The Great Healthcare Paradigm Shift

- Building the Largest Service Industry in Society

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Foreword - Old challenges, new approaches

The economy of the European Union members lacks integration. 70 percent of the GDP consist of services but the trade of services still faces a large number of restrictions. When the EU originally was created the internal market for services was a given – at least 1957, in the Treaty of Rome.

But since then not very much has happened regarding the legal framework for service mobility. Last year, the European Commission suggested a large deregulation package to make this almost 50 years old agreement come true. A year later – in the autumn of 2005 – the Service Directive proposal seems to have cracked under pressure from the opposition against free trade around the Union. A watered-down proposal is now left on the table of the European Parliament.

As our report “The Great Paradigm Shift” suggests, there is a huge potential for Europe in welfare services, especially in the healthcare sector. Sadly, it looks as if the Union will not be able to exploit these promises. This will prove harmful for the healthcare of Europe.

Excluding healthcare from the service directive, as advocated by anti-free traders, will reduce the capacity of healthcare among the member countries rather than safeguarding this sector.

Today the patients have the freedom to look for the best care options around the European Union. This “consumer free trade” is a significant gain that helps people suffering from long waiting lists or inadequate treatments in their country of origin. But the mobility of consumers is just one wheel on this chariot of better healthcare. There is no corresponding, legally supported mobility among service providers – and will not be for a long time, according to the Commission proposal.

This means that in practice the European Court of Justice will remain the policy maker, ruling step by step in the favour of the mobility of patients. This EU jurisprudence needs implementation into national legal frameworks to become effective. Without political pressure from Brussels there is a risk that a number of member governments will try to delay coherent Union policies.

Remaining barriers to the mobility of care services will affect the transparency of European healthcare. As we know, such conditions always tend to discriminate the consumer. As displayed by our EuroHealth Consumer Index 2005, the consumer position within the Union is generally weak. Only one country (the UK) provides a full list of quality-assessed care providers to support informed choices by consumers. The assessment and comparison of medical outcomes data understandable for patients and consumers is poor or even non-existent. It is common public policy to put red tape on new drugs to be introduced into the reimbursement system. Et cetera.

Following the deregulation failure there is a risk that healthcare providers delivering poor services can stay in the game, protected from competition on the pan-European level by superior providers. Most likely such absence of market pressure will harm the quality of
services, delay the impact of better standards, put patients at risk and cause unnecessary costs.

Last but not least the shift of views and perceptions advocated by “The Great Paradigm Shift” will be delayed. The report argues that it is necessary to move from the traditional “healthcare: a cost to be rationed” dogma to the opposite vision: “healthcare: a service to deliver consumer satisfaction”. Shifting the imagination to a large industry of perceptions and experiences opens new windows for healthcare improvement hand in hand with the improved economic growth Europe badly needs.

Even worse, excluding healthcare services – from an economic and social point of view immensely more important than air transports or web hosting – is a severe blow to the Lisbon agenda. This setback constitutes a real threat to the European welfare of tomorrow. Without more efficient healthcare and sustainable economic growth in the European Union there will be diminishing resources for public healthcare on a continent turning less productive and dynamic for demographic reasons.

So, this year’s question in Brussels should not be “how to block the efforts to open healthcare to some market incentives?” but rather “how to improve the odds for the survival of public healthcare in the EU of the next generation?”.

Please enjoy this provocative report and welcome to a new kind of discussion! It takes a new paradigm to meet the challenges of tomorrow!

Johan Hjertqvist
President
Health Consumer Powerhouse
Brussels/Stockholm
Summary

The scope of the present report is to demonstrate that healthcare services can be converted from being an increasingly difficult cost problem into becoming the largest service industry in society.

This conversion can be accomplished without sacrificing traditional European values of good access to healthcare for all citizens. The conversion is not easy, and requires reflexion. However, the reward if we succeed is astronomical: better universal access to good healthcare, and great improvements in economic growth.

This report is not arguing that healthcare provision needs to be either private or public. There are numerous examples of both private and public healthcare providers giving efficient, excellent quality care.

What the report does argue, is that the dividing line between a cost problem and a growth industry is the number of Autonomous Consumption Decision Makers (ACDM) for a product or service.

As Jorgen Mortensen notices in the CEPS Newsletter issued in November: it is remarkable that health impact on the economy seems less researched in the EU than in the rest of the world. His analysis is that rich countries do not believe that health makes an important contribution to the economy. That might be true at this point in time – if so, this is what the approach suggested in this report aims to change.

The report frequently uses case examples of Swedish origin for the simple reason that the author has in-depth knowledge of the Swedish healthcare system. Healthcare itself (as opposed to administrative and financing systems around it) is one of the most uniform industries on the face of the planet, most decisions being based on “science and proven experience”. Therefore, any Western European country could be used for case collection.

1. Introduction

The present-day problem of maintaining control over healthcare costs is basically a very attractive problem: industrialised countries enjoy the fruits of the medical science in a way our ancestors could scarcely dream of. At the same time, escalating costs for healthcare are perceived as a major budget problem for almost all industrialised country governments.

Serious expansion of the healthcare industry as we know it today got under way during the first half of the 19th century. Before approximately 1830\(^1\), the situation in medicine was such that the patient, to maximise his chances of survival, had better pray that the doctor would not appear. Up until this point in time, there was little actual cure provided by medical science.

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\(^1\) Bergmark, Matts Farligt att förtära - En bok omgifter och förgiftningar, 2nd edition, Stockholm 1964
Surgery had evolved from the battlefield practice of having a poorly educated barber dig for bullets. For serious wounds, amputation to stop the spread of gangrene did sometimes save a life, leaving a crippled patient to live on a modest pension. Anaesthetics, if used at all, were essentially limited to whisky or other strong liquor. The importance of hygiene and cleanliness was still totally unknown – it took until Florence Nightingale in the mid-1850’s and the discovery of bacteria by Robert Koch in the 1870’s to establish the importance of keeping wounds and patient environments as clean as possible.

The situation for physicians was scarcely any better. Although pharmacy, in fierce competition with espionage, has been described as “the second oldest profession on Earth”, systematic testing of drugs was largely unknown. The use of certain preparations as “medicines” was essentially based on the use of ingredients with presumably powerful properties. One universal medication used to be antimony trichloride, with the half-metal antimony as the “active” ingredient, antimony being a close chemical relative to arsenic. (Antimony had been known since prehistoric ages for the cosmetological use of antimony sulphide minerals as eyeliner.) Drug testing was normally practised by administering the drug to the patient until visible physiological reactions appeared. For antimony, these reactions would normally involve sweating and reddening of the face – the first signs that the patient was in danger of dying due to antimony poisoning. Administering antimony was a tricky business: the difference between a dose that would yield visible reactions and a lethal dose could be as small as a factor of three, which undoubtedly lead to doctors killing a significant number of patients by overdosing. Needless to say, antimony had no pharmacological value whatsoever.

The other universal “cure” before circ. 1830 used to be bleeding the patient in order “to restore the balance of bodily fluids”. Also, needless to say, reprieveing a sick person of part of his blood did nothing to improve his condition. The (gradual) abolishing of antimony medication and the practice of bleeding patients were instrumental in allowing medicine to “break even” around that time, i.e. leaving what little medical tools known to

Figure 1. A schematic illustration of the effect on patient survival chances, should the doctor arrive.
doctors to actually provide the patient with a better chance of survival should the doctor actually arrive than if he should not.

It is probably no coincidence that hospital construction on a serious scale took off around that time in history. When the worst examples of actually harmful therapies had been discontinued, hospitals in the first half of the 19th century had essentially three therapies that were beneficial to patients: a reasonably clean bed, decent food and drinking water. Costs of operating a hospital were comparable with operating a reasonably good hotel. Thus, even with the modest economic strength of early industrialisation, hospitals were fairly affordable.

If modern hospitals were limited to providing the same basic therapies as an ordinary business hotel, welfare societies would be able to afford essentially as many hospitals as the number of three to five star hotels in the same societies. Fortunately for modern man, the success rate of medicine has increased at an accelerating pace ever since the reach of “breakeven”. Along with the ever-increasing capability of medicine, expectations of what healthcare systems should do for their citizens have also been growing. Treat health care as a normal service industry and it will manage to meet consumer demand.

2. **What is driving healthcare demand/ expectations?**

In the debate over rising healthcare costs, it is frequently stated that a major cause for the escalation of healthcare costs is to be found in demographic factors. There are two statistical facts, which are certainly true for today’s industrialised societies:

A) The proportion of the population past retirement age keeps increasing.

