

HANNOVER RE'S PERSPECTIVES— CURRENT TOPICS OF INTERNATIONAL LIFE INSURANCE

Wolf S. Becke

*A Great Wind is Blowing—
Dynamics of the German Life Insurance Market*

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This paper will address CHANGE in the German life insurance marketplace: Change in demand patterns, change in products offered, change in actuarial assumptions, and change in distribution systems, to name just a few. Given the topic, there is a fitting saying from Confucius (551 - 419 B.C.), the famous Chinese philosopher and teacher, that is worth remembering:

For those of us life insurers who fall somewhere in between these two extremes, change is a process that never begins and never ends, and it is interesting to see how the German life insurance industry is coping with this process.

Only the wisest
and the stupidest
of men
never change.

The *German life insurance industry* has been a beneficiary of the prosperous post-World War II economy (the so-called *Wirtschaftswunder*), and has enjoyed a rather *stable development*. This development was characterized by a *growing demand* for permanent, tax efficient life insurance products that enabled individuals to save for retirement, a *consistent regulatory system* which emphasized sufficient level of premiums and reserves to meet future liabilities, a favourable *tax system* for insurance corporations, and a positive *investment climate* which produced yields on invested assets significantly and consistently above inflation.

With the implementation in Germany in 1994 of the *3rd Directive on Life Insurance, promulgated by the European Union (EU)*, a *new regulatory environment has been introduced*. The framework in which German life insurers operate has changed dramatically, and the market has moved towards *liberalization and deregulation*.

The once solid (although many observers would have called it cozy) *system of supervision* which, for example, for more than 100 years required all life companies to receive pre-launch approval from regulators on all new products or even modifications to existing ones, is all but gone. Nowadays *consumer associations* are launching massive attacks on the performance of life insurers, the *business media* are regularly scrutinizing products and *professional rating agencies* have started applying their evaluation processes not only to macro (= company) but also to micro (= product) levels.

Major retail banks have also aggressively entered the arena under the '*banc-assurance*' approach, either by establishing their own life insurance subsidiaries or by offering intelligent investment products such as hedged equity funds related to the performance of the leading equity index (DAX). These products cannot be copied by life insurers due to regulatory restrictions.

Above all, the *preferences of customers* are changing rapidly, which require better, more transparent products and sales procedures. On top of this, customer loyalties are vanishing, resulting in the moving of policies and, ultimately, in deteriorating persistence of many product lines.

Within this rapidly evolving environment, *my paper will focus on three topics* which have received major attention in Germany over the last two years. I have deliberately selected issues which I personally believe will be of interest to a *South African audience* despite the obvious structural differences of the markets in Germany and the Republic of South Africa.

A *word of caution* should be added at this point: This presentation is *strictly subjective*. It represents my opinion, not that of my employer, and I have made no attempt to present a balanced view.

I must also *apologize to the actuarial community* of both Germany and South Africa for presenting a paper that is much more commercially driven than actuarially founded. I certainly hope that my actuarial colleagues will both forgive me and, also, will find some of the items raised here to be of interest to them and their work.

These topics are:

- the *collapse of endowment product lines* which has occurred since the beginning of this decade
- the major errors of actuaries in determining *life expectancy* reflected in the design of lifelong annuity products, and
- a perspective of the *senior citizen market as one, if not the only, 'real' growth market*.

Key Features of the German Economy and Life Insurance Industry

Facts and Figures about the German Economy

The Federal Republic of Germany, a continental European country with an area of nearly 360,000 square kilometers, has approximately *81.5 mio. inhabitants* (all figures as of 31 December 1994) of which 36.1 mio. are employed and 3.7 mio. are unemployed.

Germany is a *federal republic, consisting of 16 separate states*. These states have control over certain parts of the tax revenue, and have tremendous influence in areas such as education and culture. The most populous states are North Rhine Westphalia (pop. 17.8 mio.) and the two southern states of Bavaria (pop. 11.9 mio.) and Baden-Württemberg (pop. 10.2 mio.).

Major *economic sectors* in Germany include manufacturing (with 13.6 mio. employees), trade & transportation (with 6.6 mio. employees) and agriculture (with 1.1 mio. employees). Generally speaking, the German economy is *export-oriented*. It holds a 10 % share of the world trade and, in this respect, is second only to the United States of America. The majority of goods and services are exported into the neighbouring markets of the European Union (EU).

