# **International Economics**

### First Problem Set

# Spring 2024

The task is to analyze Spanish 2023Q4 Gross Domestic Product estimates.

**Grade:**  $\sim$ 10% of the final course grade

**Delivery:** Campus Virtual

**Delivery date:** March 3<sup>rd</sup>, 23:59 Central European Time (CET)

Requirements: Document

named: problemset\_your-NIU.pdf (i.e. problemset\_1512345.pdf)

#### **Expected result:**

A two-page (maximum) document.

Must include:

required tables,

an example for each type of calculation done to arrive at the values, and the requested analysis texts.

## Suggestions:

Don't worry about the grade. You will get  ${\sim}70\%$  just for delivering the basics.

You may not achieve all the objectives. Try to deliver as much as possible.

### **Analysis of Spanish GDP:**

The following table shows Spain's GDP from a supply point of view:

2022Q4	2023Q1	2023Q2	2023Q3	2023Q4
360,022	349,769	366,458	359,688	386,155
11,965	7,936	7,940	6,313	11,900
59,432	58,390	52,558	51,796	59,930
18,331	16,403	20,043	17,022	19,641
249,723	230,611	252,965	251,007	267,883
20,571	36,429	32,952	33,550	26,801
	360,022 11,965 59,432 18,331 249,723	360,022349,76911,9657,93659,43258,39018,33116,403249,723230,611	360,022349,769366,45811,9657,9367,94059,43258,39052,55818,33116,40320,043249,723230,611252,965	360,022 349,769 366,458 359,688   11,965 7,936 7,940 6,313   59,432 58,390 52,558 51,796   18,331 16,403 20,043 17,022   249,723 230,611 252,965 251,007

Source: Instituto Nacional de Estadística.

Notes: Values in millions of current Euros. Unadjusted data for seasonality and calendar.

- 1. Calculate base indices 100=2022Q4 of GDP and all its subcomponents.
- 2. Calculate changes between 2023Q4 and 2023Q3 for GDP and its subcomponents.
- 3. Comment on the problems of analyzing the calculated variations.

The following table shows seasonally adjusted volume indices of demand::

	2022Q4	2023Q1	2023Q2	2023Q3	2023Q4
GDP <sub>mp</sub>	112.0	112.6	113.2	113.6	114.3
Household Consumption (C)	107.4	107.7	108.3	109.6	109.9
Government Consumption (G)	115.4	115.6	117.1	118.8	120.4
Gross Capital Formation	115.9	116.0	116.3	115.1	115.3
Exports (X)	121.8	127.4	124.2	119.7	123.2
Imports (M)	118.8	124.0	121.2	117.7	120.8

Source: Instituto Nacional de Estadística.

Notes: Base indices 2015=100. Seasonally and calendar adjusted data.

- 4. Calculate changes between 2023Q4 and 2023Q3 for all concepts.
- 5. Comment on the changes. Link to previous changes and identify trends.
- 6. Explain the information needed to calculate which demand components contributed most to the observed expansion.