



Study Session 4

1. Own-price elasticity of demand

需求的价格弹性表示在一定时期内一种商品的需求量变动对于该商品的价格变动的反应程度。

公式：

$$\text{own - price elasticity} = \frac{\% \text{change in quantity demanded}}{\% \text{change in price}} = \frac{\Delta Q/Q}{\Delta P/P}$$

两种特殊情形：弹性=0，完全无弹性，需求曲线垂直于 X 轴；

弹性=∞，完全弹性，需求曲线平行于 X 轴。

2. 影响需求价格弹性的因素有：

商品的可替代性：替代品越多，弹性越大；

商品的消费支出在消费者收入中所占的比重（portion of income spent on a good）：比重越大，弹性越大；

价格调整后过去的时间：时间越长，弹性越大。

3. 线性需求曲线上的价格弹性

线性需求曲线上点的位置越高，弹性越大，位置越低，弹性越小；

当弹性=-1（单位弹性 unitary elasticity）时，厂商能够获得最大 total revenue；

需求的价格弹性≠需求曲线的斜率。

4. Income elasticity of demand

需求的收入弹性表示在一定时期内消费者对某种商品的需求量的变动对于消费者收入量变动的反应程度。

公式：

$$\text{income elasticity} = \frac{\% \text{ change in quantity demanded}}{\% \text{ change in income}} = \frac{\Delta Q/Q}{\Delta I/I}$$

normal goods:收入弹性>0

inferior goods:收入弹性<0

5. Cross price elasticity of demand

需求的交叉弹性表示在一定时期内一种商品的需求量的变动对于它的相关商品的价格变动的反应程度。

公式：

$$\text{cross price elasticity} = \frac{\% \text{ change in quantity demanded}}{\% \text{ change in price of substitute or complement}} = \frac{\Delta Q_A/Q_A}{\Delta P_B/P_B}$$

交叉弹性>0，两种商品互为替代品

交叉弹性<0，两种商品互为互补品

6. Substitution effects

在效用不变的情况下，人们倾向于消费 relative price 低的产品，称为替代效应，替代效应一定为正。

7. Income effects

商品价格下降，意味着消费者真实收入上升，影响需求量，成为收入效应，收入效应可正可负。收入效应为正的是 normal good，为负的是 inferior good，为负且大于替代效应的是 Giffen good。

8. Giffen good and Veblen good

共同点：斜向上的需求曲线。

不同点：吉芬商品是劣等品的一种，韦伯仑商品不是劣等品。吉芬商品可以用消费者选择理论解释，韦伯仑商品不能。

9. 成本的四张图，注意 total cost 和 total variable 的垂直距离（vertical distance）的问题。

10. Shutdown and breakeven under perfect competition

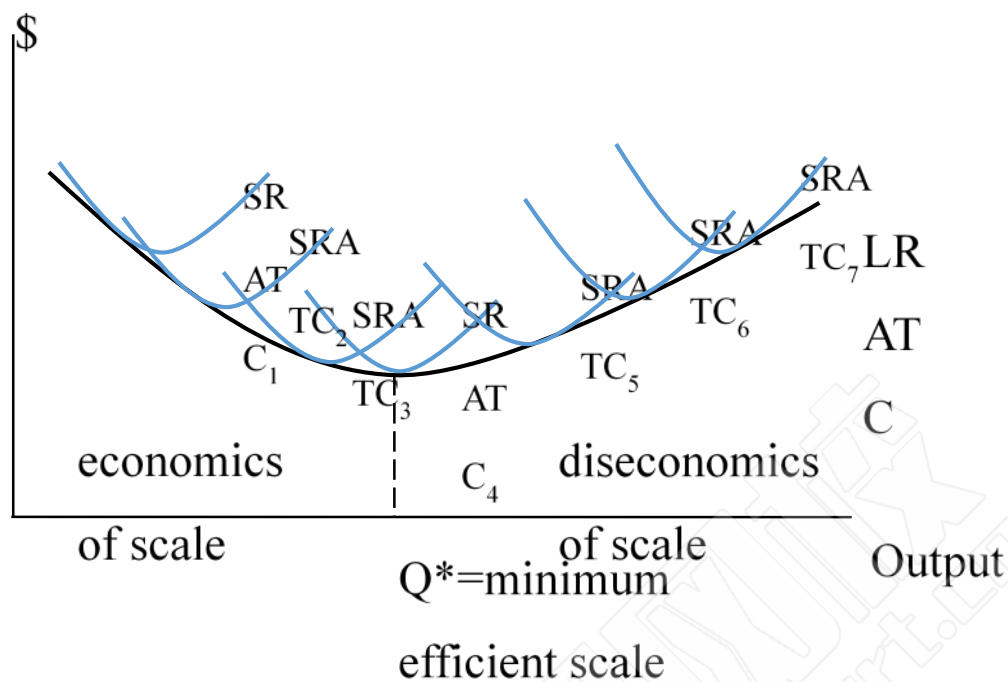
Revenue-Cost Relationship	Short-Run Decision	Long-Run Decision
$AR=ATC$ (break even)	Stay in market	Stay in market
$ATC>AR>AVC$	Stay in market	Shut down
$AR<AVC$	Shutdown	Shut down

