

Issue
No 6

Hannover Re's Perspectives –
Current Topics of
International Life Insurance

Karolina Trettenbach · Dieter Kroll

*Private
unemployment insurance*

*Opportunities and risks associated
with a complex product*

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1. Introduction

Unemployment currently constitutes one of the major challenges facing society. In some industrial countries, such as those of central Europe, the social security systems are no longer able to provide the accustomed level of cushioning against the economic impacts on the unemployed population. In countries, such as the United Kingdom, the USA and the Netherlands (etc.), the welfare systems have been radically restructured, thereby evidently facilitating rather impressive successes in the reduction of unemployment rates.

Although the labour market situation is characterized by structural differences in many countries, the position of those personally affected by unemployment is very similar. Even when the unemployed are able to come up with the means needed to maintain the most basic subsistence level, they are generally unable to cope with any additional economic burdens. The monthly rent, school fees as well as loan instalments and insurance payments suddenly become a major financial strain. Yet it is virtually inconceivable that state benefits for the unemployed will be boosted. Such ideas founder either on a lack of funds or on a changed policy frame, since many countries no longer see themselves as a comprehensive provider for all their citizens' needs. Instead, the state promotes individual initiative and self-provision, and public relief for the unemployed is tending to be scaled back.

Despite the obvious demand, the German insurance industry has long been cautious in developing private protection for the unemployment risk. This is all the more surprising in view of the fact that in foreign markets unemployment covers have been available for many years. The first private covers against the risk of unemployment have been developed over the past 30 years on the basis of the different social insurance systems. Thus, in the Anglo-Saxon world, Scandinavia and France types of cover supplementary to the state unemployment insurance scheme have been developed in the area of credit life insurance.

These were initially geared to securing designated loans. The earliest products offered insurance protection for interest payments on loans, but not for the repayment. Such covers were extremely reasonably priced due to their limitation, and as a consequence of their success the products' range of benefits was enhanced. Today, for example, it is possible to insure not only interest and loan instalments but also other types of payment obligations.

Only in the mid-1990s did the German insurance industry turn its attention to private unemployment insurance, and scarcely a month passes without another company entering the market with a new unemployment insurance product.

The vast majority of private unemployment insurance policies offered in Germany concentrate on the risk of default on payment obligations in the event of the insured losing his or her job. For example, in the event of unemployment it is possible to obtain a waiver of premium on policies for householders' comprehensive, liability and legal expenses insurance without losing insurance protection, in some cases for periods of up to five years. The premium surcharge, which depends on the type of cover and the period of insurance, ranges from 3.5% to 14%. On a market average, the monthly premium for unemployment insurance is around 10% of the sum insured – i.e. the amount paid out per month if benefits are triggered.

In addition, credit life insurance policies are offered which take over payment of the borrower's outstanding loan instalments for a limited period not only in case of death or disability but also in the event of unemployment. Alongside the designated securing of loans, however, the scope of insurable payments is highly diverse and may also encompass rent, study fees, electricity bills and cancellation charges in the event of journeys cancelled at short notice as a result of losing one's job. There are virtually no limits on the bounds of imagination here, and insurance companies exploit this field of activity to good effect.

To date, only one insurance company in Germany also offers an annuity in the event of unemployment; this tops up the individual's unemployment benefit to 90% of the most recently received net salary. Yet this product has met with little success, partly because of the high monthly premiums of considerably more than 10% of the insured monthly annuity and partly due to the restrictive terms and conditions of the insurance.

What most of the types of cover have in common is that they combine protection against unemployment, death and disability in order to limit possible antiselection. Furthermore, restrictions are placed on the insurable group of persons and the insured event. It goes without saying, for example, that the person to be insured must normally have been employed full-time in a permanent position for at least one year. A change of employer within this period is not usually accepted. In Germany most insurance policies exclude persons whose paid employment is not subject to the general statutory social insurance scheme. It should also be noted that applicants younger than 25 or older than 55 are seldom able to obtain insurance cover.

In order to avoid a dangerous accumulation of insurance claims in the event of rising unemployment, the benefit period and benefit amount

are also limited. Insurance protection normally only commences after a waiting-period of up to 6 months. In the event of the insured then becoming unemployed at no fault of his or her own, benefits do not commence until after the elapse of a deferment period, which may be as long as 3 months. The benefit period is also restricted, ranging for example from 1 to 3 years, or it may be limited by a maximum sum insured or the attainment of a certain age limit.

It is apparent that not only people in paid work can benefit from private unemployment insurance. If we remember that policyholders who lose their jobs are frequently obliged to cancel their policies, it is clear that private unemployment insurance cover can also significantly limit an insurance company's lapse risk. This is equally true of banks, which not infrequently are compelled to write off loans to unemployed borrowers.

Private unemployment insurance thus serves not only the purpose of risk coverage for people in paid work, it also safeguards the economic interests of financial services providers. The market potential is considerable, and the insurance industry can continue to safeguard its future earnings with this sophisticated product.

2. Structure of unemployment

Most European countries experienced constant growth in unemployment during the nineties. The following section illustrates how the risk of unemployment varies for individual groups within the population. These remarks should serve, *inter alia*, to shed some light on the complexity of the problem of unemployment.

This will make it possible to draw conclusions as to the critical facts and circumstances which it is imperative to bear in mind in order to design and efficiently manage unemployment insurance products in a manner which appropriately reflects the risks.

2.1 Reasons for rising unemployment

2.1.1 Volume of work

Especially in the Early Industrialized Countries, one reason for the increasing unemployment figures lies in the decline in the volume of work, which is measured by the actually performed working hours per head of the resident population. This decline is attributable, on the one hand, to the advance in productivity, i.e. the more rapid production of goods and services as a consequence of technological progress. At the same time, there has been a trend towards an increasingly international division of labour, accompanied for example by the relocation of manufacturing sites to countries with lower wage costs. This factor has gained in significance as transportation and communication costs have fallen.