Definitely true. In certain regions of northwestern Europe, 25% of the population are already over 65 years of age. Due to the large numbers of citizens born in the decade after World War II and reaching that age over the next decade, it is generally an accepted fact that demands on healthcare systems will increase simply because of the increase in the numbers of elderly citizens.

B) The consumption of healthcare services increases with patient age.

Superficially, this is also very true. This can be illustrated by Figure 2, which shows one form of healthcare consumption – the number of prescriptions per Swedish citizen per year – as a function of patient age.
Drug prescription and age
(No. of Rx items per citizen per year)

Source: De 39 stegen, 1996

Figure 2. Number of drug prescription items per Swedish citizen per year as a function of patient age.

A similar exercise for the much more complicated case of consumption of healthcare services shows a similar pattern, which seems to support the theory of demography as being a driver of healthcare costs.

However, there might be very large differences between these statistical facts and actual causality, i.e. which factors are actually drivers and which are consequences. One observation, which is vital in the situation of healthcare, is that demand on healthcare services is more proportional to how close to the end of life patients are, than to actual physical age. A very large part of lifetime healthcare is consumed during the final twelve months of life. Life expectancy has been increasing steadily at least since industrialisation, as a much more solid economic base for society than agriculture established itself firmly in the second half of the 19th century. The traditional life expectancy of “three score and ten” (= 70 years) has been exceeded in industrialised countries long ago. Today, inhabitants of countries like Japan and Sweden can expect to live to 85 (women) and almost 80 (men). What this implies, is that the average 60-year-old is a basically very healthy person today compared to the early years of the 20th century.

This is demonstrated effectively by the travel and tourism industries, which are today to an unprecedented extent fuelled by senior citizens seeking active pastimes such as golf,

http://se.altavista.com/web/results?itag=ody&pg=aq&aqa=&aqp=&aqo=&aqm=healthcare%2Band%22final%2fyear%2fon%2flife%22&kgs=0&kls=1&dt=tmperiod&d2=0&dfr%5Bd%5D=1&dfr%5Bm%5D=1&dfr%5By%5D=1980&dto%5Bd%5D=5&dto%5Bm%5D=4&dto%5By%5D=2005&filetype=&rc=dmn&swd=1lh=&nbq=10

A British farm labourer in 1750 had to work more than three times longer to afford a loaf of bread than the British factory worker in 1850.
and other sports, adventure travel such as mountain walking and climbing, etc. The grandparents of today’s senior citizens were generally, at best, looking forward to a few years of stroking the cat by the fireplace, or sitting on a bench in front of the village pub between retirement and death.

2.1 If demography is not a driver – what is driving demography?

Two strongly correlated factors, which have definitively been instrumental in driving life expectancy, are basic economy (measured as GNP/capita) and working conditions. The general wealth of the population meant that severe nutrition deficiencies were essentially facts of history by 1914, with a temporary setback in the form of WI.

For several European countries it has been argued\(^4\) that the year of optimal eating habits from a health standpoint was 1915 (before the onset of WWI rationing). Nutrition deficiencies were largely things of the past, and the average Swede subsided on a diet of potatoes, Baltic herring, wholemeal crisp bread and fat-free milk left over from the making of butter and cheese, all of which by 2005 standards sound like a solid recipe for a healthy life.

By the same time the introduction of the 48-hour working week and the solidification of worker’s rights had done away with the worst examples of hard working conditions. These reforms meant that most citizens could start counting on dying from something else than working themselves into an early grave.

Still, in spite of these great improvements off daily life, the situation by circ. 1930 was still that “three score and ten” was very much the average life expectancy also in the wealthy societies of the time. If nutritive and working conditions had really improved significantly – why then did people on average not live into their early 80’s?

The specific answer to that question is simple enough: “They died!”

Any person hit by severe disease before the 1930’s were little better off than his grandfather had been in 1850. Infectious diseases were still very much lethal, which also often meant that infection as a consequence of traumatic injury was a death sentence. One real improvement in healthcare services had been the gradual discovery of the importance of general hygiene. Perhaps the major effect of this, before the discovery of antibiotics, had been that childbirth had become a significantly less risky procedure than had been the case for the grandmothers of 1930’s women.

Still, real advances in medical treatment and diagnostics were still waiting to be made. Real scientific testing of drugs had started in the early 1900’s. However, a drug like Salvarsan, the first reasonably effective drug against syphilis, was based essentially on a very narrow difference in toxicity to bacteria and to man of an organo-arsenic compound. Antibiotics had not yet become part of the universal toolbox for physicians. Surgery had been boosted by the need for treatment of wounded soldiers, but could address only modest problems of limbs and tummy – neurosurgery was still to be developed.

\(^4\) Stephan Rössner, Professor of Nutrition, Karolinska Institute, Stockholm.
2.1.1 Demography is *not* a major driver of healthcare costs!

In the long discussion about demography as a driver of healthcare costs, the author would argue that this is essentially a “Who came first – the chicken or the egg?” -type of problem.

One major driver of the demographic factor of an ever-increasing part of population being 65+, is undoubtedly the improvement of general living standards, which can be reasonably well measured as GNP/capita.

For the above reasons, it seems reasonable to argue that the other main driving force behind the present demographic trend in the industrialised world is modern healthcare. The implication of this is that it is *less erroneous* to state that “healthcare is a driver of demographic factors”, than the often stated ‘fact’ that healthcare costs are driven by demography.

Pharmacological development is closely associated with the general development of healthcare. The development of new drugs has been the main driving force behind drug costs having increased form 8 % of the Swedish healthcare budget 25 years ago to 16 % today. Such a development-intensive area should lend itself admirably to an analysis of the effect of demography.

The Swedish Population pyramid

1998/1999

Source: SCB

*Figure 3.* The Swedish population pyramid for 1999 superimposed on the 1998 pyramid (5-year age groups). The ageing of the population can be barely discerned as the filled ends of the 1998 charts protruding for younger age groups. This implies that if there are costs for anything, e.g. healthcare or drugs, which show a noticeable increase from one year to the next, the ageing of the population is unlikely to account for any significant part of that increase.

As shown in Figure 2, drug consumption is strongly age-dependent. What then is the role of demography in the doubling of the drug cost part of healthcare budgets? Figure 3
shows the very minute changes in the Swedish population pyramid between 1998 and 1999. With the underlying trend of an increasing part of the population becoming 65+, the change between two consecutive years (the filled ends of the chart bars) is barely visible. From the data in Figures 2 and 3, it is possible to calculate how much of the increase in drug costs was attributable to the demographic factor of an ageing population.

The answer is: 0.3 %!

The actual increase in prescription drug costs in Sweden between 1998 and 1999 was 12 %. If demography accounted for only 0.3 % – what made up the remaining 11.7 %? According to statistics from Apoteket AB (the Swedish National Pharmacy Corporation), the increase was due to three main factors:

1. Price changes ("inflation")
2. Volume increase; more daily doses per capita for patients of the same age and with the same illness (es)
3. Medical/pharmacological development (new, and hopefully more powerful, drugs)

Factor 2 is related to better-informed patients, changes in healthcare practice and also to the general standard of living – contrary to popular belief, reluctance to prescribe due to economic reasons has been a decreasing phenomenon.

Factor 3 alone accounted for almost half of the 12 % increase.

As described in the first chapter, healthcare provision itself has undergone dramatic development over recent decades although the introduction of antibiotics in the 1930’s certainly meant a major breakthrough in the treatment of infections; healthcare development is taking place at an ever-accelerating pace.

I is doubtful whether anything else, except probably electronics/IT, is as good an example of an industry, behind which the major driving force is technical and methodological development from within the industry, and not dependent on demography. Development within medicine accounts for a much more significant part of the increased demand than any demographic or public finance factors.

This development has been the basis for saving lives and improving quality of life for millions of people. Unfortunately, all of the above have also greatly contributed to the uninterrupted and accelerating growth of healthcare budgets to a point where most healthcare politicians view this as an ever-increasing problem.

2.2 Productivity in the healthcare industry

The entire purpose of including section 2.2 in this report, is to demonstrate one important fact: if the element of consumer decision making is added to the present solidarity-based healthcare systems, this does not mean the withdrawal of part of healthcare services, which the public has accustomed itself to regard as available through public financing.