More recently, *the Asian markets* have been targeted, and many German industrial firms are involved in infrastructural and engineering projects in various emerging economies of Asia.

The German *Gross Domestic Product (GDP)* amounted to DM 3,544 billion in 1996. This is roughly equivalent to *DM 43,000 per person* (appr. ZAR 110,000).

The rate of Inflation has historically been low, and has dropped from 2.7 % per annum in 1994 to 1.5 % in 1996. Nominal interest rates on long-term *Government Bonds* (Bundesanleihen) have been in the 7.0 - 7.5 % p.a. range for most of the last 20 years thereby providing investors a respectable *real interest yield* (pre-tax) in the order of 5.0 % per annum.

As a result of the reunification in 1990, *Berlin* has been (re)designated as the national capital. Presently, however, most of the federal political infrastructure is still located in the former capital of Bonn. It is expected that the move of the government from Bonn to Berlin will be completed by the year 2002.

Frankfurt, the home of the three largest German commercial banks (Deutsche Bank, Dresdner Bank and Commerzbank), can be regarded as the undisputed *financial center* of Germany. The insurance industry, however, is less concentrated, and at least five cities (Cologne, Munich, Hamburg, Stuttgart and Hanover) consider themselves to be *major insurance centers*.

The German Life Insurance Industry

Some *130 life insurers* are, at present, licensed by the Bundesaufsichtsamt für das Versicherungswesen (*BAV*), a federal regulatory authority, to transact life and annuity business in Germany.

Unlike developments in other European life markets, such as the UK, the number of life insurers in Germany has increased over the last few years. *Niche insurers* who concentrate on specialized distribution channels or particular customer groups like the '*green-ecological movement*' have entered the fray. We can expect a further proliferation of these niche insurers over the next few years.

In 1995, the *gross premium income* of the German life market increased to DM 90.2 billion (equivalent to appr. ZAR 230 billion). This represents a healthy increase of 6.2 % over 1994.

The *investment portfolio* supporting the technical liabilities has a book value of DM 686.3 billion. The majority of the investments consist of fixed-income securities, and contains substantial 'hidden reserves' due to the ultra-conservative German system of valuing invested assets (the so-called '*lowest value principle*').

About 70 % of all life insurers in Germany are stock companies, the three largest being *Allianz Leben* of Stuttgart, and *Hamburg-Mannheimer Leben* and *Volksfürsorge Deutsche Leben*, both of Hamburg. Some 20 % are mutuals and the rest are either public life insurers, which are owned by public bodies, or branches of foreign insurance groups.

Life companies in Germany are *not* allowed to offer private *medical/health insurance*. This area is controlled by a group of some 30 private and separately regulated health insurance companies.

It should therefore come as no surprise that most of the business transacted by German life insurers revolves around the *demand of individual customers* rather than corporations. Consequently, the amount of group business is rather small, at least if measured in terms of premium income or underlying assets, compared to the individual business.

Endowment Products – The Backbone of the Life Industry in Germany

The German life insurance market is traditionally a *'savings oriented' one*, with most of the demand for long-term and *tax-sheltered savings products* geared towards retirement purposes. Only life products with *a minimum duration of 12 years and a regular premium payment mode* qualify for a tax-preferred status. This, of course, is a major selling point in comparison to other forms of individual savings such as savings accounts, unit-trust products or investment trusts.

A policy with a duration of, say, 8 years - which is technically feasible – will receive the same treatment as a similar bank savings plan, and all paid and/or accrued interest will be fully taxed at the marginal tax rate of the policyholder (the maximum rate is currently at 53.0 % plus a 4.2 % *'solidarity tax'* to finance the development of East Germany).

The main feature of the tax shelter is that *all policy benefits credited* to the policyholder during the lifespan of a policy (e.g. reversionary bonus), at death (e.g. guaranteed death benefit) or at maturity (e.g. guaranteed maturity benefit and/or terminal bonus) will *not trigger any personal income tax* for the assured. For the life insurer itself, the *corporate* income tax is based on the company's *net operating income*, with all benefits to customers fully tax deductible. This system in effect allows for a tax-free build-up of funds as long as the policy enjoys the tax benefit.

