Will the Norwegian Pension Reform Reach its Goals?

An integrated Micro-macro Assessment

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Main goals of pension reform

1. **Improve fiscal stance gradually, not "now"**
   - Benefits not cut in transition to new system, but slower growth
   - Life expectancy adjustment to reduce expenditure growth
   - Additional contribution from a partly price indexation of benefits in payment
   - **Natural benchmark: Pension reform is not a universal solution, but pension expenditures should not grow faster than the tax base**

2. **Stimulate employment**
   - Early retirement at 62 for everyone, but increased cost for the individual
   - Stronger link between labor income and pension benefit
   - $\Rightarrow$ Increase in entitlement and delayed retirement. Improves fiscal stance without cutting annual benefit.

3. **Keep main redistributive characteristics of the present pension system.**

Will pension reform reach its goals, in particular for the growth in pension expenditures?

Proposed pension reform

- Maintains
  - Combination of social security (flat minimum benefit) and income replacement
  - Defined benefit
  - PAYGO financed, fully integrated in the government budget.
  - Average replacement ratio when implemented in 2010 (+7%)
  - Wage indexation of *entitlements*
- New elements
  - Stronger and more transparent dependency between entitlements and labour incomes
  - Universal flexible retirement scheme from age 62
  - "Quasi-actuarial" annual benefit adjustment neutralizes the expenditure effect of increased life expectancy and earlier retirement.
  - Possible to work without income being set off against the pension.
  - Less generous indexing of annual benefit payments
- ***Cost saving in the long run***
- ***Stimulates labour supply at the extensive and intensive margin***

Empirical models

- **Dynamic microsimulation (MOSART) estimates "mechanical" effects on:**
  - Individual benefits and public pension expenditures
    - Based on accurate description of pension systems, dynamics of population heterogeneity (age, earnings, …)
    - Main model used in the reform preparation
- **Behavioural effects on labour supply**
  - Incentives (implicit tax, opportuity cost of retirement
- **General equilibrium effects (MSG6) on:**
  - **The wage rate and prices**. Affects the nominal expenditures
    - of given real government consumption
    - Indexed transfers
  - **All** tax bases (through changes in wages, prices and quantities)
  - **PAYGO changes in the payroll tax rate** required to meet the annual government budget constraint.

Labour supply incentives

- **Intensive margin**:
    - Closer and more transparent correlation between earnings and benefits => 8% (4.5%) increase in effective wage rate
- **Exstensive margin**:
    - A more actuarial system increases the individual cost of early retirement for 60% of the labour force (+)
    - 40% get access to retire early (at 62) (-)
    - The life expectancy adjustment ratio will increase the retirement age as life expectancy increases
    - On average retirement postponed by 0.6 years in 2010 increasing to 2.6 år in 2050 (=> 4,1% increase in total labour supply).

A fiscal sustainability problem…?

Fiscal policy rule, 50 2005-USD/barrel, present pension system and public service standards
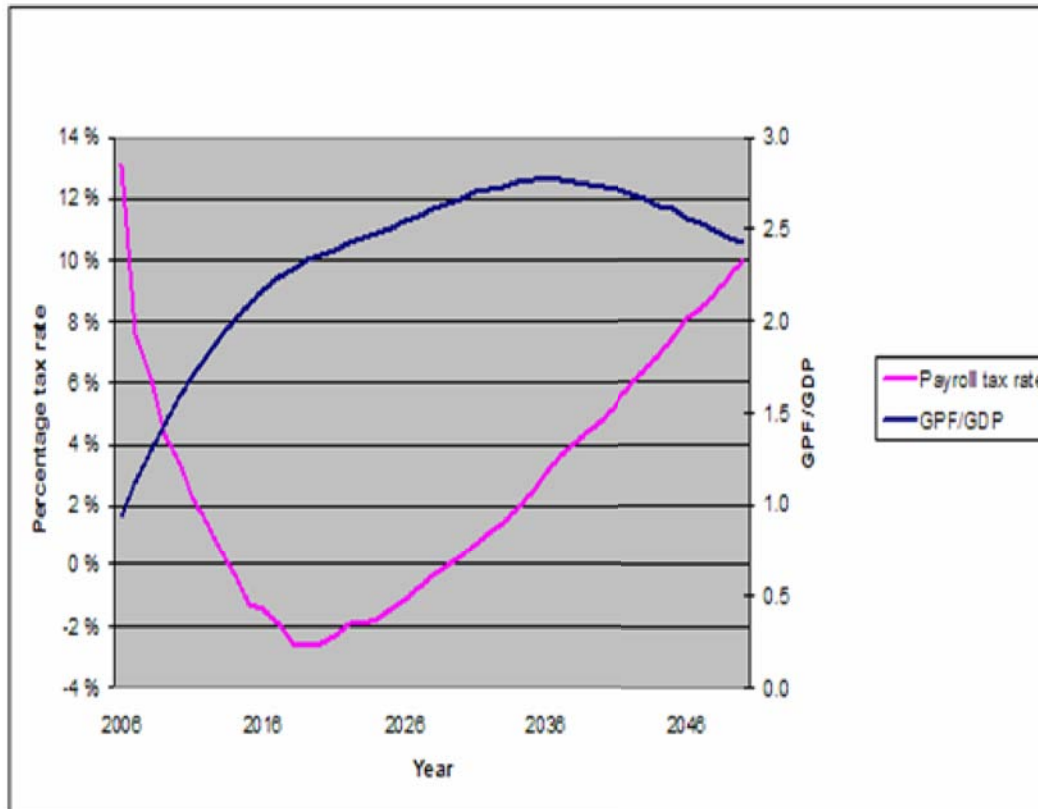
- Combined use of microsimulation- and CGE models
- Lower tax burden every year until 2050
- Pension fund reaches 2.5xGDP
- Brighter prospects than previous simulations
- Continued uncertainty

