

Investment Policy and Processes: Norwegian Case

**World Bank Conference on Public Pension Fund
Management, Washington 6 May 2003**

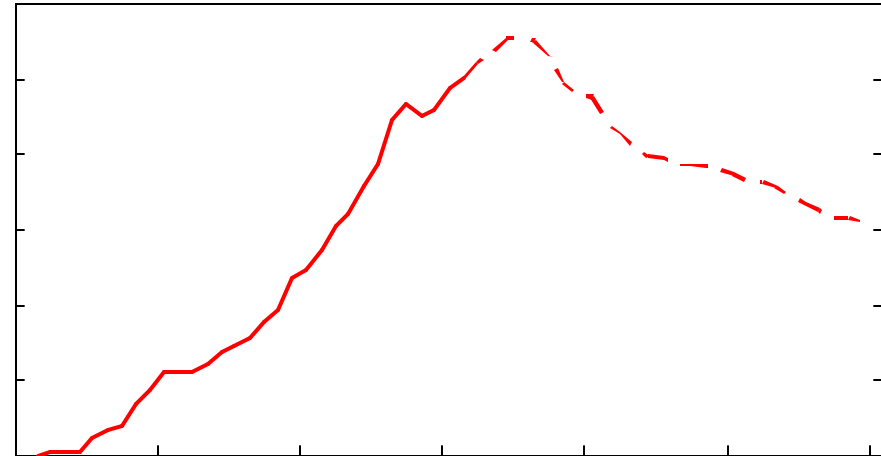
**Knut N. Kjaer
Norges Bank Investment Management
The Norwegian Government Petroleum Fund**

Agenda

- Background: The Norwegian Government Petroleum Fund
- The Fund management model; accountability and transparency
- Investment policy; main strategic considerations and decisions
- Strategy for achieving excess return in the operational management
- Investment process
- Use of external managers
- Results

The National Challenges

Production of Petroleum, Mill. Sm3 oil equiv.



Ensure a fair distribution of oil revenues across generations

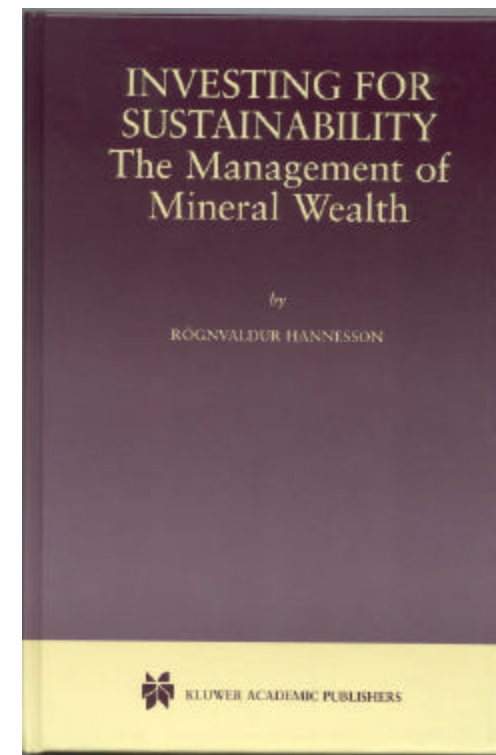
Avoid pronounced cyclical fluctuations in the mainland economy due to variations in oil revenues

Avoid "Dutch disease"

Achieve high return from an increasing portfolio of international securities within acceptable risk level

Oil stabilisation funds

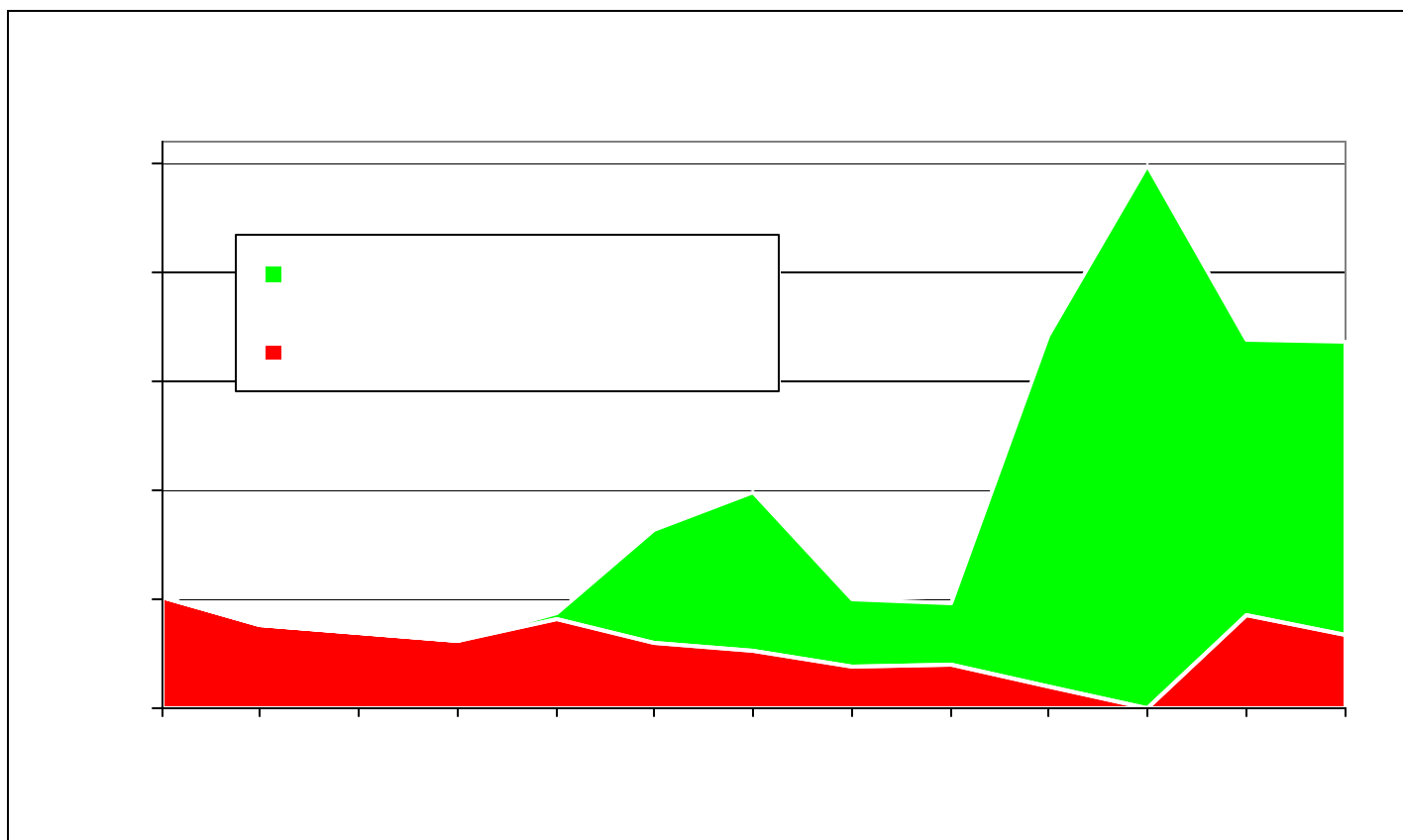
- Abu Dabi
- Alaska
- Alberta
- Azerbaijan
- Kazakhstan
- Kuwait
- Norway
- Oman



