

The Political Economy of Corporatism in Medicine: Self-Regulation or Cartel Management?

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Abstract

This paper seeks to explain why delegation of regulatory authority to medical associations ("medical corporatism") is so prominent in health care. It argues that the interests of politicians and physicians in limiting access to medical markets rather than the interests of patients in the control of quality of medical care determines this delegation. Recent trends in physician densities, their impacts on physician incomes, and rates of return to a medical career in several industrialized countries are adduced as evidence to support this claim.

1. Introduction

In today's industrialized countries, the health care sector appears to be one of the most regulated segments of the economy. However, a closer look reveals that regulatory powers are largely delegated to professional associations. Medical associations in particular frequently exercise sovereign powers over their members (board certification, repeal of license, location of practice) and over related institutions (certification of hospitals in the United States, and of schools for auxiliary medical personnel); in many countries, they are officially charged to negotiate with third parties, e.g., social health insurance (Maynard 1975; Leenen et al. 1986). This state of affairs can justifiably be called corporatism in medicine. Generally, the term corporatism defines an economic system in which a number of monopolies and cartels enjoy acceptance because they allegedly produce a public good. For example, they might assure the provision of services of some special quality that would otherwise disappear from the market, or they might serve as transmission channels for the government. These functions would require that corporatist organizations have a degree of regulatory power over their members, delegated to them by government (Cawson 1986; Marmor and Christianson 1982; Gäfgen 1988a).

This study seeks to answer the question of why corporatism plays such an important role in allocating resources of the health care system. To that end, it analyzes the objectives and constraints of three groups of decision makers in health care: Patients, physicians and their

associations, and politicians. It will be shown that at least the latter two groups may well prefer medical corporatism to alternative modes of allocation in the health care sector.

Necessarily, such a claim must rest on evidence concerning some of the likely consequences of medical corporatism in health care. Therefore, this paper also tries to shed some light on the impact of corporatism on the quality of medical services provided to patients, incomes and career opportunities of physicians, and chances of (re)election of politicians. This latter group becomes increasingly concerned with a side effect of corporatism, viz. the stifling of innovative capabilities. Many observers of health care have remarked that innovation in the health care system proceeds at a very quick pace as far as technological change is concerned while being absent or sluggish when it comes to organizational and managerial innovation (Enthoven 1980). Instances in point are the lack of coordination between ambulatory and hospital care, restricted choice between services of different qualities besides "cadillac medicine," or the reluctance of hospital staff to cater to patients' preferences in their last weeks of life ("caring rather than curing").

It is quite likely that the players of the health care game would continue to put up with these deficiencies were it not for the belief that the cost of medical treatment could be reduced through organizational change in general and new modes of service delivery in particular (Enthoven 1978).

Against this backdrop, the paper proceeds in four steps: Starting with the patients' point of view, the claim that medical corporatism is necessary to protect patients' interests will be scrutinized. Next, medical interests enter the picture. Due to the strong analogy between corporatism and cartels, there is the a priori suspicion, based on an extensive literature on rent-seeking (see e.g., Rowley et al. (1988) for a review), that physicians' interests are the primary motive for medical corporatism. Admittedly, such a suspicion cannot be proved or disproved, not least because the degree of corporatism defies exact measurement. Nevertheless, the available information on corporatism and data on medical incomes in Belgium, France, Federal Republic of Germany, Sweden, Switzerland, United Kingdom, and the United States suggest that corporatism in medicine is instrumental for making a medical career an economically profitable investment. In the fourth section of the paper, politicians are introduced as a third group of decision makers in the health care sector. Here, the question arises of why they delegate important regulatory powers to the medical profession while overseeing rather closely operations of pharmaceutical companies and health insurers. The final section is devoted to a statement of main conclusions and an outlook regarding the future of corporatism in medicine.

2. Patients' Interests as a Justification of Medical Corporatism

This section considers both the claim that medical services are different from an economic point of view and the alleged implication that such a difference calls for medical corporatism. A categorization of goods and services in three groups provides a convenient starting point for the analysis. (See Nelson (1970) and Satterthwaite (1979).) The first category are inspection goods. Their quality can easily be judged by the consumer through mere inspection of a sample. The second category consists of experience goods, where the consumer systematically learns about their hidden characteristics through repeated use

(durable goods) or repeated purchase (canned goods, e.g.). With increasing sample size, the qualities of the product or service can be inferred with ever better precision.

This process of inference does not take place in the case of a good belonging to the third category. The quality of a so-called credence good will never be established with certainty by the consumer (Satterthwaite 1979). There seem to be two reasons for this failure. First, the purchase of the good or service in question may be so rare compared to the length of a man's life that sample size will always remain insufficient for statistical inference. For most individuals, building a house, trying a lawsuit, or undergoing a lifesaving surgical intervention are typical examples. The second reason is lack of identifiability in the statistical sense. Quality can be viewed as a parameter allowing of measurement with error only. At the same time, effectively "produced" qualities quite likely depend not only on the good but also on the consumer's activities, which are not precisely measurable either. In such an "errors in variables" situation, identifiability of parameters poses a serious problem (Goldberger 1974). Services affecting persons in general and health services in particular fit this description very closely: Health outcomes are hardly ever measured unambiguously (Ware et al. 1980), while the contribution of the service consumer (e.g., in the guise of life style) does not lend itself easily to observation and measurement either. In their combination, these difficulties prevent parameter identification, leaving most medical services in the domain of credence goods rather than transforming them into experience goods as time goes on.

