Economic Research
Allianz Group
Dresdner Bank

Working Paper

No. 49, July 25, 2005

Author: Werner Hess

Hospitals walking a tightrope between reform pressure and financial straits

Hospitals in Germany consume by far the greatest part, 35 %, of health expenditure by the statutory health insurance funds, and the long-range trend tracks a strong rise (see Table 1). Given the increasing capital intensity of hospital services in the future and high personnel costs for the clinics, a regulatory framework encouraging hospitals to operate more efficiently is imperative. Driven by the need for reform, a process of consolidation in the hospital sector has already begun in recent years. However, the changes now being set in train with the roll-out of flat rates per case far eclipse the previous cost containment measures, calling for fundamental realignment on the part of hospitals.

Table 1

Breakdown of expenditure by the statutory health insurance funds in Germany

	1970	1980	1990	2000	2005 [1)]
Hospital treatment	25.2	29.6	33.2	35.0	35.3
Pharmacies,medicine, aidsand remedies	20.5	20.0	22.8	21.2	22.1
Medical treatment	22.9	17,9	18.2	17.7	15.8
Dental treatment, dentures and crowns	10.7	15.0	9.7	8.9	7.1
Other expenditure	20.7	17.5	16.1	17.2	19.7

1) Q1.
Sources: Advisory Council for Concerted Action in Healthcare, Fed. Ministry of Health & Social Security, own calculations

How does the new compensation system for hospitals work? What changes in hospitals' supply and operational structures will the attendant pressure to rationalize bring? Can the necessary capital investment continue to be funded by privatizing public-sector hospitals, or will the Federal

Cartel Office put paid to private clinic operators' expansion strategy? This Working Paper attempts to provide answers to these questions.

Hospital planning in disarray

For a better understanding of the problems facing hospitals, it is helpful to begin by taking a look at the basics of hospital planning. The responsibility for this lies with the German *Laender* (states), which are constitutionally obliged to guarantee adequate and needs-based hospital care for the population. Planning includes all **types of providers** (principle of variety of provision), i.e. public hospitals owned by the local or state (university clinics) authorities, non-profit organizations in the hands of the church or welfare associations, and clinics run by private firms (see Table 2). The basic concept is a hierarchic healthcare structure in which hospitals are assigned to one of three levels. **Primary and standard healthcare** covers local hospital care near where people live in institutions with around 250 beds. The next-higher level of **central healthcare** provides special facilities above and beyond primary care. Hospitals in this category are equipped with around 700 beds and serve roughly half a million people. The highest level of so-called **maximum healthcare** encompasses the entire spectrum of hospital services. These are typically provided by university clinics, but some big local-authority hospitals also attain top-level healthcare provision standards.

Table 2

Inpatient healthcare in Germany

			Change in %	
	1991	**2003**	**2003/1991**	**2003/2002**
Number of hospitals	2,411	2,197	-8.9	-1.1
o/w:				
public	1,100	796	-28.3	-2.6
non-profit	943	856	-9.2	-2.4
private	358	545	52.2	3.4
Number of beds	665,565	541,901	-18.6	-1.0
Number of cases (in 1,000)	14,557	17,296	18.8	-0.8
Days' occupancy (in 1,000)	204,204	153,518	-34.8	-4.0
Average length of stay (in days)	14.0	8.9	-36.4	-3.3
Average bed occupancy (in %)	84.1	77.6	-7.7	-3.1

Sources: Federal Statistical Office, own calculations.

Laender hospital planning, which must include all needs-based hospitals, assigns each individual hospital its capacity in the form of specialist departments and bed quotas. Only the institutions included in the hospital plan – these are 97 % of all clinics – are entitled to remuneration of their services by the statutory health insurance funds and to funding of their investment (e.g. on new buildings or the installation of medical technology) from *Laender* tax revenues. So whereas the hospitals pay their own running costs, the Laender meet their investment costs (**principle of dual**

financing). This means that any alteration in capacity sizes and structures is possible only through the respective *Laender* planning and promotion authority. The same applies to privately-owned hospitals, which are likewise entitled to state subsidization of their investment, providing they are included in the hospital plan. In fact, roughly 80 % of all private hospitals belong to the hospital planning scheme.

