

Economics

经济学

Level I



王牌陈讲CFA

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□ 学神级别的开挂人生

- 中考、高考、研究生一路以第1名身份保送
- 本科阶段就读复旦大学财务金融系，GPA全系第一，获管理学学士学位和法学学士学位；研究生阶段就读复旦大学管理学院
- 以全优成绩通过CFA三个级别考试；一天时间以全优成绩同时通过FRM两个级别考试

□ 财经讲师的王牌之路

- 全职加入高顿财经前，就职于国有商业银行总行和华尔街投行，同时以兼职身份承担高顿CFA/FRM教学工作
- 逾12年教龄，CFA/FRM培训界的教父级人物，学员遍布全球



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极速串讲 一级经济

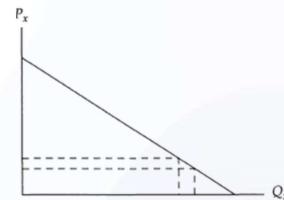
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微观经济：厂商和市场结构



1. 需求方的相关概念

- **Demand function:** the relationship between quantity of demand and variables that have influence on demand
- **Law of demand:** as price of a good rises, buyers buy less of it; and as its price falls, they buy more
- **Demand curve:** graph of the inverse demand function



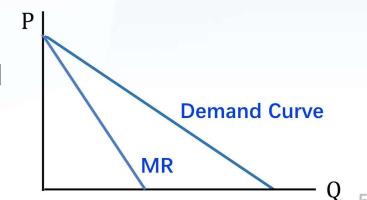
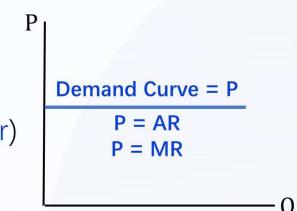
2.1 供给方的相关概念：会计利润和经济利润

- ◆ **economic profits** = total revenues – explicit costs (accounting costs) – implicit costs
 - ◆ total revenues – explicit costs (accounting costs) = **accounting profits**
 - ◆ explicit costs (accounting costs) + implicit costs = **total economic costs (opportunity costs)**
- **Normal profit** is the accounting profit that makes economic profit zero

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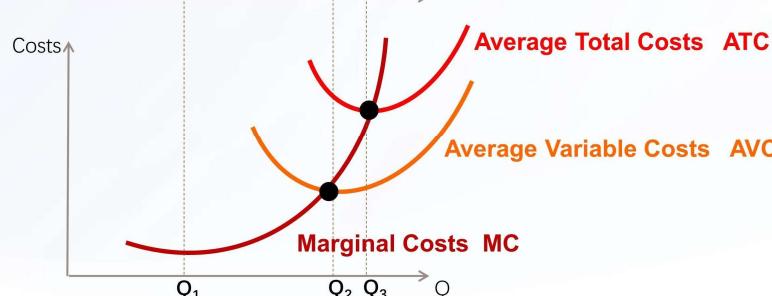
2.2 供给方的相关概念：收入

- **Total revenue** $TR = P \times Q$
- **Average revenue** $AR = TR / Q = P \times Q / Q = P$
- **Marginal revenue** MR is the change in total revenue divided by change in quantity
 - $MR = \Delta TR / \Delta Q \leq P$
- **Perfect competition**
 - The individual firm has no impact on market price (**price taker**)
 - The individual firm faces a **horizontal demand curve**
- **Imperfect competition**
 - The individual firm has enough share of the market and is able to exert some influence over price (**price maker**)
 - Firms face **downward-sloping demand curve**



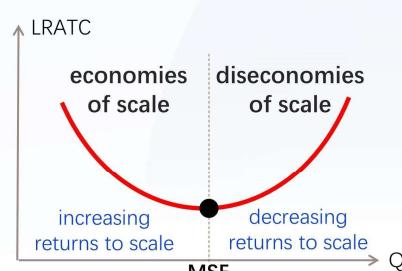
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2.3 供给方的相关概念：成本



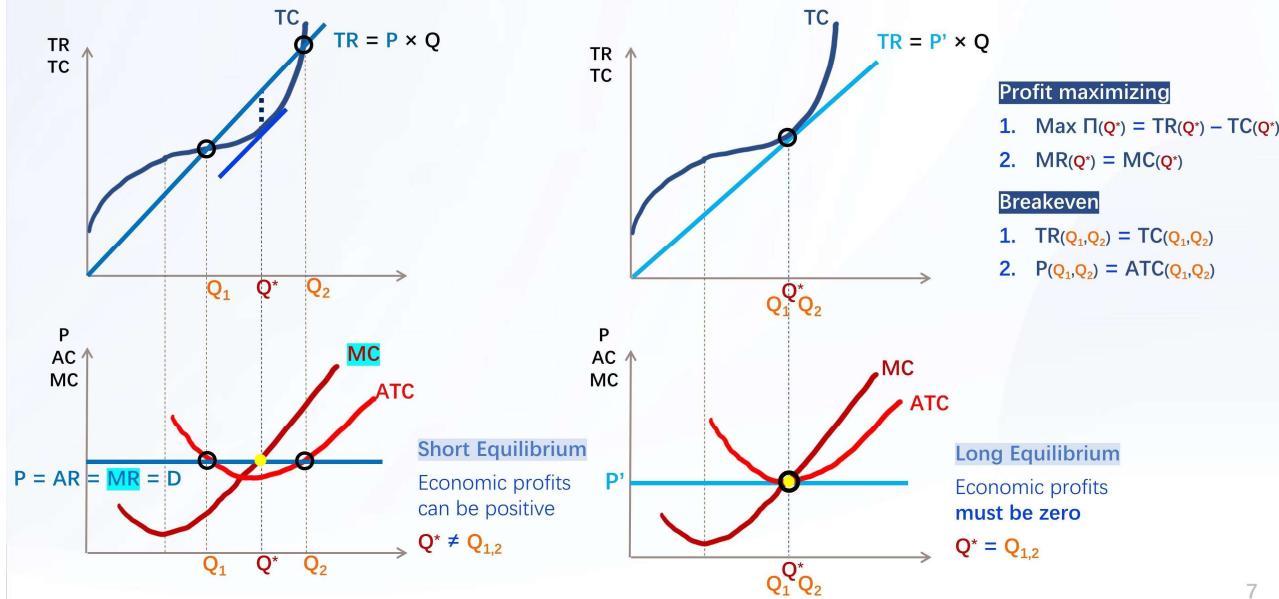
3. 规模经济和规模不经济

- **Minimum efficient scale (MES)** is the scale of the minimum point on the **long-run average total cost curve (LRATC)**