For credence goods, it may be in the consumer's interest to delegate quality assessment to a member of the profession supplying the service in question. A physician should have much less difficulty than a layman in judging the quality of services provided by a professional colleague. In particular, he will often have additional indicators of inputs as well as outcomes at his disposal, enabling him to better relate changes in the patient's health status to activities of the treating physician. Thus, corporatist quality assessment may well be superior to direct public regulation. Of course, similar arguments can be adduced to justify regulating through the professions in other instances as well, e.g., in architecture, legal and financial counseling, and educational services. Qualms against such delegation of authority are often countered by making reference to professional ethics forbidding the professional to exploit the client's inability to monitor his performance. (See Gravelle (1985) for a statement of the Hippocratic Oath and a perceptive discussion of its implications.) Thus, professional ethics should serve to heal the defects inherent in agency relationships.

However, the question arises whether the professions in general and medicine in particular are organized in a way as to offer sufficient incentives for concerns of professional ethics becoming effective. In fact, medical associations tend to shy away from disciplining members for insufficient quality of care. Benham (1991) cites several cases where institutions such as Medical Disciplinary Boards failed to remove incompetent physicians from a hospital staff or to revoke the licence of physicians trading narcotics for sexual favors. The conspicuous absence of relicensure examinations, which are so typical of airline pilots, is a point noted in Gravelle (1985). So it is not too surprising that small area variations in medical practice have been found that are difficult to reconcile with the concept of a quality standard subscribed to by the members of regional medical associations (Roos et al. 1977; 1981). At the market level, more use of services should be observed wherever demand-enhancing quality was raised to a higher level due to licensed professionals. According to Svorny (1987), however, licensure is associated with less rather than more use of services.

There are two organizational peculiarities of many medical associations that may explain this lack of sanctioning power. First, officers typically do not hold full-time positions; rather, they are expected to continue medical practice. They thus run the risk of a backlash when criticizing the quality of treatment of a member who may in turn be elected to the board later on. Secondly, terms of service in office are mostly limited to four or maybe eight years. This gives officers little time to stave off such a backlash or to firmly install themselves as experts beyond attack.

But even if medical corporatism should guarantee some monitoring of quality, this could still be achieved by alternative solutions that do not stifle competition in the way corporatism does. In particular, specialized buying agents could combine a full range of medical services into a package of guaranteed average quality. In this vein, Health Maintenance Organizations in the United States act as purchase agents of uninformed consumers, building on their extensive experience with a limited, stable group of practitioners (Enthoven 1980).

Another market-oriented solution is the following. Suppliers and demanders of the credence good could agree on a set of quality indicators. Although still subject to errors of measurement, such indicators enable consumers to discriminate between different qualities of service, thus exerting a degree of control (Klein and Leffler 1981; von der Schulenburg 1987). In the course of time, consumers' unions have been successful in establishing such quality indicators for many durable goods. In health care, (private) health insurers are beginning to develop physician and hospital guides for their members.

Finally, if markets fail to bring forth acceptable quality in the case of credence goods, there are still alternatives to corporatism. Judicial decisions certainly belong to the category of credence goods because court failures are detected after many years, if at all. In this instance, strict procedural rules for reaching judicial decisions are implemented by the State in the aim of guaranteeing the quality of decisions (Blankart 1987). By analogy, the State could establish procedural norms for the practice of medicine. In all, this argument leads up to

Conclusion 1: Medical services belong to the category of credence goods, the quality of which cannot be systematically judged by the consumer. This fact however does not imply that the problem of quality control is best solved through delegated regulation, i.e., corporatism in medicine.

3. Medical Self Interest as a Motive for Corporatism

As shown in the preceding section, patients' interest in quality assurance does not suffice to explain the existence and workings of medical corporatism. Accordingly, this section is devoted to the interest physicians may have in medical corporatism. In subsection 3.1, it is argued that benefits from forming a cartel are particularly large for physicians compared to other professions. Also, physicians are claimed to be particularly able to organize such a cartel and keep it viable; their cost of organization will be dealt with in subsection 3.2.

3.1 Benefits of Cartelization in Medicine

There seem to be at least six reasons why the payoffs to cartelization may be particularly large in medicine compared to other professional groups. The first three of them are related to health insurance. An attempt will be made to rank several industrial countries with regard

to each reason in view of empirically illustrating the theoretical argument (sections 4.1 and 4.2).

1. From the economic point of view, medical corporatism is reminiscent of a cartel designed to protect producers' incomes through price and quantity fixing (Kessel 1958). The expected benefits of a cartel, however, depend on its likelihood of success in reducing price competition. In the case of medical associations (but not other professional associations, as e.g., bar associations), this likelihood is greatly enhanced by insurance coverage, public and private. (See Havighurst (1988) for the failure of United States commercial insurers to promote competition among health care providers.) Thus, patients have little incentive to seek out physicians who compete in terms of monetary cost of treatment. Also, buyer resistance against a high fee level caused by cartelization is minimal. No wonder then that medical associations both in Europe and in the United States militate against new modes of provision of medical care such as Health Maintenance Organizations or Preferred Provider Organizations which tend to undercut customary fees.¹ The strength of this argument can be judged by the average percentage of medical expenditures covered by public insurance. According to the OECD (1990, 89), the United States stands out at the low end of the scale (around 55 percent coverage of both ambulatory and hospital care), followed by Belgium, France, and Germany, while Switzerland, Great Britain, and Sweden mark the other extreme with 100 percent coverage of hospital services. This gives rise to the partial ranking: US < B < F < FRG < CH, GB, S. (B: Belgium, F: France, FRG: Federal Republic of Germany, CH: Switzerland, S: Sweden).
2. Using again the cartel analogy, there should be an incentive for efficient physicians to increase output and cut prices in an attempt to appropriate a greater market share and hence a larger share of the rent created. Therefore, it is in the interest of a great majority of physicians that overt quality and price competition is prevented. By forming a medical association, a necessary condition is satisfied for negotiating elaborate fee schedules with (social) health insurers, making a comparison of total cost for a given treatment difficult. But most importantly, medical associations are instrumental in limiting access to the market through their influence on licensing requirements. The ranking of countries on this score is similar to that of item 1.
3. The health care system is characterized by substantial redistribution, contrary e.g., to the market for legal or engineering services. For example, a wage earner's contribution also covers his family for no extra charge in Germany's statutory health insurance system (Beske 1982). In all social health insurance systems, members at higher age, although consuming much more services, pay the same contribution as do younger ones. This intergenerational redistribution can pose major problems in times of demographic change (aging), creating cohorts of lifetime gainers and losers (Kleindorfer and von der Schulenburg 1986). Today's payors thus face the risk of the intergenerational contract not being honored in the future. Their interest in long-run stability of redistribution results in a certain willingness to accept a well-organized medical cartel that provides for such stability. From the physician's viewpoint, redistributive mechanisms in health care compete with other mechanisms (besides taxation) such as income provision for old age, housing subsidies, and welfare, on which they have little influence. It is therefore in their economic interest to strengthen