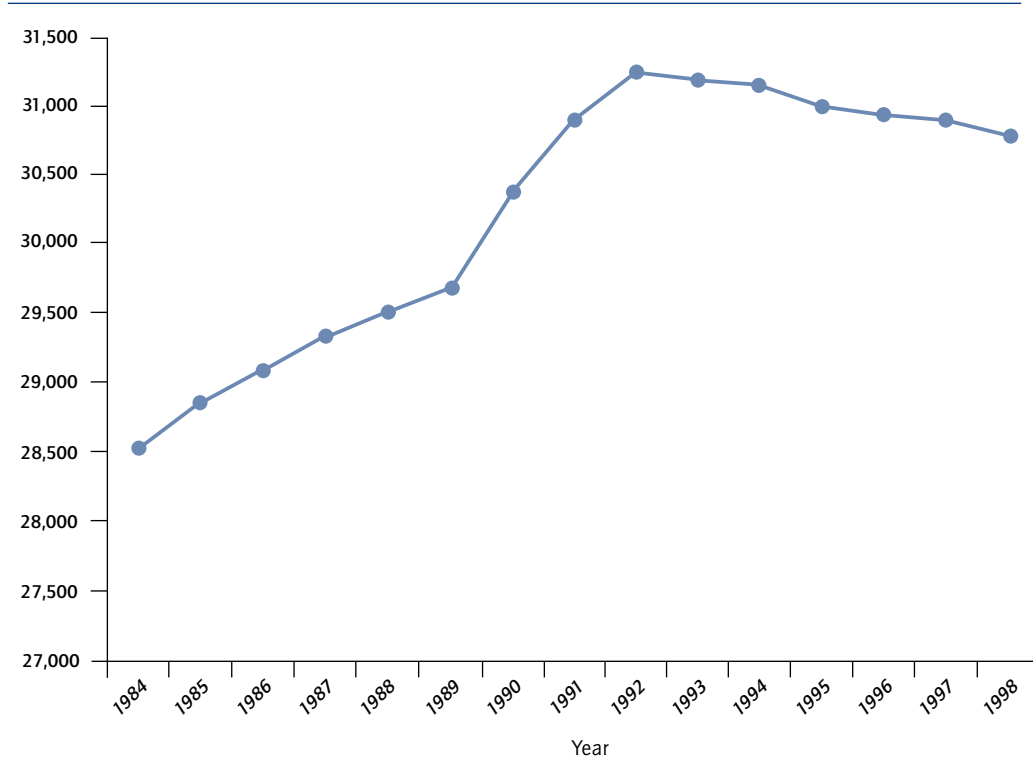
The overall volume of work in the Early Industrialized Countries has contracted in recent years. If this development is broken down into economic sectors, the decline in the primary sector – agriculture and forestry, livestock farming and fishery – has been very marked. In the secondary sector – manufacturing industry – the decline has been more modest. Only in the service sector is the volume of work still rising, since paid employment is increasingly being replaced by processes which rely more on specialist expertise than on craftsmanship. However, this specialist expertise is furnished to a growing extent by service providers, thereby boosting the volume of work in the service sector.

2.1.2 Increase in labour force participation

The high level of labour force participation is another significant factor in the rise in unemployment. If we look at Germany, for example, this is particularly true of eastern Germany, although it also applies to the western part of the country. Due to the high wage tax deductions and social insurance contributions, the income of a single family member is frequently no longer sufficient to maintain the accustomed standard of living. As a result, a larger proportion of the population is seeking to find employment today than was the case in times when the discrepancy in Germany between gross wages and take-home pay was smaller.

In addition to these economic factors, the change in the role of women in the working world is also significant. In the industrial nations today women are for the most part just as qualified as men and they strive equally hard for financial independence and self-fulfilment. In view of the fact that many more young people nowadays qualify for university entrance and go on to study, the average age for entering the labour force has risen dramatically. These longer periods of study are causing people to start their professional lives at a later age, thereby reducing labour force participation rates among men and women alike.

Figure 1:
Labour force (working population and unemployed) for western Germany
Number in 1.000



(Source: Arbeitsmarkt 1998 – Amtliche Nachrichten der Bundesanstalt für Arbeit)

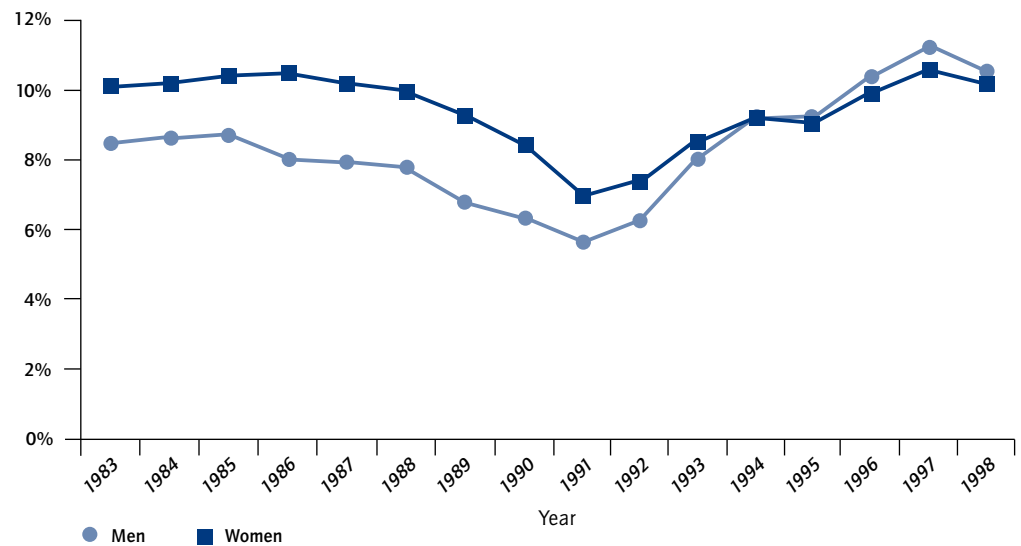
2.2 Important unemployed populations

2.2.1 Males and Females

An analysis of the unemployment rates over recent years broken down into men and women reveals that the unemployment rate is evening out between men and women. One explanation for this is the change in outlook found among many women, who now see their professional activity as offering the prospect of an indepen-

dent lifestyle and not merely as a supplement to a husband's earnings. By the end of the nineties a substantial portion of the female labour force was highly qualified and seeking responsible positions.