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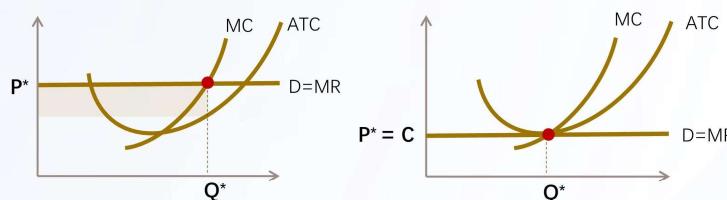
4. 完全竞争市场中的产量决策：利润最大和盈亏平衡



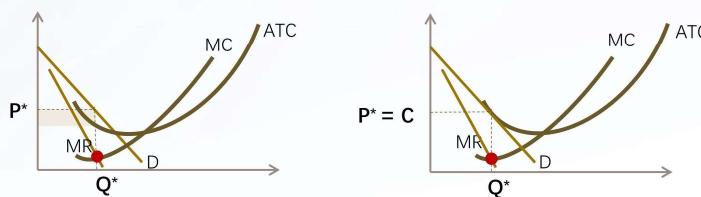
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5. 均衡价格和均衡产量

□ Perfect competition market



□ Imperfect competition market



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5. 均衡价格和均衡产量

- The following equations have been developed for a company:

Demand curve: $P = 150 - 5Q$ Total cost curve: $TC = Q^3 - 10Q^2 + 73Q + 120$

- What is the max profits for this firm?

- $TR = P \times Q = (150 - 5Q) \times Q = 150Q - 5Q^2$
- $MR = dTR / dQ = 150 - 10Q$
- $MC = dTC / dQ = 3Q^2 - 20Q + 73$
- $MR = MC \Rightarrow 150 - 10Q = 3Q^2 - 20Q + 73 \Rightarrow Q^* = 7$
- $\Rightarrow TR(7) = 150 \times 7 - 5 \times 7^2 = 805$
- $\Rightarrow TC(7) = 7^3 - 10 \times 7^2 + 73 \times 7 + 120 = 484$
- $\Rightarrow \pi = TR(7) - TC(7) = 321$

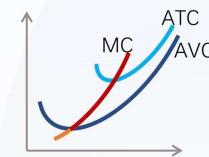
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6. 停业点的价格

- Short-run shutdown point (shut down operations) : $P < AVC$
- Long-run shutdown point (exit the industry) : $P < ATC$

7. 供给曲线

- In perfect competition, the firm's supply schedule is represented by the marginal cost schedule
 - The supply curve is MC line above AVC
- In imperfect competition, there is no well-defined supply function
 - It is not represented by either marginal cost or average cost



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8.1 市场结构分析

		Number of Firms	Degree of Product Differentiation	Barriers to Market Entry	Degree of Non-price Competition
Perfect Competition		very many	homogeneous & standardized	none	none
Imperfect Competition	Monopolistic Competition	many	differentiated	low (in long term) almost none	advertising and product differentiation
	Oligopoly	few	homogeneous & standardized	high	advertising and product differentiation
	Monopoly	one	unique product	very high	advertising

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8.2 均衡状态比较

		Perfect Competition	Monopolistic Competition	Monopoly	
Demand Curve	P	Q	P	Q	
Price Elasticity of Demand	infinity	high	low		
Economic Profits in Equilibrium	Short run : positive Long run : zero	Short run : positive Long run : zero	positive		
Equilibrium Price	low	<	middle	<	high
Equilibrium Quantity	high	>	middle	>	low

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9. 市场集中度分析

- Measures of quantifying market concentration

1. Econometric approaches

- Evaluate the elasticity of demand and supply in a market
- To solve the problem of endogeneity, we can use regression analysis (time-series, cross-sectional) to calculate the elasticity

2. Industry concentration measures

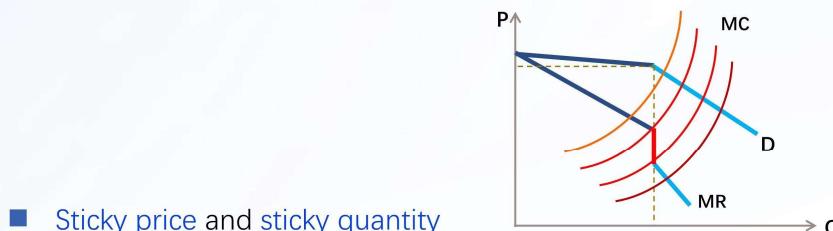
- ① **N firms concentration ratio:** sum of the market shares of the largest N firms in a market
 - It is less affected by mergers
- ② **Herfindahl-Hirschman Index (HHI):** sum of the squared market share of each firm
 - Do not show potential entry threat
 - Do not consider elasticity of demand

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10. 寡头垄断市场的需求分析

- kinked demand curve for oligopoly market

- The most common pricing strategy assumption in these price war markets is that competitors will match a price reduction and ignore a price increase
- The price elasticity of demand will be much greater if the price is increased and less if the price is decreased



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11.1 博弈论：古诺模型

- In the Cournot assumption (duopoly market), each firm determines its profit-maximizing production level by assuming that the other firms' output will not change

- 厂商1和厂商2是市场中的双寡头，假定符合古诺博弈模型适用的前提，市场整体的需求曲线为 $P = 450 - Q_D$ (P 为两家厂商最终的统一产品定价， Q_D 由两家企业的各自产量进行满足)
- 对于厂商1而言，其生产总成本 $C_1 = 10 \times q_1$ ；对于厂商2而言，其生产总成本 $C_2 = 20 \times q_2$
 - 厂商1的经济利润 $\pi_1 = P \times q_1 - C_1 = (450 - Q_D) \times q_1 - 10 \times q_1 = (450 - q_1 - q_2) \times q_1 - 10 \times q_1$

$$\pi_1 = -q_1^2 - q_2 \times q_1 + 440 \times q_1$$
 - 根据古诺模型，厂商1认为厂商2的产量 q_2 是给定的常数，因此 π_1 是关于 q_1 的函数，厂商1做出关于自身产量 q_1 的决策，目标是其自身利润 π_1 最大化，因此，令 $d\pi_1 / dq_1 = -2 \times q_1 - q_2 + 440 = 0$ ①
 - ✓ 同理，厂商2的经济利润 $\pi_2 = -q_2^2 - q_1 \times q_2 + 430 \times q_2$
 - ✓ 同理，令 $d\pi_2 / dq_2 = -2 \times q_2 - q_1 + 430 = 0$ ②
 - 联立 ① 和 ② 求解，得 $q_1 = 150$, $q_2 = 140$
 - 所以，市场整体的总供给量 = $q_1 + q_2 = 290$ ，长期均衡状态下， $Q_D = 290$
 - 产品定价 $P = 450 - Q_D = 450 - 290 = 160$

