## Exam ECON4620, spring 2020

In the following you are asked to use theoretical reasoning and practical insights to discuss implemented and possible reforms in Norwegian tax policy. Each of the three problems counts as 33%.

## 1. Recent reduction in marginal tax rate on labor income

- 1.1 Figure 1 presents the reduction in the marginal tax rates from 2013 to 2019.
  - a. Focus on the rates of the top brackets and present a framework for how policy-makers set the key parameters determining optimal tax policy. Use key public economics concepts in the description, such as the elasticity of taxable income.
  - b. Use this framework to discuss why the policy-makers have decided to reduce tax rates at the top of the income distribution, on the assumption that they behave in accordance with the underlying theory.

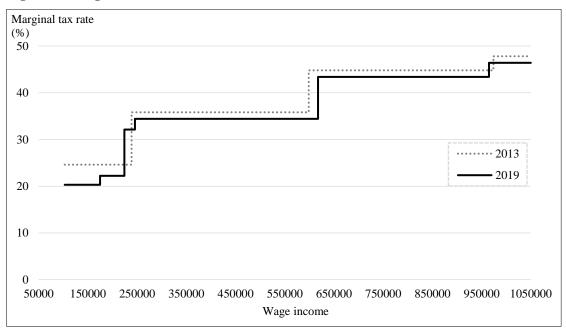
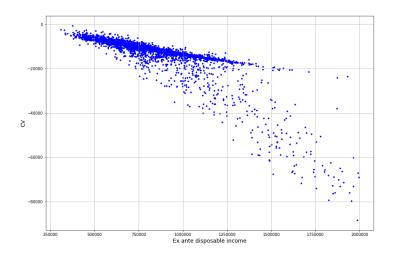


Figure 1. Marginal tax rates, 2013 and 2019

- 1.2 Figure 2 presents distributional effects of the tax reform in terms of compensating variation (*CV*).
  - a. Explain how this measure can be derived from theory.
  - b. Describe the distributional effects of the reform according to Figure 2. Relate findings to Figure 1 and discuss briefly what makes the pattern described in Figure 2 differ from a description in terms of income changes (instead of compensating variation).

Figure 2. Effects on CV of the Norwegian tax reform measured against disposable income



## 2. The abolishment of the inheritance tax

- 2.1 The Norwegian government decided to abolish the inheritance tax in 2014. Present the main arguments for letting intergenerational transfers go untaxed. How could the decision to abolish be influenced by "Double blessing" and the Carnegie effect?
- 2.2 Consider a model of optimal taxation of labor income combined with an inheritance tax. Then the inheritance tax is abolished. Focus on the parent generation and explain under which conditions the elimination of the inheritance tax may influence efficiency and redistribution.

## 3. Change in the VAT rate on food

Norwegian policy-makers consider increasing the VAT on food from 15% up to the level of the standard VAT rate, at 25%.

3.1 Use the evidence presented in Table 1 to discuss such a move.

Table 1. Effect on budget share of an additional hour worked

Bread and cereals	-0.024
Meat and fish	-0.060
Dairy products	-0.045
Tea and coffee	-0.008
Fruit and vegetables	-0.037
Other zero-rated foods	-0.020
Standard-rated foods	-0.027
Food eaten out	0.054
Beer	0.020
Wine and spirits	0.020
Tobacco	-0.026
Domestic fuels	-0.049
Household goods and services	0.064
Adult clothing	0.000
Childrens' clothing	-0.006
Petrol and diesel	0.046
Public transport	-0.006
Leisure goods	0.019
Books and newspapers	-0.001
Leisure services	0.086

3.2 Figure 3 shows how a lower VAT is distributed according to disposable income (income minus tax) and expenditures, respectively.

- a. Explain how one may proceed (in practice) in order to produce a description as in Figure 3.
- b. Describe what the figure says about the distributional effects of a lower VAT on food.
- c. Do the patterns described in Figure 3 mean that a change to a standard VAT on food (25%) increases or decreases income inequality, as measured by a standard measure of inequality?

Figure 3. Distribution of reduced tax burden because of lower VAT on food

