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Hong Kong
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Swiss Re's reply to Healthcare Reform Consultation 2008

Dear Dr. Chow,

Swiss Re applauds the Government in taking concrete steps to reform the healthcare system in the Hong Kong SAR for the good of all citizens. I am delighted to enclose Swiss Re's comments on the "Your Health, Your Life" consultation paper produced by the Government of the Hong Kong SAR. We would be very happy to continue the discussion and to advise on any aspects of the healthcare reform in particular those relating to healthcare financing.

Yours sincerely,

David Alexander
Director, Client Markets

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HEALTHCARE REFORM IN HONG KONG: SWISS RE'S REPLY

SWISS RE AS A STAKEHOLDER

1. On 12 March 2008, the Hong Kong SAR Government released a consultation document entitled "Your Health Your Life". As a core member of the insurance community, Swiss Reinsurance Company is submitting this paper in response to the Government's call for opinions.
2. With over CHF31 billion of insurance premium revenue in 2007, Swiss Re is one of the largest institutions managing insurable risk and capital. Swiss Re welcomes the Government's efforts to reform the healthcare system and its financing arrangements so that the current and future generations residing in this international city will continue to benefit from financially sustainable world-class healthcare. We agree with the Government's conclusion that changes are needed today so that the future challenges due to the ageing society and the advancement in medical technology can be tackled effectively and efficiently.
3. Of the five issues highlighted in the reform proposal, the healthcare financing arrangements concern the community the most. As a core member of the global insurance industry, Swiss Re has been an important stakeholder in the debate for healthcare reform in many countries, and has 145 years of experience in underwriting and transferring insurable risk. In recent years, Swiss Re has further strengthened its medical insurance capacity in Asia. For example, in 2007, Swiss Re entered into a joint venture with India's TTK Group by acquiring 26% of TTK Healthcare Services Pvt Ltd, India's leading Third Party Administrator (TPA). Swiss Re also established a healthcare services advisory company, Swiss Re Healthcare Services Pvt. Ltd in India. In 2008 in Beijing, Swiss Re also set up Prestige Health, a wholly-owned medical insurance consulting company, offering a full range of claims and risk management services. Swiss Re's Economic Research and Consulting unit was also asked by the China Insurance Regulatory Commission to study China's healthcare reforms and identify the implications for insurance; our detailed report was completed and published during 2007.

SWISS RE'S OPINION ON "YOUR HEALTH, YOUR LIFE"

1. Regarding supplementary financing options, the HKSAR Government's consultation document highlights the relative merits of social health insurance, out-of-pocket payments, medical saving accounts, voluntary private health insurance, mandatory private health insurance and personal healthcare reserves. We agree that it is the time for Hong Kong to act after decades of policy discussions. We feel that a realistic approach at this stage would be to promote the use of savings and insurance to stimulate the private medical insurance market and to increase the portability of healthcare financing through which residents can reduce their reliance on public healthcare services.
2. Swiss Re also agrees with the paper that there needs to be reform of the whole healthcare system including healthcare information and services in addition to the



financing of healthcare. We particularly see the need for a greater focus on the most effective methods of dealing with healthcare issues. This starts with preventive healthcare via government health education programmes, environmental health, immunisation etc and then continues with a method of making sure that when healthcare intervention is needed it is done in the most efficient and effective method possible. Throughout the process, information should follow the person (or patient) and information on healthcare costs should be transparent so that informed choices can be made at each stage of the process. Finally, outcomes should be measured throughout in order to improve and refine the process.

3. Swiss Re believes that the HK SAR Government should recognise that we live in a market environment whether that is within the public or private sector. People, patients, healthcare providers, insurers and reinsurers will react and adapt to the new healthcare environment. All may act with some measure of the "common good" depending on their own views but we should assume that most will have a keen eye on their own self interest. Thus the system of healthcare provision and financing should ensure that the incentives point everyone in the right direction and allow financial or other reward to follow the behaviours desired by the Government.
4. Swiss Re has recently published a research report on global health insurance developments in our *sigma* series and reviewed the practices of healthcare financing arrangements across the world (for more in-depth analysis, please see the attached copy). Drawing from this global experience, the following guiding principles are considered critical for successful healthcare reform:
 - **Engaging the industry.** In most countries, basic health protection is provided through mandatory social health insurance (eg Switzerland's model) or the government's direct provision of healthcare (eg the UK model), while supplementary schemes are used to finance additional demand from individuals on a voluntary basis. Government-run social security and healthcare institutions around the world are increasingly unsustainable as people's expectations outgrow the ability of those governments to finance them or reform those systems to cope with the high expectations. For example, the National Health Insurance system in Japan, Korea and Taiwan are continuously running deficits and are under pressure to raise premiums or co-payments. These countries are calling for market-based solutions under the notion of public-private partnerships, notably private medical insurance. Through supplementary health plans and TPA arrangements, governments can reduce their involvement in financing healthcare and their administrative burden in managing health funding organisations.
 - **Avoiding excessive regulation:** The consultation document stipulates that funds accumulated in Medical Saving Accounts or Personal Healthcare Reserves can only be used to purchase approved private insurance plans without elaboration of the approval criteria. If the approval criteria are too stringent, it will limit choice and innovation in the insurance industry. To stimulate the health

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insurance market, residents should be allowed to use their funds to purchase a broad range of health-related insurance products, subject to a minimum threshold of cover. In any case, it is important for risk-based premium setting to ensure the viability and sustainability of health insurance plans. Therefore, exclusion of eligible plans on the basis of pricing should be avoided. One key decision will be whether to allow freedom in pricing or insist on some community rating. If the latter, there needs to be some industry-wide risk sharing mechanism such as in operation in Ireland and Australia.

- **Gaining community's 'buy-in':** International experience suggests that the implementation of mandatory insurance arrangements requires strong community support. For example, Switzerland passed its compulsory insurance law in 1996, at a time when the majority of the population had already purchased medical insurance schemes. Regulatory measures are available today to get the HK public to buy into the saving and insurance concept. For example, Government can provide tax incentives to encourage the establishment of a health sub-account within the current MPF framework and enrollment in private medical insurance. A voucher system can also be set up to subsidise the purchase of approved medical insurance schemes, similar to the practice of Continuing Education Funds for the accumulation of human capital.

WHAT SWISS RE CAN OFFER

- As part of the local HK community since 1956, Swiss Re seeks to participate in healthcare reform in Hong Kong that benefits local residents. Our company is staffed with over 10,000 insurance and other professionals worldwide. The firm also has underwriting capacity for medical insurance and lifelong products
- **Product design** – Swiss Re is a leading authority in life and health products. In addition to expertise in underwriting and benefit designs for medical insurance, Swiss Re has expertise in emerging longevity products, such as variable annuity with guaranteed income and withdrawal benefit options. When considering the financing of healthcare for the elderly, longevity is certainly a key risk. We believe that our experience will be useful in implementing medical savings concepts.
- **Claims administration** – Swiss Re is engaged in medical claims management in India and China via our TPA establishments. We have capacity and experience in handling large volumes of medical claims, which have allowed us to build up our actuarial understanding of medical events. We believe that our establishments in Asia will provide a solid base for the local insurance industry to offer healthcare insurance products.
- **Reinsurance and the capital market** – In addition to traditional reinsurance products that help direct insurers to manage volatility and capital efficiency, Swiss Re offers advanced solutions that involve risk transformation and transfer to the capital market, such as securitisation.
- **Solutions for Governments** – Swiss Re is also experienced in working with



Governments and indeed have successfully concluded a transaction with the Mexican Government to protect them against extreme risk. In the context of healthcare, the HKSAR Government should also consider extreme risk and planning for extreme adverse healthcare outcomes and how to finance these. As such, we are happy to give advice directly to the HKSAR Government on any of the six healthcare options listed in the consultation paper, not just those involving insurance.

- As a global commercial entity, Swiss Re assists governments in implementing healthcare reform as opposed to simply engaging in an academic debate. We are keenly interested in sharing our views and experience with respect to health insurance development in Hong Kong.

ABOUT SWISS RE

Swiss Re, the world's leading and most diversified global reinsurer, operates in more than 25 countries. Founded in Zurich, Switzerland, in 1863, Swiss Re offers financial services products that enable the risk-taking essential to enterprise and progress. The company's traditional reinsurance products and related services for property and casualty, as well as the life and health business, are complemented by insurance-based corporate finance solutions and supplementary services for comprehensive risk management. Swiss Re is rated "AA-" by Standard & Poor's, "Aa2" by Moody's and "A+" by A.M. Best.

Swiss Re has been associated with Asia since 1913, and now has more than 1,000 staff in the Asia-Pacific region. The company's Asian headquarters are in Hong Kong where we employ 200 staff. In 2006, Swiss Re celebrated the 50 year anniversary of the opening of its first offices in Asia, in Hong Kong.

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No 6/2007

**To your health: diagnosing the state of
healthcare and the global private medical
insurance industry**

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Executive summary

Healthcare is one of the most heavily regulated industries in the world, yet healthcare systems have virtually nothing in common.

Cost developments are dynamic and health insurers lack the means to control escalating costs.

Alignment of interests is key for success.

The world spends USD 5 trillion, or one out of every ten dollars earned, on healthcare each year. Given that demand for healthcare is expected to increase at a faster pace than economic growth, healthcare financing will become a significant challenge for both policymakers and households.

For the private sector, this may offer many potential opportunities. In response, the insurance community must devise new strategies to operate its health business in a profitable and sustainable manner. This is indeed a challenge because healthcare and health insurance markets are highly regulated, as are many of the upstream industries such as medical technology and pharmaceuticals. Moreover, health systems are heavily influenced by institutional, cultural and economic factors. For global players, the dissimilarity of health systems around the world further complicates the mission. It is therefore essential for insurers to acquire local know-how as well as a deep understanding of how each country's infrastructure works long before the first policy is sold. The time, effort and investment needed can be substantial.

Because stakeholders often have competing interests, health insurance can be a complex and demanding business to manage. Traditionally, a health insurer has limited influence at the stage when costs begin to escalate, ie at the moment treatment begins. Moreover, many factors complicate claims management. For example, medical service providers have an information advantage over insurers and, oftentimes, patients resist any attempt to administer standardised treatments. Nonetheless, it has become increasingly important for insurers to smoothly manage the claims process. Indeed, insurers are finding it difficult to fulfil the expectations of everyone involved in the value chain.

Studies have shown that sales and marketing, underwriting and administration must be carried out efficiently and effectively. Insurers must also anticipate regulatory, market and medical changes and incorporate the latest developments into their product design, underwriting and administration. Furthermore, insurers must find ways to better organise and manage the medical process, while striking a balance between providing cost-effective care and providing patients with adequate choices. Medical insurance is therefore much more than financial protection; it is about designing and procuring medical products that meet the demands of the insured in regard to their most valuable asset – their health.

For an insurer, aligning the interests of all parties involved is key. On the demand side, this may be done through product design, ie with a good blend of deductibles, co-payments and attractive rates. On the supply side, this may be achieved through network management. Insurers have, in some cases, become vertically integrated by purchasing ownership stakes in their upstream suppliers. This trend is expected to continue.

The existing self-sufficient health systems around the world are expected to become more open and liberalised. Consequently, the market potential for medical insurers will be substantial. However, this will require the insurance industry to build up its know-how, establish reliable partnerships with key stakeholders in the value chain, and propose innovative solutions. The companies that are most able to do so will be the ones that are mostly likely to prosper in the future.