In the past 10 to 15 years the hospital planning system has lost much of its coordinative power. This is due chiefly to three factors:

- First, the *Länder* are becoming increasingly remiss in their duty to fund operationally necessary investment. In the period 1973 to 2001 the share of public monies for capital investment relative to the health funds' expenditure on hospital treatment shrank from 25 to 5½ %. The proportion of investment costs in the hospitals' overall expenses dropped accordingly from 17½ to 8 %. The public sector's **withdrawal from investment subsidization** is compelling hospitals to plan their capital expenditure more autonomously, leading to investment no longer consistent with overall hospital planning.

- A second, even more important reason is that doctors and patients are paying less regard to the prescribed healthcare hierarchy in their choice of hospital. Particularly in urban agglomerations where hospital distances are hardly an issue, patients prefer an institution providing central rather than primary healthcare, where they expect better and more extensive services. As a rule doctors respect their patients' wishes when referring them to hospital for fear of otherwise losing them to other doctors.

- A third problem is that demand for hospital beds has been overestimated owing to the stronger than expected drop in the length of inpatients' stay. But downsizing surplus bed capacities once they have been installed is always extremely difficult. For one thing, it triggers protests from the local authorities, because hospitals are an important economic factor precisely in smaller towns. And for another, government subsidies are also geared to the bed quotas scheduled. In general there is thus a **tendency to oversize capacities**. As a result hospitals find themselves competing for patients, chiefly through innovations. These, in turn, require investment – for which, however, the *Laender*, struggling with empty exchequers, are scarcely able to provide the funds. Only those hospitals earning surpluses are able to finance their own investment, which is one explanation why private clinic chains have been so successful in recent years.

Faced with this plight, the German hospital planning system has come in for considerable criticism. The **core problem is the principle of dual financing**. It leads, on the one hand, to investment not being made that would be profitable from the health insurance funds' point of view, while on the other encouraging excess capacities because the *Länder* can disregard the follow-up costs of their investment planning, which fall to the health insurance funds. At the same time the hospital service

compensation system practiced in the past, based mainly on the number of days' care, created powerful incentives to keep patients in hospital for longer than medically necessary to increase the occupancy rate of the oversized bed capacities.

Introduction of flat rates per case intensifying rationalization pressure

To address this problem, a fundamental system change in hospital financing was launched in 2003 with the introduction of set fees per case, triggering the most sweeping reform to date in the German hospital sector. Up to the end of 1992 each day's treatment per patient was compensated at a flat rate, irrespective of the individual treatment input required, and hospitals were entitled to have their running costs covered by the health insurance funds. That this so-called **principle of cost coverage** fostered misguided developments in the hospital sector is obvious.

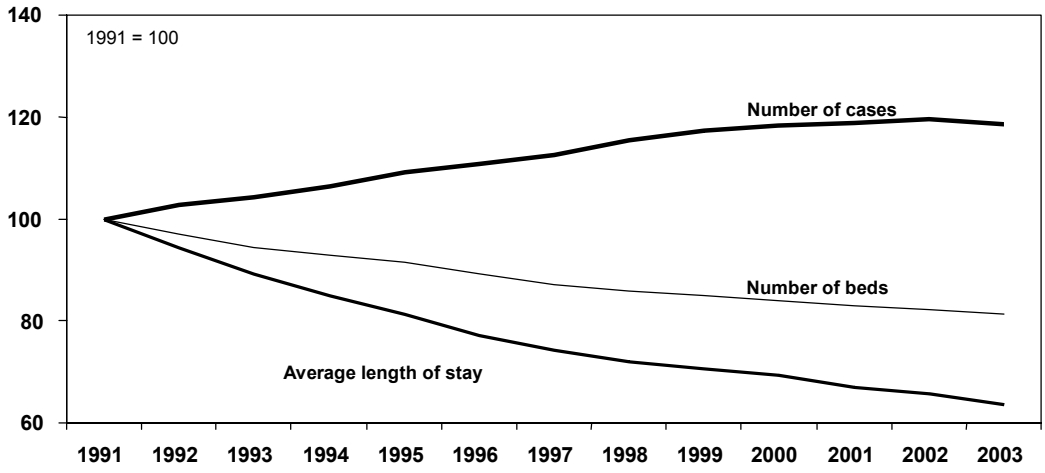
To get the cost increases inherent in this system under control, at the beginning of 1993 hospital spending was capped. The individual hospitals' budgets were set with reference to their respective costs in a certain base year and annual budget growth restricted to the annual rise in the health insurance funds' premium revenue. This **budgeting** limited a hospital's earnings, irrespective of the services actually provided. The impact of this reform on individual hospitals varied. Besides clinics with huge potential for rationalization, there were also hospitals already operating relatively efficiently. The latter had practically no means of easing their limited budgets through further streamlining. Budgeting thus had the effect of penalizing particularly well-run hospitals with high demand and optimum cost structures.

