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Basic Principles for Investing Group Pension Funds and Individual Accounts: How to Maximize Risk-Adjusted Returns

Dr. Martin Janssen
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What is Optimal Investment? (I)

Assets today ➤ must finance ➤ Liabilities = expenditures in the distant future

Liabilities = expenditures in the distant future

how?
What is Optimal Investment? (II)

• How?
  – Minimize amount of assets given the liabilities
  – Taking into account risk
  – Taking into account costs
  – On a systematic basis
What Are the Problems? (I)

- What are the relevant liabilities?
- What are the characteristics of the assets?
- How do we minimize the amount of assets given liabilities
  - for Group Pension Funds and
  - for Individual Accounts?
- The concept of Asset Liability Management
- What role does „risk“ play?
What Are the Problems? (II)

• How do we organize the investment process?
  – Defining the investment strategy
  – Implementing the investment strategy
  – Evaluating and choosing investment managers and global custodian
  – Fee structures for investment managers and global custodian
  – Investment controlling
Defining and Measuring Liabilities (I)

- Strategic view in investment management is important
  - One has to know, what the expenditure plan is, before one knows how to invest
  - The expenditure plan is defined as „Liabilities“
  - Knowing the liabilities is especially important in retirement planning because the investment period is so long
Defining and Measuring Liabilities (II)

- The asset structure, which is optimal to finance the liabilities, depends – among others – on
  - The expected structure of the household budgets of elderly people in the distant future
  - The expected inflation
  - The expected share of imported goods
  - The objective risk characteristics of the assets and the subjective risk characteristics of the individual persons („degree of risk aversion“)
Characteristics of the Assets (I)

- There exist thousands of different types of assets
- Many different types of future cash-flow structures – not all of them – can be produced by means of these assets types
- The market is said to be complete (incomplete) if all (only few) states of the world can be hedged on a one-to-one-basis
- Individual assets involve „risk“
- When handling „risk“, it is to be considered that
  - Bearing diversifiable risk is not paid
  - Elimination of risk demands – necessarily – international diversification
Characteristics of the Assets (II): The Efficient Frontier

Based on S&P 500 and MS EAFE Index 1969 to 1996
Asset Liability Management (ALM)

- ALM: Conceptual approach to finance liabilities (i.e. planned expenditures) with – yet to be determined – assets

- As financial markets are not complete, financing liabilities – necessarily – involves the risk of running out of assets when financing future liabilities
  - Goal: full transformation of future risk into assets of today via the financial markets
  - Yet: Many future risks cannot be hedged in the market (e.g. inflation rates twenty-five years from now)

- Investment decisions – necessarily – demand for a subjective solution of the risk-return trade-off
ALM, Handling the Risk-Return Trade-off (I): Individual Accounts

- The risk-return trade-off can only be handled by an individual person, i.e. within an individual account
- Handling the risk-return trade-off necessarily involves trading incremental (objective) return against (subjective) risk
- This is not easily done (neither conceptually nor psychologically)
- People should be offered tools by which to demonstrate the implications of changing market risk within a portfolio
ALM, Handling the Risk-Return Trade-off (II): Group Pension Funds

- As people are different, it is not possible to have a single "average" portfolio that would fit all individuals (the risk-return trade-off cannot be handled for more than one person)
- Compelling solution
  - Substitution of a substantial fraction of the pension fund portfolio by the individual must be possible (e.g. withdrawal of capital for explicit reasons)
  - Group pension fund portfolio must be such that a combination of the group pension fund portfolio and feasible portfolios in the market, financed out of the withdrawal, is efficient also for persons with special tastes
  - Solution is akin to "Two-Fund-Separation" in the Theory of Finance
Group Pension Fund and Individual Accounts: Investment Strategy (I)

- Common goal of the two approaches: total investment of the individual person must be such that he or she can finance the liabilities (i.e. future expected expenditures) at a predetermined risk level
- The financial markets being far less than complete for cash-flows in the distant future, diversification
  - across domestic and foreign investments and
  - across „real“ and „nominal“ investments
is of primary importance
Group Pension Fund and Individual Accounts: Investment Strategy (II)

- Conceptual difference between the two approaches: diversification of risk across time (DoRaT)
  - DoRaT: During retirement, the funds invested must be liquidated; the structure of the asset must be such that this is also feasible at acceptable conditions during a slump period
  - Group Pension Fund: DoRaT is mostly done on a contractual basis among the members of the fund (e.g. guaranteed minimal nominal return per period)
  - Individual Accounts: DoRaT is done by a variation of the weights of the asset classes of the individual account over time („do not hold just stocks or long-term bonds immediately before or during retirement“)
Individual Accounts: Investment Strategy (III)

• If the financial markets are (near to) complete, no investment activity is necessary by the Pension Fund
• If the financial markets are not complete, those asset types should be produced that a wide variety of risk/return characteristics can be produced even by the individual with special investment taste
  – Some restrictions might be necessary
  – If there are too many restrictions on the investment strategies and on diversification, though, portfolios will not be efficiently invested across instruments and time, inflicting severe opportunity costs onto the members
  – This – again – is the issue of „Two-Fund-Separation“ in the Theory of Finance
Individual Accounts: Investment Strategy (IV)

- Important questions
  - Why should a pension fund be able to offer such a wide variety of risk/return characteristics, which the market itself cannot produce?
  - Would it not be wise to establish a working capital market such that pension funds could concentrate on more important issues (like giving advice to its members)?
Group Pension Fund: Investment Strategy (V)

- Under a Group Pension Fund scheme, members must be allowed to invest into portfolios outside the respective fund up to certain amount and without too many restrictions.