Figure 2:
Unemployed persons in % of the dependent civil labour force (working population subject to statutory social insurance and "marginal" part-time workers, civil servants and unemployed) for western Germany



(Source: Arbeitsmarkt 1998 – Amtliche Nachrichten der Bundesanstalt für Arbeit)

Due to high salary deductions many women are also obliged to contribute to the family in-

come, despite the fact that this group would prefer to take care of the family.

2.2.2 Young and old populations

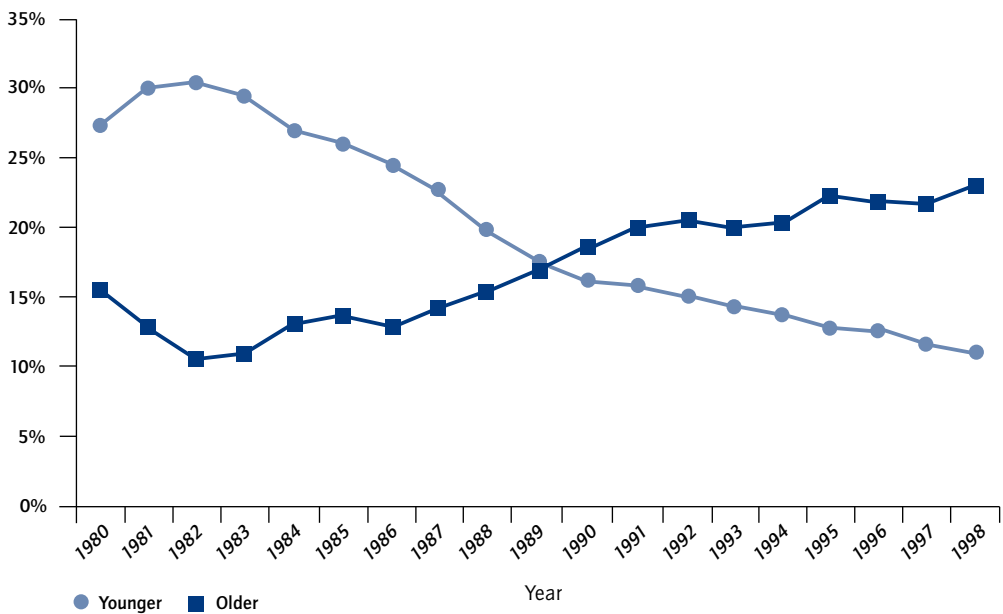
If unemployment is analysed as a function of age, the development for Germany, the United Kingdom and France is U-shaped. These countries show high rates of unemployment among the young, since it is difficult for young people to find apprenticeships. What is more, younger employees are at a greater risk of unemployment since they have not had time to build up a long period of company service and are thus the first to be made redundant in times of crisis. When young people become unemployed, however, it is relatively easy for them to find a new job compared to older people owing to their greater flexibility and mobility.

Whilst older people are not so likely to lose their job, it is very difficult for them to gain a new foothold in professional life if they are made redundant. Demographic developments constitute a further factor in the high unemployment rate among older persons. In the European industrial nations the proportion of older people in the population was considerably lower during the early eighties than it was at the end of

the nineties; this age group had been severely decimated by the Second World War and was therefore underrepresented in the early eighties. Firstly, many men in this age group had perished or become disabled ex-servicemen, thereby eliminating their capacity to work. A second reason for the large proportion of the population in this age group today is the greater health awareness – e.g. the reduction in the number of smokers, more healthy diet – and the advances in the health care system. The high level of technology supporting medical care has made possible a sharp reduction in expected mortalities.

Furthermore, in some countries persons who have reached the age of at least sixty have the possibility to draw an early retirement pension after a minimum of one year's unemployment. Companies have used this as a means of "socially acceptable job-cutting", thus further pushing up the proportion of older persons in the unemployed population.

Figure 3:
Proportion of younger persons (ages 15 to 25) and older persons (ages 55 to 65) in the unemployed population in western Germany



(Source: Arbeitsmarkt 1998 – Amtliche Nachrichten der Bundesanstalt für Arbeit)

2.2.3 Long-term unemployed persons

The proportion of long-term unemployed (i.e. unemployed persons who have failed to find a new job within a year) was very high at the end of the nineties. Once someone has been unemployed for longer than a year, it becomes increasingly difficult for them to find a way back into professional life. This is why every year new unemployed persons join the ranks of the long-term unemployed, yet hardly any of them leave this population. When the economy is healthy the number of unemployed persons falls,

but it is primarily those who have experienced only a short period of unemployment who find their way back into working life. Nevertheless, favourable economic developments also have a delayed impact on the population of long-term unemployed, since fewer unemployed persons spend more than a year without a job and the rate of increase in the population of the long-term unemployed is thereby on a reduced scale.

2.2.4 Other groups

In addition to young and old employees, persons with health impairments and of course the unskilled are also most heavily at risk of unemployment. Lack of education dramatically reduces the chances of finding employment, especially when conditions on the labour mar-

ket are difficult. This situation is further exacerbated if other factors also come into play, such as advanced age or health impairments.

2.3 Differences in unemployment according to level of education

In all countries the risk of becoming unemployed depends very heavily on an individual's level of education. As a general rule it may be stated that the higher the level of education, the lower the risk of drifting into unemployment.

In view of the fact that poorly educated workers frequently perform seasonal jobs or are taken on as temporary casual staff, they are exposed to a particularly high risk of becoming

unemployed – although the younger ones are at least likely to quickly find another job.

Once they have acquired professional experience, well-educated individuals frequently assume responsible positions and become attractive workers not only for the company which employs them but also for competitors. The risk of unemployment for this group of persons is consequently not very significant.