11. Shutdown and breakeven under imperfect competition

Revenue-Cost Relationship	Short-Run Decision	Long-Run Decision
$TR=TC$ (break even)	Stay in market	Stay in market
$TC>TR>TVC$	Stay in market	Shut down
$TR<TVC$	Shut down	Shut down

12. Economies of scale and diseconomies of scale

短期的是在给定生产规模（plant size）下的平均总成本，长期的是在不同生产规模下的平均总成本。Downward-sloping 的部分是 economies of scale。



13. Characteristics of market structures

	Perfect Competition	Monopolistic Competition	Oligopoly	Monopoly
Number of sellers	Many firms	Many firms	Few firms	Single firm
Barriers to entry	Very low	Low	High	Very high
Nature of substitute products	Very good substitutes	Good substitutes but differentiated	Very good substitutes or differentiated	No good substitutes
Nature of competition	Price only	Price, marketing, features	Price, marketing, features	Advertising
Pricing power	None	Some	Some to significant	Significant

14. Perfect competition

- a) 生产者数量众多且市场份额都很小，每个生产者生产的是完全相同的产品，行业门槛低，因此单个厂商都是价格接受者（price taker）。
- b) 完全竞争厂商的需求曲线是完全有弹性的，完全竞争市场的需求曲线是斜向下的。

生产者四线合一：Price = Demand = Marginal Revenue = Average revenue

MC=MR 时利润最大

- c) Short-run supply curve for a firm is its MC line above the average variable cost curve, AVC.

Short-run market supply curve is the horizontal sum (add up the quantities from all firms at each price) of the MC curves for all firms in a given industry.

在长期：

- d) 长期厂商的 economic profits 都等于 0。

15. Monopolistic competition

- a) 垄断竞争市场的生产者数量很多，准入门槛低，生产者生产的是有区别的高度可替代品，每一个生产者面对的是高弹性的需求曲线。
- b) Short-run output decision for a firm

