ECONOMICS 2

2014/2015

Problem Set

2.4-2.7

Problem 2.4.

The following table contains quarterly data on the Portuguese labor market in 2008, expressed in thousands of individuals.

Quarter	I	II	III	IV
Total Population	10 615.5	10 618.9	10 625.1	10 631.1
Women	5 477.6	5 479.4	5 482.6	5 485.9
Labor Force	5 618.0	5 638.0	5 629.5	5 613.9
Women	2 622.8	2 641.8	2 642.8	2 626.3
Employed Population	5 191.0	5 228.1	5 195.8	5 176.3
Women	2 388.4	2 419.7	2 402.8	2 391.9
Unemployed Population	427.0	409.9	433.7	437.6
Women	234.4	222.1	240.0	234.4

Source: INE (2012b)

$ta = 53\emptyset),$

$U = 7,6\%.$

$U^F = 8,8\%$

$U^M = 6,5\%$

a) Compute the average activity rate and the average unemployment rate for 2008.

b) Compute the average unemployment rate by gender and compare them.

Problem 2.5.

Classify each of the following individuals as employed (E), unemployed (U) or not in the labor force (N):

a) A factory worker laid off during a recession;   U
b) A computer technician on vacation;   E
c) A 14 year old grape picker during the grape harvest;   N   <15 yean
d) A successful businessman who left their companies to, without any success this time, write a book;   E or N
e) A stay at home dad who takes care of their small children;   N
f) A full-time university student;   N
g) A recent college graduate looking for her first job;   U
h) An auto mechanic without a job who has given up looking for work.   N

Problem 2.6.

Sebastian, who has finished his master, his older sister, his mother and his father intend to compare the starting salaries in the respective first job. For that, they built the table below, with the year they started their first job, the CPI of that year (multiplied by 100), and respective starting salary in euros. Which of the family members started her/his first job with the highest real salary?

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	Year	CPI	Starting salary
Sebastian	2013	117.4	1240.4
Father	1978	7.6	45.6
Mother	1983	20.3	125.0
Sister	2005	100.0	1083.5

1240.4/117.9 = 10.57
45.6/7.6 = 6.00
125/20.3 = 6.16
1083.5/100 = 10.84

↑
Sister has The Highest salary

Problem 2.7.

You are lending EUR 100 to your roommate for a year. You both agree that you should earn a 5 percente rate of return for the year.

a) Both expect an annual inflation rate of 10 percent. What is the nominal interest rate that you will require to your classmate?

b) Assume that was applied the nominal interest rate determined in the previous line a). However, the inflation rate was 12 percent. What is the real rate of interest earned by you?

a) r = real interest rate = $i - E(\pi)$

expected inflation

=> $i = r + E(\pi)$

= 5% + 10% = 15%

b) $r = 15\% - 12\% = 3\%$