**Assignment 2.1**

Imagine the following situation:

You work at the information department of an insurance company. In order to recommend a private pension insurance, the following text has been posted on your employer’s website:

A good pension is not a superfluous luxury. The government grants persons from the age of 67 years and three months merely an OAP benefit at a minimum level. Moreover, the purchasing power of the OAP benefit is more and more under threat.

In an email Ms Hoffer, a potential customer, presents the following questions to you: ‘On your company’s website I read with interest about the pension insurances which you offer. I should like to know more about the vulnerability of the OAP benefit. Are you causing an unnecessary panic or is the OAP benefit really vulnerable? Is it really necessary to take out insurance for a supplementary pension?’

a. Explain how the OAP benefits are financed in the Netherlands.

b. Explain in what way the ageing of the population poses a threat to OAP benefits in the future.

c. Explain what the reason is why the premiums for a pension provision financed in accordance with the capital funding system (a feature of the pension provision offered by your company) can be lower than if they are financed by the pay-as-you-go system.

Assignment 2.2

Table 2.1 shows the brackets and rates applicable to the calculation of income tax in a country.

|  |
| --- |
| table 2.1 |
| income brackets | tax rates |
| first bracket | €0 to €68,508 | 37.10% |
| second bracket | €68,508 or more | 49.50% |

a. What exactly is the difference between the gross income and the taxable income?

Abdel has a taxable annual income of €70,000. He is entitled to €2,200 in tax credits.

b. Calculate the amount of income tax which Abdel has to pay.

c. What percentage of his taxable income must Abdel pay in income tax?

Assignment 2.3

At present Italy has the highest national debt within the European Union after Greece. In 2018 that debt amounted to no less than €2,358 billion. This meant that Italy did not comply with an important agreement made within the European Union. In 2018 Italy’s national income was €1,785 billion.

a. Calculate Italy’s national debt ratio in 2018.

b. Which important agreement did Italy not comply with?

In 2018 the Italian government spent €312.3 billion and had a budget deficit of 2.1%.

c. Calculate the income of the Italian government in 2018.

**Computations**

Assignment 2.1

a. A description of the pay-as-you-go system: OAP benefits in a certain year are paid from the OAP premiums which the active workers / parties liable to pay premiums have paid in that year.

b. A description which shows that a larger number of old-age pensioners must receive benefits which must be financed from premiums raised by a proportionally ever smaller number of active workers.

c. In a capital funding system the premiums are paid every month and are invested. Normally speaking the yield of the investments raises the invested amount so that eventually it will take less money put in for the same pension benefit.

Assignment 2.2

a. Tax-deductible items (and additions).

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| b. |  | 1st bracket | 0.3710 × 68,508 = | € |  25,416 |  |
|  |  | 2nd bracket | 0.495 × (70,000 – 68,508) = | € |   738 | + |
|  |  |  | total | € |  26,154 |  |
|  |  |  | tax credits | € |  2,200 | – |
|  |  |  | to pay | € |  23,954 |  |

c. 23,954 / 70,000 × 100% = 34.2%.

Assignment 2.3

a. 2,358 / 1,785 × 100% = 132.1%.

b. The national debt must not exceed 60% of the national income.

c. (income – 312.3) / 1,785 × 100% = -2.1%

 (income – 312.3) / 1,785 = -0.021

 (income – 312.3) = 1,785 × -0.021 = -37.485

 Income = 312.3 – 37.485 = €274.815 billion.