MR=MC 的交点决定产量 Q，需求曲线决定价格 P；

- e) 长期厂商的 economic profits 都等于 0。

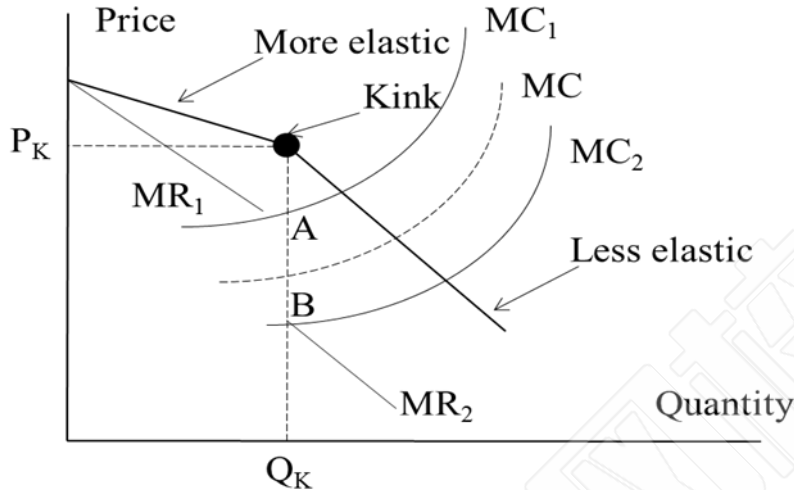
16. Oligopoly

- a) 寡头竞争市场中供给者的数量较少，规模较大，行业门槛一般较高，生产的商品可以完全相同也可以不同，每个厂商的产量和价格变动都会对其他竞争对手以至整个行业的产量和价格产生影响。
- b) The kinked demand curve model（弯折的需求曲线模型）

你涨我不涨，你降我也降。所以高于拐点需求弹性高，低于拐点需求弹性低。（高对高，低对低）

当 MC 穿过 AB 两点， Q_K 是利润最大的点。

缺点：没有说明拐点是如何形成的。



c) Cournot duopoly model

两个寡头有同样的产品和成本体系，互相知道对方上一年度的产量并认为其会继续在该产量下生产。在均衡状态，每个厂商的产量相同。

d) Nash equilibrium model

每一个参与者的决策是对其他参与者的最优反应（任一参与者都无法通过单方面改变决策而获得更好的回报）。

个体最优不等于整体最优。

e) Stackelberg dominant firm model（斯塔克伯格模型）

一大带众小。大企业根据自己的利润最大点决定市场价格，小企业跟随大企业制定的价格做一个 price taker。

17. Monopoly

a) 垄断厂商可以控制和操纵市场价格（price searchers）

b) 当 $MR=MC$ 时，垄断厂商的利润最大化。垄断者追求的是利润最大而不是价格最高。

c) Price discrimination

以不同价格销售同一种产品，被称为价格歧视。

垄断厂商实行价格歧视，必须具备以下基本条件：

第一，需求曲线向右下方倾斜

第二，市场的消费者具有不同的偏好

第三，不同的消费者群体间不能 resell 商品。

Price discrimination reduces inefficiency by increasing output toward the quantity where marginal benefit equals marginal cost, and the deadweight loss is smaller.

18. Natural monopoly

自然垄断的一个主要特征是厂商的平均成本在很高的产量水平上仍随着产量的增加而递减，存在着规模经济。

对自然垄断的政府管制主要包括：

- a) Average cost pricing(平均成本定价法)：价格定在 $\text{demand} = \text{ATC}$ 的点上，economic profit 为 0，这种方法最常用。
- b) Marginal cost pricing（边际成本定价法）：价格定在 $\text{demand} = \text{MC}$ 的点上，在边际成本管制价格下，厂商是亏损的，政府需要补贴被管制的企业。

19. 做市场集中度的测量有三种方法：

- a) Elasticity of demand：精确，但是不好算。
- b) The N-Firm Concentration Ratio：市场前几位的企业的市场份额加总。优点是好算，缺点是无法衡量 market power（包括弹性、准入门槛等），对兼并收购不敏感。
- c) The Herfindahl-Hirschman Index (HHI) 赫芬达尔-赫希曼指数：将市场前几位企业的市场份额先平方再加总。优点是好算，并且反映了兼并收购，缺点是无法衡量 market power（包括弹性、准入门槛等）。

20. GDP 的计算方式（重点掌握）：当年生产（包括未销售）的完成商品的总值。

21. Nominal GDP 用生产物品和劳务的当年价格计算的全部最终产品的市场价值；

Real GDP 用基准年（base year）价格计算出来的全部最终产品的市场价值。

$$\text{GDP deflator} = \frac{\text{nominal GDP}}{\text{real GDP}}$$
 GDP deflator 是一种价格指数

22. Expenditure approach: $\text{GDP} = C + I + G + (X - M)$

Income approach: $\text{GDP} = \text{national income} + \text{capital consumption allowance} + \text{statistical discrepancy} = C + S + T$

CCA 是对于固定资产的再投资。Statistical discrepancy 是残差项。

23. National income(NI) :the sum of the income received by all factors of production that go into the creation of final output。

