



THE ECONOMIC WAY OF THINKING

Thirteenth Edition

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Chapter 13

Measuring the Overall Performance of Economic Systems

(衡量经济系统的整体
绩效)

Learning Objectives（学习目标）

- Introduce the concept of Gross Domestic Product（介绍国内生产总值（GDP）的概念）
- Distinguish what elements of economic activity are measured by GDP and which are left out（区分哪些经济活动是国内生产总值包括的，哪些不是）
- Establish how GDP is calculated and what distinguishes it from Gross National Product（确定如何计算GDP，将其与国民生产总值（GNP）区分）
- Explain the definition and measurement of unemployment（说明失业的定义及衡量）
- Analyze the nature of aggregate fluctuations in these variables over time, and discuss the modern history of these fluctuations in the United States（分析一段时期内这些变量的总体波动特性，讨论美国现代史上的总量波动）

Chapter Outline（大纲）

- Gross Domestic Product(GDP)（国内生产总值）
- GDP or GNP?
- GDP as Total Income Created in the Domestic Economy（GDP作为国内经济创造的总收入）
- GDP is not a Measure of All Purchases in the Economy（GDP衡量的并非经济系统中的所有购买支出）
- GDP as Total Value Added（GDP作为总附加价值）
- Is Value Added Always Positive?（附加价值是否总为正？）

Chapter Outline（大纲）

- Loose Ends: Unsold Inventories and Used Goods（零散问题：未售出的存货和二手货）
- Aggregate Fluctuations（总量波动）
- Unemployment and Non-employment（失业和未就业）
- Employed, Not Employed and Unemployed（就业，未就业和失业）
- Labor-Market Decisions（劳动力市场中的决策）
- Unemployment and Recessions（失业与经济衰退）

Chapter Outline（大纲）

- Inflation（通货膨胀）
- Recession and Inflation Since 1960（1960年以来的经济衰退和通货膨胀）
- What Causes Aggregate Fluctuations?（什么导致总量波动？）
- Appendix: Limitations of National Income Accounting（国民收入核算的局限性）
- Appendix: The Dangers of Aggregation-A Methodological Approach（加总的危险：一个方法论的反思）

Introduction（引言）

- ***Microeconomic Analysis*** – supply and demand in a particular market or industry.（微观经济分析–特定市场或行业的供求）
- ***Macroeconomic Analysis*** – performance of the overall economy.（宏观经济分析–整体经济表现）
 - Recession, inflation, unemployment, interest rates...

Gross Domestic Product （国内生产总值）

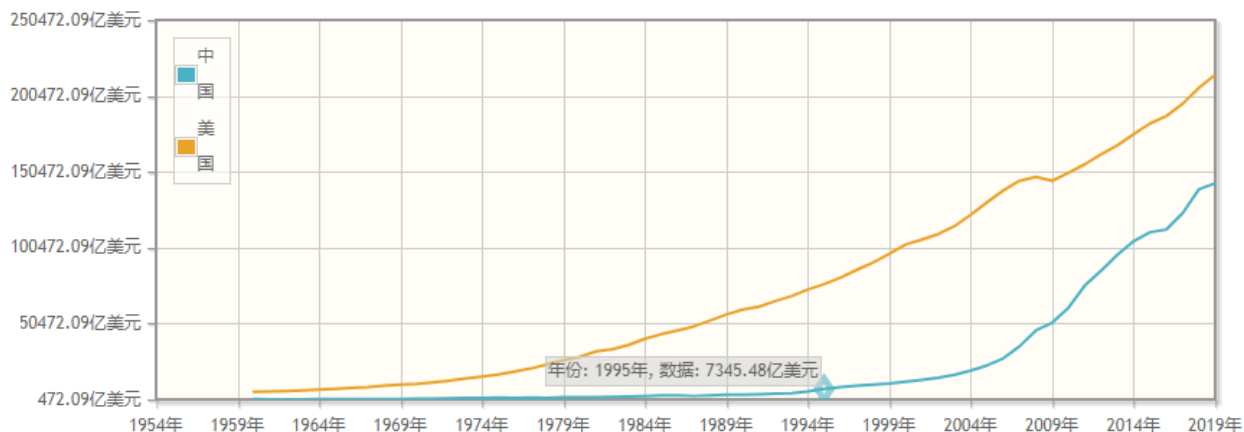
- **GDP** – market value of final goods and services produced within a country in a particular time period. （国内生产总值是一个国家特定时期内生产的最终产品和服务的市场价值）
 - at market prices （以市场价格）
 - final good （最终物品）
 - purchased by ultimate user （最终用户购买）
 - within a country （在一国内）

