

2. Economics

2.1. Economic Profit, Accounting Profit, and Normal Profit.

2.1.1. 重要知识点

2.1.1.1. Accounting profit

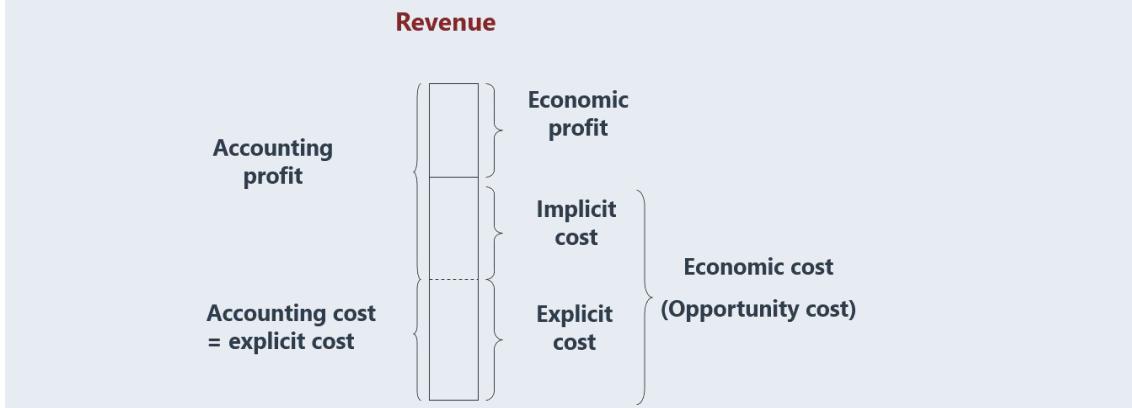
- Accounting profit is the difference between total revenue and total accounting cost.
- Accounting profit = total revenue – total accounting (explicit) cost

2.1.1.2. Economic profit

- Economic profit is also referred to as abnormal profit.
- Economic profit= accounting profit - implicit costs
 - Implicit costs are the opportunity costs of resources supplied to the firm by its owners.
 - For private firms, the implicit costs include
 - ◆ The opportunity cost of owner-supplied capital
 - ◆ The opportunity cost of the time
 - ◆ Entrepreneurial ability of the firm's owners.
 - For public firms, implicit costs are only the opportunity cost of equity owners' investment.
- Economic profit = total revenue – total economic costs

2.1.1.3. Normal profit

- Normal profit is the accounting profit that makes economic profit zero.
- Accounting profit = economic profit + normal profit



2.1.2. 基础题

Q-1. Normal profit is best described as:

- A. Accounting profit when economic profit is zero.

- B. Total revenue minus all explicit costs.
 C. The sum of accounting profit plus economic profit.

2.2. Revenue: TR, AR, and MR

2.2.1. 重要知识点

2.2.1.1. Total revenue=price×output

Marginal revenue=change in total revenue / change in output

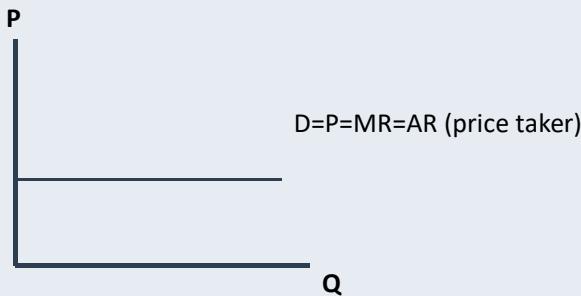
Average revenue=total revenue / output

2.2.1.2. Under imperfect competition

- Under conditions of imperfect competition, price is a variable under the firm's control, and therefore price is a function of quantity: $P = f(Q)$, and $TR = f(Q) \times Q$.
- Firm that faces a negatively sloped demand curve must lower its price to sell an additional unit, so its MR is less than price (P).
- Average revenue (AR) and marginal revenue (MR) will decline as quantity of goods sold increase. AR is not equal to MR for any quantities greater than zero. Total revenue (TR) is maximized when MR=0.
- The relationship between MR, P, and price elasticity of demand: $MR=P[1-1/E_p]$

2.2.1.3. Under perfect competition

- $D=P=MR=AR$
- $TR = P \times Q$



2.2.2. 基础题

- Q-2.** The marginal revenue per unit sold for a firm doing business under conditions of perfect competition will most likely be:
- A. Equal to average revenue.
 B. Less than average revenue.
 C. Greater than average revenue.

2.3. Cost

2.3.1. 重要知识点

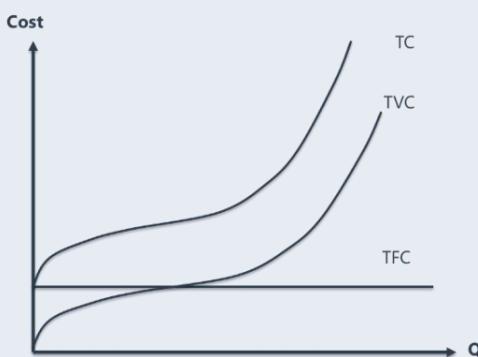
2.3.1.1. Short-run and long-run decision time frames 的理解

- Short run: a time period for which quantities of some resources are fixed, which is a constraint on a firm's ability to increase production. (labor and raw materials are variable while plant size, capital equipment, and technology are constant)
- Long run: a time period for which a firm can adjust its input quantities, production methods, and plant size. (在长期, 所有成本都视为可变成本)
- Typically, economists treat labor and raw materials as variable in the short run, holding plant size, capital equipment, and technology constant. All of these factors become variable in the long run.

2.3.1.2. TC, TVC, TFC

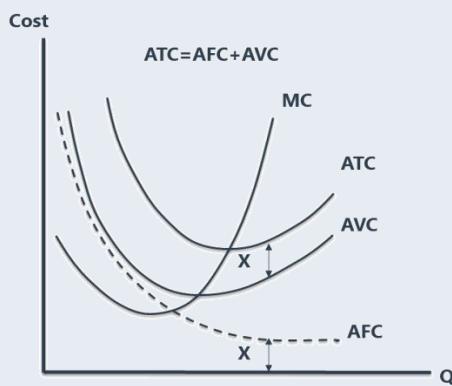
- TC (total cost) = total fixed cost + total variable cost

Term	Calculation
Total cost	The sum of all costs (fixed or variable, explicit and implicit) of producing a specific level of output.
Total fixed cost	The sum of all expenses that do not change as the level of production varies output over the period of analysis.
Total variable cost	The sum of all variable expenses; TVC rises with increased production and falls with decreased production.



2.3.1.3. MC, ATC, AVC, MC

- Marginal cost = change in total cost / change in output
- Average fixed cost = total fixed cost / output
- Average variable cost = total variable cost / output
- Average cost = total cost / output = AFC + AVC



- AFC slopes downward.
As output quantity increases, AFC declines because TFCs are spread over a larger number of units.
- Both ATC and AVC take on a bowl-shaped pattern in which each curve initially declines, reaches a minimum average cost output level, and then increases after that point.
 - The vertical distance between the ATC and AVC curves is equal to AFC.
 - Minimum point on the ATC curve represents the lowest cost per unit, but it is not necessarily the profit-maximizing point.
- The MC curve intersects both the ATC and the AVC at their minimum points.
 - TFC do not change with the change of output, so MC reflects the change of total variable cost only.
 - With the increase of output, MC declines initially, then increases.
- When MC is less than AVC, AVC will be decreasing. When MC is greater than AVC, AVC will be increasing.

2.3.2. 基础题

- Q-3.** Regarding a company's production function, both labor costs and capital costs are best described as:
- Fixed in the long run.
 - Variable in the long run.
 - Variable in the short run.

2.4. Profit Maximization, Breakeven Point and Shutdown Point

2.4.1. 重要知识点

2.4.1.1. Profit maximization occurs when

- The difference between total revenue (TR) and total costs (TC) is the greatest;

- Marginal revenue (MR) equals marginal cost (MC); ($MR=MC$)
- The revenue value of the output from the last unit of input employed equals the cost of employing that input unit.

2.4.1.2. Breakeven point and shutdown point

- Under perfect competition

Revenue-Cost Relationship	Short-Run Decision	Long-Run Decision
$AR > ATC$	Stay in market	Stay in market
$AR = ATC$	Breakeven point	
$AVC < AR < ATC$	Stay in market	Exit market
$AR = AVC$	Shutdown point	
$AR < AVC$	Shut down production to zero	Exit market

- Under imperfect competition

Revenue-Cost Relationship	Short-Run Decision	Long-Run Decision
$TR > TC$	Stay in market	Stay in market
$TR=TC$	Breakeven point	
$TVC < TR < TC$	Stay in market	Exit market
$TR=TVC$	Shutdown point	
$TR < TVC$	Shut down production to zero	Exit market

2.4.2. 基础题

- Q-4. Three firms operate under perfect competition, producing 900 units of the same product but using different production technologies. Each company's cost structure is indicated in the table:

Company	X	Y	Z
Total Variable Costs	\$2,700	\$3,600	\$4,500
Total Fixed Costs	2,700	1,800	900
Total Costs	\$5,400	\$5,400	\$5,400

Which of the following statements is most accurate? If the unit selling price is:

- A. \$6.00, all firms should exit the market in the long run.
- B. \$4.50, all firms should continue to operate in the short run, but exit the market in the long run if these conditions are expected to persist.
- C. \$3.00, Firm X should continue to operate in the short run, but Firms Y and Z should shut down production.

Q-5. The following data apply to a firm operating in perfect competition.

Quantity	Total Revenue	Total Cost
21	\$210	\$138
22	\$220	\$145
23	\$230	\$154
24	\$240	\$165

The firm's profit maximizing output (in units) is most likely:

- A. 21.
- B. in excess of 24.
- C. 23.

Q-6. A profit maximization is least likely to occur when:

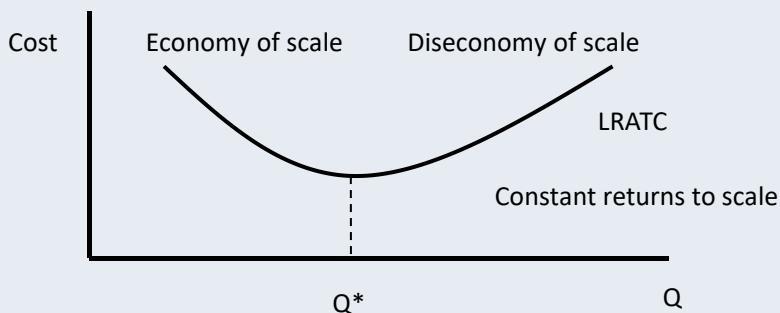
- A. Average total cost is minimized.
- B. Marginal revenue equals marginal cost.
- C. The difference between total revenue and total cost is maximized.

2.5. Economies of Scale and Diseconomies of Scale

2.5.1. 重要知识点

2.5.1.1. Economies of scale and diseconomies of scale

- Economies of scale occurs if cost per unit of production falls as input increases, and the slope of LRAC is negative.
- Diseconomies of scale occurs if cost per unit rises as input increases, and the slope of LRAC is positive.



- In the long run, everything is variable and the long run cost curves are known as planning curves.

2.5.2. 基础题

Q-7. If a firm's long-run average total cost increases by 4% when the output is increased by

4%, the firm is experiencing:

- A. Economies of scale.
- B. Diseconomies of scale.
- C. Constant returns to scale.

Q-8. A firm in a perfectly competitive environment has its total costs equal to total revenue and marginal costs greater than marginal revenue. Given this, which of the following strategies is most appropriate? The firm should:

- A. Shut down in the short run and exit in the long run.
- B. Increase its level of production to enter profit territory.
- C. Decrease its level of production to enter profit territory.

