**JHU ECON 602:**

**MACROECONOMIC THEORY AND POLICY (Fall 2022)**

**Answers to Practice Quiz 2**

1. **True, False or Uncertain**. State whether the following statements are True, False or Uncertain. For statements that are False, correct the error or errors (note that there may be more than one error and for full credit you have to correct all of them). For statements that are Uncertain, explain why that is the case.
2. Okun’s Law states that a reduction in the cyclical unemployment rate leads to a cyclical increase in output because when more people are employed there is more production.

False. Okun’s Law states that a reduction in cyclical output leads to a cyclical increase in unemployment rate because when there is a drop in production (output) fewer people need to be employed.

1. Global average incomes have roughly tripled since 1960, but global output has remained stagnant due to the decline of manufacturing.

False. Global average incomes have roughly tripled since 1960 as has global output (because income and output are roughly the same thing).

1. The provision of unemployment insurance raises the natural rate of unemployment by raising the job separation rate; the trend rate of inflation also rises as unemployed people have much more money to spend when they receive unemployment insurance.

False. The provision of unemployment insurance raises the natural rate of unemployment by lowering the job finding rate (and it could raise the job separation rate as well). The trend rate of inflation is unlikely be affected by the unemployment insurance system.

1. If the real exchange rate rises, domestic goods become more expensive relative to foreign goods, net exports rise, and the current account goes into surplus as countries have to pay more for domestic goods.

False. If the real exchange rate rises, domestic goods become more expensive relative to foreign goods, net exports fall, and the current account goes into deficit.

1. The U.S. nominal interest rate has declined considerably since the early 1980s, but because expected inflation has declined as well, the real rate has declined much less than the nominal rate.

True.

1. The debt-to-GDP ratios of many countries declined in decades after World War II as a result of haircuts and primary fiscal surpluses.

False. The debt-to-GDP ratios of many countries declined in decades after World War II as a result of strong growth and a period of negative real interest rates.

1. The labor force participation rate is the ratio of the labor force to the number of people unemployed.

False. The labor force participation rate is the ratio of the labor force to the number of people in the working-age population.

1. The Taylor Rule states that if inflation increases above its target (holding GDP gap constant), monetary policy should be eased by lowering the real policy interest rate below the neutral interest rate to boost imports and government spending.

False. The Taylor Rule states that if inflation increases above its target (holding GDP gap constant), monetary policy should be tightened by raising the real policy interest rate below the neutral interest rate to boost consumption and investment.

1. During the 2000s, the region with the weakest income growth was North America and the one with the fastest growth was Sub-Saharan Africa, suggesting that poor countries have caught up with the rich countries.

False. Though Sub-Saharan Africa did enjoy faster growth than North America in recent decades, poor countries have not caught up with the rich in per capita (average) income.

1. Output gap is the difference between real GDP and the long-run trend in inflation.

False. Output gap is the difference between real GDP and the long-run trend in output (also known as potential output).

1. The natural rate of unemployment in the United States about 10 percent, but it generally falls to about 8 percent during a recession.

False. The natural rate of unemployment in the United States is about 5-6 percent; during a recession it is cyclical unemployment that goes up, not so much the natural rate.

1. Stabilization policy refers to policy actions aimed at raising the trend rate of economic growth.

False. Stabilization policy refers to policy actions aimed at minimizing cyclical fluctuations (that is, keeping output close to the trend).

1. The current account deficits in the United States since 1900 are mainly driven by wars and recessions.

False. The government fiscal deficits (and the government debt to GDP ratio) in the United States since 1900 are mainly driven by wars and recessions.

1. In the United States, real GDP has generally fluctuated between -1 percent and +1 percent over the course of the business cycle, but the unemployment rate has gone up twice as much, which is consistent with Okun’s Law.

False. In the United States, real GDP has generally fluctuated between -4 percent and +4 percent over the course of the business cycle, and the unemployment rate has fluctuated by -2 and +2 percentage points according to Okun’s Law.