Gross Domestic Product （国内生产总值）

■ 2020年中、美两国GDP

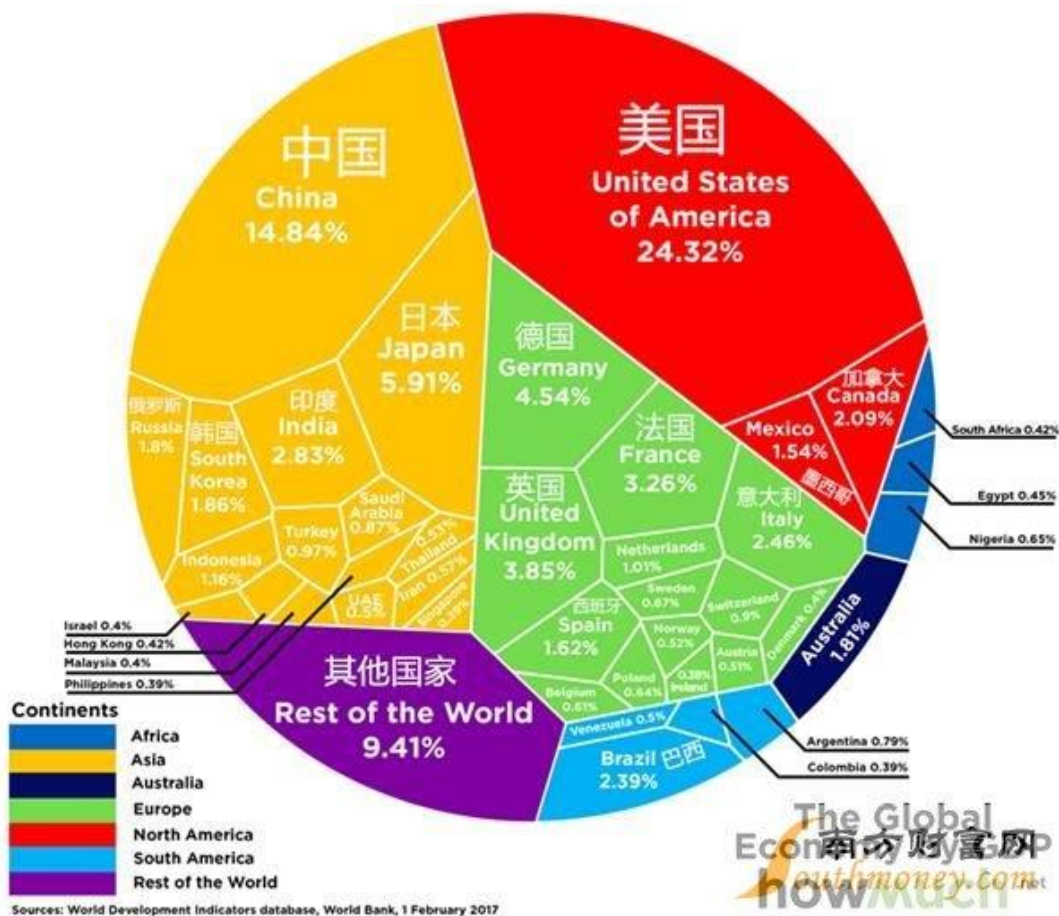
- 美国GDP为 20.93万亿美元，下降3.5%，人均GDP为6.5万美元
- 中国GDP达到101.59万亿元，按全年平均汇率折合14.73万亿美元，为美国的70%，人均GDP约为1.11万美元

GDP(美元)走势图



Gross Domestic Product （国内生产总值）

2015年全球各国GDP占比（来源：世界银行报告）



GDP or GNP?

- GDP is considered the best indicator of overall economic performance (GDP被认为是整体经济表现的最佳指标)
- GNP (Gross National Product, 国民生产总值)
 - performance of the nation's citizens, regardless of where they are producing (一国公民的绩效, 不管他们在哪里生产)
- The difference is small (less than 0.1%) (两者差异很小 (小于0.1%))
 - Since 1991, switched to the GDP measure

GDP as Total Income Created in the Domestic Economy (GDP作为国内经济创造的总收入)

■ GDP

- Purchases of final goods (购买最终商品)
- measure of national income (国民收入测度)

■ Value of national output = value of national income (国民生产总值=国民收入总值)

- every dollar paid for output = income for someone (为产出付出的每一美元=某人的收入)
- sales taxes = income for government (营业税=政府收入)

GDP as Total Income Created in the Domestic Economy (GDP作为国内经济创造的总收入)

- E.g. “2010年中国40万亿元(约合5.9万亿美元), 相当于全球GDP的8.5%, 已超过日本成为全球第二大经济体, 人均GDP达4400多美元”, 这意味着中国境内的家庭、企业和政府机构中的个人在最终产品和服务上总共支出了40万亿元 (考虑到中国出口与进口的净差额)

GDP Is Not a Measure of All Purchases in the Economy (GDP衡量的并非经济系统中的所有购买支出)

- GDP captures all income created in the economy, but not all expenditures (GDP涵盖了经济中创造的所有收入, 但不是所有支出)
 - excludes intermediate goods (不包括中间产品)
 - Including all expenditures would be double counting (包括所有支出将被重复计算)
- Example

GDP Is Not a Measure of All Purchases in the Economy (GDP衡量的并非经济系统中的所有购买支出)