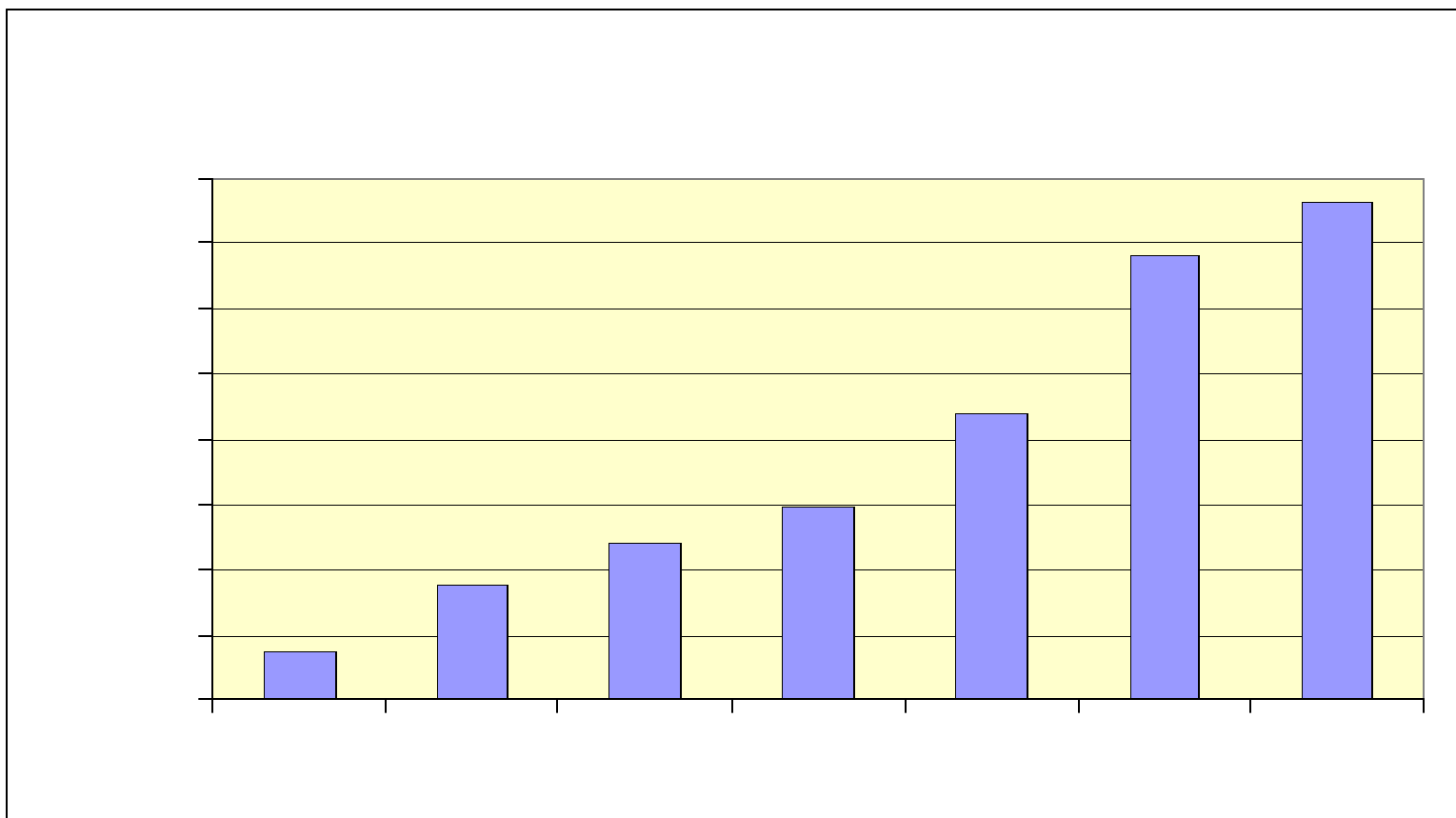
The Petroleum Fund

- The Norwegian Government Petroleum Fund was established by law in 1990
- The inflow to the Fund is the yearly surplus of the central government account
- The first transfer occurred in May 1996
- The fund is invested in financial assets outside Norway
- The main purposes of the fund:
 - A buffer for the government budget to shelter the domestic economy from volatility in the petroleum revenues
 - An instrument for meeting the long-term challenges of a combination of an expected decline in the resource revenues and increase in government pension expenditures

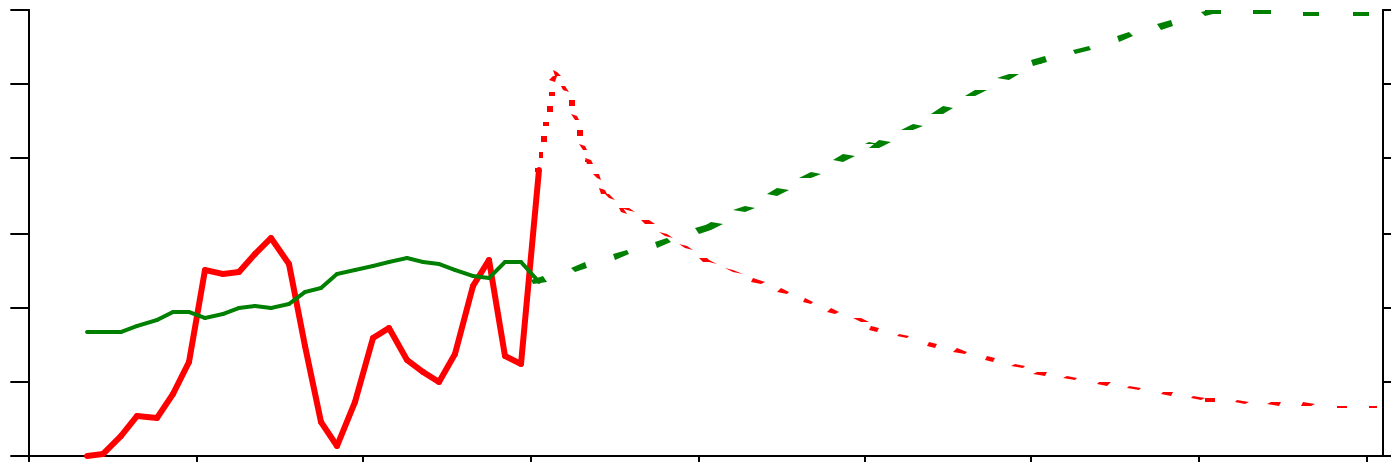
Transfers from the government petroleum revenue



The Petroleum Fund 1996 - 2002



Net cash flow from the petroleum sector and pension expenditures (per cent of GDP)




The present value of future state pension expenses is USD 450 bn (by year-end 2003)

The Fund Management Model Accountability and Transparency

The fund management model

- The Ministry of Finance is the “owner” of the fund and decides the investment strategy and benchmark. The major changes are debated in the Parliament
- The central bank, Norges Bank, is the operational manager and is responsible for “value added” against the benchmark
- Performance, risk and costs are reported by Norges Bank every quarter.

Petroleum Fund - Division of responsibilities

- Owner: Ministry of Finance
 - Strategic asset allocation and investment universe
 - Benchmarks
 - Risk limits
 - Evaluates manager (uses consultant)
 - Reports to the Parliament
 - Manager: Norges Bank
 - Achieve as high return as possible, given investment mandate and restrictions
 - Risk control
 - Reports to the Ministry of Finance
- Adviser: Norges Bank**
- 

Properties of the fund management model

- **Accountability**
Clearly defined division of responsibilities between the owner of the fund, The Ministry of Finance, and the operational manager, Norges Bank.
- **Transparency**
Quarterly reports open to the public. Extensive information on the internet. Quarterly press conferences.
- **Focus on the contribution to value added in the operational management**

Investment Policy - main strategic considerations and decisions

The Petroleum Fund's investment objectives

- Objective: maximise the Fund's long-term international purchasing power, assuming acceptable risk
- Short-term variations in return are less important
- The Parliament decided in 2001 a transfer rule: The expected long term real return (4% of accumulated assets) will be transferred to the general budget every year
- The rule is a political commitment, not a legal obligation

Financial or strategic investor?

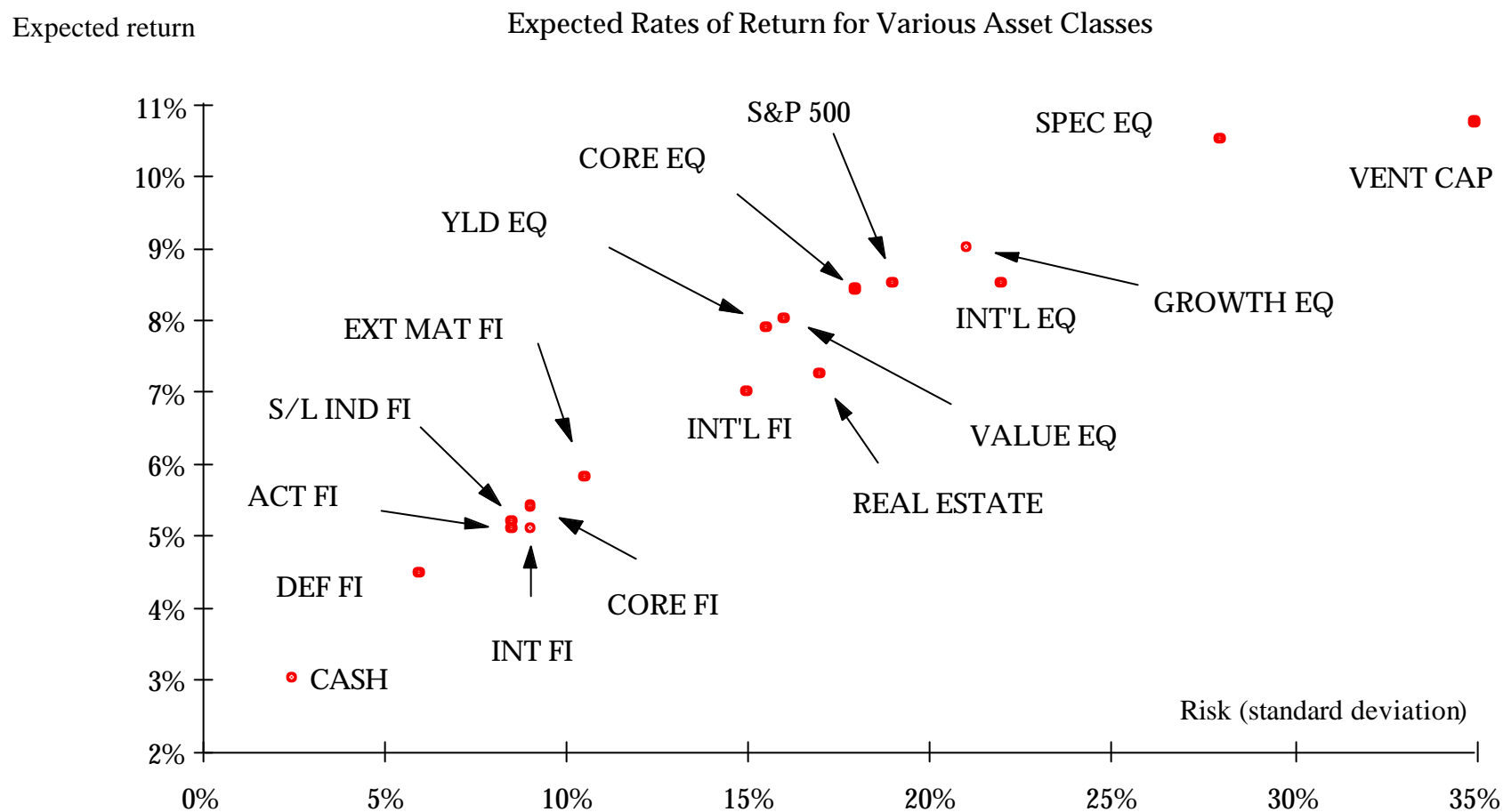
The Parliament has decided that the Petroleum Fund shall act as a financial investor - not a strategic investor

