Oil windfalls – pitfalls and challenges.
The Norwegian Petroleum Fund

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Caribbean Centre for Monetary Studies

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Pål Haugerud

Economic Policy Department

Norwegian Ministry of Finance

Agenda

I. Petroleum resources and government petroleum income in Norway

II. Natural resource abundance and economic growth

III. Wealth management – from theory to practise

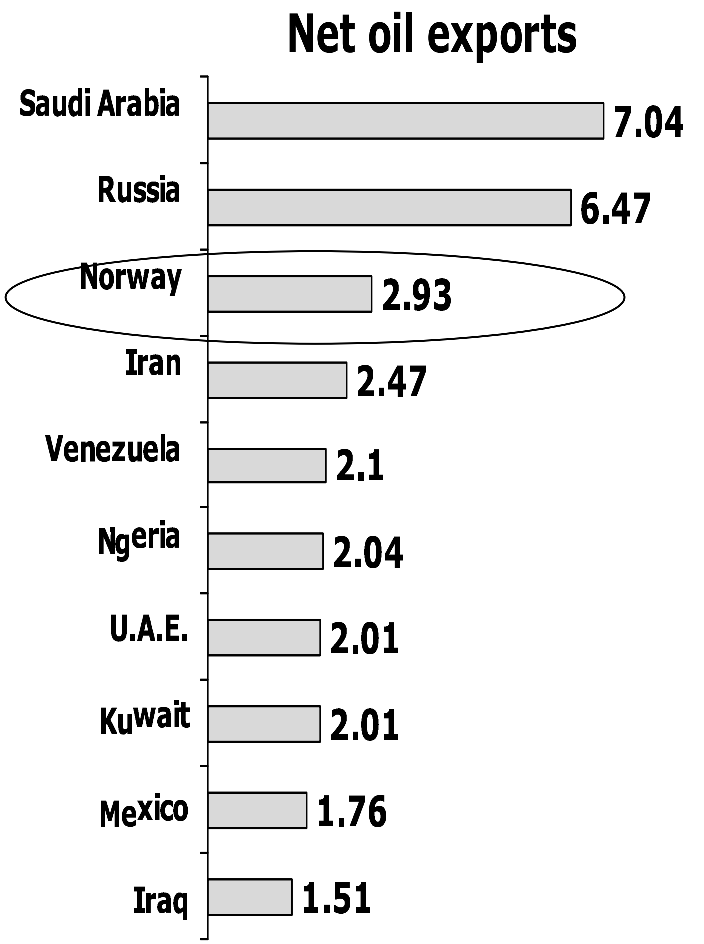
IV. Investments

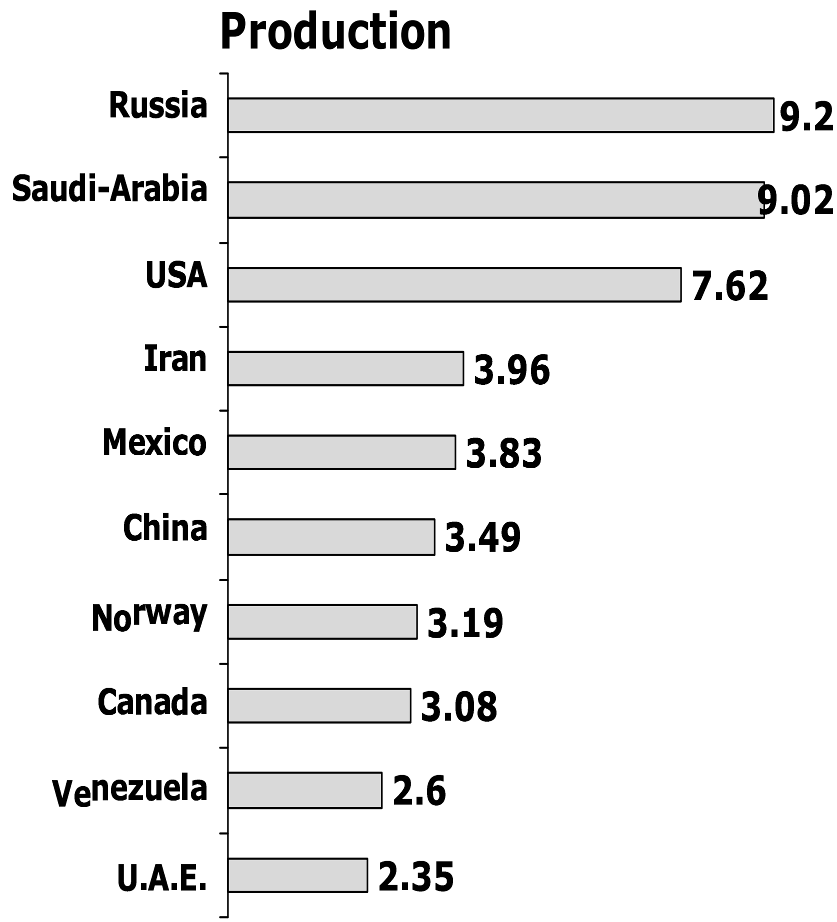
I. Petroleum resources and government petroleum income in Norway

