

International Economics

Non-graded Problem Set - Part 1

Spring 2024

Part of the following exercises on using indices and calculating changes will be covered in class.

GDP in Europe

Germany, the United Kingdom, France, Italy, and Spain are currently the 5 largest economies in Europe. The following table shows estimates of absolute GDP in current terms (billions of US dollars):

	2014	2015	2016	2017	2018	2019
Germany	3,889	3,358	3,470	3,691	3,977	3,888
Spain	1,371	1,196	1,233	1,313	1,421	1,393
France	2,856	2,439	2,473	2,595	2,791	2,729
Italy	2,162	1,837	1,877	1,962	2,092	2,011
United Kingdom	3,087	2,957	2,723	2,699	2,901	2,879

Source: World Bank. Notes: Values in billions of current US dollars.

Which economy **performed the best** between 2014 and 2019?

- (a) Germany
- (b) Spain
- (c) France
- (d) Italy

Which economy **performed the worst** between 2014 and 2019?

- (a) Germany
- (b) France
- (c) Italy
- (d) United Kingdom

How big was the UK economy in 2019 **relative to 2014**?

- (a) 87%
- (b) 89%
- (c) 93%
- (d) 97%

How big was Germany's economy in 2019 **relative to 2014**?

- (a) 97%
- (b) 98%
- (c) 99%
- (d) 100%

How big was Spain's economy in 2017 **relative to 2014**?

- (a) 94%
- (b) 96%
- (c) 99%
- (d) 102%

Which economy **performed the best** between 2014 and 2018?

- (a) Germany
- (b) Spain
- (c) France
- (d) Italy

Which economy **performed the worst** between 2018 and 2019?

- (a) Germany
- (b) France
- (c) Italy
- (d) United Kingdom

How big was Italy's economy in 2019 **relative to 2018**?

- (a) 94%
- (b) 96%
- (c) 99%
- (d) 102%

How big was France's economy in 2019 **relative to 2018**?

- (a) 96%
- (b) 97%
- (c) 98%
- (d) 102%

How much did Spain's economy grow in 2019 **compared to 2018**?

- (a) -2%
- (b) -1%
- (c) 0%
- (d) 2%

GDP in the world

The following table shows estimates of absolute GDP in current terms (billions of US dollars) for other relevant economies:

	2014	2015	2016	2017	2018	2019
Brazil	2.456	1.802	1.796	2.064	1.917	1.873
China	10.476	11.062	11.233	12.310	13.895	14.280
United States	17.551	18.206	18.695	19.480	20.527	21.373
India	2.039	2.104	2.295	2.651	2.703	2.832
Japan	4.897	4.445	5.004	4.931	5.038	5.123

Source: World Bank. Notes: Values in billions of current US dollars.

Which economy **performed the best** between 2014 and 2019?

- (a) China
- (b) United States
- (c) India
- (d) Japan

Which of the following economies **performed the worst** between 2014 and 2019?

- (a) China
- (b) United States
- (c) India
- (d) Japón

How big was China's economy in 2019 **relative to 2014**?

- (a) 132%
- (b) 136%
- (c) 139%
- (d) 143%

How big was India's economy in 2019 **relative to 2014**?

- (a) 132%
- (b) 136%
- (c) 139%
- (d) 143%

How big was Brazil's economy in 2017 **relative to 2014**?

- (a) 84%
- (b) 86%
- (c) 89%
- (d) 92%

Which economy **performed the best** between 2014 and 2018?

- (a) China
- (b) United States
- (c) India
- (d) Japan

Which economy **performed the worst** between 2018 and 2019?

- (a) Japan
- (b) United States
- (c) Brazil
- (d) China

How big was Japan's economy in 2019 **relative to 2018**?

- (a) 94%
- (b) 96%
- (c) 99%
- (d) 102%

How big was the US economy in 2019 **relative to 2018**?

- (a) 104%
- (b) 106%
- (c) 107%
- (d) 109%

How much did China's economy grow in 2019 **compared to 2018**?

- (a) 0%
- (b) 1%
- (c) 2%
- (d) 3%

How much did China's economy grow in 2018 **compared to 2017**?

- (a) 3%
- (b) 9%
- (c) 10%
- (d) 13%

How much did China's economy grow in 2017 **compared to 2016**?

- (a) 3%
- (b) 9%
- (c) 10%
- (d) 13%

Which economy was largest in 2019?

- (a) China
- (b) United States
- (c) India
- (d) Japan

Which economy was largest in 2014?

- (a) China
- (b) United States
- (c) India
- (d) All were equal

GDP in Spain

The following table shows quarterly estimates of absolute GDP. The data are presented in seasonally adjusted indices, based on 2015=100.

	Q1	Q2	Q3	Q4
2019	110,2	110,6	111,0	111,4
2020	105,4	86,8	101,4	101,6
2021	101,1	102,2	104,9	107,2
2022	107,4	108,7		

Source: Instituto Nacional de Estadística.

Notes: Seasonally and calendar adjusted data.

How big was Spain's economy in 2020Q2 compared to 2019Q1?

- (a) 96%
- (b) 87%
- (c) 79%
- (d) 68%

How big was Spain's economy in 2022Q2 compared to 2019Q1?