the competitiveness of health care as an instrument of redistribution compared to these alternatives by assuring the stability of intergenerational redistribution. Judging from the speed of aging, this argument applies least to France but very strongly to Germany, suggesting the partial ranking $F < GB < US < FRG$ (Heller et al. 1986).

4. A strong professional organization is also an important means for lobbying and logrolling in the political arena. Compared to other professional groups, such as architects and lawyers, a sizeable share of the public budget is at stake. Thus, policy makers in government become partners in an exchange in which medical associations constitute dependable participants. In return for their services, they are remunerated in the guise of protection from competition for their members (Feige 1982). The West German "concerted action" is an example for such a quid-pro-quo: The physicians, represented by their official medical associations, agree to abstain from further excessive cost expansion, which can be heralded by the government as a success. In return, a strict numerus clausus continues to limit access to medical schools and the medical market (Eisen and Schrüfer 1986). Gauging the force of this argument by the share of health expenditure in total government expenditure around 1980 (OECD 1985a, 79f), the ranking reads $B < GB, US < F, FRG, S < CH$.
5. Medical associations also are of value to their members because they help to differentiate medical services from those of other providers of health care. One means for attaining this objective is quality assurance, which serves to distinguish favorably physicians from competing professions such as healing practitioners and psychotherapists that are unable to enforce a comparable quality standard. This achievement has paid off handsomely in that private and social health insurers in most industrialized countries abstain from including the services of healing practitioners and psychotherapists in their benefits. This argument seems to apply equally to all countries considered here.
6. Medical corporatism also ties individual physicians to certain rules, many of them designed to provide a degree of relief to the public purse and the budgets of (social) health insurers. Without such rules, present systems of health care could hardly survive, since no incentives for cost control operate on the demand side.

A typical example of such self-discipline is the apparent exploitation of young physicians. As interns of a (public) hospital, they frequently work overtime at a fixed and rather low salary, thus reducing pressure on the public health budget. However, they can count on appropriating some of the rents generated by medical associations later in their career as long as the latter continue to form an effective cartel limiting access to the market. Again, this argument seems to apply equally well to all countries considered here.

Focusing on the comparison between physicians and other professional groups rather than the comparison between countries for the time being, the argument can be summed up in

Conclusion 2: Compared to other professional groups, incentives for physicians to create a cartel are even stronger. The main reasons are the possibility of influencing the operation of health insurance, the differentiation from competing suppliers through quality assurance, and maintaining comparative competitiveness of health care as a means of redistribution.

3.2 Costs of Forming and Maintaining a Medical Cartel

It is one thing to have an interest in a strong professional organization, and it is another thing to create and maintain such an organization. This latter endeavor entails considerable organization costs, which have prevented the creation of effective corporatist structures in other professions. The following discussion states a few reasons for explaining why physicians are particularly able to create and maintain effective associations, starting again with the one relating to health insurance:

1. The doctor-patient relationship involves formation of specific human capital on both sides, fostering stability through mutual hostage (Williamson 1983). However, due to the difficulty of judging the quality of medical services (as pointed out in section 2 of this paper), it rarely pays the patient to search for the physician with the most favorable quality cost ratio. Moreover, under a conventional coinsurance plan, cost savings generated would mainly profit the insurer rather than the patient. But this implies that a physician who considers cutting fees to increase his market share would only in exceptional cases initiate sufficient patient migration to make the attempt worthwhile. Thus, a price-fixing cartel is unlikely to be challenged by individual physicians, which reduces the expected cost of maintaining it. Based on the prevalence of health insurance, the ranking of countries is identical to the one given below item 1 of section 3.1 above, viz. $US < B < F < FRG < CH, GB, S$.
2. In the case of services affecting persons, price fixing and other collusive arrangements can be created and maintained at a lower cost than in the sale of other services and commodities. Since these services result in changed personal characteristics, there is no secondary market for them. Therefore, price discrimination becomes possible here, whereas it would be undermined by secondary traders in the case of goods. Price discrimination for medical services in particular cannot be easily recognized by the general public, saving it from scrutiny. Thus, fee schedules in European countries run a small risk of coming under pressure, which contributes to the survival of the professional association as the fee negotiating agency. Since medical associations are not involved in negotiating fee schedules in the United States, Great Britain, and Sweden, the partial ranking reads $US, GB, S < B, F, FRG, CH$ here.
3. In the case of medical services, control of market entry can be achieved at low cost. By putting constraints on the delegation of tasks in medical practice, the forming of large, corporate medical firms is inhibited. Entry into the market thus remains tied to the single, medically trained individual, rendering control over access to training particularly effective. This prevents rents from being washed away even in the intermediate to long run. It is difficult to see any difference between countries with regard to this argument.
4. There is hardly any international competition in the domain of medical care. Physicians immigrating from abroad can easily be put at a disadvantage by domestic competitors, and they often have to struggle with problems of language and culture in dealing with their patients. There is also little migration of patients abroad in search of a better or cheaper physician, due to the very high transaction cost involved. This "natural" closing of markets makes cartelization simple while contributing to its success. Its effect should be less marked in English-speaking countries because

investment in language is less specific there. The ranking might be US, GB < B, F, FRG, CH < S.

