

Principles of Macroeconomic UMSL 1002; Spring 2017; Professor Gillman

Final Exam: 50 Multiple Choice (2 Points each) for 100 possible, plus two short answers each worth 10 points.

This gives extra point in order to get to a 100 top grade.

Score will be topped at 105, so 5 points bonus allowed.

1. "Social Insurance" is a well-based concept for National Macroeconomic policy, in terms of providing for assistance that the private markets typically do not cover.

Which fits the concept for this insurance?

- a. car insurance.
- b. private employer provided health insurance at your place of employment.
- c. unemployment insurance provided by a US state or by the US federal government.
- d. house damage insurance for theft and fire.

2. US President L.B. Johnson's "Great Society" commencement address at the University of Michigan in 1964 recommended that the US enhance its Social Insurance coverage.

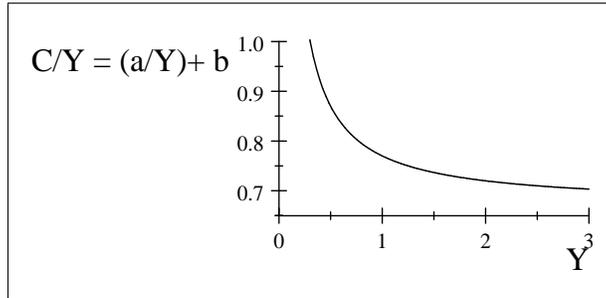
This was followed by which US legislative Acts consistent with his vision?

- a. The Food Stamp Act of 1964.
- b. The Social Security Act of 1965.
- c. The Elementary and Secondary Education Act of 1965 ("Head Start")
- d. all of the above.

3. "Moral hazard" in social insurance policy means that

- a. there is perfect efficiency in providing a social security "net".
- b. that the government policy itself increases the probability of the "bad state" of the insured event occurring.
- c. that risk-based insurance premiums accurately judge riskiness of the insured.
- d. citizens voluntarily take part in a social insurance program.

4. The Keynesian consumption function ( $C=a+bY$ ) can be divided through by  $Y$  so that  $(C/Y) = (a/Y) + b$ . This is graphed:



Consumption as a Fraction of Income: in the Keynesian Theory of Consumption  $C = a + bY$ .

The graph shows that

at Low Income levels

- consumption spending is a bigger fraction of total income ( $Y$ ) than at high income levels.
- The fraction  $C/Y$  rises as income rises.
- consumption spending is a smaller fraction of total income ( $Y$ ) than at high income levels.
- all of the above.

5. The Keynesian Consumption function suggests that

- redistributing income from low income to high income people can increase total consumption.
- redistributing income from high income to low income people can increase total consumption.
- Income redistribution cannot affect aggregate consumption.
- Income redistribution has no role in Social Insurance systems.

6. "Ricardian equivalence" is a concept meaning that

- the government is expected to eventually pay off all of its debt.
- the government faces a budget constraint each year, and any borrowing to cover deficits must eventually be paid for with future tax revenue.
- the government faces a "wealth constraint" (PDV of expected expenditure = PDV of expected tax revenue).

d. all of the above.

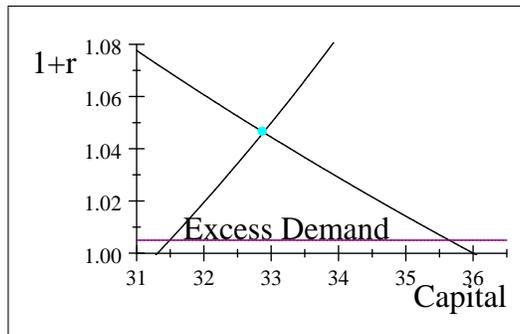
7. Government unemployment insurance can cause moral hazard if

- a. the income received when unemployed may be claimed for 10 years.
- b. it discourages the unemployed from seeking work.
- c. it acts as a subsidy to not working.
- d. all of the above.

8. During the US Great Recession, in 2008, which type of US financial intermediary experienced a "bank run" whereby many depositors "panicked" and tried to take out their deposited funds all at once?

- a. consumer retail banks covered by FDIC insurance.
- b. savings and loans banks covered by FDIC insurance
- c. investment banks offering "mutual funds" or "money market accounts" not covered by FDIC insurance?
- d. all of the above.

