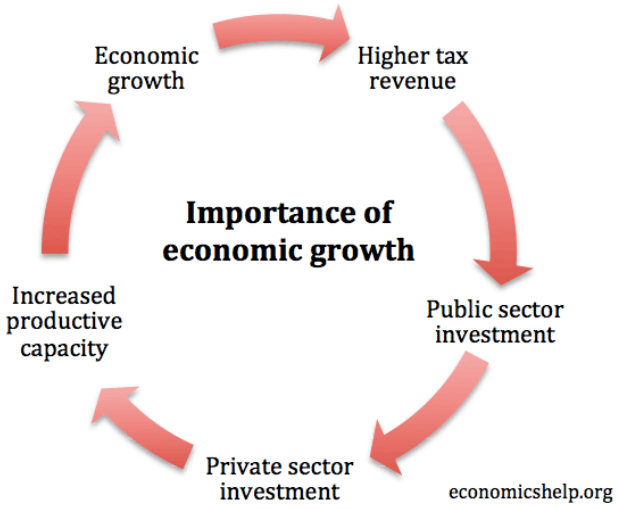
Introduction to Economic Growth and Instability



Economic Growth-how to increase the economy's productive capacity over time.

- Two definitions of economics growth are given.
  - The increase in real GDP, which occurs over a period of time.
  - The increase in real GDP per capita, which occurs over time.This definition is superior if comparison of living standards is desired.For example, China's GDP is $744 billion compared to Denmark's $155 billion, but per capita GDP's are $620 and $29,890 respectively.
- Growth is an important economic goal because it means more material abundance and ability to meet the economizing problem.Growth lessens the burden of scarcity.
- The arithmetic of growth is impressive.Using the "rule of 70," a growth rate of 2 percent annually would take 35 years for GDP to double, but a growth rate of 4 percent annually would only take about 18 years for GDP to double.(The "rule of 70" uses the absolute value of a rate of change, divides it into 70, and the result is the number of years it takes the underlying quantity to double.)
- Main sources of growth are increasing inputs or increasing productivity of existing inputs.
  - About one-third of U.S. growth comes from more inputs.
  - About two-thirds comes from increased productivity.
- Growth Record of the United States (Table 8-1) is impressive.
  - Real GDP has increased more than sixfold since 1940, and real per capita GDP has risen almost fourfold.(See columns 2 and 4, Table 8-1)

    - Rate of growth record shows that real GDP has grown 3.1 percent per year since 1950 and real GDP per capita has grown about 2 percent per year.But the arithmetic needs to be qualified.
        - Growth doesn't measure quality improvements.
        - Growth doesn't measure increased leisure time.
        - Growth doesn't take into account adverse effects on environment or human security.
        - International comparisons are useful in evaluating U.S. performance. For example, Japan grew more than twice as fast as U.S. until the 1990s when the U.S. far surpassed Japan. (see Global Perspective 8-1).

Overview of the Business Cycle

- Historical record:
    - The United States' impressive long-run economic growth has been interrupted by periods of instability.
    - Uneven growth has been the pattern, with inflation often accompanying rapid growth, and declines in employment and output during periods of recession and depression (see Figure 8-1 and Table 8-2).
- Four phases of the business cycle are identified over a several-year period.(See Figure 8-1)
    - A peak is when business activity reaches a temporary maximum with full employment and near-capacity output.
    - A recession is a decline in total output, income, employment, and trade lasting six months or more.
    - The trough is the bottom of the recession period.
    - Recovery is when output and employment are expanding toward full-employment level.
- There are several theories about causation.
    - Major innovations may trigger new investment and/or consumption spending.
    - Changes in productivity may be a related cause.
    - Most agree that the level of aggregate spending is important, especially changes on capital goods and consumer durables.
- Cyclical fluctuations:Durable goods output is more unstable than non-durables and services because spending on latter usually can not be postponed.

Unemployment (One Result of Economic Downturns)

- Types of unemployment:
    - Frictional unemployment consists of those searching for jobs or waiting to take jobs soon; it is regarded as somewhat desirable, because it indicates that there is mobility as people change or seek jobs.
    - Structural unemployment:due to changes in the structure of demand for labor; e.g., when certain skills become obsolete or geographic distribution of jobs changes.
        - Glass blowers were replaced by bottle-making machines.

        - Oil-field workers were displaced when oil demand fell in 1980s.
        - Airline mergers displaced many airline workers in 1980s.
        - Foreign competition has led to downsizing in U.S. industry and loss of jobs.
        - Military cutbacks have led to displacement of workers in military-related industries.
    - Cyclical unemployment is caused by the recession phase of the business cycle, which is sometimes called deficient demand unemployment.

- Definition of "Full Employment"
    - Full employment does not mean zero unemployment.
    - The full-employment unemployment rate is equal to the total frictional and structural unemployment.
    - The full-employment rate of unemployment is also referred to as the natural rate of unemployment.
    - The natural rate is achieved when labor markets are in balance; the number of job seekers equals the number of job vacancies.At this point the economy's potential output is being achieved.The natural rate of unemployment is not fixed, but depends on the demographic makeup of the labor force and the laws and customs of the nations.The recent drop in the natural rate from 6% to 5.5% has occurred mainly because of the aging of the work force and increased competition in product and labor markets.
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- Measuring unemployment (see Figure 8-4 for 1994):
    - The population is divided into three groups:those under age 16 or institutionalized, those "not in labor force," and the labor force that includes those age 16 and over who are willing and able to work.
    - The unemployment rate is defined as the percentage of the labor force that is not employed.
    - The unemployment rate is calculated by random survey of 60,000 households nationwide.
    - Part-time workers are counted as "employed."
    - "Discouraged workers" who want a job, but are not actively seeking one, are not counted as being in the labor force, so they are not part of unemployment statistic.

