

## Assignment 2 EE312 (Semester 2/2019)

1. Due Feb 13<sup>th</sup>, 2020 (before 11.30 pm. Submit your work on the BE Moodle.)
2. For question 1, even-numbered groups are assigned to do even-numbered sub questions.
3. Question 2 is required for every group.

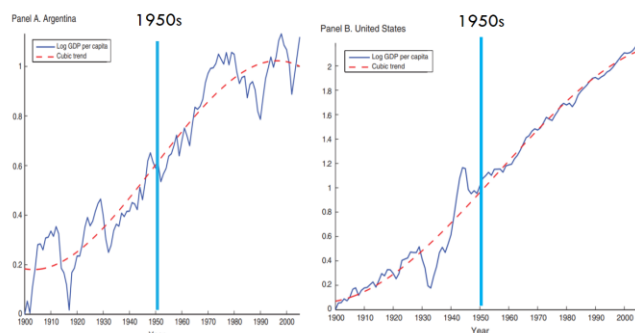
### Question 1:

- 1.1) Explain why the classical supply curve is vertical. What are the mechanisms that ensure continued full employment of labor in the classical case?
- 1.2) How does the Keynesian aggregate supply curve differ from the classical one? Is one of these specifications more appropriate than the other? Explain, being careful to state the time horizon to which your answer applies.
- 1.3) Within the core AD-AS model (4 diagrams), analyze the effects of a loss of confidence in risky stocks and bonds such as occurred in the 2007–09 financial crisis. What would likely be happening to output, interest rate, price, employment, consumption and investment?
- 1.4) Within the AD-AS model (4 diagrams), analyze the effects of fiscal expansion that is accompanied by a monetary accommodation. Is the size of fiscal multiplier large under the situation?

### Question 2: *Synthesizing your knowledge on business cycles*

Emerging market economies (EMEs) are typically claimed to have more unstable macroeconomic performances than those in advanced economy (AE). Plotted in the Exhibit A below are the series of real GDP per capita (measured in log scale) of Argentina (EM) and USA (AE). In each figure, the counterparts long-term trend of log real GDP per capita for each country are also included, where the cyclical deviations could be visually observed as the gap between the solid line and the dashed line. From your eyeball observation, it is fair to conclude that business cycle volatilities in the Argentina are way stronger than those in the USA, especially after the post-World War II periods.

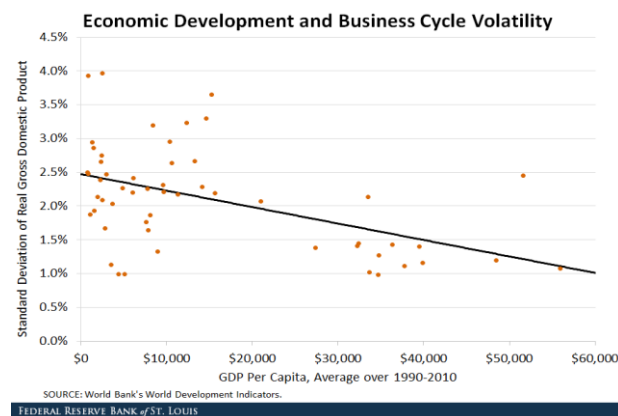
#### *Exhibit A: US and Argentina business cycles*



To reiterate the validity of this claim, one can generalize the analysis into larger sets of sampled countries. Plotted in the exhibit 2 below is the scattered points diagram that displays the linkage

between the level of economic development (the average of annual real GDP per capita between 1990-2010) and the level of business cycles volatilities measured by the S.D. of the cyclical component of real GDP (measured under annual frequency). From the exhibit, the relationship between the two variables appears to be negative; the higher level of economic development, the less volatile business cycle fluctuations. In the other words, advanced economy tends to have lower business cycle volatilities than emerging market economies.