Produceer	Begins with	Ends with	value added
伐木工	一棵树	\$50 (砍伐, 卖给锯木厂厂主)	\$50
锯木厂厂主	\$50 的木材	\$75 (制成板材, 卖给木工)	\$25
木工	\$75 的木板	\$250 (做成木书柜, 卖给零售商)	\$175
零售商	\$250 的木书柜	\$400 (把木书柜卖给你)	\$150
		总支出= \$775	总计附加值
= \$400			

表 12-1

GDP as Total Value Added (GDP作为总附加值)

- Logging example shows that GDP = total value added (TVA) (伐木的例子表明, GDP = 总增加值 (TVA))
- *Three* ways to conceptually measure GDP:
 - expenditures of final goods and services (最终商品和服务上的支出)
 - total income generated in the economy (经济中产生的总收入)
 - total value added in the economy (经济总附加值)

Is Value Added Always Positive? （附加值是否总是正的？）

- Nominal wages, rents and interest will be positive （名义工资、租金和利息为正）
- Profit is positive, loss is negative （利润为正，亏损为负）
- A loss is “added” as negative amount （损失以负数的形式“增加”）
- Example: If retailer sells bookcase at a discount, his value added can be negative （如果零售商以折扣价出售书架，其增加值可能为负）

Is Value Added Always Positive?

<u>Produceer</u>	<u>Begins with</u>	<u>Ends with</u>	<u>value added</u>
伐木工	一棵树	\$50 （砍伐，卖给锯木厂厂主）	\$50
锯木厂厂主	\$50 的木材	\$75 （制成板材，卖给木工）	\$25
木工	\$75 的木板	\$250 （做成木书柜，卖给零售商）	\$175
零售商	\$250 的木书柜	\$200 （把木书柜卖给你）	-\$50
		总支出= \$575	总计附加值= \$200

表 12-2

Loose Ends: Unsold Inventories and Used Goods (零散问题：未售出的存货和二手货)

- Unsold Inventories = gross business inventory investment (总商业存货投资)
 - Estimate market values of unsold goods (估计未售商品市场价值)
 - Revise GDP with actual market values (用实际市场价值修正 GDP)
- Used Goods
 - GDP accounts for added value —market value of the service provided. (GDP计算附加值——提供的服务的市场价值)

Aggregate Fluctuations（总量波动）

- Economic growth occurs through cycles of expansion and contraction（经济增长是通过产出扩张和收缩的周期实现的）
- The most troubling consequence, *in the public mind*, of reductions in GDP：（在公众看来，GDP减少最令人不安的后果是）
 - the increased levels of unemployment that always follow them（随之而来的失业率不断上升）

Aggregate Fluctuations（总量波动）

- Case study: The Great Depression in US– 1929-1933
 - Real GDP fell by 30%.（实际GDP下降30%）
 - Unemployment rose sharply（失业率急剧上升）
 - 1929 – 3.2%
 - 1933 – 24.9%

Unemployment and Non-Employment（失业和未就业）

- About half the population of the U.S. is not employed
（约有一半的美国人口没有工作）
- However, this does *not* mean they are **unemployed**（但是，这并不意味着他们失业了）
 - those under 16 or over 65（16岁以下或65岁以上的人）
 - home duties（家务）

Employed, Not Employed and Unemployed（就业的、未就业的和失业的）

■ Unemployment data

- Bureau of Labor Statistics in US (BLS, 美国劳工统计署)
- Current Population Survey（当前人口调查）
 - Monthly survey – 60,000 households

Employed, Not Employed and Unemployed（就业的、未就业的和失业的）

■ Classifications

- Employed（就业的）
- Unemployed（失业的）
- Not in the labor force（不在劳动力队伍的）

Employed, Not Employed and Unemployed（就业的、未就业的和失业的）

■ 劳动年龄人口

- 世界上大多数国家将年龄在**16-60**周岁之间的人口定义为劳动年龄人口
- 在中国，一般将**16**周岁作为劳动年龄人口的下限,将法定退休年龄为上限,即男性**60**周岁,女性**55**周岁

■ 劳动年龄人口可划分为**劳动力人口**和**不在劳动力人口**

- 根据各国统计管理,以下人员不被列入劳动力人口:
 - 军队人员，在校学生，家务劳动者，退休和因病退职人员及丧失劳动能力、服刑犯人等不能工作的人，不愿工作的人等

Employed, Not Employed and Unemployed（就业的、未就业的和失业的）

- Unemployed in the labor force（劳动力人口中失业的）
 - Without employment during survey week（在调查的那个星期内没有被雇用）
 - Made efforts to find employment during the last 4 weeks.（在之前四个星期中，为找工作付出过努力）
 - Be presently available for work（目前有能力工作）