Table 1:

Unemployment Rates (in %) by Education Level, 1994

(Dean Baker and John Schmitt, *The Macroeconomic Roots of High European Unemployment*)

	<i>Less Than High School</i>	<i>High School</i>	<i>College</i>
France	14.7	10.5	6.8
Germany	13.9	8.8	5.4
United Kingdom	13.0	8.3	3.9

2.4 Developments in European countries

Virtually throughout Europe the rate of unemployment has increased sharply during the last two decades until the present date. During the post-war era, the "period of the economic miracle" and the 1960s, unemployment did not constitute a problem in European countries. The average jobless rate was less than 2%. The situation changed in the seventies, not

least due to the oil crisis and the decline in productivity during that decade. In the early eighties the unemployment rate climbed to more than 7% on average across Europe. In the nineties an all-time high of around 9% on average was reached and – with the exception of the United Kingdom – no downward trend can as yet be discerned.

Table 2:

OECD Estimates of Structural Unemployment (in %) in the 1990s

(Dean Baker and John Schmitt, *The Macroeconomic Roots of High European Unemployment*)

	<i>1990</i>	<i>1997</i>	<i>Change 1990 – 1997</i>
France	9.3	10.2	0.9
Germany	6.9	9.6	2.8
United Kingdom	8.5	7.2	-1.3

3. The financial consequences of unemployment

Employees who lose their job have to cope with substantial income reductions. The purpose of the following examples taken from the German market is to illustrate – on the basis of a blue-collar worker and a white-collar worker – how the loss of employment can impact the financial situation of the affected persons. Subsequently, it is explained how private unemployment insurance could alleviate the resulting earnings losses.

These examples are simplifications, since the German Income Tax Act and the system of soci-

al security contributions are too complex to be reproduced here in detail. The same is true of the state unemployment insurance scheme, under which special provisions and standard methods play a role in determining the level of unemployment benefit or unemployment support. Furthermore, it is assumed that the employment relationships set out below are subject to the statutory German social insurance scheme, and that the employees satisfy all legal conditions for the receipt of assistance – in the form of unemployment benefit – in the event of unemployment.

Example 1

Mr. Karanski is a motor vehicle mechanic and is married with two small children. Mrs. Karanski has broken off her paid employment for an indeterminate period because of the children. The family's gross monthly income amounts to DM 5,000. After taxes and social security contributions, Mr. Karanski's take-home pay is DM 3,403 per month (in 1999). The Karanski family's financial situation might have the following breakdown:

	<i>DM</i>
Income	
Gross	5,000
Net	3,403
Child allowance	500
Total	3,903
Expenses	
Rent	1,000
Electricity/water	200
Car loan	500
Insurance	250
Clothing/food	1,800
Total	3,750
Available funds	153

In this analysis the Karanski family has disposable funds of DM 153 per month. If Mr. Karanski loses his job, he is entitled to unemployment benefit. The amount of unemployment benefit is based on social criteria such as the wage tax bracket (benefit group), the most recently achieved lump-sum net earnings and the benefit rate. In this regard, unemployed persons with children receive more assistance than unemployed persons with no children. In general, unemployment benefit is between 60 and 67% of the last monthly (lump-sum) net earnings. In the case of Mr. Karanski, let us assume that – since he has children – he receives assistance totalling DM 2,280, in other words approximately 67% of his last net earnings. The maximum period of assistance is 6 to 32 months, depending both on the age of the unemployed person and the length of the past insurance relationship. The new income situation of the Karanski family may now take the following form:

DM	
Income	
Unemployment benefit	2,280
Child allowance	500
Total	2,780
Expenses	
Total	3,750
Available funds	-970

With an unchanged lifestyle the Karanski family is thus heading into possible debt if no savings are available to them. Yet expenses for rent and general living costs cannot be simply reduced. If Mr. Karanski sells his car in order to discharge the loan on it, and if at the same time he cancels his insurance policies, he can save DM 750 for his family. Combined with other cutbacks on clothing and food, it may then be possible to avoid getting his family into debt.

If Mr. Karanski had provided for the possibility of unemployment and taken out private unemployment insurance to cover the rental com-

Example 2

Ms. Schwab earns her living as a bank employee. She is single and her gross monthly income amounts to DM 8,500. After taxes and social security contributions, her take-home pay is DM 4,242 per month. In this context, it has been assumed that Ms. Schwab remains within the statutory health insurance scheme – despite the fact that membership of the statutory health insurance scheme is only compulsory up to a gross monthly income of DM 6,375 (in 1999).

mitments of his family for the period of unemployment, his financial situation with an unchanged lifestyle would be as follows:

DM	
Income	
Unemployment benefit	2,280
Private unemployment insurance	1,000
Child allowance	500
Total	3,780
Expenses	
Total	3,750
Available funds	30

In other words, even in the event of unemployment, the Karanski family would be able to maintain its standard of living without having to dispense with insurance protection, a car or similar items. The financial loss would then be just DM 123.

DM	
Income	
Gross	8,500
Net	4,242
Expenses	
Apartment mortgage	1,800
Electricity/water	150
Insurance	200
Clothing/food	1,200
Total	3,350
Available funds	892

If Ms. Schwab loses her job, her material situation will be as follows. Assuming that Ms. Schwab – as an unemployed person with no children – only receives a rate of assistance of 60% of her last net monthly salary payment, the unemployment benefit paid to her will total DM 2,545 per month. With expenses of DM 3,350, her monthly financial deficit will therefore amount to DM 805.

A private unemployment insurance policy taken out by Ms. Schwab to cover her mortgage commitment would secure for her – indirectly – additional income of DM 1,800. Her remaining income would then still amount to DM 995, and the unchanged servicing of her mortgage loan would enable her to continue to accumulate savings despite unemployment.

The situation facing a person with a gross income in excess of DM 8,500 per month is considerably more serious. In 1999 the earnings limit for contribution to the statutory annuity and unemployment insurance scheme was DM 8,500. The contribution to the statutory employment insurance scheme and the unemployment benefit then relate only to this maximum insurance amount of DM 8,500 per month. An unemployed person with a benefit rate of 60% of the last net salary achieved can then receive at most DM 2,545 (according to this specimen calculation) in unemployment benefit, despite the fact that 60% of the original net salary payment could constitute a significantly higher amount than DM 2,545. The gap in provision in the event of unemployment thus increases.