9. An effective ceiling on real interest rates below the natural equilibrium rate might be imposed on capital markets, as in the following Figure,



Savings and Investment: Aggregate Supply and Demand for Capital  $k$  With Real Interest Rate Ceiling

if for example what happens?

- a. the Federal Reserve (Fed) offers a below-market interest rate for private banks holdings of excess reserves.
- b. the Fed does not regulate capital markets, which are fully competitive.
- c. the Fed keeps its targeted interest rate at its "natural" equilibrium level.

d. all of the above.

10. A Fed policy that causes negative US real short term interest rates since 2008

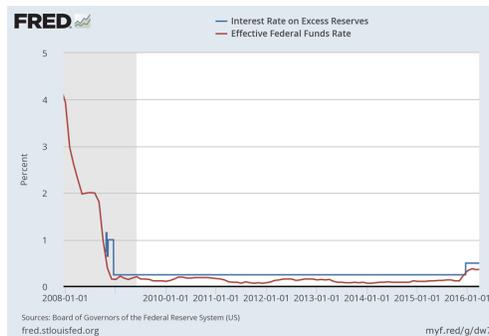
a. can decrease the amount of private sector savings available for private sector investment.

b. can induce other countries towards similar negative rates in order to avoid currency appreciation relative to the US dollar.

c. can cause below trend real GDP growth even after the 2009 end of the Great Recession.

d. all of the above.

11. The following graph from FRED shows



a. the interest rate paid on excess reserves (Blue: IOER) is consistently ABOVE the Federal Funds Rate (Red: FFR).

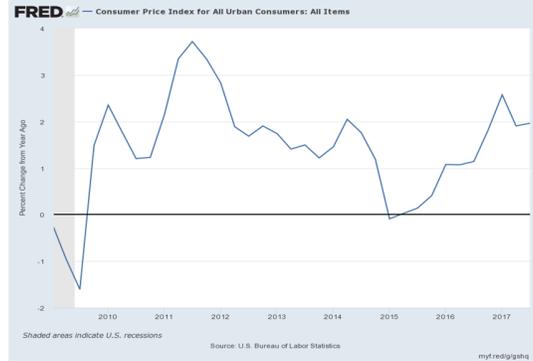
b. the interest rate paid on excess reserves (Blue: IOER) is consistently BELOW the Federal Funds Rate (Red: FFR).the federal funds rate .

c. the difference between the IOER and the FFR is always zero, (thereby achieving Fed guidelines on this).

d. all of the above.

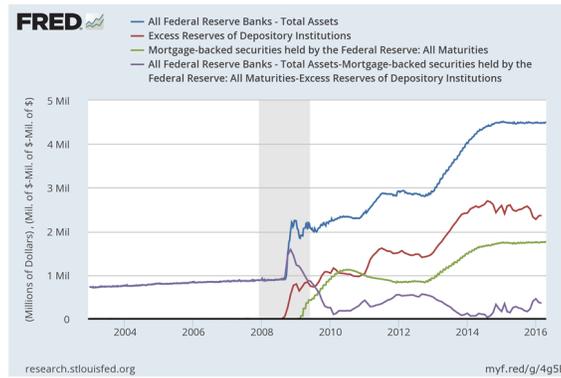
12. From 2010 to 2017, the FRED graph of the US CPI annual inflation rate shows that

the inflation rate has been



- a. 5 to 6% on average.
- b. between 0 and 4%.
- c. falling continuously throughout the period.
- d. never above the Fed's 2% inflation rate target.

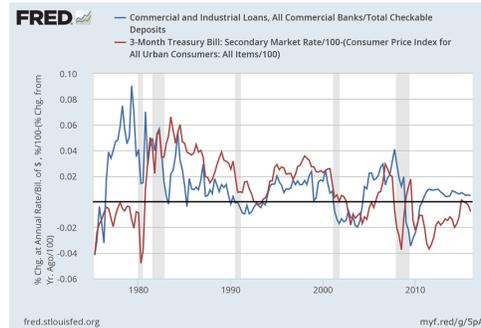
13. After the 2008 banking crisis, as shown in the following Figure



excess reserves (in red) held by private banks at the Federal Reserve Bank

- a. remained zero as before 2008.
- b. rose to as much as \$2.6 trillion.
- c. rose and then fell back to zero .
- d. were not effected by Fed policy.