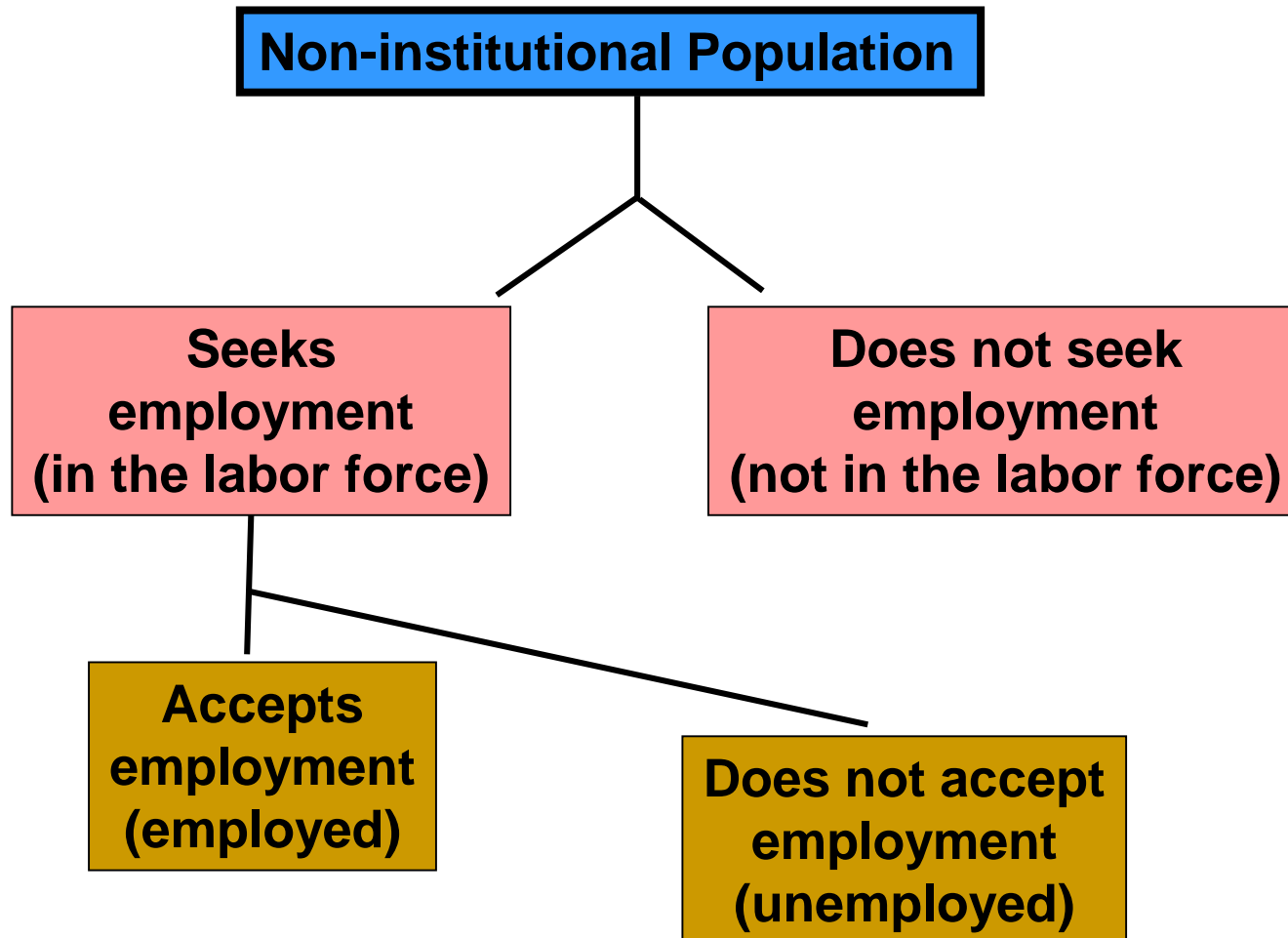
Employed, Not Employed and Unemployed（就业的、未就业的和失业的）

- $\text{Unemployment rate} = \text{unemployed} / \text{labor force}$ （失业率
=失业人数/劳动力人数）

