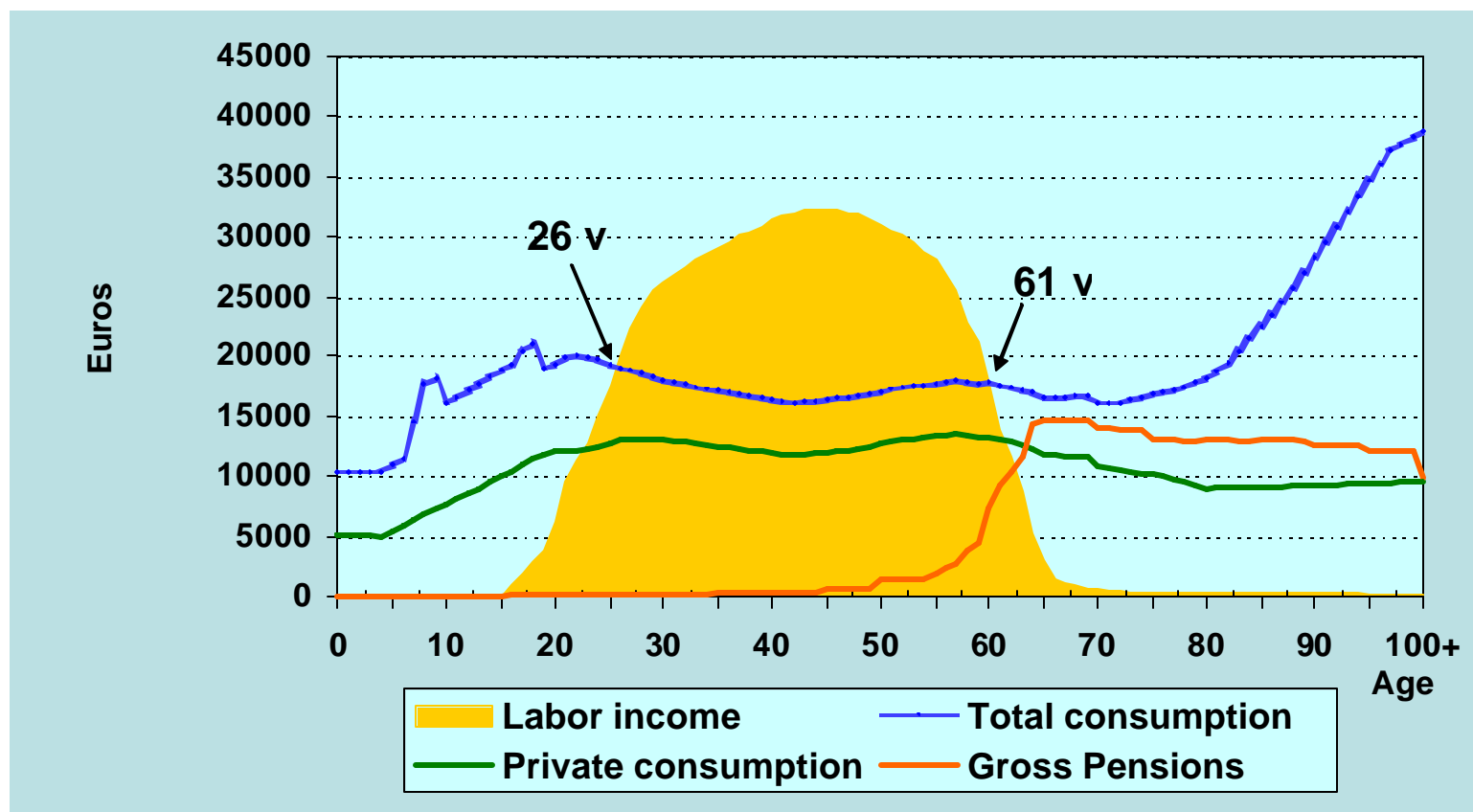


# Finnish NTA and Consumption Taxes by Age