14. The graph shows a US Loan to Deposit ratio (blue) and a real interest rate (red).



#### Loan to Deposit ratios and Negative Real Interest Rates

Based on the graph:

- From 1980 to 2009, the loan to deposit ratio shows no correlation with the real interest rate
- After 2009, the loan to deposit rate remained relatively low.
- There is no evidence that a "stagnating economy" after 2009 could be related to a negative real interest rate.
- all of the above.

15. For supply and demand functions,

- a supply function is an upward sloping function of the real price relative to the quantity.
- a supply function is a downward sloping function of the real price relative to the quantity.
- a demand function is an upward sloping function of the real price relative to the quantity.
- all of the above.

16. The aggregate production of the economy's total goods (and services)

- depends on productivity of its factor inputs.
- can use inputs of both capital and labor.
- can vary input combinations to yield a certain amount of output.

d. all of the above.

17. Competitive equilibrium implies that

- a. monopoly power exists in every market.
- b. the quantity supplied equals the quantity demanded at the competitive equilibrium price.
- c. an excess demand for goods exists at the market clearing price.
- d. an excess supply of goods exists at the market clearing price.

18. When some outside factor ("exogenous") causes supply and/or demand to shift, comparing the new equilibrium to the old one is best called

- a. an econometric statistical analysis.
- b. an experiment to see who gets more.
- c. a comparative static analysis of two different market equilibrium.
- d. a measurement problem.

19. The US government's National Income & Product Accounts (NIPA)

- a. are computed by a private academic institute.
- b. show how the gross domestic product approximately equals gross domestic income.
- c. omit value-added computations of GDP by industry.
- d. all of the above.

20. Nominal GDP differs from real GDP in that

- a. nominal is in current dollars while real takes out the inflation element.
- b. real GDP is called the "constant dollar" value of output.
- c. real GDP data can be found by dividing nominal GDP by the CPI index (or GDP deflator index).
- d. all of the above.

21. Compute the one-year inflation rate for when the economy's aggregate price index is 600 now and 660 in one year:

- a. 4%.
- b. 6%.

- c. 10%.
- d. 15%.

22. The NIPA definition of GDP (Y) equals the sum of gross private domestic investment (I), personal consumption expenditure (C), plus

- a. government consumption and investment expenditure (G) and net exports (NX).
- b. consumption of fixed capital (FC), and taxes (T).
- c. net imports (NI) and government consumption and investment expenditure (G).
- d. net operating surplus (OS) and consumption of fixed capital (FC).

23. During the Great Depression, the ratio of Currency to Demand Deposits

- a. was stable and unaffected by bank panics.
- b. rose sharply when depositors panicked and withdrew currency from banks.
- c. did not change once banking insurance was begun in 1933 through the new FDIC.
- d. fell continually as bank deposits and investment remained strong.

24. The Great Depression civilian unemployment rate

- a. stayed below 8% throughout the 1930's.
- b. rose to 15% in 1928 and then fell steadily once government spending expanded.
- c. peaked at 25% in 1933, stayed above 10% to 1941, and fell to 0% when WWII spending shot up.
- d. was lower than it was during the Great Recession of 2008-2009.

25. The Neoclassical Debt-Deflation theory of the Great Depression recommended

- a. increased government spending.
- b. stabilizing the price level by reforming the private bank sector.
- c. creating health insurance for those not employed.

d. all of the above.

26. The Keynesian Cross theory of aggregate output implies a recession policy of

- a. increased government spending.
- b. stabilizing the price level and the inflation rate.
- c. creating health insurance for those not employed.
- d. all of the above.

27. "Real Business Cycle" theory explains normal expansions and contractions (recessions) through

- a. fluctuations in government spending.
- b. shocks to productivity of inputs (total factor productivity).
- c. shocks from money and banking.
- d. consumption and investment are unrelated to output.

28. Real Business Cycles consider that real GDP growth normally moves in the same direction as

- a. real consumption growth.
- b. real investment growth.
- c. real wage growth.
- d. all of the above.