In 1996 the daily rates for patient care were replaced by service-related lump-sum compensation. However, since this type of remuneration applied to only about one-quarter of all hospital services, costs continued to climb. Consequently cost increases far outstripped growth in the hospitals' budgets, with the result that considerable rationalization pressure had already built up over the years.

In the period 1991 to 2003 **bed capacities** were reduced by 18½ % and the number of hospitals by 9% – despite an almost 19 % leap in the **number of cases**. The average **length of stay** was shortened by no less than 36½ % from 14 to just under 9 days (see Table 2 and Chart 1). In other words, with ever-less beds hospitals are taking care of ever-more patients, who can be discharged ever-sooner as a result of improved treatment facilities. Yet notwithstanding this remarkable boost in performance, on average patients in Germany are still kept in hospital longer than in other countries such as Austria (8.1 days), the USA (6.6) and Denmark (5.7; see Chart 2), mainly because the hospitals' compensation has until now been geared mainly to the duration of inpatient care.

Chart 1

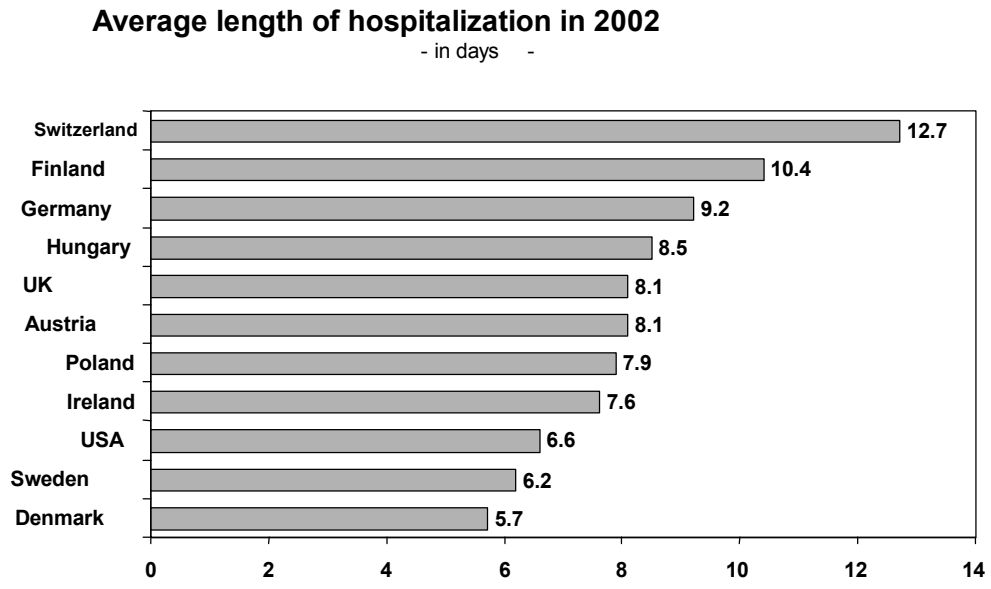
German hospitals' performance indicators



Sources: Federal Statistical Office, own calculations.

Things are now changing with the new **case-fee system**, under which a lump sum is paid per case, the amount depending on the type of illness. With reference to certain criteria, individual treatment cases are combined into **diagnosis-related groups** with the aim of paying the same prices for the same service and reducing the time patients spend in hospital to the medically necessary minimum. During the roll-out in 2003 and 2004 conversion to the case-fee system did not yet impact individual hospital budgets. Each hospital set the average costs per case itself with reference to the treatment costs it routinely incurred for specific illnesses. During the **convergence phase** launched in 2005 the hospital-specific level of compensation will gradually be brought into line by 2009 with a standard remuneration level per German state. This will mark the end of individual hospital budgets. As from 2009 the health insurance funds will pay the same lump-sum price state-wide for a specific treatment.