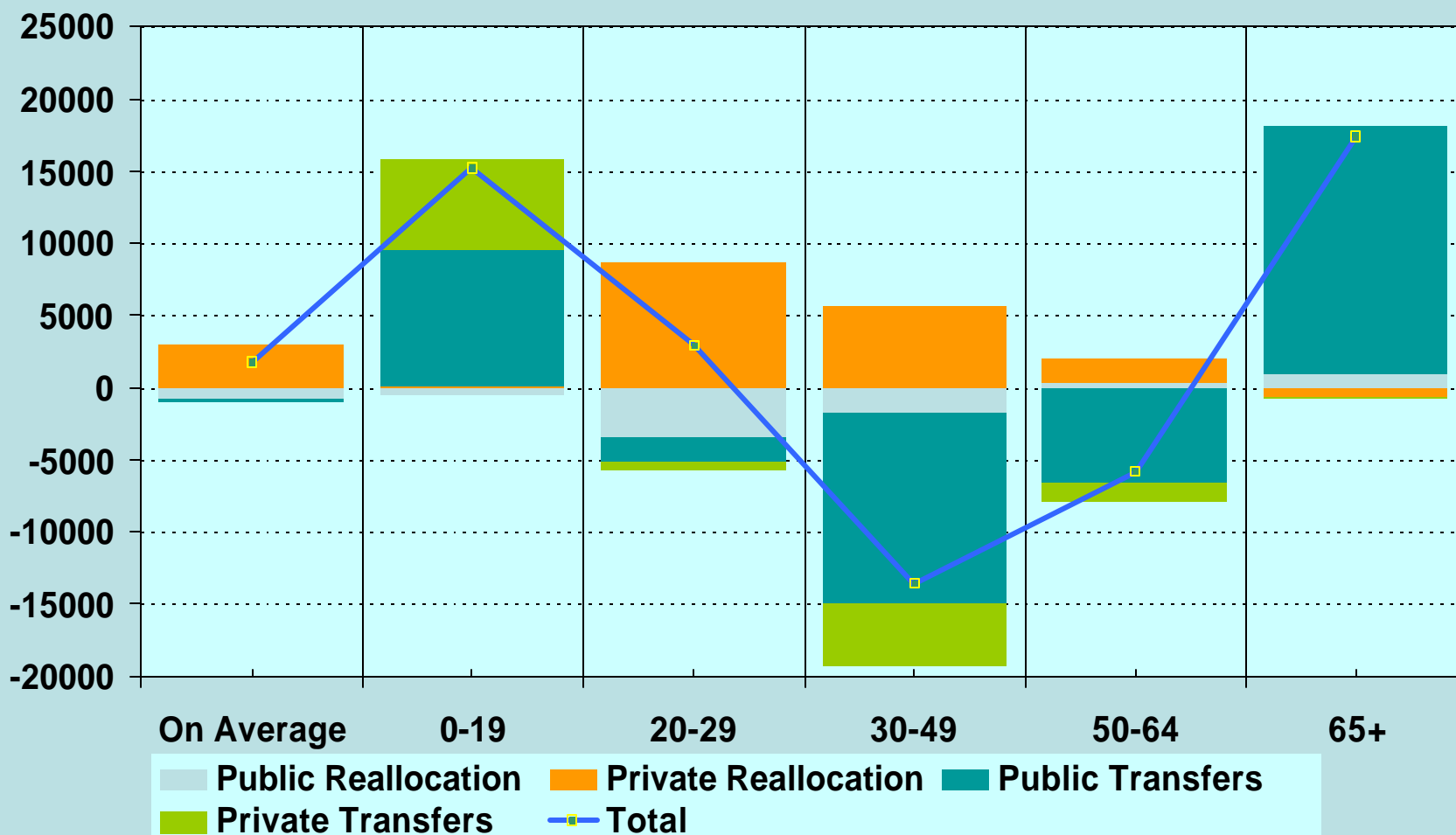
Risto Vaittinen, Finnish Centre for Pensions