The importance of this aspect is clearly demonstrated by the *average duration* of individual life products in Germany of some 28 years. On a similar note, there is little *single premium* business sold. Substantial discussion has been held over the interpretation of what constitutes 'regular premium payment'. Ultimately, the life industry, the regulators and the tax authorities agreed that the *payment of 5 (or more) equal annual premiums* complies with this requirement.

Rather than being driven by price, *market competition* in Germany for endowment plans centers more around customer service and high bonus credits, which are financed by lower-than-anticipated mortality experience, lower-than-priced-for actual commission and management expenses, and favourable investment performance (in excess of the *guaranteed interest rate* of 4.0 % p.a.).

As an aside however, it should be noted that the situation regarding *term assurances* is different. Here the competition focuses on the up-front premium levels.

It should also be noted that competitive pressures in the market have increased the actual *refund level* above the 90 % of pre-tax operational earnings (Rohüberschuß) required by insurance law. *Stock companies* now pay *up to 97 %*. Mutual life companies are refunding even more; some up to a level of 100 %. The increased refund has been made possible by three items: mortality gains, excess investment income, and operational savings.

As a result of these features,

the *dominating products* for many decades have been *endowment plans*, where policyholders receive, through a complex system of both reversionary and terminal bonuses, at least 90 % of all actual technical profits emerging during the life of their policies in excess of the guaranteed benefits (so-called *participating policies*).

Changing Customer Preferences— The Demise of Endowment Plans in Germany

Since the beginning of this decade, a remarkable *shift in demand patterns* for life insurance products has occurred in Germany, and it has forced life companies to change in an unprecedented manner. Customers have become more critical and less loyal towards the life insurance industry.

In general terms, the demand for the following broad classes of life insurance products

- *Protection-oriented products (like Term Assurances)*
- *Unit-linked products (Fondsgebundene Lebensversicherungen)*
- *Annuity products (Deferred or Immediate)*

has grown steadily over the years. This development can most easily be traced by comparing the distribution of *new policies issued* in 1995 to the same figures for 1991:

It should be noted that due to a change in reporting requirements, the 1995 figures of Group Life Business include all policies issued in relation to *credit loans* and *mortgage loans* by banking institutions. In 1991, however, these products were considered ‘Term policies’ in line with their technical nature of risk protection, and were included in the Individual Life Business category.

Business Category in %	1991	1995
Individual Life Business		
● Endowment / Unit-linked Plans	67.1	44.3
● Term Plans	17.8 *	8.9
● Disability Plans	0.2	0.6
● Annuities	3.4	10.9
Group Life Business	11.5	35.3 *
TOTAL	100.0	100.0

NB: (*) includes Credit Life Plans and Mortgage Reducing Term Plans

In any case, several observations can be made:

- Within a period of only four years, *endowment/unit-linked plans*, as a percentage of all policies issued, have lost nearly *23 percentage points*. Endowment plans have undergone, in fact, a significant decrease in importance. This becomes especially *apparent* when one realizes that the number of unit-linked plans, which accounted for between 4 % and 5 % of all new policies in 1995, has gone up substantially.
- Stand-alone *Disability Products* have become more popular but still cater only to a small minority of customers (less than 1% in 1995).
- The growth in *lifelong annuities*, most of which are in the form of ‘Deferred Annuity’, is particularly visible. This product has increased its share from 3 % of all policies four years ago to its current share of nearly 11 %.

The underlying causes of such significant moves in customer demand have been studied from various perspectives by various expert groups. I firmly believe that

these figures reveal a *mega-trend in customers' preferences* towards financial products which one can summarize as follows:

- *Customers prefer 'transparent' products*

They want to understand the key components of the product, they want to know what they have bought, and what they can use it for.

- *Customers prefer 'value' products*

They want to be able to evaluate the financial value of a product and compare the benefits provided with the price they must pay.

As a consequence of the above trend, customers are increasingly demanding '*pure*' *life insurance products*, meaning products that 'solve one problem at a time' in a clear and understandable manner.

It is, therefore, not surprising that *disability products* and also *annuity products* (which look simple – but German actuaries know better!) have recently gained so much market share. Even *term insurances* have recently become more transparent with regard to pricing. Many life companies, for example, have introduced smoker / non-smoker differential rates.