29. Extreme business cycle recessions, or long periods of economic stagnation, can be from

- a. "rare events" in real business cycle theory, but with markets clearing.
- b. "lost decades" in real business cycle theory, but with markets clearing.
- c. a lack of market clearing in Keynesian theory.
- d. all of the above.

30. The structural transformation of the US economy has included

- a. population shifting steadily from urban to rural (agricultural) areas.
- b. growing importance of Services in GDP & decreasing importance of Non-Durable Goods in GDP.

- c. a falling level of the average human capital per person.
- d. all of the above.

31. The Monetary Base is a monetary aggregate defined as

- a. currency in circulation.
- b. reserves held at the Fed.
- c. reserves held at the Fed plus currency in circulation.
- d. time deposits and savings deposits.

32. The theory of the demand for money implies that

- a. the higher the nominal interest rate the lower is the real money demand.
- b. the higher the nominal interest rate the higher is the real money demand.
- c. the higher is the aggregate income, the lower is the real money demand.
- d. aggregate income does not affect money demand.

33. The quantity theory of money shows how sustained inflation can be caused by

- a. sustained real income growth.
- b. temporary real income growth.
- c. sustained money supply growth.
- d. temporary money supply growth.

34. The "money multiplier" when all new excess reserves are lent out is

- a. the requirement that 10% of deposits are held on reserve at the Fed.
- b. the expansion of the money supply as each bank holds only required reserves at the Fed.
- c. the new reserves injected initially when the Fed sells Treasury debt to banks.
- d. the money supply growth rate.

35. Oil shocks are claimed to have caused

- a. economic stagflation during the Vietnam war era.
- b. cost-push inflation that lowered real output levels.
- c. economic disruption due to monopolistic price increases.
- d. all of the above.

36. Statistical evidence supports that international oil prices have been "Granger-caused" by
- the US unemployment rate.
  - the US labor force participation rate.
  - the US inflation rate.
  - all of the above.
37. The Phillips curve identifies empirically the relation between
- output levels and real interest rates over time.
  - inflation rate levels and unemployment rate levels for each year over a sample period.
  - the labor force participation rate and real GDP growth for each year over a sample period.
  - the consumption growth rate and the real GDP growth rate.
38. In the expectations theory of the Phillips curve
- the Phillips curve shifts when the expected inflation rate changes.
  - the short run Phillips curve is downward sloping.
  - the long run Phillips curve is vertical.
  - all of the above.
39. National income can be thought of as the "interest flow" on the nations Wealth. If fully measured, then we expect
- income to be greater than Wealth.
  - income to equal Wealth.
  - income to be less than Wealth.
  - income be unrelated to Wealth.
40. Fisher's two period consumption and investment analysis allows us to explain
- how much current consumption the consumer chooses.
  - how much investment in the current period that the firm makes.
  - how much savings in the current period that the consumer makes.
  - all of the above.

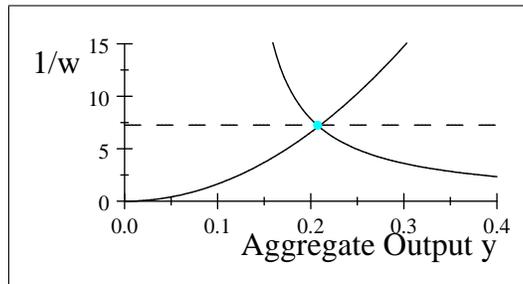
41. The present discounted value of \$22,000 received next year, when the current interest rate is 10% (0.10), is equal to

- a. \$22000.
- b. \$21000.
- c. \$20000.
- d. \$19000.

42. In Fisher's two-period consumption-smoothing model, an increase in productivity causes

- a. the real interest rate to rise.
- b. next period consumption to rise.
- c. investment to stay the same.
- d. all of the above.

43. As in the Figure,

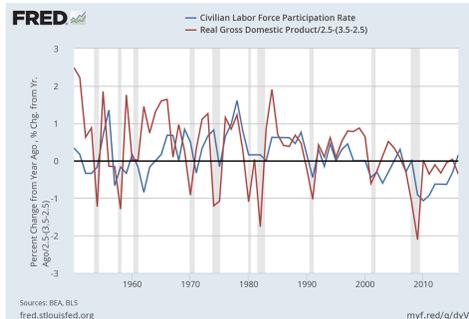


Ramsey  $AS - AD$  Equilibrium.