Personal income(PI)=NI+政府给个人的转移支付-公司未分配利润-公司所得税及社会保险税（费）

Personal disposable income(PDI)=PI-个人所得税

24. 支出法： $\text{GDP} = C + I + G + (X - M)$ ，收入法： $\text{GDP} = C + S + T$

支出法=收入法： $C + I + G + (X - M) = C + S + T$

$S = I + (G - T) + (X - M)$ $(G - T) = (S - I) - (X - M)$

$(G - T)$:fiscal balance $(X - M)$:trade balance

财政赤字（ $G - T > 0$ ）时，私人储蓄要大于私人投资或者贸易出现逆差（ $X - M < 0$ ）。

25. IS 曲线：产品市场均衡（总供给=总需求）时，均衡国民收入与利率之间存在反方向变化的关系。

LM 曲线：货币市场均衡（货币供给=货币需求），均衡国民收入与利率之间存在同方向变化的关系。

26. Aggregate supply curve in the short run and long run

Aggregate supply curve	Features
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Very short run aggregate supply (VSRAS)

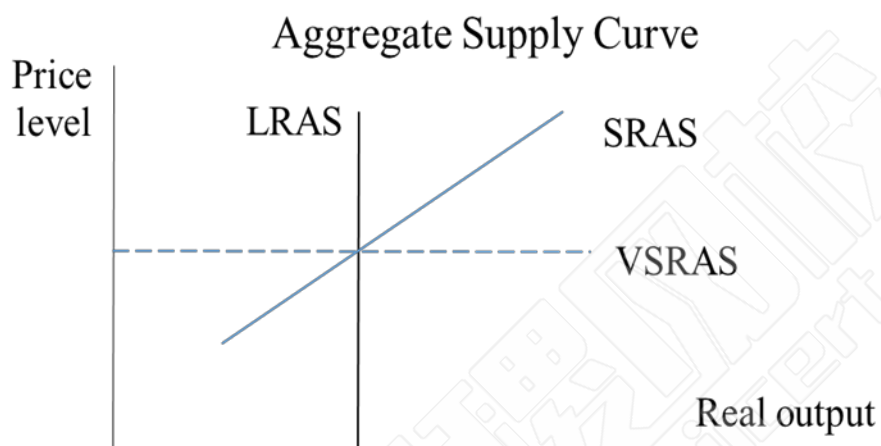
Adjust output without changing price

Short run aggregate supply (SRAS)

Output prices will change proportionally to the price level but that at least some input prices are sticky

Long run aggregate supply (LRAS)

The price level has no long-run effect on aggregate supply (potential or full-employment GDP)



27. Shifts in the aggregate demand curve

28. Shifts in the short-run aggregate supply curve

Labor productivity	Holding the wage rate constant, an increase in labor productivity (output per hour worked) will decrease unit costs to producers.
Input prices	A decrease in nominal wages or the prices of other important productive inputs will decrease production costs and cause firms to increase production
Taxes and government subsidies	Either a decrease in business taxes or an increase in government subsidies for a product will decrease the costs of production
Exchange rates	Appreciation of a country's currency in the foreign exchange market will decrease the cost of imports. To the extent that productive inputs are purchased from foreign countries, the resulting decrease in production costs will cause firms to increase output
Expectations of future output prices	When businesses expect the price of their output to increase in the future, they will expand production

29. Shifts in the long-run aggregate supply curve

Increase in consumers' wealth	The proportion of income saved decreases and spending increases
Consumer expectations of future income	Expect higher future incomes, they save less and increase spending now
Business expectations	More optimistic about future sales, more increase of investment in plant, equipment, and inventory
High capacity utilization	When companies produce at a high percentage of their capacity, they tend to invest in more plant and equipment
Expansionary monetary policy	Banks have more funds to lend, which puts downward pressure on interest rates, increases both investment and consumers' spending.
Expansionary fiscal policy	Decreasing government budget surplus from decreasing taxes, increasing government expenditures, or both.
Exchange rates	A decrease in the relative value of a country's currency will increase exports and decrease imports.
Global economic growth	GDP growth in foreign economies tends to increase the quantity of imports (domestic exports) foreigners demand