Introduction

Deficiencies in healthcare systems are a major concern all around the world.

Every year, celebrities and filmmakers from around the world gather in Cannes for its annual film festival. Although a number of films from different genres are screened and critiqued, a film about a topic that has been a headache to virtually all governments around the globe garnered special attention in 2007. The premiere of *Sicko*, Michael Moore's controversial documentary about the deficiencies of the US health insurance system, elicited a strong reaction from the 2 000 people in attendance.

The fact that 15% of Americans are uninsured has been a topic of discussion for several decades. However, the rubric of healthcare reform concerns not only the United States, but also policymakers all over the world. In countries where governments directly operate their own health delivery systems or national health insurance schemes, policymakers are looking for solutions to improve the system. In many developing markets, such as China and India, a significant proportion of the population, particularly in the rural areas, has no health insurance and has to pay for medical care out of their own pockets – often at a time when earnings are at risk and cash is most needed.

The benefits of universal population coverage are clear.

Health insurance is beneficial because it delivers security through prepayment and caps the financial impact of a medical catastrophe. Moreover, access to health insurance improves one's overall health. In the case of illness, it makes immediate treatment possible and accelerates recovery from poor health. Health insurance, however, not only smoothes risks across time, but also across society. This may have a positive effect on those individuals who would not be able or willing to buy insurance. By consensus, prepaid risk pooling schemes have been confirmed as the preferred approach for financing healthcare expenditure.

The key question is how to blend the private sector plans with publicly administered schemes.

Therefore, the key question is not *whether* medical insurance should be organised, but *how* it should be organised. In recent years, support has grown for allowing market forces to satisfy healthcare financing needs. Regardless of the level of funding and sophistication of state-sponsored plans, many believe that the commercial instincts and performance culture of the insurance industry could offer promising alternatives for alleviating the financing pressure faced by the national systems of the developed world. Likewise, some argue that private insurers are better equipped to provide solutions to the developing world for organising its health financing schemes. The policy question boils down to how the private sector can help to improve health systems and earn profits at the same time.

This *sigma* attempts to review the latest developments in medical insurance. In particular, emphasis has been placed on the role of private medical insurance in health financing. The current trends in the health insurance industry as well as market best practices are also addressed. However, before launching into these topics, it is helpful to understand more about healthcare supply and demand as well as financing.

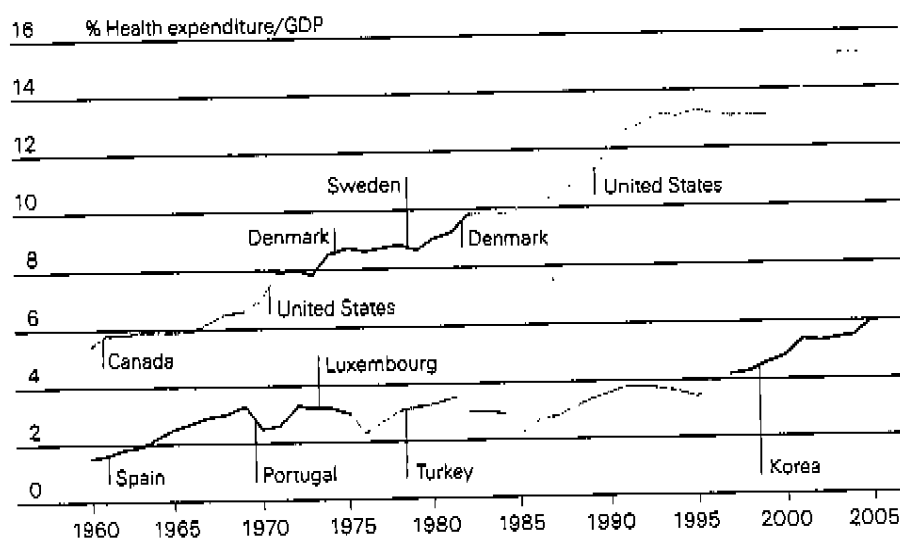
Supply and demand for healthcare

Healthcare spending outpaces economic growth.

Rising healthcare costs and cost drivers

Over the last few decades, healthcare expenses have been growing faster than gross domestic product (GDP) in most countries. During the 1960s, healthcare costs in the OECD countries, as a share of GDP, varied between 1.5% in Spain and 5.4% in Canada. Today, the proportion of healthcare costs to GDP has climbed to about 15% in the US, 11% in Switzerland and 10% in France, with no imminent signs of lessening. It is estimated that US healthcare expenditure will reach 20% of GDP by 2016.¹ In emerging markets, healthcare costs are also rising. In China, where the economy has expanded at double-digit rates, national health spending doubled between 1998 and 2004.

Figure 1
Health expenditure as a % of GDP,
OECD countries that define the upper
and lower spending band, 1960–2005



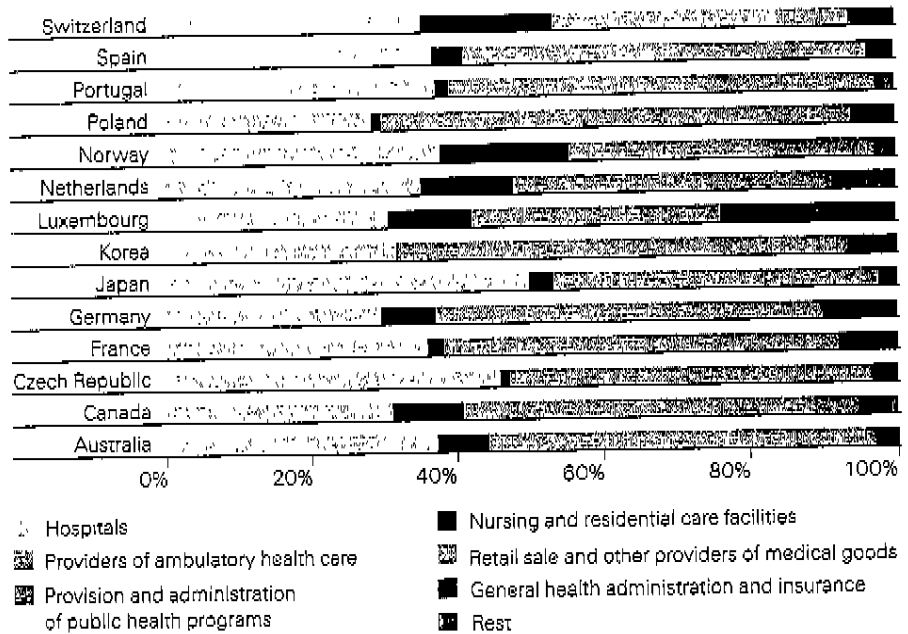
¹ Poissal, J. A. et al. (2007), Health Spending Projections Through 2016: Modest Changes Obscure Part D's Impact, *Health Affairs*, 26(2), 242–253.

Supply and demand for healthcare

In the developed world, most healthcare expenditure accrues in hospitals and ambulatory care.

One can compare the composition of healthcare spending across countries by referring to the OECD System of Health Accounts or WHO's National Health Accounts (see Figure 2). Based on the former, it can be said that most healthcare expenditures accrue in hospitals or in ambulatory healthcare, followed by retail sales and providers of other medical goods, eg providers of pharmaceuticals, hearing aids and vision products etc.

Figure 2
Health expenditure by provider



Source: OECD

The strong preference for health as wealth increases is what drives demand.

The rise in healthcare expenditure around the world reflects people's desire to improve their health status and quality of life. With increasing purchasing power and economic wealth, people as well as governments are willing to spend more of their budgets on health. This increase in demand is appropriately reflected in the definition of health. In 1946, WHO defined health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity", a definition that has been modified to include the ability to lead a "socially and economically productive life." This all-embracing definition together with improved living standards have stimulated demand for health and lifestyle products that were not even considered a hundred years ago. One would not have imagined that there would be such a demand for anti-depressants or plastic surgery even decades ago.

Figure 3
Total health spending of 191 WHO
members 2007, USD 5 trillion



Note: Estimated using WHO NHA data 2004 and IMF world GDP 2007. Top 10 healthcare economies are depicted.

Source: Swiss Re Economic Research & Consulting

On the supply side, advances in medical technology and infrastructure are the main drivers.

The demand for healthcare can only be met through the availability of medical technology and infrastructure. Thanks to advances in technology, what was deemed impossible only decades ago is now routine. For example, major cardiac arrhythmia often resulted in sudden death. However, during the second half of the 20th century, the implantation of pacemakers became a standard operation, thereby saving thousands of lives. As medical technology continues to advance at a rapid pace, so does the volume of treatments.² Medical devices and methods for diagnosis have also improved. Today, it is possible to detect more diseases and disorders than ever before. This paves the way for additional treatments and therapies.

Healthcare expenditure ultimately aims to increase quality of life and longevity. Every single "success" results in further demand for healthcare, eg an individual who survives a severe impairment will demand more healthcare in the future. Because this process is self-fuelling, it can be said that the supply and demand for healthcare are interdependent.

² Innovation itself was driven and influenced by several factors in and outside the healthcare systems, for example, the increased widespread use of pre-paid insurance schemes that eroded cost-benefit considerations of patients. Finkelstein (2006) estimates that the spread of health insurance in the second half of the 20th century was responsible for about half of the increase in per-capita spending on health.

Supply and demand for healthcare

Many factors drive healthcare costs. The most important are: preferences for health, progress in medical technology, poor life-style, medicalisation and, to some degree, demographics.

The increase in demand for healthcare has also led to a stark increase in healthcare costs. Medicalisation, the process by which behavioural problems come to be defined and treated as medical issues, as well as defensive medicine, a safeguard against possible malpractice liability, have both contributed significantly to increasing healthcare costs. Poor lifestyle choice and aging of the population have also led to rising healthcare expenditures. However, several studies have concluded that the extension of life expectancy itself has had a limited impact on the growth of health spending.

Given these cost drivers, it is likely that an even higher share of GDP will be needed to cover health expenditures in the future. However, since healthcare must compete with other private and public expenditures, such as leisure, education, infrastructure investments, provision for old age, etc, acquiring the necessary funds will be a challenge.

Given that many of the cost drivers are related to global developments, such as economic progress and the worldwide spread of new (medical) technologies, it is likely that countries with less-developed economies and healthcare systems will catch up. Healthcare costs will not only rise, but also converge, at least to a certain degree.

Healthcare: a unique service

Healthcare is a complex process, involving unique patients and many service providers.

The trend of rising healthcare expenditure is worrying for both policymakers and private households. In addition, healthcare financing and delivery pose certain challenges that are outlined below.

Healthcare purchases are unique and virtually incomparable to purchases of other goods and services. To begin with, healthcare services are highly customised to individual consumers, and often involve many different services and suppliers. Most treatments – especially the costly ones – usually last for weeks, or in some cases months or years. In addition, many medical service providers may be involved, either sequentially or simultaneously. Moreover, patients' genetic disposition and medical history tend to be heterogeneous, if not unique. Not infrequently, co-morbidities complicate medical management.

The complexity of healthcare delivery poses a number of additional challenges:

A lack of coordination and standardised procedures result in unnecessary costs and foregone quality.