Sixth Annual National Transfer Accounts Workshop, January 9-10. 2009,  
Berkeley, California

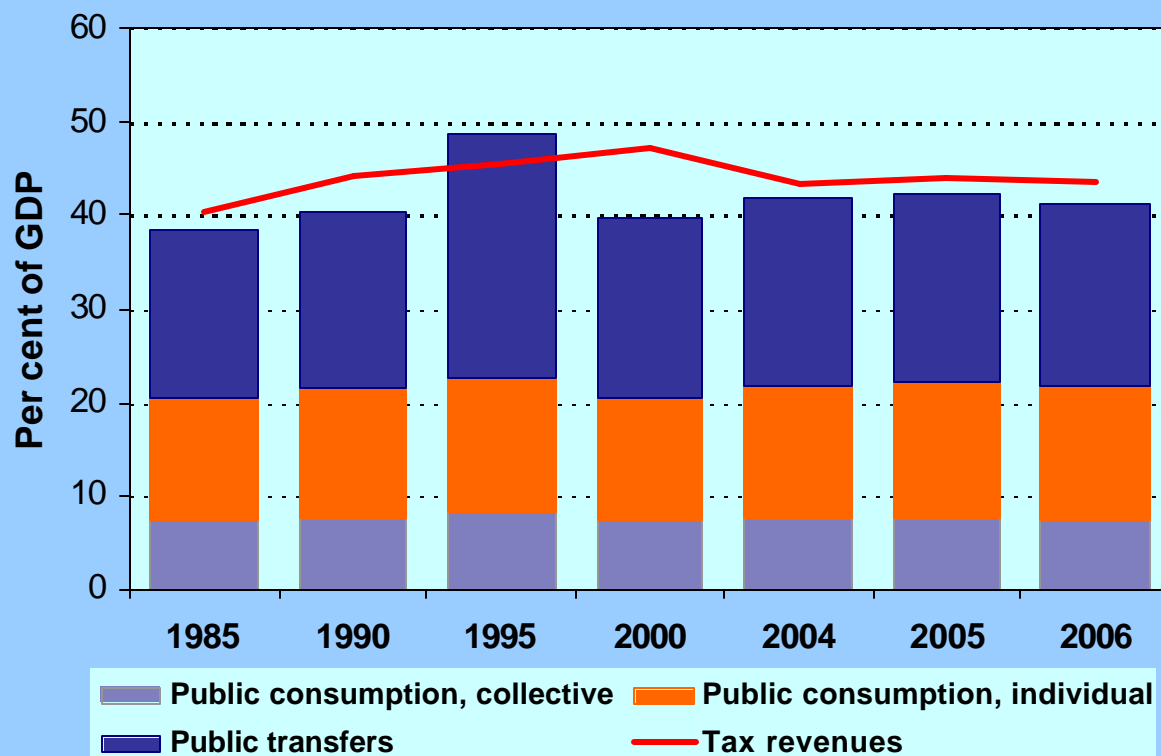
# Consumption and labour income per capita in Finland 2004