4. Actuarial bases for private unemployment insurance

Taking Germany as an example, this section illustrates how it is possible to determine bases for calculating the risk of unemployment. Reference is also made to analyses from France and the United Kingdom in order to put the results from the German labour market into a broader context.

Extensive data is available in the Federal Republic of Germany for assessing the risk of unemployment on an actuarial basis. The Federal Labour Office regularly publishes analyses of the unemployed population as well as an evaluation of population flows on the labour market.

In addition to the publications of the Federal Labour Office, the Federal Statistical Office publishes surveys of the population of the Federal Republic of Germany which is in paid employ-

ment. These population figures take the form of a microcensus based on national censuses and other statistical studies.

All in all, we thus have at our disposal the population figures for those in paid work and the unemployed as well as the numbers of those entering and leaving the unemployed population. This data can be used to derive bases of calculation for unemployment insurance products along the same lines as for life insurance. The relevance of life insurance lies in the fact that for individual risks which belong to a homogenous category it is possible to determine probabilities of becoming unemployed and probabilities of leaving unemployment (i.e. reactivation probabilities).

4.1 Probabilities of becoming unemployed

The population in paid work is recorded under a microcensus with reference to the key date as at the end of the month of April in the underlying year under review. In principle, the figures are broken down into age groups, sex and region (western or eastern Germany). A distinction is also made as to the type of employment relationship. Dependent employees are clearly

distinguished from civil servants and self-employed.

The present study only considers dependent employees since these are most likely to be exposed to an "objective" risk of unemployment. Nevertheless, the analyses can of course be expanded to include self-employed.

Table 5:
Dependent employees in thousands

Age	Western Germany		Eastern Germany	
	Men	Women	Men	Women
20 - 24	1,046	1,000	244	214
25 - 29	1,608	1,392	325	269
30 - 34	2,137	1,617	420	378
35 - 39	1,922	1,486	444	414
40 - 44	1,601	1,370	417	388
45 - 49	1,460	1,293	371	360
50 - 54	1,186	965	260	247
55 - 59	1,179	882	284	245

(Source: Mikrozensus 1998 des Statistischen Bundesamtes, Germany)

In order to subject the unemployment risk to actuarial analysis, the probabilities of unemployment occurring are initially of central importance. These probabilities can be calculated by means of flow statistics (persons entering and leaving unemployment). These statistics reflect the recording of population flows on the labour market during an observation month. In this regard, a differentiated analysis of the flows is performed using particular structural criteria for a selected month (June) in each year.

If we initially disregard fluctuations in the economy, the monthly increase in the number of unemployed persons is subject to seasonal fluctuations over the course of the year. During the winter months the manpower requirement – for example in the construction industry – declines.

Workers are also made redundant in agricultural production. As a matter of principle many employment relationships are also terminated at the end of a quarter, particularly as at 30 June or 31 December. It is therefore necessary to analyse the monthly fluctuations in the increase in the number of unemployed persons in order to determine adequate probabilities for the occurrence of unemployment.

Table 6 below shows an extract from the statistics regarding the increase in the unemployed population

Table 6:
Monthly (average) increase in the number of unemployed persons in 1998

Age	Western Germany		Eastern Germany	
	Men	Women	Men	Women
20 - 24	12,496	8,472	5,207	2,959
25 - 29	13,667	9,157	5,296	2,900
30 - 34	14,366	8,891	5,985	3,771
35 - 39	10,927	7,400	5,829	3,911
40 - 44	7,790	6,165	5,177	3,493
45 - 49	5,760	5,073	4,377	3,012
50 - 54	4,016	3,539	2,889	2,068
55 - 59	5,532	3,939	3,884	2,673

(Source: Bundesanstalt für Arbeit, Germany, own calculations)

By comparing the increase in the number of unemployed persons to the population in paid work, it is possible to determine the crude monthly probabilities of unemployment occurring. The following table shows an extract from these findings.

Table 7a:
Monthly crude probability of unemployment occurring (%) in 1998

Age	Western Germany		Eastern Germany	
	Men	Women	Men	Women
25 - 29	0.85	0.66	1.63	1.08
35 - 39	0.57	0.50	1.31	0.94
45 - 49	0.39	0.39	1.18	0.84
55 - 59	0.47	0.45	1.37	1.09

(Source: Bundesanstalt für Arbeit, Statistisches Bundesamt, Germany, own calculations)

By way of comparison, an analysis of the French labour market (for 1997) produced the following monthly occurrence probabilities:

Table 7b:
Monthly crude probability of unemployment occurring (%) in 1997

Age	Men	France Women	Total
20 - 29	0.57	0.59	0.58
30 - 39	0.26	0.25	0.26
40 - 49	0.17	0.17	0.17
Average	0.31	0.31	0.31

(Source: l'UNEDIC, own calculations)

4.2 Probabilities of reactivation from unemployment

In principle, the probabilities of reactivation from unemployment can be determined using a method analogous to that for calculating the probabilities of unemployment occurring. In addition to the already familiar structural criteria, the unemployed population is broken down into the elapsed period of unemployment. This is also applicable to the persons registered as leaving unemployment. On this basis it is possible to determine the monthly reactivation probabilities, differentiated according to the elapsed period of unemployment.

In the present analysis, consideration is given only to those persons leaving unemployment where this leads to the commencement of paid employment. This approach prevents any possible overestimation of the reactivation probabilities.

Table 8a below shows extracts from the crude reactivation probabilities for western Germany in 1998 (with no differentiation according to sex).

Table 8a:
Monthly crude probability of reactivation from unemployment (%) in 1998, western Germany

Age	Elapsed period (in months)				
	<1	2-3	4-6	7-12	13-24
25 - 29	12.32	11.29	13.56	11.52	6.62
35 - 39	10.59	9.29	9.87	8.10	5.16
45 - 49	9.60	8.22	7.84	5.97	3.81
55 - 59	6.21	4.02	3.25	1.94	1.31

(Source: Bundesanstalt für Arbeit, Germany, own calculations)

Table 8a should be interpreted as follows: column 1 shows the probability of returning to working life within the first month of unemployment. Column 2 shows the monthly reactivation probability during both the second and third months of unemployment. The remaining columns of the table are to be read in the same way. In this regard, age differentiation is applied on the basis of the age attained. Reactivation probabilities after 24 months of unemployment can only be determined on a blanket basis, and have been treated as zero in this case.