*Exhibit B: Business cycle volatilities and economic development*



Studies using quarterly data have shown some similar patterns of business cycle volatilities as reported in the studies using annual data. For example, Uribe and Schmitt-Grohe' (2017) documented the stylized business cycle facts of 28 countries, eleven of which are classified as emerging market economies. They found that the average SD of emerging market business cycles are roughly 3 times higher than that of advanced economies.

Business-Cycle Statistic	Emerging	Rich
$\sigma_y$	8.7%	3.3%

**Rich Countries:** Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Hong Kong, Italy, Japan, Netherlands, Norway, Sweden, Switzerland, United Kingdom, United States.

**Emerging Countries:** Argentina, Israel, South Korea, Mexico, New Zealand, Peru, Portugal, South Africa, Spain, Turkey, and Uruguay.

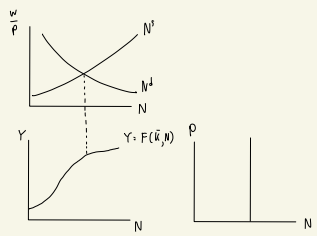
**Question** Against the backdrop of the information provided above, economists attempt to seek for possible reasons that account for the cross-country empirical regularities. In lights of the discussion we had in class about the theory of business cycle fluctuations, explain the possible reasons that could account for the observed differences of business cycle volatilities.

Question 1:

- 1.1) Explain why the classical supply curve is vertical. What are the mechanisms that ensure continued full employment of labor in the classical case?
- 1.2) How does the Keynesian aggregate supply curve differ from the classical one? Is one of

Group 9

1.1) Because firm can choose number of Labor and capital that maximize profit in long-run. Now it's full employment, so change in price will make no effect on output

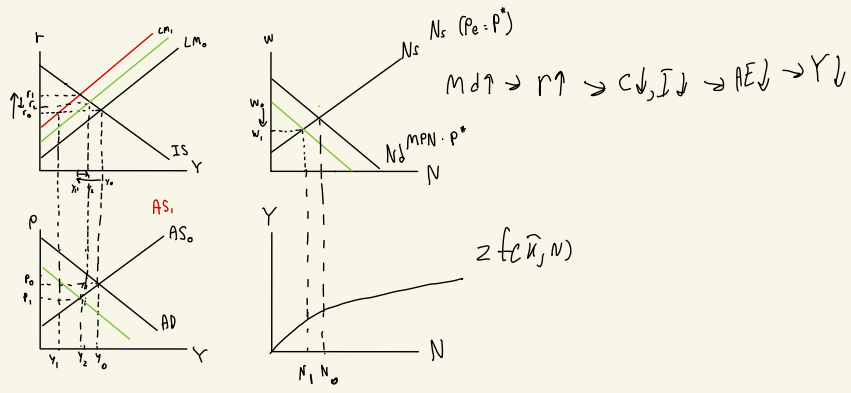


time horizon to which your answer applies.

- 1.3) Within the core AD-AS model (4 diagrams), analyze the effects of a loss of confidence in risky stocks and bonds such as occurred in the 2007-09 financial crisis. What would likely be happening to output, interest rate, price, employment, consumption and investment?

1.3) According to loss in confidence in risky stocks and bond, people will sell bond then  $M_d$  will increase which make bank increase interest rate to make people deposit.

As a result of interest rate rise, investment and consumption fall which make AE decrease so, output (Y) decrease. At the same price  $P_0$  there is an excess supply ( $A_s > AD$ ). So the price will be lower. From this price effect, Money supply will increase a little because price is lower. So the LM curve will shift down a little bit. Then when the price lowered the wage and labor demand will decrease too like in the upper right graph. As a result, the total production will decrease like in the lower right graphs.



## Question 2

Shock to trend growth is the primary source of the fluctuations in the new emerging markets. While the advanced markets already have a stable trend. Newly enter economy face the volatile trend that determined the behavior of economy at business cycle frequency. Another reason is that newly enter economy has to face the higher growth which will cause higher volatility. More risk than more return to before the advanced economy eventually.