5. Physicians of a given specialty and in a given region are relatively few. Their monetary and human capital investments are highly specific to their practice. Both factors make it less costly to organize a cartel. Moreover, since physicians in their great majority operate a small-scale business, there is sufficient scope for the association to provide services exclusively to members, such as advice concerning practice location and management, bookkeeping and tax filing services, liability insurance, and special schemes of social security, which can be interpreted as selective incentives to cartelization in the sense of Olson (1965). This argument applies equally to all countries considered here.

Again deferring conclusions with regard to country rankings to the next section, the arguments presented result in

Conclusion 3: There are several reasons for believing that a cartelization of medical interests is feasible at lower cost than in other professions. In particular, the properties of a service rendered to a person, protection from international competition, and low mobility of both patients and physicians contribute to the viability of a cartel.

4. The Consequences of Corporatism: Physician Incomes in Seven Countries

The preceding sections were devoted to advancing the hypothesis that medical corporatism serves the interests of physicians rather than patients. In the following paragraphs, an attempt is made to substantiate this claim. In the main, this amounts to an international comparison of developments of medical density and their impacts on physician incomes and of returns on a medical career.

In the following, three testable hypotheses regarding the consequences of medical corporatism are developed and illustrated using data from OECD countries. Due to the availability of data, the sample must be limited to seven countries, viz. the Federal Republic of Germany, Belgium, Great Britain, France, Sweden, Switzerland, and the United States.

4.1. Development of Physician Density

The first hypothesis focuses on the relationship between medical interests and the growth of physician density over time. Growth rates should differ between countries as a result of different degrees of market closure attained by medical cartels. Now the rankings derived in the previous section generally suggest that both from the benefit and cost side, cartelization should be least pronounced in the United States and Belgium, somewhat more pronounced in France and Germany, and very prevalent in Switzerland, with Sweden and Great Britain constituting somewhat uncertain cases. Indeed, medical associations are particularly weak in Belgium, not being able to restrict entry into the market for general practitioners and operating only an informal quota system for specialists (Nonneman and van Doorslaer 1985; Swennen 1989, 103-105). In Germany, physicians must adhere to a regional medical association if they want to do business with the statutory health insurance scheme (von der Schulenburg 1987). France, while not characterized by compulsory membership to a medical association (Launois and Rosa 1989), has a nationwide cap on

access to medical schools, with especially strict standards applied to the "overdoctored" South (Lévy 1988).

The uncertainty surrounding Sweden and Great Britain can be resolved as follows. Swedish physicians in fact failed to create a strong cartel, tending to assume the role of public servants instead (American Medical Association 1984, 124f). This failure should give Sweden a low overall ranking in terms of medical cartelization, despite items 1, 2 and 4 of section 3.1 and item 1 of section 3.2, leading to the expectation of rather fast growth in physician density. Finally, the British government directly controls access to the medical market in view of the "needs" of the National Health Service (NHS) while granting considerable regulatory powers to medical associations within the NHS (Chester 1986). In all, this gives rise to

Hypothesis 1: The increase of physician density over time should roughly follow a pattern described by the rank order US, B, S > F, FRG > GB, CH.

As can be gleaned from Figure 1 below, physician densities (defined as number of physicians relative to the labor force) have broadly developed in the way predicted by Hypothesis 1. Increases from 1970 have been most marked in countries where the benefit-cost ratio of cartelization, while still favorable compared to other professions, appears to be low in an international comparison or where medical associations are weak for some special reason, such as Belgium and Sweden. France and Germany exhibit somewhat dampened growth, whereas Great Britain and Switzerland are lagging behind. The one important case of failure to conform with the predicted ranking is the United States, with slow growth and even a decrease of physician density around 1980. A possible explanation is the unique control of the American Medical Association over the accreditation of hospitals for medical training, resulting in almost perfect control over access to the market (Frech 1990, 45). In all, one may state

Conclusion 4: There is some evidence to the effect that physician density has been growing more slowly in countries characterized by conditions favoring medical corporatism, in broad accordance with the ranking predicted in Hypothesis 1.

4.2 Relationship between Development of Physician Density and Medical Incomes

The second hypothesis deals with the development of medical incomes given a surge in physician supply over time. Equating income roughly to the product of price times quantity, both of which are determined by supply of and demand for medical services, one has a problem of simultaneity. The observed relationship between medical incomes and physician density amounts to a reduced form coefficient containing a mixture of demand and supply shocks. The mixture of these shocks arguably differs between countries, a fact that will be exploited in the sequel.

As far as the demand side is concerned, the countries of the sample seem to have undergone very similar developments since 1970. In all of them, the public share of health care expenditures increased only marginally between 1970 and 1975, remaining constant since then, while public coverage for hospital care was close to 100 percent throughout, with the exception of the United States (OECD 1987, 55). Finally, growth rates of real incomes and social expenditure did not diverge much either (OECD 1985a, 21).