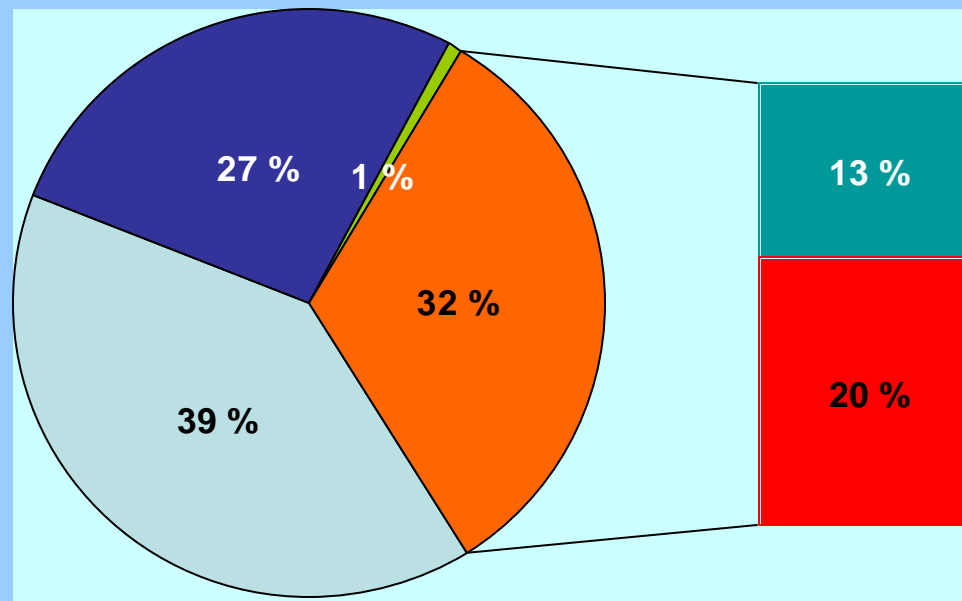
# Financing per capita life-cycle deficit in Finland 2004



# Public sector revenues and expenditures in Finland as a share of GDP in 2004



# Sources of Public Sector Income in Finland 2004



- Earnings and property income tax
- Social Security taxes
- Other taxes
- Vat
- Excise and other commodity taxes

