# Working Group for GA

June 18, 2010

Research Topics discussed

- Time Series of GA (Hungary)
  - Political business cycles
  - Effects of policy revision on fiscal sustainability
- Retrospective Accounts vs. Forward-looking (Hungary)
  - May be useful for the analysis of generational equity
    - Any generations that we need to put any special considerations?

Time series of generational imbalance, overall tax-transfer system, 1992-2001, $
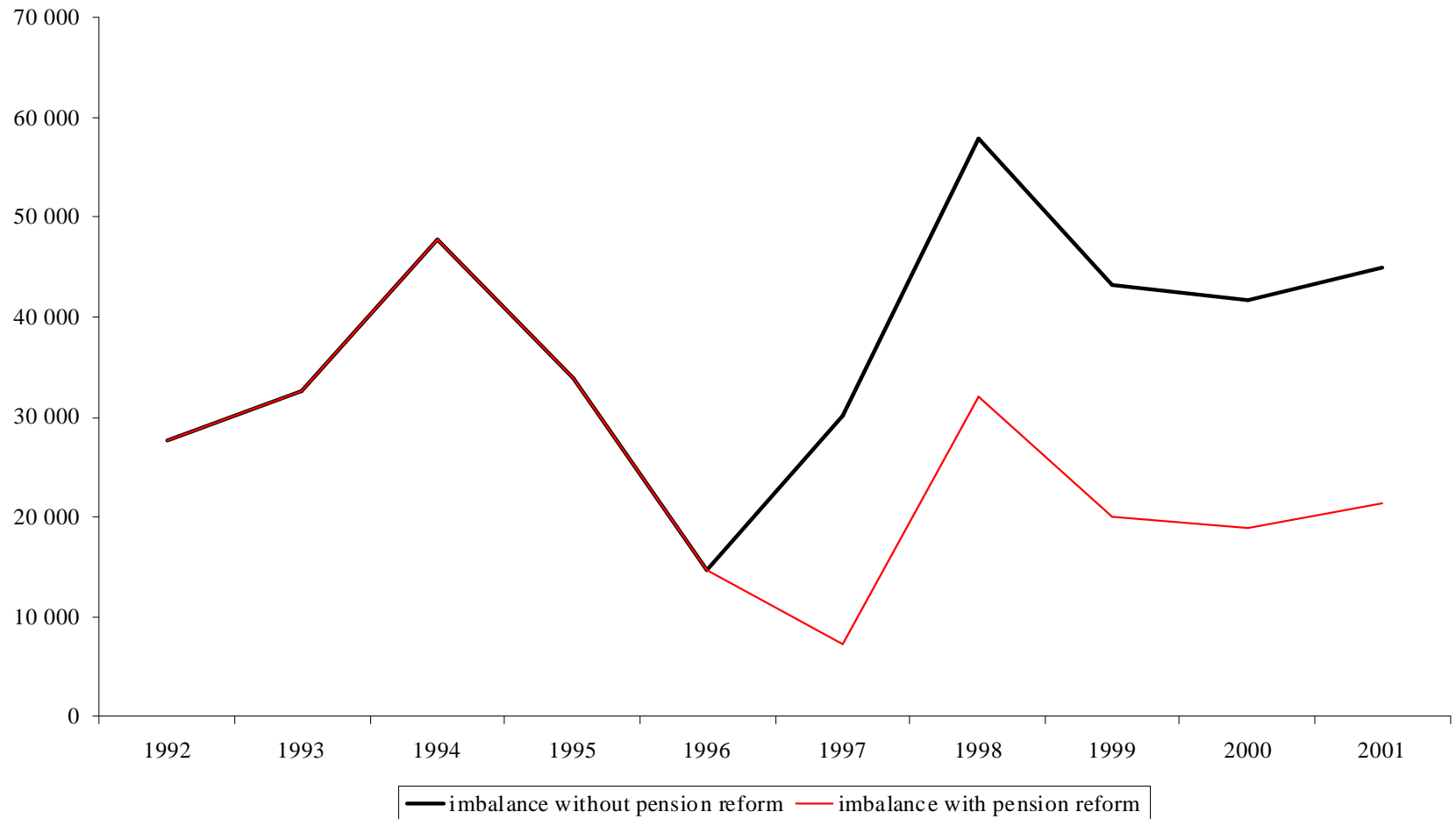
Retrospective accounts
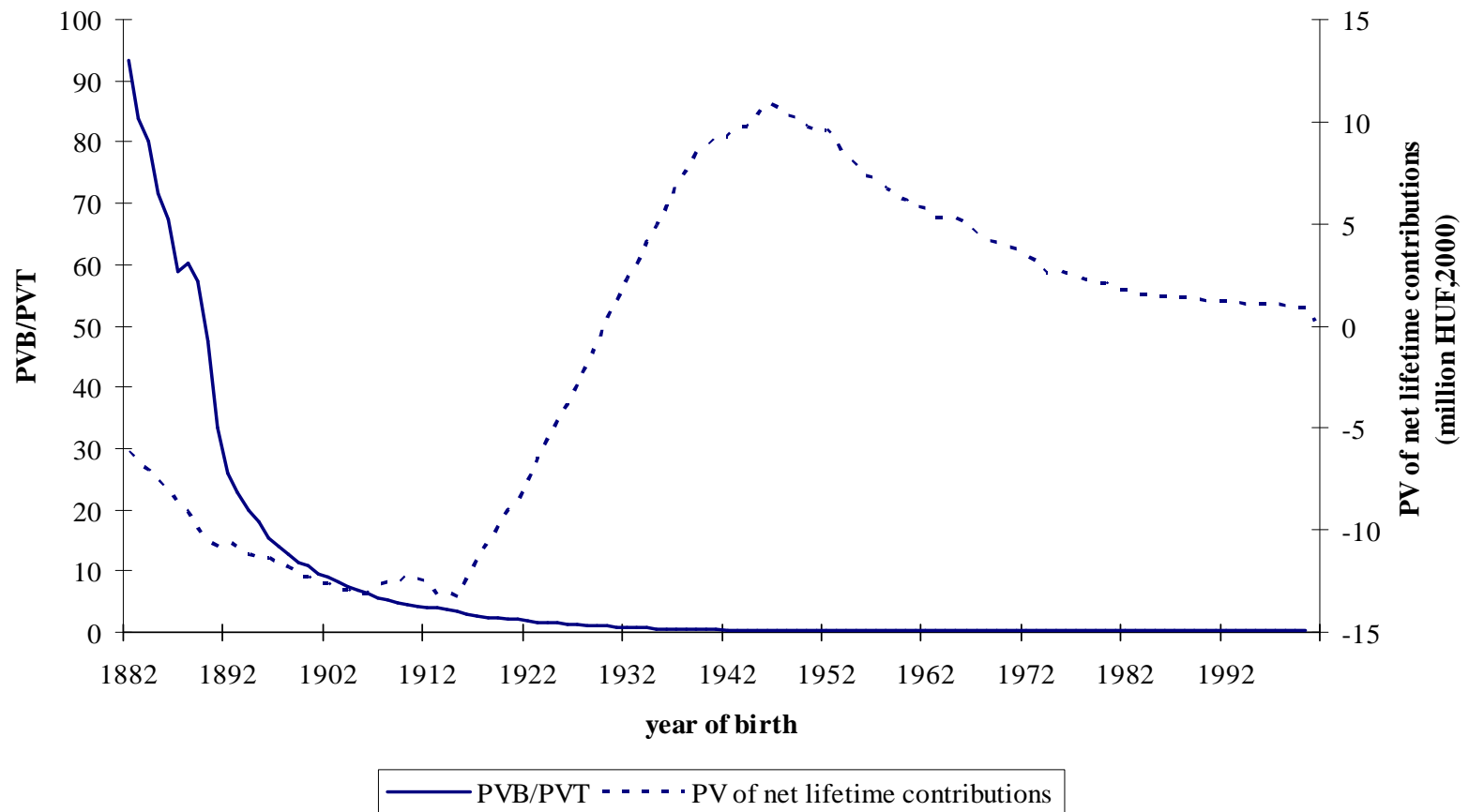
Cyclically Neutral GA