- Best practice among large pension funds and many state-owned funds is to be financial investor
- Finance theory: In efficient markets investors are not compensated for taking unsystematic risk that can be diversified
- Return must always be measured against risk

Main Investment Policy Issues

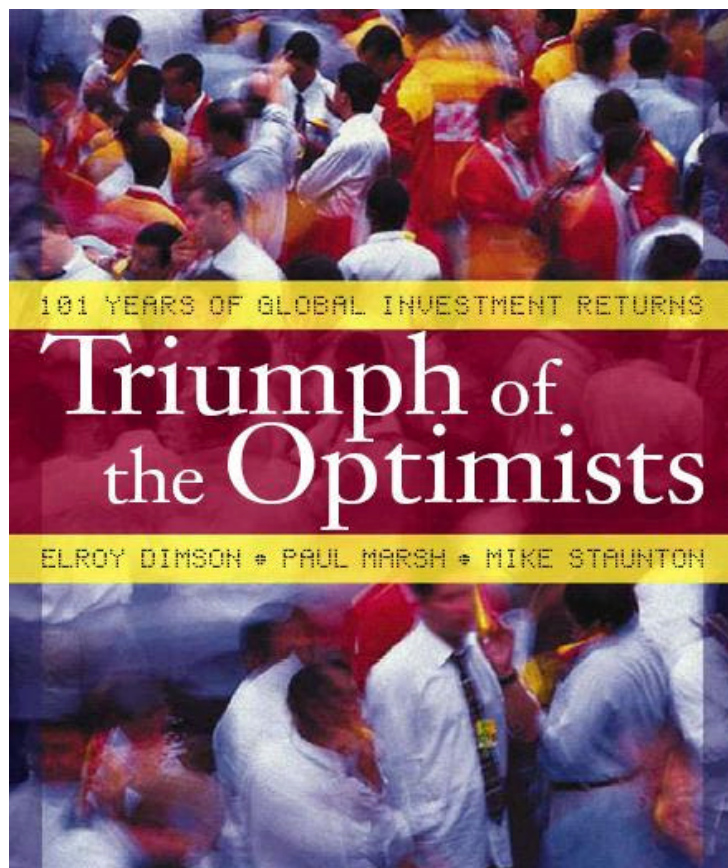
- Asset allocation
Main discussion: How much in equities?
- Region and country allocation
(Special for the Petroleum Fund: all funds invested abroad)
- Risk tolerance
How much room for active management?

Expected return againsts expected risk



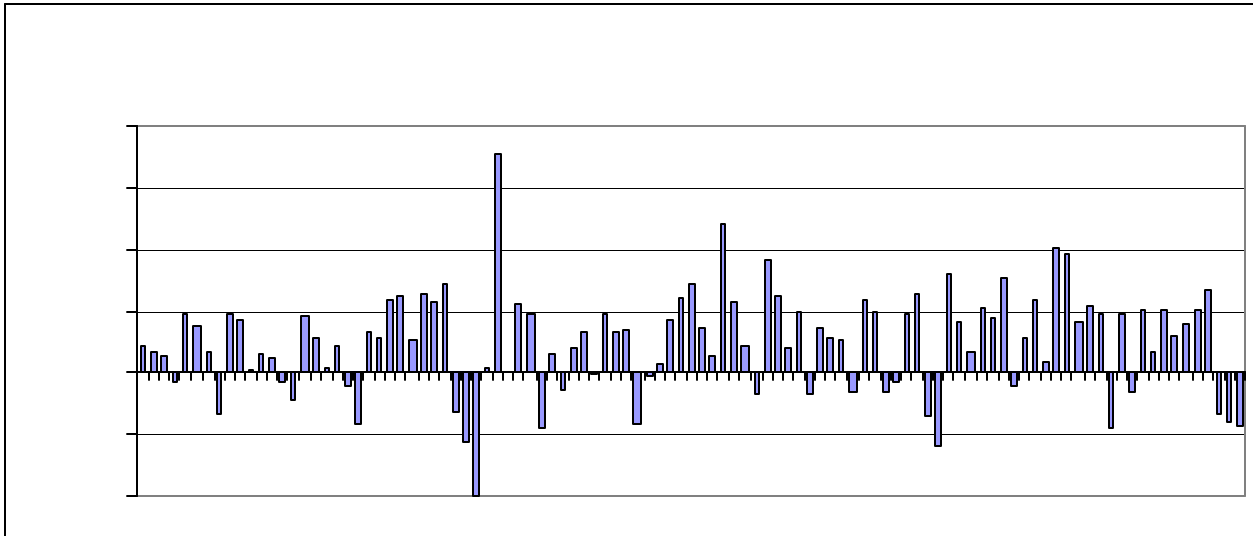
Kilde: Bridgewater Associates

Capital market return data from 16 countries - 1900 to 2002

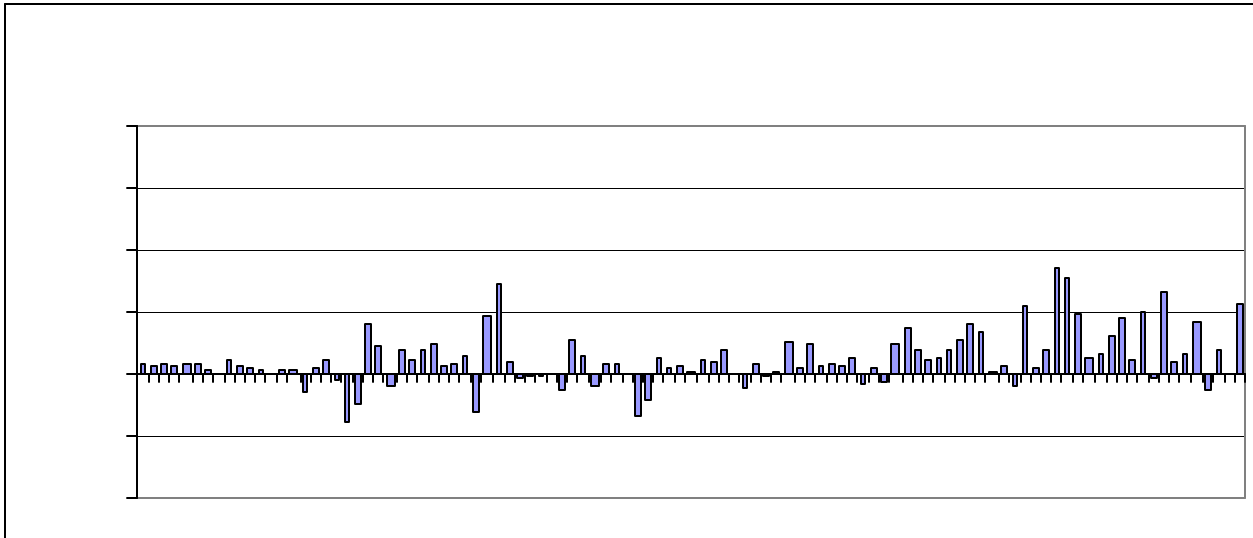


- Many empirical studies has been based only on short time series and/or data from a few countries
- Most of the research on equity premiums has been based on American data. USA has been a remarkably successful economy.
- Survivorship bias overstates capital market return
- Dimson, Mars & Staunton at the London Business School present very interesting data in the book "Triumph of the Optimists" - covering return in 16 countries from 1900 to 2000 (2002)
- The next charts are based on this data

