Classical Long-Run Policy

10-2 Sources of Growth

The Sources of Growth

• Economists identify five important sources of growth:
  1. Growth-compatible institutions
  2. Investment and accumulated capital
  3. Available resources
  4. Technological development
  5. Entrepreneurship

Growth-Compatible Institutions

➢ Markets and private ownership of property foster economic growth
➢ When individuals get much of the gains of growth themselves, they work harder
➢ Corporations are growth-compatible institutions because of limited liability, which gives stockholders an incentive to invest their savings in large enterprises
➢ Informal property rights limit borrowing by the poor, and hence limit growth
Investment and Accumulated Capital

- Although capital is a key element in growth, capital accumulation does not necessarily lead to growth
- Capital may become obsolete
- Capital is much more than physical machines and includes:
  - Human capital are skills that workers gain from experience, education, and on-the-job training
  - Social capital is the habitual way of doing things that guides people in how they approach production

Available Resources

- The growth in the U.S. in the 20th century was due in part to its large supply of natural resources
- What is a resource depends on the production processes of an economy and technology
- New technology can overcome a lack of resources
- Greater participation in the market will increase the labor force participation rate and economic growth
Technological Development

- Technology is the way we make goods and supply services.
- Changes in technology and changes in the goods and services we buy fuel growth.
- Advances in technology shift the production possibility curve outward by making workers more productive.
- Important developments in biotechnology, computers, and communications have helped fuel U.S. growth.

Entrepreneurship

- Entrepreneurship is the ability to get things done using creativity, vision, willingness to accept risk, and a talent for translating vision into reality.
- Entrepreneurs have been central to growth in the U.S.
- Examples of American entrepreneurs include:
  - Thomas Edison - generation and use of electricity
  - Henry Ford - automobile production
  - Bill Gates - computers and software
  - Mark Zuckerberg - Facebook

The Classical Growth Model

- The Classical growth model is a model of growth that focuses on the role of capital accumulation in the growth process.
- According to the Classical growth model, the more capital an economy has, the faster it will grow.
- Classical economists focused their analysis and their policy advice on how to increase investment because saving leads to growth.

[Diagram showing the relationship between savings, investment, increase in capital, and growth]
The Law of Diminishing Marginal Productivity

➤ The predictions for the long term were incorrect because increases in technology and capital overwhelmed diminishing marginal productivity
➤ The focus changed to technology, not land or capital
➤ Without growth in technology, investment will not generate sustained growth
  • Eventually the per capita growth would stagnate

Technology

➤ Technological advance is the result of what the economy does, it:
  • Invests in research and development
  • Makes advances in pure science
  • Works out new ways to organize production
➤ The common knowledge aspect of technology creates positive externalities which is the key to growth
  • Positive externalities are positive effects on others not taken into account by the decision maker

New Growth Theory

➤ New growth theory is a theory that emphasizes the role of technology in the growth process
➤ Technology is recognized as an important ingredient in growth
➤ Modern growth theory is named new growth theory

[Diagram showing the flow of tech advance, investment, further tech advance, and growth]
Learning by Doing

➤ New growth theory also highlights learning by doing
➤ Learning by doing is meant to improve the methods of production through experience
➤ Learning by doing overcomes the law of diminishing marginal productivity because it increases the productivity of workers
➤ Learning by doing leads to unlimited growth potential that can accelerate over time

Technological Lock-In

➤ Does the economy always use the “best” technology available?
➤ Technological lock-in occurs when old technologies become entrenched in the market
➤ More efficient technologies may be available
➤ Network externalities lead to technological lock-in
➤ Network externality is an externality in which the use by one individual makes a technology more valuable to other people

Growth Policies

➤ General policies that are good for growth include:
  • Encouraging saving and investment
  • Formalizing property rights and reducing bureaucracy and corruption
  • Providing more of the right kind of education
  • Promoting policies that encourage technological innovation
  • Promoting policies that allow taking advantage of specialization
Chapter Summary

- Growth is an increase in the amount of goods and services an economy can produce when both labor and capital are fully employed.
- Growth increases potential output and shifts the production possibility curve out, allowing an economy to produce more goods.
- Per capita growth means producing more goods and services per person.
- Five sources of growth are (1) growth-compatible institutions, (2) capital accumulation, (3) available resources, (4) technological development, and (5) entrepreneurship.

Chapter Summary

- The loanable funds market translates saving into investment that is necessary for growth and the interest rate equilibrates saving and investment.
- New growth theory emphasizes the role of technology in the growth process.
- Policies that are good for growth are those that (1) encourage saving and investment, (2) formalize property rights, (3) provide the right kind of education, (4) encourage technological innovation, and (5) take advantage of specialization.