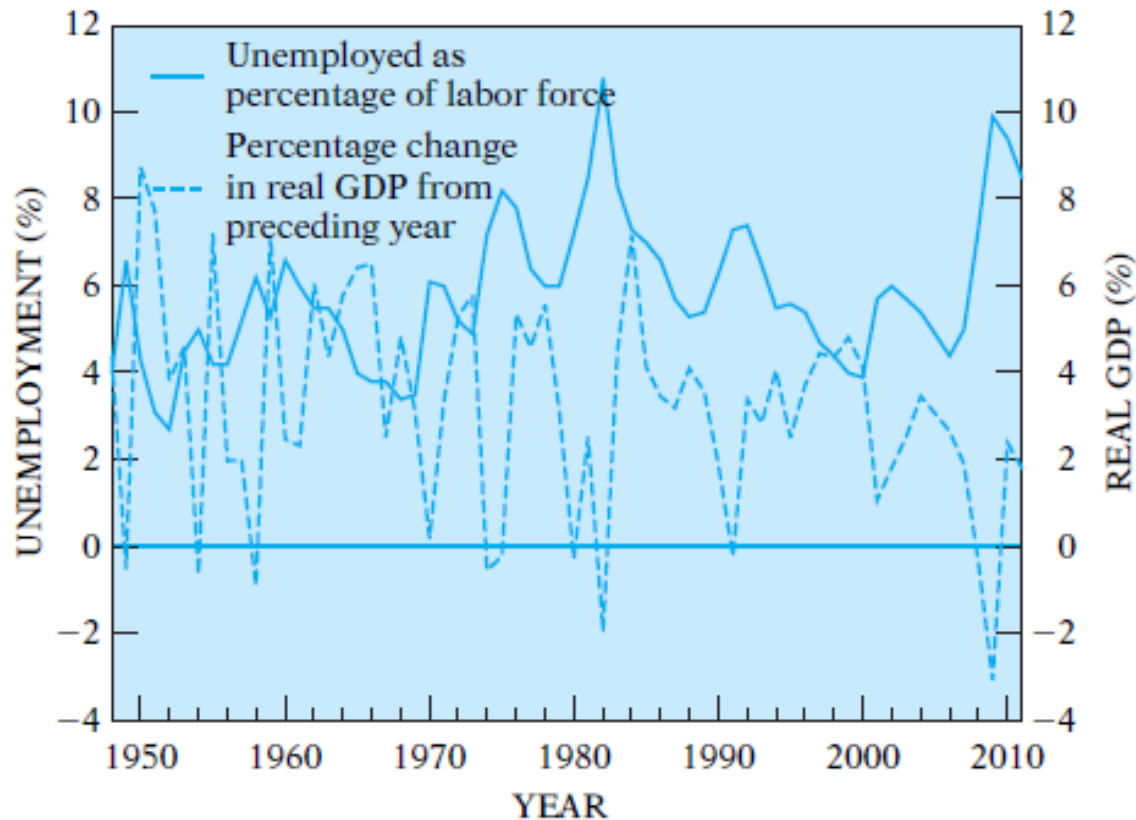
Labor Market Decisions（劳动力市场中的决策）

- Economists try to explain jobs data in terms of people's choices（经济学家试图根据人们的选择来解释就业数据）
- This does not necessarily means that
 - Everyone has good choices（每个人都有很好的选择）
 - Unemployed people enjoy their condition（失业的人对他们的情況也乐在其中）

Labor Market Decisions (劳动力市场中的决策)



Unemployment and Recessions (失业和经济衰退)



Recessions and unemployment in the United States (1950-2010)

Unemployment and Recessions（失业和经济衰退）

■ Observations

- Unemployment rises sharply in recessions, then declines slowly afterwards（失业率在衰退中急剧上升，然后缓慢下降）
- Long expansion in the 1960s reduced the unemployment rate to 3.5%（1960年代的长期扩张将失业率降至3.5%）
- Unemployment rose in the recession of the 1970s to 6%（在1970年代的经济衰退中，失业率上升至6%）
- The 1990s saw the unemployment rate reduced to 4.5%（1990年代失业率降至4.5%）

Unemployment and Recessions (失业和经济衰退)

Recessions	Unemployment Rate	Recovery Peak	Unemployment Rate
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1954	5.5%	→	1953	2.9%
1958	6.8%	→	1957	4.3%
1961	6.7%	→	1960	5.5%
1975	8.5%	→	1973	4.9%
1982	9.7%	→	1979	5.8%
1992	7.4%	→	1990	5.5%
			1998	4.4%

