

## Press Release

Zurich, 8th September 2006

### **The University of St Gallen releases study showing the benefit of dynamic strategies for Pension Funds**

A report by Professor Manuel Ammann and Andreas Zingg of the Swiss Institution of Banking and Finance at the University of St Gallen has found that dynamic investment strategies can be an attractive alternative to a static investment strategy in some circumstances for Swiss pension funds. The study's findings are particularly timely given current economic conditions and the search of pension funds to fund their liabilities.

The report, entitled, "Dynamic Investment Strategies for Swiss Pension Funds" was sponsored by Société Générale Corporate & Investment Banking, a specialist in tailor-made institutional investment solutions.

The report's abstract, written by Professor Ammann says, "In reality, Swiss pension funds have followed static investment strategies. In contrast to dynamic strategies, static investment strategies are not influenced by the current Risk-taking capacity of the fund.

In this study, four different dynamic strategies were analysed and compared with a static buy-and-hold strategy. The dynamic strategies analyzed were:

- a classic portfolio insurance with call options
- two CPPI-type strategies
- a straddle-like investment product called Reverso.

The assessment of the dynamic investment strategies is based on a Monte Carlo simulation for a hypothetical pension fund. Expected maximum shortfall as risk criterion and expected growth rate of funding ratio as reward criterion were applied.

The analysed dynamic investment strategies have the potential to offer a more attractive risk-return spectrum than a static buy-and-hold strategy for the risk and return measures used in this study. For any acceptable level of risk, there is a dynamic strategy that yields a higher expected growth rate of funding ratio. However, dynamic strategies should not be seen as panacea for the issues faced by Swiss pension funds as other factors, such as transaction costs, need to be taken into account when choosing an investment strategy."

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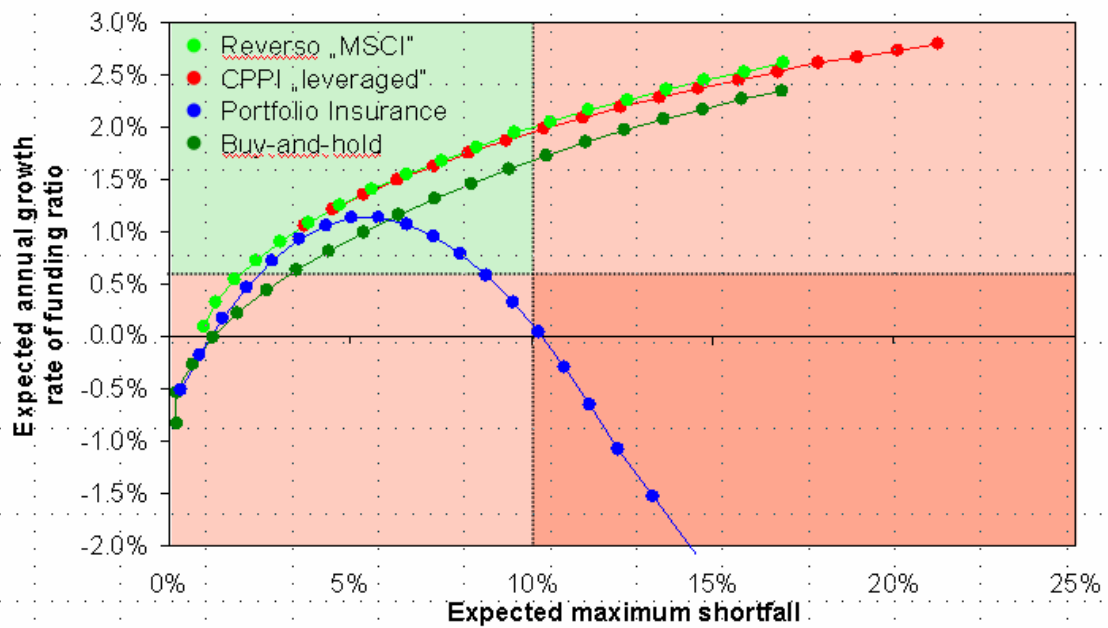
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“Comparison of the risk-return profile of a buy and hold strategy with the three dynamic strategies”

The attractiveness of CPPI "leveraged" and portfolio insurance relative to the benchmark strategy is not significant. On the other hand, the Reverso strategy shows an advantage compared to the buy-and-hold strategy.

The results can nevertheless be highly dependent on the model and parameters used.

According to the Law of Occupational Pension Plans, Swiss funds have to guarantee a certain minimum return on the mandatory pension capital on a yearly basis. Originally, the minimum interest rate was set to 4%, but subsequent reductions have brought that rate to 2.5%.

For the purpose of this study, St Gallen and Société Générale Corporate & Investment Banking have developed an asset-liability management (ALM) framework, taking into account the specificities of Swiss pension funds. Beyond this study, such an ALM framework is expected to help pension funds significantly improve their governance, and in particular their asset and risk management allocations.

Société Générale has been named Equity Derivatives House of the Year for two years running by the most prestigious industry publications (*Risk*, *IFR* and *The Banker*) and was recently named Bank of the Year by *Euromoney*

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**Professor Manuel Ammann**

Manuel Ammann is Professor of Finance and Director of the Swiss Institute of Banking and Finance at the University of St.Gallen. His main research interests are in the areas of derivative securities, asset management, financial markets, and risk management. Professor Ammann is editor-in-chief of the journal Financial Markets and Portfolio Management and serves as a director and trustee to several companies and foundations.

Professor Ammann received a Ph.D. from the University of St.Gallen and an M.Sc. in Computer Science from Simon Fraser University, British Columbia, Canada, and was a postdoctoral fellow in finance at New York University.

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