- First, information is often not shared between the parties involved in the treatment process (eg general practitioners, specialists, hospitals, nursing care, long-term care). If treatments are not coordinated, information must be gathered again and again when patients are passed to the subsequent suppliers, due to the lack of *case management*.
- Second, both physicians and to some extent patients do not favour standardised treatment. Such a standardised approach often infringes upon a physician's *clinical freedom* to decide on and administer an alternative treatment. In some cases, healthcare providers have resorted to the practice of *disease management* to reduce healthcare costs and/or improve quality of life for individuals with chronic diseases, such as coronary artery disease, renal failure, hypertension, congestive heart failure, obesity, diabetes, asthma, cancer, arthritis and depression.

Price-quality competition is rare because data on outcome quality is lacking.

- Third, suppliers are incentivised to provide more services than reasonable in order to achieve objectives other than the patient's improved health. Such *supplier-induced demand* is possible since service providers always have an information advantage over others (ie asymmetric information).
- Fourth, since patients often demand a specific treatment only once, they lack the experience needed to make sound decisions. Moreover, price and outcome data are not systematically collected or evaluated. Even when available, a patient's decision for one healthcare provider versus another seems to be heavily influenced by factors other than quality and price.

Asymmetric information allows medical service providers to inflate/induce demand.

- Finally, it is well-known that patients who have insurance coverage behave differently from those who do not.³ This phenomenon is known as moral hazard, and refers to the fact that those insulated from risk tend to be less concerned about the negative consequences of the risk than they might otherwise be. Put differently, individuals with health insurance often lack incentives to reduce the probability of impairments (ie *ex ante moral hazard*) or once a medical condition has been diagnosed, they desire the most comprehensive and state-of-the-art treatment available (ie *ex post moral hazard*).

These challenges make healthcare markets exceptionally vulnerable to inefficiencies. Therefore, governments often intervene due to a perceived failure of market forces to address the above issues. Private insurers, on the other hand, can address many of these challenges by designing new products, implementing new incentive schemes, efficiently managing claims and improving information technology.

³ Newhouse, J.P. (1996), *Free for All? Lessons from the RAND Health Insurance Experiment*. Harvard University Press.

Financing healthcare

Financing healthcare

The manner in which healthcare systems are organised and financed varies substantially between countries. Economic, institutional, cultural and social factors also play an important role. In countries where markets are inadequately organised and government schemes are nonexistent, individuals must finance healthcare themselves. This is still the case in many developing countries. In the developed world, however, governments tend to build up a health infrastructure, install their own risk pooling entities, or regulate the markets so that private insurance is available.

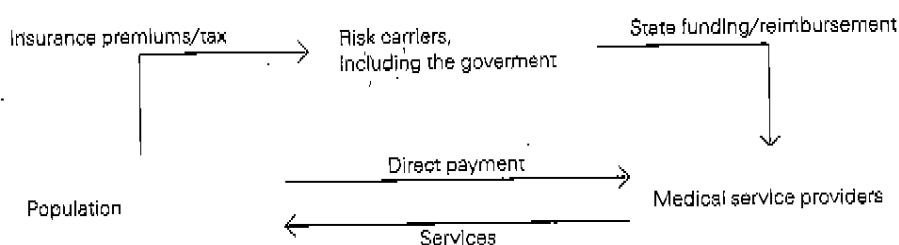
Evolution of health insurance financing

Reduction in out-of-pocket payments is a common goal in healthcare financing.

The simplest way to finance healthcare is out-of-pocket (OOP), particularly when health expenses are affordable. However, one's personal savings may be insufficient to cover catastrophic treatment costs. Moreover, once ill, the ability to earn money may be reduced, resulting in an endless spiral. In such cases, those who are ill must rely on their relatives or on charitable contributions. This occurs frequently in developing countries. Therefore, reducing the proportion of OOP is high on the agenda in these countries. However, in some countries a gap exists between regulation and reality, which makes informal, under-the-table OOP payments necessary to receive timely treatment.

Instead of OOP, many countries finance healthcare with general taxation revenue and direct provision of public care. This concept dates back to 600 BC, when medical treatment was free for all citizens of Athens. Greek physicians were employed by the state and healthcare was financed with taxes. Today, the most prominent national health service is the UK's NHS, which was established in 1948.

Figure 4
A healthcare financing system



Source: Swiss Re Economic Research & Consulting

While direct provision of public healthcare can improve solidarity, it is not without its disadvantages. Long waiting times are typical of public systems. Moreover, it is not possible to provide choices in the degree and scope of the insurance coverage. Even though there is never a one-size-fits-all solution in healthcare, public healthcare, in particular, tends not to cater well to individual needs and preferences. As citizens' expectations increase in regard to quality and flexibility, governments in developed countries have considered how to improve the system by making use of alternative forms of financing. Health insurance that detaches the function of fundraising from provision of healthcare has been widely considered.

Financing through social or private health insurance

Social health insurance improves population coverage, but it often lacks choices and is inefficient.

Modern health insurance was introduced in Germany during the 19th century as a social scheme. Otto von Bismarck was the first to make social health insurance mandatory for the working population. The list of benefits included medical expenditure coverage, sickness allowance, maternity and death benefits. The rationale was that social health insurance would have a social pay-off, despite the considerable financial costs.

Today, social health insurance (SHI), as a general term, exists in many forms. SHI can be directly administered by governments or social security offices (eg single-payer systems, such as US Medicare and Medicaid, Australian Medicare, or national health insurance in Japan and Taiwan) or through sickness funds (eg as in Germany and Switzerland). In addition to wage contributions or premiums, public funds are used to finance SHI.

The aim of SHI is to offer an affordable basic scheme with broad population coverage. However, it often comes with tight regulations that make insurance mandatory and/or restrict the choices available. In such a regime, the choice of schemes must be limited: if there are too many choices on the menu, individuals would "gravitate" to the scheme that minimises their costs. Put differently, healthy people would opt to pay lower premiums and buy lean insurance, while those who are ill would have to choose more comprehensive schemes with higher premiums. This results in risk segmentation, which undermines the imposed solidarity.

An ongoing debate: what is private health insurance?

There is no single definition for private health insurance. Depending on the context, there are different criteria used to classify the nature of various health insurance schemes. The most common are:

- the level of choice, ie voluntary vs mandatory
- the source of financing, ie public or private, and the extent and nature of government subsidy
- the supervising authority/regulatory body and the degree of government involvement in the actual operation.

According to the World Health Organization (WHO) *private insurance schemes* are not controlled by government. Though broad guidelines are given by the government, there is no control over payment rates and participating providers. Private insurance enrolment may be contractual or voluntary, and conditions and benefits are agreed on a voluntary basis between the insurance agent and the beneficiaries. The following types of schemes are usually considered "private":

- schemes run by non-profit institutions (mutual benefit societies, friendly societies, institutions co-administered by the social partners, etc);
- schemes administered by commercial insurance companies;
- non-autonomous schemes run by employers, with or without maintaining segregated funds to cover their obligation to pay benefits in the future.

Using the WHO terminology, *private group insurance*, or *private social insurance*, refers to private insurance available to a group of subscribers related by some common characteristic, such as their employer or trade association. Group insurance is not available to unaffiliated individuals or families.

Social security, or *social health insurance*, schemes are mandatory and controlled by government. Social security consists of special kinds of institutional units that may be found at any level of government – central, state or local. Social security schemes are social insurance schemes covering the community as a whole or large sections of the community, which are imposed and controlled by government units. They generally involve compulsory contributions by employees or employers or both, and the terms on which benefits are paid to recipients are determined by government units. There is usually no direct link between the amount of the contribution paid by an individual and the risk to which that individual is exposed.

PMI offers choices to the insured and addresses individual preferences.

In contrast to SHI, insurance schemes offered in the *voluntary market* are mostly operated by the private sector. Some of these health plans may be subsidised or heavily regulated (eg risk equalisation or restricted rate-making), though individual enrolment is not mandatory. The private sector is better positioned to respond to individual needs and design plans tailored to individual preferences, which are often heterogeneous. Private medical insurance (PMI) can offer flexibility, while motivating insurers to provide technologies, treatments and procedures that are innovative and cost-saving. Moreover, private operators are incentivised to provide value for money and may be best positioned to meet global health-care needs.

Private health insurance products

Health insurance is personal insurance that provides coverage for the cost of hospital and medical expenses arising from illness or injury. Benefits are paid as a fixed lump sum or as a proportion of actual treatment costs (indemnity).

Indemnity or reimbursement insurance covers medical expenses defined in the policy. It may be on a first-dollar basis or with a deductible; it may also be with or without coverage limits. Co-payments and co-insurance are typically put in place to reduce fraud and moral hazard. In some markets, it is referred to as medical expense insurance (medex).

Hospital cash policies pay out a fixed amount of money for every day the insured is in the hospital. The idea is that the money can be used to pay the costs of the hospital stay, or perhaps the cost of treatment during that period. However, what the money should be used for is not specified, so it could even be used to pay for a holiday when the person recovers.

Critical illness (also called dread disease) policies pay out the sum insured if a specific severe condition is diagnosed (eg heart attack, cancer, stroke, kidney failure, coronary bypass surgery). It helps cover costs incurred due to hospitalisation, intensive care, surgery, medicines, etc. Originally, it was a "living" benefit under a life insurance policy.

Broadly speaking, private health insurance also includes long-term care and disability benefits. In this *sigma*, we focus on indemnity insurance and refer to it as private medical insurance (PMI).

Public-private partnership

In recent years, public-private partnership (PPP) has become prominent in public policy debates. In view of the budgetary pressure and the expected cost trends, governments will increasingly have to address the dilemma between equity and efficiency in the system.

PPP is an option for both developed and developing countries. In developed countries with direct provision of healthcare, PMI is a way to strike a balance between access to healthcare, costs and preferences. It allows people to buy additional coverage according to their individual needs and preferences, while alleviating burdens on public health plans.

In developing countries, on the other hand, PMI may help to increase coverage. This is especially true where taxes levied to finance the public scheme result in macroeconomic distortions that erode the benefits of risk-pooling.⁴ Moreover, in a stable regulatory environment, PMI may contribute to the establishment of a medical infrastructure.

**Combining the best of two worlds:
social health insurance for basic
coverage, private insurance for the rest.**

⁴ Pauly, M.V., Zweifel, P.S., Scheffler, R.M., Preker, A.S. and M. Bassett (2006), Private Health Insurance in Developing Countries, *Health Affairs*, 25(2), 369–379.

Roles of private medical insurance

PMI has evolved into different forms, depending on the role PMI plays in a given healthcare system. According to OECD, PMI can be classified according to eligibility for social health insurance and services covered.⁵

PMI may be a *primary* source of coverage for population groups without access to public health coverage. It may also *duplicate* existing public universal coverage by offering a private alternative to it. Likewise, it may cover the part to be borne by the patient under state co-sharing schemes and, thus, have a *complementary* role. Last but not least, PMI may finance goods and services that are excluded from the public coverage and therefore be *supplementary* to public health systems. These four options are not mutually exclusive.