2.6. Market Structure

2.6.1. 重要知识点

2.6.1.1. Market structure

Type	Number of firms	Degree of difference of products	Difficulty to enter or leave	Pricing Power of Firm	The example in our life
Perfect competition	Many	No difference	Very easy	None	Some agricultural products
Monopolistic competition	Many	Some difference	Relatively easy	Some	Some retail products
Oligopoly	More than one, but not many	Little or no difference	Difficult	Some or Considerable	Steel, automobile, oil
Pure monopoly	Single	Sole product, nearly no substitute	No way	Considerable	Public sectors

2.6.2. 基础题

Q-9. Which characteristic is a firm least likely to exhibit if it faces a downward sloping

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demand curve for its product(s), many competitors, and zero economic profits in the long run?

- A. No pricing power
- B. Differentiated product
- C. Low barriers to entry

Q-10. The market structure in which a firm sells all of the product it produces at the market equilibrium price is best described as:

- A. Oligopoly.
- B. Perfect competition.
- C. Monopolistic competition.

2.7. Perfect Competition

2.7.1. 重要知识点

2.7.1.1. 完全竞争市场特征

- All the firms in the market produce identical products.
- pure competition is **price-taker**, all others are **price-searcher**
- There is a large number of independent firms.
- Each seller is small relative to the size of the total market.
- There is no barrier to entry or exit.

2.7.1.2. Individual firm's short-run equilibrium under perfect competition

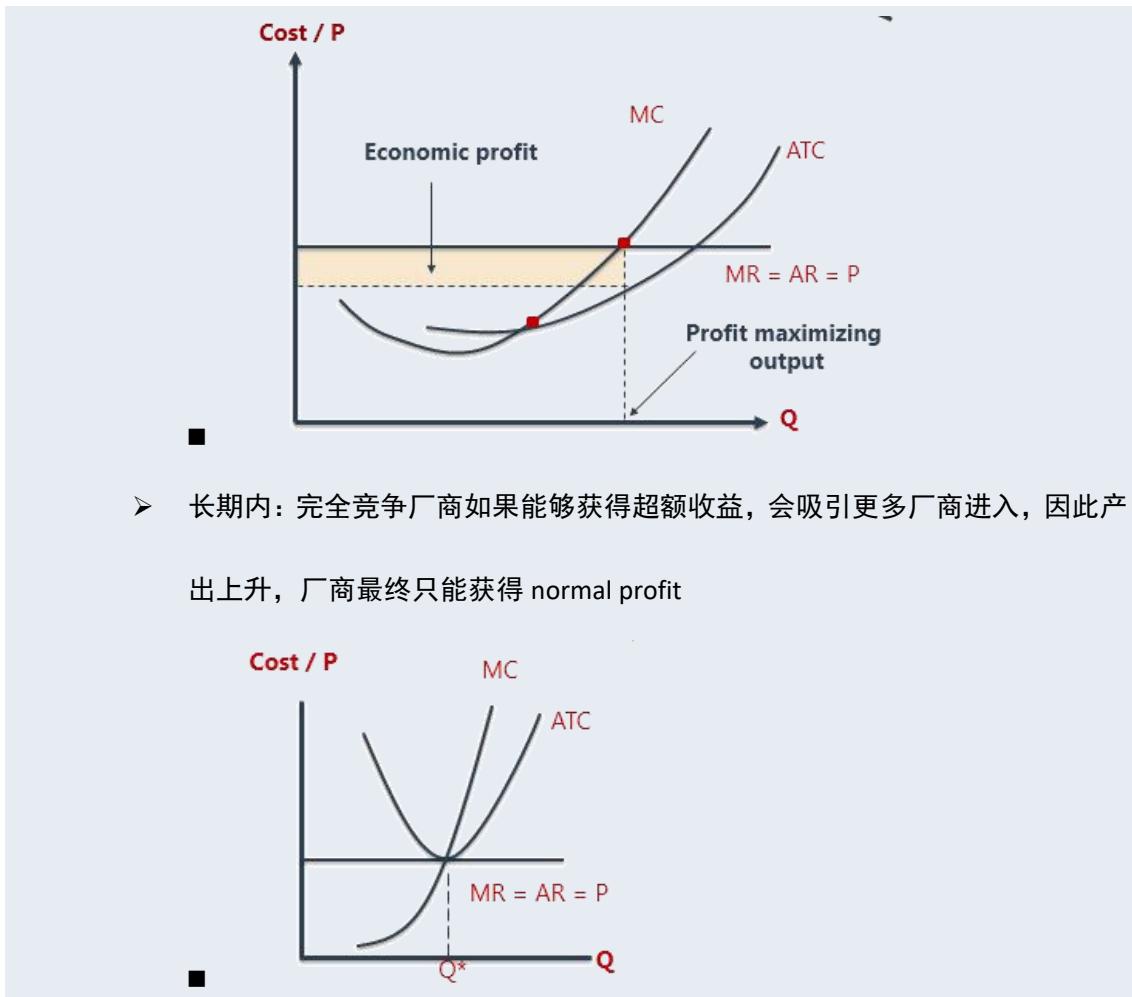
- Profit max: $MR=MC$
- $MR=P=AR$ (price taker)
- Individual firm's demand schedule is **perfectly elastic (horizontal)**.
- Market demand curve is negative slope

2.7.1.3. Individual firm's long-run equilibrium under perfect competition

- In the long-run, economic profit will attract other entrepreneurs to the market
➔ more output, price will decrease.
- The long-run, firms operate at the point where $MC = \text{minimum ATC}$
- So, firms operate at the point $P=MR=MC=ATC$, no firms earn excess profit.

2.7.1.4. Short-run and long-run equilibrium in perfect competition

- **短期内:** $MR=MC$, $MR=P=AR=D$ (price taker)



2.7.2. 基础题

Q-11. Over the long run, a perfectly competitive firm operating at the minimum efficient scale is:

- A. operating at the optimal firm size
- B. experiencing long-run average total costs that increase with output
- C. experiencing increases in output that are proportionately smaller than the increase in inputs.

Q-12. In long-run equilibrium, the supply curve of the perfectly competitive firm is best represented by the firm's long-run:

- A. marginal cost schedule.
- B. average revenue schedule.
- C. marginal revenue schedule.

2.8. Monopolistic Competition

2.8.1. 重要知识点

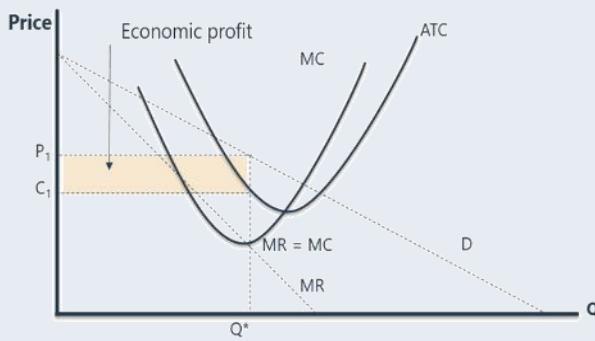
2.8.1.1. Monopolistic competition 特点

- There are a **large number of independent sellers**
 - Firms have small market shares in the market;
- Each firm tries to make its products look different
 - The products offered by each seller are close substitutes for the products offered by other firms, but they are differentiated.
- Firms have some pricing power;
- Entry into and exit from the market are possible with fairly low costs.;
- Firms in monopolistic competition has highly elasticity because competing products are close substitutes.
- Firms have a downward-sloping demand curve.

2.8.1.2. Product development and marketing

- Innovation and product development
 - In short term, the demand is less elastic than demand in perfect competition firms, companies can earn economic profit;
 - In long term, close substitutes and imitations makes the market perform more like a perfect competition market with no economic profit left eventually;
 - To earn continuous economic profit, continuous innovation is needed.
- Brand recognition
 - Firms can increase its economic profit by increasing its brand recognitions.
- Advertising
 - Significant costs for monopolistic competition;
 - Tell customers about its uniqueness;
 - Advertising costs increase the ATC for monopolistic competition firms;
 - Increasing outputs;
 - If advertising increases the output of firms, it can reduce the ATC by decreasing the average fixed cost for firms.

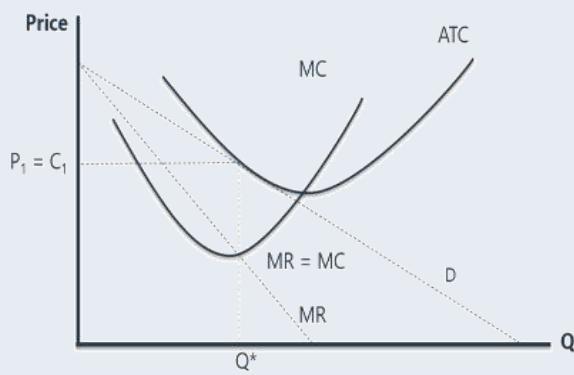
2.8.1.3. Short-run and long-run equilibrium in monopolistic competition



➤ 短期内: $MR=MC$, 可以 economic profit 或者 economic loss;

Short-run output decision for a firm

➤ 长期: 无经济利润或损失 (因为无进出壁垒), 均衡条件是 $MC=MR \& P=ATC$,
但不是在 ATC 的最低点



2.8.2. 基础题

Q-13. Successful advertising and product differentiation are most likely to have a positive impact on the economic profits of a producer under:

- A. Monopolistic competition.
- B. Monopoly.
- C. Perfect competition.

Q-14. Under monopolistic competition, a firm that introduces a new and differentiated product is least likely to:

- A. Increase its price.
- B. Make an economic profit.
- C. Face a demand that is more elastic.

2.9. Oligopoly Market

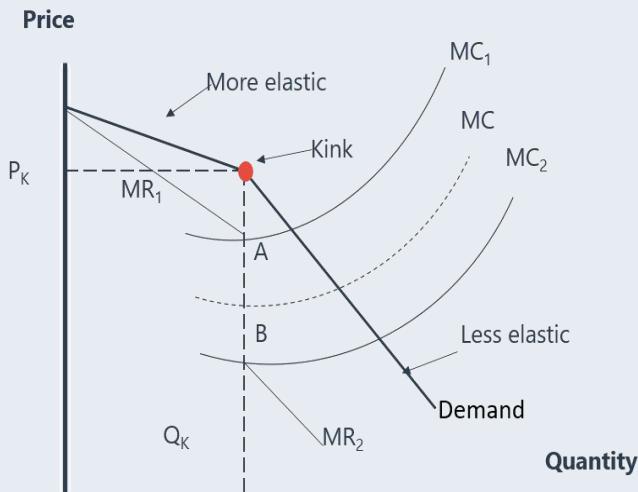
2.9.1. 重要知识点

2.9.1.1. 特点

- Small number of sellers
- Interdependence among competitors
- Large economies of scale
- Significant barriers to entry
- Either similar or differentiated products

2.9.1.2. Four traditional oligopoly models

- The kinked demand curve model
 - Assumption: each firm believes that if it raises its price, others will not follow, but if it cuts its price, other firms will cut theirs
 - Between range A and B, the optimum Q is constant, can't determine price



➤ Cournot duopoly model

- Each firm determines its profit-maximizing production level by assuming that the other firms' output will not change.
- In equilibrium, neither firm has an incentive to change output, given the other firm's production level. Each firm attempts to maximize its own profits under the assumption that the other firm will continue producing the same level of output in the future.
- The Cournot strategy assumes that this pattern continues until each firm reaches its long-run equilibrium position.
- In long-run equilibrium, output and price are stable: There is no change in price or output that will increase profits for either firm.

➤ **Nash equilibrium model**

- Nash equilibrium present when two or more participants in a non-cooperative game have no incentive to deviate from their respective equilibrium strategies after they have considered and anticipated their opponent's rational choices or strategies.