- Incorporating Cyclically Adjusted balances into forward-looking budget projections
  - Separation by reasons:
    - Pure policy effects
    - Demographic effects
    - Debt Effects
    - Business cycle

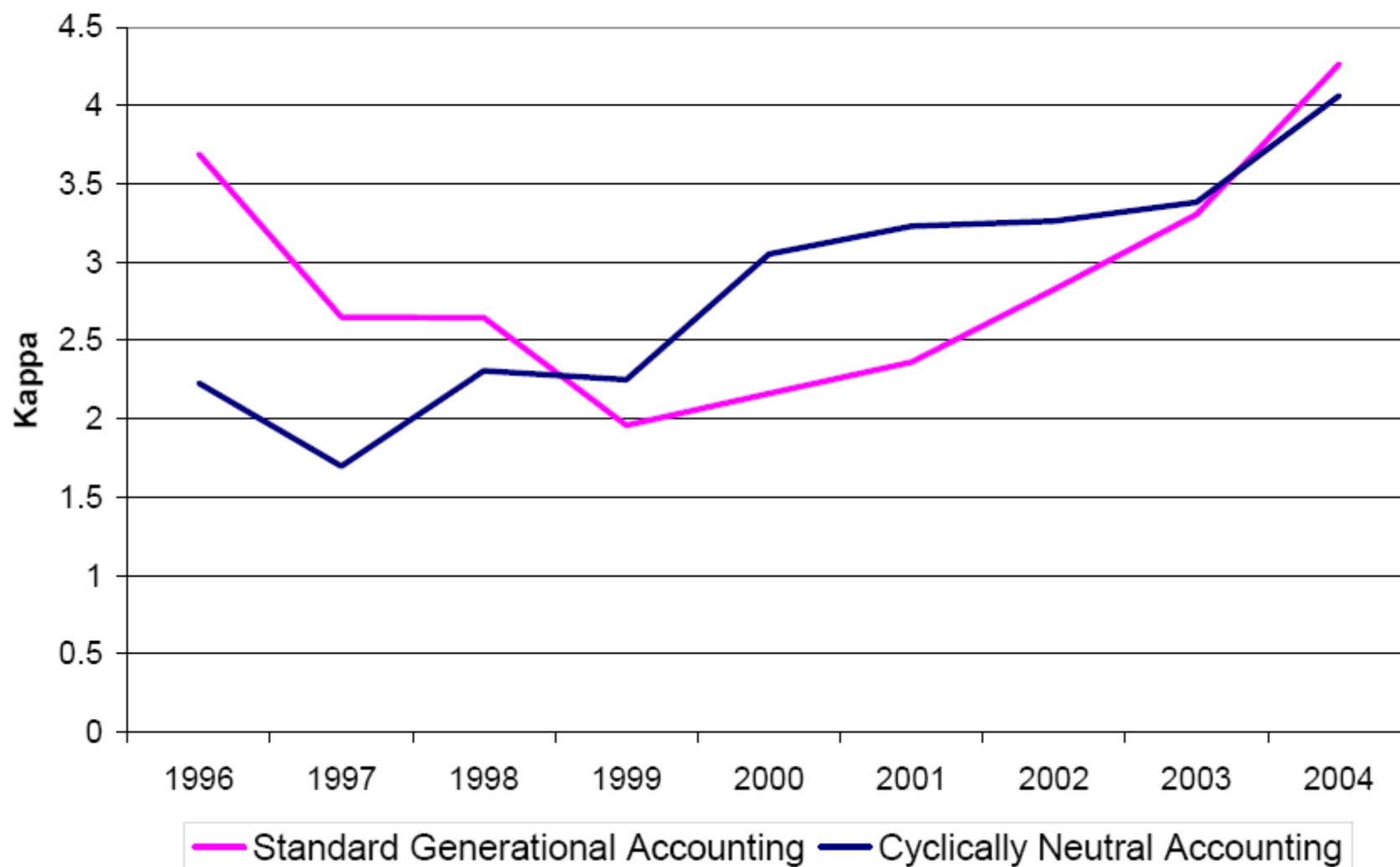*Figure 3. Standard vs. cyclically neutral Generational Accounting*