Primary	Duplicate	Complementary	Supplementary
Spain	Greece	Denmark	Canada
Belgium	Mexico	France	Czech Republic
Austria	United Kingdom	Luxembourg	Hungary
Germany	Finland	Sweden	Iceland
United States	Ireland	Turkey	Korea
Netherlands	Italy	China	Poland
	New Zealand		Slovak Republic
	Portugal		Switzerland
	Australia		Japan
	South Africa		Israel

Countries position private medical insurance in one of the above ways, depending on how their governments organise public schemes, such as social health insurance or direct provision of public care. Possible market failures and consumer protection issues are often used to justify the heavy involvement of governments and hence, the existence of social health insurance. Policymakers often note the following differences between public and private schemes:

Social health insurance

- Non-profit in nature
- Aims to cover a range of basic services
- High population coverage for equity concerns
- Rate making not based on affordability
- Often on the agenda in country politics

Private medical insurance

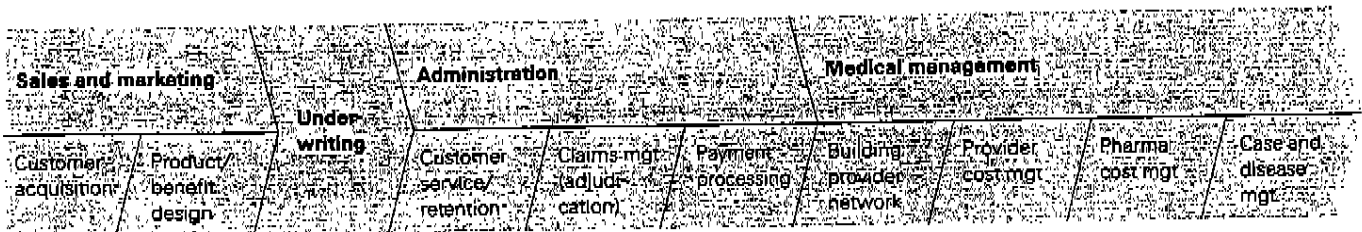
- Complies with commercial objectives
- Aims to promote choices, flexibility and efficiencies
- Often regulated and limited to a small segment
- Experience rating or community rating

⁵ Colombo, F. and N. Tapay (2004), *Private Health Insurance in OECD Countries: The Benefits and Costs for Individuals and Health Systems*, *OECD Health Working Papers No 15*.

The entire health insurance value chain includes marketing, underwriting, administration and medical management.

The scope of PMI may be very different, depending on the market environment and the skills of the insurer. Typically, a PMI insurer is responsible for product design, distribution and underwriting. In addition, the insurer is the risk carrier and administers claims processing. In medical insurance, the risk carriers should also consider medical management, at least if cost containment is an important issue.

Figure 5
Stylised value chain of managed care



As explained earlier, the healthcare market involves inefficiencies within the multiple decision process of treatment. As a result, claims costs and premiums increase. Some insurers attempt to minimise this waste by building a provider network and introducing cost management and managed care in the form of disease and case management. The goals are to align interests between the policyholders, insurers and medical service providers, to establish best practices and provide high quality treatment. Active medical management without jeopardising patients' personal preference and physicians' clinical freedom determines the success of medical insurance in the voluntary market.

Successful health insurers possess competencies not only in underwriting risks, but also in influencing clinical decisions. They also focus on the efficient handling of large volumes of heterogeneous transactions. Likewise, insurers understand the importance of efficient administration and claims management processes. Private sector insurers are particularly motivated to develop innovative solutions in order to lower their combined ratios. When attempting to increase their market share in the most competitive markets, they must do so without compromising client satisfaction.

Often the service provider – not the financier – takes the lead in the health insurance value chain. However, the latter negotiates on behalf of its clients for cost-effective, quality care that suits their preferences. One major problem in the US market is that employers, rather than individuals, decide what to cover and what to exclude. To realise the full economic value of health insurance, the trend is for the private sector to address individual preferences as much as possible.

The tales from two camps

The ability to influence medical decisions determines how successful health insurance can be. Medical service providers themselves will have a natural advantage when expanding their business to underwrite health risk. This was the story of Blue Cross in 1929. Justin Ford Kimball headed the faculties of medicine and nursing, which were endowed by a university hospital in Texas. Under his administration, he developed the first health plan in modern American history. The plan guaranteed teachers 21 days of hospitalisation for USD 6 per year. Around the same time, the Blue Shield concept emerged when workers of the lumber and mining camps of the Pacific Northwest faced frequent injuries and chronic illness. Employers began to make arrangements with physicians who were willing to accept a monthly fee for their services. In 1939, Carl Metzger introduced the Blue Shield symbol. The concept of Blue Cross and Blue Shield eventually became the icon of employment-based health insurance, which was originally an arrangement between physicians and employers/workers.

In contrast, life and P&C underwriters have gradually transformed themselves into players in the market. For example, CIGNA was formed after a merger between INA, the first US marine insurer, founded in 1792, and the Connecticut General Life Insurance Company, CG, founded in 1865. In 2004, CIGNA completed a series of retrenchments and focused its strategy on health and related benefits products. Similarly, Aetna sold its P&C operation in 1996 to Travellers and its financial services arm to ING in 2000. Aetna has since gone through two mergers with specialised health benefit groups, and acquired the skills and competencies needed in the health sector.

PMI may therefore help to improve healthcare delivery if it is well embedded in the healthcare system and is able to prosper. More specifically, private medical insurance:

- offers innovative insurance contracts that better suit the insured's preferences;
- adds capacity where it is most scarce;
- has proven to be better at contracting with medical service providers, and hence increases efficiency and quality of service providers;
- helps diffuse innovations that are subsequently copied by the social health insurance (ie positive spill-over);
- is a catalyst for structural transformation.

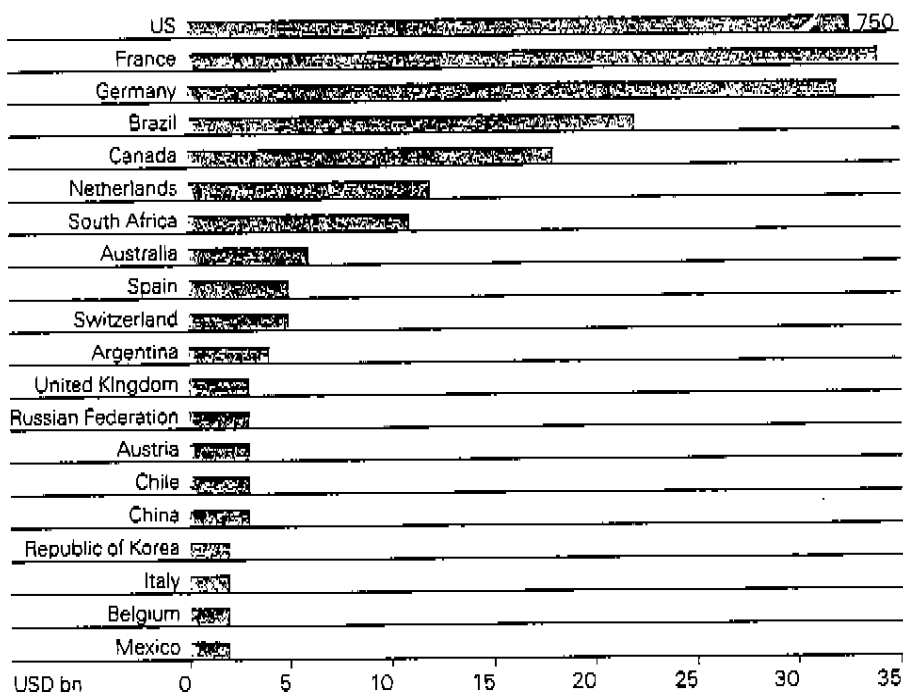
In order to ensure that private medical insurance adds value to the health system, and at the same time is run profitably, private operators will need to consider the presence of SHI and related regulations. The role assigned to PMI is determined by each country. However, once the role of PMI is defined and appropriate regulation is established, private-market solutions can emerge for the benefit of all.

Global trends in private medical insurance

The world's private medical insurance expenditures are approaching USD 1 trillion. The US alone accounts for 80% of spending.

The world spends more than USD 5 trillion on healthcare. Expenditures on private medical insurance are expected to reach USD 1 trillion. The United States alone accounts for 80% of the spending, followed by France and Germany. As discussed previously, the role of private medical insurance is largely determined by the politics of healthcare in a specific market. Each nation defines the level and nature of involvement of the private sector. However, recent healthcare reform around the world has actually spurred insurers to develop proactive strategies in response to the health system changes.

Figure 6
Healthcare spending funded by private prepaid plans, 2007 estimates



Note: Estimates based on WHO National Health Accounts 2004 and Swiss Re estimates of GDP 2007. Only the top 20 markets are shown here. Numbers refer to health spending funded by PMI (not PMI premiums). When compiling NHAs, researchers of different countries might use different methodologies.

Source: Swiss Re Economic Research & Consulting

Consumerism is growing

Consumerism is seen as a way to shift power to the insured and provide incentives for sound decision making.

Consumerism is growing in some developed markets, particularly in the US, where consumer-driven health plans are becoming widespread. In the US, tax-advantaged accounts, such as medical saving accounts or health reimbursement arrangements, are increasingly being paired with high-deductible health plans. In 2003, these plans received a boost with the passage of the Medicare Modernization Act, which provided tax incentives.⁶ The idea is that consumers, the ultimate beneficiaries, should be engaged in every stage of the healthcare value chain, from choosing among different plans to choosing providers. Consumers are in turn motivated by an increased financial stake in the form of deductibles and a tiered-benefit design. In order for patients to make choices, they need information, which forces medical service providers to make prices transparent and improve quality. Consumer-driven health care, therefore, seeks to shift the control of resources from insurers to individual consumers.

High deductible health plans reduce moral hazard.

Assessing the impact of consumer-driven health plans on utilisation, quality and healthcare costs is rather speculative due to the short history of the plans. However, early evidence suggests that by empowering consumers to make proper choices, healthcare costs can be lowered without sacrificing the quality of services. A UnitedHealthcare study indicated that consumer-driven health plan enrollees were not only more engaged and acted more thoughtfully, but they also reduced their utilisation of outpatient and lab services by more than 10%. In addition, use of preventive care services increased 8%.⁷ An Aetna HealthFund study showed that enrollees maintained or improved levels of chronic and preventive care, and increased their use of generic medications, consumer tools and information. Aetna consumer-driven health plans saved USD 1 000 per member over a three-year period.⁸ Whether consumer-driven health plans are just a temporary fad or prove to be long-lasting is yet to be seen. In Singapore, however, a similar system was introduced decades ago, together with a high deductible health plan. High deductible plans are expected to be a promising alternative to traditional social and private medical insurance (see box Medical saving – a Singaporean invention).

⁶ According to the America's Health Insurance Plans (AHIP, an industry trade group representing managed care plans and health insurers) 4.5 m people were covered with a MSA/HDHP in January 2007, compared to 3.2 m a year earlier.

⁷ Thomas Policelli, UnitedHealth Group, written communication, June 2004, cited in Herzlinger R., and R. Parsa-Parsi (2004), Consumer-driven health care, *JAMA*, 292(10), 1213–1220.

⁸ Aetna Annual Report 2006.

Medical saving – a Singaporean invention

MSAs are personal savings accounts opened by individuals to cover future healthcare expenses. Whether induced by tax incentives or required by law, deposits are made regularly into a MSA. Enrolment in a high-deductible catastrophic insurance scheme is quite common.

The origin of this concept can be traced back to 1984 in Singapore, which introduced MEDISAVE, a compulsory savings element of its national retirement system. Employees contribute 6 to 8% of their salary into the MSA, which is matched by their employers. Individuals can use their MSA to finance hospital expenses that either they or their immediate family incur, or to finance expensive outpatient treatments, such as chemotherapy, HIV drugs, and kidney dialysis.