Lähde: Tilastokeskus, Tilinpoisto

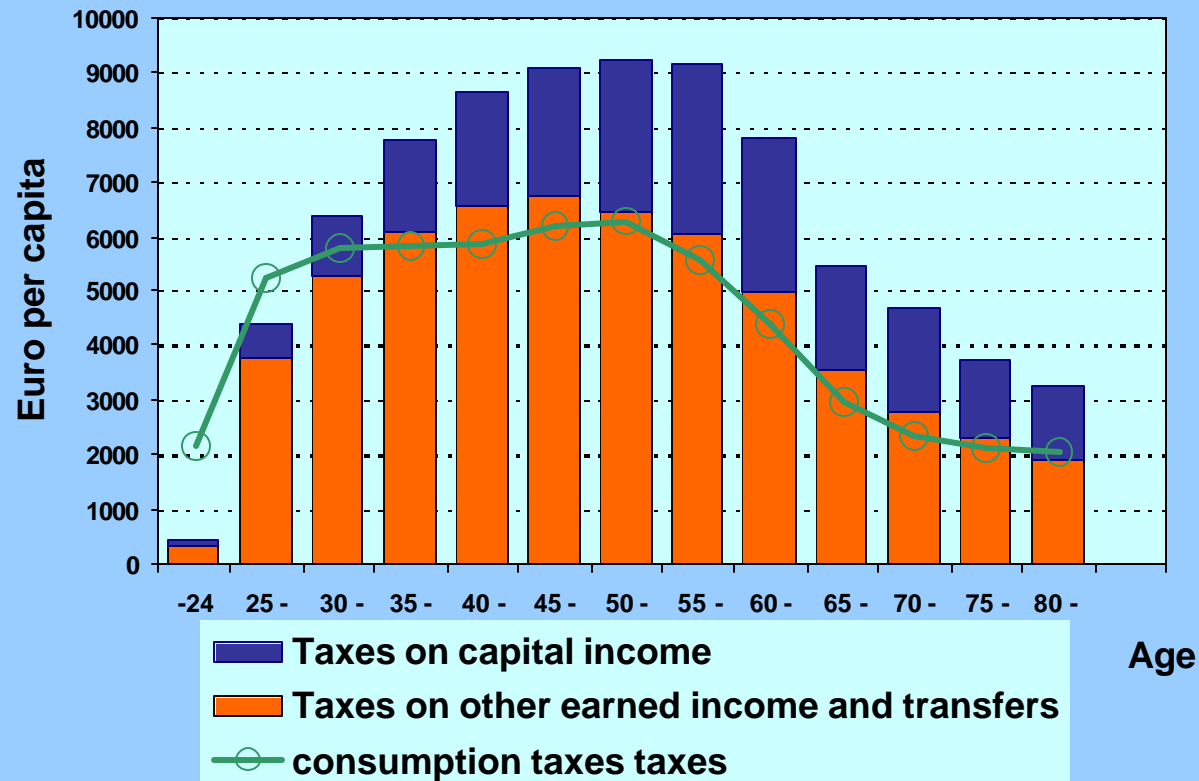
tilinpoisto

# Commodity taxes by Age

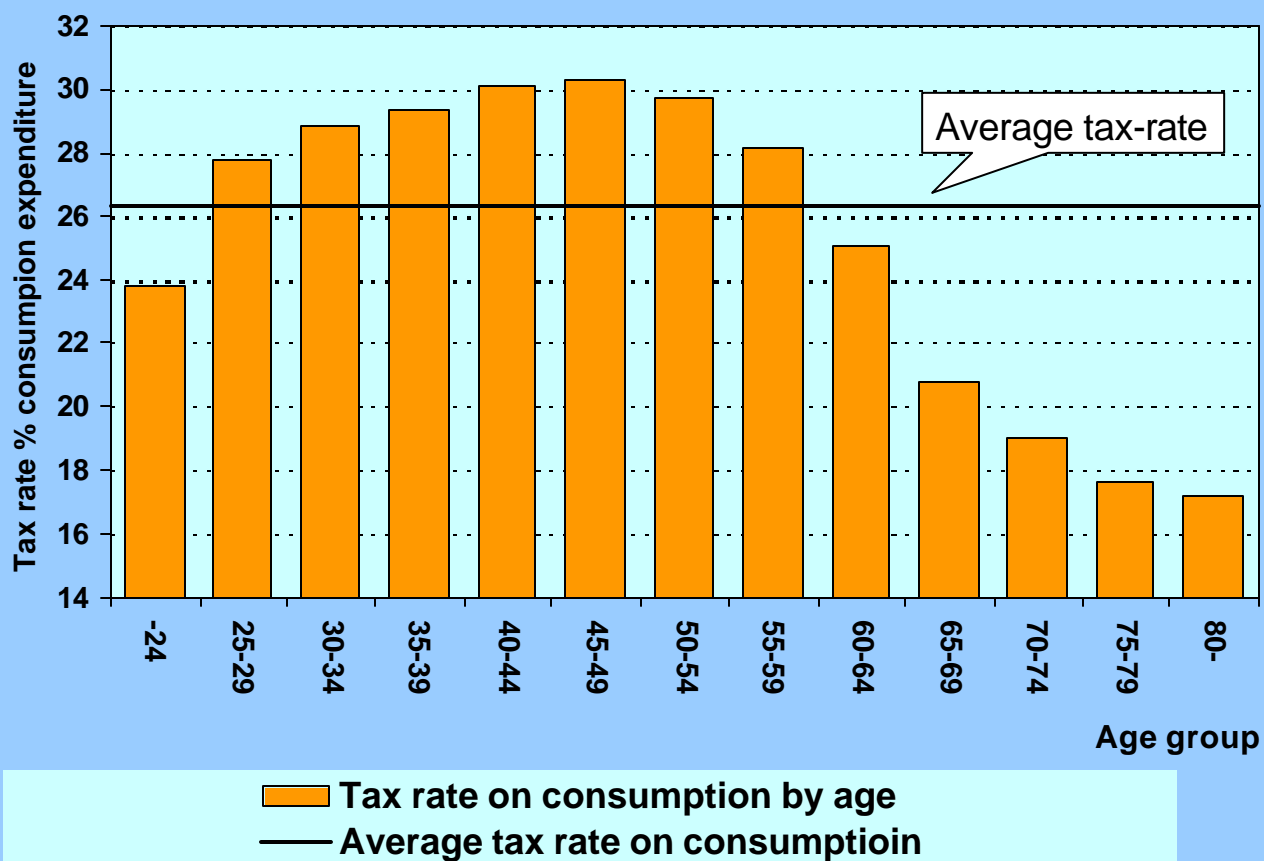
- VAT
  - **Tax on final consumption**
- Excise taxes
  - Sinn taxes to regulate addictive behavior: alcohol, tobacco
  - Environmental taxes: Fuels, electricity
  - Others: Vehicle tax among several other less significant tax items
- Taxes have direct and indirect component
- Direct impact of commodity taxation
  - Have immediate impact to the difference between user and producer prices in consumption commodities
- Indirect impact of commodity taxation
  - Taxes that has impact on the production costs of consumer commodities
  - Incidence to households estimated using input-output methods
  - About 80 % of the tax burden to households in commodity taxes

