ECON 343, Spring 2021   HW2

Please upload two files to the appropriate D2L folder by the deadline: One must be a *written report* in .pdf (preferred) or Word format, which answers all questions using text, graphics, and results tables. The second will be a "work file," which includes your final database and the calculations you used to create variables and answer the question. This may be in Excel or in any readable format. Part of this assignment is to produce a quality report that integrates correctly-made figures and text.

This assignment is worth 10 percent of your final grade. Please do not work with anyone else to complete it.

Using the provided dataset ECON343_HW2_Data.csv, answer the following:

1. What is the frequency and timespan of the data?
2. Calculate the following new variables and include them in your database. Make sure you include a completed database that is formatted appropriately. Also show your work (such as formulas in Excel).

USRY	U.S. real GDP
USRC	U.S. real Consumption
USRG	U.S. real Government expenditure
USRI	U.S. real Investment
C/Y	Consumption as a share of GDP (x 100)
G/Y	Government expenditure as a share of GDP (x 100)
I/Y	Investment as a share of GDP (x 100)
LNRY	Log real GDP

3. Make a single timeseries plot with all three: USRY USRC USRG.
   Answer: Which are rising over time? Which are falling?
4. Make a single timeseries plot with all three: C/Y   G/Y   I/Y
   Briefly **describe** the "behavior" of these six series.
5. What is the correlation between USRY and LNRY? Explain why this answer makes sense.
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6. Calculate **summary statistics** for your new variables. Your table should look like this:
   (round to 3 decimal places)
7. Answer: Which of these three is the most variable?
8. What is the **correlation coefficient** between Government spending and investment? Are the two related?

	C/Y	G/Y	I/Y
mean			
sd			
med			
min			
max			

But: Do not use the full sample for questions 6-8. Choose the start and end dates from this table, using the **last digit of your NEIU ID number**:

		END →		
		2017Q4	2018Q4	2019Q4
START	1955Q1	0 or 1	2	3
	1956Q1	4	5	6
	1957Q1	7	8	9