Ramsey's aggregate supply of goods ( $AS$ ) & aggregate demand for goods ( $AD$ ) has a price of goods relative to labor equal to

- a. the real wage  $w$ .
- b. the hours required to buy one unit of goods, or  $1/w$ .
- c. the interest rate  $r$ .
- d. the dollars received per hour of work.

44. As in the Figure



Growth Rate of Civilian Labor Force Participation Rate (Blue) and Detrended Real GDP growth (Red).

the US labor force participation rate tends to

- move up with expansions and down with contractions, being procyclic.
- move down with expansions and up with contractions, being counter-cyclic.
- be uncorrelated with the business cycle.
- be constant over the business cycle.

45. The Ramsey World explanation of a business cycle expansion captures

- the increase in the real wage.
- the increase in the level of output.
- the increase in the level of employment.
- all of the above.

46. Ramsey World "Supply-Side Economics" results when

- it is assumed that taxes are increased.
- it is assumed that government spending is decreased.
- $AS$  and  $AD$  for goods both shift out; but  $AS$  shifts out by more than  $AD$ ; &  $1/w$  falls.
- aggregate supply of goods shifts back.

47. The stylized Solow Growth facts are

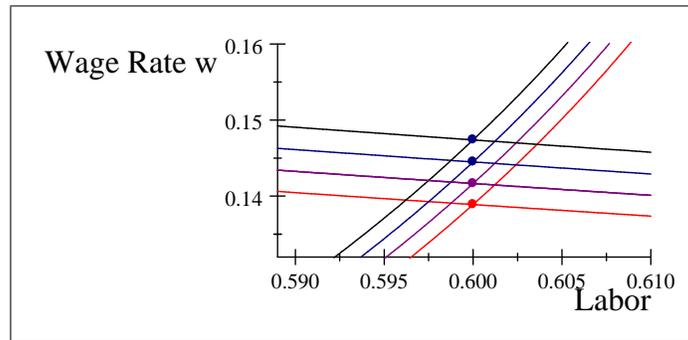
- The real wage  $w$  rises steadily over time.

- b. The real interest rate  $r$  remains constant on average over time.
- c. The per capita income rises steadily over time.
- d. all of the above.

48. The "Solow Plus" growth facts include that

- a. the relative price of output to labor  $1/w$  falls over time.
- b. time spent working each period gradually rises & trends upwards.
- c. years of schooling completed fall steadily, gradually, over time.
- d. all of the above.

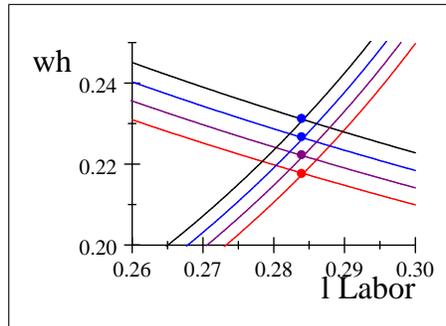
49. The Figure shows labor supply & labor demand shifting upwards over time, from Red to Black equilibria, such that



Labor Market with Solow Growth and Rising Real Wage, Constant Employment, Over Time.

- a. the labor supply rises each period.
- b. the output of goods falls.
- c. the wage rate rises during economic growth.
- d. equilibrium in the labor market never occurs.

50. The Figure shows that with human capital  $h$  rising continually over time, then in the labor market



Labor Market with Human Capital  $h$  Growing over time, and  $w$  constant.

- a. the effective wage rate is rising.
- b. the effective wage rate is falling.
- c. the labor time is rising.
- d. the labor time is falling.

**Short Answer: Two Questions each worth 10 Points.**

1. Describe how you would alter, and why, and what different outcome you would expect, for either one (or more) of the following: US

- a. Monetary Policy,
- b. Fiscal Policy, and/or
- c. Social Insurance Policy

2. Explain the macroeconomic theory, and critique it in terms of its seeming validity, or its correctness, of either one (or more) of the following:

- a. business cycles,
- b. crises and/or
- c. long term economic growth.