Year-to-year fluctuations in return

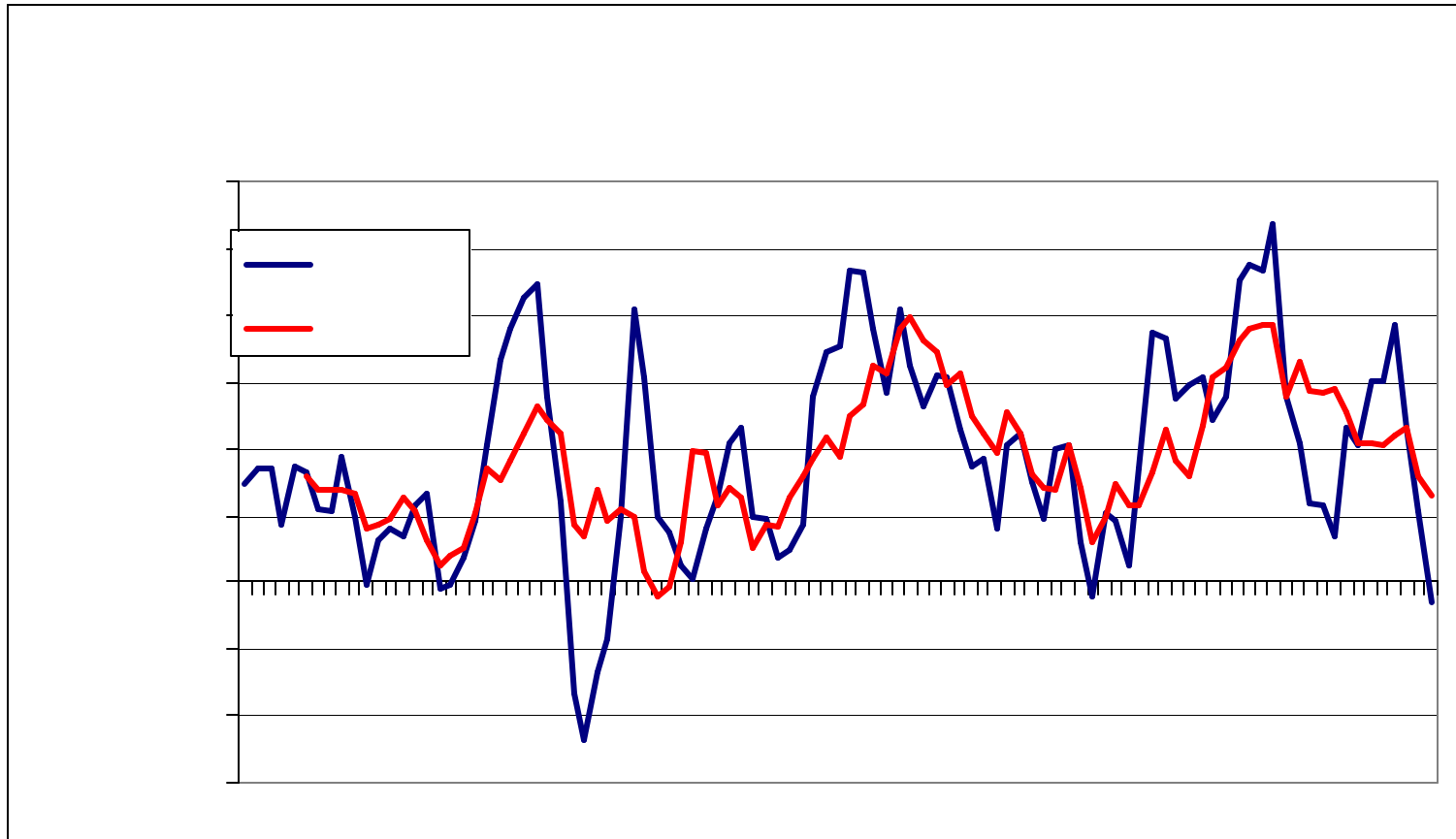


**Standard
deviation
global equities:
16.7%**

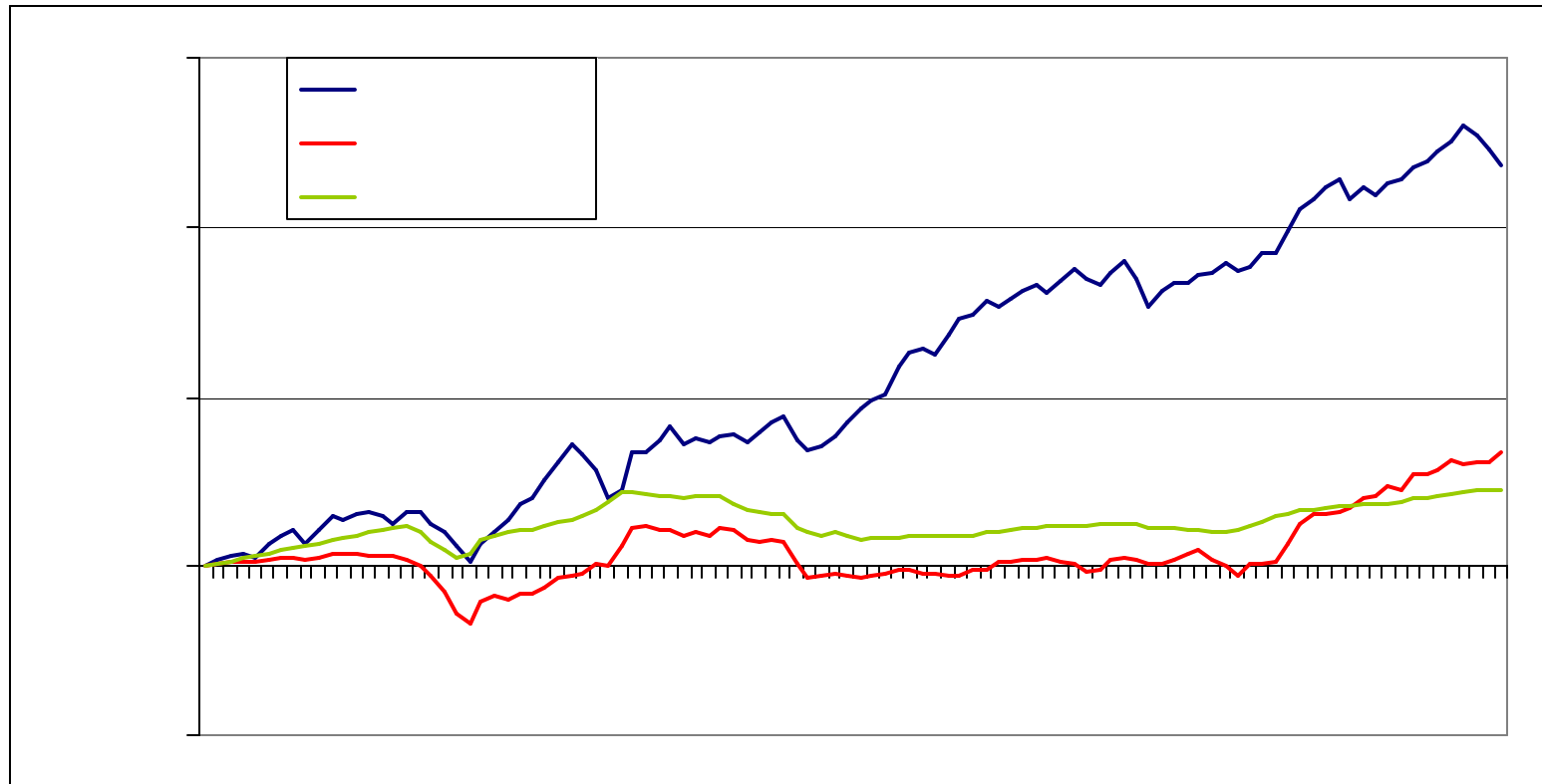


**Standard
deviation
global bonds:
8.6%**

Equity return - 5- and 10-year horizons

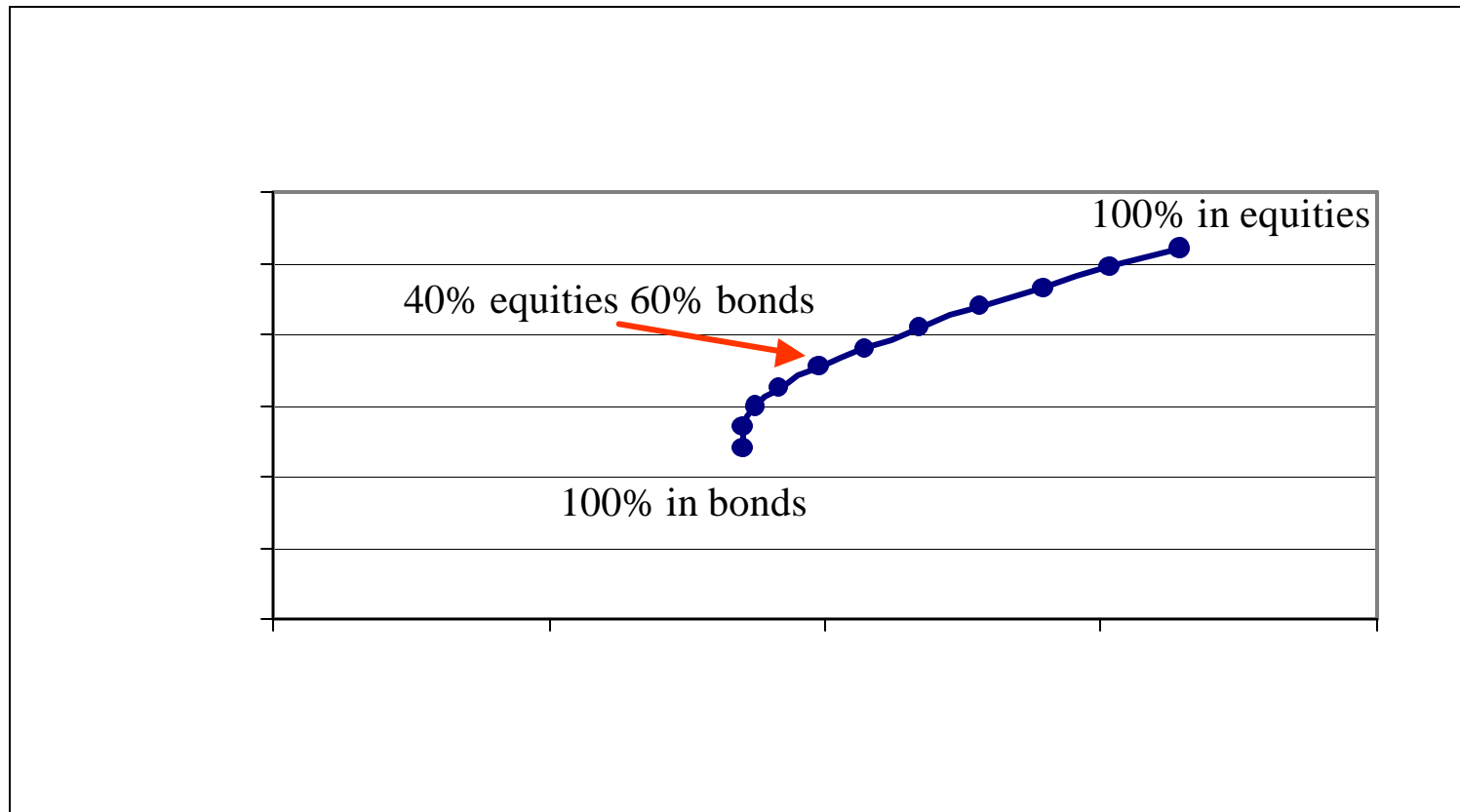


Global capital market return 1900-2002