- Prisoner 's dilemma

	Prisoner Y is silent	Prisoner Y confesses
Prisoner X is silent	X gets 5 months Y gets 5 months	X gets 8 years Y goes free
Prisoner X confesses	X goes free Y gets 8 years	X gets 3 years Y gets 3 years

- The duopoly result from the Nash equilibrium. Assume there are two firms in the market, ArcCo and BatCo. ArcCo and BatCo can charge high prices or low prices for the product.

	BatCo low price	BatCo high price
ArcCo low price	ArcCo 50 BatCo 70	ArcCo 80 BatCo 0
ArcCo high price	ArcCo 300 BatCo 350	ArcCo 500 BatCo 300

➤ **Stackelberg dominant firm model**

- Market price is essentially determined by the dominant firm
- The other competitive firms take this market price as given.
- A single firm has a significantly large market share: greater scale & lower cost structure.

2.9.2. 基础题

Q-15. Aquarius, Inc. is the dominant company and the price leader in its market. One of the other companies in the market attempts to gain market share by undercutting the price set by Aquarius. The market share of Aquarius will most likely:

- Increase.
- Decrease.
- Stay the same

Q-16. Under what market conditions does each oligopoly face an individual demand curve?

- A. colluding market conditions only.
- B. non-colluding market conditions only.
- C. both colluding and non-colluding market conditions.

Q-17. According to the Cournot assumption, in an oligopoly market, each firm determines its profit-maximizing production level by assuming that other firms will:

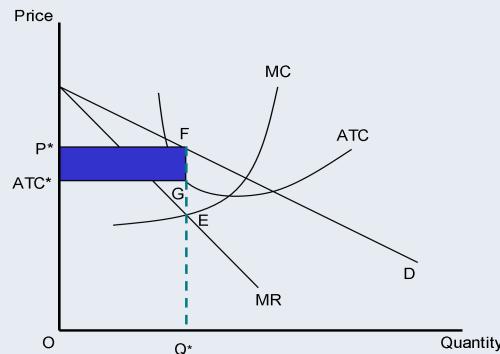
- A. decrease output.
- B. not change output.
- C. increase output.

2.10. Monopoly

2.10.1. 重要知识点

2.10.1.1. 特征

- Single seller, high barriers (legal barriers and natural barriers)



- Monopolists are price searchers (face downwards sloping demand curves) and have imperfect information about demand, so they must experiment with different prices (search) to find the profit maximizing price/quantity with always be in the elastic range of the demand curve for the firm's product.
- 短期和长期的均衡条件都是 $MR=MC$ (利润最大化的条件), 相比于完全竞争市场, 垄断市场的产量较少, 价格较高。
- $MR=P \times (1-1/E)$

2.10.1.2. Price discrimination

- Price discrimination can help monopolist to earn higher profit, and it can be

applicable if the products cannot be re-sold among customers.

- First-degree price discrimination, where a monopolist is able to charge each customer the highest price the customer is willing to pay.
- In second-degree price discrimination, the monopolist offers a menu of quantity-based pricing options designed to induce customers to self-select based on how highly they value the product.
 - ◆ Producers can use not just quantity but also the quality to charge more to customers that value the product highly.
- Third-degree price discrimination happens when customers are segregated by demographic or other traits.

2.10.1.3. Government regulation

- Average cost pricing is the more common form of regulation at the point where $ATC=D$. This will
 - Increase output of monopolists to the demand, and decrease price.
 - Ensure the monopolist a normal profit with less social welfare reduced.
- Marginal cost pricing forces the monopolists to reduce its price to marginal cost. This will
 - Increase output and reduce price, the pricing method is similar in competitive market.
 - The monopolist suffers a loss for the price is below ATC .
 - Government subsidy is needed in order to provide the firm with a normal profit.

2.10.2. 基础题

Q-18. Are monopolies always inefficient?

- A. No, because if they charge more than average cost they are nationalized.
- B. Yes, because they charge all consumers more than perfectly competitive markets would.
- C. No, because economies of scale and regulation (or threat of entry) may give a better outcome for buyers than perfect competition.

2.11. Market Concentration

2.11.1. 重要知识点

2.11.1.1. The N-firm concentration ratio

- The sum of the market share for largest N firms in a market in percentage aspect.
- Advantage: simple to compute, and easy to be understood

- Disadvantage: does not directly quantify market power

2.11.1.2. The Herfindahl-Hirschman index (HHI)

- Summing the **squares of the market shares** for each company in an industry.
- If there are M firms in the industry with equal market shares, then the HHI equals $(1/M)$. For example, an HHI of 0.2 would be analogous to having the market shared equally by 5 firms.

2.11.1.3. Limitation of measures

- The N-firm concentration ratio is insensitive to the merger of two firms with large market shares;
- Either case do not consider the barrier to entry for the industry. If the barriers to entry are low, even a firm is with high market share, it may not have too much pricing power.

2.11.2. 基础题

Q-19. An analyst gathered the following market share data for an industry comprised of six firms:

Company	A	B	C	D	E	F
Market Share (%)	30	20	20	15	10	5

So, the industry's four-firm concentration ratio and Herfindahl-Hirschman index are closest to:

	<u>Four-firm concentration ratio</u>	<u>HHI</u>
A.	95%	19.5%
B.	85%	19.5%
C.	85%	20.5%

Q-20. Which of the following measures indicate a monopoly market?

- A concentration ratio of 100% only
- A Herfindahl-Hirschman index of zero only
- Both a concentration ratio of 100% and a Herfindahl-Hirschman index of zero

2.12. Business Cycle Pattern

2.12.1. 重要知识点

2.12.1.1. Types of business cycle

- Classical cycle: the contraction phases between peaks and troughs are often short, while expansion phases are much longer.

- Growth cycle refers to fluctuations in economic activity around the long-term potential or trend growth level.
- Growth rate cycle refers to fluctuations in the growth rate of economic activity (e.g., GDP growth rate).

2.12.1.2. Business cycles have four phases: Recovery\expansion\Slowdown\contraction

Phase	Recovery	Expansion	Slowdown	Contraction
Description	Economy going through a trough. Negative output gap starts to narrow.	Economy enjoying an upswing. Positive output gap opens.	Economy going through a peak. Positive output gap starts to narrow.	Economy weakens and may go into a recession. Negative output gap opens.
Activity level: consumers and businesses	Activity levels are below potential but start to increase.	Activity measures show above-average growth rates.	Activity measures are above average but decelerating. Moving to below-average rates of growth.	Activity measures are below potential. Growth is lower than normal.
Employment	Layoffs slow. Businesses rely on overtime before moving to hiring. Unemployment remains higher than average.	Businesses move from using overtime and temporary employees to hiring. Unemployment rate stabilizes and starts falling.	Business continue hiring but at a slower pace. Unemployment rate continues to fall but at decreasing rates.	Businesses first cut hours, eliminate overtime, and freeze hiring, followed by outright layoffs. Unemployment rate starts to rise.
Inflation	Inflation remains moderate.	Inflation picks up modestly.	Inflation further accelerates.	Inflation decelerates but with a lag.

2.12.2. 基础题

Q-21. Orders for technology and light equipment decline before construction orders in a contraction because:

- A. businesses are uncertain about cyclical directions.
- B. they are easier to cancel than large construction contracts.
- C. businesses value light equipment less than structures and heavy machinery.

Q-22. Which of the following is most likely to happen during the slowdown phase of the economic cycle:

- A. inflation decelerates.
- B. business halts new orders.
- C. business slows its rate of hiring.

2.13. Credit cycles

2.13.1. 重要知识点

2.13.1.1. Definition

- **Credit cycles** describe the changing availability—and pricing—of credit. They describe growth in private sector credit (availability and usage of loans), which is essential for business investments and household purchases of real estate.
- **When the economy is weak or weakening**
 - Lenders tighten credit by making it less available and more expensive.
 - This frequently contributes to the decline of such asset values as real estate, causing further economic weakness and higher defaults.
 - This is because of the importance of credit in the financing of construction and the purchase of property.
- **Applications of credit cycles**
 - Loose credit conditions often lead to asset price and real estate bubbles that burst when capital market outflows and drawdowns occur mostly due to weaker fundamentals.
 - It is recognized that in a world with financial frictions, business cycles can be amplified, with deeper recessions and more extensive expansions because of changes in access to external financing.
- **Consequences for policy**
 - Investors pay attention to the stage in the credit cycle because
 - ◆ It helps them understand developments in the housing and construction

- markets;
- ◆ It helps them assess the extent of business cycle expansions as well as contractions, particularly the severity of a recession if it coincides with the contraction phase of the credit cycle;
 - ◆ It helps them better anticipate policy makers' actions.

2.13.2. 基础题

Q-23. A senior portfolio manager at Carnara Asset Management explains her analysis of business cycles to a junior analyst. She makes two statements:

Statement I Business cycles measure activity by GDP, whereas credit cycles combine a range of financial variables, such as the amount of and pricing of credit.

Statement II Credit cycles and business cycles are unrelated and serve different purposes.

- A. Only Statement I is true.
- B. Only Statement II is true.
- C. Both statements are true.

2.14. Economic Indicators

2.14.1. 重要知识点

2.14.1.1. Firm's Perspective

- Unemployment: Levels of employment lag the cycle
 - During recovery
 - Businesses rely on overtime before moving to hiring
 - Unemployment remains higher than average
 - During expansion
 - Businesses move from using overtime and temporary employees to hiring.
 - Unemployment rate stabilizes and starts falling
 - Firm may experience a decrease in availability of qualified workers.
 - During slowdown
 - Businesses continue hiring but at a slower pace
 - Unemployment rate continues to fall but at slowly decreasing rates
 - During contraction
 - Businesses first cut hours, eliminate overtime, and freeze hiring, followed by outright layoffs

- Unemployment rate starts to rise
- Firms will run “lean production” to generate maximum output with the fewest number of workers at the end of contractions.

➤ Capital spending

- During recovery
 - Capital expenditures focus on efficiency rather than capacity.
 - Upturn most pronounced in orders for light producer equipment
 - Typically, the orders initially reinstated are for equipment with a high rate of obsolescence, such as software, systems, and technological hardware.
- During expansion
 - Customer orders and capacity utilization increase.
 - The composition of the economy’s capacity may not be optimal for the current structure of demand, necessitating spending on new types of equipment. Companies start to focus on capacity expansion.
 - Heavy and complex equipment, warehouses, and factories.
- During slowdown
 - Companies continue to place new orders as they operate at or near capacity.
 - New orders intended to increase capacity may be an early indicator of the late stage of the expansion phase
- During contraction
 - New orders halted, and some existing orders canceled
 - Order cancel: light equipment & technology before construction and heavy ones.
 - Existing physical capital adjusts through aging plus lack of maintenance.

➤ Inventory based on inventory to sales ratio

- During recovery
 - Sales decline slows.
 - Production upturn follows but lags behind sales growth.
 - Begins to fall as sales recovery outpaces production.
- During expansion
 - Sales increase.
 - Production rises fast to keep up with sales growth and to replenish inventories of finished products.
 - Ratio stable.

- During slowdown
 - Sales slow faster than production; inventories increase.
 - Ratio increases. Signals weakening economy.
- During contraction
 - Businesses produce at rates below the sales volumes necessary to dispose of unwanted inventories.
 - Ratio begins to fall back to normal.

