Abstract

This thesis deals with how policies affect the behavior of economic agents, and it contains six self-contained chapters.

In Chapter 1 we analyze the causes of reduction of emitted sulfur originating from oil consumption in the manufacturing industry in Sweden during 1976-1995. Using a structural decomposition analysis, we find that a large part, 59 percent between 1989 and 1995, of the reduction can be attributed to the Swedish sulfur tax. Two thirds of the reduction during 1976-1995 is captured by substitution between oil and other energy sources, and one third of the reduction during 1976-1995 is explained by decreased energy intensity.

In Chapter 2 we analyze the phase-out of leaded gasoline consumption in the EU countries. The results indicate that countries, which have not yet phased out leaded gasoline, should do this by either banning leaded gasoline or use a larger tax differential complemented with information. The reason for this policy recommendation is that there appear to be a lack of reliable information of technical possibilities regarding which type of gasoline that can be used.

Chapter 3-5 use data from a questionnaire mailed to a sample of smokers in Sweden.

In Chapter 3 we analyze the determinants of the age of smoking initiation by a duration analysis. We find that men start smoking at a significantly younger age than women, and that smokers with smoking parents start at a younger age than smokers with non-smoking parents. Moreover, public polices do not show a significant effect on the age of smoking initiation. However, since the effects are difficult to measure, the insignificant parameters of public policies should be interpreted with caution. The significance of time trend might reflect long term effects of public policies.

In Chapter 4 we investigate the effectiveness of different smoking policies on the decision to quit smoking using a choice experiment. Our results indicate that restricted availability, increased cigarette prices, cessation subsidies and regulations at restaurants, bars and cafés increase the probability of smoking cessation. Furthermore, smokers who have received advice from their children to quit smoking are more likely to quit smoking.

In Chapter 5 the health risk of smoking is valued using the contingent valuation method. The respondents were asked to value newly developed cigarettes with no associated health risks. Using medical data on life shortening from smoking, the results indicate fairly reasonable values of a lost life-year, compared to existing estimates based on other methods. However, there are remaining methodological questions and we found little sensitivity to scope.

In Chapter 6 business owners' expected changes in turnover due to a general smoking ban in restaurants, bars and cafés in Sweden are analyzed. The results show that the dependence on smoking customers and the beliefs on how the whole restaurant sector would be affected are the most important variables for explaining expectations of changes in turnover. Moreover, owners are less likely to expect financial losses due to a general smoking ban if establishments do not currently allow smoking or have a non-smoking section.

Key words: Choice experiments, duration analysis, contingent valuation, decomposition analysis, cigarette consumption, age of smoking initiation, value of life year, smoking ban, sulfur, manufacturing industry, leaded gasoline, policy instruments, tax differential, sulfur tax

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