Increase in the supply and quality of labor	An increase in the labor force will increase full-employment output. An increase in the skills of the workforce, through training and education, will increase the productivity of a labor force of a given size
Increase in the supply of natural resources	Increases in the available amounts of other important productive inputs will increase potential real GDP
Increase in the stock of physical capital	For a labor force of a given size, an increase in an economy's accumulated stock of capital equipment will increase potential output
Technology	Improvements in technology increase labor productivity (output per unit of labor) and thereby increase the real output that can be produced from a given amount of productive inputs,

30. 短期内，总供给和总需求分别发生变化所产生的影响

Type of Change	Effect on Real GDP	Effect on Price Level	Unemployment
Increase in AD	Increase	Increase	Decrease
Decrease in AD	Decrease	Decrease	Increase
Increase in AS	Increase	Decrease	Decrease
Decrease in AS	Decrease	Increase	Increase

在长期均衡时， $\text{real GDP} = \text{full employment(potential)GDP}$

当 $\text{short-run equilibrium GDP} < \text{full-employment(potential) GDP}$ 时，出现 **recessionary gap**；

当 $\text{short-run equilibrium GDP} > \text{full-employment(potential) GDP}$ 时，出现 **inflationary gap**。

Stagflation 滞胀：失业和通胀并存；当原材料价格上升时，短期总供给曲线向左移动，价格上升，实际 GDP 下降。

$$31. \text{Potential GDP} = \text{aggregate hours worked} \times \text{labor productivity}$$

$$\text{growth in potential GDP} = \text{growth in labor force} + \text{growth in labor productivity}$$

$$32. Y = A * f(L, K) \quad A \text{ 被称为全要素生产率，与技术进步相关。}$$

$$33. \text{Per-worker production output: } Y/L = A * f(K/L)$$

人均产量/劳动生产率的提高可以通过改善技术或者增加人均资本来实现。

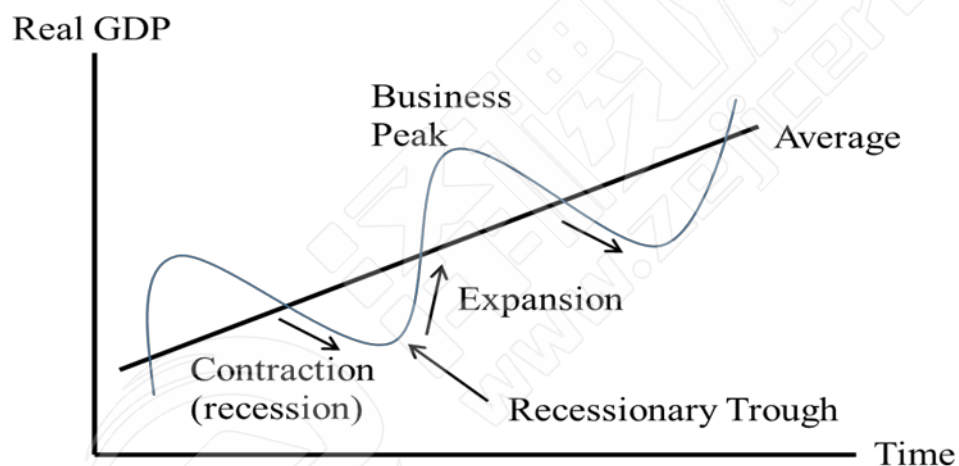
$\text{growth in potential GDP} = \text{growth in technology} + W_L(\text{growth in labor}) + W_C(\text{growth in capital})$

$\text{growth in per-capita potential GDP} = \text{growth in technology} + W_C(\text{growth in the capital-to-labor ratio})$

where W_L and W_C are labor's percentage share of national income and capital's percentage share of national income.