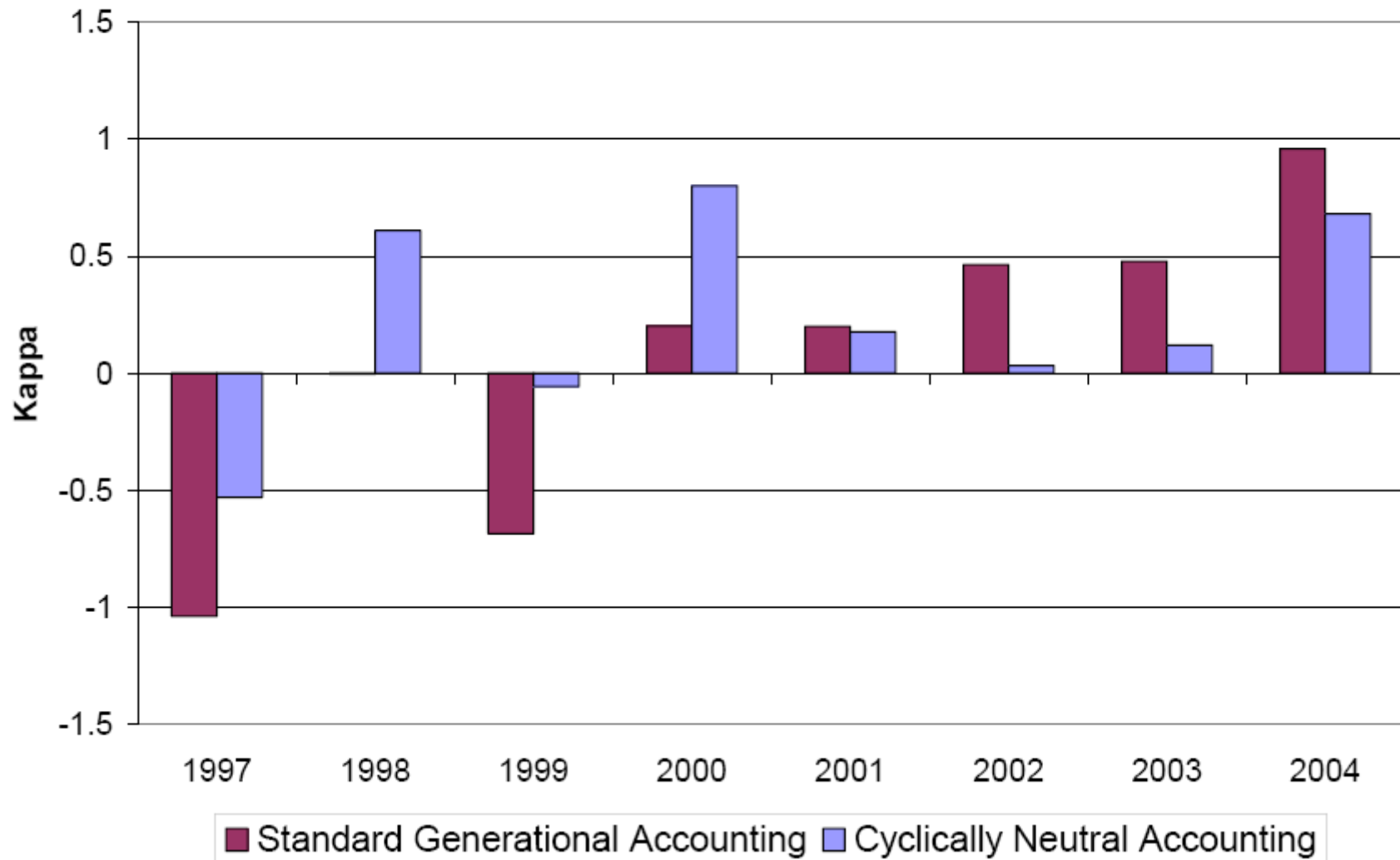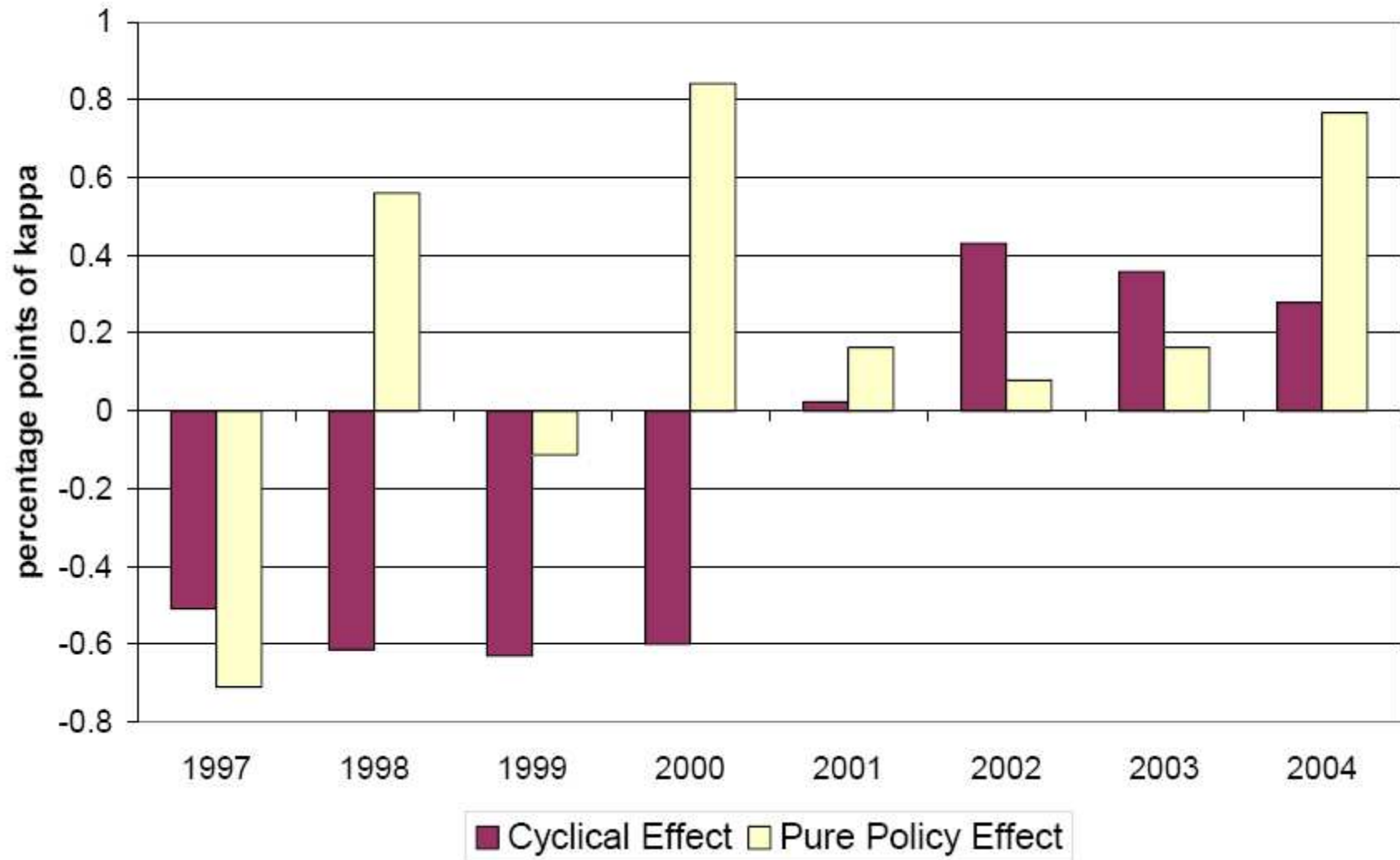**Figure 4. Standard vs. cyclically neutral Generational Accounting (Differences)**

