



Consequences of inflation - 1 October 2009

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Deflation and inflation have differential effects on the redistribution of risks between active members and pensioners, find Lukas Riesen and Alfred Bühler

A wide range of measures has been undertaken globally in reaction to the credit crisis and as a result of the downturn in the real economy. The enormous sums in fiscal support measures and the expansive monetary policy of central banks have led to considerable uncertainty in relation to expected price inflation. Disregarding whether a deflation or an inflation scenario is more likely, a departure from the price stability of recent years is not without consequences for Swiss pension funds.

Deflation and inflation affect not only the value of invested assets, but also influence the liabilities of a pension fund. An integrated analysis of possible consequences for assets and liabilities forms the basis for effective management of inflation risks, therefore direct as well as indirect effects must be analysed. According to the benefits promised, price inflation has a direct effect on the nominal liabilities, and this is the case, for example, when price inflation is applied to adjust pensions in payment and there is a consequent change in the level of benefits paid. In addition, the value of the liabilities is affected by indirect price inflationary effects. Inflation can for example affect the interest rate or the salary level that is insured and thereby alter the rate of benefit liabilities indirectly. Experience tells us that the financial situation of Swiss pension funds is affected more strongly through the indirect effects of price inflation, which are often not intuitively apparent.

Price inflation effects

The effects of a change to the price inflation rate for active members are primarily dependent on the way plan benefits are structured. In the case of defined benefit plans, the insured rate of salary directly affects the level of liabilities. This becomes particularly problematic when salary increases are not financed through additional contributions.

The emergence of inflation, with corresponding increases in salaries, can have a negative effect on the financial situation of the pension fund. The effects of a change in the rate of price inflation are weaker in the case of Swiss cash balance plans, as it is possible to react more flexibly to the new situation by adjusting the level of interest applied to the assets.

The level of capital drawn as a lump sum also influences the structure of the liabilities and thereby also the inflationary risk. It must be taken into account that the applicable interest rate and the inflation rate can also affect the level of capital drawn down. The option of a capital lump sum is particularly attractive when the actuarial interest rate, the basis on which the pension conversion rate is defined, is lower than the current interest rate. Correspondingly, the higher the prevailing interest rate at the moment of retirement, the higher the sum of capital that is usually drawn.

Inflation risks in the case of pensioner liabilities are influenced by fewer factors than those of active plan members. When no inflation protection is offered, the pension liabilities are fixed in nominal terms, but heightened interest rate risks arise. When pensions in payment are adjusted for inflation, this does lead to a higher cash level of obligations, but the interest rate risks are nevertheless lower than in the case of nominal fixed pensions.

The Swiss system of capital funded second pillar pensions does not foresee a legal obligation to

adjust benefits to compensate for inflation in the case of pensions in payment. Inflation compensation is usually only offered when the financial situation of the fund permits. Such redistribution is usually also in the form of an optional one-off payment and does not lead to new obligations, as would be the case with pension indexation.

But where higher inflation is not matched by inflation protection for pensions, it poses the question as to whether Pensionskassen would then fulfil their constitutional obligation together with the first pillar to maintain the accustomed standard of living in an appropriate manner. It can be assumed that even funds that did not have sufficient financial means would apply cost of living increases in the case of ongoing higher inflation. Pension indexation could become a de facto requirement.

Aside from the legal requirements, the extent of inflation risks to liabilities is determined by the benefit promise, the structure of the members and the behaviour of members.

A comprehensive risk analysis requires that the individual situation of the pension plan should be taken into account. The remaining factor of uncertainty regarding the behaviour of members can be analysed by means of a simulation of differing withdrawal rates or capital drawdowns.

Reducing inflation risk

The inflation risks of liabilities cannot be changed without a change in the benefit levels or a buyout of liabilities. However, a targeted investment strategy allows for a considerable reduction in inflation risks. In terms of the structure of the assets, funding risks or structural financial deficits can never be fully eliminated. Interest rate risks, which again can be influenced by inflation, can, however, be almost completely eliminated by the choice of an appropriate investment strategy.

This means that the interest rate risk profile of the assets must be determined by the liabilities. The precise definition of the benefit goal of the pension fund is a key factor in this regard. A transparent definition of the pension benefit promise is not only in the interest of the beneficiaries, but is also an important condition for successful risk management.

Inflation's positive impact Experience has shown that the emergence of deflation represents a considerable danger for Swiss pension funds, while inflation usually improves the financial situation of funds.

If the interest rate were to decrease as a result of deflation, this would have a dramatic consequence on the financial situation of pension funds. The finance of predetermined benefits would be de facto impossible if the interest rate were any lower.

Whereas the fund can apply benefit adjustments in the case of active members, pensioners must continue to receive the level of benefit promised. Due to a high level of the actuarial interest rate no loss of purchasing power would be implicitly taken on, and pensioners would be the winners in a deflation scenario. The consequence would be redistribution from active members to pensioners.

In an inflation scenario the opposite situation would occur as interest rates would usually increase. Promised benefits would be easier to finance thanks to the higher interest rate. Since pension funds in an underfunding situation of fully exhausted reserves usually do not uprate pensions in payment to compensate for inflation, the financial situation of these funds would usually improve. Pensioners would be subject to a loss of purchasing power, however.

Overall, an inflation scenario would therefore still be favourable from the perspective of the pension fund, as even with extensive inflation compensation, pensioners would still make a contribution to the restructuring of funds in an underfunding situation.