Due to the many years of experience with private unemployment insurance products in France, studies are available regarding the reduction in unemployed populations in insurance portfolios in this country. Extracts are presented below (Table 8b) for the observed reactivation probabilities (from unemployment) for a French credit life insurance product in the nineties:

Table 8b:
Observed monthly probability of reactivation from unemployment (%) in the case of a French credit life insurance product of the 1990s

<i>Month of reactivation</i>	<i>1</i>	<i>3</i>	<i>5</i>	<i>9</i>	<i>18</i>	<i>24</i>
Probability	0.05	1.09	2.45	5.04	6.84	8.33

(Source: own calculations)

4.3 Remarks on the actuarial basis

The bases of calculation determined here describe the unemployment risk for dependent employees. It goes without saying in this context that the underlying statistics are characteristic solely of the risk population as a whole. The bases of calculation may only be sensibly applied if it can be assumed that the group of persons to be insured really corresponds to a representative cross-section of all dependent employees.

It was explained in section 3 that the degree to which individual population groups are affected by unemployment varies very widely. For example, the risk of unemployment differs substantially according to regions, economic sectors and workers' skills levels, amongst other factors. Against this backdrop, absolutely crucial significance attaches to the special features of the insurance product, including the insurance terms and conditions and the sales channel, in order to be able to reliably determine the required risk premiums.

Thus, for example, it is standard practice to restrict the insurable group of persons not only to dependent employees. Rather, the person seeking insurance must generally have been employed full-time on a permanent basis for at least twelve months. In Germany it is frequently

specified that the employment relationship must be subject to the statutory German social insurance scheme and that no change of employer may have occurred in the past twelve months. It is thus apparent that the definition of the insurable group of persons can help to limit the risk of unemployment. If appropriately restrictive terms and conditions apply, the calculated probabilities of occurrence may significantly overestimate the risk of unemployment.

It is apparent that the state of the economy can play a significant role in determining the situation in the labour market. Marked fluctuations in the increases and decreases in the numbers of unemployed must be anticipated within the economic cycle and structural changes in the unemployment risk as a consequence of the macro-economic and political environment are conceivable. It is therefore necessary to constantly update the bases of calculation and, if necessary, modify them in line with the new economic situation. With this in mind, it is also imperative that insurance companies regularly analyse the (risk) experience of their portfolio using an efficient system of claims management.

5. Development of private unemployment insurance products

5.1 Productdesign

Private unemployment insurance products entail a considerable risk of antiselection. It must be considered highly probable that persons who seek insurance protection against their own unemployment are in fact also exposed to an above-average risk of unemployment. For this reason, private unemployment insurance products should preferably not offer wage compensation payments in the event of unemployment (annuity insurances). The motivation behind the purchase of an annuity in case of unemployment constitutes an enormous subjective risk. Instead, the aim should be to assemble a coverage package for policyholders which includes the risk of unemployment along with other benefit components to round off the product.

In this way, it is considerably easier to control the subjective risk of unemployment since it does not stand at the heart of the purchase decision. This does not mean that the protection offered against unemployment should be relegated to a back seat as a sales tool; rather, a (private) unemployment insurance product should be marketed as a risk cover which takes effect within a more broad-based security concept. Under such circumstances, the policyholder's motivations are undoubtedly characterized more by the idea of alleviating unpleasant blows of fate (such as unemployment) within the framework of a positive outlook on life.

An equally significant problem affecting private unemployment insurance is of course the accumulation risk. If, for example, the policyholders in a portfolio are predominantly employed in the same industrial enterprise or even in the same sector of the economy, a crisis (e.g. bankruptcy of the Bremer Vulkan shipyard in 1997, shipbuilding crisis) could trigger an accumulation of claims and destroy the profitability of a

portfolio or indeed of the insurance company as a whole. It is obvious that any lopsided concentration of insured risks on particular occupational groups, industries, regions or other risk-related criteria can lead to dangerous accumulations.

There is also a risk of change inasmuch as the statistical basis used for the actuarial analysis of unemployment covers may cease to be up-to-date. On the one hand, the economic cycle exerts a major influence on the risk of unemployment. On the other hand, changed political circumstances can also significantly impact the dynamics of the labour market. In the European arena, the implementation of the single European market, the opening up of eastern Europe and the launch of the Euro as a single currency are fostering the globalization and internationalization of labour markets. However, in addition to generating positive impulses for the economy, this can also lead to the restructuring of national economies and possibly redundancies.

Bearing these risks in mind, it is apparent that special precautions must be taken in order to offer insurance products for unemployment protection which are both sensible and necessary. The following comments are intended to systematically point to the problematic features of private unemployment insurance and suggest terms and conditions for coping with these risks.

1) *Fundamental principles*

In order to limit the risk of self-selection, it is advisable to combine unemployment covers with other types of benefit. The experience gained in the United Kingdom and France, in particular, shows that unemployment constitutes a special risk. The first unemployment insurance products were offered in the United Kingdom and France in the seventies – at a time when the risk of becoming unemployed was still minimal. A packaged product consisting of term life insurance, disability insurance and unemployment insurance was frequently a condition for lending. As a consequence, high profits resulted. This favourable development led to unemployment insurance being offered as optional protection, in other words without the obligatory combination with term life insurance and disability insurance. What is more, during the 1980s the risk of becoming unemployed grew. Areas such as Alsace-Lothringen were particularly hard hit by the spate of pit closures. Furthermore, the positive experience of the seventies led to premium guarantees being provided for the entire credit period. All these factors caused the business to post very heavy losses during the eighties.