Similarly, the popularity of the *traditional endowment*, a long-term '*hybrid*' product' combining guaranteed mortality coverage with a savings accumulation program in a manner that is practically impossible for anybody but life actuaries to understand (even life agents barely understand this product) is retreating. The *profit sharing* feature makes the endowment category even less comprehensible by adding volatility to the ultimate financial performance and therefore affecting the value of the product.

Looking approximately *10 years into the future*, I believe three different *customer groups* will have emerged in the German life insurance market. These three groups will have completely different requirements:

Group A: Protection-oriented Customers
Group B: Yield-oriented Customers
Group C: Retirement Savings-oriented Customers

Traditional wisdom would indicate that an average, well-educated, married person (with two children) would move from Group A in his 30's to Group B in his 40's to Group C in his 50's.

The value of such simplistic models, which are used by life companies throughout Europe, is questionable. People will change from one group to another, back and forth, depending on individual living circumstances, financial means available, personal desires, and psychological conditions.

Mathematical tools to properly model these migrations would have to include *Markov Chains* and other rather sophisticated *probabilistic models*.

Life insurance companies in Germany have *unique competitive advantages* over other financial institutions, such as banks, pension funds, unit-trusts and the like with Group A customers. They have difficulties, however, in attracting Group B customers. In respect of Group C, life companies have a virtual *monopoly on all 'lifelong' annuities* which arrange the transfer of the *longevity risk* but they have difficulties competing in pension arrangements.

Of course, a specific individual will usually belong to more than one group over time.

Major banking groups, such as *Deutsche Bank*, have been quite successful in eroding the remaining competitive advantages of life insurers by either creating their own life insurance subsidiary or simply acquiring an existing major life insurer.

We believe that each one of the customer groups mentioned above will need a *specific portfolio* of insurance products.

Group A customers will want core insurance products that satisfy their need to protect their family or their own income capability and will, therefore, purchase protection-oriented plans like term assurances, disability covers and/or critical illness coverages.

Group B customers, however, will be looking for *savings products* which provide a convenient and, if possible, tax-efficient platform for securing high yields while reducing the volatility of earnings. Unit-linked products or, very recently, the new generation of '*guaranteed equity-linked life insurance*' (*GELLI products*), which link the performance to a leading stock index while fully protecting the customer against downside market developments, will form the core of this product category.

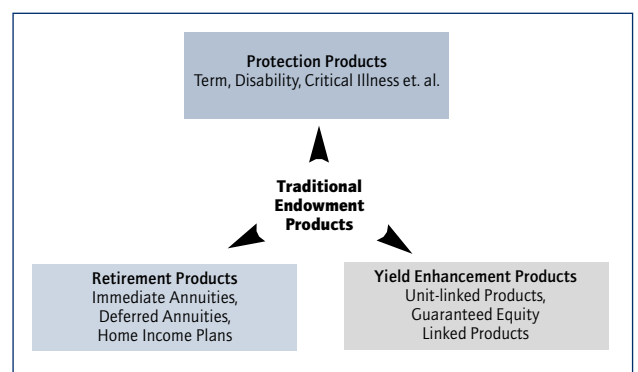
Group C customers emphasize retirement planning and will, therefore, demand products providing them with a long-term and reliable income stream after retirement. Core products will be lifelong annuities, and will include innovative plans like *Home Income Plans (HIPs)* from the UK, which will be discussed in the next chapter.

It is also worth mentioning that very recent developments in the US have successfully combined sophisticated yield enhancement techniques and traditional annuity products in the form of '*Equity-Indexed Annuities*' (*EIA*).

In graphic terms, the *process of disintegration of endowment products* can be pictured as a triangle of core product categories as follows:

The *disintegration of the traditional endowment plan* in Germany, which attempted to be 'everything to everybody', is rapidly proceeding and, in my opinion, unstoppable.

Life insurance companies are well advised to *restructure their whole business process*, from distribution, product design, and administration to policyholders' service as quickly as possible. Only by doing this will the industry be able to maintain its position as a provider of first-class tailor-made financial solutions to its customers.