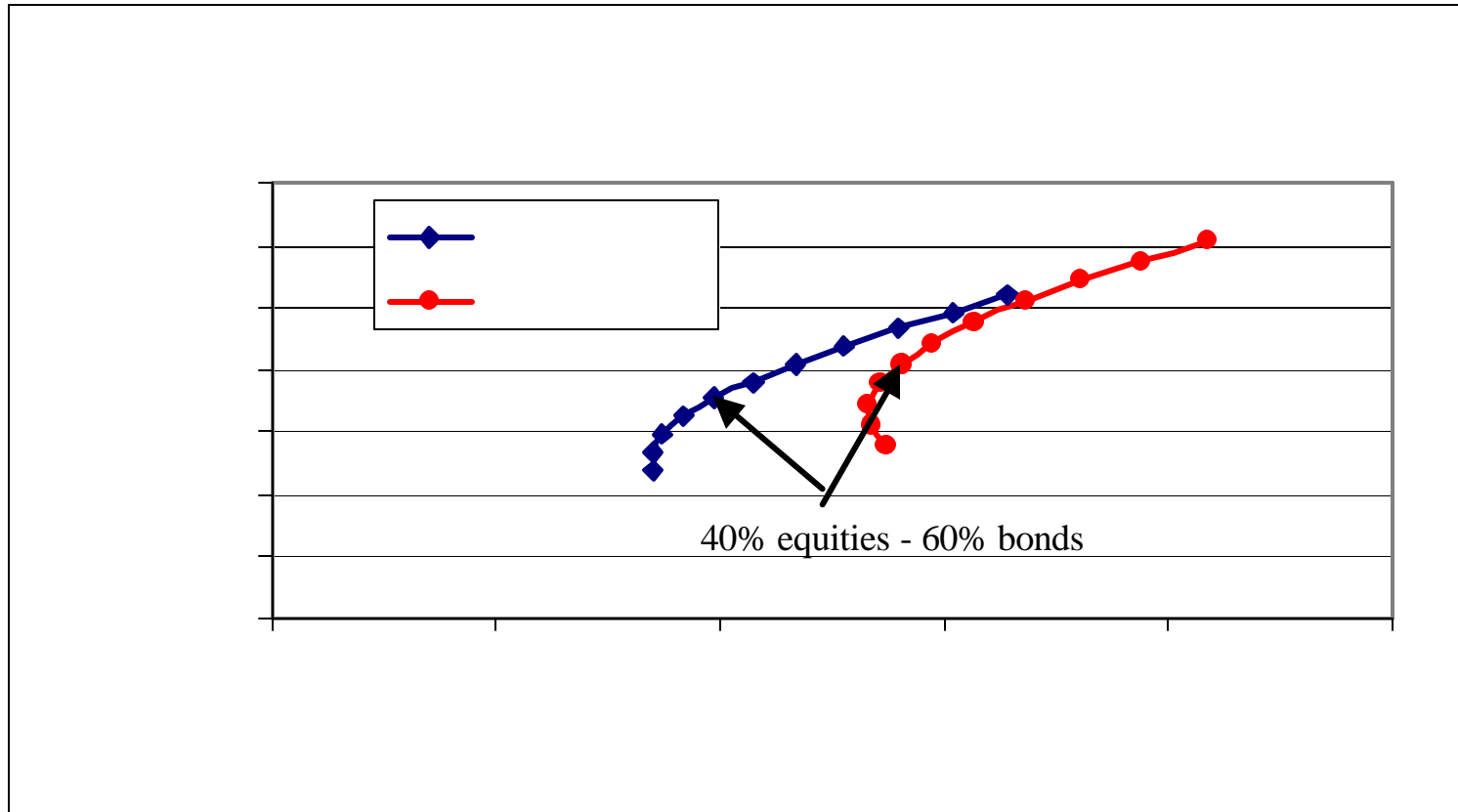


Excess return equities over money market: 4.4% annually

The main strategic decision: The mix between equities and fixed income



Return/risk and time horizon

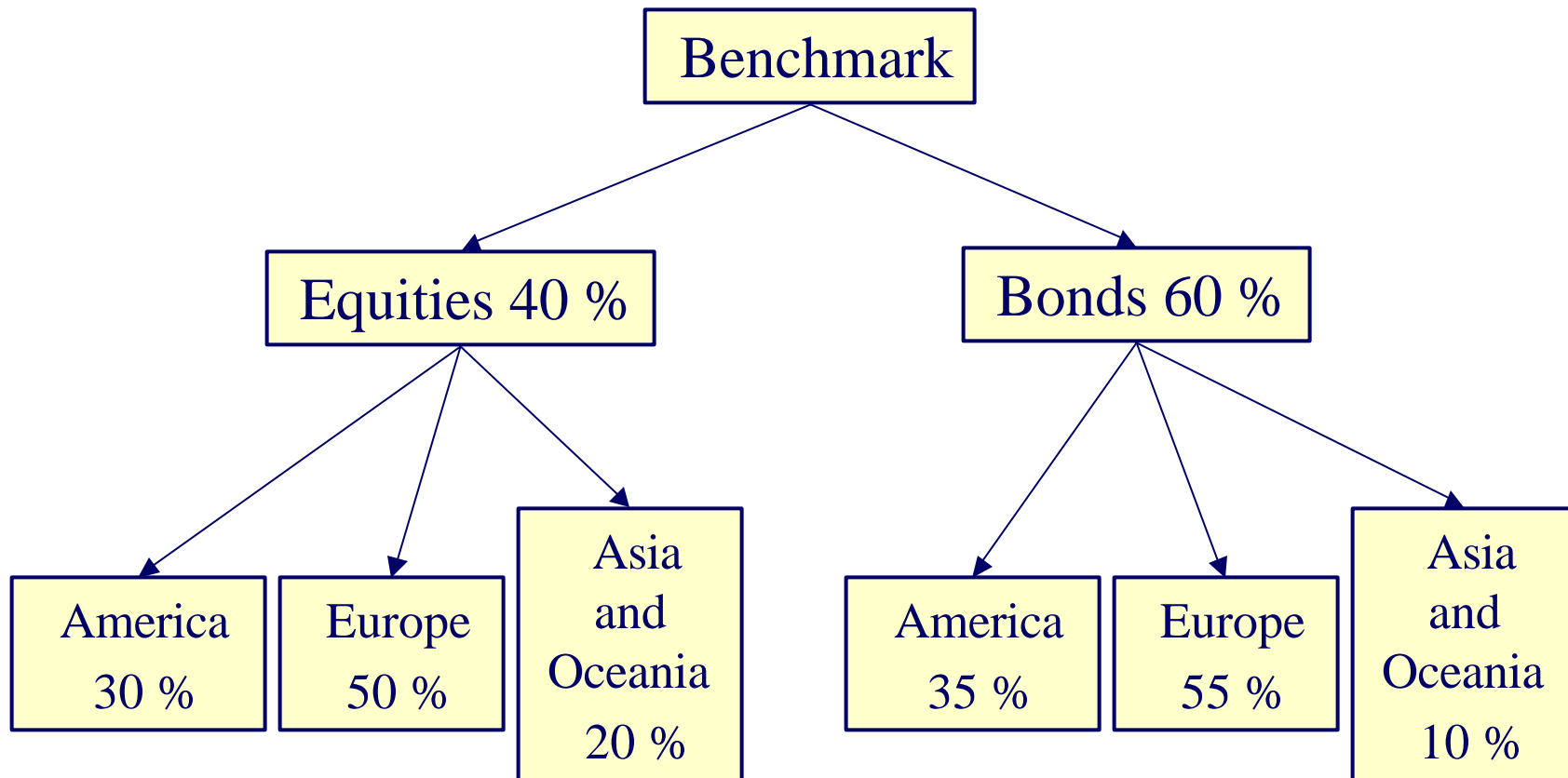


Going from 0 to 40 % equities gives only a small increase in risk (but large increase in return) when we assess 5 year periods.