This is a difficult communication problem for policy people: as soon as the issue of “prioritising” in public healthcare provision is brought up, citizens feel that what they actually hear is “rationing”. Setting priorities is perceived as Newspeak for saying that “you will have to accept that you will get less healthcare in the future than today!”
The productivity increase of the healthcare industry is such that it is quite possible to allow citizens to enjoy at public/common expense the normal 2005 healthcare service levels, and allow alternative consumption/financing to expand along with that.

Any reader, who is already a believer in this thesis, is welcome to skip section 2.2!

2.2.1 Basic discussion

One major problem regarding efforts to measure the productivity of (public) healthcare systems is that such systems traditionally are affected by a very weak culture regarding the measurement and follow-up of output. In the grant-based global budgeting systems traditionally used, much attention is given to the measurement of how much resources are used as input. In a country like Sweden, by the early 1990’s, and to a great extent still today, the management systems in use do not at all record output. If they do, it is done in a manner making comparisons over time or between providers almost impossible. A measure such as “bed days” is still in use as a measure on the quantity of healthcare provided, when bed days in fact is a measure on one form of resource input. The Statistical yearbook 2005 from Eurostat is a striking example as it first points to changes in the amount of hospital beds and then discusses the reasons for this development. A night in a hospital ward is part of the procedure for curing a certain illness, and if the cure can be provided in fewer days, this means a better service for the patient – not a reduced output for the healthcare provider.

Very few automobile owners would be prepared to pay their mechanic on the basis of “the number of days the car has been in the workshop”.

Even so, the attempts at using purchaser – provider models for healthcare provision in the 1990’s did provide some basis for productivity studies, as these attempts made it necessary to apply some model for the quantification of healthcare output.

Over the past 10 – 15 years, serious attempts have been made in many European countries to describe healthcare output with the aid of DRG: s and other systems that potentially could be employed to do this. However, in the vast majority of such attempts, these efforts have stopped at the description/quantification level. A few countries such as Germany, Portugal, Austria and The Netherlands have to a certain extent managed to have financing follow performance. As was indicated by the HealthConsumer Powerhouse report EuroHealth Consumer Index 2005, Germany and The Netherlands are states with a solid tradition of plurality in their healthcare systems, with high degrees

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5 One frequent problem in healthcare is that as soon as the issue of output in quantitative terms is brought up, the situation is often clouded by persons claiming that output measures have to be quality adjusted. In airline terminology, this would mean that it would not be sufficient to keep track of “How many patients did we fly across the Atlantic last year?” but forcing also the issue “What earthly good did it mean that they got there?”. Consumption decisions in healthcare, i.e. referrals, do naturally have errors just as other human decisions. Nevertheless, these consumption decisions in healthcare are probably basically better quality consumption decisions than those of virtually any other industry. Most of the time, these decisions are based on “science and proven experience”. Any discussion on output and productivity in this paper is therefore based on the assumption that these consumption decisions, made by certified doctors, are of at least equal quality in 2005 compared with any previous year. (Author’s remark.)

6 http://www.healthpowerhouse.com/media/RapportEHCI.pdf
of independence between financers and providers. This in turn provides a natural basis for performance based financing before the arrival of DRG:s.

In the absence of industrial-type financial management, financing of healthcare has still largely been firmly entrenched in global budgeting tradition (= rationing) as the only mechanism known for keeping total costs within certain limits. The, literally centuries-old, fundamental circumstance of industrial activities is: “Anybody who manages to produce/sell a lot and cost little goes to heaven – anybody who suffers from the reverse goes elsewhere”. Public healthcare systems in Europe have had very limited success at bringing in this fundamental driving mechanism.

2.2.2 One Swedish case study

The University Hospital of Northern Sweden in Umeå (Sw. “Norrlands Universitetssjukhus”), which in its organisation includes the 16 primary care centres over an area of 100 by 160 km, catering for 135 000 people, provides a reasonably good basis for productivity measurements.

The author was responsible for a study there. In the study, it was necessary to include also as output such procedures that underwent a switch from in-patient to outpatient during the time period studied. When “bed days” are used as an output parameter for similar measurements, this leads to these procedures being excluded from the output terms of the productivity equation, as one fundamental characteristic of outpatient care is zero bed days.

The study comprises the years 1991 to 1997, and contains the observations and assumptions listed in footnote7.

Productivity per staff man-hour during the six-year study period increased by 45%, which is a rather different picture than the often quoted reports8 stating that there would be a lack of productivity increase in healthcare. As was argued above, the main explanation for this is that healthcare output is often measured in resource input terms such as “bed days”. It is annoying for professionals to be measured for output on a parameter, which they all have been working hard to reduce. The transfer of procedures from in-patient to out-

7 Observations and assumptions:

- Age distribution of population very close to Swedish national average
- Increase in AP-DRG-points (in-patient care), including such care, which was given as in-patient care 1991, but as outpatient care 1997: 35.3 %.
- Change in man-hour input: -14.3 %
- Waiting list situation: essentially identical in 1991 and 1997
- Assumption: Any condition treated in 1991 was treated at least as effectively in 1997
- Assumption: The cost for equal cure/relief in outpatient care: 30 % of the cost of providing the same in in-patient care.
- Assumption: Patient benefit of care, which has been introduced since 1991, is at least as high as its cost.
- Observation: the number of patient visits in primary care (the only reasonably production-related parameter for primary care available) showed an increase of 15 % over the period studied.

8 Fölster, Stefan et al.; Den sjuka vården, Stockholm 2003
patient, usually with better outcomes and less patient suffering, has been one of the major strategies for the development of modern healthcare over the last 15 years.

2.2.3 Productivity in the healthcare industry: +200 % until the year 2020?

As discussed above, the productivity increase in the healthcare industry has mainly been an effect of development in methodology. With +46 % in just the six years 1991-1997, assuming another 50 % over the next 15 years seems modest indeed.

The other main factors, which multiply to make up productivity development in industrial activities are:

- **Performance** (staff doing the same things more frequently). – Let us for the sake of discussion assume that this has reached a practical peak. However, this factor is made up by *production per employee*. In modern-day public healthcare systems in general, and definitively for 2005 Swedish healthcare, it is a fact that there have previously never been so many employees, who are not engaged in the actual provision of healthcare services. A very modest assumption would be that over the next 15 years, a 1 % annual productivity increase could be achieved by reduction of public systems overhead, which would lead to a 20 % accumulated productivity increase until 2020.

- **Utilisation**: On an industrial scale, public healthcare systems are terrible performers on utilisation. A typical number of MR-investigations per scanner per year can be 2000. It is demonstrated by numerous healthcare providers that 10 000 investigations per MR scanner per year is attainable. Operating theatres, outpatient surgeries show equally poor utilisation records. An accumulated productivity increase of 50 % until the year 2020 should be considered a modest assumption.

- **Quality**: Healthcare does have a comparatively good record for the quality of its services. Nevertheless, 0.5 % productivity (=8 % accumulated over 15 years) improvement through quality, lowering the need for re-operations, repeat tests etc, does also seem modest.

As the four factors contributing to productivity are independent, they can (unfortunately not *must*) multiply. Measured in terms of quantified cure, relief and improved quality of life – *not* in terms of resource consumption – a reasonable figure for productivity increase over 15 years could thus be:

<table>
<thead>
<tr>
<th>Medico-technical development</th>
<th>Performance</th>
<th>Utilisation</th>
<th>Quality</th>
<th>Total productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5 *</td>
<td>1.20 *</td>
<td>1.50 *</td>
<td>1.08</td>
<td>2.92, or <strong>+192 %</strong>!</td>
</tr>
</tbody>
</table>
2.3 Cutbacks in Healthcare?

What section 2.2 has shown, is that the “cutbacks” reported for public healthcare systems are to large extent a phantom phenomenon. The cutback illusion is mainly created by measuring healthcare in terms of resource input rather than output.

Other industries in society are always measured on output: How many cars have Volvo turned out? How many passenger miles have British Airways provided? How many transactions per 24 hours are processed by a computer centre, etc. The management of an industrial corporation would never dream of measuring their output in such terms as: “Last quarter, Volvo paid wages for 1.687 million metal-worker hours”!

It would seem axiomatic for a Volvo executive to express company performance in terms such as these: “Last year, we turned out 455 000 cars, 325 000 of which were V70’s, XC90’s and other high-margin models. The time required to build a car decreased from 44 hours to 42.75, but we still have some ways to go to get close to Toyota’s 33 hours!”