Future Product Spectrum ('The Magic Product Triangle')

The Big Annuity Disaster – How Actuaries Miscalculated Longevity Patterns

In Germany, annuity products are structured to provide monthly benefit payments for a *lifelong income stream*. They fall, more or less, into two categories:

- *Deferred Annuities (DA)*, where typically a 35 year old insured will make premium payments over a 30-year period and receive a lifelong annuity income thereafter.

These products contain a multitude of variations with respect to mortality benefits during the accumulation period, widows' and orphans' benefits, and guaranteed annuity benefits should the insured pass away soon after the inception of the annuity benefits.

- *Immediate Annuity (IA)*, where a person close to retirement age will typically pay a *single premium* with no or a short deferment period to insure a future income stream until death.

Many observers in Germany have tended to overlook that lifelong annuities expose the insurance carriers to substantial *technical risks*, such as the *longevity risk* and the *investment risk*. In reality, lifelong annuities should be considered as extremely *dangerous products* for insurers due to the extremely long and guaranteed nature of the technical liabilities.

In terms of the technical *time horizon*, the exposure presented by a block of deferred annuities sold to insureds who are 30 years old will take approximately *70 years* to run off. A time horizon of this length is absolutely unheard of in other parts of the financial services industry. In fact, there is no other player in the financial services industry that would be prepared to assume any financial liability stretching over such a period. Only life insurers do this!

In pricing an annuity product, the *investment risk* can be managed through the use of conservative interest rate assumptions (e.g. 4.0 % p.a.). There is, however, virtually no way to match the duration of assets to the duration of liabilities. Long-term German Government Bonds (Bunds), for example, are rather illiquid excess of 10 years, and do not even exist excess of 30 years until maturity.

I will now focus on the aspect of underlying *mortality assumption* in pricing annuities, German actuaries have traditionally used *special annuity tables*. These tables are updated every ten years, and are approved for common use both by the German Actuarial Society and the Federal Insurance Regulators (BAV).

The most recent mortality table *prior to* the 'Big Annuity Disaster' was *table ST 1987 R* ('R' stands for 'Rente', the German word for 'annuity'). It differentiated between male and female lives, and provided the following life expectancies for males:

The *actuarial basis* for this table was the evaluation of *three* distinguishable mortality trends in Germany since the turn of the century:

- A *secular* mortality trend, based on experience observed since 1871
- A *long-term* mortality trend, based on experience between 1940 - 1980,
- A *short-term* mortality trend, covering experience from 1980 onwards.

The results of the evaluations of these three trends were combined into the new mortality tables, one for male lives and one for female lives, for annuity purposes.

Attained Age in years	Life Expectancy in years
0	72.7
10	63.4
20	53.9
30	44.6
40	35.2
50	26.3
60	18.2
70	11.5
80	6.8
90	4.1
100	2.7

In 1988 – 1989, shortly after the introduction of these new tables, it was noted that they contained – *at least – three fundamental and incorrectable* deficiencies.

The *first flaw* was that the short-term trend component seriously underestimated the longevity trends in *higher age groups (65+)* due to better living conditions, better nutrition and better healthcare available in Germany.

The second flaw was that the tables did *not* account for the technical feature of a *'lump-sum option'* at the end of the deferment period for DA products. This option allows the policyholder to choose to receive either a lump-sum benefit (and terminate the DA contract) or the regular lifelong benefits. The tables completely ignored the effect of *'antiselection' caused by this option*. A healthy person will tend to select the annuity benefit while an impaired person will usually opt for the lump-sum alternative.

The third flaw in the tables was that the maximum attained age was stipulated at *100 years*. No buffer was built in to account for the fact that more and more people will exceed this age barrier in the future.

A *heated actuarial debate* was ignited in 1990 regarding the deficiencies of the ST 1987 R Table. In 1993, as a result of research accomplished by leading German life insurers and reinsurers, it became obvious that the situation was becoming rapidly untenable.

A task force of the German Actuarial Society (DAV) was asked to review the tables on a similar approach (overlapping of the three trends) as before while rectifying the recognized deficiencies of ST 1987 R. The group rather quickly recommended the urgent and immediate introduction of a *new table, DAV 1994 R*.

The drastic adjustments, with emphasis on older ages, can be seen in the following comparison of longevity figures between the two tables on the next page.