With a view to avoiding losses in the future, it would be advisable to establish a hierarchical insurance structure which, for example, first covers the death of the insured person, additionally offers protection against disability and only then provides for a supplementary benefit in the event of unemployment. It would thus be impossible to purchase unemployment insurance as a stand-alone product, but rather only as a rider in combination with life and disability insurance. The life insurance (incl. disability) would then be at the forefront of the purchase decision, and insofar as the unemployment cover secures a high loyalty rate to the basic insurance, balanced risk selection can be assumed.

Credit life insurance serves as a classic example: on the one hand, borrowers are selected by way of credit scoring and the financial risk (i.e. the inability of the borrower to pay) is limited. If simple consumer credit business is disregarded, experience shows that borrowers have better-than-average economic prospects. The risk of unemployment is thus likely to be more favourable than for the population as a whole. However, as explained in the introduction, there are also many other possibilities for developing private unemployment covers.

It is essential to ensure adequate diversification within the insurance portfolios in order to avoid dangerous accumulations of risks. It is imperative to achieve a balanced blend of occupational groups, ages, regions, branches of industry etc. From the very outset, therefore, company group business is excluded.

Unemployment insurance may not guarantee any benefits which would put the insured person in a better position after the insured event than before it. Firstly, this would cause problems with the Insurance Supervisory Authority; secondly, this would give an incentive for insured persons to negligently cause insured events ("moral hazard"). During the recession in the nineties, the rate of fraud in the United Kingdom was put at around 20% of all claims.

In view of the constantly changing general economic conditions, a premium guarantee for unemployment insurance should not be provided for more than five years. If an unemployment insurance product has a period of more than five years, a premium adjustment clause must make it possible to adjust premium rates.

II) Benefits

It is advisable to offer an insurance benefit which is not paid directly to the insured as a wage compensation payment (annuity) but which takes over – designated – payment commitments of the unemployed person. In the United Kingdom, France and Germany benefits are usually provided for outstanding loan instalments. Yet in practical terms imagination

knows virtually no bounds. The following section summarizes the covers and benefits which can be offered in the event of unemployment and also outlines those covers which should only be offered with caution (so-called problematic covers).

a) Consumer credits

These can be used to finance new furniture or cars, for example. In the event of a claim under the unemployment insurance, the borrower is released from the obligation to pay premiums and the loan instalments are paid by the insurance company from this date onwards. Consumer credits are generally of a relatively short duration, on average around 5 years. In this case, therefore, a single premium – even with-

out the possibility of premium adjustment – can be applied. The premium is normally specified as a percentage of the monthly credit instalment. Especially in the United Kingdom, there are companies which in addition to term life insurance, disability insurance and unemployment insurance also offer dread disease covers.

b) Mortgages

Here too the focus is on providing security for credit instalments. If the insured person becomes unemployed, they can search for a new job calmly without having to worry about the mortgage burden. Since the interest rate guarantee is usually for 10 years, it is advisable to take out the unemployment insurance for this

period. In view of the fact that the risk of change with regard to unemployment is very high over this long period of time, regular premium payments with the possibility of premium adjustments are appropriate.

c) Insurance premiums

In order to secure old-age provision (for private annuity insurance or permanent life insurance products), premium payments can be covered by the unemployment insurance in the event

of unemployment. The mode of premium payment for the unemployment insurance is based on that of the main insurance.

d) Credit cards

First and foremost in the UK market, this type of unemployment protection is offered in combination with term life, personal accident and disability cover. In the event of death the credit card balance is settled. In the event of disabil-

ity or unemployment, the minimum monthly repayment on the card is usually covered; this normally ranges between 5% and 10% of the outstanding amount.

e) Overdrawn accounts

In this case, too, death, personal accident and disability are insured along with unemployment. Insurance protection can be extended to include the spouse as well as the account holder. In the event of death either the amount of the overdraft or the borrowing limit can be paid

out. In the UK market, for example, the benefits in the event of disability or unemployment are linked with the death benefit. For the most part, 5% to 10% of the death benefit is reimbursed monthly.

f) Other

In addition to the covers indicated above, insurance protection in the event of unemployment can of course also be provided for school fees,

tuition fees, rental commitments and travel cancellation expenses.

g) Problematic covers

Due to the risk of negative selection, it is risky to offer unemployment insurance to cover loss of income. Furthermore, self-employeds gener-

ally have a vastly higher risk of becoming unemployed than persons in a dependent working relationship.

The maximum benefit under an unemployment insurance policy in Germany should not exceed, say, DM 2,000 per month. It is normal to limit the liability of the insurance company by means of a waiting period of 3 – 6 months. Insurance protection only commences after the elapse of this waiting period. In addition, a deferment period applies, which may be as long as 3 months and which postpones payment of the insured monthly benefit. Waiting and deferment periods make it possible to limit the subjective risk, while also providing a tool for adjusting the premium level. Not least for reasons of administrative simplicity, short periods of unemployment can thus be disregarded and

insurance benefits can be adjusted according to the unemployed person's actual financial need.

The maximum benefit duration for a period of unemployment should be restricted to 12 months, since long-term unemployment constitutes a virtually uninsurable risk. In this regard, it is entirely possible that during the insurance period several spells of unemployment may occur in which insurance benefits are paid out. In this case, however, after a period of unemployment, fresh proof of insurability must be furnished.

III) Insurability

As shown in section 2, young and older persons in paid work have a particularly high risk of unemployment. Young employees tend to lose their jobs relatively easily, whereas older unemployed persons have less chance of being reintegrated into working life. For this reason, insurability should be restricted to persons aged between 25 and 55.

In order to preclude seasonal unemployment, employees must perform a full-time job with a minimum working time of 30 hours per week. The employment relationship must have existed for at least 12 months prior to inception of the insurance. In this context, a precondition in Germany is that the activity must be subject to statutory social insurance with contributions

payable to the Federal Labour Office. At the time when the policy is taken out, the employment must be performed on a permanent basis and may not be under notice of termination.

The policyholder must not have been subject to strict "any occupation" disability or occupational disability in the 12 months prior to taking out the insurance. This makes it possible to eliminate unemployment risks triggered by health impairments.