2.14.1.2. Leading economic indicators

- Average weekly hours, manufacturing
 - Business will cut overtime before laying off workers in a downturn and increase it before rehiring in a cyclical upturn.
 - Move up and down before the general economy.
- Average weekly initial claims for unemployment insurance
 - A very sensitive test of initial layoffs and rehiring.
- Manufacturers' new orders for consumer goods and materials
 - Because businesses cannot wait too long to meet demands for consumer goods or materials without ordering.
 - Orders tend to lead at upturns and downturns & captures business sentiment.
- ISM new order index
 - Reflects the month on month change in new orders for final sales. Decline of new orders can signal weak demand and can lead to recession.
- Manufacturers' new orders for non-defense capital goods
 - Captures business expectations and offers first signal of movement up or down.
- Average consumer expectations for business conditions
 - Optimism tends to increase spending. Provides early insight into the direction ahead for the whole economy.
- Building permits for new private housing units
 - Signals new construction activity as permits required before new building can begin.
- S&P 500 Stock Index
 - Stocks tends to anticipate economic turning points; useful early signal.
- Leading Credit Index
 - A vulnerable financial system can amplify the effects of negative shocks, causing widespread recessions.
 - Aggregates the information from six leading financial indicators, which

reflect the strength of the financial system to endure stress.

- Interest rate spread between 10-year treasury yields and overnight borrowing rates (federal funds rate)
 - As rates ultimately follow the economic cycle up and down, a wider spread, by anticipating short rate increases, also anticipates an economic upswing and vice versa.

2.14.1.3. Coincident economic indicators

- Industrial Production Index
- Real personal incomes
- Manufacturing and trade sales

2.14.1.4. Lagging economic indicators

- Average Duration of Unemployment
- Inventory—sales ratio
- Change in unit labor costs
 - 经济衰退初期，单位产品的劳动成本上升
 - 经济复苏后期，单位产品的劳动成本上升
- Inflation
- Average bank prime lending rate
- Commercial and industrial loans outstanding
- Ratio of consumer installment debt to income

2.14.2. 基础题

Q-24. Which of the following is most likely a leading indicator of economic activity?

- A. Manufacturers' new orders
- B. Manufacturing sales
- C. Industrial production index

Q-25. A decrease in average weekly initial claims for unemployment is most likely indicative of:

- A. an economic downturn beginning.
- B. an economic recovery beginning.
- C. the business cycle reaching its peak.

2.15. Central Bank

2.15.1. 重要知识点

2.15.1.1. Roles of central bank

- Monopoly supplier of the currency
- Banker to the government and bankers' bank
- Lender of last resort
- Regulator and supervisor of the payments system
- Conductor of monetary policy
- Supervisor of the banking system

2.15.1.2. Objectives of Central bank

- Maintain price stability through target inflation
- Maintain exchange rate stability through foreign reserves
- Prompt economic growth
- Achieve full employment
- Moderate long-term interest rates

2.15.1.3. Central bank should be

- Independent (operational and target independent)
- Credibility
- Transparent

2.15.1.4. Monetary multiplier

- Monetary multiplier= $1/r$
- r: reserve requirement

2.15.1.5. Different Targets Used by Central Banks

- Interest rate targeting
- inflation targeting
- Exchange rate targeting

2.15.2. 基础题

Q-26. Central banks most likely:

- A. believe that money is neutral in the short run
- B. have an overarching goal to maintain stability
- C. set and target policy rates that are usually long-term in nature

Q-27. The tools used by central banks to implement monetary policy most likely include:

- A. transfer payments.
- B. open market operations.
- C. raising or lowering income taxes.

Monetary Policy

2.15.3. 重要知识点

2.15.3.1. Tools of the central bank

- **Policy rate**
 - Policy rate ↓ → 融资成本低, 释放流动性 (扩张的货币政策)
 - Policy rate ↑ → 融资成本高, 收紧流动性 (紧缩的货币政策)
- **Reserve requirements**
 - Reserve requirement increases → available funds for lending decreases → money supply decreases → interest rate increases
 - 存款准备金 ↑ → 紧缩的货币政策
 - 存款准备金 ↓ → 扩张的货币政策
- **Open market operations**
 - **Definition:** purchase and sale of government bonds from and to commercial banks and/or designated market makers.
 - ◆ Purchase bonds, increase money supply
 - ◆ Sale bonds, decrease money supply
 - Open market operations help bank target a **desired level of reserves** of commercial banks or a **desired interest rate** of these reserves.
 - 央行买债券→ 扩张的货币政策
 - 央行卖债券→ 紧缩的货币政策

2.15.3.2. Neutral rate of interest: the rate that neither spurs on nor slows down the underlying economy

- Neutral rate=Trend growth + Inflation target
- Policy rate> Neutral rate: contractionary
- Policy rate< Neutral rate: expansionary

2.15.3.3. Limitation of money policy

- **Long-term rate may not adjusted coincide with short-term rates**

➤ **Liquidity trap**

- A condition in which the demand for money becomes infinitely elastic (horizontal demand curve) so that injections of money into the economy will not lower interest rates or affect real activity.
- When the interest rate is already at its low, and further decrease fails to control the amount of money that households and corporates put in bank.

➤ **Failure of control**

- the willingness of commercial banks to create money
- Banks refuse to lend more regardless of the favorable money supply and interest rate condition.

➤ **Quantitative easing**

- **Implemented by central bank** when deflation occurs and the short-term rates are near zero.

2.15.4. 基础题

Q-28. An increase in the official policy rate will most likely lead to:

- A. gradual increases in commercial banks' base rates.
- B. reduced credit availability.
- C. contracting commercial bank liquidity.

Q-29. Which of the following statements best describes monetary policy? Monetary policy:

- A. involves the setting of medium-term targets for broad money aggregates.
- B. involves the manipulation by a central bank of the government's budget deficit.
- C. seeks to influence the macro economy by influencing the quantity of money and credit in the economy

Q-30. The current situation is as follows:

Real trend rate of growth of the underlying economy =2%

Current inflation rate=4%

Current real economic growth=3%

Long-run Expected inflation =2%

If the policy rate is 5%, which type of monetary policy is it?

- A. Expansionary
- B. Contractionary
- C. Neutral

-
- Q-31.** Given stable inflation, a fiscal policy that is contractionary and accompanied by an easy monetary policy is most likely to:
- increase the private sector share of GDP.
 - have no impact on the private sector share of GDP.
 - decrease the private sector share of GDP.
- Q-32.** The transmission of a central bank's policy rate action throughout the economy ultimately impacts:
- total demand.
 - inflation.
 - long-term interest rates.
- Q-33.** A developing country that maintains a fixed exchange rate target relative to the US dollar is experiencing a decrease in economic activity and its inflation rate falls below the US level. The most likely outcome of the developing country's policy to maintain the fixed exchange rate target is that its:
- foreign exchange reserves will decrease.
 - short-term interest rates will fall.
 - money supply will contract.
- Q-34.** Which of the following scenarios might result in monetary policy becoming completely ineffective?
- A liquidity trap
 - The crowding out effect
 - A time lag to implement government spending

Fiscal Policy

2.15.5. 重要知识点

2.15.5.1. Spending tools

- **Transfer payments:** welfare payments made through the social security system
- **Current spending:** routine and continuing government purchases of goods and services
- **Capital spending:** Cost on infrastructures by governments and prompts productivity in the future

2.15.5.2. Revenue tools

- Tax can be considered as both to generate revenue for future expenses and to redistribute wealth among different classes.
- Direct taxes refer to revenues from income or wealth of both individual and corporate, also including capital gains taxes, national insurance taxes, property taxes, and inheritance taxes.
- Indirect taxes are levied on purchasing of goods and services.
- Consumptions tend to react more quickly to indirect taxes.

2.15.5.3. Fiscal multiplier

$$\text{Fiscal multiplier} = \frac{1}{1 - MPC(1 - t)} = \frac{1}{1 - b \times (1 - t)}$$

- MPC: Marginal propensity of consumption (b).
 - MPC=0.6 means Income increased by 1% and consumption increased by 0.6%, $MPC=\Delta C/\Delta I=\Delta \text{Consumption}/\Delta \text{Income}$.
- The fiscal multiplier is
 - Negatively related to the tax rate.
 - Positively related to the MPC.

2.15.5.4. Limitation of fiscal policy

- **Fiscal policy may be incorrect because of**
 - Inaccurate forecasts.
 - Lags in executing fiscal policy
 - ◆ Recognition lag: The time lag between the emergence of economic downturn and the recognition from the government.
 - ◆ Action lag: The time lag between the decision of the government and the implementation of the policy.
 - ◆ Impact lag: The time lag between the implementation of the policy and the emergence of results.
- **Crowding out effect**: Competition between government and private sectors increases borrowing cost and crowds out private firms with subsequent less investing and economic growth.
- **Ricardian equivalence**
 - Ricardian equivalence: Increases in the government spending are equal to increases in forward tax rates.
 - Consumers regard the increase in budget deficit as a signal of growing taxes in the future and thus increase present savings to offset the negative influence, therefore, the fiscal policy will not affect aggregate demand as it should be.
 - However, Ricardian equivalence will not hold when

People do not correctly anticipate all the future taxes required to repay the additional government debt, then they feel wealthier when the debt is issued and may increase their spending, adding to aggregate demand.

2.15.5.5. Interaction of monetary and fiscal policies

Monetary policy	Fiscal policy	Interest rate	output	Private spending	Public spending
Tight	Tight	higher	lower	lower	lower
Easy	Easy	lower	higher	higher	higher
Tight	Easy	higher	higher	lower	higher
Easy	Tight	lower	varies	higher	lower

2.15.6. 基础题

Q-35. A form of contractionary fiscal policy is most likely an increase in:

- A. reserve requirements
- B. personal income tax rates
- C. tariffs on imported goods

Q-36. Given stable inflation, a tight fiscal policy accompanied by easy monetary policy will most likely:

- A. increase the private sector share of GDP.
- B. have no impact on the private sector share of GDP.
- C. decrease the private sector share of GDP.

Q-37. The least likely goal of a government's fiscal policy is to:

- A. redistribute income and wealth.
- B. influence aggregate national output.
- C. ensure the stability of the purchasing power of its currency.

Q-38. Transfer payments most likely:

- A. change the overall income distribution in a society
- B. reflect a reward to a factor of production for economic activity
- C. are part of general government spending on goods and services

Q-39. The crowding-out effect is most closely linked to:

- A. higher interest rates.

-
- B. decreasing government debt.
 - C. Decreasing individual income tax.

Q-40. In a hypothetical economy, consumption accounts for 70% of pre-tax income, and the average tax rate is 25% of total income. If planned government expenditures are expected to increase by \$1.25 billion, the increase in total income and spending, in billions, is closest to:

- A. \$2.6.
- B. \$4.2.
- C. \$1.3.

Q-41. Which policy mix is most likely to lead to higher interest rates and lower tax revenues:

- A. easy fiscal policy and tight monetary policy.
- B. tight fiscal policy and easy monetary policy.
- C. tight fiscal policy and tight monetary policy.

Q-42. In the case of conventional monetary policy, fighting inflation is most likely:

- A. less difficult than combating deflation.
- B. equally difficult as combating deflation.
- C. more difficult than combating deflation.

2.16. National Governments and Political Cooperation

2.16.1. 重要知识点

2.16.1.1. National Government and Political Cooperation

- Countries and their governments are heavily influenced by economic, financial, and national security considerations as well as by social and cultural factors and non-state actors.
- Economic and Financial considerations are inextricably linked with a country's national interest and political dynamic.
 - State actors
 - ◆ National governments, political organizations, or country leaders.
 - Non-state actors
 - ◆ Non-governmental organizations (NGOs), multinational companies, charities, business leaders or cultural icons.

2.16.1.2. Features of Political Cooperation

➤ **Political Cooperation**

- The degree to which countries work toward agreements on rules and standardization for the activities and interactions between them.
- Cooperative country is one who engages and reciprocates in rules standardization
 - ◆ Harmonization of tariffs
 - ◆ international agreements on trade, immigration, or regulation
 - ◆ Allows for the free flow of information, including technology transfer.
- Non-cooperative country is one with inconsistent and even arbitrary rules
 - ◆ Restricted movement of goods, services, people, and capital across borders
 - ◆ Retaliation
 - ◆ Limited technology exchange.

