# THE IMPACTS OF RISING INFLATION AND INTEREST RATES VOLATILITY **ON SWISS PENSION FUNDS LIABILITIES**

### BY AURÉLIE FURET



**AURÉLIE FURET** is an actuary at CPEG (Caisse de prévoyance de l'Etat de Genève).

#### THE SWISS SYSTEM IN FIGURES

The Swiss pension system is based on 3 pillars. The 2nd pillar, based on capitalization, relates to occupational benefits. It covers the risks of retirement, disability, and death. At the end of 2022, it represents 1.353 pension funds (-35% in 10 years), with 4.6 million active insured members (+18% in 10 years) and assets of 1.066 billion (+58% in 10 years).

## THE SWISS SYSTEM IN PRACTICE AND THE ROLE OF THE ACTUARY

Each employer chooses a pension fund to which he affiliates his employees. There are therefore a multitude of pension plans, all of which must guarantee at least the legal minimum benefits. As a result, the level of insurance cover can significantly differ among members of distinct pension funds.

Each pension fund is managed by a foundation board composed of equal numbers of employer and employee representatives. Pension fund management and responsibility are not assumed by 2nd pillar professionals. Therefore, they must undergo training and are supported in their tasks by several people. These include the pension fund expert (consulting actuary), the auditors and supervisory authorities. The actuaries' ability to **explain, communicate and make proposals** to the members of the foundation board is therefore essential. >



#### **CURRENT ISSUES**

Many topics take centre stage in the 2nd pillar. Like other European countries, Switzerland is facing an ageing population, an evolution of socio-cultural norms (part-time work, flexible retirement age, cohabitation, etc.), and volatile interest rates on the financial markets.

In recent years, the upturn in inflation and interest rate volatility has had an impact

not only on the calculation of balance sheet commitments, but also on the level of benefits paid to active insureds and pensioners.

In 2022, the average return on pension funds was around -9%, while inflation averaged 3%. Consequently, pension funds have not been able to adjust benefits in line with observed inflation, which has not yet been reflected in the financial markets. > Note that, in 2022, the increase in inflation was much less pronounced in Switzerland (2.8%) than in the European Union (9.2%).

**The Swiss Chamber of Pension Fund Experts** publishes a directive defining the recommended technical interest rate for calculating liabilities and setting an upper limit. This depends on the yield of the 10-year Swiss government bond in CHF over the last twelve months. The rise in bond yields, following the period of negative interest rates, has led to high volatility. Since 2021, this has led for the first time to an upward trend in the upper limit of the recommended rate. In recent years, most pension funds have gradually lowered their technical rate, lagging behind the market. For this reason, they remain cautious about its rise until they have a clearer picture of the emerging trend. The average technical interest rate stood at 1.72% at the end of 2022.

#### HOW TO DEAL WITH THIS UNCERTAINTY?

To ensure that the benefits provided by the pension plan are in line with funding, pension funds carry out long-term actuarial projections based on assumptions, including expected inflation and expected returns. These assumptions represent long-term average estimates. However, we know that future inflation and returns will not be constant and equal to the expected average. To protect themselves against these variations, pension funds have a number of management tools at their disposal, as described below.

CPEG, for example, has assumed a long-term inflation rate of around 1% and an expected return of around 4% for its reference projection model. CPEG based its inflation assumption on the European Central Bank's 2% inflation target and on the fact that Swiss inflation is structurally lower on average over the long term by 1% to 1.5% than European inflation. This correlation is explained in particular by the fact that the eurozone is Switzerland's main trading partner. The expected return is a direct result of the strategy allocation and may therefore significantly differ among pension funds.

#### ARBITRATING THE INTEREST RATE CREDITED TO ACTIVE INSUREDS' RETIREMENT ASSETS

Regarding benefits for active insured members, the **interest rate credited to retirement assets** is a direct management tool for defined-contribution plans, which concerns over 90% of all pension funds. This rate is annually set by the foundation board, depending on the economic situation and on the available financial resources. However, as the system is based on capitalization, the foundation board must keep a long-term benefit objective in sight by crediting a sufficient average interest rate.

How to manage the stability of the pension plan versus the evaluation of balance sheet commitments?

Pension funds use interest rates on two levels:

- at the level of the pension plan's technical scales, which define the level of benefits, such as the conversion rate of retirement assets into annuities for defined-contribution plans, or the scale for calculating retirement assets for defined-benefit plans;
- in the calculation of their balance sheet commitments.

Given the volatility of the technical interest rate recommended by the Directive, some pension funds have opted to define two separate rates, thus **dissociating the technical interest rate used to assess commitments from the technical interest rate of the pension plan**.

The aim is to take a longer-term view of the definition of insured members' benefits to ensure equal treatment among them. This approach should help avoid, for example, changing the conversion rate upwards or downwards every year.

Currently, for the plan's technical scales, CPEG uses periodic tables (with fewer future assumptions on longevity) with an interest rate of 2.50% (based on a long-term vision) to adopt a more stable approach to its benefits. To value its commitments, it uses generational tables with 1.75%, to take a more cautious view and be closer to the market. >



reference rate (2014 to 2018) and upper limit (from 2019) for generational tables of the technical directive

#### FIGURE 1: AN EXAMPLE FROM THE CAISSE DE PRÉVOYANCE DE L'ETAT DE GENÈVE (CPEG)

Note that approximately 70% of pension funds • Single

Note that approximately 70% of pension funds use generational tables to calculate their balance sheet commitments.

#### WHAT CAN BE PUT IN PLACE TO ADAPT ANNUITIES?

Concerning pensioners, the question of adjusting pensions to the cost of living needs to be studied annually, depending on the level of inflation and on the pension fund's financial resources. As the financial markets have shown themselves to be more lenient for 2023, the foundation boards are seeking solutions to achieve the best balance between maintaining long-term financial equilibrium, protecting the purchasing power of pensioners, and ensuring that the future pensions of active members are not devalued, while respecting equal treatment between members and generations.

There are several forms and levels of adjustments of annuities:

• Lifetime indexation of annuities, leading to an increase in balance sheet liabilities;

- Single capital payment as a percentage of the annuity, often called the '13th annuity', not constituting a future right, resulting in a reduction in assets without constituting an additional balance sheet liability;
- Variable annuity mechanism, with a guaranteed annuity calculated using a conversion rate based on a low-risk technical rate and a possible capital supplement automatically defined each year according to the financial resources of the pension fund.

It may also be relevant to go further and, for example, to apply a differentiated adjustment according to the year in which the pension was opened if, for example, conversion rates have been lowered in recent years.

#### LOOKING TO THE FUTURE?

In an ever-changing pension world, pragmatic actuarial creativity will continue to be required to guarantee the long-term financial equilibrium of pension funds, while aiming for equal treatment between the different categories of insured and generations. <