1. The quantity theory predicts a one-for-one relationship in the short run between changes in the money growth rate and changes in the inflation rate.

False. The quantity theory predicts a one-for-one relationship in the long run between changes in the money growth rate and changes in the inflation rate.

1. U.S. income per capita is about $62,500, which is 25% of the world average.

False. U.S. income per capita is about $62,500, which is among the world’s highest.

1. The federal funds ratewent from 2.5% in July 2007 to 10% in December 2008 but could not go higher because of limits on loan-to-value ratios.

False. The federal funds ratewent from 2.5% in July 2007 to 0% in December 2008 but could not go lower because of the zero lower bound.

1. GDP is the sum of incomes in the economy during a given period.

True.

1. The unemployment rate is the percent of the population who do not have a job and are not looking for one because they are discouraged.

False. The unemployment rate is the percent of people in the labor force who do not have a job and are looking for one.

1. The participation rate is the ratio of the labor force to the unemployment rate.

False. The participation rate is the ratio of the labor force to the working-age population.

1. The inflation rate is the rate at which the price level increases.

True.

1. The standard composition of GDP is consumption plus investment plus government spending plus net exports.

True.

1. An increase in the interest rate raises the demand for money, as people work harder to take advantage of the higher interest rates.

False. An increase in the interest rate lowers the demand for money as people switch from holding money to holding bonds.

1. In an expansionary open market operation, the central bank expands the supply of money by selling bonds.

False. In an expansionary open market operation, the central bank expands the supply of money by buying bonds.

1. Risk premia are determined by the probability of default and the degree of risk aversion of bond holders.

True.

1. In the United States, the average duration of unemployment—the length of time people spend unemployed—is about 2 months.

True.

1. The Phillips Curve is the negative relationship between the inflation rate and the unemployment rate.

True.

1. In the United States, expectations of inflation that became de-anchored during the 1970s and 1980s became re-anchored in the mid-1990s because central banks cut policy interest rates to the zero lower bound.

False. In the United States, expectations of inflation that became de-anchored during the 1970s and 1980s became re-anchored in the mid-1990s because central banks were able to maintain inflation rates at a low level.

1. Discount bonds are bonds that promise a single payment at maturity called the face value, while coupon bonds are bonds that promise multiple payments before maturity but no payment at maturity.

False. Discount bonds are bonds that promise a single payment at maturity called the face value, while coupon bonds are bonds that promise multiple payments before maturity and one payment at maturity.

1. The real exchange rate is the price of domestic currency in terms of foreign goods, whereas the nominal exchange rate is the price of the foreign currency in terms of domestic goods.

False. The nominal exchange rate is the price of domestic currency in terms of foreign goods, whereas the real exchange rate is the price of domestic goods in terms of foreign goods.

1. **Short Answers:**
2. Describe the relationship between incomes and unemployment in the short run and in the long run.

In the short run, a decline in income (output) leads to an increase in unemployment.

In the long run, the two are generally not connected. Incomes go up (the trend is positive), while unemployment does not generally display an upward or downward long-run trend.

1. What factors influence the evolution of the debt-to-GDP ratio?

The interest rate, the growth rate of the economy, the initial debt-to-GDP ratio and the primary fiscal balance. (In countries like the United States, the drivers of the debt-to-GDP ratio have been recessions and wars. These underlying factors explain why there is a build-up of debt during some periods.)

1. What are the pros and cons of adoption of the euro?

Pros are a reduction in transactions cost and the creation of a more powerful economic bloc.

Cons are the loss of monetary policy independence at the country level.

1. On what factors do consumption and investment depend, and why?

Consumption depends on income and the expected stream of future income (wealth); investment on current profits (or cash flow) and the expected stream of future profits.

1. What is the most interesting thing you have learnt in this course so far and why?

The most interesting thing is that all the students agree that the professor is very boring.