fact that so much expenditure on health care is redistributive, from rich to poor and from healthy to sick, the spectre of rising costs presents a huge challenge to the current social equilibrium. First, it strains the generosity of those who are financing the transfers
Health care

implicit in public health care. Second, if the marginal cost of public funds is increasing, the efficiency cost associated with a given sized public sector will also be increasing with time. Neither would be ingredients in a recipe for social harmony.

Calls to cut public budgets can be interpreted not so much as the product of the pursuit of efficiency, but rather as reconsideration of obligations to others. The real question for political economy is then to understand the sustainability of systems that are based on the socialization of health care. Such systems overcome the main problem of reliance on private financing, that of guaranteeing access to insurance. The current US health care debate stems in part from the growing problem created by the uninsured. Most other OECD countries (the Netherlands being the main other exception) have dealt with this problem successfully. However, the route that they have chosen tends to set access to health care at a high level (perhaps suggestive of Usher's median voter approach). It is the latter that would seem most at threat. Calls to create multi-tier public systems and to encourage opting out of the public sector may be implicit ways of preparing the way towards reducing the costs of serving the poor. The US social equilibrium has traditionally taken it for granted that the poor deserve less health care than the middle classes. The central task for public health care systems will be to see whether they can sustain traditional levels of generosity given the technological changes that appear likely in future. One should not forget, however, that improvements in health and other technologies will not make future generations worse off. Our children may have more to spend on all goods and services, as well as enjoying better health. It is deciding how to share the burden of providing the less fortunate with health care that will challenge them, just as it challenges us now.

Discussion

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It is a pleasure to comment upon this well-written, instructive paper – a gentleman's paper, I would say – which provides non-specialists like me with a thoughtful critical overview of the OECD experience in medical care provision, and of some of the theoretical literature, in particular on the political economy of the subject. As a non-specialist, I will present my

I thank Maurice Marchand for stimulating comments about health economics, over the years and in particular on the single day available to evaluate the Beasley-Gouveia paper.
own conclusions regarding the central issues of health care provision – in terms somewhat bolder than could be used by more informed authors. By organizing the issues differently, I may help readers reach their own conclusions. I will also react to a distinctive bonus of the paper, namely its 'political economy' dimension.

Prior to that, I recall two clarifying premises. The first is the Baumol (1993) 'clarification': the share of GNP devoted to health care is rising because labour productivity growth in that sector\(^1\) lags behind the average, whereas the price elasticity of demand is rather low. Health’s share in spending will continue to rise while these features persist, and this alone is no cause for distress.

A second clarification comes from the 'value-of-life' literature (see, e.g. Jones Lee, 1982). Although it might be claimed that a person’s life has unbounded value, the demand for safety is definitely bounded and amenable to standard utility analysis. Just as the finite willingness-to-pay for safety provision dispenses us with ontological soul-searching about the value of life, a finite willingness-to-pay for health-care provision enables us to conduct our economic analysis without distinguishing the nature of the goods. This helps focusing our attention on the genuine specificities.

I come away from reading Besley and Gouveia comforted in the conviction that the relevant specificities of health-care provision are indeed those recognised by economists under three headings, for which they have coined technical names: adverse selection, moral hazard and agency. Nor am I artificially pulling the medical universe into the tiny confines of the economist’s toolbox: the concepts of adverse selection and moral hazard were introduced (Arrow, 1963) precisely to study the provision of medical care. I will deal successively with adverse selection, claiming that the problem thereby raised admits a natural and largely accepted solution, then turn to the combination of moral hazard and agency, claiming that the associated problems are unresolved and deserve priority attention.

### Adverse selection

Any person’s state of health tomorrow is uncertain. The uncertainty is greater, the more distant the future 'tomorrow' and the less is known about the person’s health today. Risk-aversion and the positive association between health and earning ability make the case for insurance overwhelming. Unfortunately, medical insurance is plagued with adverse

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\(^1\) The relevant productivity measure includes the training of medical personnel as well as its activities, the development of drugs as well as their production, etc.
selection, which makes voluntary individual insurance inefficient. Non-discriminatory rates induce persons of poor health to over-insure. Accordingly, insurance companies introduce health tests and discriminatory rates. There is no insurance against either unfavourable test results or recognised deficiencies at the time of seeking insurance (as in the case of a formerly dependent person who becomes self-standing) or of renewing insurance (when a policy terminates).

There is one, and only one, solution to this problem: universal access to medical insurance on terms independent of health status, in its simplest and fullest form achieved by automatic (compulsory) inclusion of every person in a nation-wide insurance scheme. (Though independent of health, the terms may depend for instance upon income.)

As noted by the authors, the possibility of 'opting out' of a scheme indirectly destroys the non-selective feature, by increasing the average cost of those remaining in the pool. It is accordingly difficult to devise non-selective schemes which are not universal. Compulsory coverage for broad groups (employees of large organisations, veterans, ...) comes more or less close, up to well-known shortcomings also noted by the authors.