… is a "growth" problem !

Payroll tax if no reduction before 2020
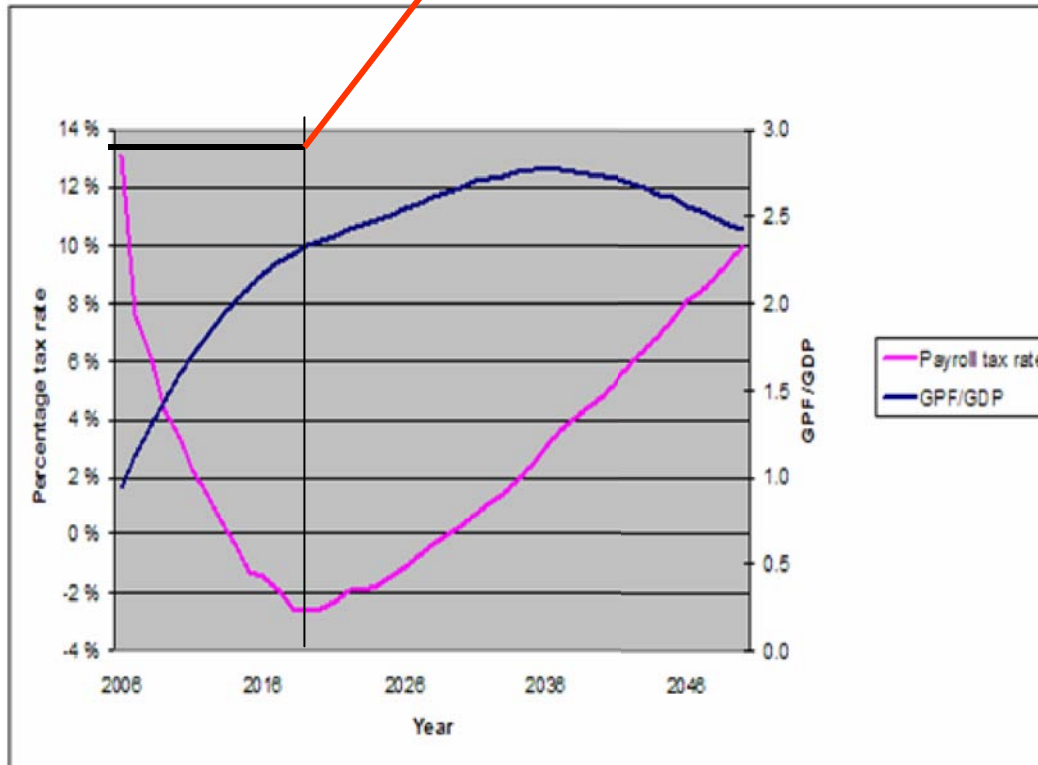
- Growth rates from 2020:
  - Public expenditures: 4,43%
  - Tax base: 3,46%
  - close to interest rate => low effective discounting
  - Growth rates more robust than levels in distant future
- Tax rates in 2020?
  - Present => payroll tax doubled by 2050
  - Improved welfare for elderly => accelerates tax rate growth
- Pre-funding already unrealistically high?

Reform improves fiscal stance. But LEVEL-effect!

