

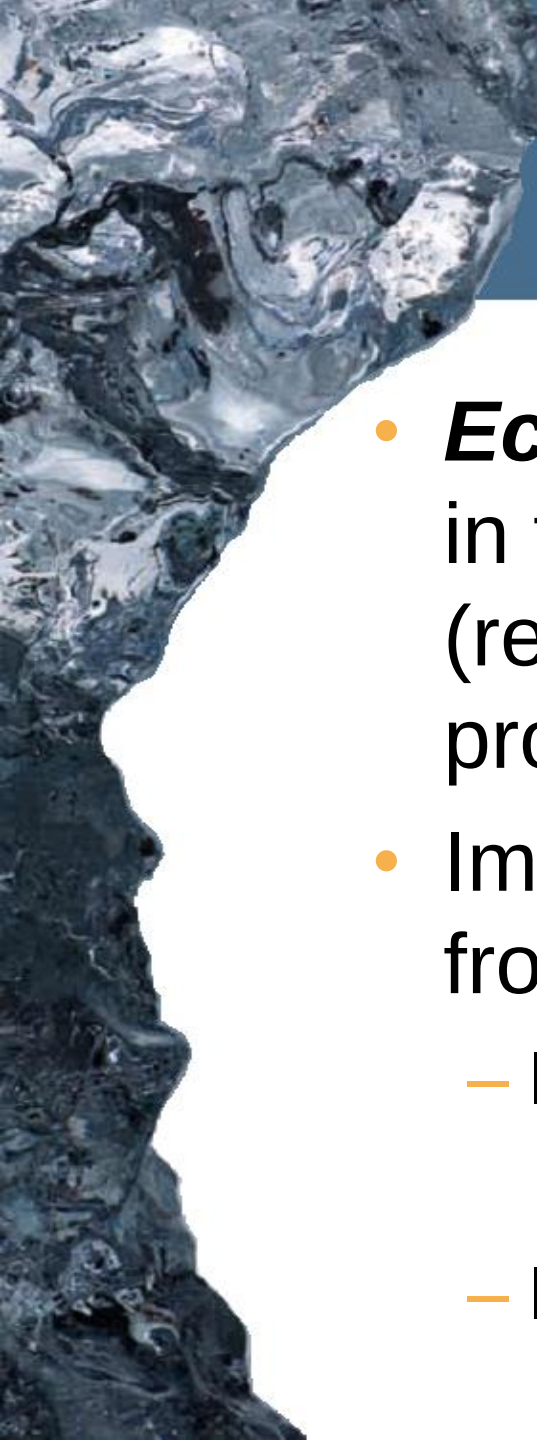


Everyone's Smart
University

Introduction to economics

Chapter 9

ECONOMIC GROWTH



The Nature of Growth



- ***Economic growth*** refers to increases in the output of goods and services (real GDP)—an expansion of production possibilities.
- Improvements in output may result from:
 - Increased use of existing capacity
 - OR
 - Increases in that capacity itself