Chart 2



Sources: OECD, Federal Statistical Office.

Most importantly, the new system brings greater transparency and **keeps up the rationalization pressure**, particularly for those hospitals whose costs per case are above average, because they will be loss-makers. But even institutions operating at below-average costs have a strong incentive to continue cutting expenses, since the difference between in-house costs per case and the case-based lump-sum remuneration remains as their operating profit. To operate more economically in future and become more competitive, hospitals must concentrate on the following:

- **Hospital management** must be geared rigorously to modern business concepts. Process optimization, standardization, specialization, stringent cost control, outsourcing und cooperation – on procurement, for example – will all be in greater demand.

- Given that the price per diagnosis is the same in a fee-per-case system, the number of diagnoses, respectively treatments, will become the key determinant of earnings control. Hospitals must therefore seek to improve their revenues by **stepping up the number of cases**. Instead of vying for budgets, they will in future compete for the maximum number of quality treatments actually carried out. This, in turn, requires an attractive portfolio of services and high standards of quality.

- At the same time, the logic behind case fees calls for ideally **short hospitalization periods**. This makes it expedient to split hospitals, as “production units”, into the provision of core care and the supplementary work processes necessary for this. Both services that are possible prior

to inpatient treatment and those that can be delivered post hospitalization must therefore be outsourced from the hospital. In the process hospital care will increasingly be transferred from the hospital bed to day clinics and outpatient treatment, with hospitals evolving more and more into health centers integrating and grouping various services around them.

- Growing rationalization pressure will also spur **concentration** in the hospital sector, i.e. the inclination or necessity to cooperate, merge and form clinic chains. This route also holds out some considerable rationalization potential; and what is more, it creates greater bulk-buying strength and negotiating clout.

- Most of the measures listed to improve competitiveness call for substantial **investment**. Besides investment in rationalization to cope with mounting cost pressure, capital expenditure on modernization is also necessary. Process optimization, for example, requires investment in hospital buildings and information technology. Medical and medical technological progress must also be turned to economic advantage. Basically, it can be said that hospital care is becoming ever more capital-intensive.

The need for investment in the hospital sector is heightened by the increasing withdrawal of the *Laender* from hospital investment financing owing to their own fiscal plight. This trend has assumed dramatic proportions meanwhile, leading to an estimated backlog of hospital investment in the order of EUR 30bn.

Shortage of public funds as the driver of privatization

One thing is certain: The problems facing hospitals cannot be solved without massive investment in rationalization and modernization. The capital available for hospitals to invest will therefore become a pivotal competitive factor. But since the public authorities can evidently no longer be relied on to finance capital expenditure in the hospital sector, clinics are being obliged to cast around for **alternative sources of funding**.

One of these is to increase their **debt financing** through banks. Hospitals should therefore strive for maximum creditworthiness in order to obtain more favorable financing through good credit ratings. This is especially important with regard to the **Basel II** capital adequacy rules, which from 2007 will require banks to deposit equity commensurate with borrowers' individual credit risk. For high-risk borrowers, a category to which most hospitals unquestionably belong, this will tend to put up the cost of borrowing. At the same time, however, banks must also adjust to the special features of lending to hospitals. Given that hospital accounting often leaves much to be desired and the capital resources available to hospitals are frequently inadequate, "soft" factors such as a hospital's competitive position or its management play an extremely important part in **hospital rating**. The rating a clinic is ultimately given will depend very much on its specific situation. Factors such as the political environment and ownership structure will also play a part.