- (a) 136%
- (b) 109%
- (c) 102%
- (d) 99%

How much **did** Spain's economy fall in 2020Q2 compared to the previous quarter?

- (a) 18%
- (b) 15%
- (c) 12%
- (d) 19%

How much would Spain's economy have fallen in 2020 if the change in the remaining 2 quarters of the year were the same as 2020Q2?

- (a) 87%
- (b) 72%
- (c) 56%
- (d) 19%

How much did Spain's economy grow in 2020Q3 compared to the previous quarter?

- (a) 17%
- (b) 15%
- (c) 7%
- (d) 1%

How much did Spain's economy grow in 2020Q3 compared to the previous year?

- (a) -17%
- (b) -11%
- (c) -10%
- (d) -9%

How much growth did Spain's economy accumulate in the year towards 2020Q3?

- (a) 5%%
- (b) 1%
- (c) -4%
- (d) -9%

How much **did Spain's economy grow** in 2022Q2 compared to the previous quarter?

- (a) 0%
- (b) 1%
- (c) 2%
- (d) 3%

How much **growth has Spain's economy accumulated in the year** towards 2022Q2?

- (a) -1%
- (b) 0%
- (c) 1%
- (d) 2%

How much **should the economy grow compared to 2022Q2** to close the year at the same levels as 2019?

- (a) 1%
- (b) 2%
- (c) 3%
- (d) 4%

Consider that the **quarterly growths of 2022Q3 and 2022Q4** will be **equal**. How much should the economy grow in both to close the year at the same levels as 2019?

- (a) 0.9%
- (b) 1.1%
- (c) 1.3%
- (d) 1.7%

Olive Oil Exports

Brazil and Mexico are among the 10 most important destinations for Spanish Olive Oil exports. In 2021, 64,980,187 Euros were exported to Brazil, and 74,625,835 Euros to Mexico. This placed them slightly below Australia (6th place), where 75,916,351 Euros were placed the same year.

The following table shows the exports of Olive Oil from Spain to Brazil and Mexico during the first 4 months of 2022.

	2022-01	2022-02	2022-03	2022-04
Brazil	5,790,404	8,072,670	6,247,645	6,751,638
Mexico	4,709,998	6,496,573	2,464,711	5,528,165

Source: Ministerio de Industria, Comercio y Turismo.

Notes: Values in current Euros.

What amount did Spain obtain for exporting olive oil to Brazil **between January and April 2022?**

- (a) 6,715,589 Euros
- (b) 26,862,357 Euros
- (c) 8,072,670 Euros
- (d) 6,751,638 Euros

How much did olive oil exports to Mexico increase **between January and April 2022?**

- (a) 17%
- (b) 308%
- (c) 124%
- (d) 24%

What **constant monthly growth** in exports would result in the same increase recorded for Mexico between January and April 2022?

- (a) 4.25%
- (b) 5.5%
- (c) 3.5%
- (d) 4.1%

How much did olive oil exports to Brazil increase **between January and March 2022**?

- (a) 0%
- (b) 4%
- (c) 8%
- (d) 16%

What **constant monthly growth** of exports would result in the same increase recorded for Brazil between January and March 2022?

- (a) 1.2%
- (b) 3.9%
- (c) 4.5%
- (d) 6.3%

Assuming that monthly exports were constant in 2021, how much did exports grow in Mexico between January and April 2022 **compared to the previous year**?

- (a) 0%
- (b) -23%
- (c) -74%
- (d) -93%

Olive Oil Exports to Mercosur

Argentina, Brazil, Paraguay and Uruguay make up the trade bloc called 'Mercosur'. The following table shows the exports of Olive Oil from Spain to each country in the block in 2019, 2020, and 2021.

	2019	2020	2021
Argentina	2,316	2,653	9,770
Brazil	54,029,024	56,713,479	64,980,186
Paraguay	672,915	757,533	1,140,639
Uruguay	1,387,591	1,367,989	1,536,572

Fuente: Ministerio de Industria, Comercio y Turismo.

Notas: Valores en Euros corrientes.

What **weight** did Brazil have in olive oil exports to Mercosur in 2019?

- (a) 2.5%
- (b) 20.3%
- (c) 20.6%
- (d) 96.3%

How much did olive oil exports to Mercosur increase **between 2019 and 2021**?

- (a) 5%
- (b) 15%
- (c) 21%
- (d) 26%

What **constant annual growth** of exports would result in the same increase recorded for Mercosur between 2019 and 2021?

- (a) 9.8%
- (b) 10.5%
- (c) 21%
- (d) 9.4%

How much did olive oil exports to Paraguay increase **between 2019 and 2021**?

- (a) 50%
- (b) 60%
- (c) 70%
- (d) 80%

How much did the growth of olive oil exports to Paraguay contributed to the growth of exports to Mercosur **between 2019 and 2021**?

- (a) 0.5%
- (b) 0.8%
- (c) 1.5%
- (d) 1.7%

How much did the growth of olive oil exports to Uruguay contributed to the growth of exports to Mercosur **between 2019 and 2021**?

- (a) -0.5%
- (b) 0.1%
- (c) 0.3%
- (d) 2.3%

How much did the growth of olive oil exports to Brazil contributed to the growth of exports to Mercosur **between 2019 and 2021**?

- (a) 19.5%
- (b) 20.3%
- (c) 20.6%
- (d) 96.3%