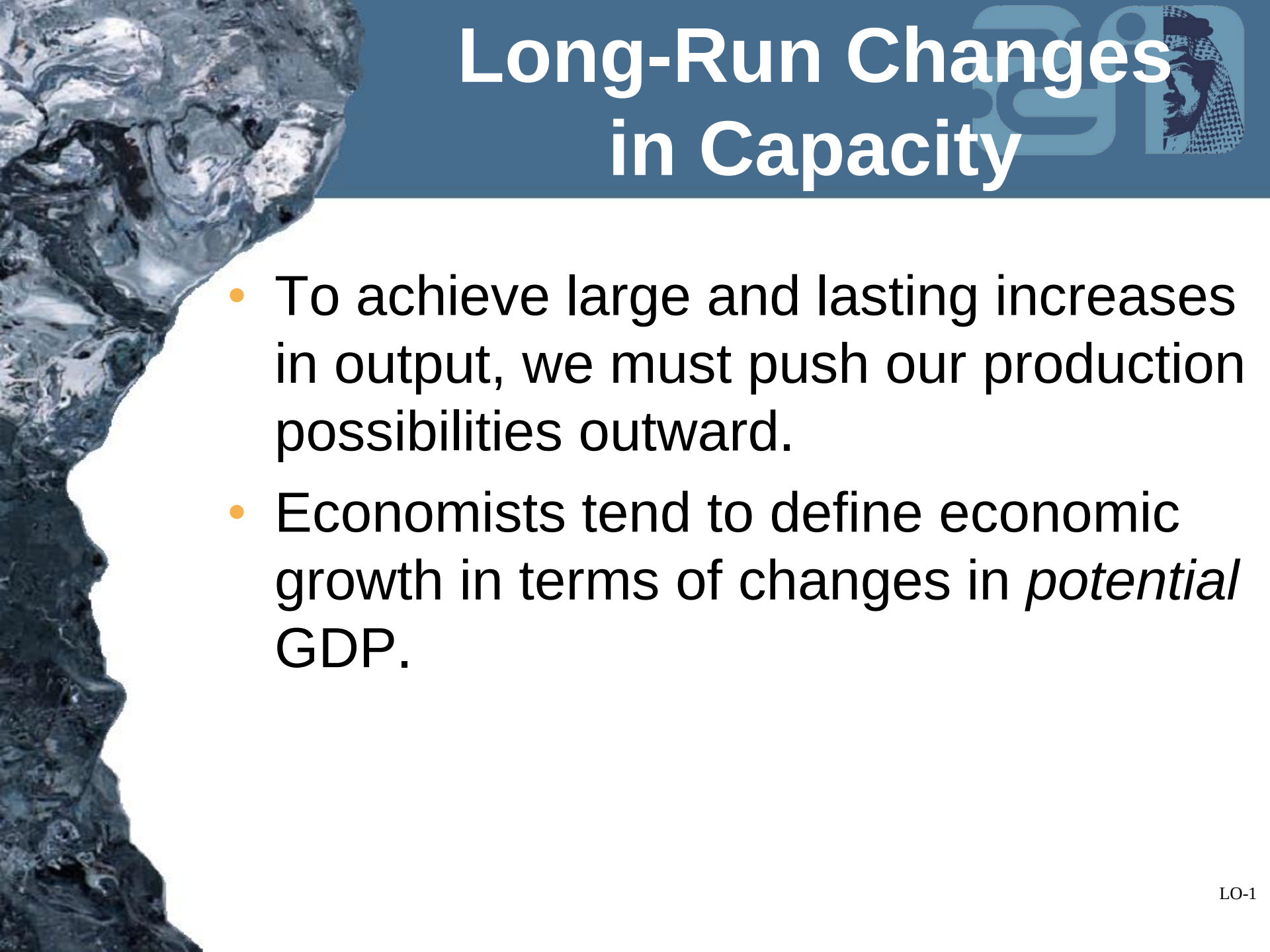


Short-Run Changes in Capacity Use

- The easiest kind of growth comes from increased use of our productive capacity.
- We do not always take full advantage of our productive capacity.

Short-Run Changes in Capacity Use

- Productive capacity is illustrated by the production possibilities curve:
 - ***Production possibilities*** are the alternative combinations of goods and services that could be produced in a given time period with all available resources and technology



Long-Run Changes in Capacity

- To achieve large and lasting increases in output, we must push our production possibilities outward.
- Economists tend to define economic growth in terms of changes in *potential* GDP.