Therefore, the differentiating shifts must have been on the supply side, implying that the observable relationship between physician density and medical incomes is dominated by supply side shifts. National differences in supply shifts were apparent in the context of Hypothesis 1. Here, their impacts on medical incomes relative to the remainder of the labor force are at issue. These impacts in turn are conditioned by corporatism, e.g., by enabling medical associations to channel newcomers into hitherto "underserved" areas (items 3 and 5 of section 3.2). Strong medical associations can also prevent fee schedules from being renegotiated very quickly (items 1 to 3 of section 3.1). In countries characterized by strong medical corporatism, supply shocks should therefore have a mitigated or at least delayed impact on relative physician incomes. One may state

Hypothesis 2: When physician density increases over time, the impact on medical incomes is expected to differ between countries, depending on the degree of corporatism. Specifically, the strength of the relationship may be expected to again satisfy the following rank order: US, S, B > F, FRG > CH, GB.

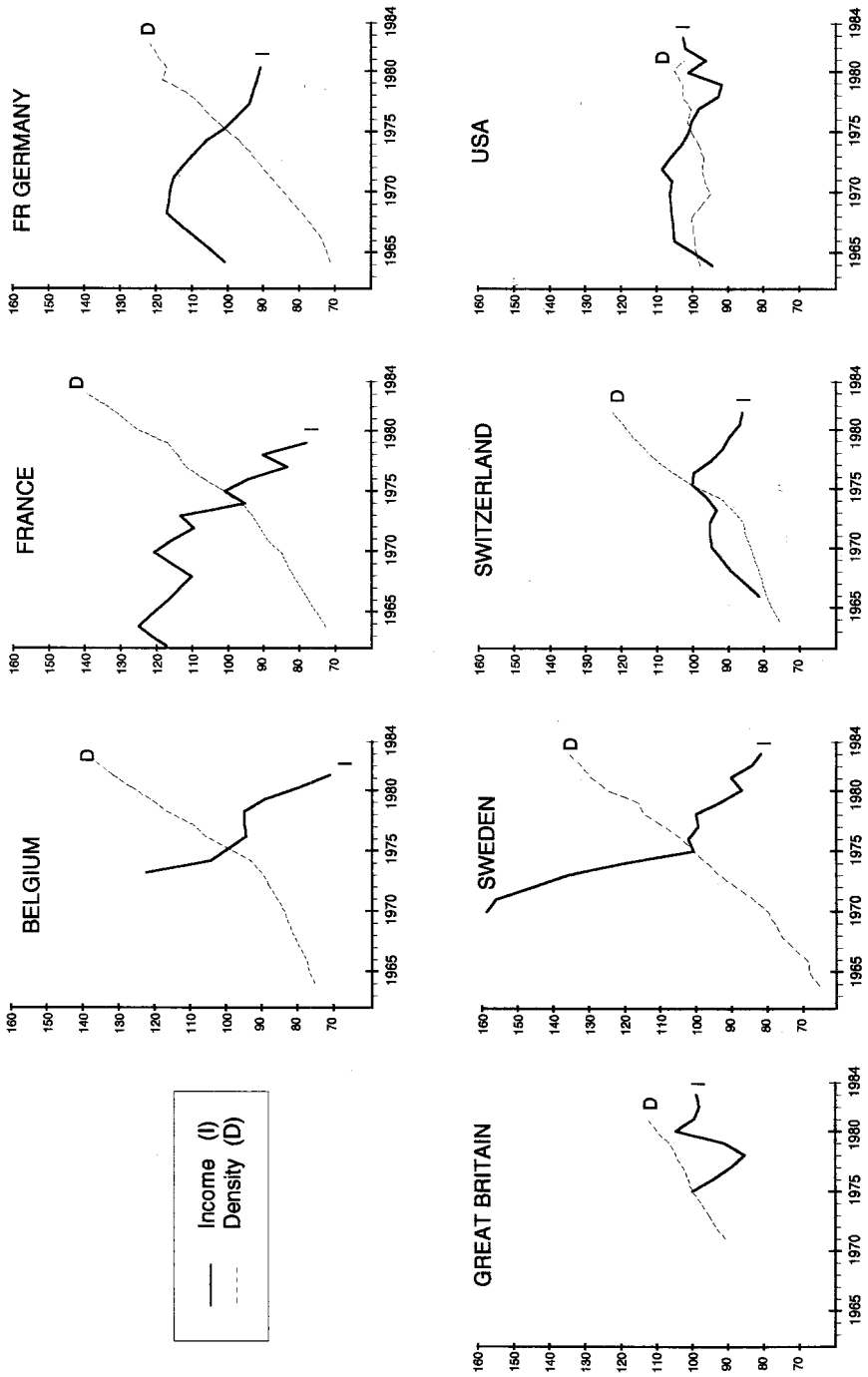
Turning to figure 1 once more, the strongest negative relationship between physician density and incomes (both relative to the labor force) can be seen for Belgium and particularly Sweden. In Belgium, average real incomes of both general practitioners and specialists have decreased by about 40 percent within a decade; in Sweden, the drop amounts to some 50 percent over 14 years. A negative correlation between density and incomes still prevails in France and the United States, albeit in an attenuated fashion.

Physicians in Switzerland and Germany, on the other hand, have succeeded in at least maintaining their income relative to the average income of the labor force in spite of increasing density. Whether this period has come to an end in Germany cannot be judged with certainty because an estimate for 1983 is based on data that differ somewhat from earlier years. The panel showing developments in Great Britain underscores the fact that when political decisions substitute for market forces, income stability need not follow. True, medical incomes did develop independently of density of supply. But when Labor came to power in 1974, they tried to trim the NHS by reducing physician incomes. They were not successful for long, as the government of Mrs. Thatcher quickly re-established the status quo. In all, the relationships documented in figure 1 lend support to

Conclusion 5: Strong medical corporatism appears to attenuate the negative impacts of increased physician supply on medical incomes.