2.3.1 Healthcare supply has never been as plentiful and advanced as today – the problem is an accelerating gap between economy and expectations!

The widespread illusion of “cutbacks” in the healthcare industry stems more or less entirely from the fact that public healthcare in Europe has traditionally been measured in terms of “How many metal worker hours did we pay for last year?”

It seems appropriate at this time to take a look at healthcare development over the past 20 years. The following bullet list is a description of some parts of standard Swedish public healthcare in 1985 – well before the “harsh cutbacks” of the early 1990’s:

- The number of heart operations was less than one-tenth of today – Swedes, especially men, have fewer heart problems today than 20 years ago.
- Cataracts on one eye only were being paid for by public systems.
- Patients with aneurysms, above the age of 70, were regarded as terminal cases and literally left to die.
- Some subspecialties (e.g. haematology) were in the early stages; “patients might as well die in their local hospital – there is nothing additional that the university hospital can do”.
- ”Cruel medieval torture” in the form of spinal cord X-ray was still being performed – replaced by painless MR with no post examination cares needs.
- Babies born before the 30th week of pregnancy were registered as stillborn, or died soon after birth.

Advances in medicine since the mid-1980’s have dramatically changed this situation. These advances, as in the case of drug costs described above, account for a much more significant part of the increased demand for healthcare services than any demographic or public finance factors! Just a few illustrations:
• Anesthesiologists can put fragile elderly people safely under anaesthesia resulting in an exploding demand for advanced surgery on elderly patients.
• Neonatal care saves very tiny babies to a normal life.
• Bone marrow transplants combined with effective (but expensive) drugs save children with leukaemia.
• Heart and joint surgery patients need post-op care and re-operations.
• New drugs have created very significant improvements in what doctors can actually cure, in fields such as psychiatric diseases, arthritis, neurology and several others.

The advances in medicine have had very profound effects on the actual output capacity of the healthcare industry. This has given a sharp boost to public expectations as to what the healthcare systems should provide in the form of actual cure and relief. This is also the main explanation behind the dramatic increase in productivity, illustrated by the case in section 2.1.2.2. In fact, the productivity increase of the healthcare industry of the industrialised world is such that the IT industry, helped along by Moore’s law, (which says that the computing capacity of a chip per US $ spent, doubles every 18 months) is probably the only industry on the planet that can show an equal productivity increase.

Another way of stating this fact is by turning the situation around as in the text box below. When reading this, it is good to remember that most citizens of industrialised countries did in 1985 live under the illusion that their healthcare systems were pretty good.

If in 2005 we would revert to providing only the same cure and relief as healthcare provided in 1985, but use 2005 therapies, healthcare budgets could be slashed by 30-40 %!

Please go back and read the text box again!

The main reason for this surprising fact is that medical advances over the past 20 years have also represented a huge cost savings potential. Development within healthcare has also served to keep costs down – a fact without which public healthcare systems would long since have faced financial breakdown. A few examples:
• Day surgery replaces expensive in-patient care
• Prostatron and TUMT (sound wave crushing of kidney stones) – bloodless methods performed in out-patient care
• PTCA replaces coronary bypass surgery
• Omeprazole (Losec) instead of ulcer operations
• Expensive long-term in-patient psychiatric care made redundant by new drugs
• Fast action on stroke patients reduces total cost of care and gives significantly improved quality of life

Modern healthcare is producing an enormously higher output per unit cost than the same industry of the jolly 1980’s (i.e. “before the time of cost savings in healthcare”).

2.3.2 If healthcare has been that successful – why are we today preoccupied with discussing hospital closures and other harsh means of cost containment?

If citizens of 2005 had been satisfied with hospitals providing the same therapies and benefits as those of a conference hotel (as was the case in the 1840’s), there would be no healthcare budget problems. Welfare states would be able to afford a similar number of hospitals as there are conference centres, the numbers of which God (?) alone knows!

The dominating reason behind healthcare budget problems is the rapidly (and accelerating!) increasing capability of the healthcare industry. This boost of capability in turn has created increasing expectations from citizens as to what healthcare should provide. To afford all that healthcare can provide today, but could not as late as the 1980’s, in many countries for the past 15 years there has a distinct experience for healthcare personnel and among the general public, that healthcare (and other welfare systems) have been and are being downsized. Examples of this increased demand on healthcare systems:

• Advanced surgery on the very elderly
• Cancer therapies and haematology
• Saving children with severe heart defects and/or which are very early neo-natal
• 10 times as many heart ops as in 1985!
• Prophylactic medication to large groups of patients (blood pressure, cholesterol etc.)
• MR and other sophisticated diagnostic tools providing much improved information for physician decision making

2.3.3 There is no “healthcare crisis” – there is a rapidly growing demand/supply gap!

Up until the early 1990’s, this demand/supply gap was fairly controllable. The long-term world economic development was more or less able to keep up with the development of the healthcare industry. However, as development in medicine kept accelerating, the “not-particularly-severe” downturn of world economy made the problem manifest by pulling the two curves apart (Figure 4).
The accelerating gap between demand, driven by the ever-increasing capability of healthcare, and public financing

Figure 4. A schematic illustration of the healthcare development trend versus world economic development.

An attempt to look into the future gives us reason to believe that the two curves in Figure 4 will continue to diverge, possibly at a greater rate than what has been observed previously. The following bullet list is a small sample of what is in the pipeline in healthcare development:

- **Gene technology**
  - In vitro organs/transgenic pigs; "spare part availability” ceases to be a limitation for transplant surgery!
  - Vaccination against drug abuse, type 1-diabetes etc
  - Own cells steered/repai red
  - Individualized homing-in therapies
  - Proteomics

- **Medical technology**
  - *Functional* picture diagnostics
  - Telemedicine
  - Simulators for training
  - From central labs to patient-localized labs
  - IT: knowledge *spread globally* and democratised

- **China alone tests 7 000 new pharmaceutical substances every year!**

There is every reason to believe that the methodology-driven development of the healthcare industry will be an ongoing phenomenon. One of the above bullets alone:
“spare part availability ceasing to be the limiting factor for transplantation of organs” has the potential of increasing healthcare costs by 10-20-30 %!

There is every indication that the healthcare systems of 2005 are not merely dealing with temporary budget deficits, but with an accelerating gap between demand, driven by the ever-increasing capability of healthcare, and public financing. In a sense medicine can be described as a victim of its own success! This is also nothing new; the process has been going on for close on 200 years, i.e. ever since objective research methods – systematic experimentation and observation – became the dominating paradigm.

2.3.4 Economic priorities in healthcare – a recent phenomenon?

There is a widespread illusion that public healthcare and other welfare systems are gradually breaking down. In the latest parliamentary election in Denmark (February 6, 2005), a Danish political party went to election on a ticket saying that visa requirements should be introduced for Swedish travellers, as there could be a large number of Swedish economic refugees expected after the breakdown of the Swedish “over-generous” (especially to immigrants) welfare systems.

Finance-based rationing of healthcare is absolutely not a recent feature. If anything, the economy-driven rationing was much more pronounced 20 years ago than it is today. At present, healthcare legislation in most European countries states that “patient age as an isolated criterium must not be used as a basis for decisions on whether to give a certain therapy”. This is a stark contrast to the situation only a few decades previously. A striking example: “The age above which a Swedish patient was not considered worth giving dialysis treatment, was increased from 40 to 50” in 1968! Older doctors, when interviewed, will confirm that the reluctance to use expensive treatments was significantly greater in the early 1980’s than today.

In 1994, one Swedish county, in order to save money, suggested to restrict publicly financed cataract operations to one eye only, i.e. reintroducing a practice which had been Swedish healthcare standard less than a decade prior to this proposition. The outcry, which this proposal created, quickly led to the proposition being shelved.

One important consequence is that doctors for decades have been trained to actually perform a “sorting” procedure as part of their daily job. This is rarely a procedure sorting apart those diseases for which treatment is paid for by public systems, from those for which it is not. Attempts to do that officially have recently been tried in Sweden. The attempt, which got the most widespread attention, was probably that of Östergötland County in 2003 where to 50 medical problems, which would no longer be treated at county expense were listed. The outcome of that attempt has been difficult to evaluate.