MSA account holders face the risk that catastrophic illness could wipe out their account. In the absence of a traditional social health insurance in Singapore, the MEDISHIELD programme was introduced in 1990 to cover catastrophic risks. Premiums may be paid out of the MEDISAVE account. To ensure that MEDISHIELD is limited to catastrophic illnesses, high deductibles and a 20% co-payment apply, though deductibles and co-payments may be paid out of the MEDISAVE account.

It is based on the belief that MSA encourages individuals to take responsibility for their own healthcare needs by providing incentives to save and to avoid unnecessary use of medical services. In turn, MEDISHIELD premiums are low, since catastrophic events occur rarely. However, it remains unclear whether the Singaporean saving model can be adopted by other countries without the prolonged economic growth experienced from the 1970s to the 1990s. However, many variants of medical saving schemes have been launched or proposed in other markets.

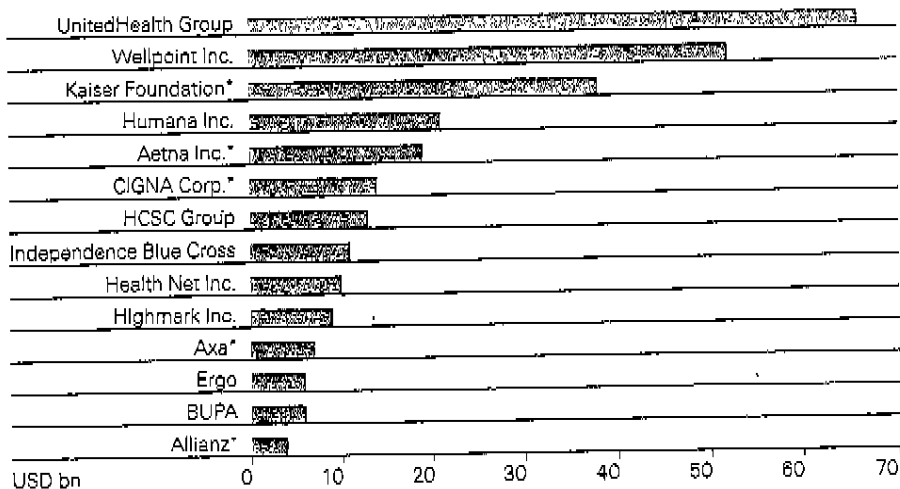
Scale and scope in medical insurance

Scale and scope advantages in healthcare further expedite market consolidations.

Since medical insurance is a complicated business, entering the market and competing for market share require substantial initial investments in know-how and distribution as well as in provider network and information infrastructure. A necessary condition for insurers' willingness to invest upfront is that the market should surpass a minimum scale in order for such investments to be worthwhile. Most of the largest health insurers are based in the United States. Many of them have been building up their medical expertise and capacity for more than half a century.

Global trends in private medical insurance

Figure 7
The world's top health underwriters
by net premiums earned, 2006



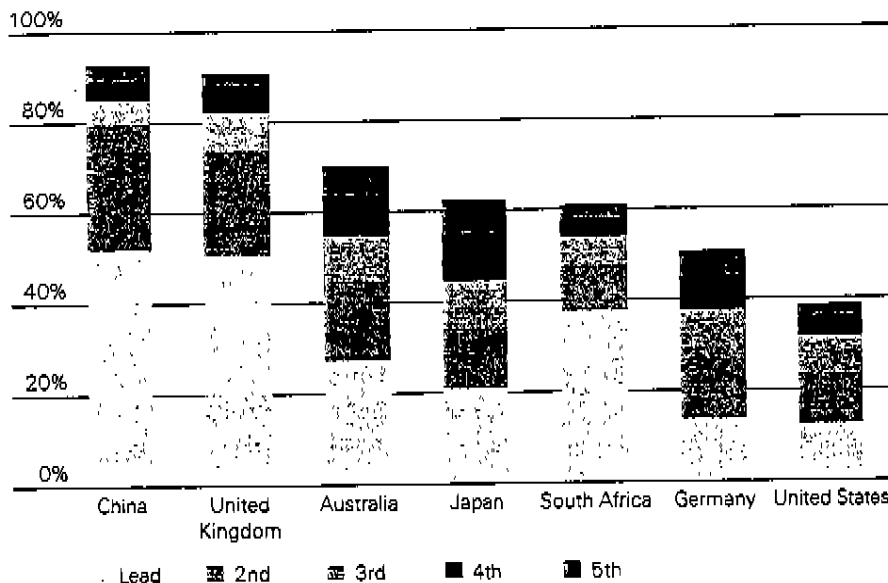
* Kaiser data refers to revenue, not NPE; Cigna: includes disability & life business; Aetna: includes group life, disability & LTC; AXA: includes all health lines, including disability; Allianz: German health business only.

Source: Company financial statements, Conning, Swiss Re Economic Research & Consulting

Continual expansion of the membership base is critical in the health insurance business. In a competitive environment, M&A and market consolidations are seen not only in the US⁹, but also in other markets. For example, the adoption in 2006 of the Health Insurance Act (ZVW) in the Netherlands, which converted all sickness funds to private insurer status, is expected to lead to further consolidation in the market (ie horizontal integration). In Australia, most privately owned mutuals are poised to go public, following in the footsteps of the market leader Medibank. A wave of consolidation is expected to follow. Evidence indicates that private medical insurance markets that are smaller than the US market are often dominated by a few big players.

⁹ Recent M&As in the US include Wellpoint's acquisition of Atrium, UnitedHealthcare's acquisition of Definity, and CIGNA's acquisition of Memphis-based Mid-South Administrative Group.

Figure 8
Market share of top 5 PMI players
in selected markets



Note: Estimates based national insurance statistics; South Africa: refers to Open Schemes only; Japan: refers to 3rd sector business; United States: include HMO business.

Source: Swiss Re Economic Research & Consulting

Modern integrated care leads to cost savings and increased quality.

M&A activity is typical in the insurance industry. A key feature in deals is the acquisition of provider networks, i.e. vertical integration. Medical insurers have a special tie to medical service providers, since it is the providers who determine the level of claims and hence, profitability of the insurance business. Securing provider networks and delivering integrated services are common in the US.¹⁰ In other markets, contracting with preferred or authorised providers is often regarded as the only possible way to manage claims in reimbursement plans.¹¹

Using an integrated approach, insurers channel and concentrate treatments to those medical service providers who prove to be cutting-edge. This fosters the development of high-volume, specialised service providers, and the achievement of economies of scale. Specialised, high-volume facilities also result in higher-quality diagnoses and treatments.¹² Unnecessary procedures may be averted, and policyholders who choose such an insurance plan on a voluntary basis may benefit from lower premiums. For example, US insurers are beginning to integrate across specialities such as medical, pharmacy, behavioural health, dental and disability, and are covering multiple health conditions. This helps to identify people with serious chronic conditions earlier, which may in turn result in cost savings.

¹⁰ For example, CIGNA HealthCare announced a strategic alliance with MVP Health Care/Preferred Care to leverage an additional 19 000 providers and 150 hospitals in 3 states. (Annual Report 2006).

¹¹ Examples are BUPA's efforts in forming the MRI network and approving ophthalmic providers (Annual Report 2006).

¹² Birkmeyer, J. D. et al. (2002), Hospital Volume and Surgical Mortality in the U.S., *New England Journal of Medicine*, 346 (15), 1128–1137; Birkmeyer, J. D., Skinner, J. S. and D. E. Wennberg (2002), Will Volume-Based Referral Strategies Reduce Costs Or Just Save Lives?, *Health Affairs*, 21(5): 234–241.

Integrated healthcare is a business model that has proven to be competitive. It not only allows insurers to improve quality and costs of treatment, but it also allows them to achieve economies of scale at the support services level. Large integrated groups can provide shared support services, such as regulatory compliance, education and training, financial management, and information technology (IT) support. Examples of this are shared longitudinal comprehensive electronic health records, which are vital for giving patients integrated care and providing caregiver support tools.

Life and general insurers sometimes enter the healthcare industry via an acquisition. Other forms of intermediaries, such as third party administrators (TPAs) with established provider networks, will be attractive partners for potential entrants wishing to form alliances and acquire industry expertise.

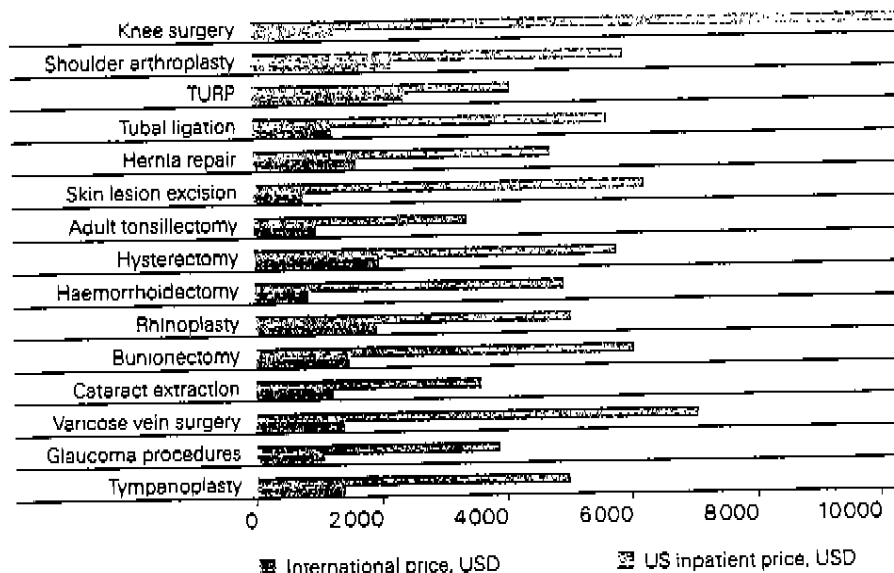
Medical tourism and globalisation

The globalisation of healthcare is expected to have a significant impact on the strategy of health insurance companies. Due to the huge cost differential between the developed and developing world, a number of Asian countries (ie India, Thailand and Singapore), as well as Latin American and East European countries, have been actively promoting their medical services worldwide. A recent study indicates that if one-tenth of US patients would travel abroad to be treated for the "most easily tradable procedures", yearly cost savings of USD 1.4 bn could be realised. These savings already take into account the cost of travelling.

Portability of insurance cover is the key to unlocking the promising medical tourism market.

Demand for treatment abroad will experience a boost when insurers start to offer such policies. Today, health insurance plans mostly discriminate against treatment abroad, with insurers usually excluding coverage abroad, except for emergency treatment while travelling. Obviously, extending coverage to a worldwide network requires initial investments to establish contractual relationships or networks with medical service providers. Moreover, policyholders must realise the benefits, either in the form of lower premiums, deductibles and co-payments or better, more comprehensive services. However, in view of the significant savings potential, some experts believe that medical tourism health plans will eventually become available and revolutionise healthcare delivery (see text box Medical tourism: from a niche product to a mega-trend?).

Figure 9
US-foreign price differentials of medical
procedures



Note: International prices were estimated based on claims data from 21 countries. The cost of round-trip airfare to these countries was included.

Source: Mattoo A. and R. Rathindran (2006), How Health Insurance Inhibits Trade in Health Care, *Health Affairs*, 25(2), 361.

