Pension conversion rate concerning non-mandatory occupational pension plans

I. In summary

The pension conversion rate determines the amount of the annual pension as a percentage of the saved pension capital at the time of retirement. It must be determined according to long-term estimates of biometric factors and capital market conditions. The conversion rate therefore depends both on the future life expectancy of the pensioner and the age and the life expectancy of the spouse, as well as on the return that can be achieved in the long term by investing the pension capital. Life expectancy is determined by means of mortality tables. The interest rate on the pension capital is called the technical interest rate. Payment of interest on the capital at the technical interest rate is guaranteed for the entire term of the pension.

The current pension conversion rate of 7.2% has remained unchanged since 1985. The applicable actuarial data of the large autonomous pension funds (Federal Insurance Fund 1980 and Insurance Fund of the City of Zurich 1980) were used as the basis for calculating life expectancy in 1985. The technical interest rate contained in the pension conversion rate is 4%.

Both the life expectancy and the technical interest rate of 4% included in the current pension conversion rate no longer correspond to reality.

Life expectancy has increased since 1985. Moreover, the mortality tables used at the time do not take any trends into account, i.e., that a further increase in life expectancy can be expected in the future (cf. separate fact sheet on "Mortality and life expectancy, especially with respect to non-mandatory occupational pension plans").

The technical interest rate of 4% contained in the pension conversion rate must now be regarded as clearly too high (cf. separate factsheet on "*Technical interest rate for determining the pension conversion rate concerning non-mandatory occupational pension plans*").

A reduction in the pension conversion rate is necessary in order to prevent gaps in coverage that would either have to be financed by later generations or that would seriously threaten the financial stability of the pension system in the future.

II. Function of the pension conversion rate according to the Federal Law on the Occupational Old Age, Survivors' and Disability Benefit Plan

Through contributions to occupational pension plans, insured persons save pension capital throughout their working lives that is paid out after retirement in the form of pensions. The annual pension is determined as a percentage of the pension capital. The percentage is called the pension conversion rate.

Given pension capital to the amount of CHF 100'000 and a pension conversion rate of 7.2%, the annual pension amounts to CHF 7'200.

III. Determination of the pension conversion rate

The calculation of the pension of a man includes a widow's pension and a pensioner-child's pension. The widow's pension is the portion of the pension that is paid to the widow after the death of a retired man. A pensioner-child's pension is paid for every child under 26 still in school or at college.

The calculation of the pension conversion rate should also take into account a flat rate cost premium, which should be about 2% of the pension. These costs contain the expenses for the servicing of the pension, especially the costs for the periodic verification of the right to receive the pension and the capital investment costs.

The most important parameters for calculating the pension conversion rate are, however, the term of the pension payment –i.e., the life expectancy of the person entitled to the pension– and the technical interest rate, i.e., the minimum interest rate paid on the pension capital.

If the life expectancy of the recipient of a pension increases, the term of the pension payments also increases. Given fixed pension capital, this means that the annual pensions decrease. As mentioned above, both the life expectancy of the pensioner and the life expectancy of the pensioner's wife are relevant in the case of a man. (For more information on taking into account future life expectancy, cf. the separate fact sheet on "Mortality and life expectancy, especially with respect to occupational pension plans".)

The technical interest rate is of central importance for the level of the pension conversion rate. An increase or a decrease of the technical interest rate directly results in an increase or a decrease, respectively, of the pension conversion rate. If the interest rate is 0.5 percentage points higher or lower, this results in an average increase or decrease of 0.33% in the pension conversion rate. The return on capital investment may vary from year to year and can therefore not be determined accurately in advance. The technical interest rate is the minimum rate of return that the insurance company must achieve on the pension capital – over the entire term of the pension payment. The technical interest rate is therefore a guarantee for the insured person. A calculation of the technical interest rate using recognised scientific methods, taking international standards (e.g., EU directives) into account, would currently result in a value under 3%. (For more information on the level of the technical interest rate, cf. the separate factsheet on "*Technical interest rate for determining the pension conversion rate*".)

The dependence of the pension conversion rate on the life expectancy of a 65-year-old man and on the technical interest rate can be illustrated with the following table:

Life expectancy	16.9	18.6	20.5
Interest rate in %	**Conversion rate in %**		
4.0	6.78	6.48	6.18
3.5	6.44	6.14	5.84
3.0	6.10	5.81	5.50
2.5	5.77	5.49	5.17
2.0	5.45	5.17	4.84
1.5	5.13	4.86	4.52

It is possible to empirically determine the incidence of mortality for a certain age group of persons at this point in time. However, it is uncertain how these probabilities of mortality will develop in the future. In general, there is a trend toward higher life expectancy, i.e., to lower probabilities of mortality.

The first column of the table does not consider this trend, based on observations in the period from 1996 to 2000. This is hardly realistic, since it assumes that the trend of increasing life expectancy will now immediately break off.
In the second column, the increase in life expectancy is taken into account, corresponding to the observed trend over the last forty years.
The third column is based on mortality statistics which also take the trend into account as well as further elements, such as the possibility of withdrawal of capital and the specific life expectancy of the insured new pensioners.
In accordance with the increase in life expectancy, we note a decrease in the pension conversion rate from the left to the right column of the table. (For further information on the mortality data, cf. the separate fact sheet on "*Mortality and life expectancy, especially with respect to occupational pension plans*").