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11.2 博弈论：斯塔克尔伯格模型

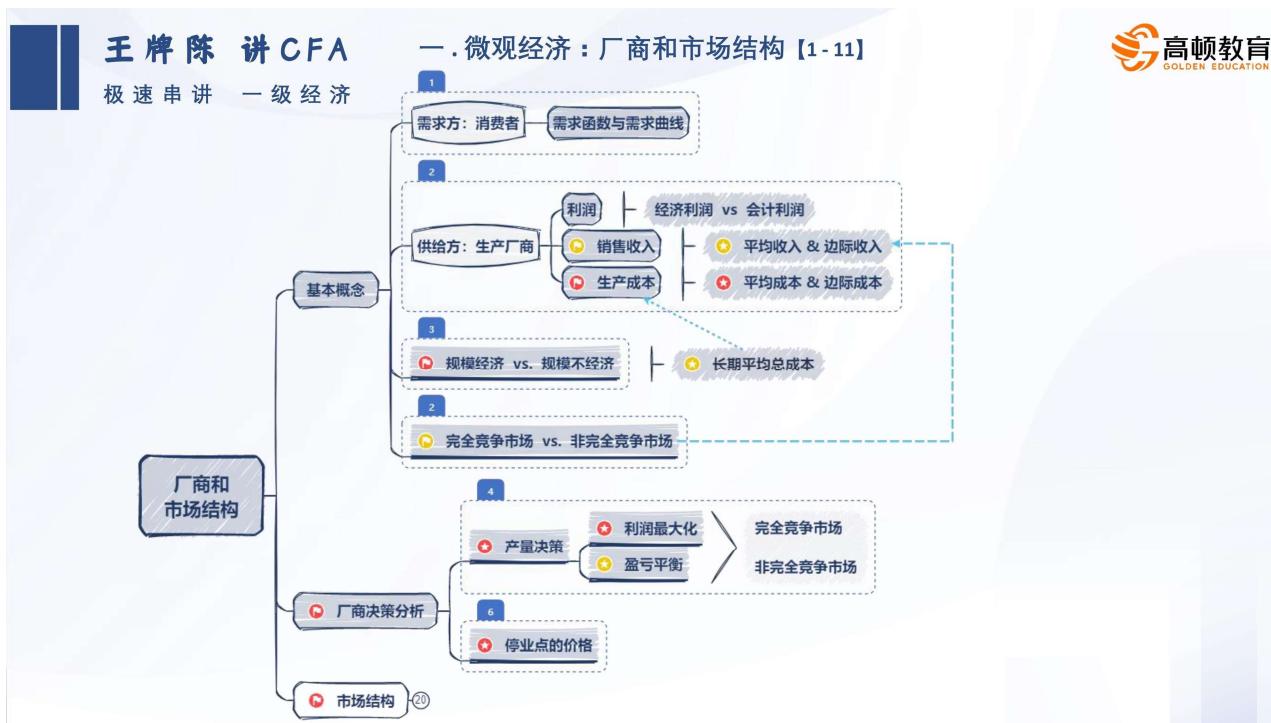
- **Stackelberg model:** 1) dominant firm (DF) has a large market share with scale effect, determining the market price as a monopoly company, when $MR=MC$; 2) other competitive firms (CF, followers) take market price as given
 - If the other companies in the market attempts to gain market share by undercutting the price set by the dominant firm, the market share of the dominant firm will increase ultimately
 - Over time, the dominant company's market share tends to decrease as profit attract entry by other companies

11.3 博弈论：纳什均衡

- **Nash equilibrium:** participants in a non-cooperative game have no incentive to deviate from their respective strategies after they have considered and anticipated their opponent's rational choices
- Factors affect the successful **collusion**

1. Number and size distribution of sellers	4. Order size and frequency
2. Similarity of the products	5. Strength and severity of retaliation
3. Cost structure	6. Degree of external competition

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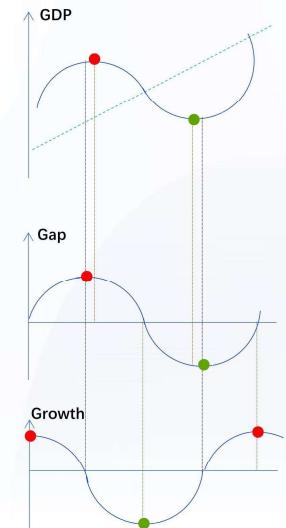


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宏观经济：经济周期

12. 经济周期分析的三种类型

- **Classical cycle:** fluctuations in the level of economic
 - The contraction phases between **peaks** and **troughs** are often **short**, while **expansion phases** are much **longer**
- **Growth cycle:** fluctuations in economic activity around the long-term potential or trend growth level, and its focus is on how much actual economic activity is below or above trend growth in economic activity (**gap**)
 - Compared to the classical cycles, **peaks** are generally reached **earlier** and **troughs later** in time
- **Growth rate cycle:** fluctuations in the **growth rate of economic activity**
 - **Peaks** and **troughs** are mostly recognized **earlier** than when using the other two definitions
 - An advantage is that there is **not necessarily** a need to first estimate a long-run growth path



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13. 1 经济周期的四个阶段



	Recovery	Expansion	Slowdown	Contraction
Employment	Layoff slows Unemployment remains higher than average	Business rehire Unemployment rate stabilizes and starts falling	Business continue hiring but at a slower pace Unemployment rate continues to fall but at decreasing rates	First cut hours then outright layoffs Unemployment rate starts to rise
Inflation	Remains moderate	Picks up moderately	Further accelerates	Decelerates with a lag
Capital spending	Low but increasing Focus on efficiency Upturn in orders for light producer equipment	Customer orders and capacity utilization increase Focus on capacity expansion Spending on new types of equipment	Companies continue to place new orders as they operate at or near capacity	New orders halted, and some existing orders canceled
Inventory-sales ratio	Begins to fall as sales recovery outpaces production	Ratio stable	Ratio increases Signals weakening economy	Ratio begins to fall back to normal

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13.2 经济周期的影响

- Consumer behavior
 - **Consumer confidence** plays a significant role in spending decisions and reflects expectations of future incomes and employment prospects
 - Consumer spending: **durable goods** (most cyclical), **services** (cyclical), **non-durable goods** (least cyclical)
 - **Growth in income** is normally a good indicator of consumption prospects
- During the boom, the riskiest assets will often have substantial price increases; safe assets, such as government bonds that were more highly prized during recession, may have lower prices and thus higher yields
- Housing sector activity (home buying and consequently construction activity) **expand** in response to **lower loan interest rates**, and it has its **own internal cycle**
- Imports respond to the **domestic cycle**, and exports are more dependent on cycles in the rest of the world