Figure 5. Decomposition of Changes in Fiscal Sustainability Indicator

Crowding-Out Issues

- Related with Full GA (FGA), which was talked by Prof. Ron LEE.
    - May need to reflect the crowding-out of private transfers due to public transfers
- Estimation results can be used for the assessment of the effects on tax revenue
- An Example was discussed.
    - Crowding-out of (private) non-pension wealth due to the public pension wealth accumulation in Korea

Table. Effects of Pension Wealth on Nonpension Wealth

		OLS		Median Regression	
		Unadjusted Net pension wealth	Adjusted Net Pension Wealth	Unadjusted Net pension wealth	Adjusted Net Pension Wealth
Benchmark Case (4798) [4]		-0.133*[2] (0.046)[1]	-0.184* (0.073)	-0.147* (0.027)	-0.220* (0.045)
(1)	Dependent Var. : Net financial asset	-0.024 (0.022)	-0.025 (0.035)	-0.030* (0.015)	-0.044* (0.023)
(2)	age≥60 (584)	-0.091* (0.034)	-0.096* (0.049)	-0.050* (0.019)	-0.036** (0.028)
	50≤ age＜60 (1763)	-0.042 (0.076)	-0.060 (0.096)	0.122* (0.045)	0.158* (0.058)
	40≤ age＜50 (3170)	-0.094 (0.058)	-0.152**[3] (0.087)	-0.131* (0.023)	-0.206* (0.038)
	30≤ age＜40 (3004)	-0.270* (0.057)	-0.537* (0.123)	-0.164* (0.037)	-0.345* (.077)
(3)	Non-capital income ≥20million won (2334)	-0.241* (0.065)	-0.354* (0.105)	-0.252* (0.057)	-0.406* (0.086)
	Non-capital income <20million won (2464)	0.060 (0.073)	0.087 (0.109)	0.016 (0.036)	0.003 (0.056)
(4)	Household human capital ≥400million won (2158)	-0.242* (0.067)	-0.357* (0.110)	-0.239* (0.044)	-0.428* (0.072)
	Household human capital <400million won (2640)	0.005 (0.072)	-0.015 (0.109)	-0.023 (0.039)	-0.090 (0.063)

Note: 1) represents standard error.
2) significant with confidence level of 95%
3) significant with confidence level of 90%
4) number of observations

Fiscal Burden of Financial Crisis

- Some part of the public fund provided for stabilization of financial market is not collectible.
  - The part will become government debt.
- Who (which generations) will bear the fiscal burden?
  - Korean Case that experienced financial crisis in 1997-1998.

Proportional Change in Tax Burden
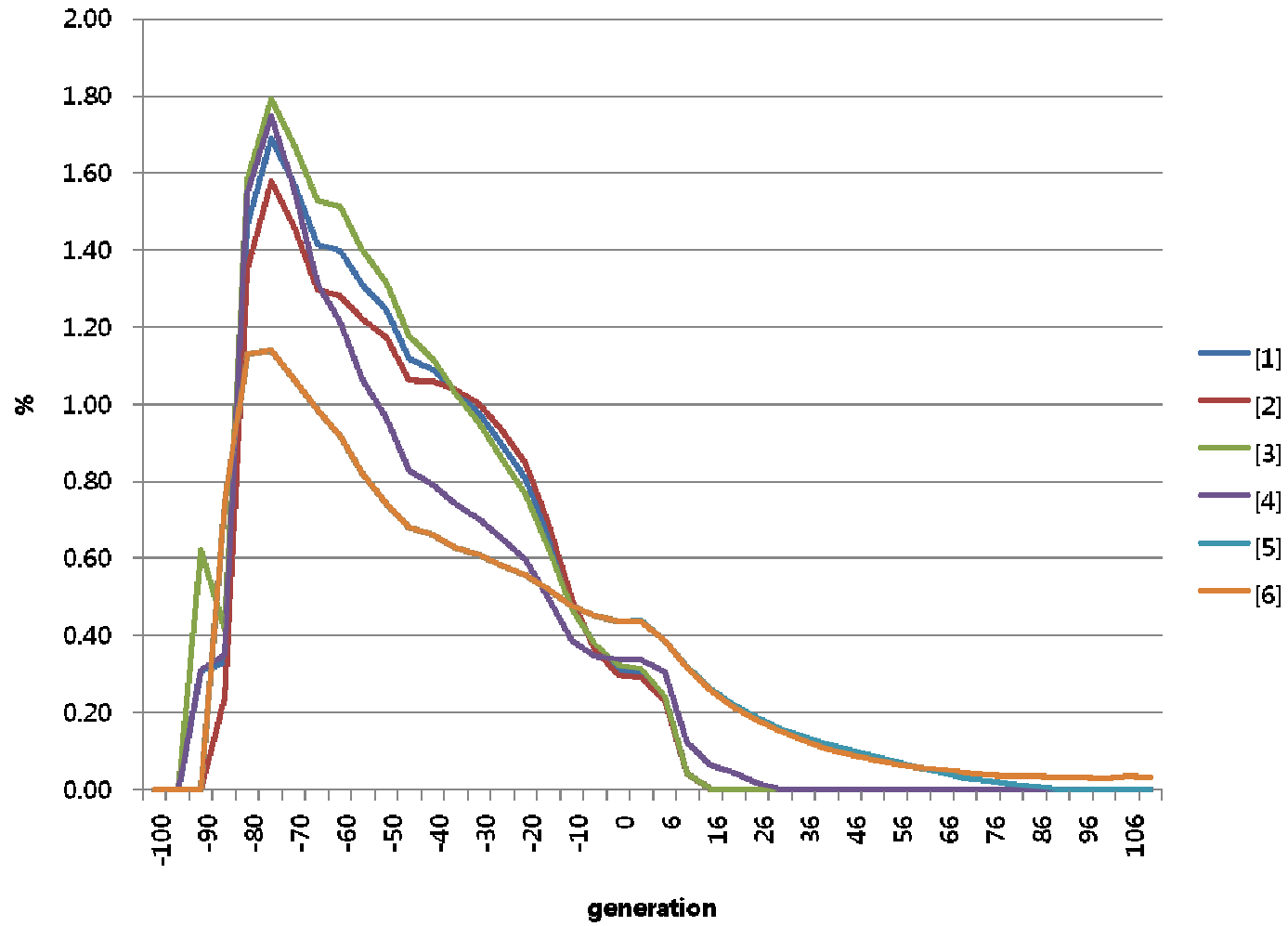
Macroeconomic Effects of Population Aging and Fiscal Imbalance