Necessary payroll tax rate

Before reform

After reform
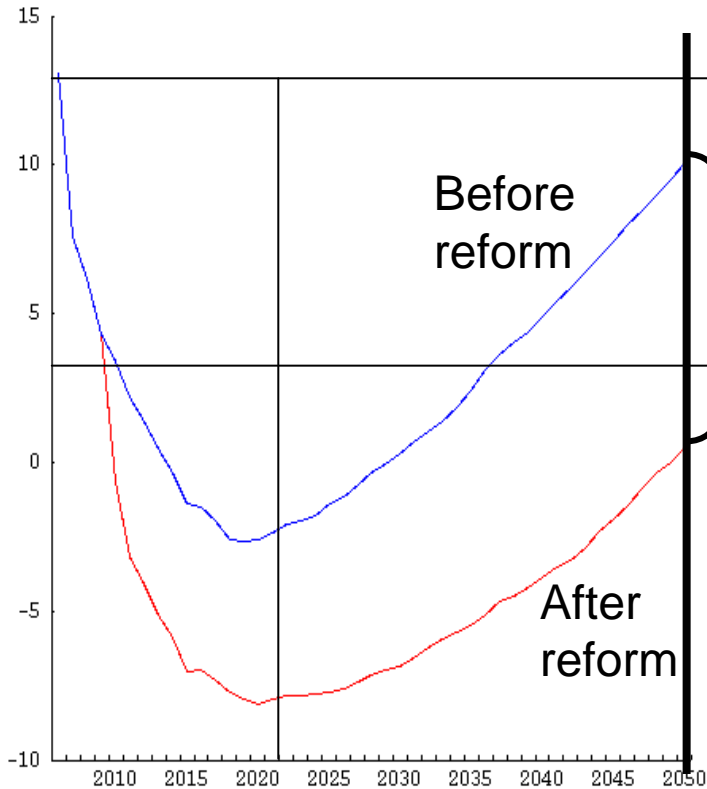
Level-effects in 2050:

Payroll tax rate	-9,5 %p
Employment	11,0 %
Public expenditures	-5,9 %
Pension expenditures	-12,2 %

Reform does not reduce growth in pension expenditures

- Reform improves significantly fiscal stance
  - lower pension expenditure **level**
  - higher tax base **level**

- **But no change in growth rate of pension benefits after 2020!**

- But "growth" problem reduced by stronger growth in tax base (incidence)

Change in average growth rates 2020-50, %p

Payroll tax	-0.13
Pension expenditures (PE)	-0.01
Tax base (TB)	0.08

Reform effect on growth rate of pension expenditures

	%p
Old age pension expenditures (PE)	- 0,01
# pensioners (N)	- 0,23
Benefit (W x C)	0,22
Before wage indexation (C)	0,08
Wage indexation (W)	0,13

Remember: PE= N x W x C

1. **Slower growth of N**
   Improved longevity + Life expectancy adjustment => Retirement increasingly delayed
2. **Stronger growth of W**
   Lower growth of payroll tax rate
3. **Stronger growth of C**
- **Stronger wage growth => stronger labor supply growth + indexation**

1 and 3 intended reform effects
2 a well-known equilibrium effect
2+3 neutralizes 1!

Significance of wage growth

- Wage growth is the main source to growth in tax bases, government consumption and public pensions/transfers
- Norway: Petroleum wealth => Wage dependent expenditures exceed wage dependent revenues
  - Wage growth => higer tax burden
- New pension system:
  - Continued **wage** indexation of entitlements
  - Less generous indexation of benefits in payment is only significant for the time profile of total pension benefit
- **Wage formation: PW x A = W(1+t)** => lower growth of payroll tax rates strenghtens wage growth => modifies the scope for tax cut
- **Wage growth** depends on how the welfare state is financed.
  - Budget neutral fiscal instruments
  - Indextion to pre- or after-tax wage rates, taxation of benefits
  - Payroll tax rate is not bizzare: Most pension premiums are paid by employer as a share of the employee's wage

Conclusions I: Fiscal sustainability

1. Pension reform gives huge "level improvement"
   - ◆ The payroll tax rate can be 10 percentage points lower in 2050 than in a no-reform scenario.
   - ◆ Large expansion of tax bases
2. Growth imbalance problem after 2020 only marginally solved
   - – Annual growth in payroll tax down from 0.42 til 0.29 %points
   - – Growth rate of public expenditures not much reduced
   - – 0.08 %p stronger growth in tax base
   - – Other reforms necessary to remove the growth in the necessary tax burden
3. "No" effect on the growth rate of pension expenditures after 2020!
   - – Every year, increase in average benefit cancels the effect of fewer pensioners
   - – Pension expenditures still grow 0.90 %points stronger than the tax base per year, even after reform
   - – Robust results: Weak effect of refrom on growth rates is not sensitive to variations in life expectancy and different assumptions of labour supply responses

Conclusions II: Employment and Distribution

1. **Employment 13 % higher in 2050 than in no-reform scenario.**

    - Very large macro-effects compared to other reforms.

2. **Some increase in inequality among old-age pensioners.**

    - GINI-c. up by nearly 0.04.

    - Inequality between high benefits magnified

    - Wider gap between men and women.

Neglecting equilibrium and behavioural effects would render highly misleading results

    - Expands and accelerates growth in tax bases

    - Accelerates growth in pension expenditures