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14. 信贷周期

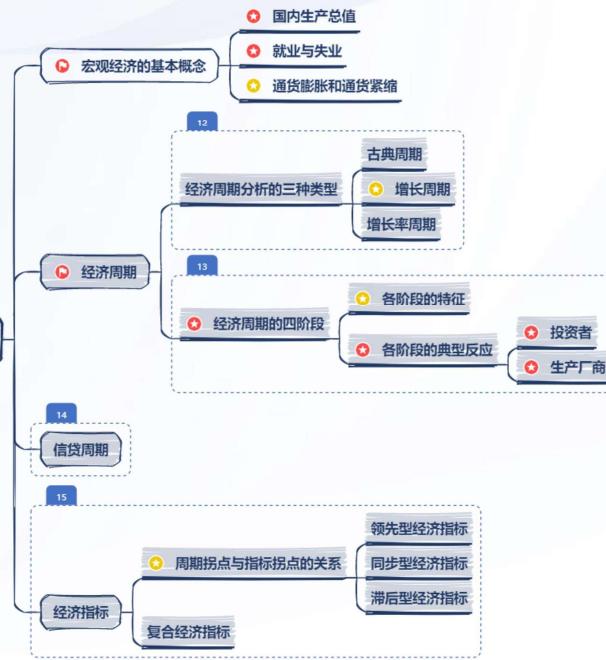
- Credit cycles describe the changing **availability** and **pricing** of credit
 - When the economy is strong or improving, the willingness of lenders to extend credit, and on favorable terms, is high; conversely, when the economy is weak or weakening, lenders pull back, or "tighten" credit, by making it less available and more expensive
 - Credit cycles tend to be **longer**, **deeper**, and **sharper** than business cycles

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15.2 常见经济指标

- | | |
|---|---|
| <ul style="list-style-type: none"> □ Leading economic indicators
<i>predict the economy's future state</i> <ul style="list-style-type: none"> ■ Stock market ■ House prices ■ Retail sales ■ Interest spreads between LT and ST rates ■ Building permits ■ Consumer expectations ■ Average weekly hours (manufacturing) ■ Manufacturers' new orders | <ul style="list-style-type: none"> □ Coincident economic indicators
<i>identify the economy's present state</i> <ul style="list-style-type: none"> ■ Industrial production index ■ Real personal incomes ■ Manufacturing and trade sales □ Lagging economic indicators
<i>identify the economy's past condition and only change after a trend has been established</i> <ul style="list-style-type: none"> ■ Average duration of unemployment ■ Inventory-sales ratio ■ Change in unit labor costs ■ Inflation ■ Average prime lending rate ■ Ratio of consumer installment debt to income ■ Commercial and industrial outstanding loans |
|---|---|

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三

宏观经济：政府政策

16. 政府经济政策

- The overarching goal of both monetary and fiscal policy is normally the creation of an economic environment in which **growth is stable and positive** and **inflation is stable and low**
- **Monetary policy** refers to **central bank** activities that are directed toward influencing the **quantity of money and credit** in an economy
- **Fiscal policy** refers to the government's decisions about **taxation** and **spending**

17. 财政政策的总体目标

- Objectives of **fiscal policy**
- Affect the overall level of **aggregate demand** in an economy and the level of economic activity
- Affect **distribution of income and wealth** among different segments of the population
- Affect the **allocation of resources** between different sectors and economic agents

18.1 财政政策工具

- Government spending
 - Transfer payments ■ Current government spending ■ Capital expenditure
- Government revenues
 - Direct tax ■ Indirect taxes
- The discussion of fiscal policy often focuses on the impact of changes in the difference between government spending and revenue on the aggregate economy, rather than on the actual levels of spending and revenue themselves

18.2 财政政策工具的特点

- Indirect taxes can be adjusted almost immediately after they are announced and can influence spending behavior instantly and generate revenue for the government at little or no cost
 - Direct taxes are more difficult to change
- Capital spending plans take longer to formulate and implement

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19. 不同经济学派的主张

- Keynesians** believe that fiscal policy can have powerful effects on aggregate demand, output, and employment when there is substantial spare capacity in an economy
- Monetarists** believe that fiscal changes only have a temporary effect on aggregate demand, and that monetary policy is a more effective tool for restraining or boosting inflationary pressures

20. 财政乘数

- marginal propensity to consume (MPC) + marginal propensity to saving (MPS) = 1
- fiscal multiplier** = $1 / [1 - MPC \times (1 - t)]$

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21. 财政盈余和财政赤字

- Budget surplus:** government tax revenues exceed expenditures
- Budget deficit:** government expenditures exceed tax revenues
 - **Government (or national) debt** is the accumulation over time of these deficits, and if the ratio of debt to GDP (or, ratio of interest rate payments to GDP) rises beyond a certain unknown point, then the solvency of the country comes into question
- Arguments against being concerned about national debt
 - The debt is owed internally to fellow citizens
 - Money borrowed may have been used for capital investment projects or enhancing human capital
 - Large fiscal deficits require tax changes
 - **Ricardian equivalence:** private sector may act to offset fiscal deficits by increasing saving in anticipation of future increased taxes
 - Unemployment could be reduced
- Arguments in favor of being concerned about national debt
 - High levels of debt to GDP lead to higher tax rates in the search for higher tax revenues, which discourages economic activities in future
 - Markets may lose confidence in a government, which may lead to high inflation
 - Government borrowing may lead to higher interest rates and lower private sector investing (crowding out effect)

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22. 紧缩和扩张的财政政策

- In a recession, governments can raise spending (**expansionary fiscal policy**) in an attempt to raise employment and output
 - An increase in a budget deficit is an expansionary fiscal policy
 - **Budget Deficit > Structural Budget Deficit**
 - **Structural budget deficit** is the deficit that would exist if the economy was at **full employment** (or **full potential output**)
- In boom times, government spending may be reduced and taxes raised (**contractionary fiscal policy**)
 - An increase in a budget surplus (decrease in a budget deficit) would be associated with contractionary fiscal policy
 - **Budget Deficit < Structural Budget Deficit**

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23. 1 财政政策的实施



- **Automatic stabilizers:** as an economy slows and unemployment rises, government spending on social insurance and unemployment benefits will also rise and add to aggregate demand
- **Discretionary fiscal policy:** the spending and taxing decisions of a national government that are intended to stabilize the economy