Ekofisk

Norway is the world's third largest oil exporter

-Million b/d, 2004

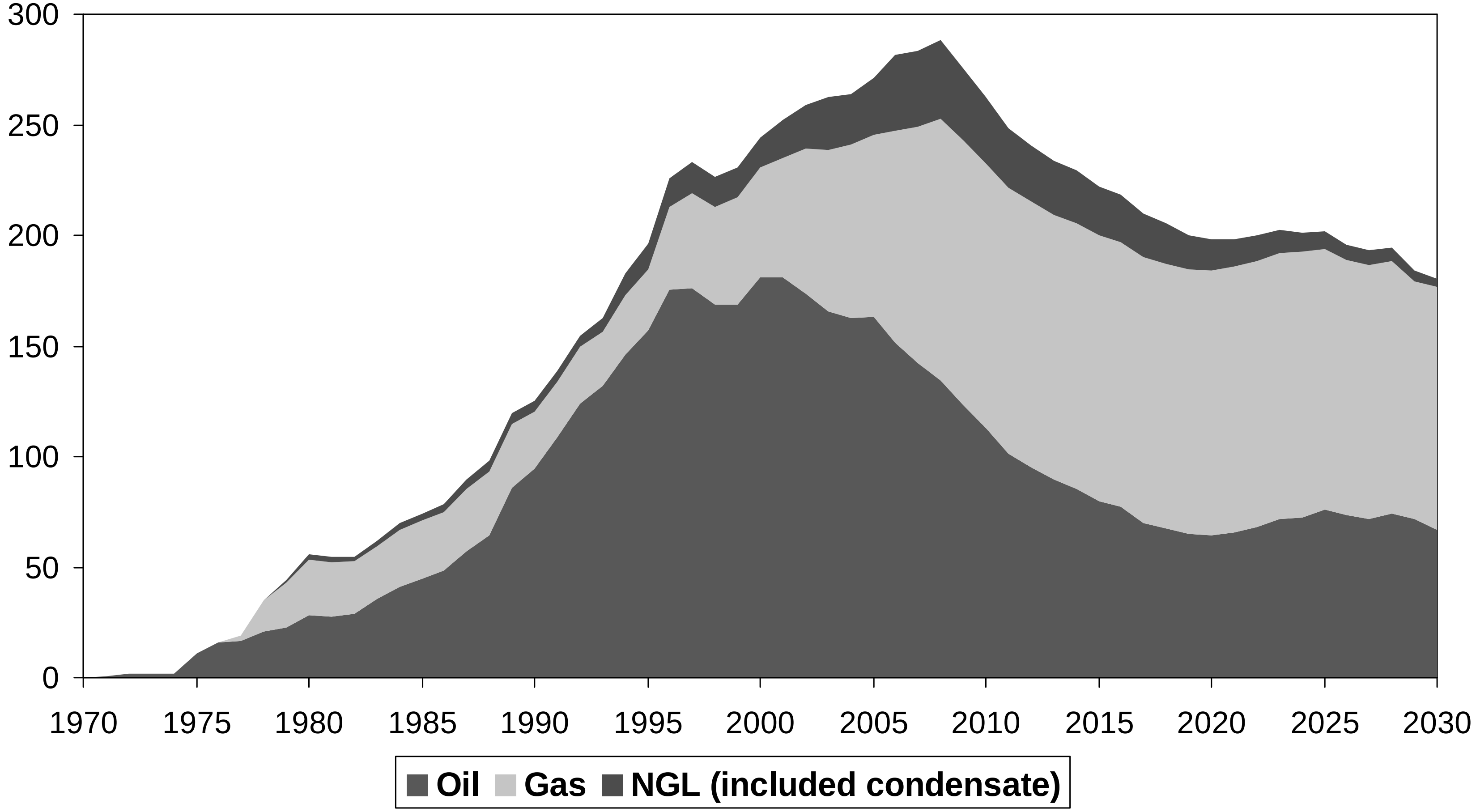




Source: Norwegian Ministry of petroleum and Energy

Crude oil production in Norway has already peaked

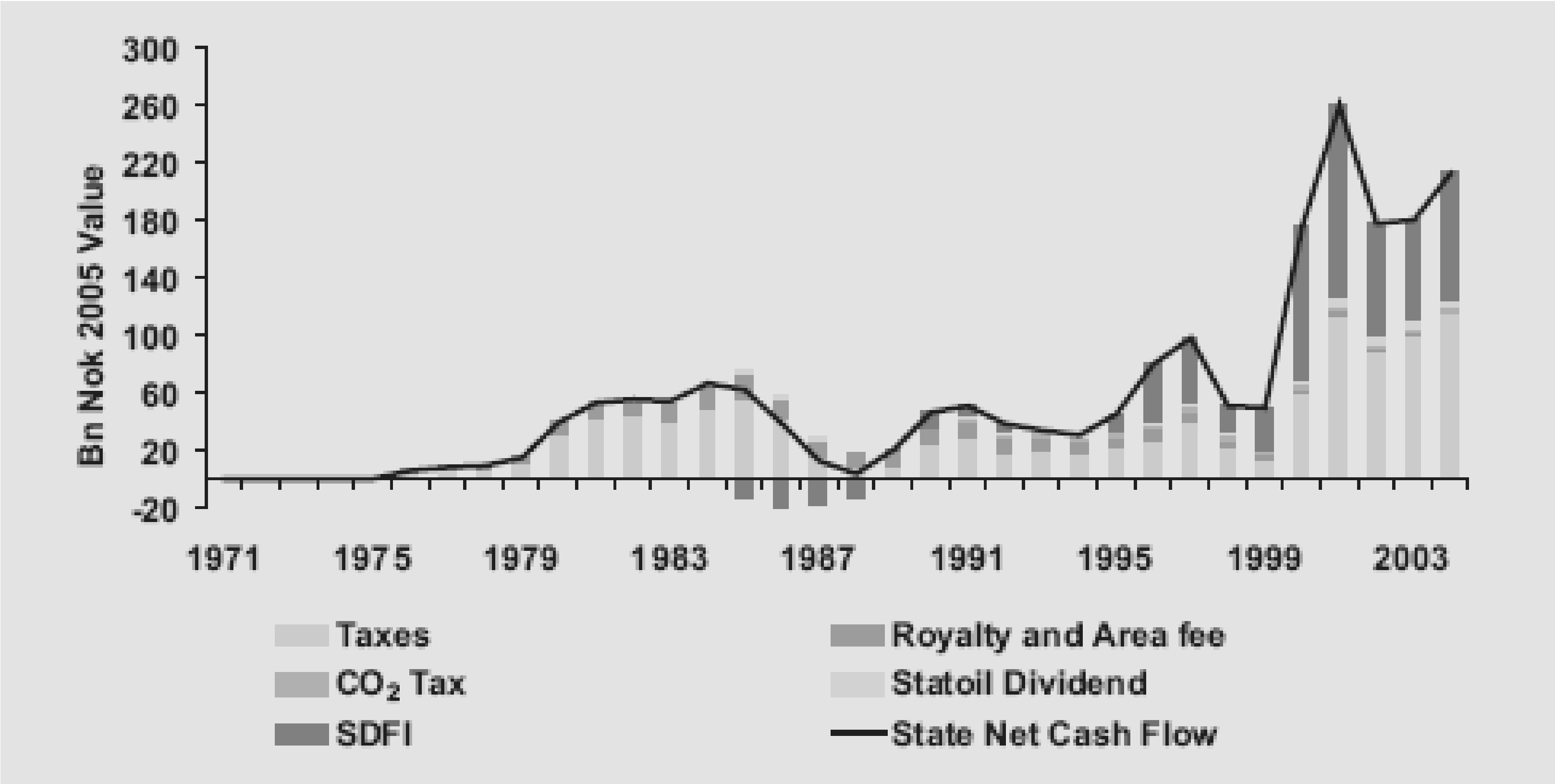
-Total petroleum production in Norway, mill. Sm^3 o.e.



Source: Norwegian Petroleum Directorate

Government gets a high share of the value created in the petroleum sector

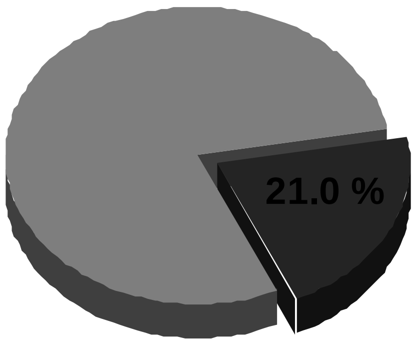
- Net government cash flow from petroleum activities



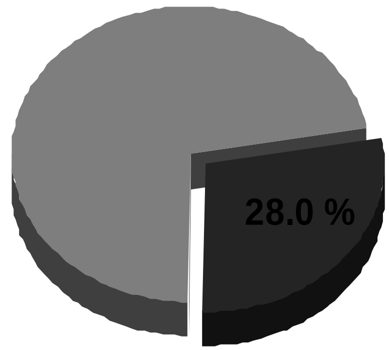
Source: National accounts and national budget

Oil is important, but not all-important…

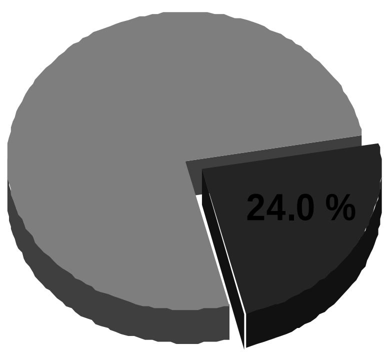
-The petroleum sector's shares of macroeconomic aggregates, 2004



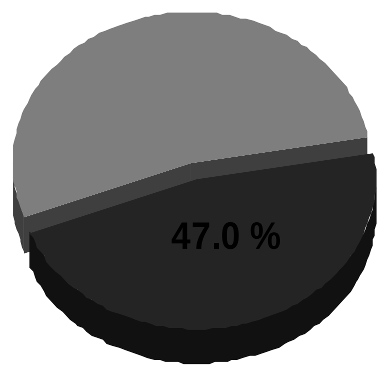
Share of GDP



Share of government revenues



Share of total investment



Share of total export

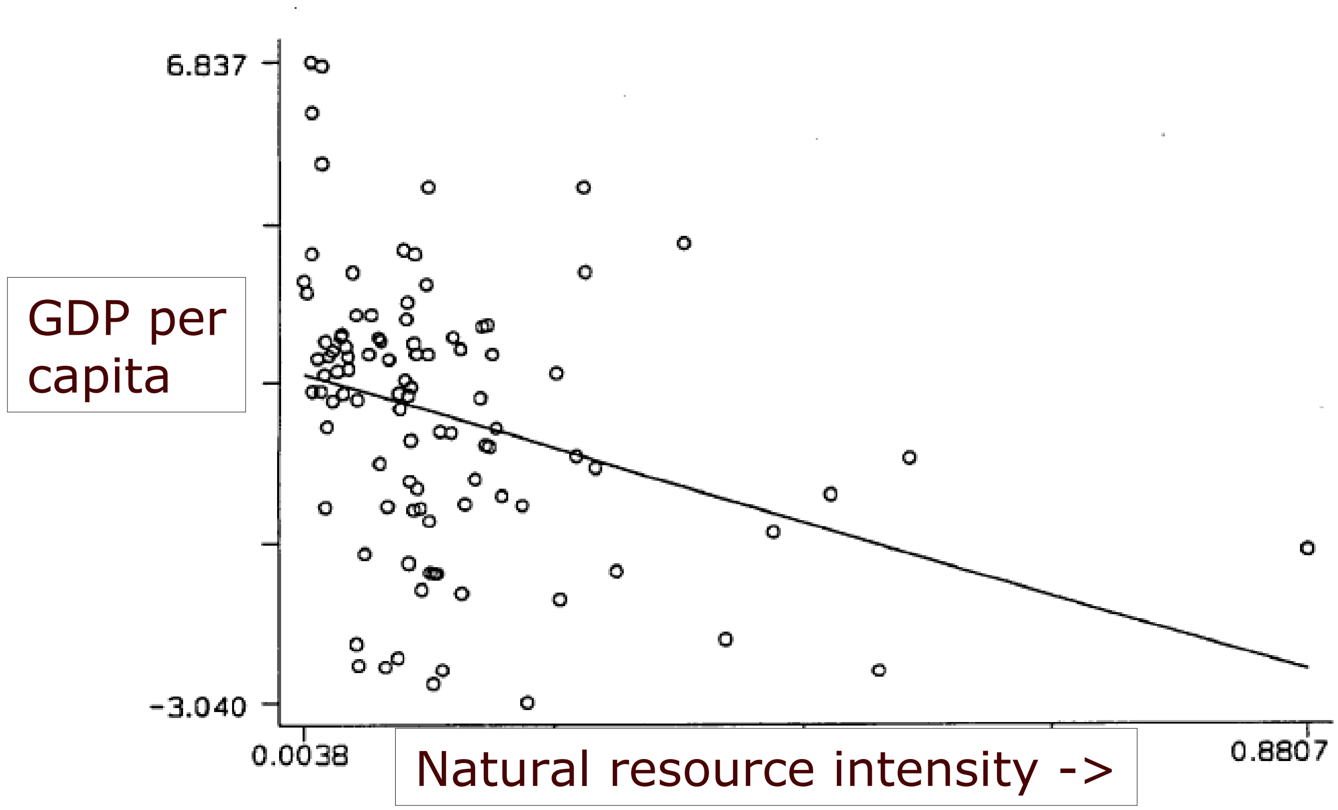
II. Natural resource abundance and economic growth

- *“In one generation we went from riding camels to riding Cadillacs. The way we are wasting money, I fear the next generation will be riding camels again”*

King Faisal of Saudi Arabia, quoted from a newspaper interview with his oil minister, Shaikh Yamani

Higher natural resource income reduces GDP growth

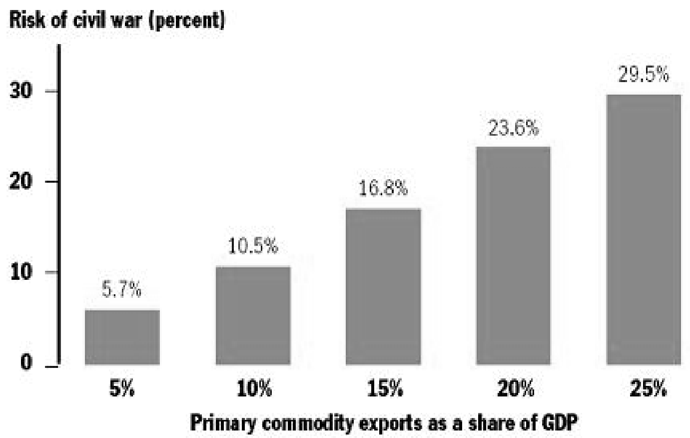
-GDP/capita 1970-89 vs. share of natural resource export in GDP in 1971.
97 developing countries



Source: Sachs and Warner (1995)

And a tendency of political destabilisation in countries rich on oil

Figure 3.7 Natural resources and the risk of civil war for low-income countries



Source: Collier and Hoeffler (2002c).