2.16.1.3. Motivations for Cooperation

- A country may cooperate with its neighbors or with other state actors, usually defined by a country's national interest—its goals and ambitions—whether they be military, economic, or cultural.
- National Security or Military Interest
 - ◆ Military attacks, terrorism, crime, cyber-security, and even natural disasters
- Economic Interest
 - ◆ Secure essential resources through trade
 - ◆ Level the global playing field for their companies or industries through standardization
- Cultural Considerations
 - ◆ Countries may engage in soft power, a means of influencing another country's decisions without force or coercion.
 - ◆ Soft power can be built over time through such actions as cultural programs, advertisement, travel grants, and university exchange.

2.16.1.4. Hierarchy of Interests

- Every country has different resources, goals, and leadership. They will have different priorities.
- The length of a country's political cycle has an important impact on priority designation.
- The factor of psychology and non-predictability will also affect choices along the hierarchy of a nation's needs.
- Political cooperation versus non-cooperation is an important one for

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understanding countries' priorities.

2.16.2. 基础题

Q-43. Which of the following factor a cooperative country is most likely focused?

- A. Standardization
- B. Arbitrary Rule
- C. Lack of Technology Exchange

2.17. Non-State Actors and the Forces of Globalization

2.17.1. 重要知识点

2.17.1.1. Features of globalization

➤ **Globalization** is the process of interaction and integration among people, companies, and governments worldwide.

- Mostly by non-state actors, such as corporations, individuals, or organizations.
- Anti-globalization or nationalism is marked by limited economic and financial cooperation.
- Organic private sector forces can drive the exchange of products or ideas even without government support or harmonized rules.

2.17.1.2. Motivation of globalization

➤ **Non-state actors** choose to participate in globalization consider three potential gains:

- Increasing profits
 - ◆ Increasing sales: engage in globalization in order to access new customers for their goods and services.
 - ◆ Reducing costs: access lower tax-operating environments, reduce labor costs, or seek other supply chain efficiency gains.
- Access to resources and markets
 - ◆ A non-state actor may also seek market access or investment opportunities abroad.
 - ◆ Two important types of flows: portfolio investment flows or foreign direct investments.
- Intrinsic gain
 - ◆ It is a side effect or consequence of an activity that generates a benefit beyond profit itself.
 - ◆ It can be a stabilizing force, increasing empathy between actors and reducing the likelihood that a geopolitical threat is levied.

2.17.1.3. Costs of Globalization and Threats of Rollback

➤ Unequal Accrual of Economic and Financial Gain.

- Improvement on the aggregate does not mean improvement for everyone.
- Some actors will benefit from this exchange, but others may suffer.

➤ Lower Environmental, Social, and Governance Standards.

- If standards on environmental protection, social benefit, or corporate governance are lower in one country compared to another and companies ultimately reduce their standards of production in that context, then globalization can create a drain on human, administrative, and environmental resources.

➤ Political Consequences.

- Globalization can contribute to income and wealth inequality, as well as differences in opportunity, within and between countries.
- These dynamics can manifest in countries' local politics, resulting in a force not only for reduced political and economic cooperation but also for a rollback in political cooperation.

➤ Interdependence

- Globalization can result in the nation itself becoming dependent on other nations for certain resources.
- If there is a disruption to the supply chain, including via a moment of political non-cooperation, then firms may not be able to produce the good themselves.
- Tactics to fortify their supply chains.
 - ◆ Re-shoring the essentials: Shortages of prescription medication, personal protective equipment, and other essential items during the pandemic highlighted the need for certain 'essential' supply chains to be rebuilt domestically for emergency situations. Companies seeking to reduce manufacturing and procurement risk may relocate back to their home countries.
 - ◆ Re-globalizing production: the same concerns about production disruptions, rising labor costs, or political risk may instead prompt companies to duplicate or fortify their supply chains.
 - ◆ Doubling down on key markets: labor costs in some trading partners have risen over time, so too has the productivity of those workers. Add large market size, physical infrastructure supporting coordination, sophisticated supply chains, and the investment required to rebuild

supply chains elsewhere, and some companies may consider doubling down on key markets. Developing production “In country, for the country,” in combination with external supply chains, may be required.

2.17.2. 基础题

Q-44. Which of the following regarding globalization is least likely correct?

- A. Globalization is primarily carried out by governmental actors.
- B. Nationalism is marked by limited economic and financial cooperation.
- C. Organic private sector forces can drive the exchange of products or ideas even without government support or harmonized rules.

Q-45. Which of the following is most likely to be a benefit of globalization?

- A. Increased profits
- B. More equal income distribution
- C. Stronger environmental, social, and governance standards

2.18. Archetypes of Globalization and Cooperation

2.18.1. 重要知识点

2.18.1.1. Four archetypes of country behavior:

➤ Autarky: countries seeking political self-sufficiency with little or no external trade or finance.

- State-owned enterprises control strategic domestic industries.
- Stronger politically, including the ability to exercise complete control over the supply of technology, goods, and services, as well as media and political messaging.
- In some cases, periods of autarky can provide a country with swifter economic and political development.

➤ Hegemony countries tend to be regional or even global leaders and use their political or economic influence of others to control resources.

- For itself, economic and political dominance may provide important influence on global affairs.

- For the global system, countries aligning with the hegemon's rules and standards may enjoy the rewards provided by the leader.
- Multilateralism: countries that participate in mutually beneficial trade relationships and extensive rules harmonization.
- Private firms are fully integrated into global supply chains with multiple trade partners.
 - Examples: Germany and Singapore.
- Bilateralism: the conduct of political, economic, financial, or cultural cooperation between two countries.
- One-at-a-time agreements without multiple partners.
 - It is noteworthy that relatively few countries perfectly fit the bilateral mold.
 - Typically, countries exist on a spectrum between bilateralism and multilateralism. This is regionalism, in which a group of countries cooperate with one another.
 - Example: Japan

2.18.2. 基础题

Q-46. Which of the following country behaviors is most likely exposed to the risk of globalization?

- A. autarky
- B. hegemony
- C. bilateralism

Q-47. A country that has one-to-one cooperation with many of its neighbors can be described as:

- A. autarkic.
- B. bilateral.
- C. hegemonic.

2.19. The Tools of Geopolitics

2.19.1. 重要知识点

- **The tools of geopolitics** may be separated into three types:
- **National security tools**: used to influence or coerce a state actor through direct or indirect impact on the country's resources, people, or borders.

- ◆ Armed conflict is a direct and active national security tool.
- ◆ Espionage is a necessarily indirect national security tool.
- ◆ Not all national security tools are used in a non-cooperative way.
For example: the North Atlantic Treaty Organization
- **Economic tools:** the actions used to reinforce cooperative or non-cooperative stances via economic means.
 - ◆ Cooperative economic tools: Southern Common Market, World Trade Organization
 - ◆ Non-cooperative economic tools: Nationalization, Voluntary Export Restraints
- **Financial tools:** the actions used to reinforce cooperative or non-cooperative stances via financial mechanisms.
 - ◆ **Cooperative financial tools:** may decrease geopolitical risk as well as create vulnerabilities in the international system. E.g. the free exchange of currencies across borders, allowing foreign investment
 - ◆ **Non-cooperative financial tools:** E.g. limiting access to local currency markets, restricting foreign investment.

2.19.2. 基础题

- Q-48.** Which of the following tools of geopolitics is best described as a non-cooperative economic tool?
- Voluntary export restraints.
 - Regional free trade agreements.
 - Restrictions on conversion of currencies.

2.20. Incorporating Geopolitical Risk into the Investment Process

2.20.1. 重要知识点

2.20.1.1. Geopolitical Risk and Comparative Advantage

- **Geopolitical risk and the tools of geopolitics can tilt comparative advantage in one direction or another.**
- Countries or regions with limited geopolitical risk exposure may attract more labor and capital.
- Countries with higher geopolitical risk exposure may suffer a loss of labor and capital.
- A consistent threat of conflict may drive more regular volatility in asset prices,

prompting investors to require higher compensation for risk taken.

2.20.1.2. Types of geopolitical risk

- Three basic types of geopolitical risk
 - Event risk: around set dates known in advance.
 - ◆ Elections, new legislation, holidays or political anniversaries
 - ◆ It gives investors more time to prepare a response.
 - ◆ The United Kingdom's referendum on European Union membership
 - Exogenous risk: a sudden or unanticipated risk.
 - ◆ It impacts either a country's cooperative stance, the ability of non-state actors to globalize, or both.
 - ◆ Examples: sudden uprisings, invasions, or the aftermath of natural disasters.
 - Thematic risk: known risks that evolve and expand over a period of time.
 - ◆ Examples: Climate change, pattern migration, rise of populist forces, ongoing threat of terrorism and cyber risks.
 - ◆ Cyber risks include any attempt to expose, alter, disable, destroy, steal, or gain information through unauthorized access to or unauthorized use of computer systems. These threats began with the expansion of internet and computer use and have increased in number and scale.

2.20.1.3. Assessing Geopolitical Threats

- An investor considers geopolitical risk in terms of the three areas:
 - **Likelihood**: the probability that it will occur.
 - **Velocity**: the pace at which it impacts an investor portfolio.
 - **Impact**: manifest in many ways and can be discrete in size or broad in nature.
- Assessing geopolitical risk for portfolio management, investors should consider all three geopolitical risk factors:
 - A highly likely risk with very little impact to the portfolio may not merit extensive analysis and investor attention.
 - A highly impactful risk with a low likelihood of occurring may merit building a scenario for response but not regular monitoring and assessment.
 - Between these extremes, investors must consider their goals and risk tolerance to identify high-priority risks.
- Analysis approach
 - Scenario analysis is the process of evaluating portfolio outcomes across potential circumstances or states of the world.
 - ◆ The form of qualitative analysis, quantitative measurement, or both.
 - ◆ Good scenario building can prompt investors to alter their risk

prioritization, making it a useful tool not only for tracking risks but also for deciding which portfolio actions may be valuable to take.

- Signposting: an indicator of market level, data piece, or event
 - ◆ A risk is low in likelihood, velocity, or impact, then the signposts are flashing “green”;
 - ◆ A risk is medium in likelihood, velocity, or impact, then the signposts are flashing “amber”;
 - ◆ Differentiate signal from noise and react when signposts flash red.
 - ◆ A basic rule of thumb for distinguishing signal from noise is the distinction between politics and policy.
 - ◆ Political developments can serve as meaningful signposts, as they can indicate a change in the risk’s likelihood or pace

2.20.1.4. Manifestations of Geopolitical Risk

- **High-velocity risks** are most likely to manifest in market volatility via prompt changes in asset prices.
 - Commodities, foreign exchange, equities, and bond prices (via changes in interest rates).
- **Low-velocity geopolitical risks** can have a more prolonged impact on investor inputs.
 - Sustained disruption may result in smaller revenues, higher costs, or both, which can negatively impact a company’s valuation.
 - Example: COVID-19 pandemic.
- Portfolio investment flows face greater volatility due to geopolitical factors, and investors will factor in a higher risk premium.
 - This is a key reason why asset prices in emerging and frontier markets are typically maintained at a discount to those in developed countries perceived to have a lower threat of risk.

2.20.1.5. Geopolitical Risk Index (GPR)

- The purpose of the index is to measure real-time geopolitical risk as perceived by the press, the public, global investors, and policymakers in a way that is consistent over time.
- Through the GPR, it found three important observations:
 - High levels of geopolitical risk reduce US investment, employment, and price level of the stock market.
 - Individual firm’s investment falls more in industries positively exposed to geopolitical risk and that firms reduce investment in the wake of idiosyncratic geopolitical risk events.

