*UNIVERSITY OF ROME "TOR VERGATA"*

MASTER IN
DEVELOPMENT AND INTERNATIONAL COOPERATION

# Macroeconomics

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**REVIEW QUESTIONS**

1. Derive the Walras' law with two markets—the labor market and the goods market, in the presence of two agents—households and firms. To this end, assume variable prices for goods and nominal wage rigidity. Applying the "law of demand and supply" in the goods market, what are the properties of equilibrium? How do these properties modify if the "effective demand principle"—as opposed of the "law of demand and supply"—holds in the short run?

2. Use the "Keynesian cross" graph to show that the solution of the income-expenditure model is dynamically stable.

3. Can the exogenous term $\bar{C}$ in the standard consumption function $C = \bar{C} + cY$ reflect the state of consumers' expectations about future disposable incomes? Why?

4. Which implications can be derived by "microfounding" a consumption function? Consider now a macroeconomic framework described by the income-expenditure model with households, firms and the government. Suppose that the state of households' expectations worsens. What is the effect on the equilibrium values of domestic production, $Y$, and the public deficit, $D$?

5. Assume that the economy is described by the income-expenditure model in the presence of the public sector. Suppose that the government increases public spending for goods and services ($\Delta\bar{G} > 0$). What is the effect on the equilibrium level of output, $Y$? And on the equilibrium level of consumption, $C$? And on the equilibrium level of public deficit, $D$?

6. Assume that the economy is described by the income-expenditure model ($P = \bar{P} = 1$ and $I = \bar{I}$). Suppose that the government decides a decrease in the level of pensions ($\Delta\overline{Tr} < 0$). Discuss the effects of such a policy on the equilibrium levels of output, $Y$, consumption, $C$, and the public deficit, $D$.

7. Consider an income-expenditure model in the presence of a public sector. Discuss the effects of a decrease in the marginal tax rate ($\Delta t < 0$), decided by the government, on the equilibrium levels of output and consumption.

8. Give the following definitions: government debt, deficit, primary balance. Illustrate the relationship between these variables.

9. Is real GDP growth critical to the sustainability of the fiscal position?

10. Discuss the validity of the following two statements:

    a) «A high public deficit is an unequivocal sign that the government has implemented an expansionary fiscal policy».

    b) «A positive primary surplus is a necessary and sufficient condition to stabilize the debt-to-GDP ratio».

11. Derive the investment function using either the net present value criterion or the internal rate of return criterion.

12. Empirically, investment is much more volatile than consumption. Are there theoretical explanations about such a stylized fact?

13. What is the IS schedule? Draw the graph and illustrate its characteristics.

14. Derive the Walras' law with two markets—the goods' market and the bonds' market, in the presence of three agents—households, firms and the government, and assuming variable prices for bonds ($P_b$). In this context, explain what is the "Say's law"?

15. What is the effect on money supply produced by an increase in the reserve-requirement coefficient? And what is the effect of an increase in the currency-deposit ratio?

16. Explain why money demand, $L$, depends positively on the level of income, $Y$, and negatively on the interest rate, $r$.

17. What is the LM schedule? Draw the graph and illustrate its characteristics.

18. In what condition is the money market at the points above the LM? What type of dynamic adjustment occurs?

19. Derive the relationship between the monetary base and money supply. Suppose now that a "bank run" occurs, leading to an increase in the currency-to-deposit ratio. If the central bank maintains the monetary base unchanged, what is the effect on the equilibrium levels of output and the interest rate?

20. Consider an IS-LM model. Explain the effect on the level of domestic product and the interest rate resulting from an improvement in the state of expectations.

21. "An expansionary fiscal policy stimulates the level of private investments". Is this statement correct or wrong? Discuss.

22. Consider an IS-LM model. What is the effect on the level of households' consumption resulting from an increase in public expenditure for goods and services? And what is the effect on the level of firms' investment?

23. "In the IS-LM model the multiplier of public spending for goods and services is lower than in the income-expenditure model". Is this statement correct or wrong? Explain.

24. Consider a closed-economy IS-LM model. What is the effect on the equilibrium level of output resulting from a decrease in public transfers? And what is the effect on the equilibrium levels of firms' investment and households' consumption? Can the central bank stabilize the level of output after the fiscal shock? How?

25. *The Fed* (Federal Reserve) *clearly did not repeat many mistakes of the Great Depression of 1929-1933 during the crisis of 2007-09. The Fed's response to the recent financial crisis was markedly different from, and undoubtedly influenced by, the experience of the Great Depression. During the Depression, the Fed permitted the money stock to collapse* [...]. *By contrast, the money stock continued to grow, albeit slowly at times,* [...] *throughout the recent crisis.* [D. C. Wheelock (2010), Lessons Learned? Comparing the Federal Reserve's Responses to the Crises of 1929-1933 and 2007-2009, *Federal Reserve Bank of St. Louis Review*, March/April, p. 103]

    Using the closed-economy IS-LM macroeconomic framework, discuss the previous statement.

26. Consider an IS-LM model. What is the effect on the equilibrium level of output generated by a decrease in money supply? And what is the effect on the equilibrium level of firms' investment?

27. Illustrate the "liquidity trap problem". What kind of policies should the public sector implement to escape a liquidity trap?

28. Explain what is the aggregate-demand (AD) schedule, and how it can be derived.

29. Assume imperfect competition in the goods market. Derive the aggregate-sypply (AS) schedule and explain why it is upward sloping.

30. Consider the AD-AS model in the presence of imperfect competition and in a condition of involuntary unemployment. What happens in terms of wages, prices and output without the intervention of the policy maker? And with the stabilizing intervention of the policy maker through "demand-side policies"?

31. Consider a Keynesian AD-AS model with imperfect competition. What do we mean by "supply-side policies"? What are their limits?

32. Using the Keynesian AD-AS model with imperfect competition, explain the "cost inflation theory".

33. Using the Keynesian AD-AS model with imperfect competition, explain the "demand inflation theory".