

Is there an optimal taxation level?

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INDREK SAAR

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Outline of presentation

- The meaning of „optimality“ in economics literature
- Optimal alcohol taxation literature
- Related debate in Estonia

„Optimality“ in economics

- In mainstream economics optimal policy is the one which is **fair** and **efficient**
- Optimal policy is usually derived through maximizing **social welfare function**
- Often **representative agent framework** is applied (ignoring fairness)
- **Main tax rules** concerning alcohol taxation:
 - (a) Pigouvian tax (1927) – higher tax on externality generating goods
 - (b) Ramsey tax (1920) – higher tax on less price responsive goods
 - (c) Corlett-Hague tax (1953) – higher tax on leisure complements

Alcohol taxation literature

- **Current knowledge:**

- (a) Negative consequences of drinking: premature mortality, injuries, illnesses, fiscal burden
- (b) Alcohol policies: taxation as one of the most effective measures

- **Research gaps:**

- (a) Scarcity of studies concerning optimal level of alcohol taxation
- (b) Mainly externality-correcting (i.e. Pigouvian), fiscal rationales (i.e. Ramsey, Corlett-Hague) usually not considered

Simulation results for Estonia

(for 2009, EUR per liter of pure alcohol)

Components of optimal alcohol tax	With labor tax adjustment			With public spending adjustment		
	Low	Mid	High	Low	Mid	High
Pigouvian	-1.2	-2.6	-11.3	-1.8	-3.7	-16.9
Revenue-recycling	2.6	5.0	14.3	4.4	9.1	30.7
Tax-interaction	0.0	9.0	32.9	0.0	11.1	46.5
Productivity	1.0	1.4	1.8	1.1	1.5	2.0
Foreign benefit	12.2	15.1	10.5	14.9	17.1	8.4
Total	14.5	27.9	48.2	18.5	35.2	70.7
Prevailing rate in 2009				9.36		
Prevailing rate in 2010				9.73		

Expected changes in prices and alcohol consumption

Increased prices



New price €1.0

Old price €0.8



New price €10.7

Old price €5.0

Reduced drinking



Prior drinking level:
9.6 liters of pure alcohol
per capita

New drinking level:
~7.0 liters of pure
alcohol per capita

Limitations in the literature

- **Unrealistic assumptions:** perfect competition, rational consumers, no illegal alcohol, no home production and purchases from abroad
- **Empirics:** elasticities, missing cost categories (i.e. intangibles), alcohol benefits

Recent trends and debates in Estonia

- **Taxation and Customs Board** has considerably increased its activity along the border in 2012
- **Government`s** decision in April 2012: to raise alcohol tax rates by 5% every year in 2013-2016
- **Doctors`** proposal during the strike in October 2012: raise the excise rates for light alcoholic beverages by 2,6 times in order to finance medical spending

Final words

- Optimal tax exists in theoretical terms, empirically extremely difficult to evaluate
- Empirically evaluated optimal level rather shows the direction of socially acceptable tax policy than specific target level
- Much work (both theoretical and empirical) needs to be done in order to be more convincing