Universal coverage can in principle be operated on a cost-covering basis. The resulting non-discriminatory rates may not be affordable by all. Free access for low-income groups cannot be justified on grounds of overcoming adverse selection. By recognising health as a 'primary good', the approach to the theory of justice followed by Sen (1985) and Rawls (1971) would provide a convincing justification. No distributive argument is required to justify non-selective coverage of persons with recognised deficiencies. The 'efficient insurance' argument is fully applicable, when designing the system for a partly unknown population (the as-yet unborn). This is pure ex ante efficiency. On that score, I do not follow the authors when they write (under 2.2): 'discussions about health care are inseparable from redistributive politics'.

Moral hazard and agency

The discussion of adverse selection applies verbatim to the related field of pensions, and provides the basic answer there. Regarding health-care provision, the discussion is incomplete, due to the additional problems of moral hazard and agency. Uncertainties surrounding health status are compounded by those surrounding the cost of care (to restore health or alleviate discomfort). If medical insurance stipulated lump-sum compensations based on objective diagnosis (as in the case of accident insurance), the moral hazard problem would be limited to the preventive side (insured persons expend less effort in forestalling hazards). But medical insurance stipulates care, whatever the cost. When there is an element of
subjective judgement in deciding what care to provide in a given situation, insurance breeds overconsumption, and moral hazard affects \textit{ex post} costs as well as \textit{ex ante} prevention.\footnote{2}

The resulting problem is further complicated by the agency problem: what care should be bought is largely decided by a third party (or agent), typically a medical doctor. The fact that the agent does not bear the cost of prescribed treatment is again conducive to over-consumption. When in addition the agent collects that cost as his or her own fee, the problem is acute. Because the patient is insured and largely uninformed, the patient cannot monitor the agent. \textit{Here lies the crux of the unresolved problem of health care provision.}

This points to the desirability of either some form of cost-sharing or direct monitoring of delivery, or both, to improve the efficiency of the system. The benefits from such measures come mostly in the form of cost containment\footnote{3}, less overconsumption, less overinvestment in expensive equipment, and more efficient technological choices. The aim is to bring economic calculus to bear on the delivery of health care – an ambitious aim, indeed, but a central one.

To this crucial issue, the paper devotes relatively little space. The authors note that privatization reduces neither the share of health care in GDP nor its relative price, concluding that 'it is hard to argue for privatization as a strategy for cost containment'. This is not surprising since the nature of the problem is the same for a private insurer as for a public insurer – namely moral hazard and agency. The basic inefficiency is rooted in the behaviour of patients and medical agents, not in the behaviour (incentives) of the insurer. We know from experience in related fields (like automobile liability) that private insurance provision can be grossly inefficient (as evidenced by substantial loading factors and slow adoption of Pareto-efficient contracts).

To do justice to the general topic of moral hazard and agency, and to the respective merits of specific approaches, would deserve a separate paper. This is clearly the area where innovative research – theoretical and experimental – is most needed, and promising.

\textbf{Cost-sharing and monitoring}

Cost-sharing is amenable to some analysis with techniques of optimal insurance. Leaving aside the agency aspect for a moment, I repeat that

\footnote{2}{An estimate of the welfare costs of this over-consumption, based on the Rand Health Insurance Experiment, can be found in Manning \textit{et al.} (1987). It amounts to some 25\% of actual expenditures, for the services covered by the experiment.}

\footnote{3}{Enhancing quality of health care is also at stake, but less predictable. On the whole, it is a weakness of the material reviewed by Besley and Gouveia that it does not say much about quality of care.}
the moral hazard problem has two dimensions: underprevention (too little effort by the patient to reduce hazards) and overconsumption (too little effort by the patient to contain the costs of treatment). These two dimensions are labelled ‘self-protection’ and ‘loss-reduction’ in the insurance literature. It is interesting to note that optimal insurance takes very different and almost opposite forms in the two cases: under moral hazard on self-protection, optimal insurance calls for full coverage after a constant deductible; under moral hazard on loss-reduction, it takes the form of full coverage up to some fixed amount, followed by cost-sharing thereafter. The latter conclusion rests on a special assumption, however, and does not seem relevant to health insurance.

Starting from a model used in Besley (1988), and looking at total expenditure on health care for a given diagnosis, I conclude (Drèze 1994) that an optimal insurance contract should – to a first approximation – discourage overconsumption by means of deductibles related to the diagnosis. More precisely, the deductible should be proportional to ‘one plus the elasticity of health-care demand with respect to insurance coverage’. Although empirical information about that elasticity is scanty – see Manning et al. (1987) – the prescription is intuitively logical, and potentially applicable to broad classes of expenditures. At least, the result suggests the possibility of operational extensions of the analysis of optimal insurance.

As a short speculative digression, I remark that optimal insurance theory starts by pooling all the risks faced by a household (fire, liability, health, . . .) and then defining a single contract covering them jointly. (For instance, where a deductible is optimal, it should be a single deductible applied against all risks.) It would be interesting to investigate what benefits might be reaped by pooling health insurance with other forms of insurance.