Extract of Life Expectancies Table ST 1987 R (Male)

For the age group 60 - 89, the table DAV 1994 R uses an *annual mortality improvement factor* of 1.14 % as arithmetic mean while the secular trend component (period 1871 - 1987) was determined at 0.49 % p.a. The factor 1.60 % p.a. was used to reflect the longer-term trend (period 1971 - 1991) while 1.85 % p.a. was used for the short-term trend (period 1981 - 1991).

The *bad news* was that the introduction of the new DAV 1994 R tables resulted in a massive *reserve increase* for existing in-force annuity portfolios, and especially for *immediate* annuity plans.

Attained Age in years	DAV 1994 R	ST 1987 R	Change in % 94/87
0	83.2	72.7	+ 14
.....
40	44.4	35.2	+ 26
50	35.1	26.3	+ 34
60	26.3	18.2	+ 45
70	18.1	11.5	+ 57
80	11.3	6.8	+ 66
90	7.1	4.1	+ 73
100	4.7	2.7	+ 74
110	1.3	----	----

After a long debate, the Federal Insurance Regulators BAV in Berlin agreed to allow the reserve increases to be financed out of the *future excess interest* earnings (excess of guaranteed interest rate). They also agreed to allow the reserve increases to be taken over a period of *eight years* incepting 1st January 1995.

To provide an idea of how *material* this reserve increase has been for immediate annuity (IA) plans

Extract of Life Expectancies Table DAV 1994 R / Table ST 1987 R (Male)

written prior to 1995, I have provided the following schedule (based on male lives, 4.0 % technical interest):

The life insurance industry, to its considerable relief, was able to convince the major *auditing firms* to approve the staggered reserve increase rather than insisting that they immediately finance the reserve increases out of their available capital & surplus funds.

Most of the financially strong life insurers increased their reserves for the total amount required in 1995, mainly by realizing 'hidden' assets. Many of the smaller, less established life companies did not have the necessary hidden assets to imitate their larger competitors. For them, the burden is still there and will stretch into the next millennium.

There still remains a question that nobody is willing to ask aloud, let alone attempt to answer. Given that mortality patterns in the senior age groups are still improving, *when will the next Annuity Disaster strike?*

Age	Net Level Reserves for 1 DM Annual Lifelong Annuity		Change in % 94/87
	DAV 1994 R	ST 1987 R	
60	16.061	12.715	+ 26
70	12.669	9.133	+ 39
80	8.996	6.106	+ 47
90	6.261	4.106	+ 52
95	5.367	3.513	+ 53

Uncharted Insurance Territory – The Discovery of the Senior Citizen

As in most European markets, ‘seniors’ in Germany (one may argue here when one ‘officially’ becomes a senior) were never really considered as potential buyers of life insurance products.

A remarkable exception is *Plan 50+*, a special *endowment policy* consisting of a basic 15- (or 20-) year endowment plan on a guaranteed-issue basis (i.e. no underwriting required) combined with an *Accidental Death Rider*.

Benefits are limited for the *first three years* to guard against antiselection and moral hazard. Should the insured die within this defined period due to natural causes, only premiums paid will be refunded. In case of an accidental death, the rider benefit will be triggered and the full sum insured will be paid.

This product has been sold quite successfully for several decades by small niche insurers who have focused on direct sales, usually *through the mail*. Insured sums have been small (DM 5,000 - DM 10,000), and this has served to limit the overall business volume. Profitability, however, has been quite satisfactory, even in the early years where most anti-selection would be expected.

Year	Age Group (60+) In % of Total Population
1992	20.4
2000 (e)	23.2
2010 (e)	25.2
2020 (e)	28.9
2030 (e)	34.6

NB: ‘e’ denotes estimated figure

Dramatic changes in German population demography, however, require life insurance companies to take *a new and more pro-active approach*. As the table demonstrates, senior citizens represent an enormous potential market for life insurers which can no longer be ignored.

Senior citizens

In an ageing society like Germany, the present generation of senior citizens constitutes

- *the most rapidly growing (in relative size)*
- *the most affluent (in terms of disposable income)*
- *the most under-served (in terms of insurance covers)*

segment of the German population. There is no excuse for financial service providers, including life insurance companies, to ignore the needs of this client group.