Petroleum Fund Guidelines

- The Ministry of Finance has decided on the following guidelines:
 - Equity portion 30-50%
 - Regional distribution (Europe 40-60%, The Americas 20-40%, Asia/Oceania 10-30%)
 - Investment area: 27 industrial countries; (6 emerging markets included from 2001)
 - Maximum ownership share in any one company is 3%
- A benchmark portfolio for bonds and equities is created based on well-defined market indices
- The Ministry of Finance has set a limit as to how much risk Norges Bank may assume relative to the benchmark portfolio (1.5% expected tracking error)

Benchmark for the Petroleum Fund



**Operational management:
How to create excess value by active
management?**

Challenges in Operational Management

- **Efficient transitions and risk management**
 - buying broad market exposure in equities and fixed income with cash inflows to the Fund
 - implement changes in strategic asset allocation
 - funding and rebalancing the structure of diversified mandates
- **Build up and manage a large number of external mandates**
 - with increasing complexity through specialist mandates
- **Build top quality internal management capability**
 - enhanced indexing
 - focused active management in core areas
- **Create excess return against the benchmark**
 - targeting 0.25% over rolling 3 year horizons
 - with costs less than 0.1% ex performance fees

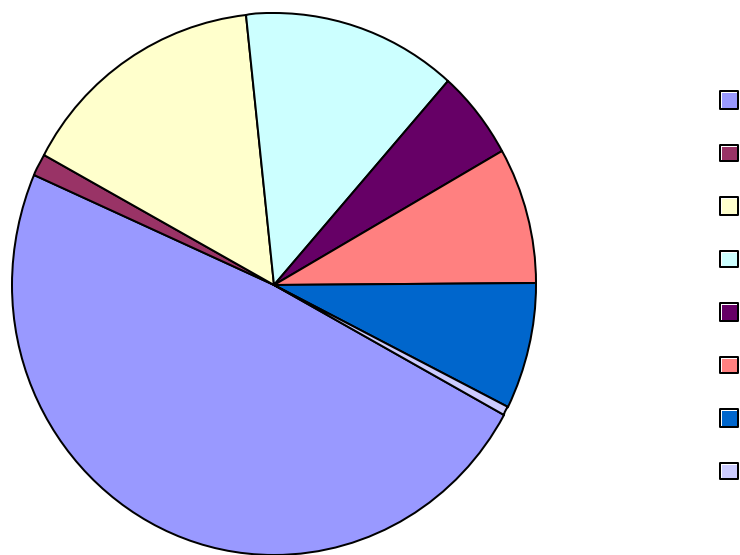
NBIM Investment Philosophy

”spreading the active management over several types of positions, combining external and internal management and specialising the internal management in areas where there is a good possibility of predicting price movements better than the average market participant. Special emphasis is also placed on risk management, portfolio analysis and efficient trading in the market. By spreading active management over a large number of independent decisions, Norges Bank seeks to make effective use of the clearly defined risk limits set out by the Ministry of Finance”

Article in Annual Report 1999: Strategy for achieving the best possible performance

http://www.norges-bank.no/english/petroleum_fund/articles/best-performance/

The Basic Investment Decision is Allocation of Risk Units



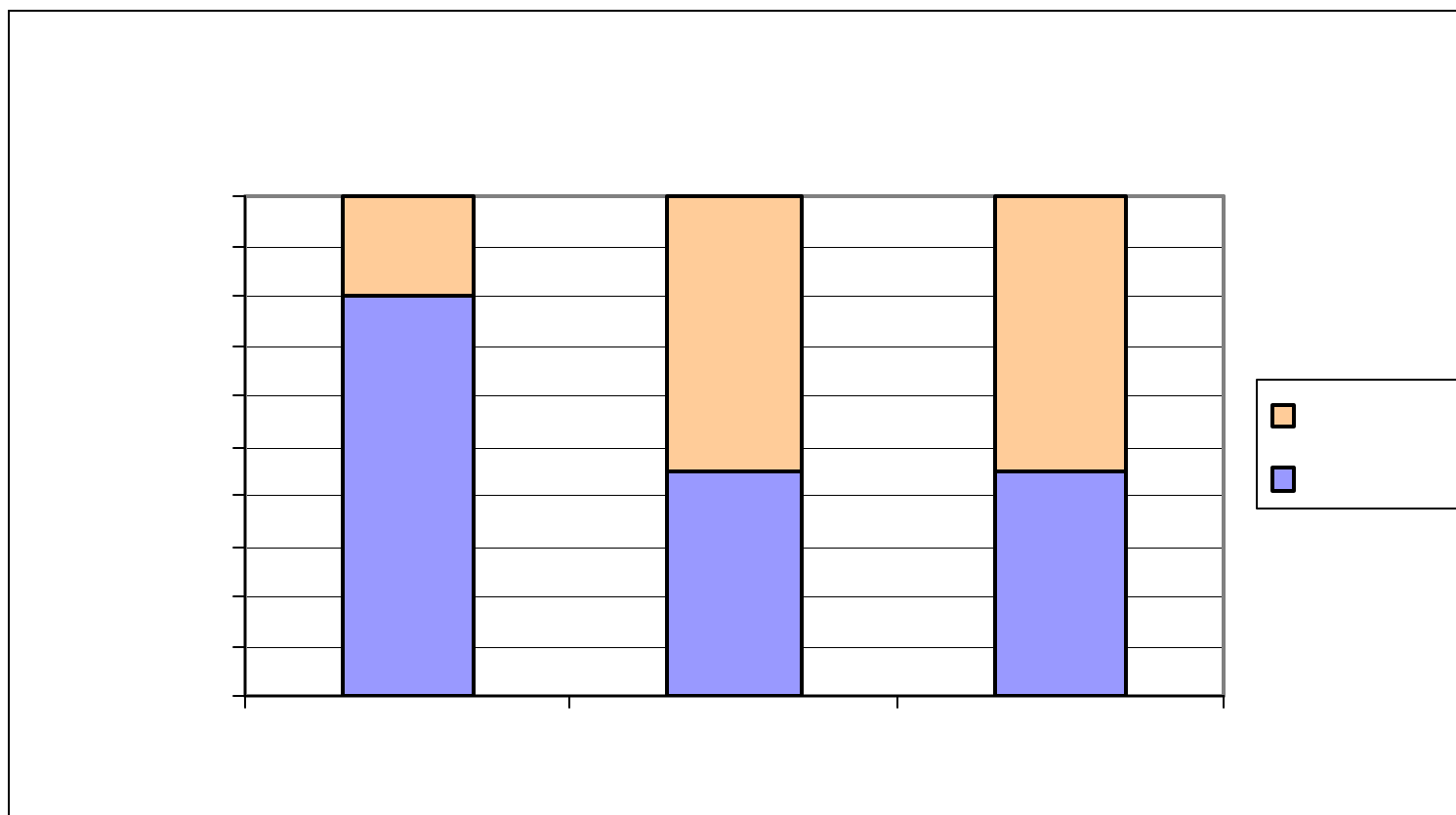
Risk limit of the Petroleum Fund:

150 basis points expected tracking error calculated using a defined risk model

Investment Strategy

- **Diversification**
 - combining external and internal management
 - delegating decision making to individuals
 - independence in position taking and strategies
- **Specialization**
 - splitting alpha and beta mandates
 - defining specialist mandates
- **Efficiency**
 - focus on transition and transaction ability
 - cost below 10bp ex performance fees

Combining External and Internal Management

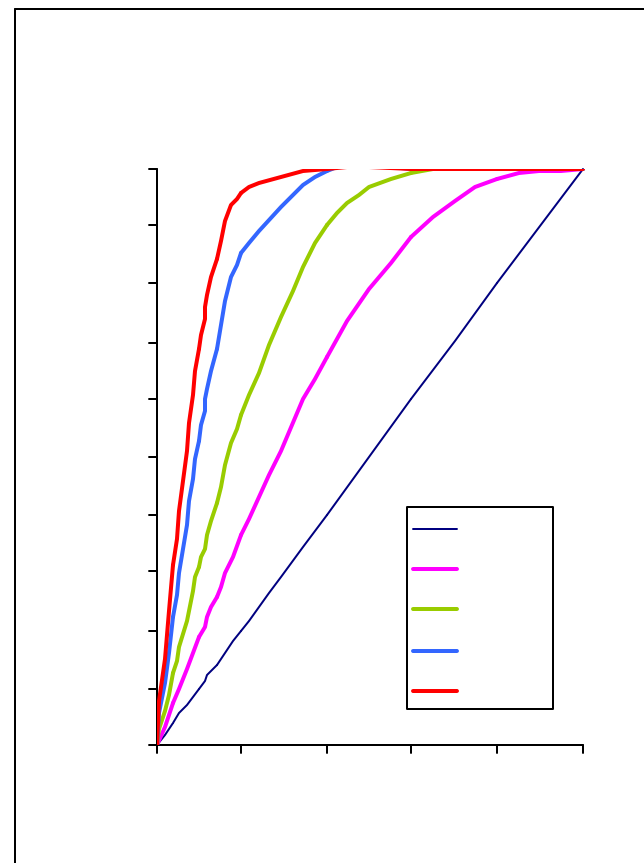


Delegating Decision Making

- Clear line structure with responsibility delegated to individuals
 - no decisions to be made in investment committees
 - all remuneration schemes based on individual results
- In practice:
 - internal management divided into management units, and profit centres
 - all individuals have clear 'Portfolio Guidelines' defining universe, risk, strategies etc
 - all external mandates owned by an internal portfolio manager