- The adverse effect of geopolitical events themselves as well as the threat of adverse events, finding that the threat of events had a larger impact over time.

2.20.1.6. Acting on Geopolitical Risk

- The importance of geopolitical risk to the investment process depends on investor objectives, risk tolerance, and time horizon.
- At the portfolio management level, investors can consider geopolitical risk as a factor in multi-factor models.
- For an investor with low risk tolerance, reducing exposure to geopolitical risk may be appropriate, whether through low-volatility investment choices or through hedging.
- For an investor with a long-time horizon, a geopolitical event like an exogenous shock could be a buying opportunity.
- For an investor nearing retirement that same exogenous shock can have a major negative impact on their terminal portfolio value.

2.20.2. 基础题

- Q-49.** When investing for a long time horizon, a portfolio manager should most likely devote resources to analyzing:
- event risks.
 - thematic risks.
 - exogenous risks.

2.21. Trade Barrier

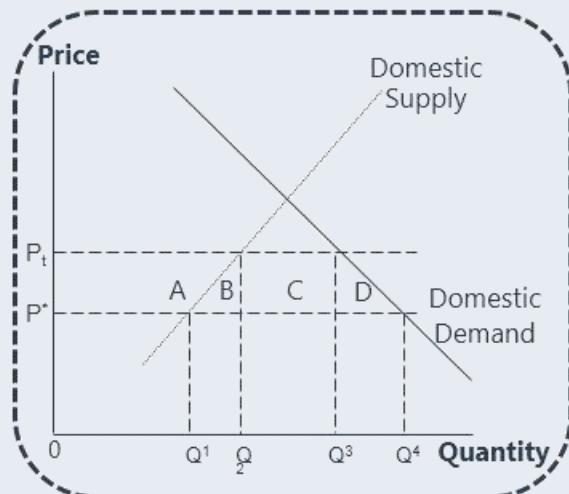
2.21.1. 重要知识点

2.21.1.1. Trade restrictions

- **Types of trade restrictions**
 - Tariffs: tariffs are taxes that a government levies on imported goods.
 - Quotas: restrict the quantity of a good that can be imported into a country, generally for a specified period of time.
 - Export subsidies: paid by the government to the firm when it exports a unit of a good that is being subsidized.
 - Voluntary export restraint: a trade barrier under which the exporting country agrees to limit its exports of the good to its trading partners to a specific number of units.

2.21.1.2. Tariffs and quotas

	Tariff	Import Quota	Export Subsidy	VER
Impact on	Importing country	Importing country	Exporting country	Importing country
Producer surplus	Increases	Increases	Increases	Increases
Consumer surplus	Decreases	Decreases	Decreases	Decrease
Government revenue	Increases	Mixed (depends on whether the quota rents are captured by the importing country through sale of licenses or by the exporters)	Falls (government spending rises)	No change (rent to foreigners)
National welfare	Decreases in small country Could increase in large country	Decreases in small country Could increase in large country	Decreases (a larger decline in large country)	Decreases



Importing Country

Consumer surplus	$-(A+B+C+D)$
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Producer surplus	+A
Tariff revenue or Quota rents	+C
National welfare	-B-D

2.21.2. 基础题

Q-50. Which type of trade restriction would most likely increase domestic government revenue?

- A. Tariff
- B. Import quota
- C. Export subsidy

Q-51. When a price taker imposes a tariff on imports, which of the following occurs?

- A. national welfare increases.
- B. consumers gain consumer surplus.
- C. local producers gain producer surplus.

2.22. Trading Blocs

2.22.1. 重要知识点

2.22.1.1. Types Of Trading Blocs

- **Free trade areas**
 - All barriers to import and export of goods and services among member countries are removed
- **Customs union:**
 - All barriers to import and export of goods and services among member countries are removed.
 - All countries adopt a common set of trade restrictions with non-members.
- **Common market:**
 - All barriers to import and export of goods and services among member countries are removed.
 - All countries adopt a common set of trade restrictions with non-members.

- All barriers to the movement of labor and capital goods among member countries are removed.
- **Economic union:**
 - All barriers to import and export of goods and services among member countries are removed.
 - All countries adopt a common set of trade restrictions with non-members.
 - All barriers to the movement of labor and capital goods among member countries are removed.
 - Member countries establish common institutions and economic policy for the union.
- **Monetary union:**
 - All barriers to import and export of goods and services among member countries are removed.
 - All countries adopt a common set of trade restrictions with non-members.
 - All barriers to the movement of labor and capital goods among member countries are removed.
 - Member countries establish common institutions and economic policy for the union.
 - Member countries adopt a single currency.

2.22.2. 基础题

- Q-52.** If one country proposes a change to a common market structure within a customs union of four countries, what additional level of economic integration between the countries is most likely to arise? They would most likely experience:
- A. begin to allow free movement of the factors of production.
 - B. establish common economic institutions and coordination of economic policies.
 - C. establish common trade barriers against non-members.

2.23. International Organization

2.23.1. 重要知识点

2.23.1.1. International Monetary Fund (IMF)

- **主要目的：维持全球金融秩序**
 - Provides a forum for cooperation on international monetary problems
 - Facilitates the growth of international trade and promotes employment,

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- economic growth, and poverty reduction
 - Supports exchange rate stability and an open system of international payments
 - Lends foreign exchange to members when needed, on a temporary basis and under adequate safeguards, to help them address balance of payments problems
- After the global financial crisis of 2007-2009, the IMF has redefined and deepened its operations by:
- Enhancing its lending facilities
 - Improving the monitoring of global, regional, and country economies
 - Helping resolve global economic imbalances
 - Analyzing capital market developments
 - Assessing financial sector vulnerabilities

2.23.1.2. World Bank Group

- **World Bank Group's main objective** is to help developing countries **fight poverty** and enhance environmentally sound economic growth. (主要目的：扶贫)
- For developing countries to grow and attract business, they have to
 - Strengthen their governments and educate their government officials
 - Implement legal and judicial systems that encourage business
 - Protect individual and property rights and honor contracts
 - Develop financial systems robust enough to support endeavors ranging from micro credit to financing larger corporate ventures
 - Combat corruption

2.23.1.3. World Trade Organization (WTO)

- The WTO provides the legal and institutional foundation of the multinational trading system. It is the only international organization that regulates cross-border trade relationships among nations on a global scale.
- The WTO's most important functions are the implementation, administration, and operation of individual agreements; acting as a platform for negotiations; and settling disputes.
- WTO has the mandate to review and propagate its members' trade policies and ensure the coherence and transparency of trade policies.
- Provides technical cooperation and training to developing, least-developed, and low-income countries to assist with their adjustment to WTO rules.
- WTO is a major source of economic research and analysis, producing ongoing assessments of global trade in its publications and research reports on special

topics.

- WTO's framework of global trade rules provides the major institutional and regulatory base.

2.23.2. 基础题

Q-53. Which of the following best describes a function of the World Bank for Reconstruction and Development?

- A. Lending foreign currencies on a temporary basis to address balance of payment issues
- B. Regulating cross-border trade relationships on a global scale
- C. Providing low interest rate loans to developing countries

Q-54. Which organization's objective is to fight poverty?

- A. The World Bank
- B. The World Trade Organization
- C. The International Monetary Fund

2.24. Exchange Rate

2.24.1. 重要知识点

2.24.1.1. Nominal and real exchange rate

- **Exchange rate** is the number of units of one currency (called the price currency) that one unit of another currency (called the base currency) will buy.
 - **Nominal exchange rate:** the price that we observe in the marketplace for foreign exchange.
 - **Real exchange rate:** assess changes in the relative purchasing power of one currency compared with another currency.
- $$FX_{real(d/f)} = FX_{nominal(d/f)} \times \frac{P_f}{P_d}$$

2.24.1.2. FX appreciation and depreciation

1.7799CHF/USD to 1.8100CHF/USD ➔ USD appreciated therefore CHF depreciated

2.24.1.3. Spot rates &forward rates

- Spot rates: exchange rate used for spot transactions.
- Forward rates: exchange rate referred in the forward contract transactions.

2.24.1.4. Forward discount or premium

- **Forward exchange rates** are typically quoted in terms of points, and the points on a forward rate quote are simply the difference between the forward exchange rate

quote and the spot exchange rate quote, with the points scaled so that they can be related to the last decimal in the spot quote.

- If the forward rate is higher than the spot rate → the points >0 → the base currency is trading at a forward premium.
- If the forward rate is lower than the spot rate → the points <0 → the base currency is trading at a forward discount.
- Occasionally, one will see the forward rate or forward points represented as a percentage of the spot rate rather than as an absolute number of points.

2.24.1.5. Cross rate

- **Cross rate:** Given exchange rates for two currency pairs—A/B and A/C—we can compute the cross-rate (B/C) between currencies B and C.

2.24.2. 基础题

Q-55. An Australian firm purchased a patent for USD20,000 and machinery for USD21,500 from a U.S. firm when the exchange rates were as follows:

Ratio	Exchange Rate
USD/EUR	1.29
AUD/EUR	1.24

The impact of these transactions on the capital account of Australia (in AUD) is closest to:

- A. 19,225.
- B. 20,667.
- C. 20,806.

Q-56. A New Zealand traveler returned from Singapore with SGD7, 200 (Singapore dollars). A foreign exchange dealer provided the traveler with the following quotes:

Ratio	Spot Rates
USD/SGD	1.2580
NZD/USD	0.7668
USD: US dollar	
NZD: New Zealand dollar	

The amount of New Zealand dollars (NZD) that the traveler would receive for his Singapore dollars is *closest to*:

- A. NZD6,945.
- B. NZD6,954.
- C. NZD6,965.

Q-57. Assume that the nominal spot exchange rate (USD/EUR) increases by 7.3%, the Euro zone price level decreases by 3.8%, and the US price level increases by 2.3%. The change in the real exchange rate (%) is closest to:

- A. 0.9%.
- B. -6.0%.
- C. 14.1%.

Q-58.

	Spot Rate	Expected Spot Rate in One Year
USD/EUR	1.3001	1.3456
USD/GBP	1.5805	1.5489

Based on the table, the appreciation of which of the following currencies is most likely to occur?

- A. The British pound against the US dollar by 2.00%
- B. The US dollar against the euro by 3.38%
- C. The euro against the US dollar by 3.50%

Q-59. Based on the FX quotations in the table, the most accurate statement is?

	Spot Rate	One-Year Forward Rate
USD/EUR	1.2952	1.3001

- A. The forward rate is trading at a discount to the spot rate by 0.0049 points.
- B. The euro is trading at a forward premium of 49 points.
- C. The US dollar is trading at a forward premium of 49 points.

2.25. Interest Rate Parity (IRP)

2.25.1. 重要知识点

2.25.1.1. Interest rate parity (IRP) holds when any forward premium or discount just offsets differences in interest rates so that an investor will earn the same return investing in either currency. Approximated by equating the difference between the domestic interest rate and the foreign interest rate to the forward premium or discount.

2.25.1.2. Interest rate parity relationship

- F (forward), S (spot) X/Y, r_X and r_Y is the nominal risk-free rate in X and Y

$$\frac{F}{S} = \frac{1 + r_X}{1 + r_Y}$$

$$\frac{F-S}{S} = \frac{1 + r_X}{1 + r_Y} - 1 = \frac{r_X - r_Y}{1 + r_Y} \approx r_X - r_Y$$

- The forward rate of Y will be higher than (be at a premium to) the spot rate if the nominal risk-free rate in X is higher than that in Y.
- More generally, and regardless of the quoting convention, the currency with the higher (lower) interest rate will always trade at a discount (premium) the forward market.