However, the graphs of figure 1 should not be interpreted as containing conclusive evidence in favor of the hypothesis that physician incomes are protected by medical corporatism. First of all, there are many other factors besides physician density that influence medical incomes. Among these influences are negotiations over fee schedules between health insurers and medical associations, changes in factor prices and quantities of labor and supplies used in medical practice, and reductions of legal working hours of auxiliary personnel which can force a reduction of working time of the physician himself. Secondly, mean incomes as officially reported may drop because of many physicians newly entering practice with low starting incomes. Depending on the share of newcomers in the physician stock, a positive or negative correlation with provider density may result.

Figure 1. Physician density and real medical incomes in seven countries, 1975 = 100.



Sources: OECD (1985), Gisler (1986) and own calculations

4.3 The Medical Career as an Economic Investment

In a country where medical corporatism is strong, market closure will be near perfect, preventing rents from being eroded over an extended period of time. Accordingly, in a closed market such as the one of Great Britain, a medical career should constitute an economically attractive investment compared to alternatives available to an individual entering university. Among the careers for which income profiles by age are available, banking comes closest to a medical career. Choosing banking as the benchmark career may thus minimize systematic differences in abilities between future physicians and the comparison group. However, in the study by Burstein and Cromwell (1985) of internal rates of return in the United States medical market, to be entered in table 1 below, the benchmark group is made up of all high school graduates, while the necessary data on medical incomes are available for only three European countries (see Appendix for details). Referring to the appropriate subset of the countries taken from the ordering of Hypothesis 2, one has

Hypothesis 3: The rate of return associated with a medical career is expected to satisfy the following rank order: US, B < FRG < GB

Admittedly, such a ranking in terms of average rate of returns is incomplete because a high rate of return may contain a premium for income risk. Unfortunately, the variances (say) of present values of income streams associated with a medical and a banking career are not known. An extended analysis of the effects of medical corporatism on physician incomes would also have to take possibilities of substitution (healing practitioners, psychotherapists, ethical drugs) into due account. For example, it is of considerable importance for physicians' incomes whether the market for pharmaceuticals is open or not. Where drug markets are little regulated (as in Belgium), pharmacists compete with physicians. In countries with tight regulation of sales outlets of pharmaceuticals (as in Switzerland, e.g.), pharmacists must cooperate with physicians, complementing their services.

Table 1. Internal Rate of Return (IRR) of a Medical Career, Around 1983¹

	All Physicians	GPs	Specialists
Belgium	< 0	< 0	1.0
U.S.A. ²	14.0	16.7	11.3 ³
F.R. of Germany	8.8	—	—
Great Britain	10.5	10.7	10.3

1. For details, see Appendix.

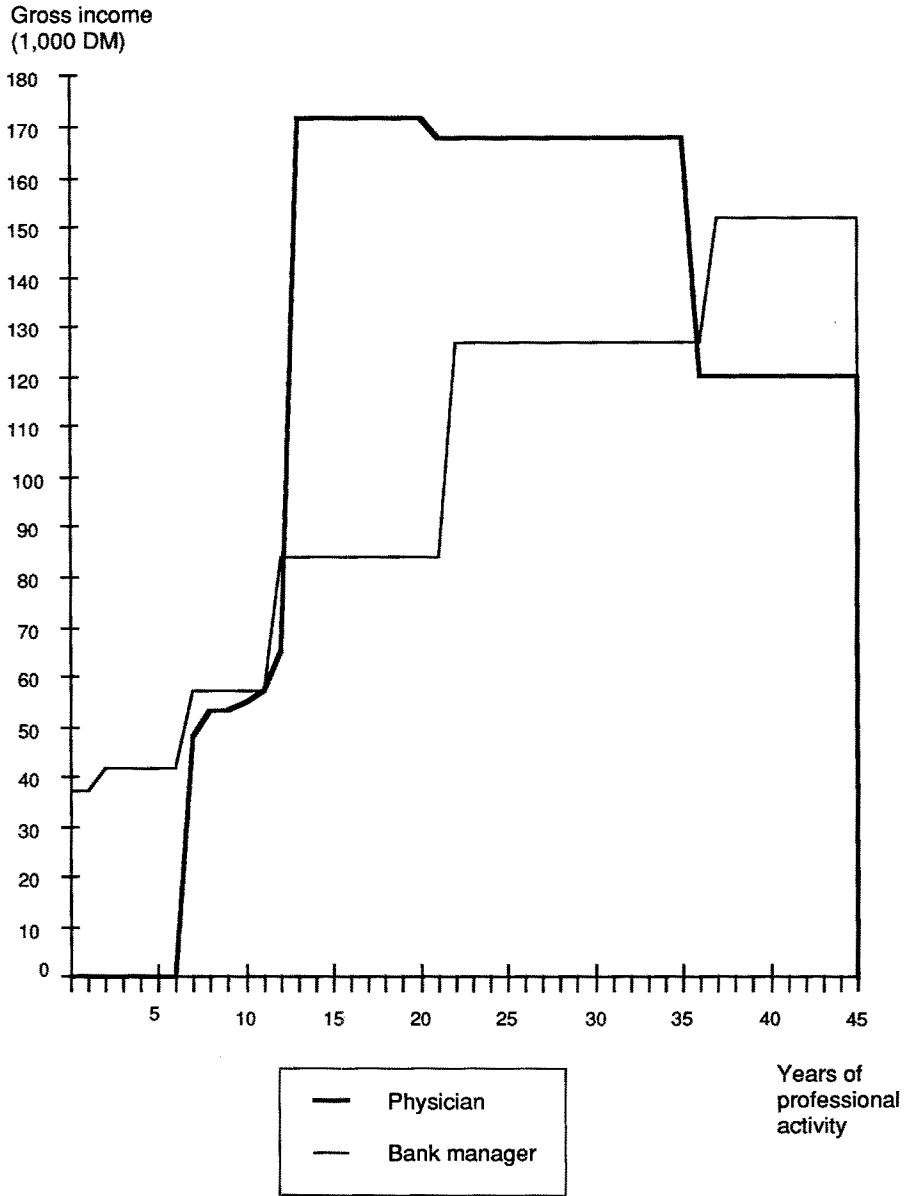
2. Comparison group: all high school graduates.