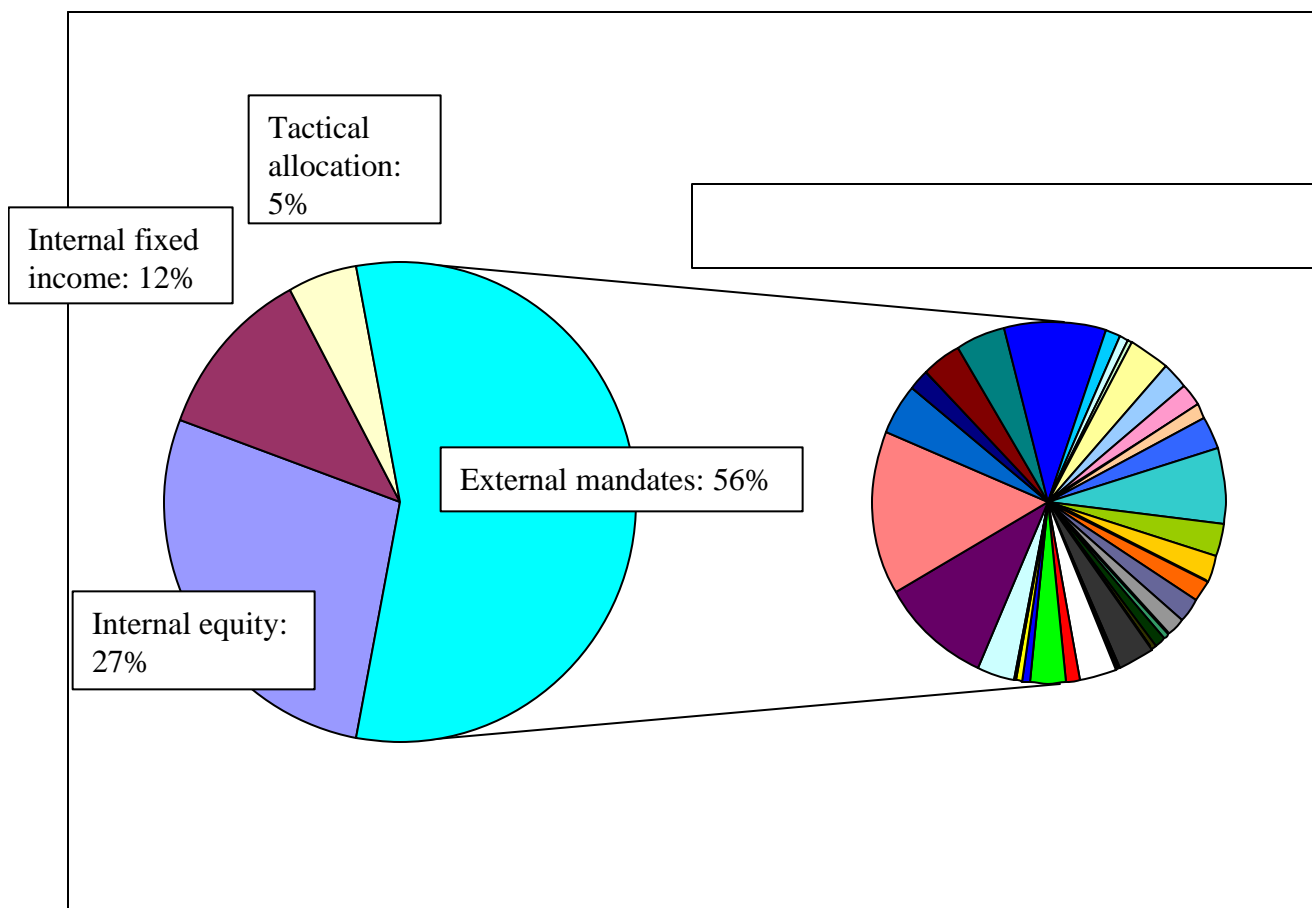
Independence in Position Taking

- Many small positions rather than a few large ones
 - breadth in position taking, and diversification of position types
 - greatest possible independence in position-taking by carving up universe and diversifying into well-defined strategies
 - position focus meaning ‘stock selection’, ‘relative value’, etc strategies get preference



- All about the fundamental law of active management: $IR = IC \cdot \sqrt{BR}$

Diversification of Active Positions



•Value at Risk assuming fully correlated mandates:

5.9 bn NOK

•Value at Risk taken diversification effects into account:

2.2 bn NOK

•The internal fixed income and equity management are divided into 11 business units

Efficient Management

- A core index portfolio brings down costs
 - while specialist active mandates maintains risk level
 - and forms a basis for focused active management
- Low transition cost a key
 - in-house transition team a must
 - avoiding mandate churn is not the answer
 - continuous monitoring of transaction costs, including market impact
- IT platform important for scaling and operational risk control
 - high cost warrants focus, but not necessarily the best area to save on costs

The Relationship to External Managers

Trends in the Asset Management Industry

- Consolidation
 - Mergers and acquisitions to take advantage of large economies of scale (in both production and sales network/brand name)
 - Increased market shares for index managers; continental Europe is lagging behind the US and the UK
- Specialisation
 - High growth in new, specialised fund managers (e.g. hedge funds)
 - Focused teams within fund management companies
 - Open architecture distribution strategies support the trend towards more specialisation
- NBIM builds strategies to take advantage of these trends

Split between Alpha and Beta Mandates

- Beta mandates relates to the investment guidelines
 - implementation of inflows, strategic asset allocation shifts, rebalancing, and internal/external mandate transitions
 - and maintains the market exposure through index mandates
- Alpha mandates relate to creation of excess return
 - monitored on a stand alone basis
 - remunerated on performance fees

Specialist Mandates

- Define mandates for sub-segments of the investment universe
 - focus is a necessary condition for creating excess return in efficient capital markets
 - for NBIM a target of utilising ‘boutiques’ or smaller teams within larger management firms
 - for the managers a question of resource concentration
- Avoid overlapping external mandates
 - a multiple of broad mandates means converging towards index exposure
 - more than 2 managers in each mandate is rarely optimal
 - division of strategies, eg ‘growth/value’, do not alleviate the problem
 - need to identify managers with low overlap in position taking, not only different approaches, styles, or strategies

Current External Mandate Types

Equity portfolio

- Enhanced index
- Regional active (all sectors)
- Sector specialist active (global and regional)
- Small cap active (regional)

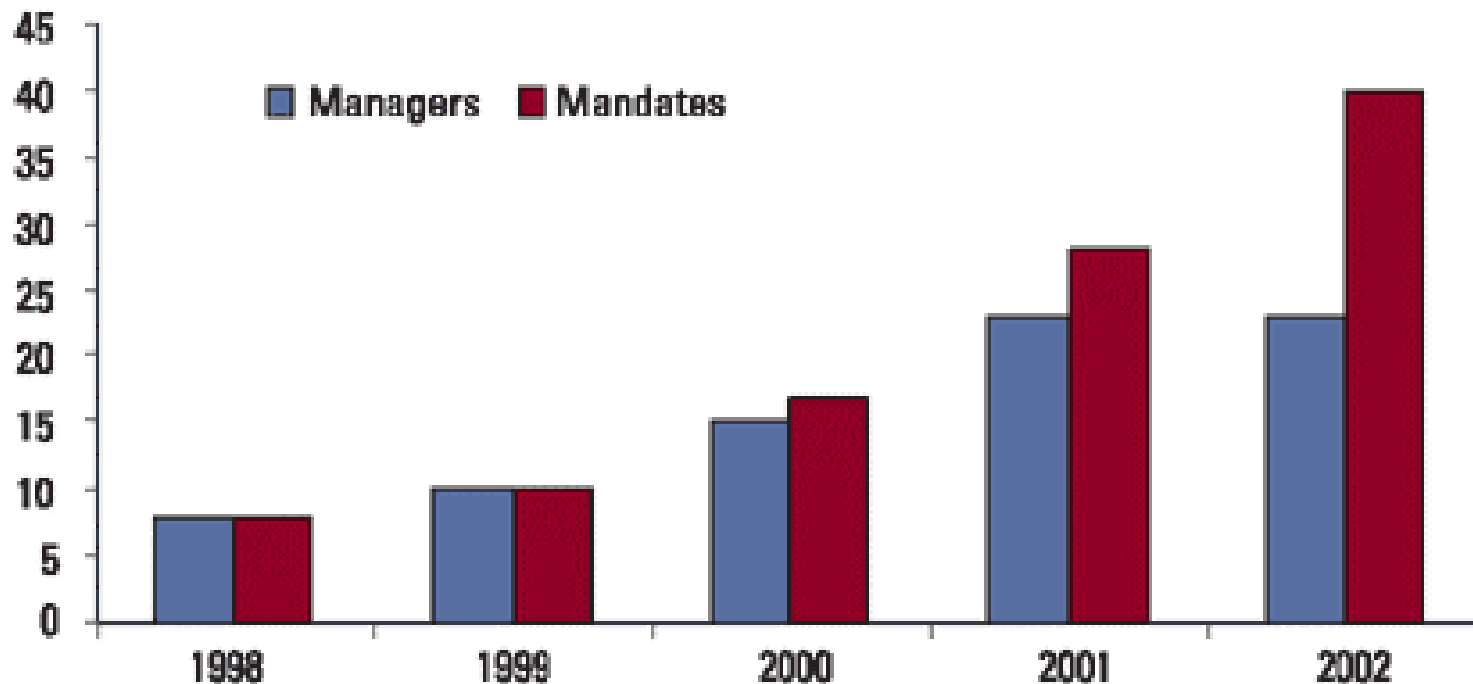
Fixed income

- Global active
- US mortgage-backed enhanced index

Asset allocation mandates

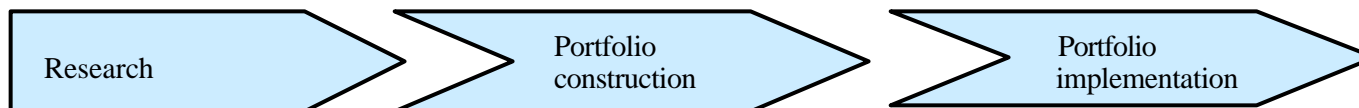
- Sector strategies equities
- Global TAA mandates

