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

Exam, 8 January 2016 - **Duration: 2h**

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 Sargent and Wallace (1981) unpleasant monetarist arithmetic.

    a) On the basis of equation (1), and mentioning the necessary assumptions, explain the link between the per capita stock of government debt and the inflation rate.   [1.50]

$$1 - \frac{P_{t-1}}{P_t}\frac{1}{1+n} = \left[\left(\frac{R_{t-1}-n}{1+n} \right) b_T^\theta + \frac{D_t}{N_t} \right] / h \qquad (1)$$

    b) Starting from equation (2) below, obtain equation (1).

$$b_T^\theta = \left(\frac{1+R_{t-1}}{1+n} \right) b_T^\theta + \frac{D_t}{N_t} - \frac{H_t - H_{t-1}}{N_t P_t} \qquad (2)$$

Note: $P_t = (1/h)\dfrac{H_t}{N_t}$; $N_t = (1+n)N_{t-1}$.   (notation as used in the class)   [1.50]

2. Based on the data for the Stability Program of country A:

    a) Compute the change in the debt ratio in 2017 and in 2018 (present the calculations). [1.50]
    b) Assess the macro and fiscal scenario notably from a fiscal sustainability perspective. [1.50]

Country A	2016	2017	2018	2019
Nominal GDP (EUR billions)	1000.0	1020.0	1050.0	1090.0
Long-term interest rate (%)	5.00	4.75	4.50	4.30
Short-term interest rate (%)	3.00	3.00	2.75	2.60
Primary spending (EUR billions)	397.5	400.0	410.0	407.5
Interest payments (EUR billions)	32.5	35.0	37.5	40.0
Total revenue (EUR billions)	385.0	390.0	410.0	415.0
Government debt (EUR billions)	600.0	592.5	585.0	584.0

3. In the context of expansionary fiscal consolidations:

    a) Explain the process through which expansionary fiscal consolidations can occur via private consumption and via private investment.   [1.50]
    b) The likelihood of an expansionary fiscal consolidation to occur increases with the share of of rationed consumers. Comment adequately.   [1.50]

4. Explain the relevance of the cyclically adjusted budget balance and of the automatic stabilisers to assess the fiscal stance, describing also how such measures can be computed.   [3.00]

II

Answer ONLY 2 of the following 3 questions:

5. Explain succinctly:

  a) The differences between the views of the Fiscal Theory of the Price Level and the orthodox view of the determination of the pricel level. [1.50]
  b) When can Ponzi games actually work in the context of the intetenporal government budget constraint. [1.00]
  c) The possible effects on sovereign ratings of a fiscal consolidation announcement. [1.50]

6. Within the framework of long-term determinants of fiscal policy:

  a) Categorize succinctly government liabilities. [1.00]

  b) Using that categorization how should the following examples be treated from the point of view of the government? Please give short explanations:

    1) The government guarantees a loan given by a bank to a municipality. [0.75]
    2) The government injects capital into a private bank. [0.75]
    3) A flood affects large parts of the country. [0.75]
    4) The government increases the forecast for future pension payments. [0.75]

7. In the context of the Stability and Growth Pact explain briefly:

  a) The main characteristics of the so-called preventive arm; [1.50]
  b) The main characteristics of the so-called corrective arm; [1.50]
  c) The relevance of the MTO. [1.00]