Bringing in the agency aspect raises two issues. The first is the desirability or ‘supply-side cost-sharing’, the second is monitoring. Some (moderately conclusive) discussion of the respective merits of demand-side versus supply-side cost-sharing is offered by Ellis and McGuire (1998). I understand that supply-side cost-sharing is a new avenue currently being explored in different countries and worthy of further research. A natural open question concerns the application of optimal insurance schemes to supply-side cost sharing.

Monitoring medical agents (doctors and hospitals) requires information; modern information technology will help. The quality of information

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4 See e.g. Winter (1992). Additional assumptions are used to establish the second proposition; the assumption of a ‘monotone likelihood ratio’ is questionable in the case of health insurance.
(about historical costs given diagnosis) is better if it bears on all the activities of given agents: if a doctor treats patients affiliated with twelve organizations and these do not pool data, the basis for monitoring the doctor is diluted. On the other hand, if doctors (or hospitals) work exclusively for patients affiliated with a single organization, the choice of doctors open to patients is proportional to the size of the organization. If monitoring is more effective in smaller organizations, something like an optimal size of health insurance or maintenance organizations should emerge. Optimal size, would aim at a proper balance between information, choice and monitoring.

In closing this main part of my discussion, aimed at bringing the key efficiency issues into sharp focus, I note that the problems identified here apply also to two-tier schemes: non-selective (though not universal) coverage is required to cope with adverse selection at the higher tier(s) as well. This contradicts the idea of voluntary individual participation in higher tiers, and suggests group insurance as a natural compromise. Precisely where the line should be drawn between successive tiers is in principle amenable to analysis along the lines of public goods with exclusion. This, however, is easier said than done.

Political economy

The political economy discussion occupies the centre stage of Section 5 devoted to public provision. It rests mostly on majority-voting mini-models, with frequent reliance on single-peaked preferences related to income. The redistributive dimension therefore receives much attention. When the distribution of voter preferences is symmetrical, the median voter preferences are also average preferences, so that normative (public goods) recommendations and political economy predictions coincide.

The empirical relevance of voting models is not tightly documented in the paper, and I wonder whether that would be possible. (Again, this would call for a separate paper.) The presumption that democratic political decisions may tend to reflect median-voter preferences has undeniable appeal. But pressure groups matter in this area. The medical profession and the insurance industry do lobby actively. Ideological stands (for instance regarding privatization) also matter. Case studies of major political decisions would be instructive. Why did the UK recently choose to privatize railways rather than health care delivery? How did public delivery establish itself in the south and the north of Europe but not elsewhere (besides the UK)? Will the US eventually adopt a programme close to median voter preferences? (If told that the median voter’s first name is Hillary, I would wonder…).
Within voting models, the relevance of the income-redistribution dimension again deserves careful documentation. I mentioned above that insurance should not be confused ex ante with redistribution. There is a further issue. In continental Europe, labour taxes are a major source of funding for health insurance, and these are not progressive (constant rates are the rule). By raising labour costs, these taxes contribute to the relatively higher unemployment rates of low-skilled workers, thereby possibly introducing a regressive element. As noted by the authors, a claim that compulsory health insurance is redistributive requires analysis of micro data on the joint distribution of contributions and benefits across income classes. It is not surprising that such data are scantier than more aggregative data. Where they exist, they deserve to be analysed more finely than through scalar measures of concentration. There is indeed much scope for continuing research.

General discussion

A number of panel members pointed out that the kinds of implicit insurance contracts provided by health care systems were complex, and varied greatly according to the type of treatment. Rick van der Ploeg said that insurance contracts outside the health field (such as for motor insurance) tended in general to be much more finely differentiated in the US and UK than in continental Europe, and wondered about the implications for health insurance. He also emphasised that substantial resources in many systems were devoted to mental health treatment, which could hardly be characterized by moral hazard.

Guy Laroque pointed out that payments for treatment could typically be made contingent on diagnosis, which helped in principle to reduce moral hazard. Paul Seabright suggested that it might be important to consider the dual role played by doctors, both as agents for the patient and as diagnostic agents for the state. The British National Health Service in its pre-reform state had often been misleadingly characterized as a command-and-control system, but in fact it had important characteristics of an optimal contractual arrangement. For example, if insurance payouts were to be linked to diagnosis then it was important that there should be no financial incentives to distort the diagnosis, so that doctors should be salaried rather than paid fees for service.

Tryphon Kolintsas said it was very important in examining cost-containment to consider the role of trade unions, since they tended particularly to block labour-saving technical change, a factor of special importance in such a labour-intensive sector as health. Paul Grout wondered whether there were interesting parallels to be drawn with the
way in which other parts of the public sector - education, for instance - were being formed reformed across the world.

Concluding, Tim Besley said it was important not to over-emphasize the insurance model of health provision. Much health care could be thought of as a form of Rawlsian insurance, reflecting considerations of equity, rather than of insurance as found in the real world. Indeed, the dilemmas of health care arose precisely because real-world insurance markets were widely felt to be particularly inadequate to deal with the many communitarian issues raised by sickness and health.

References


Health care


Madrian, B. (1992). 'Employment-Based Health Insurance and Job Mobility: Is There Evidence of Job-Lock?' typescript, MIT.