Medical tourism: from a niche product to a mega-trend?

Getting treatment abroad is gaining in popularity. India, considered one of the leading medical tourism providers, attracted 500 000 foreign medical tourists in 2006. Revenues totalled USD 350m, and the annual growth rate for such services was 30%. Around 150 000 medical tourists went to Bangkok, Thailand, in 2005, resulting in revenues of USD 1bn. Many other countries positioned themselves in the medical tourism arena, while others explicitly stated that they wish to enter the business.

There are many reasons to undergo treatment abroad. First, medical costs vary substantially between countries. Second, limited capacity and long waiting times or even the lack of supply of certain treatments may be additional reasons. Third, dissatisfaction with the domestic health system and superior medical, nursing or amenity services abroad are appealing to many medical tourists.

The whole range of treatments is not suitable for medical tourism. Most suited are elective procedures as well as non-acute, complex surgeries, such as joint replacement, cardiac surgery, dental surgery, and cosmetic surgeries. Furthermore, it is required that: (1) patients are able to travel without major pain or inconvenience; (2) procedures have minimal rates of post-operative complications; and (3) the procedure involves minimal follow-up.

From the perspective of the developed countries, medical tourism may appear somewhat unappealing, and low quality may be a real concern. However, medical service providers are well aware of this concern and have strived for international accreditation, such as Joint Committee International (Joint Committee on Accreditation of Healthcare Organisations) and International Organization for Standardization certification (ISO). Many – if not all – successful medical service providers in the medical tourism arena have received such an accreditation, are equipped with state-of-the-art equipment, and often employ medical and nursing staff with American or European professional certifications (eg US Medical Licensing Exam, USMLE, and the National Council Licensure Examination for Registered Nurses, NCLEX-RN).

A more widespread use of medical tourism requires better information and awareness of the quality of foreign medical service providers. Patients will demand better protection and guarantees in case of malpractice and complications. Once these obstacles are overcome, medical tourism is likely to lead to better quality treatments for less money.

Companies with global aspirations are also increasingly interested in specific segments, such as the rural sector and the Islamic world. In Africa and Asia, a number of projects have been piloted to develop microinsurance schemes for the rural population. Many of these schemes have been initiated by local governments and international donors.¹³ This has also attracted the attention of some international (re)insurers. It has also been reported in the media that a number of medical and health products are being launched by Takaful companies.

However, going global remains a rare phenomenon in health insurance and it is very sensitive to political and public policy risk. For example, BUPA has recently retrenched its operation in Ireland because of the passage of the risk equalisation scheme. Some divestments have also taken place in emerging markets (eg it was reported that CIGNA and HSBC sold their Brazilian operations in 2003). While China has been a magnet for foreign direct investment in the past two decades and is currently a large health economy, specialised insurers have established a presence there only over the past two years by setting up representative offices.

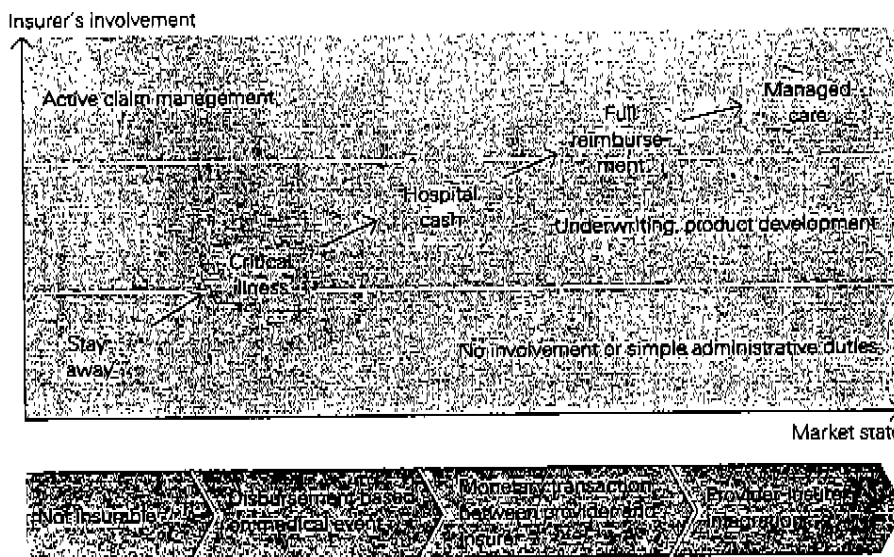
¹³ See McCord, M., *Health Care Microinsurance – case studies from Uganda, Tanzania, India and Cambodia* (<http://www.microinsurancecentre.org/>)

Running private medical insurance profitability

Community preference and regulation determine the potential market for private medical insurance.

The market size and the profitability of private medical insurance depend on the operating environment. Private medical insurers will participate in a healthcare system only if they can operate profitable and sustainable businesses. This, in turn, depends on how policymakers draw the boundary between social and private medical insurance. In some situations, the operating environment simply does not support the private market. In other instances, a mature market will allow a full integration of healthcare and financing (see graph below).

Figure 10
Hierarchy for participation in medical insurance business



Source: Swiss Re Economic Research & Consulting

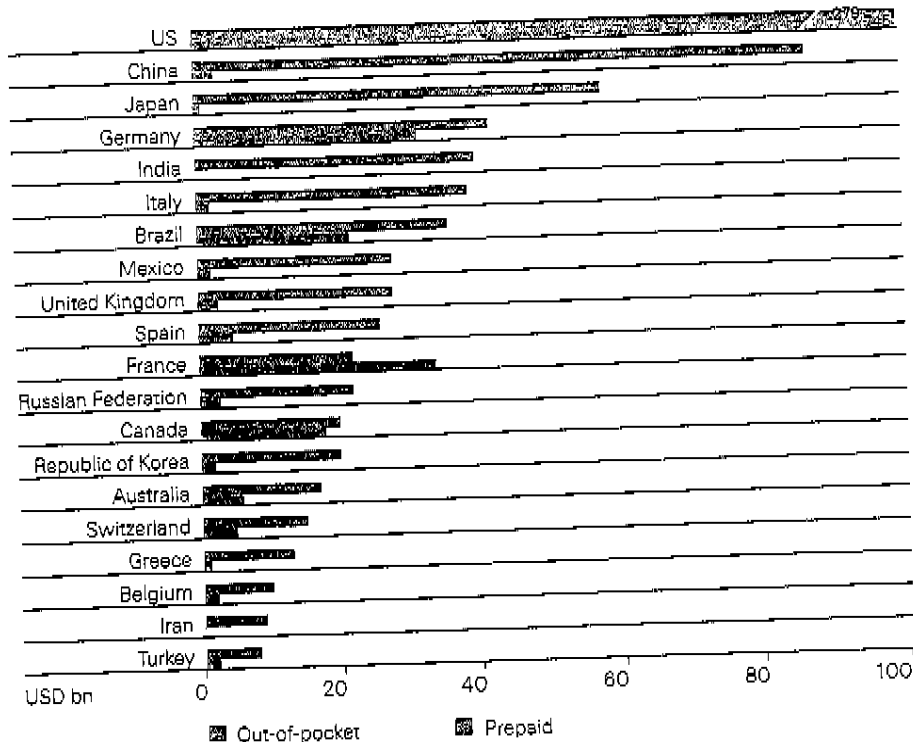
Assessment of market potential

Health insurance requires substantial investment in know-how and infrastructure. To justify this, a target market should have sufficient size. Total healthcare expenditure and the share financed through private medical insurance offer crude, initial indicators for assessing potential markets (see graph below). Today, the US, France, Germany, Brazil and Canada are the most dominant PMI markets.

In many developing countries like China, India and Mexico, the market for private prepaid schemes is still small, while out-of-pocket payments are much bigger in volume. There are opportunities to channel the latter to the former if the governments choose to do so. The volume of out-of-pocket financed healthcare can indicate the market potential for private medical insurance. Policymakers can also cultivate a suitable market environment so that private insurance develops into a promising value proposition in these countries.

Running private medical insurance profitability

Figure 11
Potential market volume, 2007 estimates



Note: Estimates based on WHO National Health Accounts 2004 and Swiss Re estimates of GDP 2007. Only the top 20 markets are shown here. Numbers refer to health spending funded by PMI (not PMI premiums). When compiling NHAs, researchers of different countries might use different methodologies.

Source: Swiss Re Economic Research & Consulting

However, a high proportion of out-of-pocket financed healthcare should also be a warning sign for private insurers, given that it is the result of either inadequate regulation or a poor market environment. Therefore, insurers should know how policymakers define the role of PMI and what they expect from the private insurance industry.

In order to enable medical insurers to run their businesses profitably, some key requirements need to be met. PMI must be given adequate freedom in designing products, and needs to have the freedom to select risks. In addition, PMI should price products according to actuarial principles. Finally, PMI must be given the right to contract with medical service providers who prove to offer superior quality at a competitive price. In order to strike a balance between high-quality and competitive premium levels, some insurers have specialised in managing the process of healthcare delivery. The key is to understand and react to the factors affecting the entire medical insurance value chain.

The rise of 3rd sector products in Japan

By any standard, Japan should be considered one of the biggest markets of private health insurance. According to insurance statistics, the annualised premium income for the 3rd sector (in which private health insurance is sold) was about USD 38 bn for the fiscal year 2005. This is in stark contrast to the health spending figures derived from WHO data (see Figure 11).

The expansion of the 3rd sector in Japan is a pertinent example of how citizens turn to the private sector due to the insufficient benefit coverage of national health insurance. The products generally provide fixed-amount benefits paid for hospitalisation, surgery and other medical services. The most popular products are hospital cash plans, which pay from 5 000 to 10 000 Yen per day for hospitalisation, up to a maximum of 120 days. Surgery benefits are a multiple, but also fixed amount.

A possible explanation for the discrepancy between the official and the WHO figures may be that hospital cash benefits are in principle paid directly to the household instead of to medical service providers. WHO considers hospital cash benefits as income; therefore, these payments are considered as out-of-pocket payments in national health accounting. As a consequence, private prepaid schemes seem to be insignificant, which reflects the very specific product mix in private health insurance in Japan.



Customer recruitment and product design

Balancing the cost-benefit of customisation in product design

For medical insurance, product design is crucial for many reasons. The product design defines benefits covered (eg scope of PMI), rates (eg level and intervals), renewal terms (eg level of rate guarantees), deductibles, co-payments and co-insurance, reimbursement as well as the medical service provider (eg point-of-service). These factors are often highly regulated.

Private medical insurance products must meet the demands of potential customers. Given the presence of social health insurance or national health services, PMI often works in residual markets (in terms of who and what has to be covered). Because preferences and resources available vary substantially between individuals in different markets, this calls for a market segmentation that addresses heterogeneous preferences. In fact, this is the advantage of PMI over rigid social health insurance. Those with limited financial means may pass up being able to choose the service provider in exchange for lower premiums. The wealthier are likely to prefer products with all the bells and whistles, ie maximum choice and comfort, and are willing to pay the higher price.

Running private medical insurance profitability

Product design requires accurate medical data.

Accurate data is also essential for product design. Because data accumulates over time and only when business is written, market entry is also difficult. Insurers in emerging markets face an even greater challenge, since most medical history and utilisation data are either unavailable or owned by social health insurers. Moreover, healthcare experience data is hardly transferable from one country to another. Insurers wishing to explore new markets can team up with a TPA or benefit consultants for information access. Generally speaking, international reinsurers have been active in nurturing their data capacity worldwide.¹⁴

Benefit design: PMI must understand how medical innovations diffuse in a specific market.