- Experiences from the OPEC countries according to Karl, T.L. (1997): *The Paradox of Plenty – Oil Booms and Petro-States*, University of California Press.

We have identified some common pitfalls

1. Bad investments

- Overheating instead of sustained higher growth
- Large scale industry investments with high political prestige
- Public infrastructure projects with vague/low economic return

2. Lack of fiscal discipline

- Oil revenues typically show a bell-shaped pattern
- Spending of oil revenues must be much smoother
- Challenge: How to transform a windfall to a permanent income?

3. Loss of focus in structural policy

- Main focus on how to grab a part of the oil revenues
- Productivity growth in non-oil activity suffers
- Labour supply falls

The Government Petroleum Fund is part of our solution

1. Bad investments

- The State Petroleum Fund
- All oil revenues go into the Fund
- The Fund is invested abroad and seeks to maximize its return

2. Lack of fiscal discipline

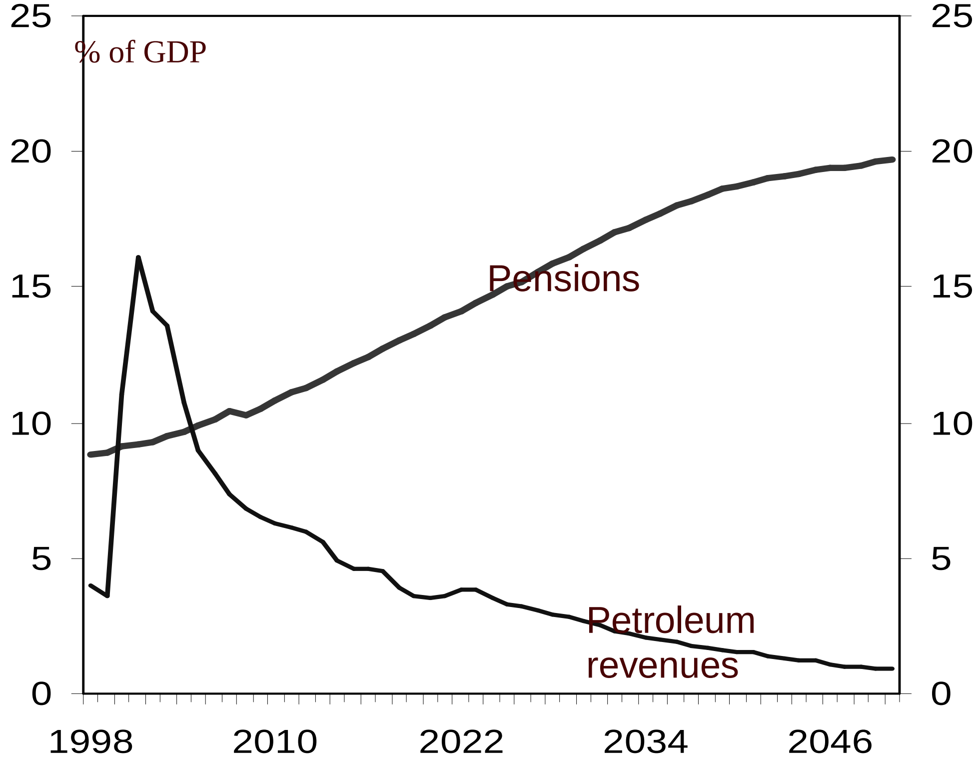
- 70'ies: Reinvestment in the petroleum sector
- 80'ies: Too high spending – overheating
- Now: The new fiscal rule – spending the real return on the Fund

3. Loss of focus in structural policy

- Tries to keep focus on this
- Success in the 90'ies - productivity growth in the non-oil economy on par with the US

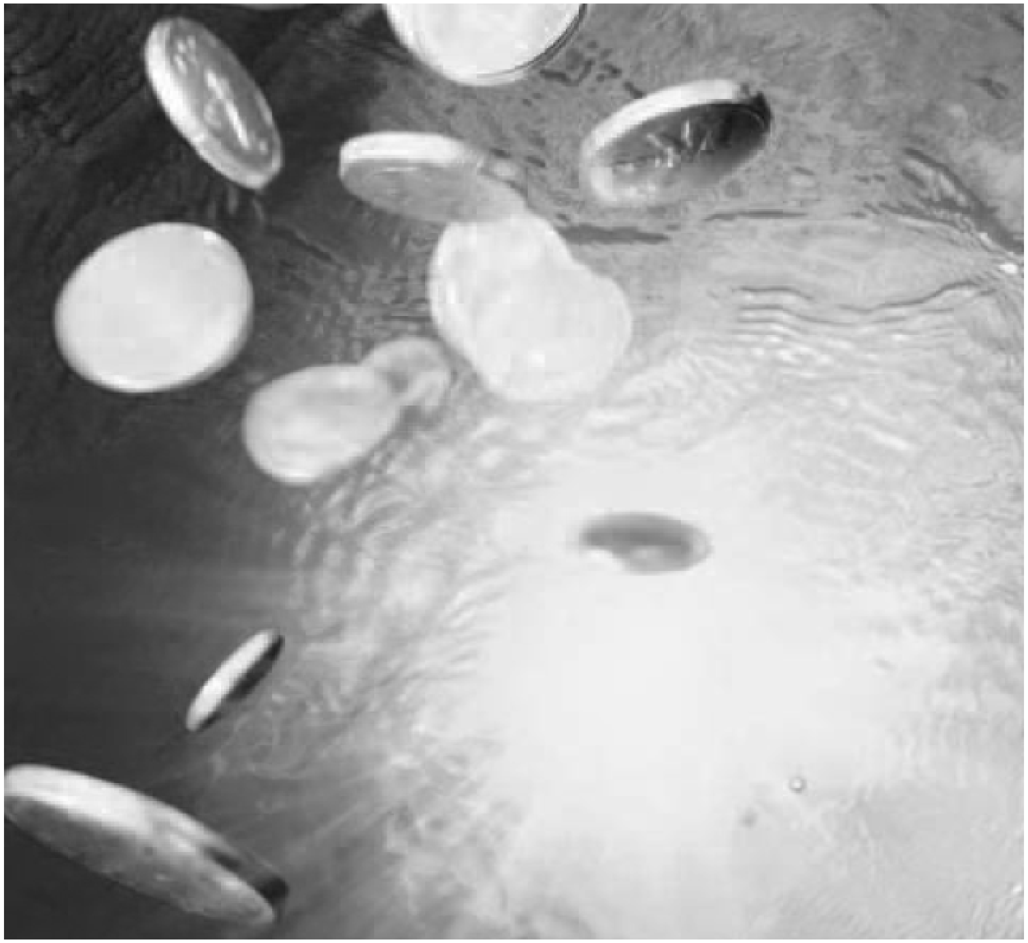
Strong increase in pension expenditure is an additional challenge for public finances in Norway

Pension expenditure and petroleum revenue as share of mainland GDP



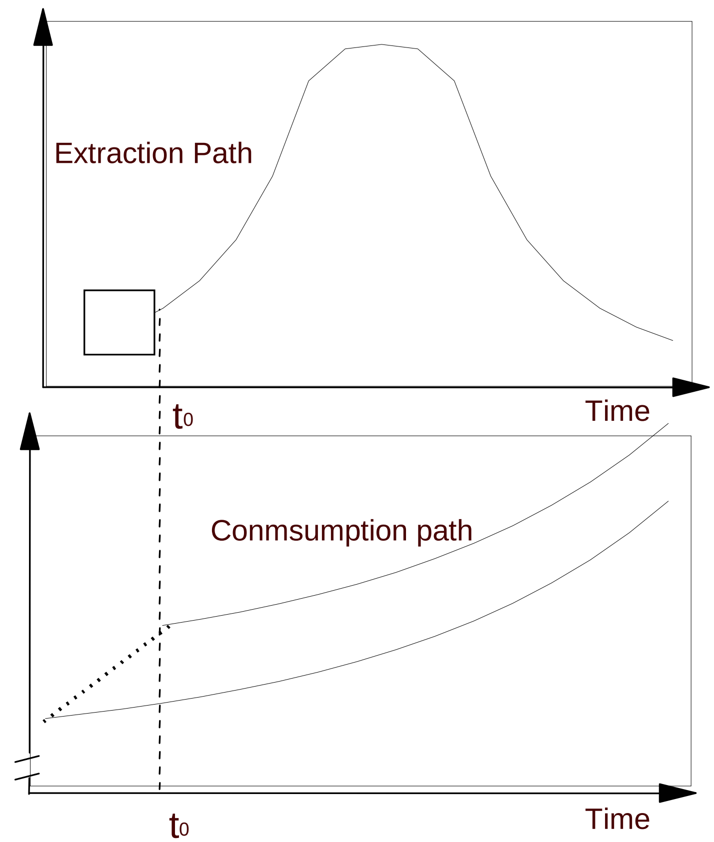
- Calls for a more cautious fiscal policy over the next decades
- The petroleum fund has a dual purpose