发达国家的人均资本很高，资本处于边际产量递减阶段，经济增长的主要来源是技术进步。

34. Business cycle



35. 决定 housing sector activity 的因素

Mortgage rates

Housing costs relative to income

Speculative activity

Demographic factors

36. Trade balance 受 GDP 和汇率的影响:

本国 GDP 增长时，进口增加；本国 GDP 下降时，进口减少

外国 GDP 增长时，出口增加；外国 GDP 下降时，出口减少

本币升值，本国商品价格相对外国商品价格上升，出口减少，进口增加；

本币贬值，本国商品价格相对外国商品价格下降，出口增加，进口减少。

37. Theories of the business cycle

a) Neoclassical school 主要观点

科技变化影响供需导致短期平衡点偏离长期平衡，经济有很强的动力回到长期平衡点，这一过程中产生了经济周期。

b) Keynesian school 主要观点

消费者的预期（expectation）导致需求变化导致经济周期出现。工资是下行粘性（downward sticky）使生产者无法通过降低劳动力成本对抗衰退。因此政府要使用货币政策和财政政策对抗衰退。

c) New Keynesian school 主要观点

其他生产要素的价格也是下行粘性（downward sticky）。

d) Monetarist school 主要观点

货币供给增发量的变动导致需求变化，导致经济周期出现。衰退是由于 external shock 和不合适的减少货币供给量导致的。央行应当有稳定的可预期的货币供给增发量。

e) Austrian school 主要观点

政府干预（government intervention）导致经济周期出现。

f) New classical school 主要观点

使用了 real business cycle theory，认为只有 external shock 和科技是根本要素。在宏观经济层面使用了 utility theory。认为政府不应该干预经济周期。

38.

$$\text{unemployment rate} = \frac{\text{number of unemployed in labor force}}{\text{labor force}} \times 100\%$$
$$\text{labor force participation rate} = \frac{\text{labor force}}{\text{working age population}} \times 100\%$$

劳动力=就业者+失业者

Working age population=labor force+自愿失业的人。

39.
$$\text{CPI} = \frac{\text{cost of basket at current prices}}{\text{cost of basket at base period prices}} \times 100$$

Headline inflation: Refers to price indexes for all goods

Core inflation: Refers to price indexes that exclude food and energy

40. Cost-push inflation

成本推动的通货膨胀是供给减少导致的。

Demand-pull inflation

需求拉动的通货膨胀是需求增长导致的。

注意劳动力成本变化对供给曲线的影响是供给曲线移动的原因，而政策的变化往往是需求曲线移动的原因。

41. Economic indicators:

Leading indicators: precede business cycle

Coincident indicators: coincide with business cycle

Lagging indicators: occur after business cycle:

Inventory-to-sales ratio & unemployment rate

42. 货币政策和财政政策的共同目标：维持物价稳定，促进经济增长。不同点在于，财政政策可以实现收入和财富的再分配（redistribute）。

43. 货币的职能：medium of exchange, Unit of account, Store of value

44. **Fractional reserve banking**（部分准备金银行制度）: banks are required to hold a minimum percentage of deposits as reserves.

$$\text{money created} = \frac{\text{new deposit}}{\text{reserve requirement}}$$

$$\text{money multiplier} = \frac{1}{\text{reserve requirement}}$$

45. quantity theory of money 货币数量论

$$\text{Money supply} \times \text{velocity} = \text{price} \times \text{real output} (MV = PY)$$

M 的变化不影响 Y: 货币是中性的 (money neutrality)

46. 持有货币的动机:

- a) transaction demand 交易性需求
- b) Precautionary demand 预防性需求
- c) Speculative demand 投机性需求

47. 货币的需求和供给

货币需求与利率成反比; 货币的供给由中央银行决定, 不受利率的影响。

48. Fisher effect: $R_{\text{Nom}} = R_{\text{Real}} + E[I]$

49. 货币政策的执行工具

- a) Policy rate 再贴现利率
- b) Reserve requirements 法定存款准备金
- c) Open market operations 公开市场操作

50. The Monetary transmission mechanism (货币政策传导机制) for changes in the central bank's policy rate through to prices and inflation includes one or more of the following:

Short-term bank lending rates

Asset prices

Expectations for economic activity and future policy rate changes

Exchange rates with foreign currencies

51. 有效中央银行的准则 (qualities of effective central banks)