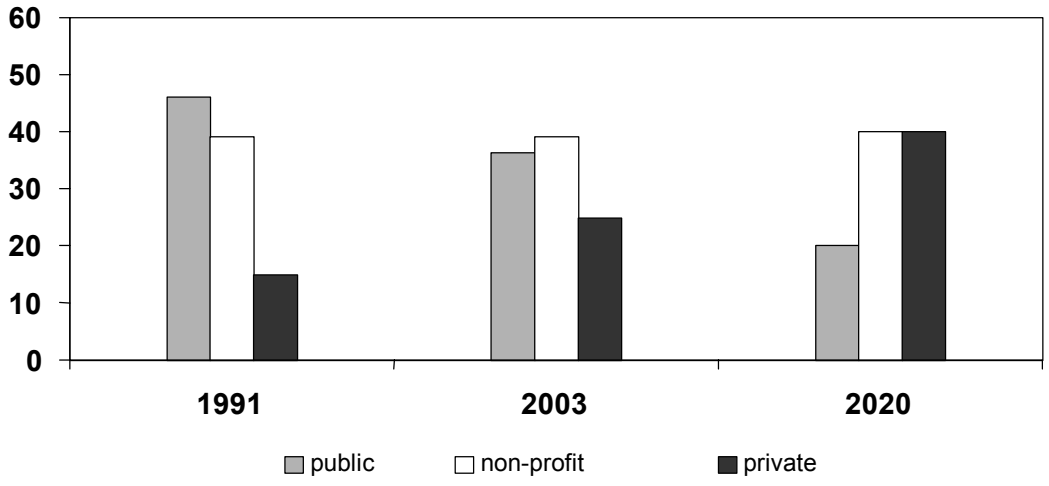
Another potential source of financing for hospitals is the **capital market**. Here, private clinics have a clear edge on public institutions in terms of access. This is why the public sector's withdrawal from investment financing, coupled with the tremendous need for capital to fund investment, is the key driving force behind the privatization of public hospitals. With the possibility of capital market financing, private clinic chains can come up with cost-saving innovations and a competitive hospital infrastructure. Private providers enjoy further advantages in the centralized procurement of important core competences, such as management, controlling and quality management. Their often highly ramified networking enables them to integrate hospitals for acute cases, facilities for rehabilitative care and nursing homes. This wrap-around range creates added advantages with the introduction of integrated forms of care. In turn, the scale of these all-round providers forms the basis for the direct negotiation of contracts with hospitals, bringing further economies. As a rule the rationalization potential for private clinic chains arising from integrated care is not open to public hospitals, even if they agree on combined strategies.

In consequence there has already been a strong shift in **market share** towards private providers (see Chart 3). Among the most important of these are Asklepios, Fresenius ProServe, Helios, Marseille, MediClin, Paracelsus, Rhön and Sana (see Table 3). Whereas these private chains of clinics in particular have expanded buoyantly, so far mainly smaller local hospitals in the bracket with up to 200 beds have been squeezed out of the market. But private providers are increasingly taking over larger hospitals as well. Asklepios is reported to have acquired a majority stake in Landesbetrieb Krankenhäuser in Hamburg (LBK Hamburg), the biggest health operation in the city-state, and the university clinics in Marburg and Giessen are similarly poised for privatization.

Chart 3

Hospitals in Germany by provider

- Shares in % -



Sources: Federal Statistical Office, own forecast.

Moving forward, a restructuring of the hospital sector that does not have a negative impact on the needs-based provision of hospital services will not be feasible without the injection of private capital on a major scale. However, the privatization of public facilities is often no easy matter. Fundamental reservations exist, given the different constituencies: workers' fear of losing their jobs, for example, public concern over the maintenance of healthcare area-wide or the previous hospital providers' fear of losing influence. Moreover, with **a growing supply of properties up for privatization** and an almost constant number of potential buyers, it will become more difficult to obtain an attractive selling price. This is particularly true of small and medium-size hospitals offering primary and standard health care in rural areas, of which there is already an oversupply. Recognized private clinic operators now have very little interest in this type of facility, leading to a severe drop in the purchase prices obtainable (buyer's market). On the other hand, facilities providing central and maximum care (hospitals for acute cases in agglomerations, specialist clinics, university clinics) are still in great demand (seller's market).

Table 3

Private clinic operators in Germany

	Number of clinics	Sales 2004 EUR million	Return [2] 2003 %
Asklepios Kliniken GmbH	52	1,900.0 [1]	9.0
Fresenius ProServe GmbH	32	813.0	1.9
Helios Kliniken GmbH	25	1,161.4	11.8
Marseille Klinike n AG	58	200.1	-
MediClin AG	29	357.9	3.3
Paracelsus-Kliniken GmbH	28	260.2 [1]	8.1
Rhön-Klinikum AG	30	1,044.8	18.3
Sana Kliniken GmbH & Co. KGaA	21	478.0 [1]	18.0

1) 2003. 2) EBITDA.
Sources: Company data, Handelsblatt.