In some cases unemployment insurance products are also offered for self-employed or temporary workers. The subjective risk for these groups of persons, however, is to be considered highly critically. If a self-employed entrepreneur gets into economic difficulties, he or she may find it tempting to alleviate the crisis situation by wilfully causing the insured event.

IV) Definition of the insured event

Unemployment is only recognized if it affects the employee involuntarily, for example because the employer withdraws from the business segment in which the insured is employed. In this context, the insured person may not decline alternative employment offered by the employ-

Special importance therefore attaches to the precise definition of the unemployment event. The insured event is generally linked to the involuntary insolvency of the self-employed person, which must be certified by an accountant (or bank).

Unemployment covers for contract labourers are restricted to the premature termination of the temporary contract, and benefits can only be drawn until the date when the employment contract would have naturally expired. In recent years, however, quite a number of employers have gone over to issuing employment contracts only on a temporary basis, and then renewing them regularly or as a matter of standard practice. In this regard, the UK insurance industry has taken the step of considering such temporary employment relationships as permanent appointments.

er. As objective proof of his or her benefit entitlement, in most countries the unemployed person must furnish written confirmation from the "employment office" to the effect that he or she is registered as unemployed and is the recipient of unemployment benefit.

V) Exclusions

If unemployment is caused by an early retirement scheme, liability shall not apply – even if the insured person is in receipt of unemployment benefit. Additional exclusion criteria consist of cases of unemployment triggered by

- ◆ unlawful conduct
- ◆ alcohol and drug abuse

- ◆ sickness / disability
- ◆ own fault / own termination
- ◆ strikes
- ◆ etc.

5.2 Underwriting

The concept which is currently applied to designing private unemployment insurance products is concentrated first and foremost on defining the insurable group of persons, the exclusions and the insured event. Provided the conditions of insurability are satisfied, a person is in principle insured without any "traditional" individual underwriting taking place. The purpose here is twofold: firstly, the administrative expenses for processing applications are kept to a minimum; secondly; this approach avoids atomization of the risks under consideration.

The usual rating criteria are limited to region, occupational category, age and sex. In this regard, many insurance companies are tending to perform a precise target analysis of the expected portfolio before launching an unemployment product. For example, if an insurer is active solely in a particular region and if a fixed distribution of the sexes and occupational categories can be anticipated on the basis of the composition of the future portfolio, standard rating is frequently implemented. Problematic in this context, however, is the fact that the structure of the desired portfolio may not develop as forecast and premium adjustments may therefore become necessary.

The purpose of this approach is to arrive at an adequately high safety level with regard to the accepted risks just by way of the insurance terms and conditions and the sales channel. At the same time, simplified underwriting can facilitate high market penetration and the building up of large, well-balanced insurance portfolios.

In the case of regionally operating insurance companies or companies specializing in certain target groups, the commensurate rating of the insurance risks must be subjected to very close prior analysis. The analysis of the structure of unemployment (section 2) has clearly demonstrated that the risk of unemployment depends not only on the aforementioned rating criteria but also on factors such as

- ◆ region
- ◆ health
- ◆ professional training
- ◆ economic sector
- ◆ etc.

In order to arrive at adequate premium rates, separate consideration must then be given to these criteria by way of special analyses. Nevertheless, it should be reiterated at this juncture that the risk of unemployment is a volatile one. The atomization of risk groups and a fixation on small customer segments entail a risk of unbalanced underwriting results. What is more, complex underwriting obliges an applicant to face up to his or her own personal risk of unemployment in a very conscious manner, thereby potentially lending further impetus to the risk of antiselection.

6. Closing remarks

It is thus clear that private unemployment insurance is a necessary product. The need for additional security to supplement the state unemployment insurance scheme is evident. Consequently, there will be no lack of demand for this product. At the same time, however, this is a highly sophisticated product, whose rating and product design are extremely complex and call for great care.

The definition of the insurance terms and conditions, the sales channel and the underwriting all decisively impact the success of a private unemployment insurance product. It is of paramount importance to ensure a balanced portfolio mix in terms of regions, ages and occupational groups. Companies which fail to do this are "playing with fire" and risk suffering severe losses. High market penetration and the elimination of antiselection mechanisms offer the best guarantee of acceptable underwriting results with a limited susceptibility to fluctuation.

Under no circumstances should premium adjustment clauses be dispensed with, especially in the case of coverage periods of more than 5 years. The macroeconomic climate may change so dramatically that the actuarial bases used are no longer appropriate for calculating the risk premium.

At the same time, it is also evident that efficient claims management constitutes an absolutely essential prerequisite for successfully transacting this type of insurance business. Claims processing based on objective criteria is indispensable for controlling the course of business in private unemployment insurance. A systematic analysis of the claims experience then paves

the way for adjusting the bases of calculation in line with actual requirements on an up-to-date basis.

In the area of claims management, companies in the United Kingdom have taken the additional step of offering unemployed insureds assistance with finding a way back into working life. For example, many insurers have set up hotlines to inform unemployed persons about their entitlements to claim state benefits and to give them active assistance in the process of applying for jobs. Support is provided for tracking down vacant positions and preparing application documents. It is also not uncommon for insurers to offer seminars and workshops aimed at systematically preparing job-seekers for their reintegration into working life.

Despite the controversy which it attracts, there is a market for private unemployment insurance, and attractively designed insurance products can enable the insurance industry to tap into further sources of profit potential in the long as well as the short term.

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8. Glossary

Primary sector:

Agriculture and forestry, livestock farming and fishery

Secondary sector:

Manufacturing industry

Tertiary sector:

Service sector

Volume of work:

Effectively performed working hours per head of the residential population

Unemployed persons:

Persons who are registered as unemployed at the employment office and who are available to the labour market "without restriction"

Labour force / employable persons:

Persons who are available to the labour market, in other words the total number of persons in paid work plus the unemployed

Long-term unemployment:

Unemployment which lasts for a year or longer

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Hannover Re's Perspectives –
Current Topics of
International Life Insurance

Karolina Trettenbach · Dieter Kroll

*Private
unemployment insurance*

*Opportunities and risks associated
with a complex product*

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