Independence, Credibility, Transparency

52. 扩张性货币政策 (expansionary monetary policy), 推动经济增长, 降低市场利率, 增加通货膨胀率, 本币贬值。

紧缩性货币政策 (contractionary monetary policy), 抑制经济增长, 提高市场利率, 降低通货膨胀率, 本币升值。

53.

a) **Interest rate targeting** (once common)

当利率高于 (低于) target band 时, 中央银行增加 (减少) 货币供应量。

b) **Inflation targeting** (currently popular) the most common inflation rate target is 2%

当通货膨胀率高于 (低于) target band 时, 中央银行减少 (增加) 货币供应量。

c) **Exchange rate targeting**

Developing economies sometimes target a stable exchange rate for their currency relative to that of a developed economy, **selling their currency when its value rises above the target rate and buying their currency with foreign reserves when the rate falls below the target.**

54. **Real trend rate/ trend rate**: an economy's long-term sustainable real growth rate.

Neutral interest rate: the growth rate of the money supply that neither increases nor decreases the economic growth rate:

Neutral interest rate = real trend rate of economic growth + inflation target

当 policy rate 高于 (低于) neutral rate, 货币政策 contractionary (expansionary)

55. 财政政策按照是否由政府主动采取行动分为: Discretionary fiscal policy (自主决策的财政政策) 和 Automatic stabilizers (自动稳定器) 亦称内在稳定器。

56. 财政政策工具

a) Spending tools:

Transfer payments

Current spending: goods and services used by government

Capital spending: investment projects funded by government

b) Revenue tools:

Direct taxes: levied on income or wealth

Indirect taxes: levied on goods and services

57. An advantage of fiscal policy is that indirect taxes can be used to quickly implement social policies and can also be used to quickly raise revenues at a low cost.

Disadvantages of fiscal policy include time lags for implementing changes in direct taxes and time lags for capital spending changes to have an impacts.

58. Fiscal multiplier 财政支出对总需求的影响

$$\text{fiscal multiplier} = \frac{1}{1 - \text{MPC}(1 - t)}$$

MPC: marginal propensity to consume 边际消费倾向 t:税率

59. Recognition lag: 政策制定者对经济问题的认识和了解需要一段时间。

Action lag: 指政府当局认识到需要调整政策到实际采取行动之间的时间间隔。

Impact lag: 指从政府当局采取行动直到对政策目标产生影响为止这段过程。

60. Crowding-out effect: 指政府支出增加所引起的私人消费或投资降低的效果。

61. Interaction of Monetary and Fiscal Policy

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

62. 绝对优势(absolute advantage): 出口其在**成本**上有绝对优势的产品, 而进口其在成本上有绝对劣势的产品。

比较优势(comparative advantage): 如果一个国家在本国生产一种产品的**机会成本** (用其他产品来衡量) 低于在其他国家生产该产品的机会成本的话, 则这个国家在生产该种产品上就拥有比较优势。

63. Ricardian model of trade: 只考虑**一个生产要素: labor**。是**科技**的差异导致劳动生产率的差异导致比较优势的出现。

Heckscher-Ohlin model 赫克歇尔-俄林模型: 考虑两个生产要素: **labor 和 physical capital**。是**生产要素禀赋区别**导致比较优势的出现。

64. 几种贸易壁垒/限制 (trade restrictions)

- a) Tariffs 关税
- b) Quotas 限额
- c) Export subsidies 出口补贴
- d) Minimum domestic content 最小国内比例
- e) Voluntary export restraint 自动出口限制

65. Trading blocs/regional trading agreements(RTA)区域贸易协定

- a) Free trade areas: 协定双方自由贸易
- b) Customs union: 指在自由贸易区的基础上, 两个或两个以上成员方通过签署协议, 彼此之间减免关税, 并对非成员方实行统一的进口关税或其他贸易政策措施的一种区域经济一体化组织。
- c) Common market: 指在两个或两个以上的成员方之间, 不仅完全取消了关税和非关税壁垒, 建立了共同对外关税, 实现了自由贸易, **而且还实现了服务、资本和劳动力等生产要素的自由流动。**
- d) Economic union: 指在成员方之间不但废除了贸易壁垒, 建立了统一的对外贸易政策进口关税制度, 实现了商品、生产要素的自由流动, **而且在协调的基础上, 各成员方还制定和执行了许多共同的经济政策, 并采取某些统一的社会政策和**