The main selection procedure has always been sorting out cases, which warrant treatment, from less severe cases of the same disease! A relatively simple example of this is: “How severe problems with pain and difficulty of movement should a person experience before being provided with a hip joint replacement operation?” Another example is: “What should be the weight of a female bosom for the patient to receive a breast reduction operation at public expense?”
In a decentralised system, the standard answer is: “Rather less in some counties than in others”. This is sometimes regarded as a flaw in the system, but is actually a large part of the rationale behind having a healthcare system governed by one independent, directly elected body of politicians with power of taxation in each county. If differences were not permitted, one major reason for having these political assemblies would disappear. In reality, the sorting is probably governed by clinical practice in different hospitals and/or primary care districts. One very obvious example of this is the county hospital of Halmstad in the county of Halland, Sweden. Cardiologists in Halmstad have for many years had a referral rate of patients for cardiac surgery (usually performed at Lund University hospital in the neighbouring county of Skåne), which was approximately 50% of the Swedish national average. In the only other hospital of Halland county, Varberg, referral rates have traditional been close to the national average. When questioned about this, the standard answer from Halmstad has been: “Our population has the longest life expectancy in the country, so who is to say we are wrong?”

Even if inequalities of healthcare in a decentralised healthcare system are a system effect rather than a mishap, they still create two major problems. A): The public (and politicians) seldom recognize that inequalities are intentional, and get justifiably annoyed over differences. B): They are a formidable obstacle to opening up healthcare to become a consumer industry.

The bulk of that “market” would be less severe conditions of diseases, which public systems would otherwise treat without undue waiting times. If indication levels were perceived to be very different within one country (or within neighbouring parts of the EU), this would reduce the readiness to pay for additional healthcare services.

### 2.4 Sorting apart healthcare needs from mere “demand”

The triage procedure in the healthcare industry is a very important mechanism. In spite of the great reluctance to officially admit that such procedures exist, these procedures actually provide a very fundamental part of necessary mechanisms, if the rationing paradigm of limiting health care costs is to be questioned.

#### 2.4.1 Inside or outside the “brick wall”

The sorting mechanism of any public healthcare system can be illustrated by the “brick wall” picture of Figure 5. In this figure, healthcare has been crudely grouped in four categories. From left to right, the columns represent such treatments that are provided to citizens with rising national wealth. Treatments of column 1 is such treatment, which is given to citizens (at least to town dwellers) also in relatively poor countries, and, incidentally, also to US citizens not enjoying the benefits of health insurance.
"Healthcare for Comfort"?

Columns from left to right: from life saving/curing to improvement in quality of life

- Acute stroke and infarct
- Curative cancer therapy
- “Heavy” psychiatry
- Severe infectious disease
- Fractures
- Severe traumas
- Acute allergic reactions
- Complicated childbirths
- Child leukemias
- Major bleeding ulcers
- Old patients with severe multidiaognoses
- Rehabilitation
- Cataracts
- Imigran
- Gonorrhea and clamydia
- Radiation therapy
- Cancer surgery
- Blood diseases
- Severe hip and knee joint problems
- Severe RA
- Ototic children
- 50% of coronary bypass operations
- Gall bladder surgery
- Semi-serious ulcers
- Old patients with moderate multidiaognoses
- Severe dental injuries
- Varicose veins
- Oestrogen treatment
- Breast reductions
- Hip and knee joint replacement
- Incontinence
- Prostate trouble
- Moderate arthritis
- The bulk of dermatology
- Hypospadi
- Common cold
- Carpal tunnel syndrome
- Gall bladder surgery
- Gastritis
- Old patients with less severe diagnoses
- Hearing aids
- PC-based reading aids
- Viagra
- Mammography
- Not paid for by public benefit systems
- Moderate problems from columns 2 & 3!
- Small varicose veins
- Gyms
- Cough drops
- Wrinkles
- Esthetic plastic surgery
- Herbal medicine
- Vitamins
- Alternative medicine
- Liposuction
- Benign skin spots
- Regaine
- Bulk of dental care
- Antabus

"Need" "Demand"

At least in the OECD, a very large fraction of healthcare is aimed at improving quality of life rather than saving lives!

Figure 5. A crude grouping of healthcare therapies. From left to right, columns represent therapies, where the degree of life-saving decreases and the degree of improving quality of life increases. The “brick wall” represents the present situation in Sweden, where therapies in the blue columns to the left of (“inside”) the wall are being paid for by public healthcare systems, whereas the red column “outside” the wall is not. Over the years, as medical science has been advancing, and as national wealth increases, the wall has been travelling towards the right in essentially every society.

There are some significant features of the situation depicted in Figure 5. One important such feature is that the bulk of such healthcare, which in industrialised countries is still “outside the wall”, is not made up of diseases or ailments of another nature than those “inside the wall”. The largest part of therapies in the red column consists of less severe cases of the same problems, which, if of greater severity, are being treated at public expense.

Another very important message of Figure 5, is that sorting between a patient’s healthcare “need” and mere “demand” is nothing, which has been introduced, in recent years of tightening healthcare budgets. Doctors have been trained for decades at classifying the state of a patient as “problems which we will do something about now”, and “problems that can wait, or which the patient will have to finance by other means than public financing.

2.5 Killing the paradigm of rationing healthcare

If, as will be argued later in this paper, healthcare rationing as a way to contain costs could be replaced by allowing the healthcare industry to grow into a large service industry, Figure 5 illustrates some important aspects:
• The procedures necessary for the sorting apart such healthcare, which shall be financed by public systems, from such healthcare needs which shall not, have been practiced by doctors for a very substantial time (albeit perhaps not in a very public or transparent fashion).

• The bulk of such healthcare, which would be of patient interest to consume as customers in a service industry, is not made up from traditional “non-sickness”-complaints, such as aesthetic plastic surgery. The dominating portion of such healthcare consists of less severe cases of the same diseases, the curing of which is paid for by public systems if the problem is more severe.

Particularly in decentralized healthcare systems a serious problem for allowing large-scale private consumption of healthcare is that the decentralized systems show substantial variation as to what is being provided at public expense in different parts of the healthcare system.

2.5.1 The vital concept of transparency

One vital component of a healthcare system, that would allow substantial private healthcare consumption, would therefore be a greater degree of national uniformity governing doctor’s decisions on what degree of severity should be required to trigger eligibility for financing from public systems. In several countries in the European Union, such efforts are under way in forms such as committee work to create “a national list of guidelines for indication levels”9.

3. How could healthcare become a major service industry while retaining the basic values of equal access to quality care?

3.1 The perpetual(?) superiority of US economic development over that of the EU

A long-standing source of grief to European politicians is the circumstance that no matter what measures are taken by national governments and/or the EU, the economic growth rate of the United States of America keeps outpacing that of the EU10. There are several theories put forward to explain this continuous difference, such as:

• Higher flexibility of the US labour market (less restrictions on hiring and firing)
• Lower taxation of labour in the US

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9 Professor Johan Calltorp, The Association of Swedish Counties & Municipalities, Personal communication.
10 Over the last cycles of world affairs; 3 – 4 % p.a. in the US, while the EU has been struggling to achieve 2 % p.a.; [http://www.wto.org/english/tratop_e/tpr_e/tpr198_e.htm](http://www.wto.org/english/tratop_e/tpr_e/tpr198_e.htm)
A culture in the US with esteem for entrepreneurship and sees failure as a valuable experience

... and several other theories

The growth in US employment has been happening more or less exclusively in the sector of private services, as can be clearly seen from Figure 6.

**Why is there more Oomph! in American economy?**

![Graph showing employment in the USA](source: Datastream)

Figure 6. Development of the US labour market in the 1980’s and 1990’s (1000’s of people employed). Employment in the service sectors has increased dramatically, while employment in agriculture and manufacturing has actually fallen by >10 % in actual numbers of people employed.
Among the US service industries, the healthcare industry has a very prominent position, accounting for more than 14% of US GNP in the early 21st century. Admittedly, parts of these 14% are made up by undesirable effects of the American Constitution, such as absurd levels of administration and malpractice insurance fees to avoid/survive lawsuits.

Still, the effect on society in general from a gigantic, rapidly growing service industry, is dramatically different from the effects of a stampeding public cost problem.

3.1.1 The Great American Side Effect (GASE)

NOTE: The following discussion is in no way intended to advocate that European countries should copy US social and healthcare insurance systems. What is noteworthy about the American healthcare industry, however, is that it shows a much more apparent streak of “consumer industry” than its European, Canadian or Japanese counterparts.