Federal Cartel Office reins in private clinics

Recently, however, the Federal Cartel Office has put a damper on privatization moves, prohibiting the acquisition of a public hospital by a private clinic chain (Rhön-Klinikum) on antitrust grounds for the first time in Spring 2005. With the Cartel Office's professedly positive in-principle stance on private investors stepping in to revitalize many hospitals in financial difficulties, it has already authorized a large number of takeovers in recent years. Nonetheless, its policy is to curtail expansion by private clinics where they threaten to monopolize the relevant markets.

The Cartel Office did, however, restrict the local market of relevance to the banned clinic acquisition to a narrow geographic area, reasoning that a large proportion of patients traditionally consult hospitals within relatively limited confines. But legal experts consider this narrowly defined radius open to dispute, also questioning whether a dominant market position is detrimental to patients in the first place. At any rate, they maintain, it is quite impossible to raise prices on the strength of market predominance, since the rates for hospital services are set by law. The Cartel Office counters that private clinic operators have a clear edge in terms of quality-based competition for medical services, equipment and catering in that, unlike their public-sector rivals, they possess sufficient funds for the necessary investment.

Should the Cartel Office ruling become final, it would **basically throw private clinic chains' expansion strategy into doubt**. Since cost-cutting measures have potentially reduced the rate of return on public-sector hospital takeovers, private operators are increasingly looking to the synergetic effects of **regional concentration** of their capacities. The basic idea is to network a big specialized clinic in the maximum healthcare bracket with several small to medium-size regional hospitals, thus optimizing the utilization of cost-intensive special facilities. What is more, services such as catering, cleaning and laundry can be purchased centrally. To implement the regional concentration strategy, private clinic chains must therefore buy up properties in precisely the regions in which they already own big hospitals. This approach is perfectly in keeping, incidentally, with the concepts of medical care centers and integrated healthcare introduced in the government's health policy.

This makes it all the more surprising that the Cartel Office is evidently blocking private clinic operators' business strategy by interpreting market monopoly in terms of narrowly confined areas. Synergy effects will, at least, be more difficult to achieve if private clinic operators are obliged in future to position themselves over a wider geographic area. To what extent this will deter them from making available the private funding so urgently needed for structural change in the hospital sector remains to be seen. At any rate, a policy that pulls out of financing hospitals' capital expenditure while at the same time curbing private clinic chains' scope for expansion through restrictive interpretation of the competition regime is jeopardizing the adequate provision of hospital care in Germany. In many cases the Cartel Office's move to prevent private providers establishing regional monopolies will probably mean that local authorities and districts have to close their loss-making hospitals.

In the light of this, all in all progress on privatizing public-sector hospitals in the coming years is likely to drag, particularly since market receptivity for hospital spin-offs is limited owing to the mainly medium-sized nature of the market players on the demand side. But at the latest when the conversion to a system of fees per case is completed by the end of 2009, the market incentives then coming more strongly into play and greater market transparency should encourage **foreign clinic operators** to move into the German hospital market and create fresh privatization impetus. Potential candidates are, for example, the British private clinic chains BMI Healthcare, BUPA and

Nuffield Hospitals and the American hospital operators HCA, Tenet und UHS. However, since the barriers to entry into the German market are relatively high inasmuch as extensive and in-depth know-how is required, takeovers of private clinic chains with the appropriate management expertise are conceivable as well as acquisitions of public-sector hospitals.

Moreover, the purchase of Wittgensteiner Kliniken AG by Fresenius AG has clearly illustrated that the German hospital market represents an attractive business line for industrial companies, too. The strategy of Fresenius, a globally active health group offering products and services for dialysis and outpatient medical care, is geared to further major clinic acquisitions. A toehold in the hospital market could also take pharmaceutical companies, health insurers and manufacturers of medical products a step further towards becoming integrated healthcare providers. We therefore expect the **market share of privately run hospitals**, in terms of the number of facilities, to soar from 25 % at present to around 40 % by 2020 (see Chart 3).

Local-authority hospitals in growing danger of insolvency

Basically, the hospital sector will continue to be hallmarked by service improvement with a concomitant reduction in capacities. We consider a further shortening of the **average length of** inpatients' **stay** by 20 % to around seven days possible by the year 2020. The number of hospital beds and hospitals could thus likewise drop by about 20 % each. Public-sector hospitals, having to contend with a range of disadvantages in comparison to private clinics, will be the major victims of this market shakeout.