# Taxes burden per capita by age in Finland 2004

7



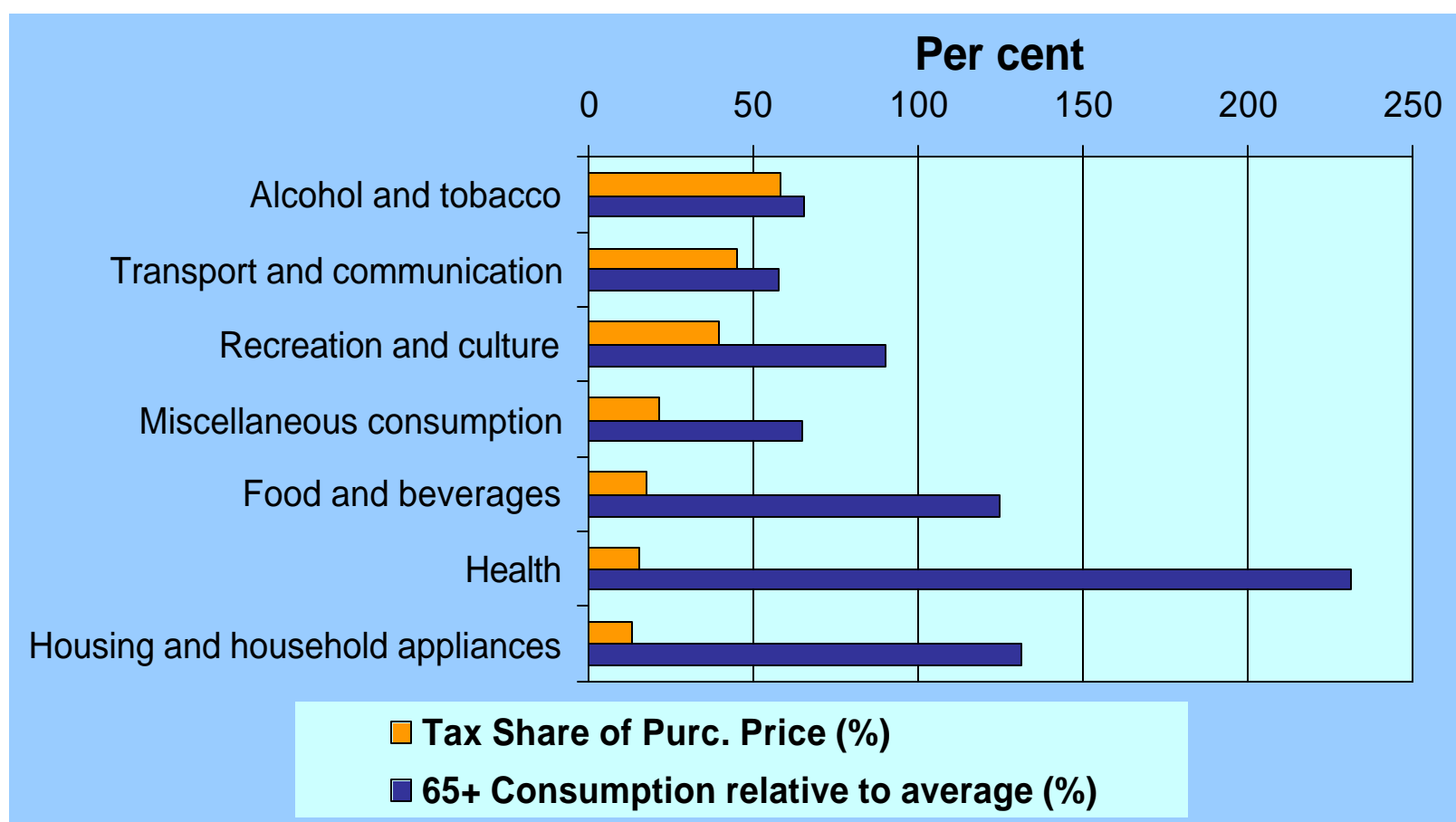
# Commodity Taxes Rates by Age in 