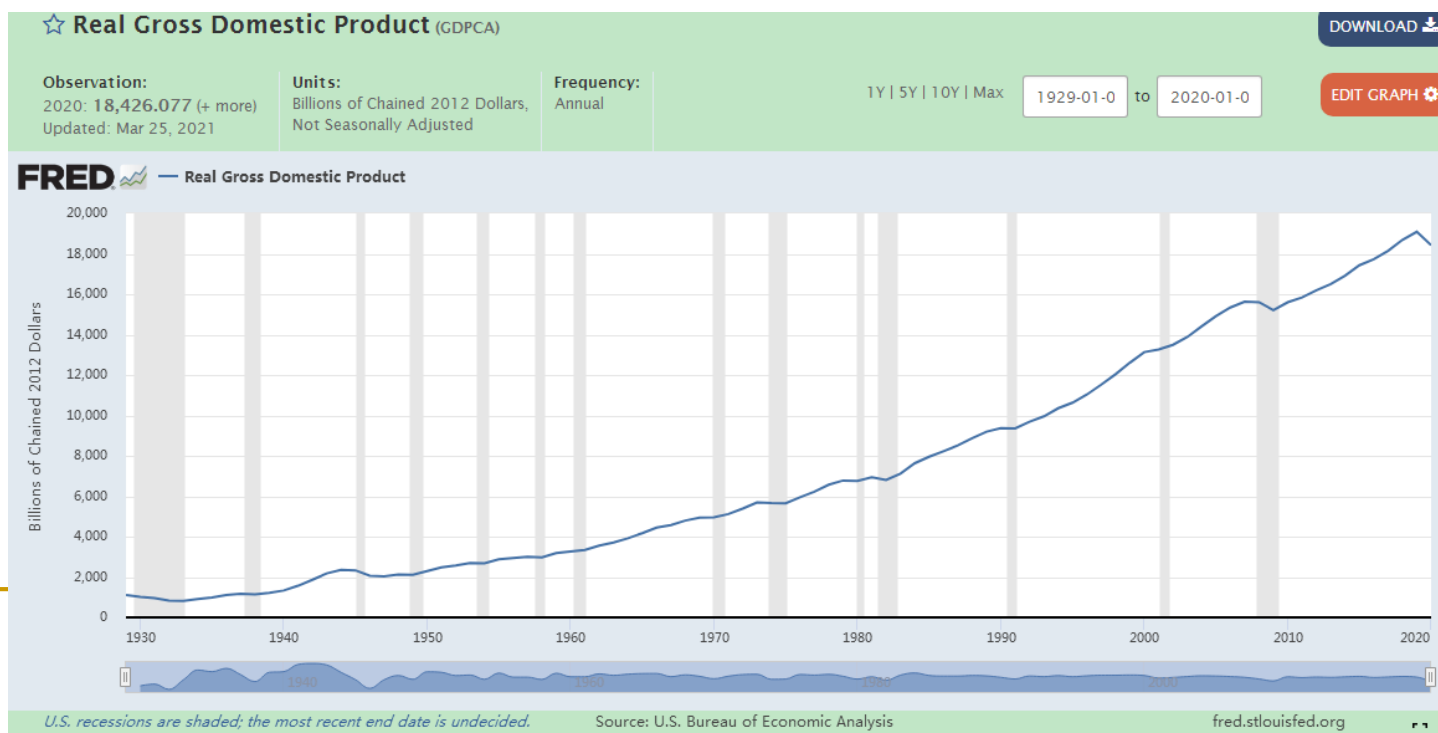
Inflation（通货膨胀）

- We cannot use unadjusted changes in GDP to measure changes in the total output of goods.（我们不能用未经调整的GDP的变动去衡量产品总产出的变动）
- Nominal（名义的） GDP
 - Product of prices and quantities ($P \times Q$).
 - If prices increase and quantities remain unchanged, nominal GDP increases.（若价格上涨且数量保持不变，则名义GDP增长）

Inflation（通货膨胀）

■ Real GDP（实际GDP）

- The value of all final goods and services produced in a year ***stated in unchanging prices***（以不变价格表示的一年内生产的所有最终产品和服务的价值）



Inflation（通货膨胀）

- GDP Deflator（平减指数）
 - $\text{Nominal GDP} / \text{Real GDP} \times 100\%$
- The most comprehensive measure of changes in the purchasing power of money（对货币购买力变化最全面的衡量）
- But not the best-known measure（但不是最出名的衡量）
 - more difficult to calculate（难以计算）
 - a lengthy time lag（时间滞后刘）

Inflation（通货膨胀）

- **Inflation** is a fall in the value or purchasing power of money（通货膨胀是货币的价值或购买力下降）
- **Consumer Price Index (CPI, 消费价格指数)**
 - measures changes in the money price of all the goods that enter into the budgets of typical urban consumers.（衡量的是一个典型城市消费者购物篮中某些特定商品的货币价格变化）

Inflation（通货膨胀）

- Inflation (and deflation) make monetary calculations difficult（通货膨胀（以及通货紧缩）使货币计算变得困难）
 - The future value of money cannot be predicted.（未来货币的价值无法预测）
 - Inflation distorts the signals that are provided through market prices.（通货膨胀扭曲了市场价格带来的信号）