Benefit design is critical to the health insurer's exposure to medical cost escalation, which is in turn driven by the advancement of new medical devices, diagnoses and treatments. It is well known that medical innovations tend to increase healthcare spending in the long run. The exposure of an insurer to cost trends thus depends on how innovations¹⁵ diffuse and how access to new technology is granted to the policyholder. The use of a specific technology is often not defined in the policy.

A puzzling feature of many medical innovations is that they simultaneously appear to reduce unit costs and increase total cost.¹⁶

If new technologies are immediately included in the list of benefits for social health insurance, market pressure will force PMI to follow, regardless of the effectiveness, appropriateness, and cost-effectiveness/cost-benefit considerations. Medical service providers also play a crucial role in diffusing innovations. In healthcare systems with a high degree of pre-paid benefits, hospitals that are exposed to competition try to attract patients by adopting the innovation.¹⁷ A natural consequence is to raise the premiums shared among members of the pool. This may undermine PMI's attempts to offer cost-effective coverage.

¹⁴ Recent examples are Swiss Re's joint venture with TTK Healthcare Services and Munich Re's joint venture with the Apollo Hospitals Group in India.

¹⁵ There are different kind of innovations. Process innovations allow the delivery of the same product with fewer resources, eg information technology reduced administrative workload in hospitals. Product innovations, on the other hand, lead to new services, eg novel chemotherapies to treat patients with cancer.

¹⁶ Cutler, D. M. and R. S. Huckman (2003), Technological Development and Medical Productivity: The Diffusion of Angioplasty in New York State, *Journal of Health Economics*, 22, 187-217.

¹⁷ Luft, H. S., Robinson, J. C., Garnick, D. W., Maerki, S. C. and S. J. McPhee (1986), The Role of Specialized Clinical Services in Competition among Hospitals, *Inquiry*, 23, 83-94.

Table 1
Regulatory environment of top 10
private medical insurance markets

	Presence of SHI	Universal coverage by SHI	Regulatory body for PMI	Premium rate or benefit control on PMI	Guaranteed-renewability	Tax incentives for private plans
US	Medicare/Medicaid/CHIP	Elderly, disabled, children, the poor	State's insurance commissions	yes	yes (individual)	yes
France	NHI	yes	ACAM	no	yes, after 2 years (individual)	yes
Germany	Sickness funds	yes*	BaFin	yes	yes	yes
Brazil	yes	yes	ANS	yes	For employees dismissed	no
Canada	Provincial SHI	All residents	Office of Superintendents of Financial Intermediaries	no	no	yes
Netherlands**	no	no	DNB	yes	yes	no
South Africa	no	no	Council for Medical Schemes	yes	yes	yes
Argentina	yes	no	SSN	no	no	yes
Australia	Medicare	yes	Private Health Insurance Administration Council	yes	yes	yes
Spain	NHS	yes	DGS	no	no	yes

Note: Top 10 health economies (see previous chart) are included

* with the exception of those who qualify for opting out, those who are self-employed will have an obligation to take out coverage by 2009 (according to the healthcare reform 2007)

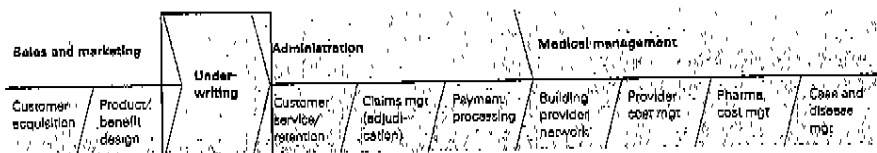
** ZVW is a mandatory private health insurance

Source: Swiss Re Economic Research & Consulting

Co-payments and co-insurance
are important means of reducing
moral hazard.

Ever since the RAND Health Insurance Experiment, cost-sharing has become a biblical verse in health insurance design. Moral hazard and excess utilisation remain major challenges. In order to limit moral hazard, medical insurance plans with deductibles, co-payments and co-insurance have been developed. The idea is that the insured should bear some of the treatment costs and thus refrain from demanding unnecessary services. In the US, medical insurers are increasingly moving from general indemnity to high-deductible plans (see section on growing consumerism). These plans also come with choice and flexibility. A segment of the market will always demand to have unlimited choice and flexibility; these customers are targeted by insurers because they are often willing to pay more to have more options.

Running private medical insurance profitability



Underwriting

Actuarial rate making is a prerequisite for sustainable PMI.

Private insurance is based on the principle that the insured or a pool of insured individuals pay premiums that cover the *expected* costs plus various loadings. The insurance then compensates those who suffered a loss; *ex post*, a transfer occurs from those without losses to those with losses. With risk-rated premiums, the chronically ill and the elderly have healthcare costs that are a multiple of the costs of young and healthy individuals. Their risk-based insurance premiums may be prohibitively high. This is a fundamental problem of how wealth and health are distributed across a society. Attempts to solve this social challenge by regulation of PMI markets is not a viable strategy. For this reason, many have argued that governments should finance healthcare for those who cannot afford it and set regulation in a way that private medical insurance can be run efficiently.

Regulation facilitating access and affordability for high-risk individuals escalate in a spiral of regulatory interventions.

If PMI is the primary source of coverage, and policymakers delegate health insurance to the private sector, then premium rates will likely be capped by regulation. Alternatively, policymakers could require insurers to issue a standard product to ensure access to insurance for all. Whenever high-risk policyholders generate costs that exceed the premiums paid, these excess costs must be borne by the other insured; this results in an *ex ante* transfer of premiums from low-risk policyholders to high-risk policyholders. In such a setup, insurers run the risk of being overly exposed to "bad risks" that result in financial losses.

The natural response for insurers is to *cream skim* the good risks. This in turn prompts governments to introduce a risk-equalisation scheme, often accompanied by *open enrolment and restrictions in exclusions of pre-existing conditions*. Whenever markets become highly regulated, return on investment may deteriorate and lead to market exit. In Ireland, the health insurance authority introduced an equalisation scheme that would have required BUPA Ireland to pay about EUR 50mn per year to its rivals, including the state-owned insurer Vhi Healthcare. In early 2007, BUPA Ireland was sold to Quinn Group, which later formed Quinn Healthcare.

Voluntary measures initiated by the insurance industry may help keep regulation to a minimum and add credibility.

In order to protect the insured, premium rate adjustments are often tightly regulated. At a glance, long-term or even whole life rate guarantees might seem desirable to the insured. However, escalating healthcare costs and the inability to predict developments in medical technology over time would require prohibitive loadings on top of risk premiums (see text box South Korea: an illustration of utilisation trends). This would make PMI less affordable and less competitive, and it would reduce market volume drastically. This in turn leads to a deterioration of the positive diversification effects and give rise to the hazard of adverse selection. Risk rate reviewability is therefore necessary for sustainable product management, given the unavoidable rise in health costs.

Guaranteed renewable cover, together with premium adjustments on a collective basis is fair and sustainable.

In Germany, for example, PMI tends to smooth premiums over time: young insured individuals pay premiums above their risk, and aging reserves are accumulated in order to subsidise premiums at a later stage. However, premiums are not guaranteed and usually increase as healthcare costs rise. Moreover, so-called aging reserves tie the insured to their insurer (*golden handcuffs*), which hampers competition between PMI insurers. In Germany, the latest health reform introduced portability of aging reserves, despite massive opposition and warnings from industry representatives that this will result in market failure.¹⁶

Because long-term guaranteed rates are not a viable solution and may result in a spiral of policy involvement, PMI can instead offer guaranteed renewability. By issuing a guaranteed renewable insurance policy, an insurer agrees to automatically renew the policy, even though the policyholder may cancel the policy. It is only valuable for the policyholder if the insurer refrains from adjusting premiums according to individual experience and limits re-rating for the pool as a whole. Guaranteed renewability may be mandatory by law or granted on a voluntary basis; market pressure also plays a role. Guaranteed renewability offers an alternative to the regulation of premiums, while simultaneously protecting the insured.

Extensive approval requirements for rate adjustments may have a negative impact on profitability.

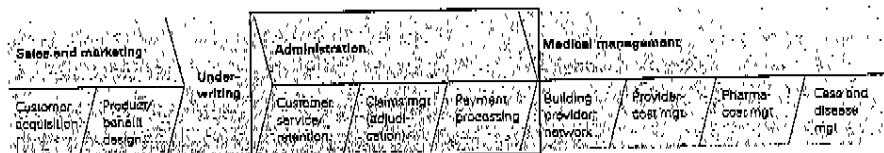
Insurers should take note of countries where rate changes must be approved by the regulator. If this procedure is time consuming, a PMI faces the risk of being "a step behind cost developments". By the time new rates are approved, they could already be insufficient to cover claims. The more restrictive and time consuming approval procedures are, the higher the risk for PMI.

Prohibition in exclusions of pre-existing conditions result in market failure.

In the voluntary market, insurers need to be allowed to specify exclusion clauses based on pre-existing conditions. AIDS is the most common one. Conditions that are uninsurable (eg pregnancy, abortion, and cosmetic surgery), as well as ailments that cannot be clearly diagnosed, should also be excluded. The lack of restrictions on pre-existing conditions would incentivise individuals to apply for coverage when sick or after injury. This would in turn result in a lack of pooling and market failure for PMI. On the other hand, exclusion clauses incentivise the insured to insure while still healthy (eg even before birth), resulting in a maximum pooling effect and lower premiums.

¹⁶ Barbier, H. D. (2006), Die Zerstörung, *Frankfurter Allgemeine Zeitung*, 6 October, No 232, 13.

Running private medical insurance profitability



Administration

In a competitive environment, efficient administration is key to ensuring profitability.

Information technology (IT) facilitates accuracy and efficiency of the administration process. Since PMI is a high-frequency, low-severity business, small savings in the administration can have a significant impact on profitability. Almost all US insurers invest in IT systems that increase the speed and efficiency of data and claim processing and allow them to react faster to changes in medical cost trends.

Both patients and insurers benefit from the advancement of information technology. A survey by American Health Insurance Plans found that electronic submission of health insurance claims more than tripled in the last decade, reducing administrative costs and allowing 98 percent of claims to be processed within 30 days of receipt.¹⁹

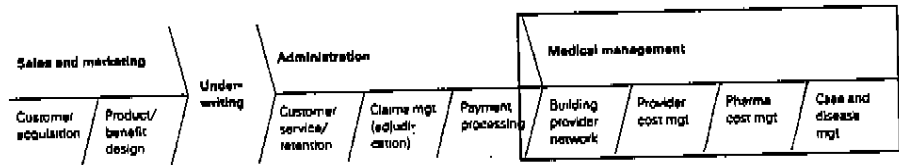
Standardisation and codification of diseases requires a strong collaboration between health ministries, the insurance industry and medical service providers.

Access to reliable data is crucial for actuarial analysis and claims processing. An industry standard, i.e. a consistent approach to standardisation and codification of diseases, facilitates the dialogue between insurers, medical service providers and health ministries. IT also enhances transparency of information and facilitates the analysis of choices made by patients and employers. All US health insurers place emphasis on personal health record initiatives and highlight their business cases to their shareholders.