One sees that the ‘60+’ age group accounted for just over 20% of the total population of Germany in 1992. This age group is expected to increase to just under 35% of the total population by 2030. This is an increase of just under 70%, and far exceeds expected increases in any other age group.

Life companies have recently started to recognize the potential in this area, initially by emphasizing *immediate annuities*, which provide a lifelong income stream and utilize a single lump-sum premium payment. Enormous funds for these types of products have become available primarily due to two factors:

- Proceeds from *maturing* endowment plans which were sold between 1950 - 1980 for retirement purposes.
- The first undisturbed *‘wealth transfer’* in Germany from one generation to the next in more than 100 years. Parental wealth in Germany in the previous 100 years simply was not there; it had been destroyed, either as a result of one of the two World Wars, hyperinflation following the first World War in 1923, or the ‘currency reform’ in 1948, which reduced all assets to 1/10th of their previous value.

Considering the above, an obvious question arises: why have life insurers in Germany *neglected* the insurance potential of seniors *for so long*?

While a more detailed answer may reveal deeper insights, I personally believe that the following *three factors* are the key:

- *Chasing young customers* in the 25 - 35 year age bracket, based on the assumption of their long-term loyalty, was considered 'en vogue' in life insurance circles in the 1970ies through the early 90ies.
- *Life Underwriters* were not trained to assess older lives and the accompanying diseases and medical factors that are absolutely normal for a standard mortality. Equally, *life actuaries* were uncomfortable with mortality/morbidity rates available for older lives citing problems of credibility of data.
- Well-established *distribution systems* in Germany, dominated by captive agents, found it difficult to communicate with seniors and write business in this age group.

I believe that the insurance demands of the senior citizens' market will concentrate around the following five categories of both protection-oriented and investment-related products:

Immediate Annuities (with Single Premium)

This product transfers the longevity risk to the insurer. While traditionally considered as a risk-free (de-)savings product, it is, in reality, a high-risk insurance product.

The proliferation and differentiation of this product line into

- Impaired Annuities i.e. lifelong annuities for seriously ill persons
- Enhanced Annuities (e.g. for smokers)

which has already started in the UK will reach Germany within the next 12 - 18 months. Reinsurers will play a major role in this transfer of product designs.

Enhanced Personal Accident (P.A.) Products

A major concern of seniors is '*loss of mobility*' in their remaining lifespan. An accident which would not be too serious for younger people (such as a *hip fracture*) or disease related loss of sight are two examples of this.

Extended P.A. products which provide financial support in situations such as these are most attractive for the senior age groups.

Home Income Plans (HIPs)

This product category deals with the problem of those seniors who are '*asset-rich*' in the form of a solid private property but '*cash-poor*'.

A HIP will use the full (or partial) value of a property as a 'single premium equivalent' to finance a lifelong income benefit for the insured (single life / two lives). The most important condition is that the insured may remain in the property for as long as he wishes.

For this type of product, a high *minimum issue age* (e.g. 70 years for males, 75 years for females) is a prerequisite. The property is revalued at regular intervals by an accredited surveyor.

Critical Illness and Nursing Home Products for Senior Citizens

This category of *protection-oriented* insurance products is rather straightforward. It provides nursing home care for an insured who is no longer able to care for himself.

Decent nursing home centers in Germany charge *a monthly fee* of approximately DM 5,000 (~ ZAR 12,000) *per person*. Considering that the usual stay is between 18 - 24 months, the financial burden can amount to DM 120,000 (ZAR 300,000).

An appropriately structured nursing home product provides seniors with *peace of mind* as they enter the final period of their lives.

Guaranteed Equity-Linked Life Insurance (GELLI)

GELLI products are investment-related products. They combine the features of *efficient investment performance* with a capital preservation guarantee and are therefore most suitable for the *risk-adverse investor* who does not want to gamble with his savings.

In Germany, the appropriate share index is the leading *stock-index DAX* of the Frankfurt Stock Exchange, which combines the performance of the 30 leading 'blue chips' of German industrial and financial corporations.

A GELLI product with regular (annual) premium payments allows a *participation of the DAX performance* for the full duration of the insurance contract while annual 'lock-in' features prevent a drop in policy value as a result of poor market performance or, worse, a market crash such as the 1987 'Black Monday' in the United States.

