Group Assignment #1

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1. (5 points): On January 27, 2022, U.S. President Biden said: "**The GDP numbers for my first year** show that we are finally building an American economy for the 21st Century, with the fastest economic growth in nearly four decades … **And, for the first time in 20 years, our economy grew faster than China's. This is no accident. My economic strategy** is creating good jobs for Americans, rebuilding our manufacturing, and strengthening our supply chains here at home to help make our companies more competitive". Do you agree with President Biden's claim that the fast GDP growth in his first year (i.e., in 2021) is due to his economic strategy? Why or why not?

Answer 1:

While President Biden's first year in office was a successful one economically and part of the economic strategy is effective, some problems have arisen or challenges remain. Undoubtedly the rapid growth of GDP is also related to the economic recovery of the normal economic cycle after the COVID-19.

a) 2021's strong growth created a record 6.4 million jobs and it brought the fastest decline in the unemployment rate on record, significant growth in both the job openings and the manufacturing from GDP.
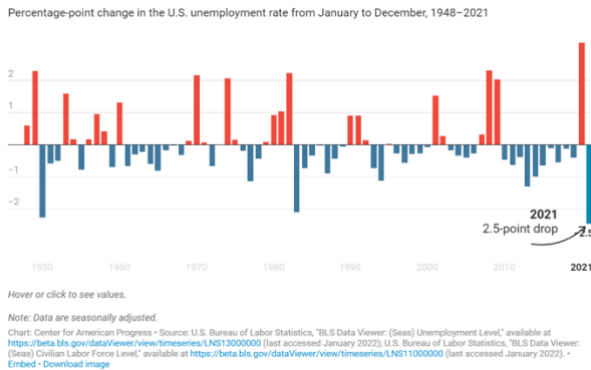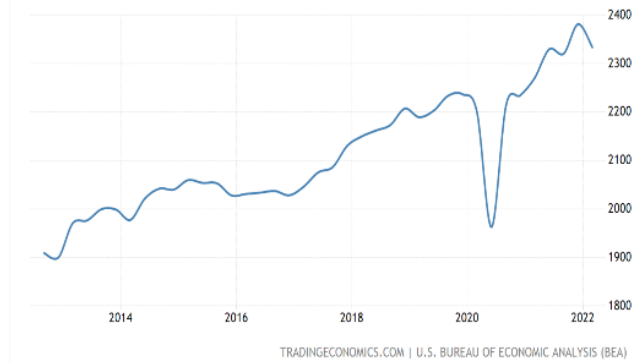

Figure 1 U.S. unemployment rate

Figure 2 Manufacturing from GDP in U.S.

b) During this period Biden introduced a number of policies to promote the development of enterprises. Americans also applied to start new businesses in record numbers in 2021, so companies are becoming very competitive.
In March 2021, the Biden administration signed and approved the $1.9 trillion American Rescue Plan Act of 2021(COVID-19 Stimulus Package), which has played a significant role in increasing employment, supporting small and medium-sized enterprises, and reducing corporate and personal tax burdens.

Applications to start new businesses increased dramatically in 2021

Number of applications for new businesses, by year, 2005−2021

2021
5,364,025 new
business applications
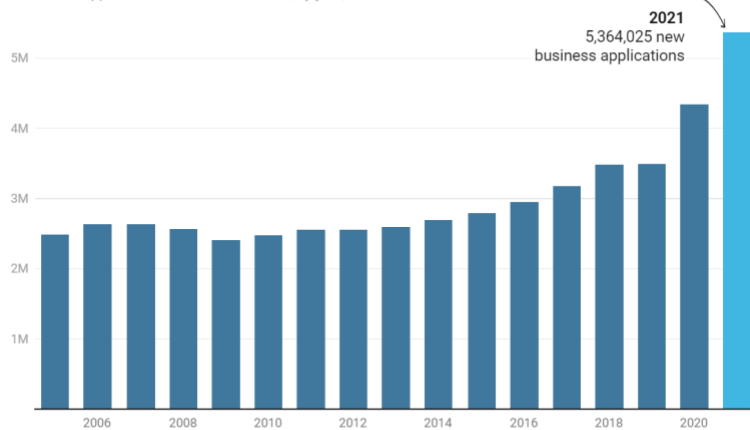
Hover or click to see values.
Chart: Center for American Progress • Source: U.S. Census Bureau, "Business Formation Statistics," available at
https://www.census.gov/econ/bfs/index.html (last accessed January 2022). • Embed • Download image

Figure 3 Applications of start new businesses in U.S.

c) Although President Joe Biden unveiled a $2.3 trillion infrastructure plan in 2021, However, helping fuel the highest inflation in 40 years and it also brought a big challenge for the supply chain.

For instance, creating supply chain snarls as consumers hungry for products overwhelmed the global delivery system. Also, the cost of new and used models has helped drive inflation throughout the pandemic, as a shortage of semiconductors squeezed the car's global supply chain.