- If there are too many restrictions on the investment strategies and on diversification, portfolios will – again – not be efficiently invested across instruments and time, inflicting severe opportunity costs onto the members; this can easily reduce future pension payments by double-digit figures.
Group Pension Fund and Individual Accounts: Investment Strategy (VI)

- Under both regimes, active advice for members is necessary
  - Investment strategy according to age and degree of risk aversion
  - Tax deductibles
- Under both approaches
  - All relevant information must be available
  - Investors must be well-informed
- Result for both regimes: „strategic asset allocation“, i.e. explicit investment strategy down to the level of asset classes
Implementing the Investment Strategy (I): Fundamental Decision

- Given the "strategic asset allocation", two different approaches exist
  - Market-oriented approach ("markets cannot be beaten on average")
  - Behavioural approach ("many markets can be beaten on average")

- Implications
  - Market approach: passive management whenever possible
  - Behavioural approach: active management if there are "good" managers
Implementing the Investment Strategy (II): Preliminaries

• Before choosing the managers, the following aspects must be discussed
  – „Balanced“ vs. „specialized“ mandates
  – „Active“ vs. „passive“ portfolio management
  – „Internal“ vs. „external“ portfolio management
Implementing the Investment Strategy (III): „Balanced“ vs. „Specialized“ Mandates (1)

• Definitions
  – „Balanced“ mandates: investments are done into a wide variety of asset classes (bonds, equities, domestic, foreign) within a single portfolio
  – „Specialized“ mandates: investments within a single portfolio are done into a single asset class

• Questions
  – Can the goals be reached with balanced mandates?
  – What are the respective costs?
  – Can the desired fee structures between the pension fund and the manager be imposed?
  – What are the respective possibilities of control?
Implementing the Investment Strategy (III): „Balanced“ vs. „Specialized“ Mandates (2)

- **Answer**
  - In most cases, specialized mandates make more sense
  - Above a certain size, balanced portfolios normally are too expensive in relation to specialized portfolios
Implementing the Investment Strategy (IV): „Active“ vs. „Passive“ Portfolio Management (1)

• Definitions
  – „Active“ portfolio management tries – more or less – to beat the market
  – „Passive“ portfolio management tries – more or less – to copy the market at the lowest possible costs
  – There exist many different techniques under both management forms
• Questions
  – Does active portfolio management add value and if so, where?
  – What is the cost of active portfolio management compared to passive portfolio management?
  – Can successful portfolio managers be identified?
Implementing the Investment Strategy (IV): „Active“ vs. „Passive“ Portfolio Management (2)

• Answers
  – In most cases active management does not pay (too little excess performance – if at all – given the additional cost of active management)
  – Of course, there are exceptions (e.g. not-yet-mature markets, fragmented markets)
  – Good active managers can be found (if the exceptional situation really exists)
Implementing the Investment Strategy (V): „Internal“ vs. „External“ Management (1)

- **Definitions**
  - „Internal“ management: portfolio management done by officers of the pension fund themselves
  - „External“ management: portfolio management done by independent companies (banks, investment companies, insurance companies etc.)

- **Questions**
  - Are internal resources available (e.g. back office)?
  - What internal know-how is available?
  - Why should the cost – given a certain quality level – of the internal organization (including all opportunity cost) be lower than that of the market?

- **What principal agent problems might arise?**
Implementing the Investment Strategy (V): „Internal“ vs. „External“ Management (2)

• Answers
  – In most cases it does not pay to manage the portfolio of a pension fund internally
  – Costs (including all the opportunity costs, cost of malfeasance etc.) are too high
  – There are too many principal agent problems
    ° Control of internal managers is much more delicate than that of external managers
    ° Internal managers normally cannot be dismissed for reasons for which an external manager would be fired
Implementing the Investment Strategy (VI): Defining the Mandates (1)

• Defining the individual mandates comprises
  – Define amount, investment goal and asset class
  – Decision on active vs. passive management
  – Decision on management style (including style mandates)
  – Decision on internal vs. external management
  – Fee structures between fund and investment managers
  – Reporting
  – Controlling and sanctioning mechanisms
  – Benchmarks against which to run the respective mandates
Implementing the Investment Strategy (VI): Defining the Mandates (2)