23. 2 财政政策的局限性

- Difficulties in executing fiscal policy
 - **Recognition lag:** time for the government to process data and figure out problem
 - **Action lag:** time to implement the policy
 - **Impact lag:** time for the policy to become evident

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24. 1 中央银行的角色



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

24. 2 货币政策的目标

- The overarching goal of most central banks in **maintaining price stability** is the associated goal of **controlling inflation**
 - Many developing economies choose to operate monetary policy by **targeting their currency's exchange rate**, rather than an explicit level of domestic inflation

24. 3 有效体系的判断标准

- **Central bank independence**
 - **Operational independence:** central bank was free to **set interest rates**
 - **Target independence:** central bank was free to **make the target inflation rate**
- **Credibility**
- **Transparency**

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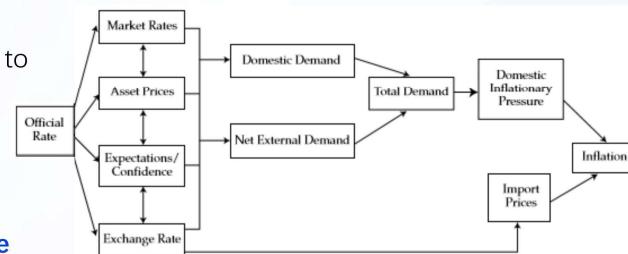
25. 货币政策工具

- **Open market operations** involve the [purchase and sale of government bonds from and to commercial banks](#) and/or designated market makers
 - Central bank buys government bonds from commercial banks, increase the reserve of the banks, increase the lending to corporates or households, broad money growth expands
- **Central bank's policy rate** is the interest rate that a central bank sets and that it announces publicly is normally [the rate at which it is willing to lend money to the commercial banks](#)
 - [Repurchase agreement](#): if the central bank wishes to increase the supply of money, it might buy government bonds from the banks, with an agreement to sell them back
 - The [federal funds rate](#) is the [interbank lending rate](#) on [overnight borrowings of reserves](#)
- **Reserve requirement**: a central bank could restrict money creation by raising the reserve requirements of banks
 - ◆ [money multiplier = 1 / reserve requirement](#)

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26. 紧缩和扩张的财政政策

- **Neutral interest rate** of an economy is the interest rate [neither spurs nor slows down](#) the economic growth rate
 - [Neutral interest rate = real trend rate of economic growth + inflation target](#)
- **Expansionary: Policy Rate < Neutral Rate**
 - An [expansionary monetary policy](#) tends to increase GDP, increase price level, decrease the interest rate and decrease the value of local currency
- **Contractionary: Policy Rate > Neutral Rate**
 - A [contractionary monetary policy](#) tends to decrease GDP, decrease price level, increase the interest rate and increase the value of local currency



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27. 导致高通货膨胀的原因

- **Demand-pull inflation**: the inflation is rising by a [demand shock](#)
 - It might be appropriate to [tighten monetary policy](#) to bring the inflationary pressures generated by these domestic demand pressures under control
- **Cost-push inflation**: the inflation is rising by a [supply shock](#)
 - Raising interest rates might make a bad situation [worse](#)

28. 货币政策的局限性

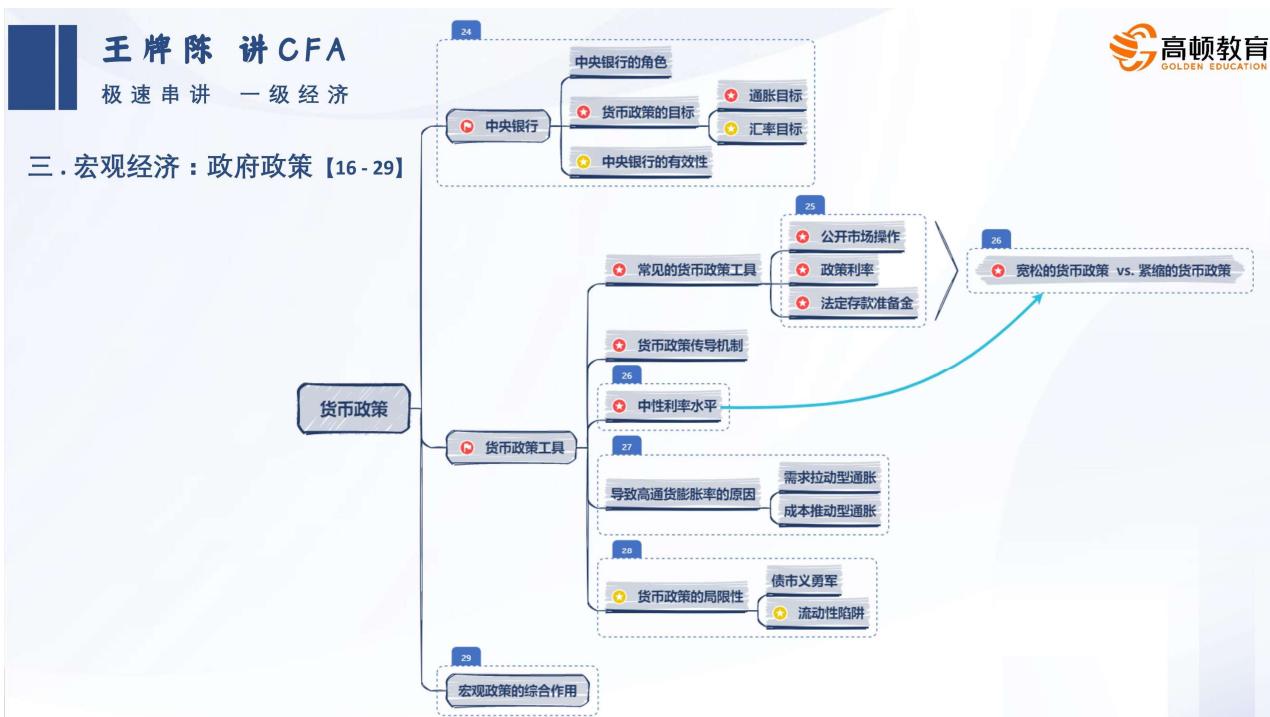
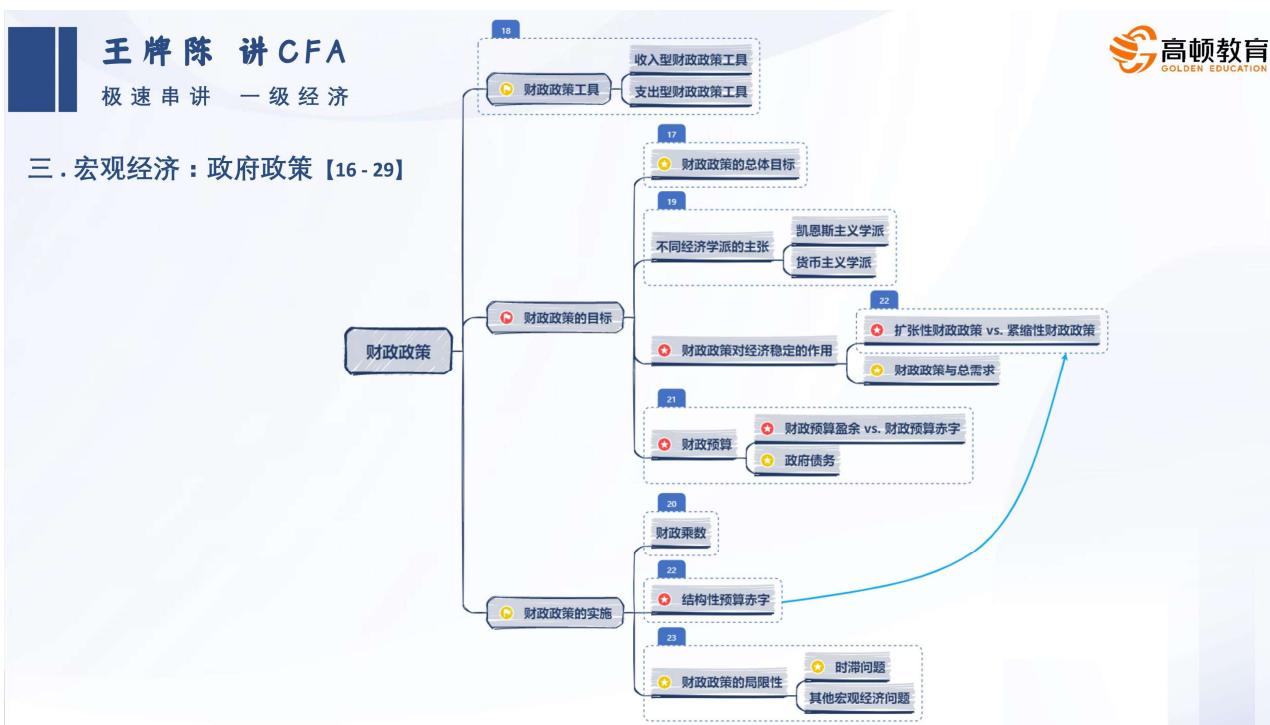
- Problems in the monetary transmission mechanism
 - **Bond market vigilantes**: if monetary tightening extreme, expectations to recession may make long-term bonds more attractive, decreasing long-term rate
 - **Liquidity trap**: if demand for money is very elastic, people will hold additional money balances without any change in the interest rate
 - **Quantitative easing(QE)**: buying longer-dated government securities, mortgage securities, and risky bonds to low long-term interest rate