To some extent, Biden's economy strategy has an effect for GDP growth with the labor market and manufacturing economy. But the supply chain structure has yet to be optimized in the short term.

2. (5 points): In this week's class, we will discuss the equation for long-run equilibrium in the labor market: $s \times E = f \times U$ (assuming that the labor force is fixed). Use this equation to show that the equation for the natural rate of unemployment is $\left(\frac{U}{L}\right)* = \frac{s}{s+f}$.

Answer 2:

According to the long-run equilibrium in the labor market: $s \times E = f \times U$, s for the job "separation" rate, f for the job "finding" rate, E for the number of people in employment and U for the number of people in unemployment. The labor force $L = E + U$, the natural rate of unemployment $\left(\frac{U}{L}\right)* = \frac{U}{E+U}$, substitute $U = \frac{s \times E}{f}$ into the equation:

$$\left(\frac{U}{L}\right)_* = \frac{U}{E+U} = \frac{\frac{s \times E}{f}}{E + \frac{s \times E}{f}} = \frac{\frac{s \times E}{f}}{\frac{(s+f) \times E}{f}} = \frac{s}{s+f}$$

3. (10 points): Continuing with the question above, use the equation for the natural rate to explain why European unemployment went up between 1975 and 2000. You should think about what might have happened to **s** and **f** that would lead to the increase in unemployment.

The rise in European Unemployment

Increase in natural rate of unemployment:
s increases which means an increase in job separation rate that means more and more people are unemployed, maybe experienced industrialization that reduces the need of human labor machines replaces humans. Cheaper/ competitive products from oversees ruled out local production which led to decrease in number of companies that would employ less people. And job in this case decreases thus less opportunity for people in the unemployed sector to move to employed sector, thus smaller f.

Answer 3:

From 1975 to 2000, the European unemployment rate showed an overall upward trend. In 1985, its unemployment declined first and then rose, accompanied by small fluctuations until 2000.

According to s= job "separation" rate, f=job "finding" rate. We should consider there are some reasons which can increase s and decrease f.

a) 1973 oil crisis - OPEC impact. The supply of crude oil is insufficient, and the energy consumption cost of residents is rising. European power companies are facing the risk of bankruptcy, and the derivatives trading in the stores has been forced to stop. The oil crisis has led to a decline in the GDP of European countries, and the economic recession has led to a reduction in the demand for labor markets and a sharp increase in the unemployment rate. Combined with the historical event of the monetary policy of US in 1980s, the American economy began to recover from deep economic recession and provided many jobs (f↑). The European job market thus improved and the European unemployment rate decreased slightly

**b**) Too good social welfare will reduce people's desire to find work (f↓) . The European government subsidies during the unemployment period enable the unemployed to prolong their unemployment time. The research shows that the unemployed start to look for work when the unemployment allowance is about to expire, while the re employment rate is generally low during the period of receiving unemployment allowance.

c) Unemployment subsidies from European governments have hit the job enthusiasm of low-income people and made them yearn for unemployment (s↑). In most countries, the scope and generosity of the unemployment benefit system were increased thus raising the reservation wage. All this involved higher taxes or contributions, which in many countries were levied directly on employment. People can live normally without work. Even some unemployed people have higher incomes than low-income workers, which has greatly hit the enthusiasm of the employed. Considering the high tax, low income people would rather receive aid than find a job, which increases the unemployment rate.

4. (10 points): Download data from FRED (https://fred.stlouisfed.org/) on the U.S. inflation rate (CPIAUCSL) and the unemployment rate (UNRATE). Estimate the accelerationist Phillips Curve for the period 1970 to 1995 and the Phillips Curve from 1996 to 2018. Please copy the two charts into the Word documents (and attach a separate EXCEL sheet to show your work).
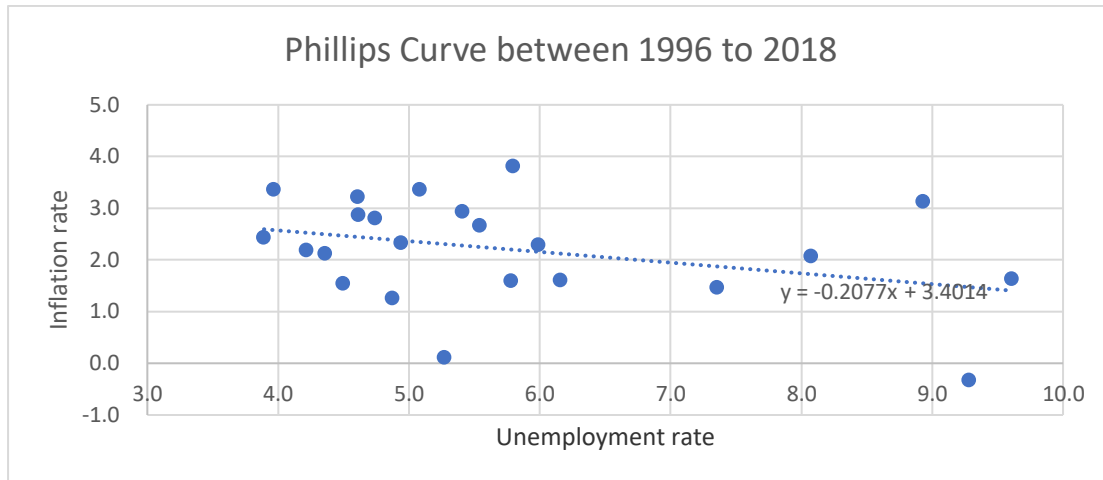
Answer 4:

Accelerationist Phillips Curve from 1970 to 1995 is as follows:
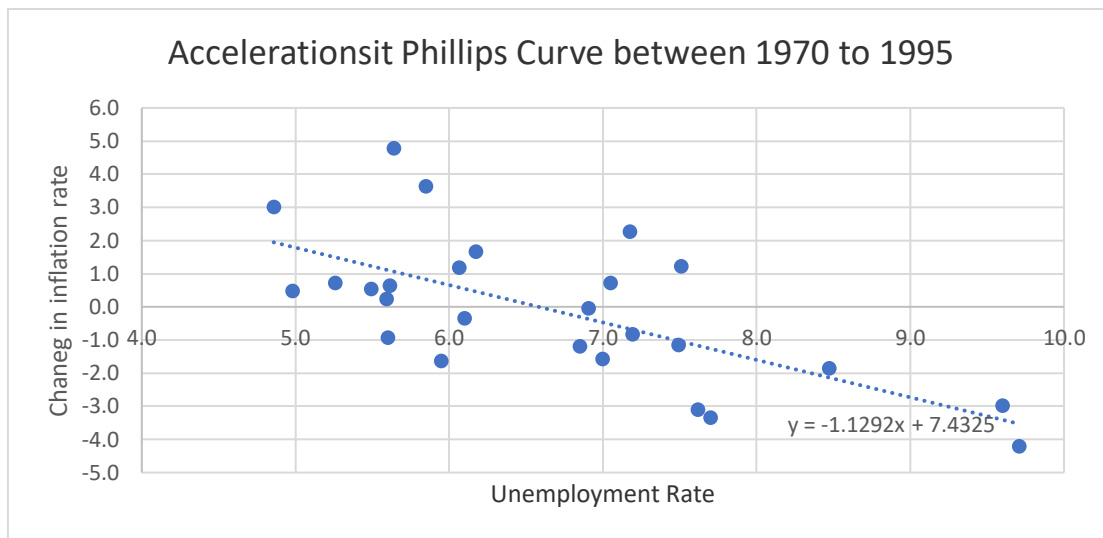
The equation of Accelerationist Phillips curve from 1970 to 1995 is:
$$\pi_t - \pi_{t-1} = 7.42\% - 1.1292u_t$$

Phillips Curve from 1996 to 2018 is as follows:

The equation of Phillips Curve from 1996 to 2018 is:
$$\pi_t - \pi_{t-1} = 3.40\% - 0.2077 u_t$$

5. (20 points): Draft the monetary policy decision that the U.S. Federal Reserve will release on Sep. 21, 2022. Your statement should look like this:
    https://www.federalreserve.gov/newsevents/pressreleases/monetary20220727a.htm

Answer 5:

The indicator of production and consumption indicators still shows a **downward** trend compared with last period, while the employment rate remain a **good level**, and Job gains still **robust**. The target range for the federal funds rate has raised twice from June to present, but inflation rate **remains elevated**, which reflects the price pressure posed on individuals will continue.

The recent victory of Ukraine towards Russia in Kharkiv could bring the war in East Europe into a stalemate, which means the hardship in economics and energy will continue, combined with the easing of gas price caused by cooling, the additional upward pressure on inflation rate is more likely to enhance. The Committee is highly attentive to inflation risks.

The Committee seeks to achieve maximum employment and inflation at the rate of 2 percent over the longer run. In support of these goals, the Committee decided to raise the target range for the federal funds rate to **3 to 3-1/4** percent and anticipates that ongoing increases in the target range will be appropriate. In addition, the Committee will continue reducing its holdings of Treasury securities and agency debt and agency mortgage-backed securities, as described in the Plans for Reducing the Size of the Federal Reserve's Balance Sheet that were issued in May. The Committee is strongly committed to returning inflation to its 2 percent objective.

In assessing the appropriate stance of monetary policy, the Committee will continue to monitor the implications of incoming information for the economic outlook. The Committee would be

prepared to adjust the stance of monetary policy as appropriate if risks emerge that could impede the attainment of the Committee's goals. The Committee's assessments will take into account a wide range of information, including readings on public health, labor market conditions, inflation pressures and inflation expectations, and financial and international developments.

Voting for the monetary policy action were Yanzhe Wang; Zhongni Lyu; Zhen Jian; Xuan He; Zhuolin Zhou; Qing Shi.