- Define investment guidelines that provide appropriate incentives
  - Define fee structures for investment managers based on an analysis of potential principal agent problems (e.g. fixed vs. performance-based fees)
    - Low fixed fees for passive mandates (in % p.a.)
    - Significantly higher fees for active mandates, either fixed or performance-based (in % p.a.)
  - Define sanctions to be taken if targets are not met and/or investment guidelines are breached
Evaluating and Choosing Investment Managers (I): Requirements for Manager Selection

• Define requirements for passive and for active managers respectively, e.g.
  – Manager must be able to run passive portfolios at low cost
  – Manager must be able to track the benchmark with a given tracking error
  – Manager must have a research department of its own
  – Manager must be able to produce good reporting
  – Manager must stick to the contractual arrangement
Evaluating and Choosing Investment Managers (II): Manager Selection Criteria (1)

• Company-specific criteria
  – Company profile
  – Products and degree of specialization
  – Client relationship and reporting

• Product-specific criteria (active management only)
  – Plausible investment philosophy
  – Well structured investment process
  – Superior and stable historical performance (risk-adjusted return net of all fees relative to benchmark)
  – State of the art controlling and risk management
Evaluating and Choosing Investment Managers (II): Manager Selection Criteria (2)

- Product-specific criteria (active and passive management)
  - Stable and professional investment team
  - Competitive fee structure
- (ECOFIN’s questionnaire to track investment managers has some 40 pages of questions and is updated online)
Evaluating and Choosing Investment Managers (III): Overview over the Process

- Specification of Investment Mandate
- Shortlist (Managers invited to submit an offer)
- Request for Proposal
- Portfolio Manager Presentations
- Recommendation
- Evaluation of Offers
- Selection
- Contract Negotiation
- Portfolio Set-up
Evaluating and Choosing the Global Custodian (I)

- Centralized vs. decentralized custody
  - Centralized custody: one global custodian
  - Decentralized custody: portfolio managers are also in charge of custody

- Criteria
  - Reporting requirements (consolidated reporting, regulatory reporting etc.)?
  - Additional services (financial accounting reporting, regulatory reporting, risk and compliance services etc.)
  - Custody fees
Evaluating and Choosing the Global Custodian (II)

- Wide spectrum of custody services
  - Basic services: safekeeping, settlement etc.
  - Value added services: accounting, securities lending etc.
- High costs to change a global custodian; careful selection necessary
- Selection based on specific profile of pension fund
- Contractual elements are the key issue (contracts typically are more than 50 pages long)
- Fees are often hard to compare
Investment Controlling (I): Cost aspects

• Control open costs
  – Management fees
  – Transaction cost (if there are other than just all-inclusive fees)
  – Consultancy fees
  – Etc.

• Control hidden costs
  – Insufficient return
  – „Market impact“
  – Too high transaction costs

• Set-up costs for a new portfolio typically correspond to the costs of three years‘ management
Investment Controlling (II): Compliance Aspects

- Have the goals been reached?
- Have the guidelines been breached?
- Important to be consistent in taking the measures and sanctions defined at the beginning
- Use courts if necessary
Investment Management: Results of A Well-Run Pension Fund (City of Zurich) (I)

- Size of the fund: approx. USD 7.5 bn (CHF 12.5 bn)
- Management characteristics
  - No balanced mandates, no internal management
  - 70% passively managed portfolios
  - 50% nominal investments (45% domestic, 5% foreign)
  - 37.5% traditional equities (20% foreign, 17.5% domestic)
  - 7.5% non-traditional investments (private equity, hedge funds, commodities)
  - 5% real estate (domestic and foreign)
  - Around 40 managers for traditional and 10 managers for non-traditional investments
Investment Management: Results of A Well-Run Pension Fund (City of Zurich) (II)

- Fee structures
  - Passively managed mandates: between 2.5 and 5 BP (basis points, i.e. 0.01%) p.a., all-inclusive
  - Actively managed mandates: typically performance-based with floor and cap (on average around 20 BP p.a., all inclusive)
  - Global custodian: below 5 BP p.a.
  - Consultants: below 2 BP p.a.
  - Total: below 15 BP p.a.

- Risk and Return correspond – more or less – to the underlying benchmark

- Active managers have not beaten the market on average over the last ten years
Basic Principles for Investing Group Pension Funds and Individual Accounts: Summary (I)

- Use an established approach to handle the task
- Organize the division of labour, i.e. establish committees with respective responsibilities
- Base your decisions on
  - Theory of finance and empirical research
  - Economics of organizations
- Resist pressure from parties that could draw profits out of a not-well-enough organized pension fund
Basic Principles for Investing Group Pension Funds and Individual Accounts: Summary (II)

- Rely on market forces whenever possible
  - Do not rely on internal managers
  - Have internal managers leave the fund and start their own investment businesses
- Financial markets are efficient in most instances
  - Consistent with ECOFIN’s experience during ten years with some 200 portfolio managers worldwide
  - Active managers do not beat the market on average (less than a handful of exceptions during 10 years)
- Establish controlling functions
- Use sanctions