Economics and Public Finance

ISEG - School of Economics and Management

Exam, 6 July 2017 - **Duration: 2h 30m**

1. **The exam has three groups. The points for each question are mentioned alongside.**

2. **The answers to the questions of each group have to be made in <u>different sheets</u>.**

3. **Only non-graphical calculators are allowed. It is not allowed the use of mobile phones or computers. Improper use will lead to cancellation of the exam.**

4. **It is not possible to use any reading material. During the exam no clarifications can be made.**

I

Answer the following questions:

1.

  a) Identify and explain succinctly two market failures. Provide an example of each.   [1.75]

  b) Characterize the setup of public finances in the context of the Imperfect State framework.

[1.75]

2. Consider the model of social indifference curves as the element for the economic analysis to describe the Rawslsian and the Utilitarian views about social welfare. Is it possible to have a change in the distribution of the utilities of two individuals that portrays simultaneously a situation of indifference for rawlsians and utilitarians? Justify and present a graphical illustration supporting your answer.   [1.50]

II

3. Answer the following questions:

a) Assess briefly the Personal Income Tax from an efficiency perspective.   [1.00]

b) Consider an individual that had in 2016 an income of EUR 30 000. There is a specific deduction to the taxable income of EUR 4 104. In addition, this single tax payer is entitled to the following tax deductibles: EUR 250 of general spending and EUR 150 of health spending. Using the next table, compute the amount of Persona Income Tax to be paid by this individual.   [1.25]

Taxable income (€)	A) Marginal rates (%)	B) Average rates at the top of each bracket (%)
Up to 7 091	14,5	14,50
> 7 091 up to 20 261	28,5	23,60
> 20 261 up to 40 522	37,0	30,30
> 40 522 up to 80 640	45,0	37,65
> 80 640 …………....................	48,0	-

c) The market equilibrium for good Y is given by: Q= 72 units and P= 16 monetary units (mu). The producers will start supporting a unitary tax of 2 mu. As a consequence, the traded quantity will decrease by 2 and the price will increase by 1,6 mu. Determine the economic incidence for the consumer and for the producer, as well as the excess burden of taxation. [Note: there is no need to make a graphical illustration]   [1.75]

4. **Answer the following questions:**

   a) On the basis of next table for the General Government in Portugal, for 2015, determine the degree of decentralization.
   [1.25]

   b) Verify if in 2015 the so-called Golden Rule of public finances was met by the General Government. [1.25]

   c) In 2015, the current spending with transfers of the Central Administration and of Social Security were 24.898 and 23.624 EUR millions respectively. Explain briefly what can justify such values. [1.00]

Public Accounts- *Millions of EUR*	Central Admin.	Regional & Local Gov.	Social Security	Public Admin.
CURRENT REVENUE	54.627,9	8.418,1	25.237,9	74.571,5
Direct taxes	22.093,8	1.078,6	170,4	23.342,8
Indirect taxes	18.219,9	3.112,2	0,0	21.332,1
Social security contributions	4.731,3	10,1	14.345,8	19.087,2
Other current revenues	9.582,9	4.217,2	10.721,7	10.809,4
(*of which: transfers from other subsectors*)	*1.855,6*	*2.713,3*	*9.143,5*	*0,0*
CONSOLIDATED CURRENT EXPENDITURES	46.994,5	7.061,6	22.496,1	76.552,2
CAPITAL REVENUES	1.929,7	1.509,7	6,7	2.780,2
(*of which: transfers from other subsectors*)	*7,9*	*656,0*	*2,0*	*0,0*
CAPITAL EXPENDITURES	4.372,3	2.132,7	44,9	5.883,9
Investments	2.987,5	1.770,4	35,7	4.793,6
Capital Transfers	1.227,4	318,4	9,2	889,0
(*of which: transfers to other subsectors*)	*630,0*	*36,0*	*0,0*	*0,0*
Other capital expenditures	157,4	43,9	0,0	201,3
TOTAL BALANCE	-6.609,1	682,6	842,0	-5.084,4
PRIMARY BALANCE	1.592,6	1.087,5	849,9	3.530,1

III

5.

a) Consider the rules to organize the State Budget. Choose two of them, describe them succinctly and mention, if applicable, eventual legal exceptions to their fulfilment. [1.50]

b) Characterize briefly the execution principles applied to the budgetary execution of government revenues and spending.

[1.50]

6. The following table presents information for the Stability Program of a given country in the period 2018-2021.

		2018	2019	2020	2021
1	Budget balance of Public Administrations (% of GDP)	-8,0	-6,0	-4,0	-3,0
2	Cyclical component of the budget balance (% of GDP)	-4,0	-3,0	-1,0	-1,0
3	Cyclically adjusted primary balance (% of GDP)	1,0	2,0	2,0	3,0
4	Cyclically adjusted balance (% of GDP)	?	?	?	?
5	Interest payments (% of GDP)	?	?	?	?
6	Effective spending of Public Administrations (% of GDP)	50,0	49,0	48,0	47,5
7	Government debt (% of GDP)	90,0	?	?	?
8	Real GDP growth rate (%)	-3,0	-2,0	1,0	1,5
9	Output gap (% of potential GDP)	-2,0	-1,0	0,0	1,0

a) Compute the missing values for lines 4 and 5 in the table, clarifying the calculation process. [1.50]

b) Compute the missing values for line 7 in the table, mentioning what hypothesis you used for the calculations. [1.50]

c) Considering the budget government constraint, and the stabilization of the debt ratio at the value of 2018, determine the GDP nominal growth rate consistent with that constraint. [1.50]