- Economic cost of unemployment:
    - GDP gap and Okun's Law:GDP gap is the difference between potential and actual GDP.(See Figure 8-5)Economist Okun quantified relationship between unemployment and GDP as follows:For every 1 percent of unemployment above the natural rate, a 2 percent GDP gap occurs.This has become known as "Okun's law."
    - Unequal burdens of unemployment exist.(See Table 8-2)

        - Rates are lower for white-collar workers.
        - Teenagers have the highest rates.
        - Blacks have higher rates than whites.
        - Rates for males and females are comparable, though females had a lower rate in 1992.
        - Less educated workers, on average, have higher unemployment rates than workers with more education.
        - "Long-term" (15 weeks or more) unemployment rate is much lower than the overall rate.

- Noneconomic costs include loss of self-respect and social and political unrest.
- International comparisons.(See Global Perspective 8-1)

Inflation: Defined and Measured

- Definition:Inflation is a rising general level of prices (not all prices rise at the same rate, and some may fall).
- To measure inflation, subtract last year's price index from this year's price index and divide by last year's index; then multiply by 100 to express as a percentage.
- "Rule of 70" permits quick calculation of the time it takes the price level to double:Divide 70 by the percentage rate of inflation and the result is the approximate number of years for the price level to double.If the inflation rate is 10 percent, then it will take about ten years for prices to double.(Note: You can also use this rule to calculate how long it takes savings to double at a given compounded interest rate.)
- Facts of inflation:
    - In the past, deflation has been as much a problem as inflation.For example, the 1930s depression was a period of declining prices and wages.
    - All industrial nations have experienced the problem (see Global Perspective 8-2).
    - Some nations experience astronomical rates of inflation (Angola's was 4,145 percent in 1996).
    - The inside covers of the text contain historical rates for the U.S.
- Causes and theories of inflation:
    - Demand-pull inflation:Spending increases faster than production.(See Figure 8-7)Inflation will occur in range 2 and range 3 of this illustration.Bottlenecks occur in some industries in range 2, and output cannot expand to meet demand in these industries so producers raise prices; in Range 3 full employment has been reached and resource prices will rise with increasing demand, causing producers to raise prices.Note:Chapter 7's distinction between nominal and real GDP is helpful here.
    - Cost-push or supply-side inflation:Prices rise because of rise in per-unit production costs (Unit cost = total input cost/units of output).
        - Wage-push can occur as result of union strength.
        - Supply shocks may occur with unexpected increases in the price of raw materials.

    - Complexities: It is difficult to distinguish between demand-pull and cost-push causes of inflation, although cost-push will die out in a recession if spending does not also rise.

Redistributive effects of inflation:

- Fixed-income groups will be hurt because their real income suffers.Their nominal income does not rise with prices.
- Savers will be hurt by unanticipated inflation, because interest rate returns may not cover the cost of inflation.Their savings will lose purchasing power.
- Debtors (borrowers) can be helped and lenders hurt by unanticipated inflation.Interest payments may be less than the inflation rate, so borrowers receive "dear" money and are paying back "cheap" dollars that have less purchasing power for the lender.
- If inflation is anticipated, the effects of inflation may be less severe, since wage and pension contracts may have inflation clauses built in, and interest rates will be high enough to cover the cost of inflation to savers and lenders.
    - "Inflation premium" is amount that interest rate is raised to cover effects of anticipated inflation.
    - "Real interest rate" is defined as nominal rate minus inflation premium.(See Figure 8-6)
- Final points
    - Unexpected deflation, a decline in price level, will have the opposite effect of unexpected inflation.
    - Many families are simultaneously helped and hurt by inflation because they are both borrowers *and* earners and savers.
    - Effects of inflation are arbitrary, regardless of society's goals.
    - See Quick Review 8-4.

Output Effects of Inflation

- Cost-push inflation, where resource prices rise unexpectedly, could cause both output and employment to decline.Real income falls.
- Mild inflation (<3%) has uncertain effects.It may be a healthy by-product of a prosperous economy, or it may have an undesirable impact on real income.
- Danger of creeping inflation turning into hyperinflation, which can cause speculation, reckless spending, and more inflation (see examples in text of Hungary and Japan following World War II, and Germany following World War I).

LAST WORD: The Stock Market and The Economy: How, if at all, do changes in stock prices relate to macroeconomic stability?

- Do changes in stock prices and stock market wealth cause instability?The answer is yes, but usually the effect is weak.
    - There is a wealth effect:Consumer spending rises as asset values rise and vice versa if stock prices decline substantially.

    - Also, there is an investment effect:Rising share prices lead to more capital goods investment and the reverse in true for falling share prices.
- Stock market "bubbles" can hurt the economy by encouraging reckless speculation with borrowed funds or savings needed for other purposes.A "crash" can cause unwarranted pessimism about the underlying economy.
- A related question concerns forecasting value of stock market averages.Stock price averages are included as one of ten "Leading Indicators" used to forecast the future direction of the economy.(See Last Word, Chapter 12).However, by themselves, stock values are not a reliable predictor of economic conditions.