Public Finances in the Economic and Monetary Union (PFEMU)
ISEG - School of Economics and Management

Exam, 6 January 2015 - **Duration: 2h**

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1. **The exam has two groups. The points for each question are mentioned alongside.**
2. **ALL the questions in group ONE need to be answered.**
3. **Choose ONLY 2 questions from group TWO.**
4. **Only non-graphical calculators are allowed. It is not possible to use any reading material. During the exam no clarifications can be made. It is not allowed the use of mobile phones or computers. Improper use will lead to cancellation of the exam.**

I

1. Consider the government budget constraint $\Delta b = g - \rho - \lambda m + b(i-n)$ with: b – debt-to-GDP ratio; g – primary spending-to-GP ratio; ρ - government revenue-to-GDP ratio; m – money base-to-GDP ratio; λ – growth rate of money base; i – nominal interest rate; n – nominal growth rate.

a) Show analitically how the debt path is influenced by the intereste rate and by GDP's growth rate. [1.50]
b) Determine analytically the Maastricht link between the fiscal limits for the budget deficit and for the debt ratio. Explain the assumptions that you make for the calculations. [1.50]

2. Can we say that the Sargent and Wallace analysis is a general case of the Leeper-Sims-Woodford analysis? Justify your answer. [3.00]

3. Based on the data below compute (present also your calculations):

a) The change in the debt-to-GDP ratio in 2016 and in 2017. [1.00]

b) The interest rate-growth rate difference (snowball effect), as a % of GDP. [1.00]

c) How can we explain the change in the primary balance in 2016 and in 2017, is it spending or revenue based? Show the necessary calculations. [1.00]

	2014	2015	2016	2017
Nominal GDP (EUR billions)	460	480	500	520
Long-term interest rate (%)	3.78	4.0	4.0	3.75
Short-term interest rate (%)	3.00	3.00	2.80	2.60
Primary spending (EUR billions)	190	198	200	210
Interest payments (EUR billions)	16.16	16.93	17.43	18.57
Total revenue (EUR billions)	180	185	190	200
Government debt (EUR billions)	285	290	295	300
Debt ratio (% of GDP)	61.96	60.42	59.00	57.69

4. Explain, both in terms of methods and of examples, how public spending efficiency can be assessed [3.00]

II

Answer ONLY 2 of the following 3 questions:

5. Explain succinctly:

a) The characteristics of the so-called preventive and corrective arms of the Stability and Growth Pact. [2.00]

b) The relevance of rationed consumers for the outcome of expansionary fiscal consolidations. [2.00]

6. Explain succinctly:

a) The concept of the sustainability of public finances, notably in terms of theoretical underpinnings and of the empirical assessment. [2.00]

b) Explicit and implicit liabilities, contingent and non-contingent liabilities. [2.00]

7. In the 2009-2012 euro area sovereign debt crisis the behaviour of financial markets and rating agencies played a major role.

a) What are the main determinants of government bond spreads? [2.00]

b) What effects can the announcement of a fiscal consolidation have on a sovereign rating? [2.00]