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29. 财政政策和货币政策的综合运用

Fiscal Policy	Monetary Policy	Interest Rate	Private Spending	Public Spending	Output	
Easy	Tight	↑	↓	↑	Indeterminate	interest rates will rise and have a negative effect on private sector demand
Tight	Easy	↓	↑	↓	Indeterminate	lower interest rate, the private sector will be stimulated and will rise as a share of GDP, while the public sector will shrink
Tight	Tight	↑	↓	↓	↓	
Easy	Easy	↓	↑	↑	↑	

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四

国际经济：地缘政治

30. 地缘政治的参与体

- Within the field of **geopolitics**, analysts study **actors** — the individuals, organizations, companies, and national governments that carry out political, economic, and financial activities — and how they interact with one another
 - **State actors** are typically **national governments**, **political organizations**, or **country leaders** that exert authority over a country's national security and resources
 - **Non-state actors** are those that participate in global political, economic, or financial affairs but **do not** directly control national security or country resources

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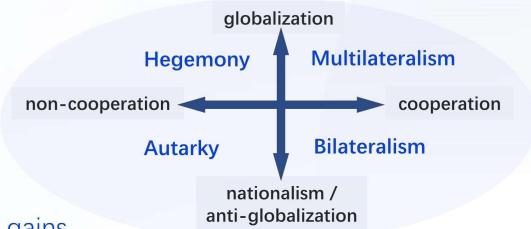
31. 政治合作

- **Cooperation** is the process by which countries work together toward shared goal or purpose
 - A **cooperative country** is one who engages and reciprocates in **rules standardization**, **harmonization of tariffs**, **international agreements on trade**, **immigration**, or **regulation**; and allows for the **free flow of information**, including **technology transfer**
 - A **non-cooperative country** is one with inconsistent and even **arbitrary rules**, **restricted movement of goods / services / people / capital across borders**, **retaliation**, and **limited technology exchange**
- Motivations for cooperation
 1. National security or military interest
 2. Economic interest <① Geophysical resource endowment
 3. Cultural consideration
 - ② Standardization
 - A. Regulatory cooperation
 - B. Process standardization
 - C. Operational synchronization

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32. 经济全球化

- Globalization is the process of interaction and integration among people, companies, and governments worldwide
 - Globalization is carried out mostly by non-state actors, such as corporations, individuals, or organizations
 - Anti-globalization or nationalism is the promotion of a country's own economic interests to the exclusion or detriment of the interests of other nations
- Motivations for globalization
 1. Increased profits
 2. Access to resources
 3. Intrinsic gain
- Costs for globalization
 1. Unequal accrual of economic and financial gains
 2. Lower ESG standards
 3. Political consequences
 4. Interdependence



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33. 地缘政治工具

Tools of Geopolitics	Cooperation	Non-cooperation
1. National security tools	Military alliance (indirect impact)	Armed conflict (direct impact) Espionage (indirect impact)
2. Economic tools	Multilateral trade agreements Global harmonization of tariff rules	Nationalization
3. Financial tools	Free exchange of currencies across borders Allowing foreign investment	Limiting access to local currency markets Restricting foreign investment

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34. 国际组织

- International Monetary Fund (IMF)
 - Ensure the stability of the international monetary system, the system of exchange rates and international payments
 - Help to keep country-specific market risk and global systemic risk under control
- World Bank Group
 - Help developing countries fight poverty and enhance environmentally sound economic growth
- World Trade Organizations (WTO)
 - Foster free trade by providing a major institutional and regulatory framework of global trade rules