From a welfare state point of view, there are some serious flaws in the US healthcare system. To most Europeans, the most repugnant feature of US healthcare is that in the absence of a health insurance system covering all citizens, it does at present leave approximately 15% of the US population, or close to 50 million people, without adequate healthcare coverage. Part of the reason for this is that health insurance in the US is strongly connected with employment. Employees of large, “traditional” corporations, such as General Motors or IBM, enjoy healthcare benefits fully comparable with those of European welfare state citizens, while the unemployed, self-employed or people working for minimum wages in service jobs are being left to handle healthcare coverage as best they can.

In the following discussion, the phenomenon of a sizable part of the population being left out of all-encompassing healthcare coverage will be referred to as the Great American Side Effect (GASE).

3.1.2 A theory to explain the superior growth potential of the US economy

American service industries – a class of industries which in the US includes healthcare and other industries, which in welfare states are traditionally operated as public services financed by taxes or general insurance systems – are in a very prominent way the engine fuelling American economic growth. As is shown in Figure 8, the US actually has a smaller part of its labour force employed in agriculture and manufacturing than the EU, even before the last expansion of the EU into Eastern Europe.
EU countries may have blocked the underlying growth potential of the healthcare industry by treating it as a cost problem rather than as a service industry.

**Figure 7.** Shares of GNP expressed as % GNP in various sectors in the EU and the USA. One striking property of the diagram is that it reveals approximately the same difference in part of the labour force occupied in M&A or being unemployed (7% less in the US) and in the part of the labour force working in the healthcare industry (7% more in the US). The other striking difference is the distribution of private vs. public services, with a heavy US emphasis on private services.

Figures 6 and 7 lead to an interesting (partial) explanation for the continuous superior economic growth of the US A. versus the European Union: in the EU welfare societies, it would seem that the “high growth” sectors of a modern post-industrial society have been blocked out by being treated as public sector cost items rather than high-growth service industries.

The logical follow-up questions then are:

- Could European healthcare (and other public services) be reformed to become growth industries rather than budget problems?
- Could this be done while avoiding the Great American Side Effect (GASE)?

### 3.2 What makes the difference between an industry and a cost item?

In order for a human activity to be an (growth) industry rather than a cost item, it is imperative to note that the *nature* of the activity has absolutely nothing to do with that distinction. Public, tax-financed healthcare must be regarded a highly useful activity which greatly benefits large numbers of people. Still, European healthcare is being widely regarded as a cost item.
The entertainment industry, on the other hand, is without question a growth industry. One branch of this industry, travel and tourism, is a vital base for economic development in many former third world countries. A drastic example: If enough people were willing to pay entrance fees or buy videos to watch somebody smash grand pianos with sledgehammers, “piano smashing” would be part of the entertainment industry!

In northern Sweden (the homeland of the author) video rental and junk food are considered very useful and beneficial trades, as they contribute to the profitability and survival of services like petrol stations and grocery shops in remote locations of the northern Swedish outback.

As a contrast, maintaining healthcare establishments such as the local GP centre is frequently questioned for reasons of cost when the local county (= Regional Health Authority) faces budget problems. There is little doubt that the citizens of these communities, given a free choice, would strongly prefer to be able to contribute to keeping local accessibility to a doctor’s surgery rather than to be assured convenient access to a VHS cassette of The Texas Chainsaw Massacre!

3.2.1 What makes a human activity an industry rather than a cost item?

If the nature of the activity of an establishment is not crucial, which should be apparent by the above examples – what then is the really distinguishing factor?

It seems that any human activity, which is able to attract enough customers, can function as a trade or industry. The question then becomes: What is “enough customers”?

A very general interpretation of the concept of “customer” (cf. “Who is the customer?) is that a customer is “an autonomous consumption-decision maker”.

For the consumption of public services, which are financed through tax or other collective systems, there might be huge numbers of end customers (“patients”, “beneficiaries” etc). Nevertheless, for any public service, the actual number of “autonomous consumption-decision makers” (“ACDM:s”) is very limited. In the case of Sweden, this number is usually one of three: 1 (parliament/national government), 20 (the number of county councils) or 290 (the number of municipalities). In any system funded by taxes or compulsory insurance the conditions are more or less the same.

In a population of 9 million, 1, 20 or 290 ACDM:s are apparently too small numbers for their consumption decisions to become drivers of the economy in the industrial meaning. Where the “water divide” between a cost item and an industry is located in terms of ACDM:s has, to the knowledge of the author, not been systematically researched. A gut feeling answer to this would be that in a population of 9 million, a substantial share of the market for a certain product or service would have to be consumed by somewhere above 50 000 ACDM:s.

What a “substantial share” would be would probably also be worthy of economic research. Some guidance can be obtained from the fact that the less than 2 % of the Swedish healthcare services, that are truly private (i.e. provided to customers, where the provider is paid by the actual end customer, and not by a doctor, who is not a county employee but receives most of his payment from county tax funds), are apparently not enough to give Swedish healthcare the characteristics of an industry.
“Truly private” payment need not be in the form of straight out-of-pocket expense. Such a procedure could take place with or without the intermediation of insurance or other systems for deferral of payment, as long as there are true ACDM:s ruling who gets paid for what.

3.3 The traditional cost control paradigm of public healthcare systems – rationing!

In order to contain costs for healthcare and other public services, the traditional method has been to rely on rationing – controlling customer access, and/or controlling/limiting production volumes. This was described in chapter 2.

In recent purchaser/provider approaches in countries like the UK and Sweden, controlling production volumes has frequently been applied to reduce purchaser quantities, and thereby the total cost to purchasers.

There is a hidden assumption behind such measures: the present healthcare systems are flawless and the relationship between resource input and production volumes is a constant. Such an assumption would seem absolutely preposterous in an industrial environment. A corporation, which at a given point in time is world leader in cost, quality and reliability in its field, will still be working energetically at improving in all these areas, knowing that if it does not, competitors are certain to overtake it in a not-too-distant future. Although perhaps not superficially obvious, there is a fundamental streak of modesty in large multinational corporations, which is surprisingly lacking in many public sector organisations.

The 2001 European Conference of the European Healthcare Management Association (EHMA) had as its main theme “Management of Demand”.

Managing demand has proved itself to be an extremely difficult art form. The outcome of the 74-year full scale Soviet experiment is probably an indication of just how difficult Demand Management is in real human systems. In the former USSR, a comparatively simple “market steering problem” such as getting the right number of tractors to the right place at the right time, did prove too difficult for a centralised planned economy. Administering modern healthcare must be considered a far more complex problem.

The capitalist system is certainly not perfect. It most definitively lacks qualities in the areas of equal distribution of wealth or equal access to products and services. On the other hand, these features have never been part of capitalist system design. However, what the capitalist system does extremely well is seeing to it that if there is a significant demand for a product or service, this product or service does somehow get produced and delivered to customers.

And the differences in healthcare in Europe cannot continue. Mr Markos Kyprianou, the European Commissioner for Health and Consumer Protection, in his speech at the European Health Forum Gastein October 7 2005 pointed out that:

“That heart diseases kill almost ten times more women in the Slovak Republic than in France.”
Or that lung cancer kills twice as many people in Hungary as in Finland.

Do we really want a European Union that sees these differences as reasonable, or even inevitable?"

I am sure the answer from all of us to this is: “Of course not.”

Therefore, it becomes an issue of interest to ponder whether the effectiveness of traditional capitalist market mechanisms could be brought to bear on welfare services such as healthcare, thus vastly increasing the overall access to high-quality healthcare services?

### NOTE:
Chapter 4 will not be advocating "privatisation" of healthcare provision and/or financing!

Chapter 4 contains a discussion: Is there a politically acceptable way to introduce the effectiveness paradigms of free markets into public systems, while essentially retaining the core values of general access to high-quality healthcare services?

Above all: This paper does not in any way suggest the copying of American social insurance systems and values. Readers, who feel inclined to question the ideas put forth in Chapter 4, are humbly requested not to base such questioning on the shortcomings of the American healthcare system!

Author’s remark

### 4. Making healthcare the largest and fastest growing service industry

As many investigations show, the willingness to consume healthcare services is very great indeed. Even in Sweden, the highest-taxed society on Earth, the ruling Social Democratic party recently announced (February 2005) that it intends to go to the September 2006 election on a ticket suggesting tax hikes to pay for improved healthcare, schools and social services for the elderly (based on the rather pretentious assumption that the present use of funds in the public sector is effective and cannot be improved).