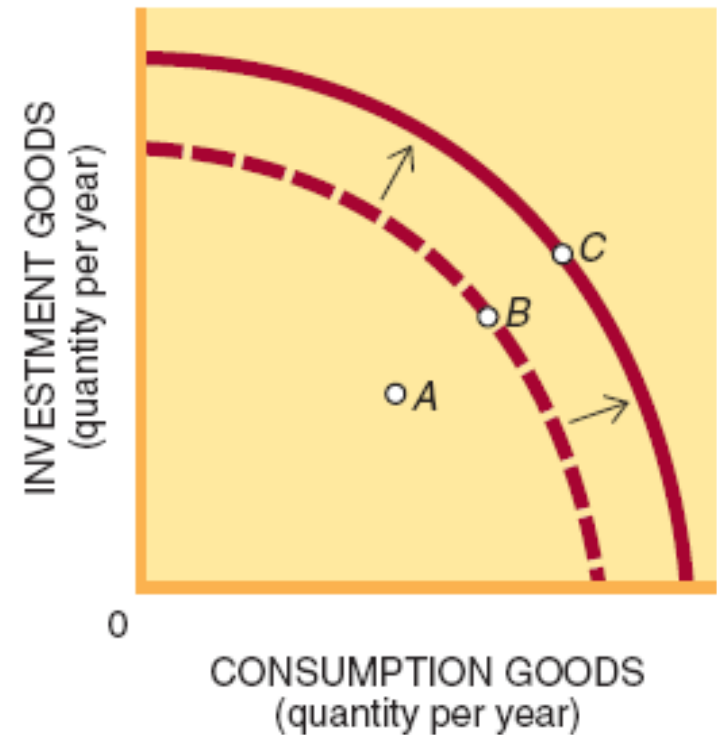
Figure 9.1



(a) The short run:
increased capacity utilization



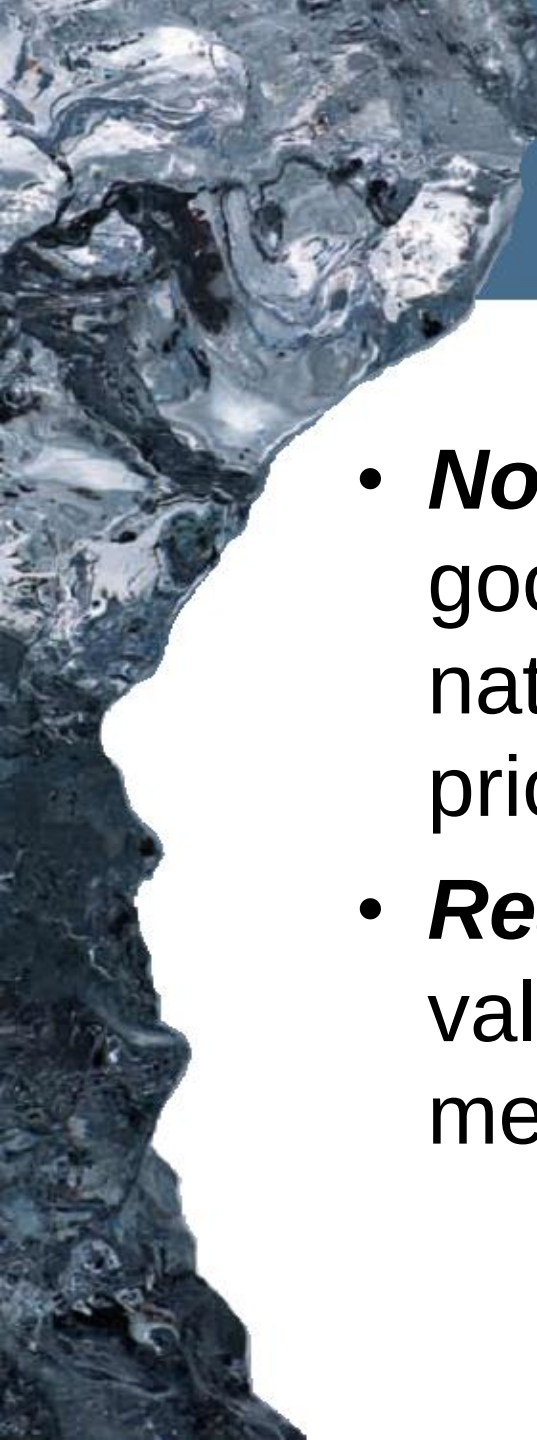
(b) The long run:
expanded capacity



Aggregate Supply Focus



- Economic growth—sustained increases in total output—is possible only if the *AS* curve shifts rightward.



