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Economic Growth

McGraw-Hill/Irwin

Economic Growth

- Increase in real GDP or real GDP per capita over some time period
- Percentage rate of growth
- Growth as a goal
- Arithmetic of growth: Rule of 70

$$\text{Approximate number of years required to double real GDP} = \frac{70}{\text{annual percentage rate of growth}}$$

Economic Growth

- Growth in U.S. real GDP 1950-2009
  - Increased 6 fold
  - 3.2% per year
- Growth in U.S. real GDP per capita
  - Increased more than 3 fold
  - 2% per year
- Qualifications
  - Improved products and services
  - Added leisure

Modern Economic Growth

- Began with the Industrial Revolution in late 1700s
- Ongoing increases in living standards
- Time for leisure
- Social change
- Democracy
- Human lifespan doubled

Modern Economic Growth

- Began in Britain
- Has spread slowly
- Starting date main cause of worldwide differences in living standards
- Catching up is possible
  - Leader countries invent technology
  - Follower countries adopt technology
  - Can grow faster

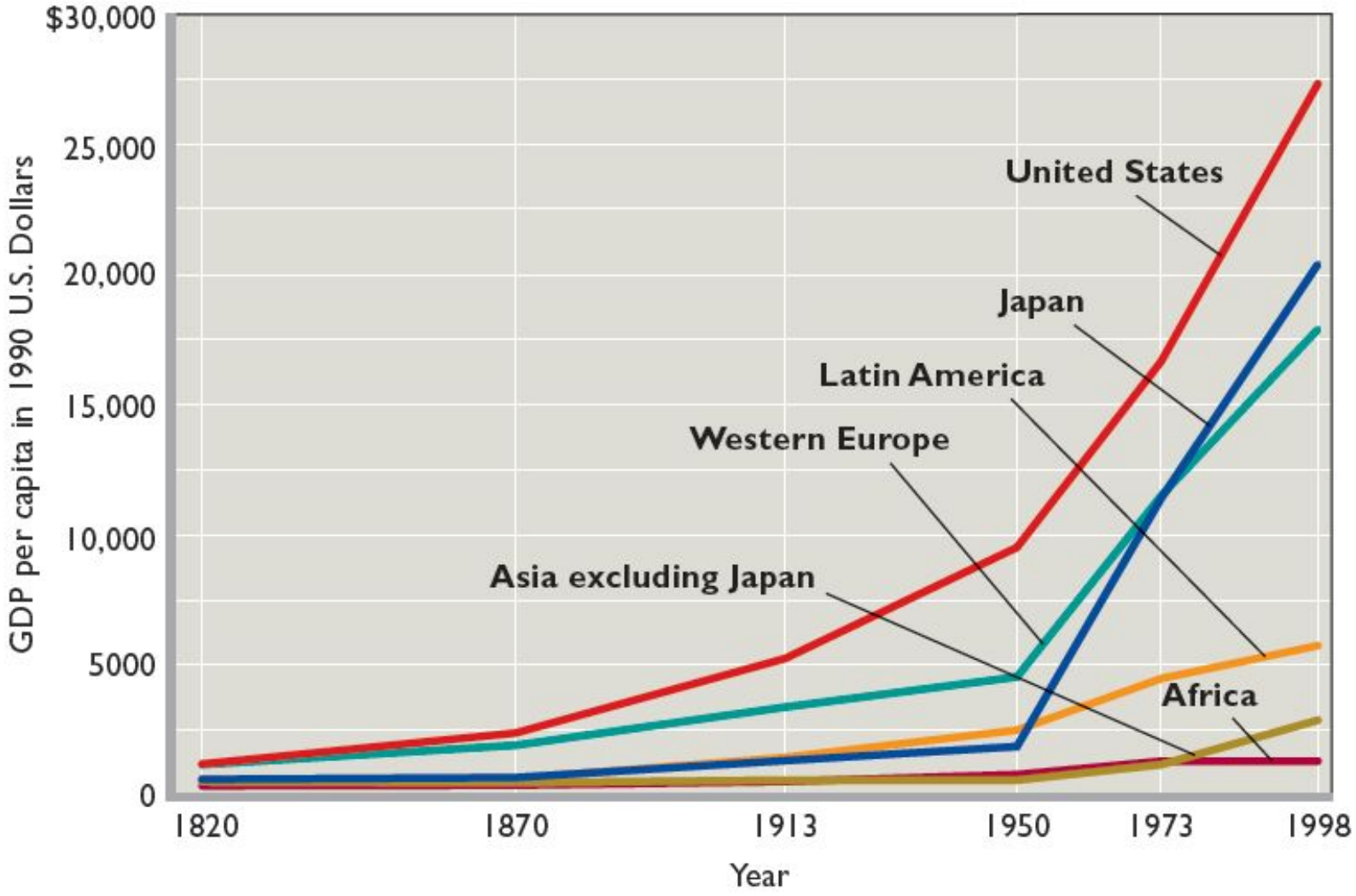
Modern Economic Growth

Country	Real GDP per capita, 1960	Real GDP per capita, 2007	Average annual growth rate, 1960-2007
United States	$ 14,766	$42,887	2.3%
United Kingdom	11,257	32,181	2.3
France	9,347	29,663	2.5
Ireland	6,666	41,625	4.0
Japan	5,473	30,585	3.7
Singapore	4,149	44,619	5.2
Hong Kong	3,849	43,121	5.3
South Korea	1,765	23,850	5.7

Figures are in 2005 dollars

Source: Penn World Table version 6.3, ***pwt.econ.upenn.edu***

Modern Economic Growth



Institutional Structures of Growth

- Strong property rights
- Patents and copyrights
- Efficient financial institutions
- Literacy and widespread education
- Free trade
- Competitive market system

Determinants of Growth

Supply factors

- Increases in quantity and quality of natural resources
- Increases in quality and quantity of human resources
- Increases in the supply (or stock) of capital goods
- Improvements in technology

Demand factor

- Households, businesses, and government must purchase the economy's expanding output

Efficiency factor

- Must achieve economic efficiency and full employment

Accounting for Growth

- Factors affecting productivity growth
  - Technological advance (40%)
  - Quantity of capital (30%)
  - Education and training (15%)
  - Economies of scale and resource allocation (15%)

Productivity Growth

- Average rate of growth
  - 1.5% per year 1973-1995
  - 2.8% per year 1995-2009
- Affects real output, real income, and real wages
- Pay higher wages without lowering profit

Productivity Growth

- Microchip/information technology
- New firms and increasing returns
- Sources of increasing returns
  - More specialized inputs
  - Spreading of development costs
  - Simultaneous consumption
  - Network effects
  - Learning by doing

Economic Growth

- Is economic growth desirable and sustainable?
- The antigrowth view
  - Environmental and resource issues
- In defense of economic growth
  - Higher standard of living
  - Human imagination can solve environmental and resource issues

Economic Growth

- Growth is the path to greater material abundance
- Results in higher standards of living
- Increases leisure time
- Allows for the expansion and application of human knowledge

Global Perspective

Country	Global Competitiveness Ranking, 2009–2010
Switzerland	1
United States	2
Singapore	3
Sweden	4
Denmark	5
Finland	6
Germany	7
Japan	8
Canada	9
Netherlands	10