政治纲领。

e) Monetary union 货币联盟：在经济同盟的基础上，成员之间开始采用统一货币。

66. 国际收支平衡表 balance of payments (BOP)

a) Current account:

Merchandise and services 贸易和服务

Income receipts 收益

Unilateral transfers 单方面转移

b) Capital account:

Capital transfers 资本转移

Sales and purchases of non-financial assets 非生产、非金融资产的收买或出售

c) Financial account:

Government-owned assets abroad

Foreign-owned assets in the country

67. International Monetary Fund(IMF)国际货币基金组织：保障国际支付体系，鼓励国际贸易发展。

World Bank 世界银行：帮助落后国家对抗贫穷

World Trade Organization(WTO)世界贸易组织：制定国际贸易规则。

68. Real exchange rate $(d/f) = \text{nominal exchange rate } (d/f) * CPI_f / CPI_d$

69. Spot exchange rate 即期汇率：交易双方达成外汇买卖协议后，在两个工作日以内办理交割的汇率。

Forward exchange rate 远期汇率：交易双方达成外汇买卖协议，约定在未来某一时间进行外汇实际交割所使用的汇率。

70. Percentage change in a currency relative to another currency

USD/EUR exchange rate changed from 1.42 to 1.39 USD/EUR.

For the same quotes, the percentage appreciation of the USD is not the same as the percentage depreciation in the EUR.

71. Cross rate 交叉汇率 is the exchange rate between two currencies implied by their exchange rates with a common third country.

72. The no-arbitrage relation

$$\frac{\text{forward}}{\text{spot}} = \frac{1 + \text{interest rate}_{\text{price currency}}}{1 + \text{interest rate}_{\text{base currency}}}$$

73. 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

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

74. Exchange rate regimes

a) Countries That Do Not Have Their Own Currency:

formal dollarization 直接使用第三方的货币

monetary union 共同使用统一的货币

b) Countries That Have Their Own Currency:

A currency board arrangement 固定汇率

conventional fixed peg arrangement 波动幅度 1%的固定汇率

Target zone 波动幅度更大的固定汇率

Crawling peg 每隔一段时间就进行调整的汇率

Management of exchange rates within crawling bands 有波幅的爬行钉住汇率

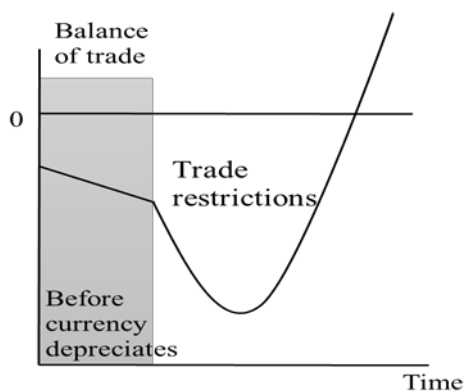
Managed floating exchange rates 管理浮动汇率

Independently floating 完全浮动汇率

75. **马歇尔-勒纳条件(Marshall-Lerner condition)**: 本币贬值会改善贸易逆差, 但需要的具体条件是进出口需求弹性之和必须大于 1。

$$\omega_X \varepsilon_X + \omega_M (\varepsilon_M - 1) > 0$$

76. **The J-Curve**: 一国货币贬值或升值时, 该国贸易收支及经常账户收支状况一般并不能立即改善或恶化, 往往要经过一段时间。



77. 吸收论 (Absorption Approach) 又称支出分析法, 在现代国际经济学中被用于分析国际收支调节, 吸收论从凯恩斯的国民收入方程式入手, 着重考察总收入与总支出对国际收支的影响, 并在此基础上, 提出国际收支调节的相应政策主张。

$$BT = Y - E \text{ (macro view)}$$

Y = domestic production of goods and services or national income

E = domestic absorption of goods and services, which is total expenditure

BT = balance of trade