Recession and Inflation Since 1960（自1960年以来的经济衰退和通货膨胀）

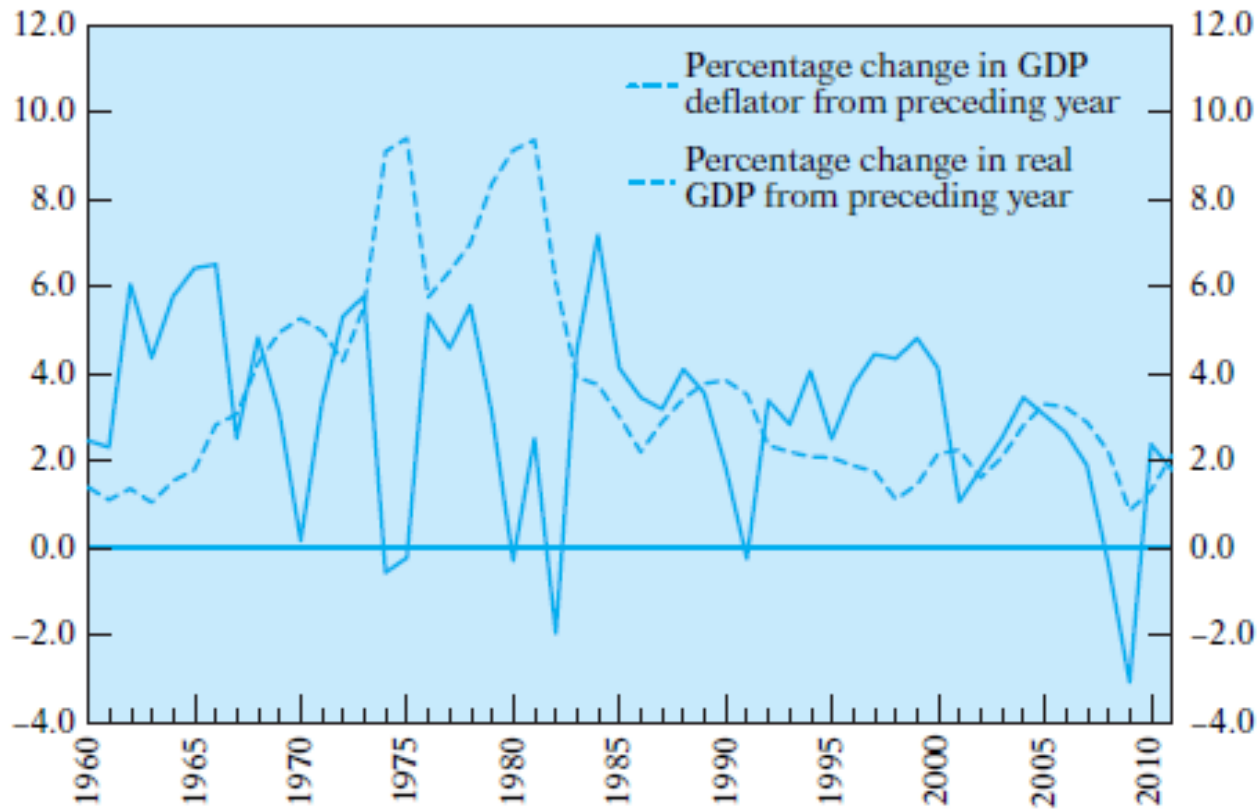


Figure 13–2 Fluctuations in U.S. output and price level（1960-2000）

Recession and Inflation Since 1960（自1960年以来的经济衰退和通货膨胀）

■ Recessions（经济衰退）in US

- 1960, 1970, 1974, 1975, 1980, 1982, 1990, and 1991

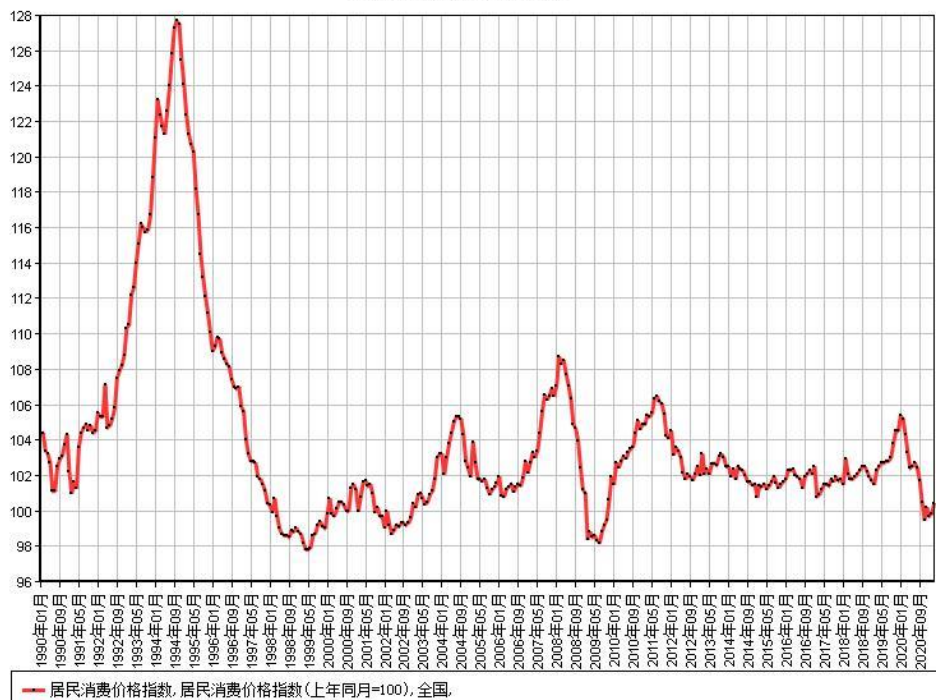
■ Inflation in US

- 1960's – 2.5% / year
- 1970's – 7.5% / year
- 1990s – 2.5% per year

Recession and Inflation Since 1960（自1960年以来的经济衰退和通货膨胀）

- Stagflation（滞涨）
 - recession and inflation（同时发生衰退和通货膨胀）
- Case study: 1974 – 1975
 - Severe recession（严重衰退）
 - 10% inflation
- Recession and Inflation are not simple opposites.（衰退和通货膨胀不是简单的反向变化）
 - *The death of Keynesian Economics!*

居民消费价格指数



中国的通货膨胀

中国的产出波动

国内生产总值(累计)同比增长率



What Causes Aggregate Fluctuations? (什么导致总量波动?)