Part of the reason for this willingness to pay for healthcare is surely that more and more of the politicians and healthcare bureaucrats are realising the financial values there are in having a healthy population. The European Commissions new report *The Contribution of Health to the Economy of the European Union* shows that. Unfortunately, the argument is only that healthy populations are good for the economy and that investment therefore has to be done in healthcare. (That economic growth actually could be generated if healthcare would be considered a service industry with growth potential is still obviously too controversial to be argued by official channels.) A more strategic discussion from an

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industrial policy point of view is essential. The Competitiveness Council and the European Parliament debate on the Service Directive in late 2005 ought to rephrase the health and wealth agenda into more instrumental action.

There is one fundamental problem associated with taxes as a source for financing: When something is financed by (increasing) taxes, the effect of this mode of financing is that the taxes needed for the financing make all other products and services in society more expensive. In a global economy, this is equal to wrecking the competitiveness of a nation.

If consumption of precisely the same products or services is financed through consumption decisions taken by a large number of ACDM:s, the effect of making all other products or services more expensive does not appear.

This sheds new light on an ancient question: “How large can healthcare and other public services be allowed to grow in terms of per cent of a nation’s GNP?" This is a problem only as long as extended services are financed by taxation or general insurance. If the financing of healthcare is a result of a large number of decisions by Autonomous Consumption-Decision Makers, “How large can healthcare can be allowed to grow?” ceases to have a meaning. There must be a few people providing for the material needs of the population. Today, these make up <20 % of the workforce in the US and approximately 26 % in the Western European part of the EU. This proportion can be as low as a few per cent of the workforce – in northwestern Europe, the part of the workforce engaged in agriculture has gone down from close to 80 % in the late 1800’s to less than 3 % today, with a vastly increased output. This means that it is possible to run a viable society with a very small proportion of the workforce providing for the material needs of the entire population. The main condition for this to happen without major social upheaval is that the pace of change is not too drastic.

If material needs for the population are catered for, there is no limit at all to how large any service industry can be allowed to become, provided that its revenues are created by actions of a sufficient number of ACDM:s.

4.1 Could private spending on healthcare increase?

The spending pattern of private citizens is seldom subject to revolutionary change. Over time, however, spending patterns undergoes evolutionary changes. Looking back from a 2005 perspective, there are some striking absences in the 1996-spending pattern. Since then, the citizens of many European countries, particularly Sweden and Finland, have somehow managed to relocate their spending to make room for approximately EUR 300/yr just on mobile telephones and services. (EUR 300/yr is roughly equal to 25 % of the public healthcare budget per citizen).

One reason for this is probably that there is an inherent attractiveness in “personal contactability” (?). Another reason is, probably, that mobile telephone makers have created extremely streamlined procedures for people to become customers. So have vendors of South East Asian-made home electronics. It is quite possible to walk into a

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12 This is an interesting question for the case of healthcare. The share of GNP going into the healthcare sector in various industrialised countries is: USA.: >14 %, pre-2004 EU average: 9 %, Sweden 8½ %, Britain 7½ %. So what, if any, is the limit?
chain store and walk out, carrying electronic goods of substantial value without ever having touched your wallet.\(^\text{13}\) Unlike the US, in most European countries there are much more streamlined procedures for the consumption of goods than for the consumption of services. The EU itself has been founded on the basis that goods should be traded across borders because that brings peace and prosperity. Now that we see the first attempts to include services via the Service Directive we have long demonstrations on our European streets even after the heads of states have agreed to exclude article 23 and thereby healthcare from the directive. In a discussion on private consumption of healthcare, the author was once told by a European (Social Democrat) that “There is no formal obstacle for any European, who wishes to pay for healthcare entirely out of his own pocket!” True, but for an elderly person in northern Sweden, spending money on getting a new, fancy snowmobile (there was really nothing wrong with the old one) is an extremely smooth procedure. Spending the same money on making sure that you get precisely the kind of stay you want in the Old People’s Home would, on the contrary, be an extremely awkward exercise.

For a sales manager, explaining poor sales by telling his superiors that “I have made sure that there are no formal obstacles for a customer, who might want to buy our product” would count as an extremely poor excuse. \textit{Attractive} forms of spreading the cost over time for expensive goods and services are considered essential for any industry – these services are comparatively poorly developed for healthcare.

Publicly financed systems are generally making it difficult to introduce private consumption. One reason is certainly that public financing fosters the notion that certain services should be “free”. This creates conflicts with modern-day consumer values, which do not accept rationing mechanisms as obstacles to obtaining strongly wanted services.

4.1.1 \textbf{Raising taxes?}

For the reason stated in the beginning of Chapter 4, financing more healthcares by raising taxes creates problems for the economy of a nation.

Financing more healthcare by making it available, as a service industry does not create domestic problems at all. On the contrary: more resources would be allocated to a domestic service industry. If this were done in north European countries, some slight suffering could be caused in Greece and Turkey – charter holidays would probably be one area of consumption, from where 55+ Scandinavians would reallocate some of their spending power!

4.2 \textbf{Kill the rationing paradigm – stimulate the growth of the healthcare industry!}

Already today, healthcare – if regarded as an industry – is of gigantic proportions. There is virtually no industry in any country of the same proportions. In Sweden, with its fairly solid industrial base, healthcare is essentially as big as \textit{the entire Swedish manufacturing}

\(^{13}\) Author’s personal experience.
industry, including Volvo, Ericsson and all the others, put together. Both industries measure out at a “total value adds” of between GSEK 150 and 200/yr.

The demand prospects for healthcare as an industry look fantastic indeed! As described earlier, medical development creates new possibilities, driving increasing expectations, at an ever-accelerating pace. In Europe, with lots of people getting into the age where the body starts to give off distress signals, healthcare as a service industry would seem a golden opportunity for investors.

Over a 10-year period, healthcare as a service industry could – probably rather effortlessly– expand beyond today’s extent to make up another 2-3 % of EU Gross National Product. This corresponds to another 100 000 jobs in a small country like Sweden, and would mean something like 10 million new jobs in the EU. As is the case in most service industries, healthcare is extremely labour-intensive – as a job creator, it outperforms manufacturing and construction by a large margin.

Most service industries have to produce their services where the customer is. Healthcare as an industry would be fairly insensitive to relocations to low-salary countries. For some sophisticated treatments there would be (and already is) an international market. However, as illustrated in Figure 5, the big portion of healthcare demand, which is left unsatisfied by the public systems, is made up of less severe cases of the same problems, which are treated at public expense when the problem is of a more serious nature.

4.2.1 How large can the healthcare industry be allowed to grow?

As long as the growth is fuelled by ACDM buying decisions, this is a meaningless question. There is literally no limit. The efforts to ensure transparency made by national governments and the EU together through efforts like the Healthgate will definitely increase the pressure from the citizens to get what they know is available to others. One can also see this in the US. The proportion of Americans working in service industries, of which healthcare is one, keeps rising. The big chagrin for EU politicians is still that the USA keeps outperforming the EU in economic growth!

4.3 Streamlining healthcare consumption procedures

The value of solidarity, manifested by good access to quality healthcare services, is deeply rooted in essentially all industrialised countries, with the USA as the most noteworthy exception. Therefore, the options of privatisation of care providers and/or copying American social insurance systems are not the key solutions, nor do they seem desirable.

- The real Management Challenge can be expressed as: How can we manage the transformation of European healthcare from "cost problem" into the loveliest service industry on Earth?

- while retaining the basic values of equal access to quality care. i.e. avoiding the Great American Side Effect – GASE; 15 % of people outside the system
4.3.1 Transparent “sorting” procedures

To make it politically possible to allow healthcare to become a service industry, one necessary, but not sufficient component of such a system is the implementation of transparent decision making processes for decisions (usually made by doctors) on who gets treated at public expense, and who will have to wait until he gets sick enough. Remember that these decisions have been made by doctors every working day for decades!

To achieve transparency, one necessary tool would be “nationally (at least) agreed guidelines for indication levels”. To preserve the notion of healthcare being publicly available on a basis of patient need, the sorting decisions need to have reasonably uniform answers across the healthcare system.

4.3.2 Financing – The Key Issue!

As for any industry, the mechanisms for channelling funds to providers of a product or service is a key component for the survival of the industry.

It is probably neither possible nor desirable to tear down the solidarity-based financing systems for the present European healthcare systems, in order to replace them with another grand, all-encompassing financing solution.