III. Wealth management – the Norwegian experience with the Petroleum fund

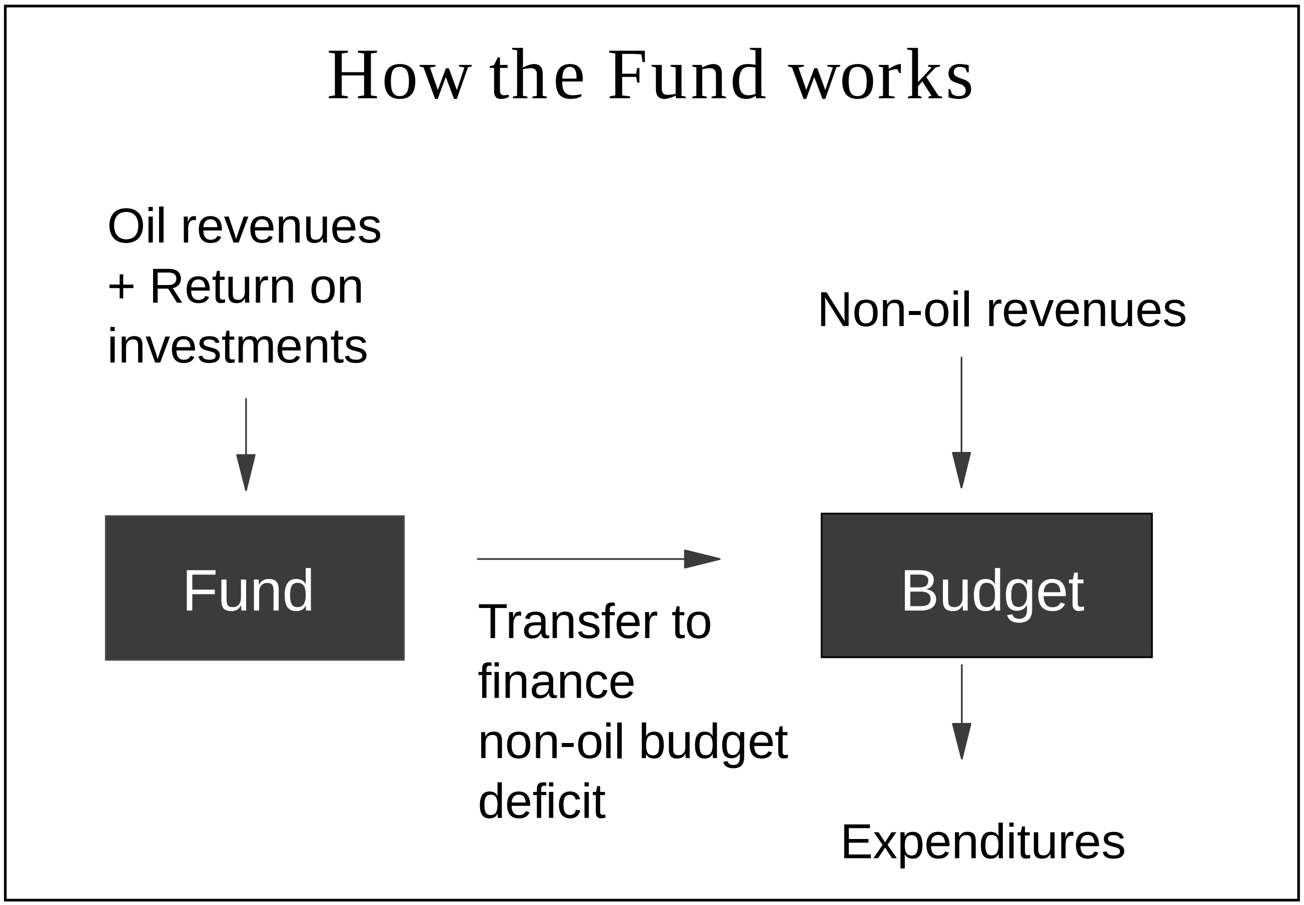


The Petroleum fund is a vehicle to separate extraction path from consumption

- Use of oil wealth must be separated from the current income from oil activities
- *Extraction* shows a typical bell-shaped pattern
- *Spending* should be a more permanent increase, distributed over future generations
- The Petroleum Fund plays the separating role



The Fund is integrated in fiscal policy



We have adopted a sustainable spending rule

- Theoretically: ” use the real return on the Petroleum Wealth”

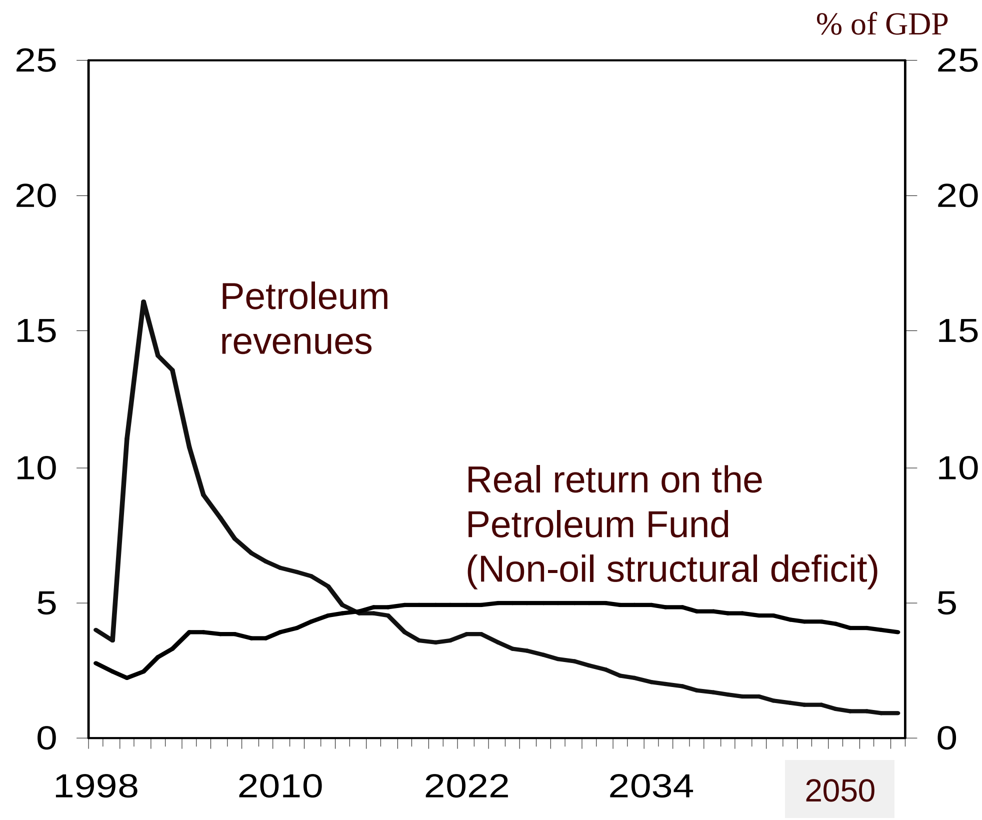
  (**The Permanent Income Rule**)
- **But** – does not take into account
  - Uncertainty in future oil revenues
  - Growth in pension liabilities etc.
  - The cost of restructuring of the economy
- **The fiscal rule**: ”use the expected real return on the Petroleum Fund”

  ⇒ a gradual and cautious increase in the use of oil revenues

  ⇒ remaining fiscal policy challenge: <u>how to spend</u>

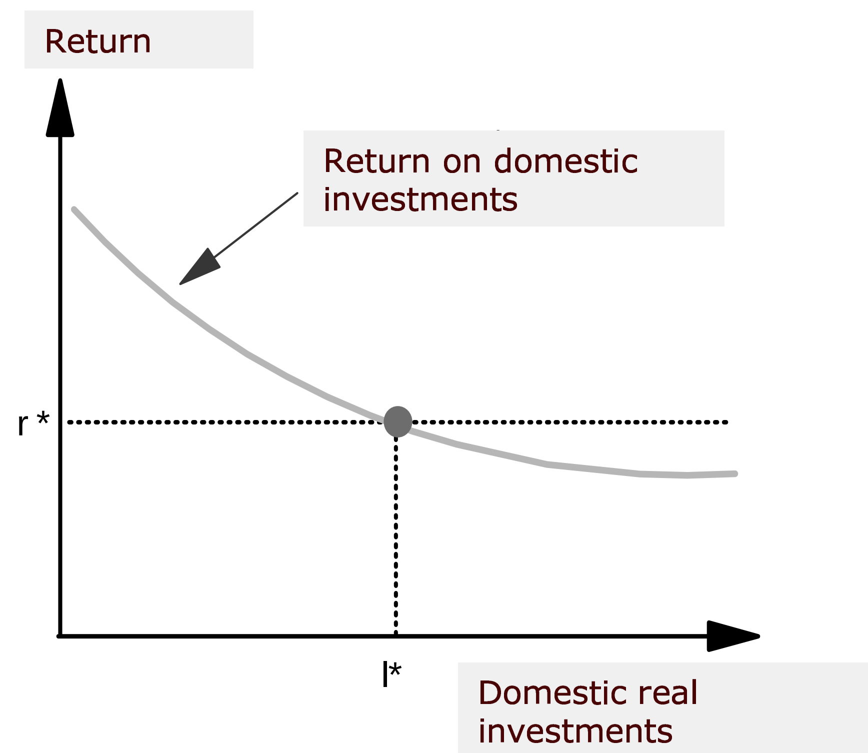
The planned pattern of spending

- <u>The Fiscal Rule:</u>
  Non-oil structural deficit shall equal the expected real return on the Petroleum Fund
- The expected return is estimated to 4 per cent
- Fiscal policy shall also contribute to short term stabilizing of the economy



The fund may not invest in Norwegian assets

- An efficient way of achieving capital outflow reflecting the current account surplus
- To expend domestic real investment carries the risk of reducing the return on investment (fig).
- Not a lack of capital for private projects in Norway, and the fund should not be a second budget for ”less qualified” projects
- Shelter the domestic economy from overheating and deindustrialisation