2004



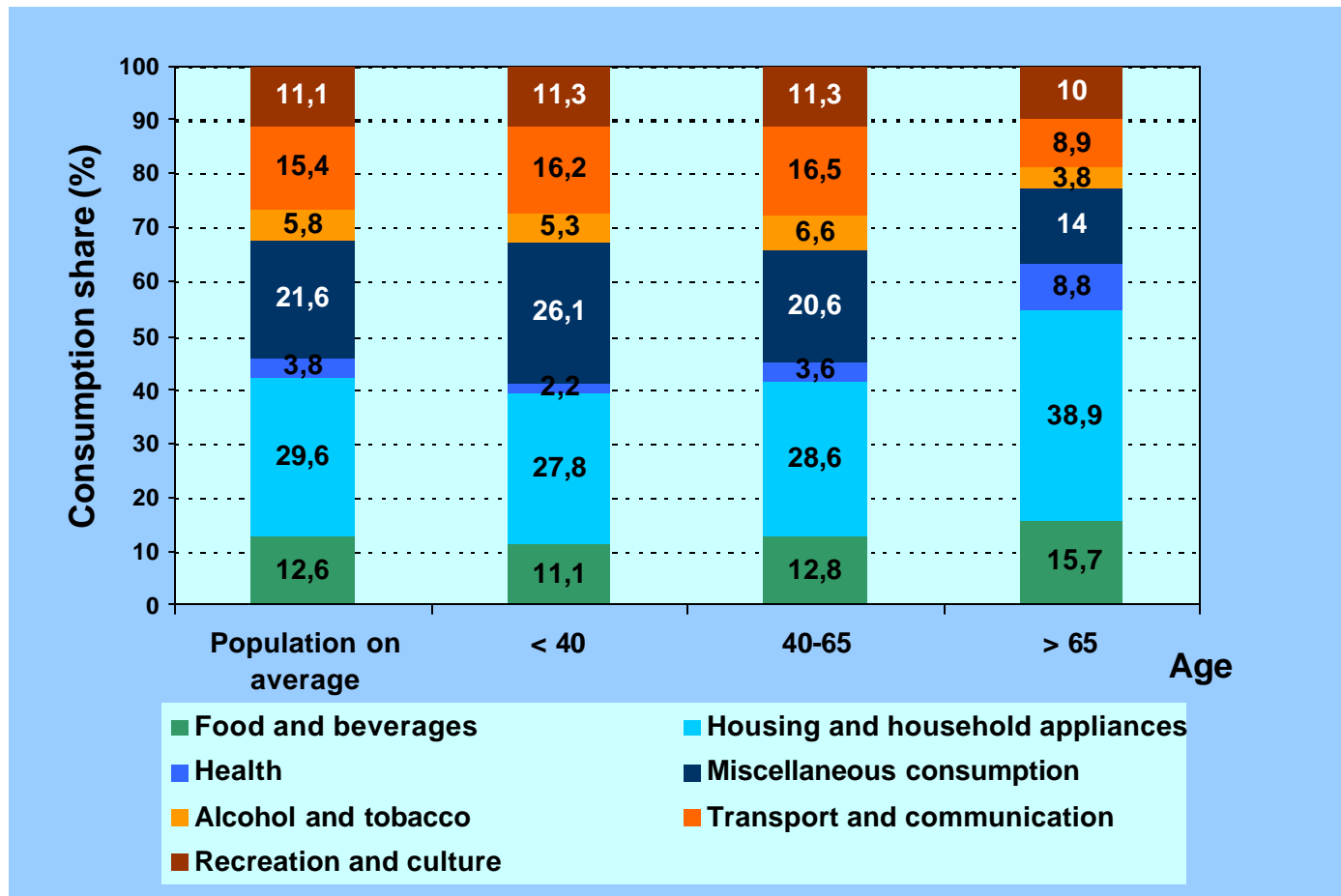
Sources: Household Expenditure Survey 2001-2002, Statistics Finland. Own Calculations