Nominal versus Real GDP

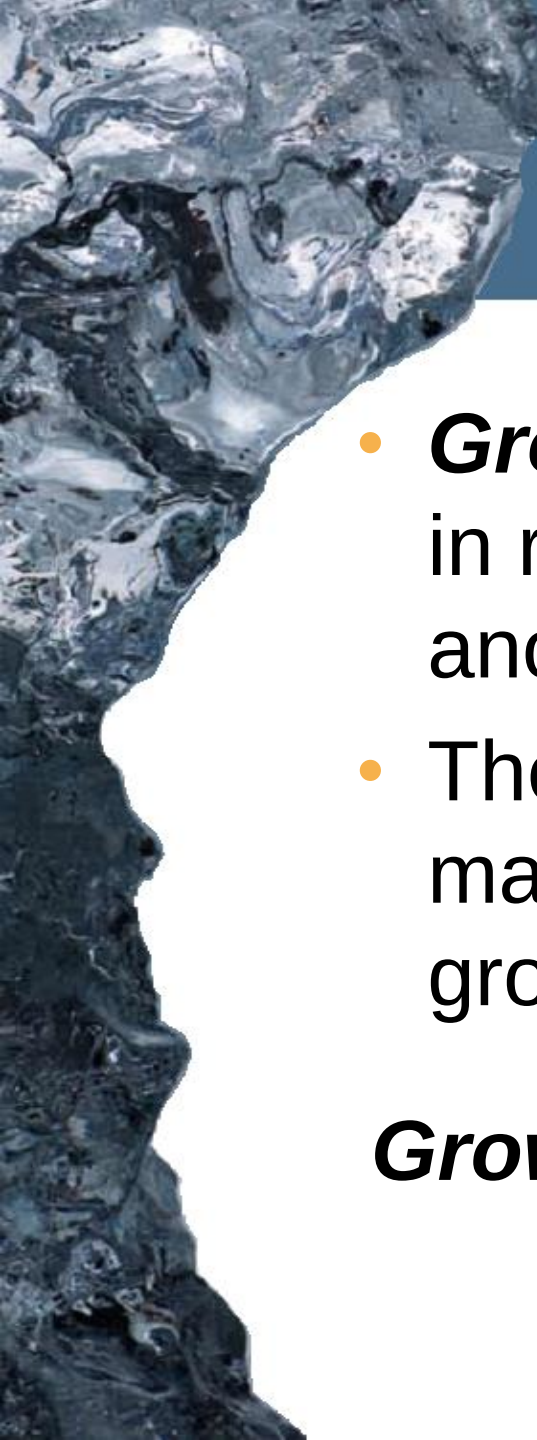


- ***Nominal GDP*** is the total value of goods and services produced within a nation's borders, measured in *current* prices.
- ***Real GDP*** is the inflation-adjusted value of GDP or the value of output measured in *constant* prices.

أساس للمقارنة	الناتج المحلي الإجمالي الحقيقي	الناتج المحلي الإجمالي الاسمي
المعنى	يشير الناتج المحلي الإجمالي الحقيقي إلى قيمة الناتج الاقتصادي الناتج في فترة معينة ، مع تعديلها وفقاً للتغيرات في مستوى السعر العام.	تُعرف القيمة السوقية الإجمالية للناتج الاقتصادي الناتج خلال عام داخل حدود البلد باسم الناتج المحلي الإجمالي الاسمي.
ما هذا؟	التضخم المعدل الناتج المحلي الإجمالي	الناتج المحلي الإجمالي دون تأثير التضخم.
أعرب عن	أسعار سنة الأساس أو الأسعار الثابتة.	أسعار العام الحالي
القيمة	عموما ، أقل.	العالي
الاستخدامات	يمكن مقارنة سنتين أو أكثر من السنة المالية بسهولة.	يمكن إجراء مقارنة بين الفصول المختلفة للعام المحدد.
النمو الاقتصادي	مؤشر جيد للنمو الاقتصادي.	لا يمكن تحليلها بسهولة.