2.25.2. 基础题

Q-60. The following information is available:

Spot exchange rate: 2.0979 NZD/GBP

Libor interest rates for the British pound: 1.6025%

Libor interest rates for the New Zealand dollar: 3.2875%

All Libor interest rates are quoted on a 360-day year basis

The 180-day forward points (scaled up by four decimal places) in NZD/GBP is closest to:

- A. 39.
- B. 348.
- C. 176.

Q-61. A European foreign exchange dealer gives the following exchange rate information to a European client: USD/EUR spot rate = 1.1640; three-month forward points = 12.8. The best interpretation of the exchange rate information is that:

- A. the US dollar is trading at a premium to its forward rate.
- B. the three-month US real interest rate is expected to rise.
- C. three-month Eurozone interest rates are lower than those in the United States.

2.26. FX Regime

2.26.1. 重要知识点

2.26.1.1. Exchange rate regimes

➤ **Arrangements with no separate legal tender**

- Countries do not have its own legal tender → dollarization
 - ◆ The country uses the currency of another nation as its medium of exchange and unit of account)
- Monetary union: Euros

➤ **Countries that have their own currency**

- **Currency board system → HK**

- ◆ The IMF defines a currency board system (CBS) as
 - ✧ A monetary regime based on an explicit legislative commitment to exchange domestic currency for a specified foreign currency at a fixed exchange rate, combined with restrictions on the issuing authority to ensure fulfillment of its legal obligation. This implies that domestic currency will be issued only against foreign exchange and it remains fully backed by foreign assets.....

■ Fixed parity

- ◆ In the fixed-rate system, the exchange rate may be pegged to a single currency, or to a basket index of the currencies of major trading partners. There is a band of up to ± 1 percent around the parity level within which private flows are allowed to determine the exchange rate.
The difference between currency board system and fixed parity.
 - ✧ First, there is no legislative commitment to maintaining the specified parity.
 - ✧ Second, the target level of foreign exchange reserves is discretionary.
- ◆ The credibility of the fixed parity depends on the country's willingness and ability to offset imbalances in private sector demand for its currency.

■ Target zone: A target zone regime has a fixed parity with fixed horizontal intervention bands that are somewhat wider, up to ± 2 percent around the parity, than in the simple fixed parity regime.

■ Crawling peg: the exchange rate is usually adjusted against a single currency, especially during the high inflation periods.

- ◆ Passive crawling peg: the exchange rate was adjusted frequently (weekly or daily) to keep pace with the inflation rate.
 - ✧ Example: Brazil
- ◆ Active crawling peg: the exchange rate was pre-announced for the coming weeks with changes taking place in small steps.
 - ✧ The aim of the active crawl was to manipulate expectations of inflation.
 - ✧ Example: Chile (1965~1970, 1973~1979)

■ Fixed parity with crawling bands: initially, a country may fix its rates to a foreign currency to anchor expectations about future inflation but then gradually permit more and more flexibility in the form of a pre-announced widening band around the central parity.

■ Managed float: a country may simply follow an exchange rate policy based on either internal or external policy targets.

■ Independently floating rates: the exchange rate is fully determined by the market, and the central bank is able to exercise independent monetary policy to achieve the objectives of price stability and full employment.

2.26.2. 基础题

Q-62. In the classification of currency regimes, a currency board system (CBS) most likely differs from a fixed-rate parity system in that:

- A. a CBS has a discretionary target level of foreign exchange reserves.
- B. a CBS can peg to a basket of currencies but a fixed-rate system cannot.
- C. the monetary authority within a CBS does not act as a traditional lender of last resort.

Q-63. Which of the following is most likely a characteristic of a country that adopts the dollarization exchange rate regime? The country:

- A. is able to monetize its domestic debt.
- B. has the currency credibility of the US dollar.
- C. has a term structure similar to that of the United States.

Q-64. An ideal international currency regime would most likely feature:

- A. currencies that are fully convertible.
- B. floating exchange rates between currencies.
- C. a common monetary policy across different countries.

Solutions

2. Economics

2.1. 基础题

Q-1. Solution: A.

Normal profit is the level of accounting profit such that implicit opportunity costs are just covered; thus, it is equal to a level of accounting profit such that economic profit is zero.

Q-2. Solution: A.

Under perfect competition, a firm is a price taker at any quantity supplied to the market, and AR = MR = Price.

Q-3. Solution: B.

In the short run, a company can vary the quantity of labor but the quantity of capital is fixed. In the long run, a firm can vary both the quantity of labor and the quantity of capital.

Q-4. Solution: C.

Revenue-Cost Relationship	Short-Run Decision	Long-Term Decision
$TR \geq TC$	Stay in market	Stay in market
$TR > TVC$ but $TR < TFC + TVC$	Stay in market	Exit market
$TR < TVC$	Shut down production to zero	Exit market

where TR = Total Revenue;
and TC = Total Costs; TVC = Total Variable Costs; TFC = Total Fixed Costs

Hence, if the selling price is \$3.00, total revenue for all firms will be $\$3.00/\text{unit} \times 900 \text{ units} = \$2,700$. Only firm X's variable costs are covered and it should continue operating, while firms Y and Z should immediately shutdown production.

Q-5. Solution: C.

Under perfect competition, economic profits are maximized when marginal revenue equals marginal cost—in this case, marginal cost crosses \$10 per unit. Profits are maximized at 23 units of production because marginal cost is in excess of marginal revenue at 24 units.

Q-6. Solution: A.

The quantity at which average total cost is minimized does not necessarily correspond to a profit maximum.

Q-7. Solution: B.

Increases its quantity produced without any change in per-unit cost occur at constant returns to scale. Increasing long-run average total cost as a result of increasing output demonstrates diseconomies of scale.

Q-8. Solution: C.

A firm in a perfectly competitive environment with total costs equal to total revenue and marginal costs greater than marginal revenue is operating at the upper breakeven point. Therefore, it should decrease the level of production to enter profit territory.

Q-9. Solution: A.

The characteristics of monopolistic competition include a large number of competitors, low pricing power, and the production of differentiated products (through advertising and other non-price strategies), but these still result in some pricing power. The ease of entry results in zero economic profits in the long run.

Q-10. Solution: B.

In a perfectly competitive market, sellers have no pricing power and thus sell their product at the price established by demand and supply in the market – the market equilibrium prices.

Q-11. Solution: A.

The minimum point on the LRAC curve is referred to as the minimum efficient scale. The minimum efficient scale is the optimal firm size under perfect competition over the long run. Theoretically, perfect competition forces the firm to operate at the minimum point on the LRAC curve because the market price will be established at this level over the long run. If the firm is not operating at this least-cost point, its long-term viability will be threatened.

Q-12. Solution: A.

The long-run marginal cost schedule is the perfectly competitive firm's supply curve. The firm's demand curve is dictated by the aggregate market's equilibrium price. The basic rule of profit maximization is that $MR = MC$, as is the case in long-run equilibrium.

The horizontal line that represents the firm's demand curve is the firm's AR [average revenue] schedule.

In a perfectly competitive market structure the firm's demand schedule is the same as the firm's marginal revenue and average revenue. Given its cost of operation, the only decision the perfectly competitive firm faces is how much to produce. The answer is the level of output that maximizes its return, and that level is where $MR = MC$. The demand curve is perfectly elastic. Of course, the firm constantly tries to find ways to lower its cost in the long run.

Q-13. Solution: A.

Advertising and product differentiation are most likely to have a positive impact on the economic profits of producers under monopolistic competition. The monopoly aspect of this structure arises from the ability to differentiate its product.

Q-14. Solution: C.

A firm in a monopolistic competition that introduces a new and differentiated product is able to better differentiate its products, and thus demand would be less elastic as close substitutes would be less readily available. Thus, the firm would be able to increase price and enjoy economic profit in the short run.

Q-15. Solution: A.

As prices decrease, smaller companies will leave the market rather than sell below cost. The market share of Aquarius, the price leader, will increase.

Q-16. Solution: B.

In an oligopoly market where collusion is present, the aggregate market demand curve is divided up by the individual production participants. Under non-colluding market conditions, each firm faces an individual demand curve.

Q-17. Solution: B.

In the **Cournot assumption**, each firm determines its profit-maximizing production level by assuming that the other firms' output will not change. This assumption simplifies pricing strategy because there is no need to guess what the other firm will do to retaliate.

Q-18. Solution: C.

Economies of scale and regulation may make monopolies more efficient than perfect competition.

Q-19. Solution: C.

The four-firm concentration ratio= $30\%+20\%+20\%+15\% = 85\%$

The Herfindahl-Hirschman index= $30^2 + 20^2 + 20^2 + 15^2 + 10^2 + 5^2 = 20.5\%$

Q-20. Solution: A.

The concentration ratio is the sum of the market shares of the largest N firms. This number is always between zero (perfect competition) and 100 percent (monopoly).

O.C. Herfindahl and A.O. Hirschman suggested an index where the market shares of the top N companies are first squared and then added. If one firm controls the whole market (a monopoly), the Herfindahl–Hirschman index (HHI) equals 1.

Q-21. Solution: B.

Because it usually takes much longer time to plan and complete large construction projects than for equipment orders, construction projects may be less influenced by business cycles.

Q-22. Solution: C.

In the slowdown phase business continue hiring but at a slower rate. The unemployment rate continues to fall but at a decreasing rate.

In the slowdown phase inflation further accelerates [not decelerates].

In the slowdown phase companies continue to place new orders as they operate at or near capacity.

Q-23. Solution: A.

Only Statement I is true. Statement II is not true because researchers have found linkages between financial and business cycles that help explain the magnitude of business cycle expansions and contractions depending on the state of the credit cycle.

Q-24. Solution: A.

Manufacturers' new orders are leading economic indicators, while Industrial production index and Manufacturing sales are coincident indicators.

Q-25. Solution: B.

Average weekly initial claims for unemployment insurance is a leading indicator of economic activity and a decrease in it is an indication of rehiring at the start of a recovery.

Q-26. Solution: B.

The overarching goal of a central bank is to maintain price stability. Policy rates set and targeted by the central banks are usually very short term in nature; often they target overnight interest rates. However, most businesses and individuals in the real economy borrow and lend over much longer time frames than this. It may not be obvious how changing short-term interest rates can influence the real economy, particularly if money neutrality holds in the long run. The fact that central bankers believe that they can affect real economic variables, in particular economic growth, by influencing broad money growth suggests that they believe that money is not neutral—at least not in the short run.

Q-27. Solution: B.

Central banks have three primary tools available to them: open market operations, setting the official policy rate, and reserve requirements. Transfer payments are a fiscal policy tool.

Raising or lowering income taxes is a part of fiscal policy, not monetary policy.

Q-28. Solution: B.

An increase in the policy rate will likely raise the potential penalty that banks will have to pay if they run short of liquidity and thereby reduces their willingness to lend.

Commercial banks normally increase their base rates immediately (not gradually) following the announcement of an increased policy rate because they want to avoid the possibility of lending at rates lower than they might be charged by the central bank.

An increase in the policy rate will likely lead to a tightening of the money supply and a higher penalty for liquidity shortfalls. As a result, commercial banks will expand their liquidity to avoid potential shortfalls.

Q-29. Solution: C.

Although the setting of targets for monetary aggregates is a possible tool of monetary policy, monetary policy itself is concerned with influencing the overall, or macro, economy.

Q-30. Solution: B.

Neutral rate = real trend rate + long-run expected inflation (target inflation rate) = $2\% + 2\% = 4\%$

The central bank's monetary policy is being contractionary when its policy rate is above 4%.

Q-31. Solution: A.

If tight fiscal policy is accompanied by easy monetary policy and low interest rates, the private sector will be stimulated and will increase as a share of GDP.