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35.1 地缘政治风险的类别

- **Geopolitical risk** is the risk associated with tensions or actions between actors that affect the normal and peaceful course of international relations
 1. **Event risk** evolves around set dates **known in advance**
 2. **Exogenous risk** is a **sudden** or **unanticipated** risk
 3. **Thematic risks** are known risks that **evolve and expand** over a period of time

35.2 地缘政治风险的评估

- I. **Likelihood** it will occur
 - II. **Velocity (speed)** of its impact
 - III. **Impact**
 - **Size** of impact
 - **Nature** of impact: **discrete impact / broad impact**
- Low geopolitical risk velocity matches with "adjust asset allocation"
 - Medium geopolitical risk velocity matches with "adjust investments in specific sectors"
 - High geopolitical risk velocity matches with "flight to quality"

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35.3 地缘政治风险的追踪

- Geopolitical risks develop in **non-linear fashion**
 - As a result, many investors deploy an approach that includes **scenario building** and **signposting** rather than a single point forecast
 - Signpost is an indicator, market level, data piece, or event signals a risk becoming more or less likely
(eg. High inflation and deteriorating employment can signal political unrest)

35.4 地缘政治风险的应对

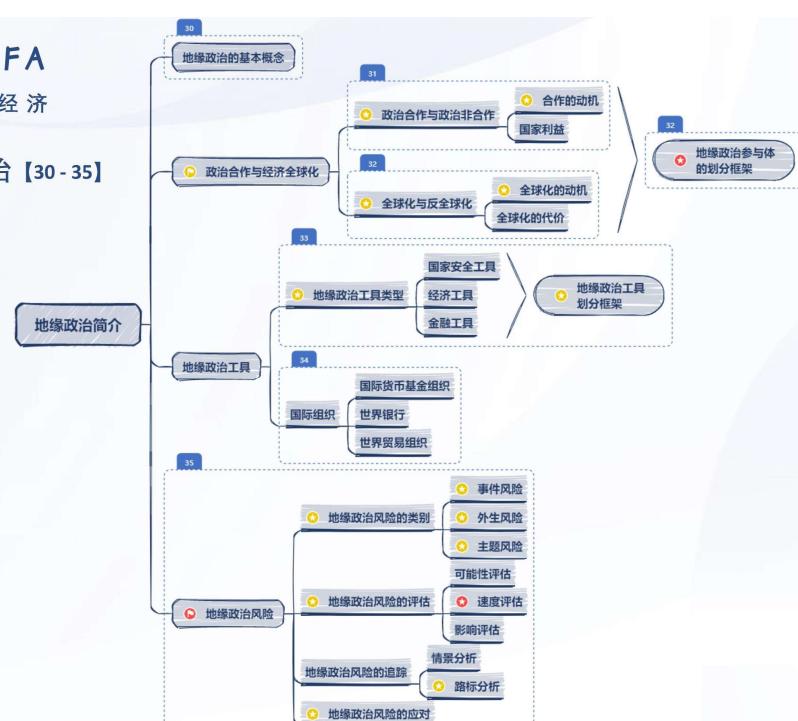
- Geopolitical risks can impact **capital markets conditions**, such as economic growth, interest rates, and market volatility, and changes in capital markets conditions can have an important influence on **asset allocation decisions**, including an investor's choice of geographic exposures
- On a portfolio level, geopolitical risk can influence the appropriateness of an investment security or strategy for an investor's goals, risk tolerance, and time horizon

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王牌陈讲CFA

极速串讲 一级经济

四. 国际经济：地缘政治 [30 - 35]





五

国际经济：国际贸易

36.1 国际贸易的好处和代价

- Benefits of **international trade**
 - Gains from **exchange** and **specialization**
 - Industries experience greater **economies of scale**
 - Greater **variety of products** available
 - Increased **competition** and more **efficient** allocation of resources
- Costs of **international trade**
 - Greater **income inequality**
 - **Loss of jobs** in import countries

36.2 国际贸易产生的原因：比较优势

- **Comparative advantage**: a country's **opportunity cost** of producing that good is less than that of its trading partner
- **Absolute advantage**: a country can produce good at a **lower cost** or use **fewer resources** in its production than its trading partner

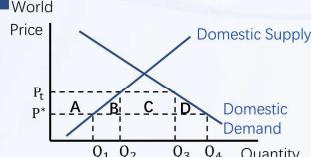
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37.1 贸易限制的类型

- Types of **trade restrictions**
 - **Tariffs** are taxes that a government **levies on imported goods**
 - **Quotas** restrict the **quantity** of a good that can be imported into a country
 - A **voluntary export restraint** is similar to a quota but is imposed by the exporting country
 - An **export subsidy** is paid by the government to the firm when it exports a unit of a good that is being subsidized
 - **Domestic content provisions** stipulate that some percentage of the value added or components used in production should be of **domestic origin**

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37.2 贸易限制对福利的影响



Tariff

Import Quota by not selling licenses

Import Quota by selling licenses

Voluntary Export Restraint (VER)

Consumer surplus

$-(A + B + C + D)$

$-(A + B + C + D)$

Producer surplus

+ A

+ A

Tariff revenue or quota rents

+ C

National welfare

$-B - D$

$-B - C - D$

	Tariff	Import Quota	VER	Export Subsidy
Impact on	importing country			exporting country
Trade	imports decrease			exports increase
Producer Surplus	increases			
Consumer Surplus	decreases			
Government Revenue	increases	uncertain	no change	falls
National Welfare	decreases (may increase in large countries)			decreases

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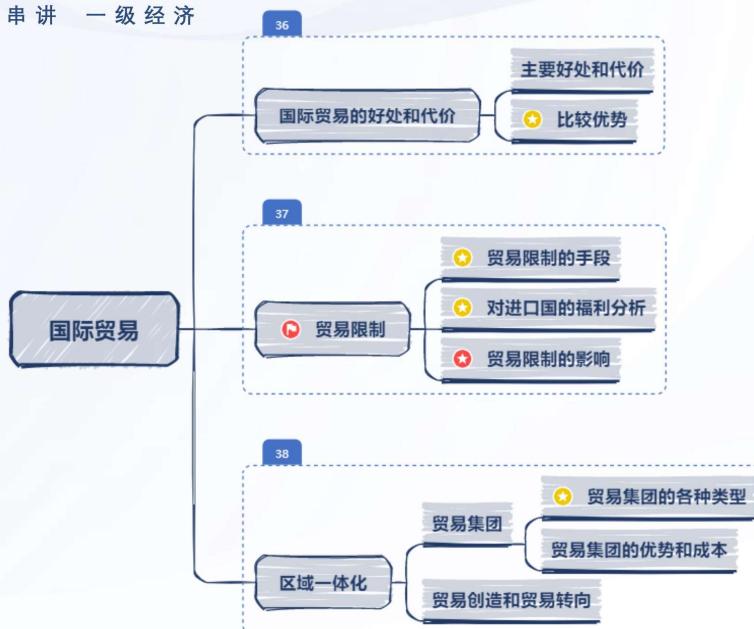
38.1 区域贸易集团