- Using life-cycle model, and altruistic-family model, project savings rate and other macroeconomic variables

- GA is used for the net government wealth (NGW) of each person.
  - NGW is negative value of GA

Optimal Tax Burden

- Not much researches on optimal size of government.
  - The optimal size depends on demand for public goods
  - Time path of optimal tax burden depends on the optimal tax rates across cohorts.
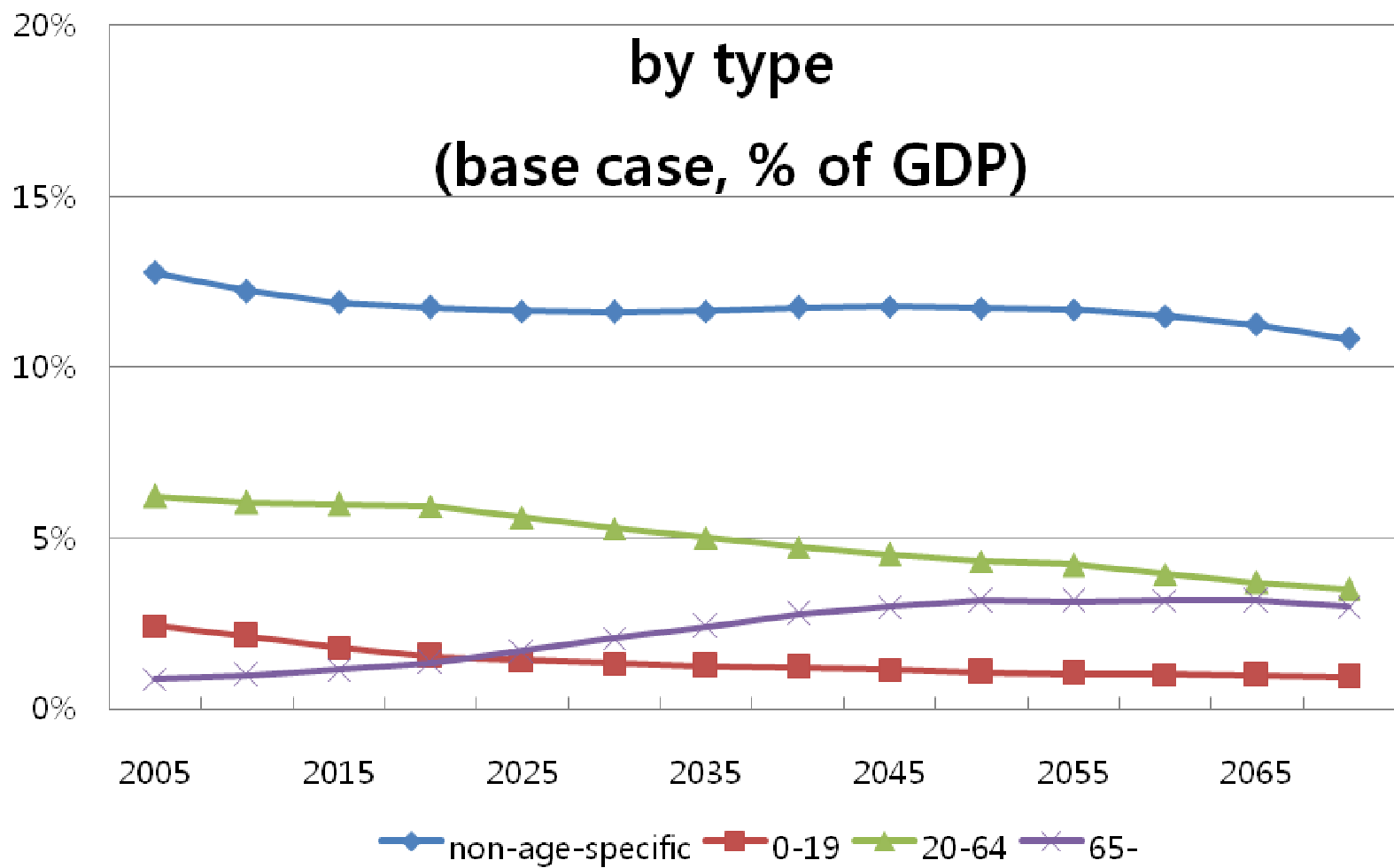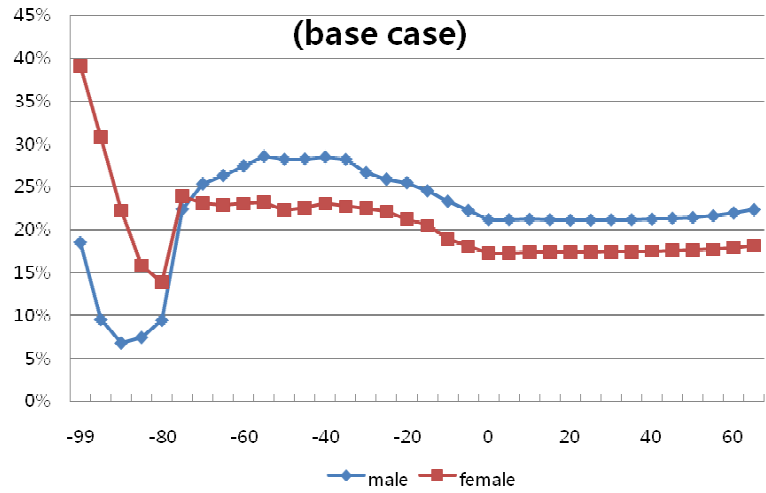
Figure 6. Optimal Publc Good Provision by type (base case, % of GDP)