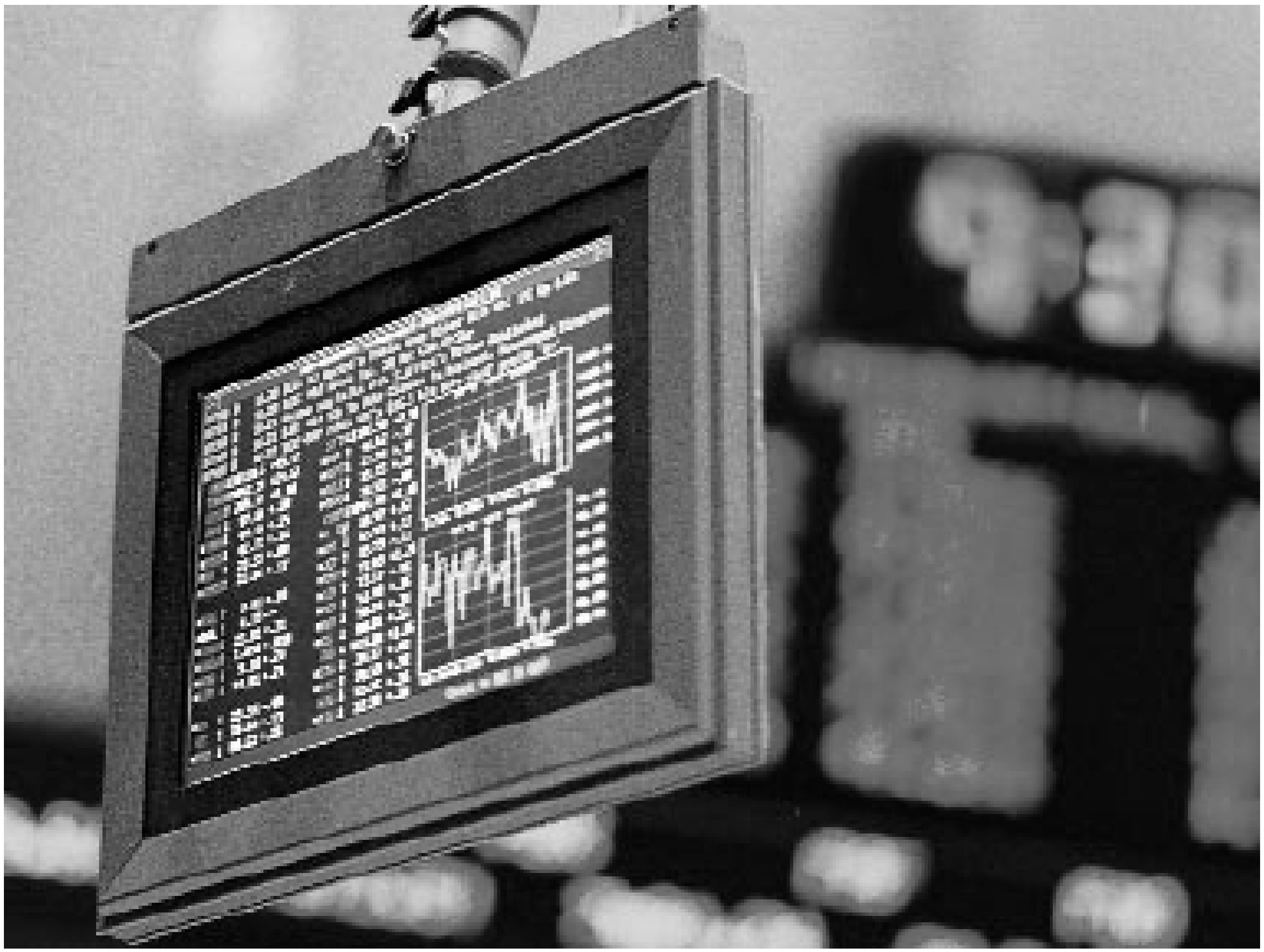
The Norwegian experience so far

- Successful in:
  - Limiting fiscal spending
  - No subsidizing of industries
  - Investing abroad

- And more generally:
  - Labour supply has remained high
  - Productivity growth has been good

- But: *Substantial risk that oil revenues can be a curse, not a blessing*

IV. Investments



Important concerns in the management of the fund

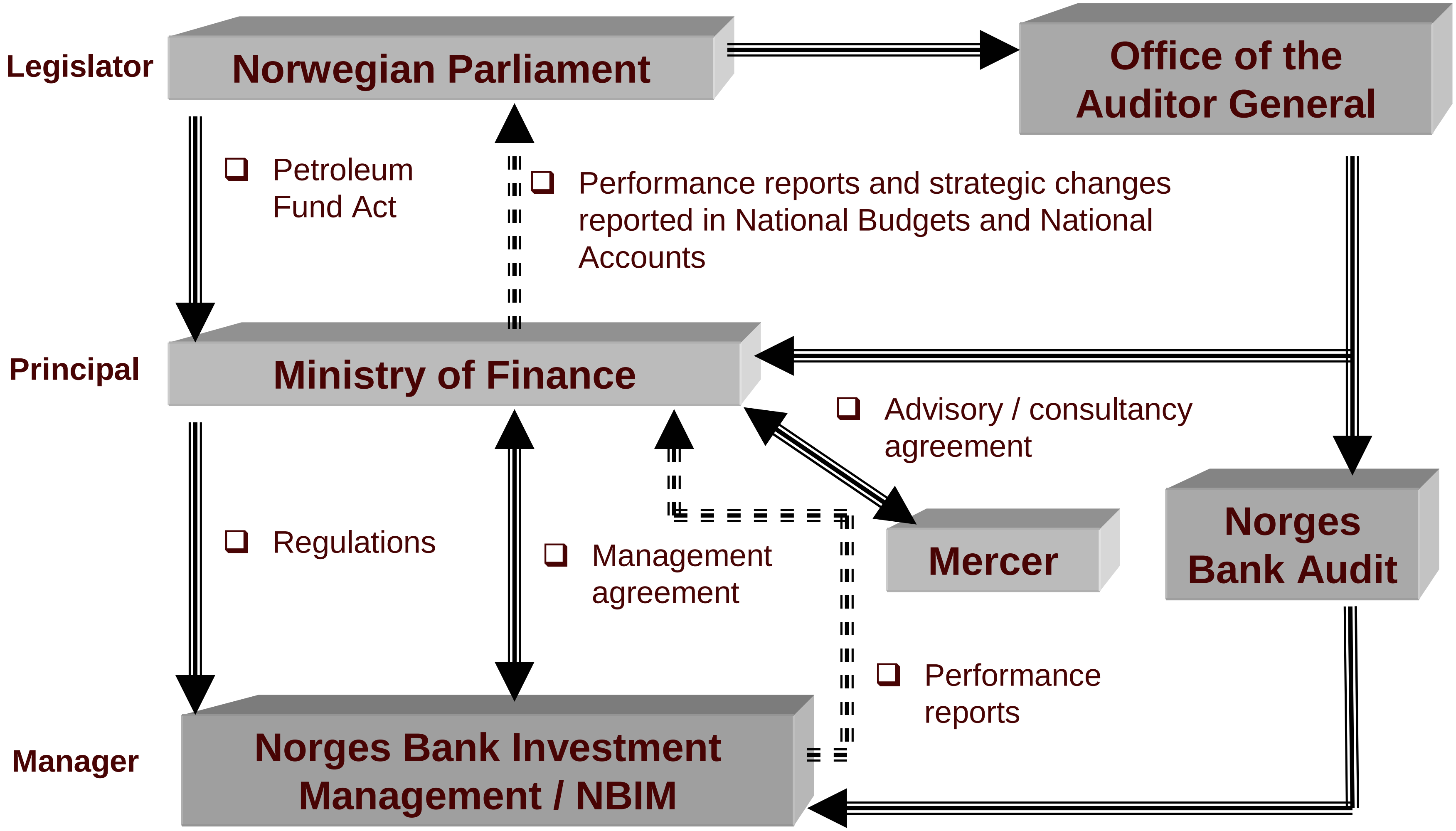
- **Clear lines of responsibility** between Ministry of Finance as owner and Norges Bank as manager

- **Openness** on the management
  - public disclosure of goals and regulations
  - public reports on the management
  - full disclosure of the Fund's holdings annually

- **Control** of the management by
  - consulting the Parliament on important issues
  - independent performance measurement
  - audits by the Auditor General

Petroleum Fund Governance Structure

Founded on Act, regulations and separate contracts



Clear lines of responsibilities between MoF and CB

Founded on Act, regulations and contracts between MoF and CB

- **Ministry of Finance:**
  - decides the strategic asset allocation
  - defines the benchmark portfolio
  - sets limit for deviations from the benchmark portfolio (scope for active management)
  - reports to the Parliament

- **Norges Bank**
  - cost-effective transitions and market exposure
  - active management to achieve excess return
  - risk control and reporting

  - provides professional advice on investment strategy

Investment Strategy: Maximise returns

Objective:

"To invest the capital in such a way that the Fund's international purchasing power is maximized, taking into account an acceptable level of risk"

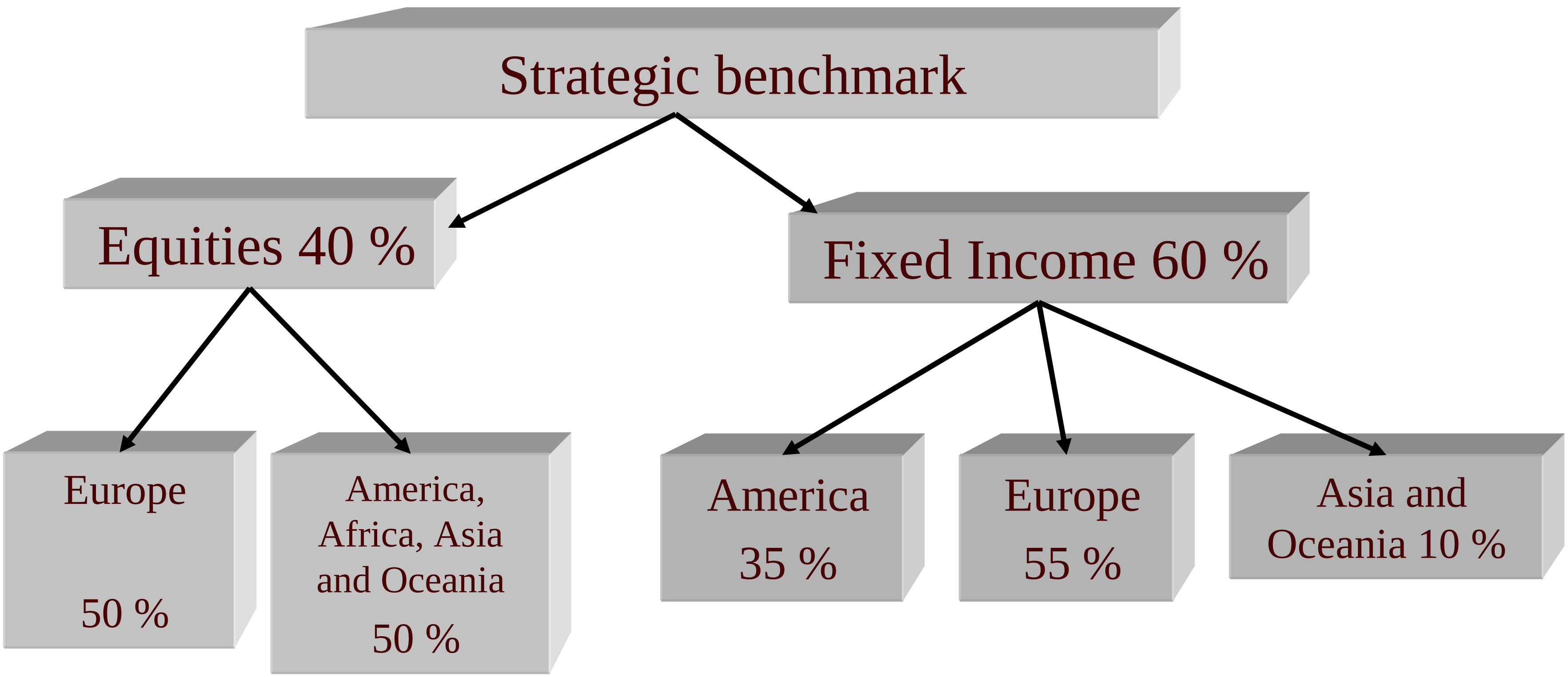
Strategy:

- Indexation
  - Passive indexation main contributor to risk
  - Long term investor
- Active risk budget
  - Delegated operational management to Norges Bank
  - Maximum 1.5% tracking error

But what does it mean to choose a benchmark?

- The benchmark portfolio decides 31.12.04
  - How much to invest in equities 416 298 mill.
  - How much to invest in European equities 208 149 mill.
  - How much to invest in Spanish companies 10 116 mill.
  - How much to invest in Telefonica SA 2 292 mill.
- Market capitalization weights beyond asset classes and regional allocation
- Our expectations are based on benchmark returns
- We use benchmark to evaluate our manager

Benchmark for the Petroleum Fund



Equity index:

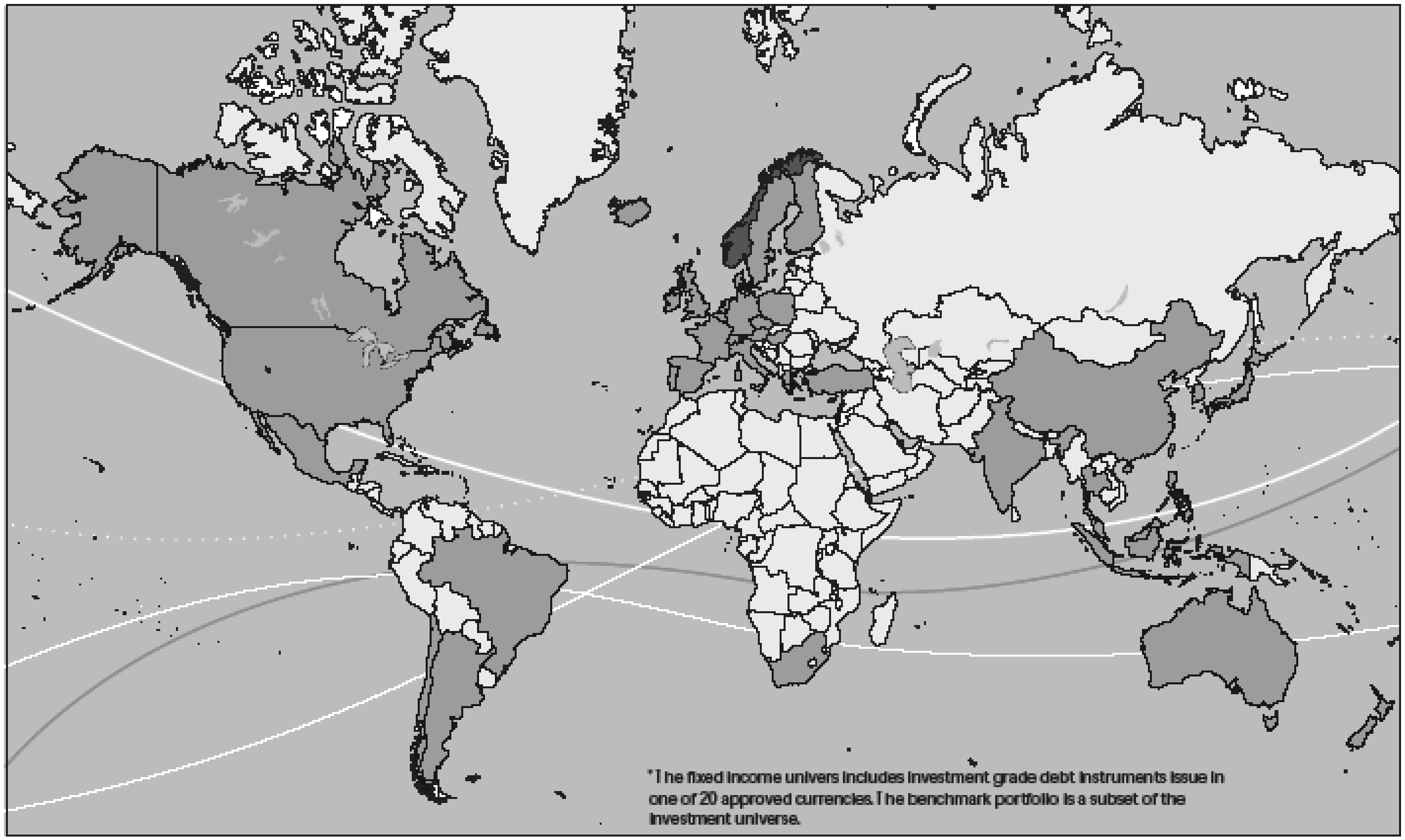
FTSE All World Index
Large & Mid Cap
Approx. 2200 equities

Fixed income index:

Lehman Brothers Global Aggregate/Global Real
Government / Agency / Corporate / Securitized
Approx. 7500 bonds

Global diversification

The Norwegian Government Petroleum Funds Equity Universe*



Belgium	Greece	Netherlands	Germany	Denmark (DKK)	US (USD)	Mexico	Hong Kong	Singapore (SGD)	Israel	Cyprus	Hungary	Philippines	China
Finland	Ireland	Portugal	Austria	Switzerland (CHF)	Brazil	South Africa	Japan (JPY)	South Korea	Turkey	Poland	Chile	India	Malaysia
France	Italy	Spain	UK (GBP)	Sweden (SEK)	Canada (CAD)	Australia (AUD)	New Zealand (NZD)	Taiwan	Iceland	Czech Republic	Thailand	Indonesia	

Major changes 1998-2004

- 1998: Allowed to invest in equities
- 2000: Emerging equity markets added
- 2002: Non-government bonds included in the benchmark
- 2004: New ethical guidelines

The Ethical Guidelines

<u>Two ethical obligations:</u>

- To ensure that future generations receive a fair share of the oil wealth
- To respect the fundamental rights of those affected by the activities of companies in which the Fund invests

<u>Three measures:</u>

1. *Exercise of ownership rights*
2. *Negative screening* of weapons whose normal use violates fundamental humanitarian principles (MoF)
3. *Exclusion* mechanism (MoF)

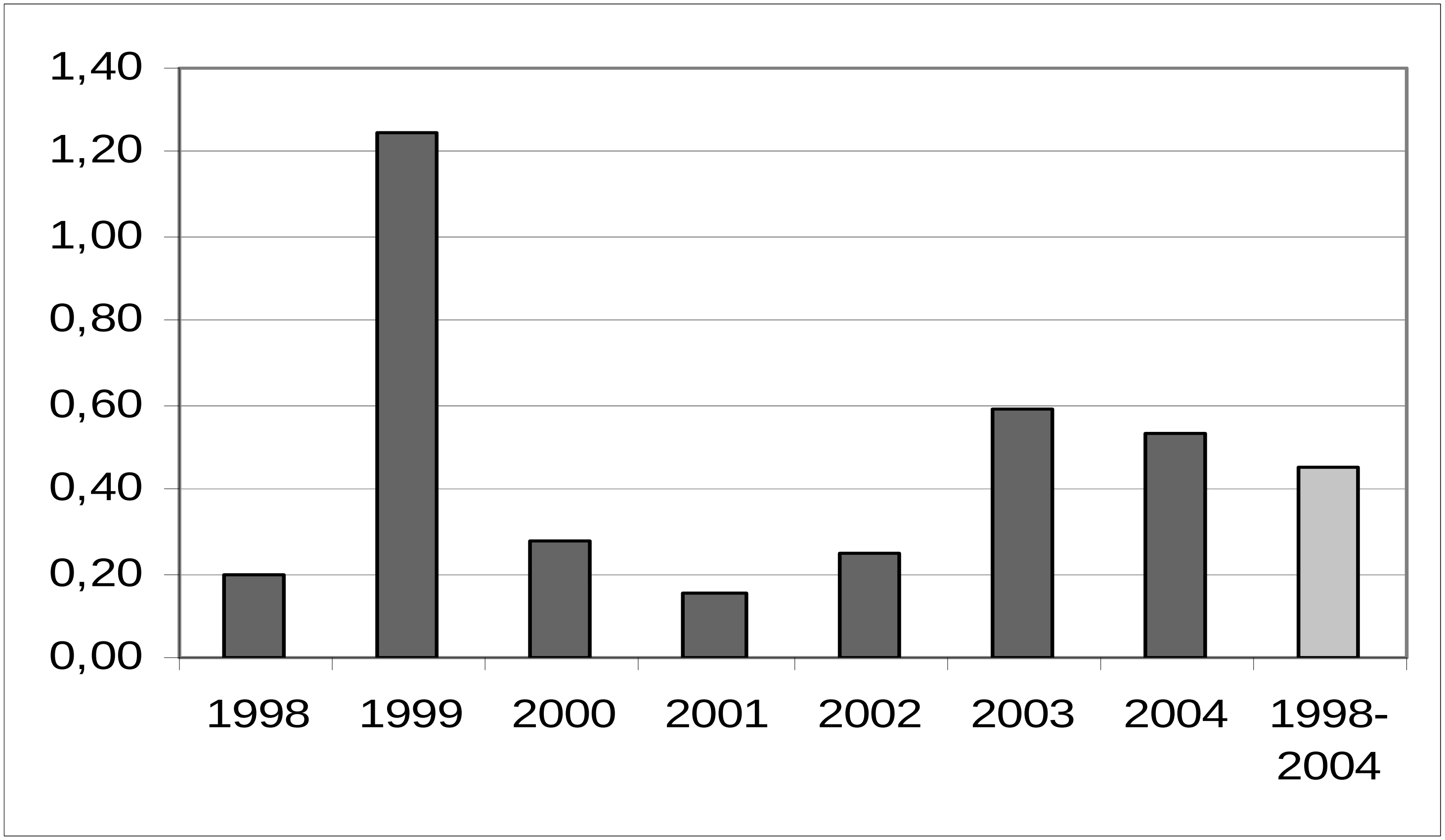
Petroleum fund total return 1997-2004: 4 pct.

