Hedge Funds in Asset & Liability Management

Example of a Swiss Pension Fund

Harcourt Hedge Fund Seminar

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Overview

- ALM for Pension Funds – Methods and Objectives
- Should Hedge Funds be included in the Strategic Asset Allocation – Some Criteria would help!
- Do Hedge Funds meet these Criteria?
- Summary

ALM for Swiss Pension Funds

- Legal requirements
  - „The Pension Plan has to carefully select, manage and monitor it‘s investments“

Additional aspects are:

- Security
- Financial Status
- Structure and Changes of Liabilities

with a clear emphasis on meeting liabilites.

Challenges

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- As an investor you have to decide whether „new“ strategies will help you to achieve these goals.
- Blindly implementing hedge funds and other strategies without considering the facts can be costly.
- Giving up possible positive contributions from such strategies can be costly as well.

Attack Plan

- Why not try to apply some economic reasoning?!
- Chances are that we might be able to improve our portfolios!
- Let us start with the issue of strategic asset allocation: As you will see the results have implications for the implementation of hedge funds as well.

ALM Methods

- Classical Asset-Liability-Analysis (“Actuarial View”)
  - Static ALM
  - Dynamic ALM
- Market-based Asset-Liability-Analysis (“Market View”)

ALM Methods: Actuarial vs. Market View

Actuarial View

- The present value of future liabilities is derived by applying a constant technical interest rate.

→ Actuarial Value of Liabilities

- Liabilities have no interest rate risk.

Market View

- The present value of future liabilities is derived by applying the current interest rate structure.

→ Market Value of Liabilities

- Interest rate risk corresponds to a long term bond portfolio.

⇨ As a rule of thumb both values differ by approx. 10%

ALM Methods: Consequences for the Optimal Investment Strategy

Actual View

- The optimal strategy achieves a return that is equal to or higher than the required actuarial rate of return and has a low absolute volatility.

Market View

The optimal strategy consists of two parts:

- „Core“ Portfolio: Matches liabilities with least risk
  ⇨ Bond portfolio with “long” benchmark

- „Risk“ Satellite: Achieves risk premiums over bonds
  (equities, real estate, hedge funds?)

ALM Methods and the Role for Hedge Funds?

Actuarial View | **Market View**

PF Structure: „One“ PF | Risk Satellite | Core Portfolio

Objectives: Steady absolute return low volatility | Liability Matching

Role for HF? Should HF be included in the SAA? Lets talk about this! | NO Bond Portfolio!

Hedge Funds and Strategic Asset Allocation

- Should Hedge Funds be included in the Strategic Asset Allocation (SAA)?
  - What categories are in the SAA?
  - What categories are not in the SAA?
  - What are the criteria for inclusion/exclusion as a category?
  - Why is Alpha not there today?

What categories are in/not in the SAA?

In:

- Domestic and Foreign Bonds (with various subcategories)
- Domestic and Foreign Equities (with various refinements)
- Property/Real Estate
- Commodities

NOT In:

- Forex
- Derivatives
- Convertibles

What are the criteria for inclusion/exclusion?

1. Systematic Risk based on an independent asset category
   - Independent means that it adds an investment dimension in an Arrow-Debreu-World: an asset that cannot be constructed from the other asset categories.
   - Systematic means, that you cannot eliminate the risk through diversification.

AND

2. Investors are compensated for bearing the risk.

AND

3. It should be repeatable.

Consequences

- From a strategic point of view, there is no point of including derivatives (combinations of other asset categories) or forex (unrewarded risk).

- Should alpha be part of the SAA?

  – No, because it is non-systematic. It is therefore diversifiable. (Don‘t worry - we talk about persistent alpha later on!)

How about Hedge Funds?

Do Hedge Funds meet the stated criteria?

- Are there *additional systematic* risk categories that enhance the existing investable universe?

- If there are new risk categories:
  – Are we compensated for bearing the risk?
  – Will the risk premium remain?

And can there be a reliable structural or skill-based alpha?

→Answering these questions will tell us a lot about how we have to deal with Hedge Fund Investments!

Analysis of Financial Evidence

- These questions boil down to:
  - What risk and return components make up the risk and return of a Hedge Fund?
  - What are the characteristics of these components?

What factors make up the Hedge Fund Return

- Skill or premium? It seems to be a combination of both components! The exact combination depends on the Hedge Fund Type and finally on the individual Hedge Fund. It is hard to quantify properly!

- Studies hint, that skill does not dominate the return of hedge funds at all. Some analyst attribute not more than 20-30% of total excess return to skill, leaving 70%-80% to other sources, mostly systematic market risk.

- But this is an open debate at the moment. Let us assume some extremes: 100% Persistent Skill Alpha and 100% Beta Risk.

100% Persistent Alpha

- Even though alpha has the inherent property of eliminating itself, let‘s assume for the moment that the Hedge Fund is able to produce persistent alpha.

- Persistent Alpha is like a gold Mine: you do not give it away for free!

- So either we assume that hedge funds are
  a) charities or
  b) their alpha is not really persistent or
  c) there is alpha and it is efficient to sell it!

100% Risk Premium

- Let‘s assume for a moment that the excess return is derived from risk premiums and there is no skill involved.

- If it is traditional beta return, you are not really happy. You want to eliminate it, because there are more efficient ways of bearing this risk.

- If it is alternative beta it might be worthwhile (see below).

Alternative Beta Risk

- If there are such Alternative Beta Risks that meet the stated criteria of:
  - Independence
  - Systematic
  - Earning a risk premium

they should definitively be included into the SAA process.

Implementation Consequences

- **The perfect world:**

  Build a portfolio of managers with long exposures to market risk premiums and remunerate them for passive asset management.

  AND

  Use skill-driven, active managers as satellites to existing core mandates. Remunerate them for their skill. Access skill efficiently via the most appropriate products from traditional and alternative managers.

- **But:** Can we separate Skill from Premium? Is the Hedge Fund Industry interested in a separation (fees!)?

Hedge Funds in ALM: Summary

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- *IN or OUT?*
  - “Traditional Beta”: In ➞ But do not overpay traditional market premiums
  - Alternative Beta: In ➞ Capture through diversified portfolios
  - Alpha: Out ➞ Is part of the implementation
- *Typical Hedge Fund products capture all three components; thus the question has to be answered for each individual product*

⇨ *Know your products and understand their economic rationale!*