Figure 9. Optimal Tax Rate by Cohort (base case)

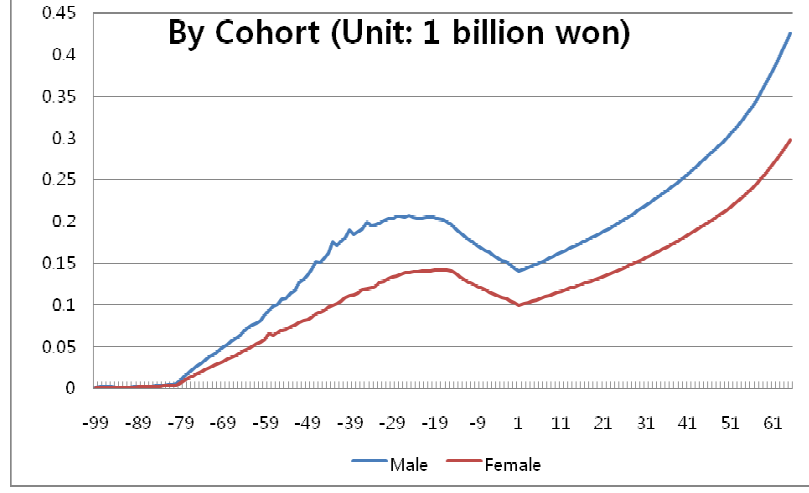Figure 10. Optimal Per Capita Tax Burden By Cohort (Unit: 1 billion won)