- Free Trade Areas: all barriers to import and export of among member countries are removed
- Customs Union: FTA plus a common trade policy against non-members
- Common Market: customs union plus free flow of labor and capital goods
- Economic Union: common market plus common institutions and economic policy for the union
- Monetary Union: economic union plus a common currency

38.2 贸易创造和贸易转向

- Trade creation occurs when regional integration results in the replacement of higher-cost domestic production by lower-cost imports from other members
- Trade diversion occurs when lower-cost imports from non-member countries are replaced with higher-cost imports from members

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六

国际经济：外汇市场和汇率

39. 外汇市场

- The **foreign exchange (FX) market** — the market in which currencies are traded against each other — is by far the world's largest market
- Foreign exchange market participants
 - **Sell side:** large multinational banks
 - **Buyside:** corporate / real money accounts / leveraged accounts / retail accounts / governments / central banks / sovereign wealth funds (SWFs)
- Foreign exchange market composition
 - FX spot transactions ■ FX forwards ■ FX swaps
- Functions of the FX markets
 - Facilitate international trade in goods and services
 - Hedging: have an existing FX risk that they want to reduce with forward FX contracts
 - Speculation: have no existing FX risk, they take on FX risk with forward contracts with the expectation of earning a profit

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40. 1 理想的汇率制度

- Properties of the **ideal currency regime**
 1. Exchange rate between any two currencies would be **credibly fixed**
 2. All currencies would be **fully convertible**
 3. Each country would be able to undertake **fully independent monetary policy** in pursuit of domestic objectives
- These three conditions are **not consistent**, so there can be **no ideal currency regime**

40. 2 现实中的汇率制度

- | | |
|--|-------------------------------------|
| 1. Dollarization | 5. Crawling pegs (active / passive) |
| 2. Currency board arrangement | 6. Fixed parity with crawling bands |
| 3. Conventional fixed peg arrangement | 7. Managed float |
| 4. Pegged exchange rates within horizontal bands (target zone) | 8. Independently floating rates |

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41. 汇率与贸易平衡

- A trade deficit (surplus) must be exactly matched by an offsetting capital account surplus (deficit)
 - ◆ $X - M = (S - I) + (T - G) = (S_p - I) + S_g = S_T - I$
- If investors anticipate a significant change in an exchange rate, they will try to **sell the currency** that is **expected to depreciate** and **buy the currency** that is **expected to appreciate**
- The impact of exchange rates and other factors on the **trade balance** must be mirrored by their **impact on capital flows**
- Capital flows are the primary determinant of **exchange rate movements** in the short to intermediate term, and **trade flows** become increasingly important in the **long term**

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42. 资本限制

- In theory, **free movement of financial capital** to be beneficial because it allows capital to be invested where it will earn the highest return
- In practice, there are some common objectives for **capital restrictions**
 - Address domestic policy and strategic or defense-related objectives
 - Reduce the volatility of domestic asset prices ■ Protect strategic industries
 - Maintain fixed exchange rates ■ Keep domestic interest rates low
- In times of macroeconomic crisis, capital mobility can result in capital flight out of the country, especially if most of the inflow reflects short-term portfolio flows into stocks, bonds, and other liquid assets, rather than foreign direct investment in productive assets
 - In such circumstances, **capital restrictions** are often used in conjunction with other policy instruments, such as **fixed exchange rate targets**

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43. 1 汇率的报价方式

- **Foreign exchange (FX) rate** is the price of one currency in terms of another
 - $1 \text{ USD} = 6 \text{ RMB}$ ■ $\text{RMB} / \text{USD} = 6$ ■ $6 \text{ RMB} / \text{USD}$ ■ $\text{USD} : \text{RMB} = 6$
- For the quotation as **A / B (B : A)**, A is the **price currency**, B is the **base currency**
 - The exchange rate is as **the cost of one unit of the base currency in terms of the price currency**
- **Direct quotation:** **foreign currency** as the base currency (DC/FC)
Indirect quotation: **domestic currency** as the base currency (FC/DC)
- **Nominal exchange rate** is the price that we observe in the market place for FX
Real exchange rate reflects the **relative purchasing power** between countries
 - ◆ $\text{real exchange rate}_{A/B} = \text{nominal exchange rate}_{A/B} \times P_B / P_A$
 - ◆ $\% \Delta \text{Real}_{A/B} = (1 + \% \Delta \text{Nominal}_{A/B}) \times (1 + \% \Delta P_B) \div (1 + \% \Delta P_A) - 1 \approx \% \Delta \text{Nominal}_{A/B} + \% \Delta P_B - \% \Delta P_A$
- **Bid price** is the price that a dealer will pay per base currency unit
- **Offer price** is the price that a dealer will sell a unit of base currency
 - The **bid-offer spread**: The difference between the offer and bid price

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43.2 货币的升值与贬值

Suppose the exchange rate for \$ / € changes from 1.25 to 1.30

- The percentage change in the value of € relative to \$ is $(1.30 - 1.25) / 1.25 = 4\%$
- The percentage change in the value of \$ relative to € is $(1.30^{-1} - 1.25^{-1}) / 1.25^{-1} = -3.85\%$

43.3 交叉汇率和三角套利

$\text{USD} / \text{EUR} = 1.4$ and $\text{USD} / \text{GBP} = 2$

- $\text{GBP} / \text{EUR} = (\text{USD} / \text{EUR}) \times (\text{GBP} / \text{USD}) = 1.4 \times (1/2) = 0.7$

If the dealer quotes the GBP / EUR as 0.6 (or 0.8), then the [arbitrage opportunity](#) exists

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44.1 远期汇率的升水与贴水

- If the forward quote is higher (lower) than spot price
 - Base currency is trading at a forward premium (discount)
 - Price currency is trading at a forward discount (premium)
- Forward quotation
 - Points basis: forward rate = spot rate + $0.0001 \times \text{points}$
 - Percentage basis

44.2 利率平价公式

- ◆ $F_{X/Y} / S_{X/Y} = (1 + r_X \times \text{days}/360) / (1 + r_Y \times \text{days}/360)$
- Currency with the higher (lower) interest rate will always trade at a discount (premium) in the forward market
 - If forward rates are interpreted as expected future spot rates, the expected percentage change in the spot rate is proportional to the interest rate differential

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