3. Internists and surgeons only.

Sources: For FRG, B, GB: Gisler (1986) and own calculations.

For the U.S.: Burstein and Cromwell (1985).

As an example, the profile of an average medical career in the Federal Republic of Germany is shown in figure 2, based on the 1983 cross-section according to age. (See Appendix for a precise definition of income.) The education phase with low income seems to be seven years, possibly as many as twelve years. But when the physician starts his/her practice, his/her gross income before tax triples, reaching 170,000 Deutsche Mark (some 70,000 US Dollars at 1983 prices and exchange rates). This income is maintained on average during twenty years of active life, falling off in the last years before retirement only.



Source: Gisler (1986)

Figure 2. Medical Career Compared to a Banking Career, FRG, 1983

This profile is compared with the one of a banker, who typically earns a considerable income right after graduation from secondary school. Thus, relative to this (and most other) career(s), the future physician loses out during the first few years. But this is followed by a long revenue phase lasting almost until retirement. It is shortly before retirement only that mean physician incomes again fall somewhat short of the value attained by the banker.

In calculating the present value of the two income streams, the effect of discounting depends very much on the rate of interest used. For example, at a rate of 4 percent, the estimated 170,000 DM cited above (some 70,000 Dollars at 1983 exchange rates, deferred 13 years) enter calculations with 102,000 DM; at 10 percent however, this amount falls to 49,000 DM.

In order to avoid the ambiguity of the rate of interest used, one can also calculate the rate of discount (the internal rate of return, IRR) at which the present value of a medical career has the same present value as a banker's career. This equality of present values is realized at an IRR of 8.8 percent in the case of the FRG, as can be gleaned from table 1 below.²

The IRR for Germany is rather high compared internationally. A general practitioner in Belgium, e.g., fares worse than an ambitious employed banker. He would achieve equality of present values only if subsidized at the start of his career, as implied by the negative IRR. Although specialists, being somewhat protected by informal barriers to entry (Swennen 1989, 104), obtain an IRR of 1 percent, the average rate for all Belgian physicians remains negative, see table 1.

By way of contrast, a medical career is a brilliant investment in the United States; however, the benchmark here is not the banker but rather a high school graduate in general. The IRR is as high as 17 percent for general practitioners. It is somewhat lower for specialists, due to their much longer education. For British general practitioners, Wilson (1987) finds an IRR of 15 percent around 1980, using the income profile of an average male worker as the benchmark. Thus, there is only a small difference between United States physicians and their British colleagues. On the basis of a banking career as the relevant alternative, an IRR of about 11 percent is shown in table 1. Such high figures for NHS physicians may look astonishing at first, because there has been physician migration from Great Britain to the United States (Maynard and Walker 1978). But it should be remembered that the comparison is always between two groups of a nation's labor force. Thus, migration simply indicates that incomes attainable in the United States were far higher for medical professionals than in Great Britain because the United States is the richer country. The high payoff of a medical career in the British National Health Service does confirm the expectation that closure of the market through government fiat keeps medical incomes relatively high. In view of the confirmation of Hypothesis 3 in three out of four cases, we have

Conclusion 6: A medical career appears to have a comparatively high rate of return (compared to another professional career in the same country) where medical corporatism is enhanced by the State, and a low rate of return where the medical market is relatively open.

5. Corporatism as an Instrument of Health Policy

The preceding sections of this paper have produced some evidence that medical corporatism should be mainly in the interest of physicians themselves. Thus, there clearly is a demand for medical corporatism. The final question to be answered in this context concerns the reasons for an apparently ample supply of corporatism: Why are health policy makers willing to delegate a good deal of regulation to medical associations? So far, few positive analyses of political decision making in the health care sector exist; instances in point are Eisen and Schrifer (1986), Fausto and Lecisotti (1981), and Marmor and Christianson (1982). Hence, little is known about the limits of political feasibility of any attempts at improving efficiency in the health care sector. These political limitations can be understood to consist of the objectives and constraints that face political decision makers acting in the health care sector.

In a representative democracy, medical corporatism must be advantageous to politicians, in particular in terms of votes gained. One possible reason for gaining votes is that quality assurance is valued by many (see section 2 above); another, more convincing argument is that the majority of voters might benefit from redistribution through health care. Corporatism serves to maintain this redistribution, while market forces would undermine it. Physicians themselves profit considerably from redistribution, which not only results in an increased demand for their services but also enables them to charge higher fees for richer patients - a price differentiation a profit maximizer would pursue as well (Kessel 1958). Based on this line of reasoning, it should be possible to derive predictions concerning the nature and density of health care regulation as a function of different exogenous variables such as age structure of the population, family structure of the population, and income distribution of the voting public. (For a study in this vein, see Becker (1986).) This analysis shall not be undertaken here, however.

It suffices to note that medical corporatism may well stem from a community of interests between physicians and politicians. Limiting access to medical markets, one of the main functions of corporatism, is certainly in the interest of physicians; it may also be in the interest of a policy maker due to its rationing effect, which relieves the public health budget. Especially when the public purse is empty, such "cost containment" may well contribute to the chances of reelection of the policy maker in charge.