Number of external managers and number of external management mandates at 31 December for the years 1998-2002



(1) Selecting Active Managers

- Analysis of the management product
 - Quantitative screening of portfolios focusing on risk profile and liquidity measures
 - Evaluating manager’s competitive advantages, backed by RFP information
 - On-site meeting and desk reviews with all investment professionals, utilising 'Manager Evaluation Form' with 140 criterias on relevant parameters
 - Bringing in set of investment personnel from NBIM (analysts, portfolio managers, traders, transition team and investment'support) for evaluation
 - Maintaining internal mandate owner’s decision responsibility



(2) Combining Active Managers

- Two dimensions of combination
 - Mandate structure - division of universe and risk structuring
 - Basket of managers within one kind of mandate
- Quantitative analysis improves the combination
 - Performance and risk profile in combined portfolio is key
 - In principle we are buying parts, not finished products
 - 'Manager Combination Tool' for relative funding decision
- Change of the basket of external mandates unavoidable
 - Investment products changes with markets
 - M&A, personnel churn, etc a recurring issue
 - Analysis and insight into product improves after monitoring over time
 - Transition is costly, and have high focus

(3) Monitoring Active Managers

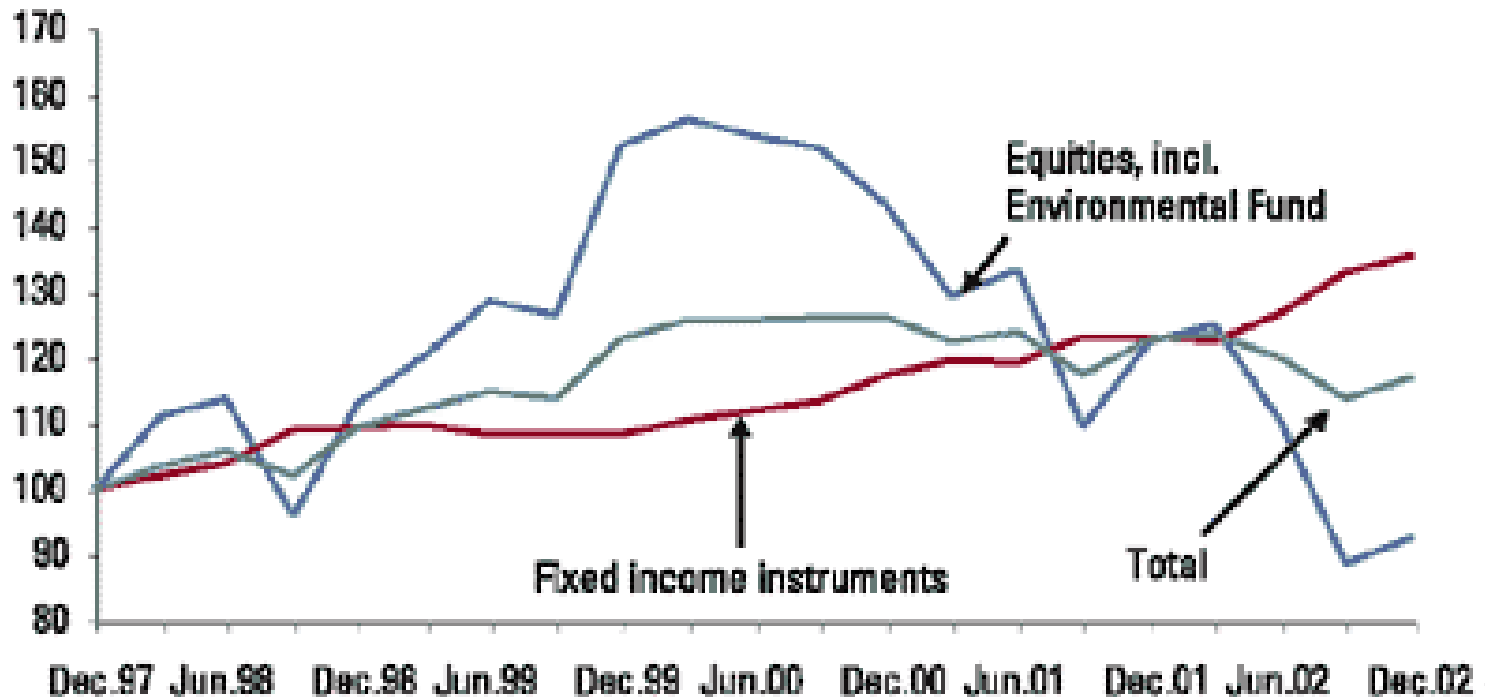
- Daily monitoring of performance and positions
 - An NBIM portfolio manager ‘owns’ the external portfolio
- Weekly monitoring of all trading
 - Review with internal sector managers, broker estimate changes etc.
- Monthly review of portfolio characteristics
 - Being inventive in quantitative analytic is key
- Quarterly review of decision analytic
 - Transaction, momentum, and liquidity risk is focus
- Yearly due diligence
 - Important input from traders and internal sector managers
 - Really a full reiteration of the ‘selection’ procedures
 - Occasional intra-year ‘red-flag’ procedures complementing this review

Managing Active Managers

- Managing specialist mandates requires internal resources and specialised skills
 - risk management of the total portfolio through overlay portfolios
 - trading ability for funding and restructuring
 - complex structure of complementary index portfolios
 - daily monitoring of performance and transactions
- Finding good specialist products is a challenge
 - good portfolio managers not a commodity
 - we are asking for products in areas with few offerings

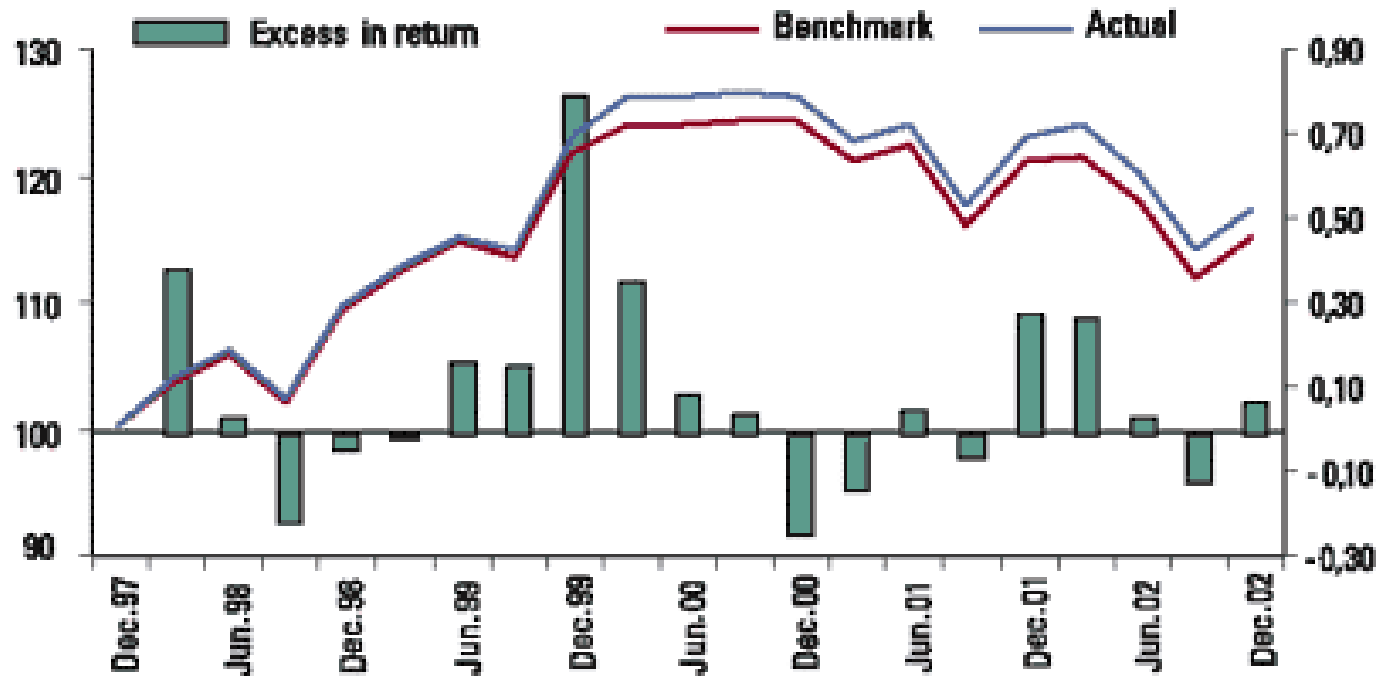
Results

Index for the cumulative return on the asset classes in the Petroleum Fund 1998-2002. The Fund's currency basket at 31.12.97=100



Annual nominal and real return on the Petroleum Fund in the period 1997-2002, measured in terms of the Fund's currency basket. Per cent

Index for cumulative actual return and benchmark return (left-hand axis) and quarterly excess return in percentage points (right-hand axis) 1998-2002



Average annual excess return 1998 - 2002: 0.41 percent

Information Ratio: 0.94