- Fluctuations may reflect the natural adjustment of markets to **external shocks**. (波动可能反映市场对外部冲击的自然调整)
- Fluctuations may be driven by relatively **small changes in one sector of the economy** that multiplies through many sectors. (波动可能由经济中一个部门相对较小的变化驱动，而这些变化会在许多部门中成倍放大)
 - Economic systems transmit viruses. (经济系统传播病毒)

What Causes Aggregate Fluctuations? (什么导致总量波动?)

- A widespread fear: (一种广为传播的恐惧)
 - total output might increase too fast for total demand to keep up, so that the economic system collapses as a result of overproduction. (总产出一旦增长过快, 总需求无法跟上, 经济系统会由于生产过剩而崩溃)
- Classical economists:
 - The fear of overproduction or underconsumption was groundless. (对生产过剩或消费不足的恐惧是没有根据的)
 - People invest what they save. (人们会用积蓄投资)

What Causes Aggregate Fluctuations? （什么导致总量波动？）

- The Great Depression in the 1930s laid this optimistic belief firmly to rest. （大萧条让这种乐观的信念偃旗息鼓）
 - aggregate demand did not always “take care of itself.” （总需求并不总是能“自己管好自己”）
 - the rise of new economic theories and policies concerned with the care and nurture of aggregate demand （兴起了关注和培育总需求的新经济理论和政策）
 - But experiences of the 1970s and 1980s revealed some of their more glaring limitations. （20世纪七八十年代的实践揭示出这些理论中的一些突出缺陷）

Appendix: Limitations of National Income Accounting (国民收入核算的局限)

- Some difficulties encountered by GDP (GDP核算的困难)
 - Ignores all non-market forms of production (忽略了所有非市场形式的生产)
 - Ignores illegal (black market) production (忽略了非法的生产)
 - Ignores economic value added (忽略了经济附加值)
 - Only accounting profits are used to GDP. (计算GDP时, 用会计利润)
 - Economic profit will typically be less than accounting profit. (经济利润一般低于会计利润)

Appendix: Limitations of National Income Accounting (国民收入核算的局限)

- Anything *that leads to a transaction in monetary form* is recorded as positive, no matter what is being sold. (不管交易的是什么, 以货币形式进行交易均被记录为正)
 - This goes against common sense. (与常识相悖)
 - “拆掉重建也能增加GDP”

Appendix: The Dangers of Aggregation（加总的危险）

- **Aggregate** variables (GDP, CPI, Unemployment rate,...) attempt to measure of overall economy.（这些总量试图衡量整体经济）
- One of the temptations of macroeconomic theory（宏观经济理论面临的一个诱惑）
 - to study the economy by focusing largely (if not exclusively) on the relationships between the aggregate variables themselves（通过主要（甚至专门）关注一些总量之间的关系研究经济）

Appendix: The Dangers of Aggregation（加总的危险）

- But this is quite a problem.（这样做是相当有问题的）
 - It appears that *somehow* the aggregates are interacting with one another（它使得这些总量之间，不知何故，看起来是相互作用的）
 - Policymakers be tempted merely *to get the aggregates right*.（政策制定者仅被诱使确保正确进行加总）

Appendix: The Dangers of Aggregation（加总的危险）

- E.g. the same increase in the quantity of money will have very different consequences when it goes to consumers rather than to producers.（同样的货币数量，如果给消费者，其产生的后果会非常不同于给生产者的情形）
- This is obscured when one restricts oneself to the macro entities.（如果只关注总量，这一点就被掩盖了）

Appendix: The Dangers of Aggregation（加总的危险）

- From 1950's to 1970's macroeconomists
 - believe that supply and demand theory couldn't explain overall economic phenomena（认为供求理论无法解释整体经济现象）
 - placed the individual chooser in the scrapheap of macroeconomic thought（把个体选择者的观念丢进了宏观经济学思想的垃圾堆）

Appendix: The Dangers of Aggregation（加总的危险）

- But since 1980's more macroeconomists
 - Believe aggregate analysis itself is limited（主张总量分析自身也是有局限的）
 - Search for the “microeconomic foundations of macroeconomics”（寻求宏观经济学的微观基础）

Once Over Lightly（简单回顾）

- Gross Domestic Product – GDP（国内生产总值）
- Many people not employed are not in the labor force – and not unemployed.（许多没有工作的人并不算在劳动力队伍，不算失业）
- Inflation is a decrease in purchasing power of money（通货膨胀是货币购买力的下降）
- Deflation is a sustained rise in purchasing power of money.（通货紧缩是货币购买力的持续上升）

Once Over Lightly（简单回顾）

- GDP deflator and CPI are measures of inflation（GDP平减指数和CPI是衡量通货膨胀的指标）
- Economic growth（经济增长）
- Stagflation（滞胀）
- Aggregate fluctuations（总量波动）
- Limitations of GDP measurement（GDP计量的局限性）