In this context, it is interesting to note that politicians allow physicians more freedom than either health insurers or the pharmaceutical industry. This difference can be related to a few stylized facts.

- International competition is rather intensive in the pharmaceutical industry. This means that in the short run, regulation hurts foreign rather than domestic firms. But foreign firms are not very influential in the political domain. Also, regulation designed to create and protect rents, as attempted in the case of physicians, runs the risk of being undermined by international competition in the case of the pharmaceutical industry.
- Health insurance is a borderline case of personal services, the tradeability of which is limited even without politically motivated barriers to trade. Thus, the scope of regulation is comparatively great for health insurance. But with the advent of free trade in services (scheduled for 1992 within the EEC), governments will have to consider the impact of regulation on the competitiveness of their health insurance industries as well.

- Public regulation aimed at physicians would hit voters fully vested with political rights and frequently regarded as opinion leaders. Therefore, such regulation will have considerable political cost in terms of votes lost. On the other hand, a corporatist quid pro quo arrangement is often possible, e.g., additional planning powers against some degree of cost control, as such solutions are unlikely to be eroded by international competition.
- Finally, far-reaching interventions of the government are just about impossible in an existing corporatist system. For if government tried to influence elected representatives of the medical profession in a way that would hurt the interests of their constituency, this would certainly make the professional association less powerful before long. New, competing associations would try to be a better lobby of medical interests, attracting physicians away from the "soft" traditional lobby (Zohlnhöfer and Schmidt 1985). These arguments can be summed up in

Conclusion 7: There are several reasons for explaining why politicians concede medical associations more leeway than to the health insurance and pharmaceutical industries. One reason is a likely community of interests between politicians and physicians, another one, a shifting of the regulatory burden to foreign producers in the pharmaceutical industry.

6. Conclusions

Starting from the observation that a good deal of regulation in health care occurs through the professions, the present study seeks to explain why medical corporatism seems to enjoy such a degree of acceptance among the main parties concerned. From the viewpoint of patients, medical associations could serve as substitute watchdogs, protecting ill-informed consumers, since systematic learning about the quality of medical services is at times difficult and even outright impossible. But corporatism is of considerable benefit to medical practitioners themselves, mainly because it limits access to the market but also because it enhances differentiation from competing services through quality assurance. Third, policy makers turn to medical associations in their quest for relief for their public health budget. Through rationing access to medical education and hence supply of medical services, medical corporatism provides some help. In view of their chances of reelection, politicians will also tend to directly regulate the pharmaceutical industry and health insurers rather than trying to limit the powers of the medical profession.

But if medical corporatism indeed results in a successful closing of the market for medical services, then it should have an effect on the rate of return of a medical career. Some evidence concerning this issue can be gained from an international comparison. In the United States, incomes of young practitioners have been falling, but the career as a whole still remains attractive, probably due to earlier limits to access. Astonishingly for the casual observer, a medical career in the British National Health Service is a very attractive investment. But here, the central government itself is the ally of medical associations in strictly limiting access to the market. At the other end of the spectrum, Belgium, where access is not limited as a practical matter, offers a negative return on a general practitioner's career when compared to the income of a banker.

However, health policy based on regulation will be increasingly challenged in the future because corporatism in general and medical corporatism in particular are characterized by a lack of organizational innovation. This kind of innovation, especially in the guise of competition between different systems of health care provision within a given State, would appear to offer promising solutions for solving some of the problems currently plaguing health care systems.

Appendix: Methods and Sources

For a testing of Hypothesis 3, the internal rate of return on a medical career must be carefully defined. The following aspects are explicitly considered.

- Relevant alternative: This is defined as the banking career of a secondary school graduate of the same country who moves up the ladder, finishing as a chief executive officer.
- Beginning of the career: In Great Britain a physician will take up a fully paid job at age 25 (Wilson 1987), whereas he typically is age 33 in the Federal Republic of Germany. The remaining countries lie between these extremes (Gisler 1986).
- Provision for old age: Employer's contribution to social security is added to the income of the banker in order to obtain comparable gross incomes.
- Income tax: In each country, tax exemptions are added first in order to calculate income before tax as officially recorded. Starting from this income and applying the national tax schedule, the amount of income tax due is calculated. Given that amount, net income after tax can be determined and employer's contribution to social security added if applicable. To this "income at factor cost" as it were, income tax and tax exemptions are added again to obtain a notional gross income which is fully comparable among self-employed and dependent workers.

Since calculations are limited to GB, FRG and B (the result for the United States being taken from Burstein and Cromwell (1985)), costs of education are borne by the respective States and therefore do not enter as a private cost. However, income forgone does enter private cost. Due to lack of data, the following aspects could not be taken into account.

- Duration of career: Whereas a dependent worker will retire at the age of 65 at the latest, many physicians continue their practice beyond that limit. However, this difference is not too important in a present value calculation due to discounting of deferred outlays and revenues.
- Probability of survival: Physicians are characterized by a lower life expectation than employees of higher rank. (For the case of Germany, see Allianz-Versicherung (1985).) But again, this difference becomes relevant at later ages only, losing much of its impact in the context of a present value calculation.
- Probability of unemployment: In the seven countries considered, unemployment rates of physicians are below average. It is probably lower than among employees of banks as well.

Notes

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1. In fact, resistance by medical associations in European countries can be expected to be even stronger than in the United States because they typically do negotiate fees with social and private health insurers.

2. While the use of the IRR avoids the problem of converting present values in internationally comparable currency units, it suffers from the implicit assumption that funds generated can be reinvested at the rate indicated by IRR. At the rate of 16.7 percent entered for American GPs in table 1, such an assumption becomes problematic.

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