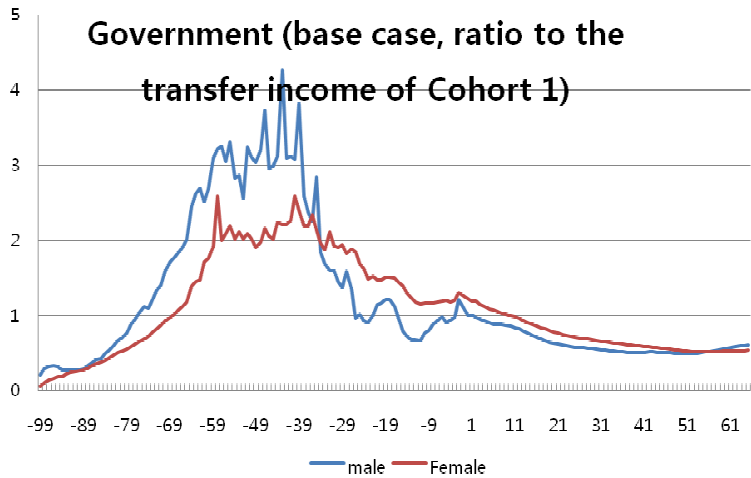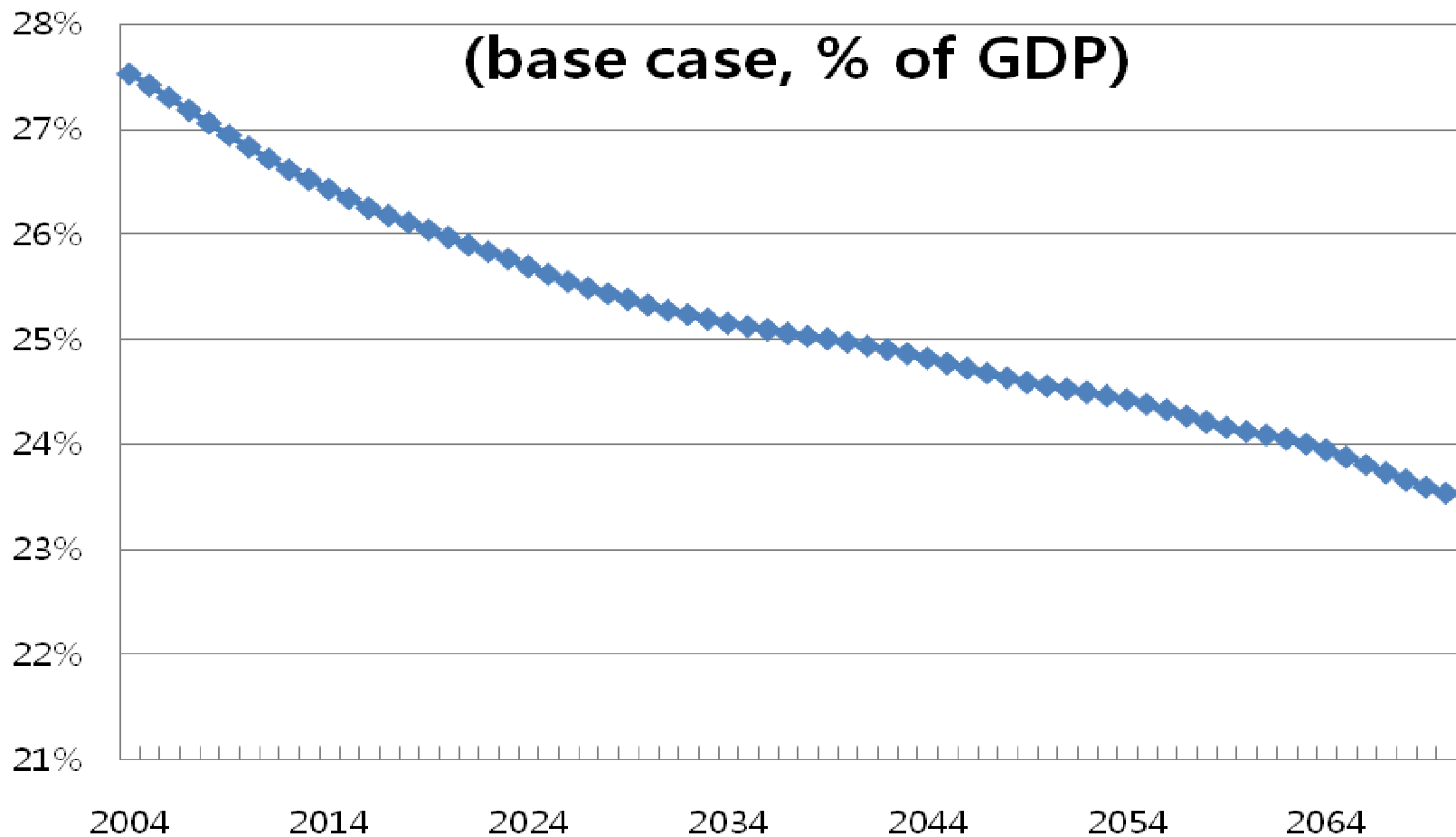

Figure 11. Transfer Income from Government (base case, ratio to the transfer income of Cohort 1)

Figure 13. Optimal Tax Burden Ratio (base case, % of GDP)

Other Topics

- Effects of Immigration
- The Scope of Government Wealth
  - Natural Resources
- Identification of reasons for fiscal imbalance and their quantitative evaluation (GA of Europe)
  - Pure policy effects
  - Demographic effects
  - Debt Effects
  - Business cycle

Components of the government's intertemporal budget imbalance

Table 2: Components of Slovenian government's intertemporal budget imbalance in the year 2001

Assumption	Intertemporal public liability (as % of GDP)	Required increase of taxes (%)	
		Future generations	Current and future generations
Base line results	204.6	105.8	22.8
If there would be no public debt	170.4	88.1	19.0
If there would be no demographic changes	49.1	16.3	4.8
If there would be no public debt and no demographic changes	14.9	5.0	1.5

Source: Own calculations, 2004.

GA book plan

- What we have done? Not much!
  - About 10 NTA member countries have GA's.
  - In the conference June 11-12, the account for Mexico was presented.
    - Ivan is planning to compute the effect of pension reform of Mexico
  - The account for India is being computed.
  - The accounts for 11 Latin American countries are going to be computed.
    - The account for Chile is being computed
- GA calculation worksheet was revised, and we had a hands-on session.
  - The manual for the worksheet is being revised.

How do we proceed book plan?

- How do we induce people to write country report?
  - Not many people are interested ???
  - Raise new issues and fund raising for a project
    - BC-Neutral GA
    - FGA
    - Identification of sources of difference in GA across countries
  - A group of people compute the GA's for all the NTA countries, and communicate with country team to check the accounts and correct for errors.
  - Writing a sample chapter and distributing
  - Revise GA calculation worksheet and write a manual