GELLI products are rather sophisticated in technical terms. They draw on, and are supported by, complex long-term *derivative structures* such as 20-year *cliquet options*.

Comparisons with typical unit-linked products show that GELLI products provide superior yields to customers while, on the same token, reducing volatility through the associated lock-in features.

The range of senior products will undoubtedly be expanded in the not-so-distant future. The mere introduction of the product categories described above will present life insurers with *major challenges*. International reinsurers who have already been through the process will be able to offer specific expertise and help in many instances, and even major life insurers should not hesitate to ask for suggestions.

Distribution channels for those products geared towards senior citizens will need to focus on direct marketing or '*affinity group* marketing' rather than the traditional channels. In 'affinity group marketing', existing policyholders are used to sell to other, similar potential clients. Senior policyholders lend their credibility (and, in fact, age) to convince other seniors about the advantages of a product.

In evaluating the dynamic environment in which German life insurers find themselves after many decades of rather moderate change, one sees that life companies have only *one of two choices*:

They can *adjust* to the changing market situation, which will ensure their long-term and, hopefully, prosperous survival.

They can, of course, also *do nothing*. Those companies who are unable to adjust, or who do not see the need to do anything other than ‘business as usual’ will soon confront the reality of shrinking market share and poor financial results. The modern financial markets will not tolerate this for long, and these companies will soon find themselves faced not with two choices but only one; they will be acquired by a better performing competitor who recognized early the need to adjust.

As *Catherine The Great* (1729 -1796), Empress of Russia, once said:
A great wind is blowing, and that gives you either imagination or a headache.

I sincerely hope that German life insurers will not require a lot of aspirin for their headaches but will rather head full speed down ‘the long and winding road’ and tackle the challenges of change in an imaginative and entrepreneurial manner.

Appendix:

Suggestions for further Reading

The *regular publications* of the German Life Insurance Association and the German Insurance Association provide a reliable basis for quantitative data and information about the German life insurance market. Some of the most recent publications are:

- *Die deutsche Lebensversicherung – Jahrbuch 1996* (German Life Insurance – 1996 Yearbook), 85 pages, in German, Verlag Versicherungswirtschaft e.V., Karlsruhe
- *Statistical Yearbook of German Insurance 1996*, in English, German Insurance Association (GDV), Bonn

Moody's Investors Service – Global Credit Research has recently (April 1997) published a detailed paper under the title

- *German Life Insurance – Industry Outlook*, 38 pages, Report Number 22886

This paper reviews the state of the industry from the perspective of an *international observer* and puts special emphasis on the performance of the *leading 40 life insurers* in Germany.

Guaranteed Equity-Linked Life Insurance (GELLI) and *Equity-Linked Annuities (EAI)* have received quite a lot of attention over the last two years and the following articles provide a reasonable overview

- *Jens Blohm: Überlegungen zum Produktdesign der Aktienindexgebundenen Lebensversicherung in Deutschland* (Considerations related to product design of GELLI in Germany), in: *Der Aktuar – Mitteilungsblatt DEUTSCHE AKTUARVEREINIGUNG*, 2. Jahrgang, Heft 1
- *Christian Hipp: Aktienindexgebundene Lebensversicherung (GELLI)*, Zum 70. Geburtstag von Professor Dr. Robert Schwebler, 15.03.1996 in: *Zeitschrift für die gesamte Versicherungswissenschaft*, Hrsg.: Dt. Verein für Versicherungswissenschaft e. V., Verlag Versicherungswirtschaft e. V., Karlsruhe, Heft 2/3, 1996
This paper also contains a detailed bibliography on Guaranteed Equity Bonds (GEBs) and GELLI products.
- *Ron Panko: This Selling Season's Hit: Equity-Indexed Annuities*, in: *BEST's REVIEW – L/H*, April 1997, p. 31 - 37

Topics such as 'Demographic shifts', 'Aging of Society' and 'Longevity Patterns' on a world-wide basis are extensively discussed in

- *World Health Report 1997, Conquering suffering, enriching humanity*, Report of the Director-General, published recently by the World Health Organization (WHO), Geneva.

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