For insurers, IT investments should result in an attractive payoff. Although many other factors play a role in profitability, operating margins improved in the US between 2001 and 2005: margins for L&H insurers in group health business grew from 1.2% to 6.9%; for L&H insurers in individual health business, margins increased from 4.3% to 5.9%; for managed care companies, margins more than doubled from 1.7% to 4.3%.²⁰

¹⁹ AHIP Policy and Research, 2006.5.26 (<http://www.ahipresearch.org/>)

²⁰ Source: Conning, based on statutory filings.



Medical management

A value proposition of health insurance is to recover inefficiencies – and alignment of interests is key.

Sales and marketing, underwriting and administration are the traditional elements in the insurance value chain (see graph above). However, in a competitive environment where buyers of medical insurance are constantly looking to pay lower premiums, focusing on these three elements may not be enough to ensure success.

It is believed that anywhere from 70 to 90 percent of premiums are used to cover medical claims. While many insurers are successfully lowering their operational costs, which account for about 10 percent of the premiums, treatment costs have increased. Therefore, medical cost containment is key to controlling premium growth. Any efforts made by insurers to improve medical management can have a significant impact on performance.

Selectively contracting with medical service providers and smart remuneration schemes help to align interests.

For example, insurers may enter into contracts with medical service providers and set remuneration schemes. Also, a financier can act on behalf of individual patients to negotiate favourable conditions by establishing a preferred provider network. If there is an obligation to contract, competition between medical service providers is undermined and few incentives exist to improve cost efficiency and quality. If PMI insurers are allowed to contract selectively, they will gather price and outcome information and team up with the best medical service providers. In doing so, they provide value to the policyholders, who are not able to collect and value outcome information systematically. PMI insurers thus take an active role that goes beyond pure financial protection against health risks.

Payment mechanisms also matter. Prospective payment systems or capitation reduce the incentives for medical service providers to maximise revenues. If remuneration is specified by law, eg fee-for-service (FFS) is mandatory, selective contracting with medical service providers becomes even more important to avoid being overly exposed to provider inefficiency.

Disease and case management are ways to increase cost-efficiency and quality.

Managing care is about influencing clinical decisions, with the ultimate objective of delivering cost-effective, high-quality services to patients. Insurers team up with service providers in all stages of the healthcare process who are *willing* to improve services through managed care. This includes establishing best practice (eg *case and disease management*), and delivering accurate utilisation and outcome data on quality and mortality.

Running private medical insurance profitability

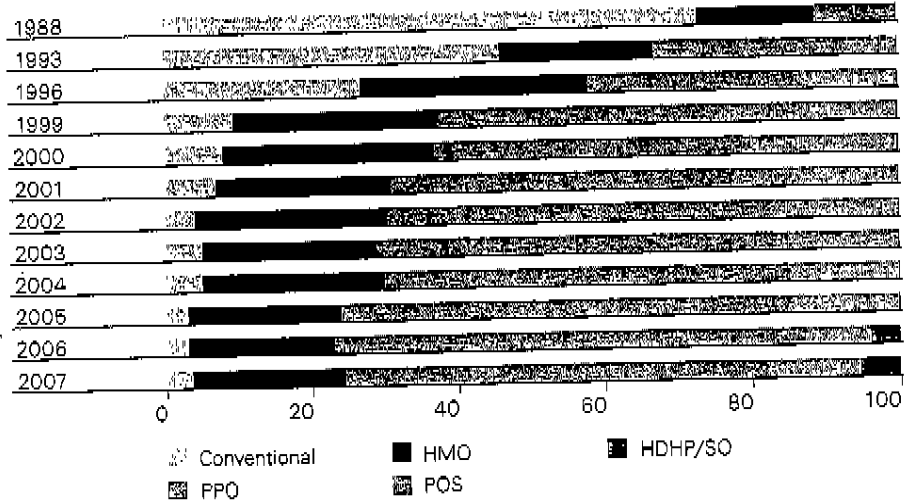
Vertical integration facilitates managing care.

Vertical integration – a trend described in the previous chapter – is the most straightforward way to align incentives between health insurers and medical service providers. It also facilitates the health plan’s ability to exchange information and coordinate treatment across provider entities. Integrated health plan and provider systems, such as Intermountain and Kaiser Permanente, are successful because they have managed to realise improvements in quality and efficiency.

90 percent of insured Americans are still enrolled in employer-sponsored plans with some form of managed care.

However, medical management may be viewed by patients as an insurer’s unwillingness to pay. It may even raise suspicions about an insurer’s intention to curtail services in order to improve profitability. This is possibly what occurred with managed care insurance in the US during the 1990s. Referred to by some as the “backlash”, bad publicity and animosity towards managed care increased, especially against its most restrictive form of managed care, the Health Maintenance Organisations (HMO). HMOs began to gradually lose market in the late 1990s, after reaching a peak of 31% in 1996 (see graph below). Since then, the preferred provider organisations (PPO) – a looser form of managed care – has become the most prevalent insurance model. The most significant change has been observed in the conventional indemnity plans, where medical management is absent and inefficiencies are most pronounced.

Figure 12
Health plan enrolment by covered workers, 1988–2007



POS refers to point-of-service health plans, HMO is health maintenance organisation, PPO is preferred provider organisation, and HDHP/SO are high deductible health plans with a savings option.

Sources: Henry J. Kaiser Family Foundation/Health Research and Educational Trust Survey of Employer-Sponsored Health Benefits, 1999–2007; KPMG Survey of Employer-Sponsored Health Benefits, 1993 and 1996; and Health Insurance Association of America, 1988.

Substantial initial investments are necessary before market entry may be envisaged.

Many factors influencing profitability are determined by the health system as a whole. Social health insurance is a political domain with many spill-overs to private medical insurance. Therefore, profitability is also influenced by political decisions. As soon as the insured, politicians or regulators perceive private medical insurance as too profitable or too opportunistic, they are likely to react with tighter regulation, thereby limiting profitability and making write-offs in the substantial initial investments necessary. In view of this interaction between social politics and private medical insurance, PMI needs to strike a balance between profitability and sustainability.

Insurers who want to develop a profitable, sustainable health insurance business will therefore need to evaluate the conditions in various countries carefully. Health insurance strategy is more country-specific than global, especially in regard to market entry decisions. Once invested, health insurers are advised to make special efforts to develop an integrated model and to lower their operating expenses by outsourcing decisions. Lasting success requires substantial ongoing investments in both human capital and equipment.

South Korea: an illustration of utilisation trends

The increased utilisation of medical services and the rise in the price of health-care services are driving medical claims costs. Utilisation is especially difficult to predict as it is influenced by a number of factors, including patients' and physicians' behaviour, financial incentives (ie out-of-pocket vs prepayment), availability of benefits, cultural and political trends, availability and proximity of treatment, and technical advancement. Because these factors are often not under the insurers' control, long-term guarantees do not seem viable for health insurance contracts.

In South Korea, for example, the rapidly expanding healthcare infrastructure and advancements in medical technology have led to increased utilisation. Other factors also drive utilisation, such as increases in demand for preventative screening, growing consumer interest in health – driven by increased levels of wealth – and physician-induced demand.

It is reported that cancer benefits paid by insurance companies have increased dramatically since 2003 as the disease is now being diagnosed earlier due to advancements in medical technology, with Samsung Life recording a 38% increase from KRW 464 to 640bn. Daehan Life's benefits paid climbed from KRW 216 to 276bn, while Kyobo Life's benefits paid surged from KRW 289 to 390bn.

In South Korea – as in many other developing and developed countries – investments in medical technology and infrastructure seem to be unavoidable. Technological advancement will continue to induce utilisation as providers are expecting a return on their investment. Claims are expected to increase once new technologies become more accessible and acceptable to policyholders.

Conclusions

Healthcare is a substantial and growing business

Global healthcare spending is estimated at USD 5 trillion. Roughly USD 1 trillion of healthcare is financed through private pre-paid plans. This is more than three times as much as the estimated risk premiums in life insurance, and about 70% of the entire direct non-life market. Health insurance is a steadily growing business, outpacing growth of gross domestic product in almost every country of the world. Technological progress and increasing wealth, but also aging societies, are resulting in more and more demand for health services.

At the same time, government-run health systems and social health insurance, are under pressure in almost every developed country. Many countries try to contain healthcare costs in their national health services or social health insurance with tighter regulation. At best, they improve efficiency in healthcare delivery, but this neither reduces demand for health nor reverses the cost trends. Rather, cost-containment initiatives often increase dissatisfaction with the health system, and stimulate demand for private medical insurance. Meanwhile, other countries rely more on market forces. In many developing countries, government-sponsored schemes and social health insurance are still at an early stage or health spending is at a low level. Under both scenarios, the business volume of private medical insurance is set to grow.

Health insurance is about optimising and managing the interests of different stakeholders in the value chain

In most countries, private medical insurance coexists with government-sponsored schemes or social health insurance. Healthcare delivery – ie medical service providers, but also upstream branches like the pharmaceutical, medical and biological industries - and insurance are highly regulated. Delivery of healthcare involves many parties: general practitioners, specialists, hospitals, allied medical professionals and also patient groups.

Institutional, organisational and sometimes legal barriers often prevent patient information from flowing from one party to the next, which creates inefficiencies. Health insurance is about optimising and managing the interests of different stakeholders in the value chain.

Moreover, alignment of interests between medical service provider, insurer and policyholder and compliance with best practice are not easily achieved for two reasons. First, every patient is unique, which limits the degree healthcare may be standardised; second, there are information asymmetries.

Key success factors for health insurance

The following factors are believed to be necessary for developing a successful, sustainable health insurance market:

1. Market & regulatory environment

- *Reasonable market freedom*: The local regulatory environment should support a reasonable degree of freedom in terms of risk selection and rate making. Restrictions on product design and underwriting that are too tight render private medical insurance unprofitable in the long run. Insurers should be allowed to review premiums annually and consider offering guaranteed renewability.
- *Minimisation of regulatory and political risk*: The regulatory environment must be stable in order to justify initial investments and support an insurers' long-term commitment to the market.
- *Promotion of public-private partnerships*: The regulatory environment needs to secure a level playing field for all participants. When the public is also involved in private medical insurance or provision of healthcare, governments need to know when to exercise restraint.
- *Creating appropriate economic incentives*: Governments should consider offering tax relief to incentivise individuals to use health savings accounts and/or private insurance. Regulatory measures should support insurance products that increase the financial stake of the policyholder: high deductible health plans coupled with savings accounts are a promising way to reduce moral hazard. Likewise, governments should provide financial incentives for employers to subsidise private medical insurance.

2. Administrative process

- *Managing overhead expenses*: Administrative costs should be minimised. This is a challenge as risk events are often very heterogeneous. Shared services such as third party administration can be an option.
- *Making use of data mining*: Insurers should collect, analyse and interpret data to improve pricing, risk management and governance.
- *Establishing of industry standards and best practices*: To increase efficiency, insurers should consider implementing standardised disease, treatment and procedure coding.

3. Medical management

- *Alignment of interests*: Private medical insurers must strive to align the interests of all parties involved (eg reinsurance companies, administrators, policyholders and medical service providers). With medical service providers, this may be achieved through contracting or vertical integration.
- *Promotion of cost-effectiveness delivery*: Disease and case management should be implemented to improve quality and reduce costs. Insurers are advised to identify the supply and demand for inappropriate and excessive treatments.