

**Public Finances in the Economic and Monetary Union**  
ISEG - School of Economics and Management

Exam, 4 September 2014 - **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 following process for the price level  $p_t = \phi_0 + \phi_1 m_{t-1} + \phi_2 u_t$ . Money follows  $m_t = m_{t-1} + \mu$ , and money demand can be given by  $m_{t-1} + \mu = \gamma + \alpha E_t p_{t+1} + (1 - \alpha) p_t + u_t$ ; ( $u_t$  – white noise,  $E_t u_t = 0$ ). Determine the price level  $p_t$ , using the the method of indeterminate coefficients. How can you characterize the relation between prices and money on the basis of the obtained result? [3.00]

2. Explain the similarities and the differences between the Sargent and Wallace setup and the Leeper-Sims-Woodford analysis. [3.00]

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

a) The change in the debt-to-GDP ratio in 2014 and in 2015. [1.00]

b) The amount of each component contributing to the change in the debt-to-GDP ratio in 2015 (as a % of GDP). [1.00]

c) Is the change in the primary deficit in 2015 a revenue related development? [1.00]

	2012	2013	2014	2015
Nominal GDP (EUR billions)	1000.00	1100.00	1200.00	1220.00
Long-term interest rate (%)	3.78	4.31	4.37	3.98
Short-term interest rate (%)	3.08	4.28	4.63	1.22
Primary spending (EUR billions)	361.80	396.20	433.55	466.24
Interest payments (EUR billions)	16.16	16.93	17.43	18.57
Total revenue (EUR billions)	401.30	433.21	402.08	370.00
Government debt (EUR billions)	389.51	381.40	435.82	571.10
Debt ratio (% of GDP)	38.95	34.67	36.32	46.810

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.** Consider the data below for growth and public finances reported for country X's fiscal notification to the EC for the period 2015-2018.

	2015	2016	2017	2018
Government budget balance ratio (% of GDP)	-4.5	-4.0	3.5	3.5
Structural budget balance (% of GDP)	-4.0	-3.0	-1.0	-1.0
Government debt (% of GDP)	115.0	118.0	116.0	110.0
Real GDP growth (% change)	1.0	1.1	1.5	2.0

**a)** Assess country X's compliance with the deficit and debt limits. What can we say about the MTO? [1.50]

**b)** Which steps under the corrective arm of the Stability and Growth Pact should be undertaken regarding country X? [1.50]

**c)** How would the existence of fiscal rules help mitigating the deficit biases? [1.00]

**6.** Explain succinctly:

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

**b)** The hypothesis of non-Keynesian effects of fiscal policy, both via consumption and via investment. [2.00]

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

**a)** What are the main drivers behind the development of government bond spreads? [1.50]

**b)** How does the approach taken by ratings agencies differ from the factors driving government bond prices? [1.50]

**c)** What effects can the announcement of a fiscal consolidation have on a sovereign rating? [1.00]