Annual nominal and real return measured in terms of the fund's currency basket 1997-2004, in pct

	1997	1998	1999	2000	2001	2002	2003	2004	Average
Nominal return									
equity portfolio	-	12,86	34,81	-5,82	-14,59	-24,37	22,83	13,00	3,64
fixed income portfolio	9,07	9,31	-0,99	8,41	5,04	9,90	5,26	6,10	6,46
total portfolio	9,07	9,25	12,44	2,50	-2,47	-4,74	12,59	8,94	5,76
Inflation	1,75	0,92	1,28	2,02	1,18	1,89	1,36	2,43	1,60
Real return (geometric)	7,19	8,25	11,02	0,47	-3,61	-6,51	11,08	6,35	4,09
Management costs	0,04	0,06	0,09	0,11	0,07	0,09	0,10	0,11	0,08
Net real return	7,15	8,19	10,93	0,36	-3,68	-6,60	10,98	6,24	4,01

Active management has increased returns

Realised portfolio return - return on benchmark. Percentage points.



Source: Central bank of Norway

Positive external evaluation of operational management in 2003

- Overall assessment highly positive
- Complexity of structure
- Scalability
- Moving to a more developed phase
- Corporate culture

Websites:

www.odin.dep.no/fin/english

www.odin.dep.no/oed/english

www.norges-bank.no/english

Appendix

State direct financial interest (SDFI)

- Established in 1985
- A field-specific instrument
- The Government takes SDFI holdings in licenses where the expected profitability is high
- The state pays a share of investments and operating costs, and receives a matching share of the revenues
- SDFI accounted for almost 40 pct. of net cash flow to the state from petroleum operations in 2003

Calculation of corporate taxes

Operating income (norm price)

- Operating costs

- Depreciation (6 year linear)

- Exploration costs

- Royalty, CO_2-tax, area fee and NPI

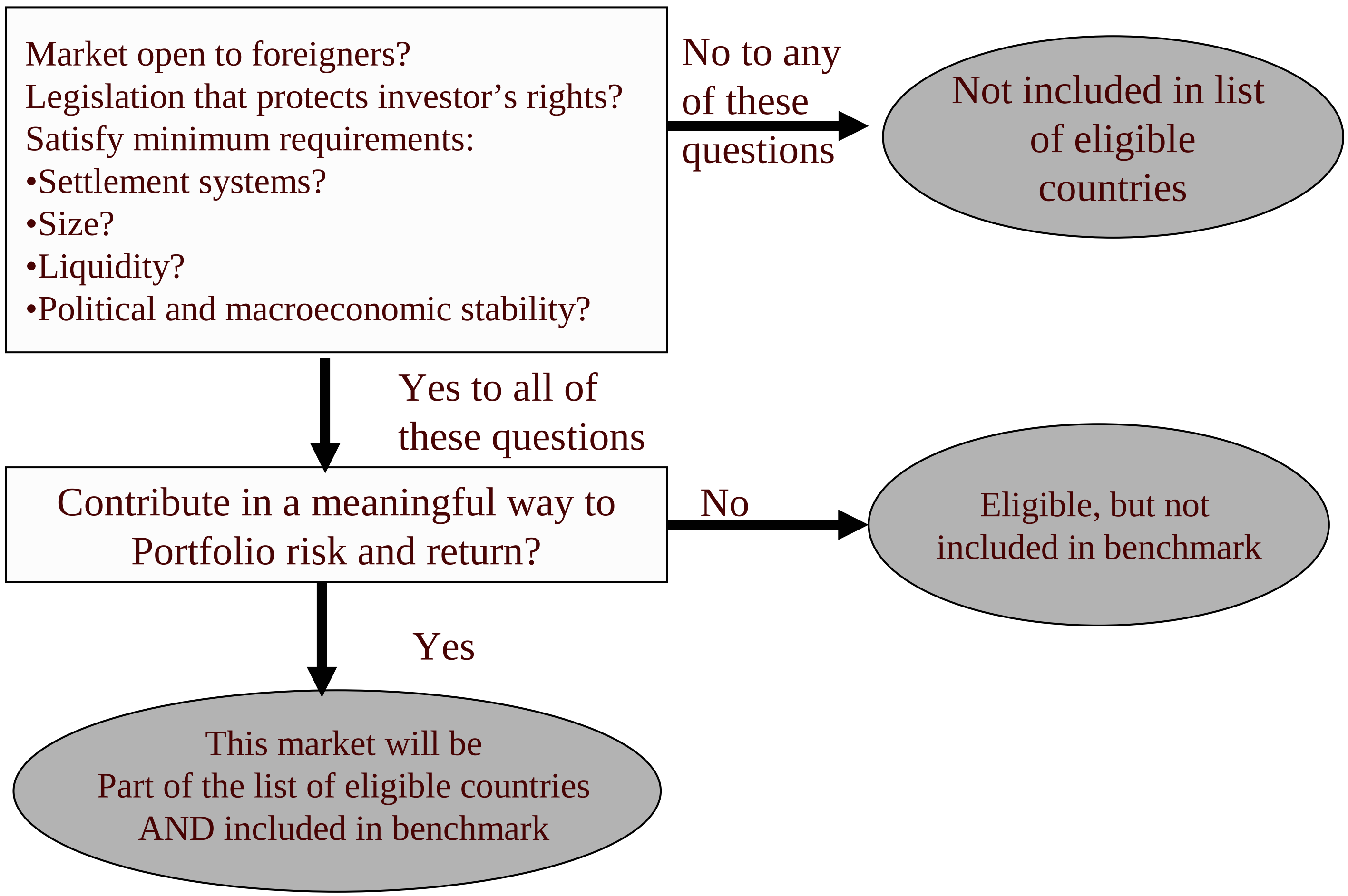
- Net financial costs

= Ordinary tax base (tax rate: 28%)

- Uplift (5% of Capex in 6 years)

= Special tax base (tax rate: 50%)

Country list changes in 2000 and 2004



Investment universe (permitted countries)

Country list for equity investments:

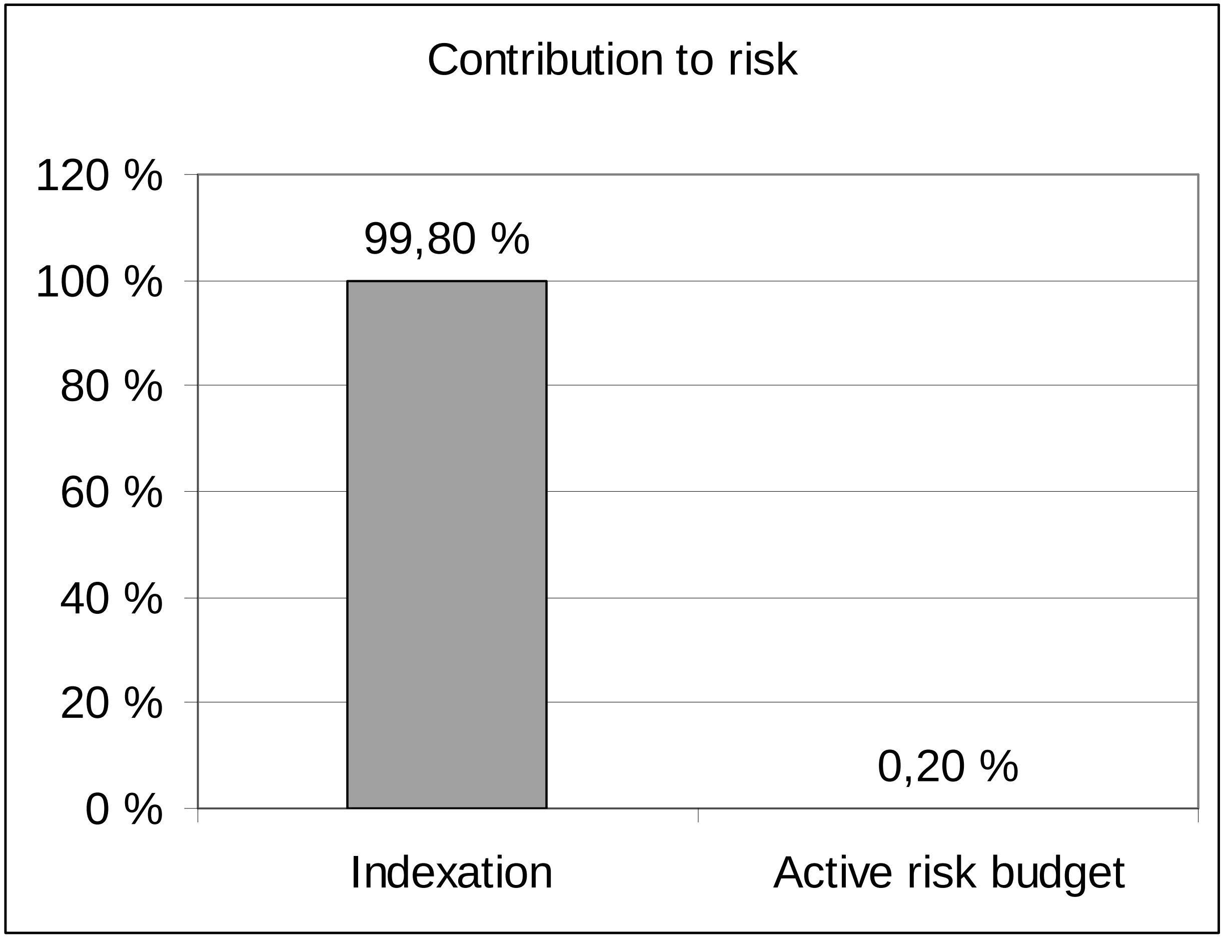
- Europe: Austria, Belgium, *Cyprus*, *Czech Republic*, Denmark, Finland, France, Germany, Greece, *Hungary, Iceland,* Ireland, Italy, the Netherlands, *Poland*, Portugal, Spain, Sweden, Switzerland, Turkey and the UK
- The Americas: Brazil, Canada, Mexico, the US and *Chile*
- Asia and Oceania: Australia, Hong Kong, Japan, New Zealand, Singapore, South Korea, Taiwan, Thailand, *People's Republic of China*, *India*, *Indonesia*, *Malaysia*, and *the Philippines*
- Middle East and Africa: *Israel and South Africa*