If tight fiscal policy is accompanied by easy monetary policy and low interest rates, the private sector share of GDP typically will increase (not remain unchanged). An unchanged composition of aggregate demand, with the GDP shares attributable to the private and public sectors remaining stable, typically occurs in the context of parallel policy actions. That occurs with mutually reinforcing macroeconomic policies, either tight fiscal/tight monetary or easy fiscal/easy monetary.

If tight fiscal policy is accompanied by easy monetary policy and low interest rates, the private sector share of GDP typically will increase (not decrease).

Q-32. Solution: B.

The monetary transmission mechanism is the process whereby a central bank's interest rate gets transmitted through the economy and ultimately affects the rate of increase of prices (inflation). Although policy rate actions do transmit through the economy through the channel of market rates (both short-term and long-term interest rates), this is just one of four channels and multiple interconnected channel relationships that impacts total demand. Although policy rate actions do transmit through the economy by affecting total demand, this influence on total demand is an intermediate effect that drives subsequent domestic inflationary pressure.

Q-33. Solution: B.

With a decline in economic activity and domestic inflation, the currency of the developing country would start to rise against the dollar. To protect the exchange rate target, the developing country's monetary authority will purchase foreign exchange reserves and sell its own currency. This will increase the domestic money supply, decrease short-term interest rates, and increase foreign exchange reserves.

Q-34. Solution: A.

There may be occasions where the demand for money becomes infinitely elastic so that further injections of money into the economy will not serve to further lower interest rates or affect real activity. This is known as a **liquidity trap**. In this extreme circumstance, monetary policy can become completely ineffective.

Crowding out is the reduction in private sector investment due to increased government borrowing and describes a difficulty in implementing fiscal, not monetary, policy.

A time lag to implement government spending is the action lag and describes a difficulty in implementing fiscal policy. An example of the action lag is the government's decision to raise spending on capital projects to increase employment and incomes, but they may take many months to implement.

Q-35. Solution: B.

In a recession, governments can raise spending (expansionary fiscal policy) in an attempt to raise employment and output.

In boom times—when an economy has full employment and wages and prices are rising too fast—government spending may be reduced and taxes raised (contractionary fiscal policy).

Q-36. Solution: A.

If tight fiscal policy is accompanied by easy monetary policy and low interest rates, the private sector will be stimulated and will increase as a share of GDP.

Q-37. Solution: C.

Ensuring stable purchasing power is a goal of monetary rather than fiscal policy. Fiscal policy involves the use of government spending and tax revenue to affect the overall level of aggregate demand in an economy and hence the level of economic activity.

Q-38. Solution: A.

Transfer payments are welfare payments made through the social security system and, depending on the country, include payments for state pensions, housing benefits, tax credits and income support for poorer families, child benefits, unemployment benefits, and job search allowances.

Transfer payments exist to provide a basic minimum level of income for low-income households, and they also provide a means by which a government can change the overall income distribution in a society. Note that these payments are not included in the definition of GDP because they do not reflect a reward to a factor of production for economic activity. Also, they are not considered to be part of general government spending on goods and services.

Q-39. Solution: A.

Crowding effect is that government borrowing may divert private sector investment from taking place, if there is a limited amount of savings to be spent on investment, then larger government demands will lead to higher interest rates and lower private sector investing.

Q-40. Solution: B.

The fiscal multiplier is $1/[1 - c(1 - T)]$ where

c = marginal propensity to consume = consumption/disposable income

T = the tax rate

Assuming pre-tax income of \$100

Disposable income: $\$100 \times (1 - 0.25) = \75

Marginal propensity to consume: $\$70/\$75 = 0.933$

The fiscal multiplier: $1/[1 - 0.933(1 - 0.25)] = 3.33$

With government expenditure of \$1.25 billion, total incomes and spending will rise by \$1.25 billion $\times 3.33 = \$4.2$ billion

Q-41. Solution: A.

Decreasing taxes reflects easy fiscal policy. If taxes are cut the expansionary fiscal policy will lead to a rise in aggregate output. Increasing interest rates reflects tight monetary policy. If this is accompanied by a reduction in money supply to offset the fiscal expansion, then interest rates will rise.

Q-42. Solution: A.

Deflation is more difficult for conventional monetary policy to deal with than inflation. This is because once the monetary authority has cut nominal interest rates to zero to stimulate the economy, it cannot cut them any further.

Q-43. Solution: A.

Standardization is a framework of agreements to which all relevant parties in an industry or organization must adhere to ensure that all processes associated with the creation of a good or performance of a service are performed within set guidelines.

Q-44. Solution: A.

Globalization is primarily carried out by non-governmental actors, such as corporations, individuals, or organizations, and is the result of economic and financial cooperation.

Q-45. Solution: A.

The opportunity to generate higher profits may motivate companies to globalize. The first way to generate profit is to increase sales. Companies may choose to engage in globalization in order to access new customers for their goods and services. Another way to increase profits is to reduce costs. Globalization allows companies to access lower tax-operating environments, reduce labor costs, or seek other supply chain efficiency gains.

Globalization can contribute to income and wealth inequality, as well as differences in opportunity, within and between countries.

Companies operating in lower-cost countries often operate in the local standards of those countries. If standards on environmental protection, social benefits, or corporate governance are lower in one country compared to another and companies ultimately reduce their standards of production in that context, then globalization can create a drain on human, administrative, and environmental resources.

Q-46. Solution: B.

Both bilateralism and autarky are characterized by nationalism (as contrasted with globalization). In contrast, hegemony heavily relies on globalization.

Q-47. Solution: B.

Bilateralism is the conduct of political, economic, financial, or cultural cooperation between two countries. Countries engaging in bilateralism may have relations with many different countries, but they are one-at-a-time agreements without multiple partners.

Q-48. Solution: A.

Voluntary export restraints (exporting less of a good than the global market demands) are an example of a non-cooperative economic tool. Restrictions on the exchange of currencies are a financial tool. Free trade agreements are a cooperative economic tool.

Q-49. Solution: B.

Thematic risks are those that have effects over the long term. Event risks and exogenous risks are more likely to have high-velocity impacts on investment values but are less of a focus for investors with longer time horizons.

Q-50. Solution: A.

The imposition of a tariff will most likely increase domestic government revenue. A tariff is a tax on imports collected by the importing country's government.

Q-51. Solution: C.

The economic impact of a tariff on imports in small country is one that is a price taker in the world market for a product and cannot influence the world market price. The welfare effect can be summarized as follows: Consumers suffer a loss of consumer surplus, local producers gain producer surplus and the net welfare effect results in a deadweight loss to the country's welfare.

Q-52. Solution: A.

A common market structure incorporates all aspects of the customs union and extends it by allowing free movement of factors of production among members.

Q-53. Solution: C.

Closely affiliated with The World Bank Group, the International Bank for Reconstruction and Development (IBRD) provides low or no-interest loans and grants to developing countries that have unfavorable credit or no access to international credit markets.

Lending foreign currencies on a temporary basis is a function of the IMF.

Regulating cross-border trade relationships on a global scale is incorrect because this is a function of the World Trade Organization.

Q-54. Solution: A.

The World Bank's main objective is to help developing countries fight poverty and enhance environmentally sound economic growth by providing investment funds. It does not intervene in balance-of-payments issues.

The World Trade Organization regulates cross-border trade on a global scale. It does not intervene in balance-of-payments issues.

The International Monetary Fund has the ability to lend foreign currencies to a country with an extreme current account deficit.

Q-55. Solution: A.

The purchase of machinery is an import and affects the current account, not the capital account, so it is ignored. The purchase of a non-produced, non-financial asset (such as a patent) affects the capital account. The impact on the capital account in AUD is: $\text{USD}20,000 \times (1/1.29) \times 1.24 = 19,225\text{AUD}$.

Q-56. Solution: A.

The NZD/SGD cross-rate is $\text{NZD}/\text{USD} \times \text{USD}/\text{SGD} = 0.7668 \times 1.2580 = 0.9646$.

The traveler will receive: $\text{NZD}0.9664 \text{ per SGD; } \text{NZD}0.9646 \times \text{SGD}7,200 = \text{NZD}6,945$.

Q-57. Solution: A.

Real exchange rate = Nominal spot exchange rate \times (CPI of the foreign country/CPI of the domestic country).

Change in the real exchange rate = $[(1 + \text{Change in exchange rate}) \times (1 + \text{Change in price level in foreign country})] / (1 + \text{Change in price level in domestic country}) - 1 = [(1 + 7.3\%) \times (1 - 3.8\%)] / (1 + 2.3\%) - 1 = 0.9\%$.

Q-58. Solution: C.

In the exchange rate quotation, USD/EUR, the US dollar is the price currency and the euro is the base currency. The USD/EUR is expected to increase from 1.3001 to 1.3456. This represents a 3.5% appreciation of the euro against the dollar, i.e., a percentage change of $(1.3456/1.3001) - 1 = +3.50\%$.

The USD/GBP is expected to decrease from 1.5805 to 1.5489. This represents a percentage change of $(1.5489/1.5805) - 1 = -2.00\%$. The British pound is expected to depreciate, not appreciate, against the US dollar by 2% because the USD/GBP exchange rate is expressed with the US dollar as the price currency.

The appreciation of the euro against the US dollar can also be expressed as a depreciation of the US dollar against the euro. Inverting the exchange rate quote from USD/EUR to EUR/USD, so the euro is now the price currency, leads to $(1.3001/1.3456) - 1 = -3.38\%$. The US dollar is expected to depreciate, not appreciate, against the euro by 3.38%.

Q-59. Solution: B.

Forward premium = Forward rate – Spot rate = 1.3001 – 1.2952 = 0.0049. To convert to points, scale four decimal places—that is, multiply by 10,000 = $10,000 \times 0.0049 = 49$ points. Because the forward rate exceeds the spot rate for the base currency (euro), the euro is trading at a forward premium of 49 points.

When the forward rate (1.3001) is higher than the spot rate (1.2952), the base currency (EUR) is said to be trading at a forward premium, not a discount, to the price currency (USD).

Q-60. Solution: C.

Covered interest arbitrage will ensure identical terminal values by investing the same initial amounts at the respective country's domestic interest rates:

GBP investment: £1 $\times (1 + 0.016025 \times 180/360)$ = £1.008013

NZD investment: NZ\$2.0979 $\times (1 + 0.032875 \times 180/360)$ = NZ\$2.13238

The forward rate is determined by equating these two terminal amounts:

NZD/GBP forward rate = NZ\$2.13238 / £1.008013 = 2.115429

Forward points = (Forward–Spot) $\times 10,000$

$$= (2.1155 - 2.0979) \times 10,000$$

$$= 175.3 = 176 \text{ (rounded)}$$

Q-61. Solution: C.

A positive forward premium indicates that the interest rates in the base currency region (Eurozone) are lower than the interest rates in the price currency region (United States).

The euro, which is the base currency, is trading at a premium to its forward rate. The positive forward points indicate that the euro forward rate is above the spot rate. The US dollar, which is the price currency, is trading at a discount to its forward rate.

The forward rate does not predict the direction of real interest rates.

Q-62. Solution: C.

In a CBS, the monetary authority has an obligation to maintain 100% foreign currency reserves against the monetary base. It thus cannot lend to troubled financial institutions. As long as the country under a fixed-parity regime maintains its exchange peg, the central bank can serve as a lender of last resort.

Q-63. Solution: B.

When a country adopts the US currency as its currency, hence the name *dollarization*, the dollarized country inherits the currency credibility of the US dollar.

Adopting the US currency will impose fiscal discipline, preventing the government from monetizing its debt.

The interest rates in a country that adopts the US currency as its currency are generally not the same as in the United States.

Q-64. Solution: A.

The ideal currency regime would have three properties. One of those properties is, all currencies would be fully convertible (i.e., currencies could be freely exchanged for any purpose and in any amount). This condition ensures unrestricted flow of capital.