The objective of financing solutions should be to enable ACDM’s to not only express their desired wishes for healthcare services, but also to actually have them fulfilled. Therefore, a number of different financing solutions, all or some in operation simultaneously, will have to be introduced.

- **Taxes**

There have been a large number of attempts to have healthcare funds in public systems follow the patient. This basic principle can be made much more prominent. Probably the main reason why such systems have been restricted is that they tend to mess up the traditional budget systems of public healthcare.

If various authorities are to reduce the extent to which patients are told by somebody what to expect and where to go for healthcare services, some form of control mechanism has to be implemented. One fundamental principle, which has had literally centuries of development work put into it, is that which keeps private industries ticking: *Revenues come in for services rendered – not in proportion to resources engaged in the production.*

Many of the purchaser-provider principles introduced in public healthcare systems, have carried with them the same functional ailments that plagued the older grant-based systems. In reality, providers have being financed for resources used, not for services (care/cure) provided. Many European hospitals still receive revenue in proportion to the number of patient bed-days.

If providers are exposed to the fundamental principle above, one vital effect appears. This effect is present for all goods and services providers in “free” markets. This effect is: *It is always fundamentally good to produce and sell a lot, and cost less.* If this management
principle is implemented for healthcare services, a large part of the rationing mechanisms can be abolished

- **Insurance**

  Compulsory healthcare insurance, encompassing all citizens of a country, are essentially just another technical solution, along with taxation, for the construction of welfare state healthcare financing. Whether funds are channelled through a tax system, or paid by individuals off of a higher net income (when taxes do not include healthcare cover) is essentially dependent on political tradition. The total net effect on the national economy is very similar in that both technical solutions share the problem of raising the cost of producing all other goods and services of the economy.

  Insurance does open up for lower degrees of egalitarianism than taxation does, if insurance premiums are allowed to depend on age and other health risk factors.

  Non-compulsory insurance policies for all citizens is a well-established model for deferring costs/saving up funds for occasions of heavy, involuntary expenditure. If the healthcare industry is stimulated to expand into servicing that part of healthcare demand, which the public systems classify as mere “demand” (i.e. placed on the outside of the brick wall in Figure 5), the insurance industry would be natural partners in the creation of attractive, well-functioning systems for spreading the costs over time (and also over the population).

- **Out-of-pocket momentarily**

  Essentially all other industries that produce expensive goods or services have been extremely inventive at the design of various systems for deferring payment.

  There are numerous ways, readily available to consumers, to smooth the way for consumers to make capital goods or holiday trips affordable. The capital outlays involved are typically from EUR 300 (home electronics, white goods, travel) to EUR 30 000 (e.g. automobiles). This range covers essentially all significant healthcare operations except transplantation of vital organs.

  It must be considered remarkable that such systems are abundant for (frequently South East Asian-made) hardware, while for the consumption of healthcare services they are either almost non-existent or extremely poorly marketed, at least in most parts of Europe, Room for development!

- **Personal healthcare accounts**

  Over the decades since WWII, the world has seen a large number of insurance systems designed to enable citizens to afford healthcare services when needed. These systems are still undergoing significant development, not least in the way of “personalising” the healthcare insurance to allow a citizen to carry payment resources with him to the
provider of his choice. One good example is the concept of Health Savings Accounts ("HSA"), which was recently (2004) introduced in the USA.\footnote{eHealth Insurance: Health Savings Accounts: The First Year In Review January – December, 2004}

"HSA-eligible health insurance plans" are defined as those plans designed by health insurance companies to be in agreement with the US Department of the Treasury HSA Guidelines. These include out-of-pocket limits of USD 5000 for individuals and USD 10000 for families. For 90 % of HSA plan purchasers, the cost was less than USD 200 per month, for a plan covering all healthcare costs, including prescription drugs, in excess of USD 1000/yr for individuals or USD 2000/yr for families. The plans are available to customers regardless of their employment situation, i.e. the traditional strong dependency on employment conditions for the healthcare services of US consumers is eliminated.

What HSA:s show, is that it is still possible to improve the attractiveness of health insurance solutions to become more affordable and attractive to healthcare consumers.

- **Employer entry**

This is a personal favourite of the author. Most healthcare does not involve complicated, expensive treatment. *Example:* The total cost of primary care services per citizen per year in a typical EU country is normally in the order of €150-200.

The theory is that many European trade unions would be willing to discuss the introduction of employer-financed unlimited access to primary care services a part of the upcoming salary negotiations. To relieve the existing primary care organisation of the burden of taking care of the working population, thus concentrating on the young, retirees (for both age and sickness reasons) and the unemployed, would cost approximately 3/10 of one percent in three consecutive salary negotiations.

Unlimited access to basic healthcare services, for that kind of money, would seem a bargain in countries, which suffer from accessibility problems in their public healthcare systems.

- **???

Keep fantasizing!

**4.3.3 Streamlining systems for “deferral of payment”**

It is absolutely true that there are no formal obstacles for Europeans, who want to consume healthcare services paid for by other means than public systems.

Unfortunately, it is also true that systems designed to pay for goods and services of approximately the same price levels as qualified healthcare, such as cars, white goods, holiday packages and Korean home electronics, are extremely streamlined. It can be argued, that this has become excessive, and presents a danger for households to incur debt all too easily.
Still, it is somewhat ironic that we have made it quite possible to acquire imported capital goods with the greatest of ease, while the systems for paying for healthcare services must be classified as very primitive in comparison.

The importance of streamlining payment systems is clearly shown by General Motors Corporation, which at the time of writing (spring 2005) makes no money on actually manufacturing and selling cars and car parts – GM:s entire profit is created through its financing activities\textsuperscript{15}.

Again, this observation is not intended as a hint to copy automobile financing to pay for healthcare. What this observation does confirm, is the great importance of customer-friendly systems for making large (health care?) expenditures affordable! The lack of such consumer-designed systems around Europe is made apparent by the 2005 EuroHealth Consumer Index.

4.4 Why and how could all this result in better healthcare?

- Create large numbers of ACDM’s for healthcare services!
  Numerous investigations show a pronounced willingness to spend more on healthcare. Attractive forms of spreading costs over time are considered essential for all other goods and services at the same price level!
- Install true performance-based provider remuneration!
- Add industrial management capacity to healthcare systems! Not the fancy theories, but “Everything they didn’t teach you at Harvard Business School!” \textit{It should always be a good thing to produce and sell a lot, and cost less.}

4.5 Excellent fit with the EU 7\textsuperscript{th} Framework Programme

The proposal for the EC Framework Programme, which covers the period 2007-2013, provides for a EU research policy and its financial instruments, in particular the multi-annual Research Framework Programme.

In order to strengthen excellence and raise the average level of research in Europe, the basic principle is to stimulate, organize and exploit all forms of cooperation in research, competition at the European level as well as the joint implementation of large technology initiatives and the common development of infrastructures of European dimension and interest.

The size of the action is proportionate to the volume of needs in the EU-25.

Nine themes are identified:

- \textbf{Health};
- Food, Agriculture and Biotechnology;
- Information and Communication Technologies;

\textsuperscript{15} \textit{Financial Times}, February 15, 2005.
– Nanosciences, Nanotechnologies, Materials and new Production Technologies;
– Energy;
– Environment (including Climate Change);
– Transport (including Aeronautics);
– Socio-economic Sciences and the Humanities;
– Security and Space.

The central role of research in ensuring competitiveness and economic growth was recognized by the European Council of Lisbon, which highlighted knowledge and innovation as the heart of the economic progress, including growth of employment in Europe.

4.5.1 Healthcare and the Lisbon Agenda

Healthcare, if seen as an industry rather than a cost problem, is by far the largest single industry in society. It is a knowledge-intensive service industry, the absolute bulk of which has to be produced close to where its customers are, i.e. which cannot be moved to low-salaried countries outside the EU.

The 7th Framework recognizes Health as one of its key areas.

It must be concluded, that the ideas and conceptual thinking put forward in this report have a very good fit with the fundamentals of the 7th framework.

4.6 What people in charge of European healthcare systems could do

- Appoint the necessary commissions to do the re-thinking
- Implement
- Get re-elected forever!

The healthcare industry, by virtue of its sheer size, development-driven growth perspectives and solid demand situation, represents the single most important opportunity to attain the goals of the March 2005 Luxembourg Summit; boosting the economic growth rate of the EU to catch up with that of the USA, by liberating the largest service industry from the constraints of the rationing paradigm!