Fixed income investments issued in the currency of the following countries:

- Europe: Austria, Belgium, *Cyprus, Czech Republic*, Denmark, Finland, France, Germany, Greece, *Hungary, Iceland*, Ireland, Italy, the Netherlands, *Poland*, Portugal, Spain, Sweden, Switzerland, and the UK
- The Americas: Canada, the US and *Mexico*
- Asia and Oceania: Australia, Hong Kong, Japan, New Zealand, Singapore and *South Korea*
- Africa: *South Africa*

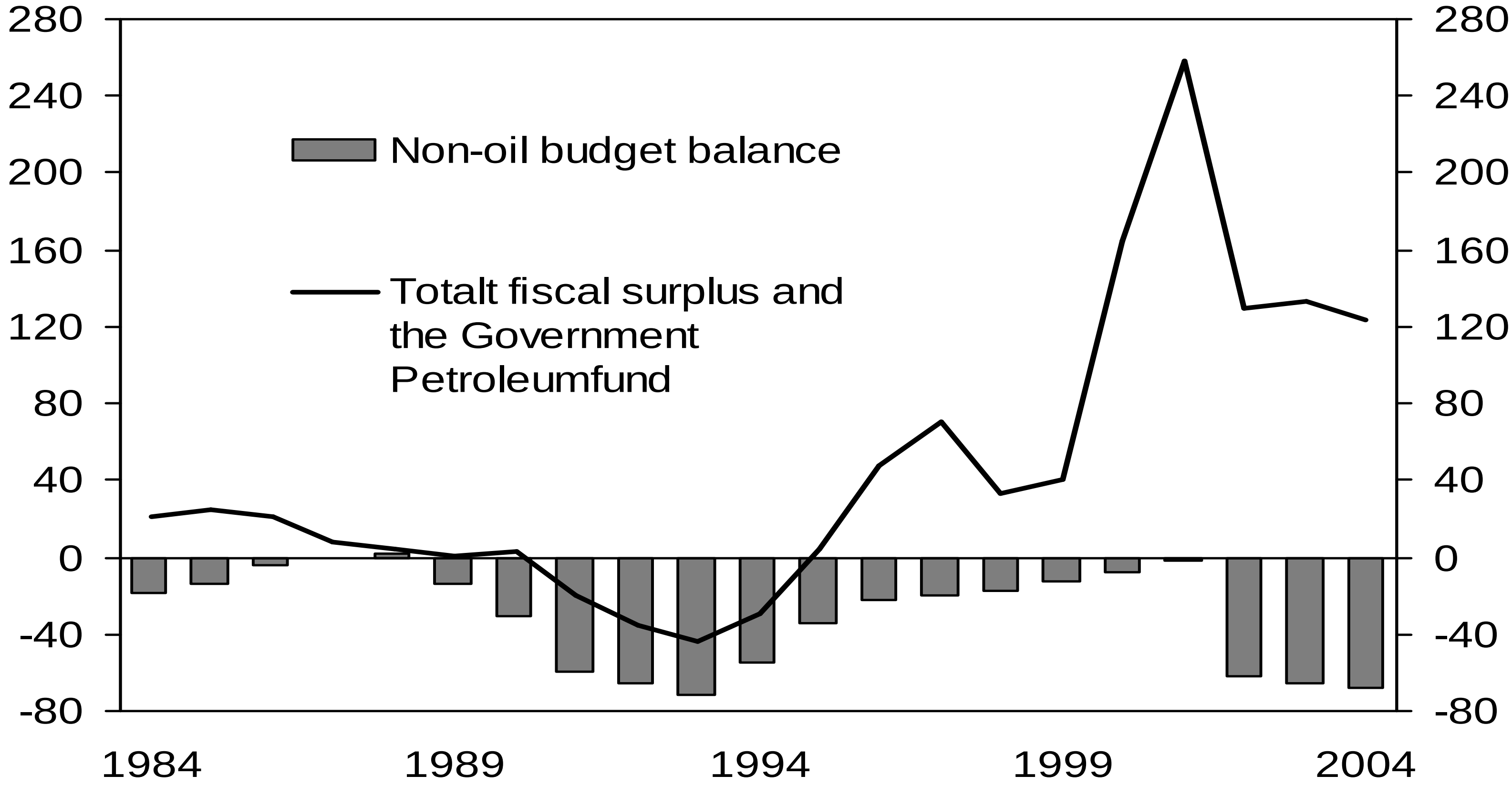
Passive risk is the main contributor to risk

Share of portfolio volatility explained by indexation and active risk strategies



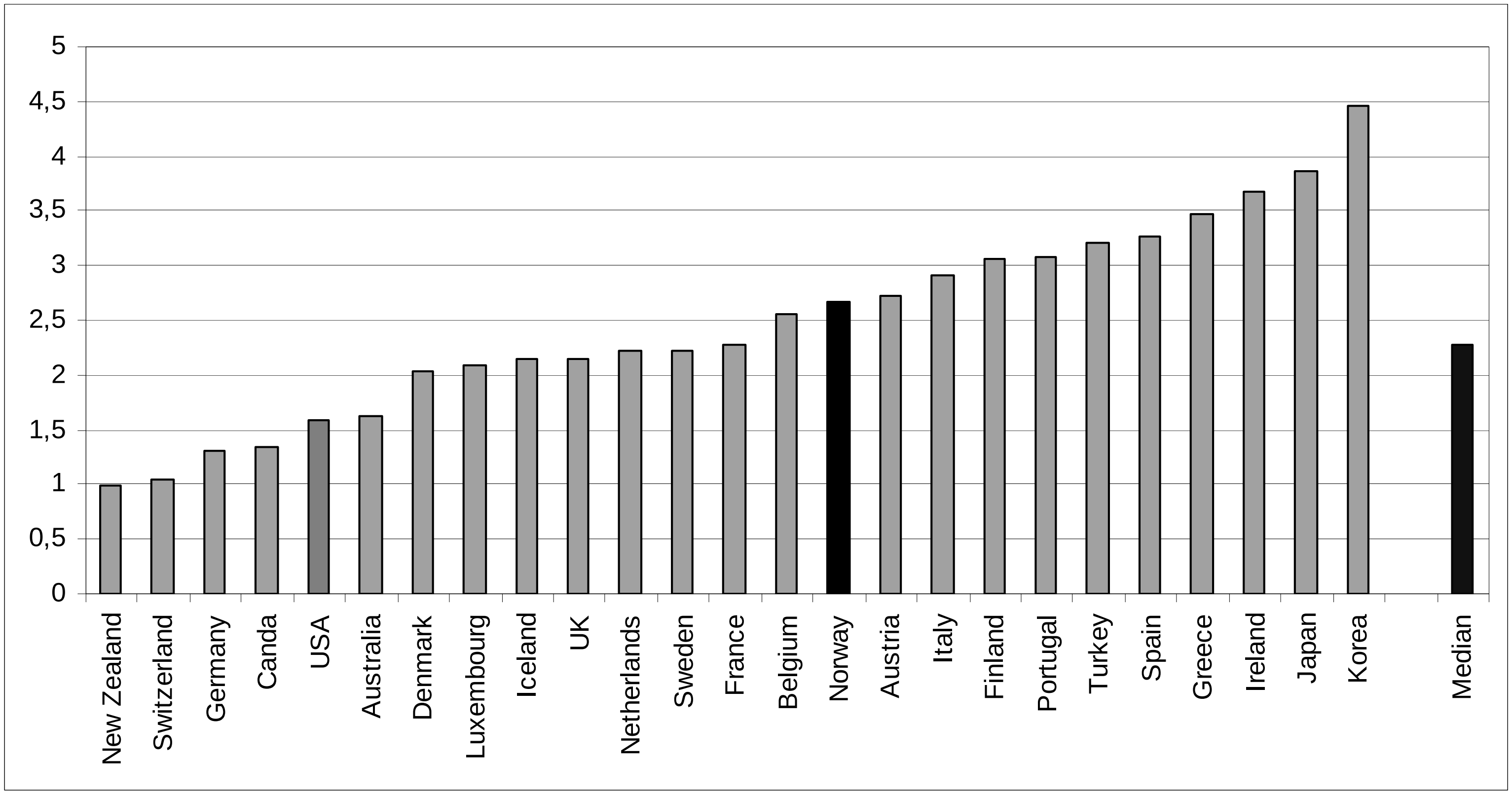
Source: Norges Bank/Ministry of Finance

-Cautious fiscal spending



-Productivity growth has been good

-Average labour productivity. Production/hours worked. 1961-2003



Source: OECD