# Commodity Taxes and Elderly (65+) Relative Consumption



# Structure of consumption by Age



Sources: Household Expenditure Survey 2001-2002, Statistics Finland. Own Calculations

## Relationship between the different types of prices in SNA

- Purchasers' prices (excluding any deductible VAT)
  - Non-deductible VAT
  - Trade and transport margins
  - Taxes on products (excl. VAT)
  - + Subsidies on products
  - = Basic prices

# Supply and Use Data at Basic Prices

		Absorption Matrix					
		Producers	Household	Government	Investors	Export	Total Sales
Size		← I →	← 1 →	← 1 →	← 1 →	← 1 →	
Domestic Flows	↑ C ↓		USE(commodity,"dom",user)				
Imported Flows	↑ C ↓		USE(commodity,"imp",user)				
Taxes and subsidies on products	↑ T ↓						
Labour	↑ 1 ↓		C = Number of Commodities I = Number of Industries T = Number of taxes on subsidies on products TX = Number of taxes on subsidies on production				
Capital	↑ 1 ↓						
Production taxes and subsidies	↑ TX ↓						

# Classification Issue

- **CPC (central product classification)**
  - The CPC (central product classification) is a classification based on the physical characteristics of goods or on the nature of the services rendered
  - defined in such a way that it is normally produced by only one activity as defined in ISIC (=United Nations International Standard Industrial Classification)
  - The CPA is the legally binding European version of the CPC
- **COICOP (classification of individual consumption by purpose)**
  - is a classification used to identify the objectives of both individual consumption expenditure and actual individual consumption.

# CPA – COICOP Transformation

## COICOP

Final consumption expenditure by households at purchasers' prices Billions of HUF

COICOP	CLASSIFICATION OF INDIVIDUAL CONSUMPTION BY PURPOSE												Total
	Food and non-alcoholic beverages	Alcoholic beverages, tobacco and narcotics	Clothing and footwear	Housing, water, electricity, gas and other fuels	Furnishings, household equipment and maintenance	Health	Transport	Communication	Recreation and culture	Education	Restaurants and hotels	Miscellaneous goods and services	
PRODUCTS (CPA)	1	2	3	4	5	6	7	8	9	10	11	12	13
1 Products of agriculture	316	31		16					26				389
2 Products of industry	1 639	855	419	747	758	198	1 322	22	472			171	6 601
3 Construction work				37									37
4 Trade hotel, transport services			9		27		323	460	99		554	5	1 477
5 Private services			2	1 178	7		14		20			422	1 643
6 Other services		87	4	92	17	203	44		244	134		268	1 093
7 Total	1 955	973	434	2 070	809	402	1 702	482	861	134	554	865	11 241
8 CIF/FOB adjustments on exports													
9 Purchases abroad by residents													537
10 Domestic purch. by non-residents													- 771
11 Total													11 777

CPA