Many public-sector operators persist in viewing hospitals more from an administrative angle than as a business enterprise. And because operational decisions are often driven by local or regional policy considerations, independent business management committed to economic efficiency is not as a rule guaranteed. In principle, though, public providers could resolve conflicting objectives of this kind, given the political will. Less political interference and the assignment of greater business responsibility to hospitals are crucial to any improvement in the efficiency of public-sector hospital care.

But public providers are powerless to redress competitive disadvantages stemming from the different legal treatment of public and private hospitals. A good illustration of this is public procurement law, compliance with which is not only time-consuming and cost-intensive for public facilities, but also effectively imposes restrictions on them in negotiating low prices. What is more, public-sector hospitals are bound by the German public workers' pay scale, preventing performance-based compensation and flexible wage policies and making no allowance for new job profiles. Novel pay structures are needed here.

All the factors discussed – limited management focus, a lack of independent business stewardship, public procurement law and wage policy – make it more difficult for public than private hospitals to

withstand mounting rationalization pressure. The result is often business losses. Many public-sector hospitals are already in such dire financial straits that the possibility of privatization will not be open to them. For years, with case numbers rising the gap between capped revenues and climbing costs has widened relentlessly, and indeed the introduction of flat rates per case is bringing cost pressure to a head for many clinics. The earnings situation for hospitals with comparatively high costs of treatment at present will presumably tend to deteriorate unless they are able to lower their excessive cost levels accordingly.

Added financial burdens stem from further cuts in hospital funding by the public authorities as they themselves struggle with tight budgets. Yet at the same time pressure is mounting to work off the investment backlog that has built up, given that private clinic chains are stepping up their capital spending and the fee per case system is lending urgency to the need to rationalize. Clinics will also be hard-pressed by the higher staff costs the future holds in store. In some regions there is already a shortage of medical staff, particularly highly qualified specialists, and this will be exacerbated by the declining number of university graduates.

Given the economic plight and growing competitive pressure at many hospitals, we expect to see a further increase in the number of **hospitals faced with insolvency** in the coming years (with an estimated insolvency rate of about 1 % at present). Hardest hit are public facilities. Although the public authorities' guarantor liability means that in principle such hospitals cannot go bankrupt, the precarious financial situation for many local authorities makes it likely that they will increasingly be unable to shoulder this commitment, so that the guarantee obligation in its present form will not survive in the medium term. Moreover, since it distorts competition to the detriment of privately run and non-profit clinics, it is probably not compatible with EU law.

Summary and outlook

The intensification of service and quality competition between hospitals unleashed by the flat rate per case regime will profoundly alter their facilities and organization. Clinics are steadily evolving towards integrated treatment centers with harmonized outpatient, part inpatient and full inpatient care. The creation of modern healthcare structures hinges on the mobilization of substantial funds for capital investment. Since the *Laender* are increasingly incapable of funding the massive demand for investment owing to their straitened fiscal circumstances, the process of privatizing public-sector hospitals already in train for many years will sooner or later accelerate. This trend is in the making, even though the Federal Cartel Office recently put a damper on private clinic chains' expansion strategy.

Basically, the principle of dual hospital financing, in conjunction with state hospital planning, is proving a growing obstacle to a sustainably efficient hospital sector. Health policy must therefore aim for a **fundamental reorganization of inpatient care**. This should begin by taking due account of competition between the health insurance funds by granting them the right to **bilateral budget**

negotiations with hospitals and abandoning the current principle of common and blanket negotiations. Expecting health insurance funds to compete for greater economic efficiency while at the same time permitting only joint negotiation of hospital services, as their biggest chunk of expenditure, is hardly consistent.

Second, hospital planning needs to be shaken up. At present too much power rests with the *Laender* authorities, and hence politicians. To guarantee needs-based provision of healthcare, health insurance funds and hospital providers should be included more closely in the planning process. For this there are two basic models: the so-called **consensus model** in which the leading health insurance fund associations, the associations of statutory health insurance physicians and the hospital companies agree on inpatient facility planning, and the competition-based "**selective contracting model**" under which the health insurance funds alone plan capacities and negotiate the relevant contracts. As a third important step the selective contracting model presupposes that hospital financing is no longer twin-track, but that the health insurance funds bear both the running costs and the investment costs (**monistic financing**). This competition-based solution is already successfully practiced by rehabilitation clinics in Germany.