- <https://www.stats.gov.sa/sites/default/files/Gross%20Domestic%20Product%20annual%202020%20AR.pdf>





The GDP Growth Rate



- ***Growth rate*** is the percentage change in real GDP from one period to another.
- The challenge for the future is to maintain higher rates of economic growth.

$$\textbf{Growth Rate} = \frac{\textbf{change in real GDP}}{\textbf{base period GDP}}$$

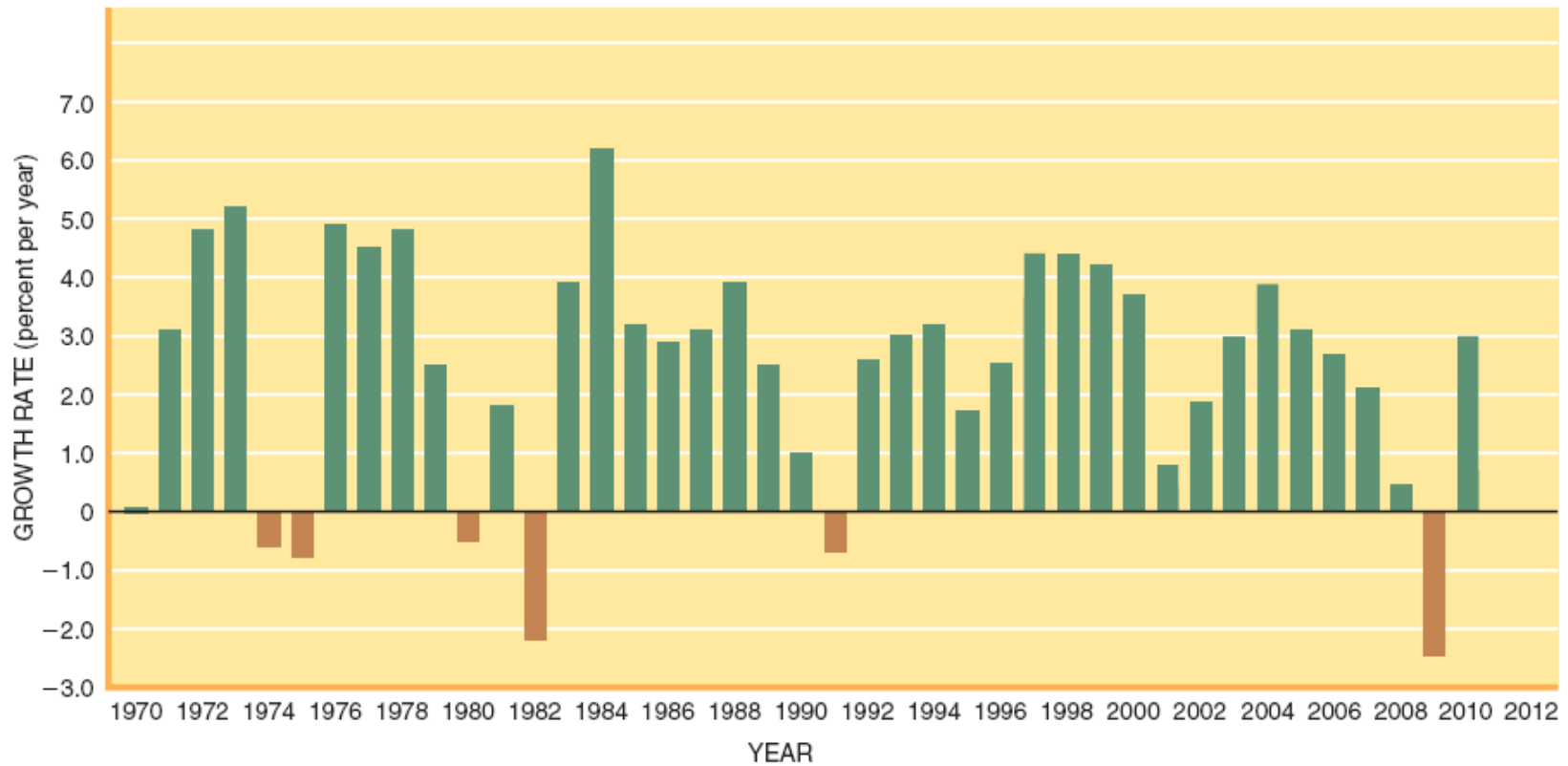


The GDP Growth Rate

- The past decade saw a period of economic growth even with recessions in 2001 and 2008-09.
- Population growth is not a guarantee of economic growth.

$$\textbf{Growth Rate} = \frac{\textbf{change in real GDP}}{\textbf{base period GDP}}$$

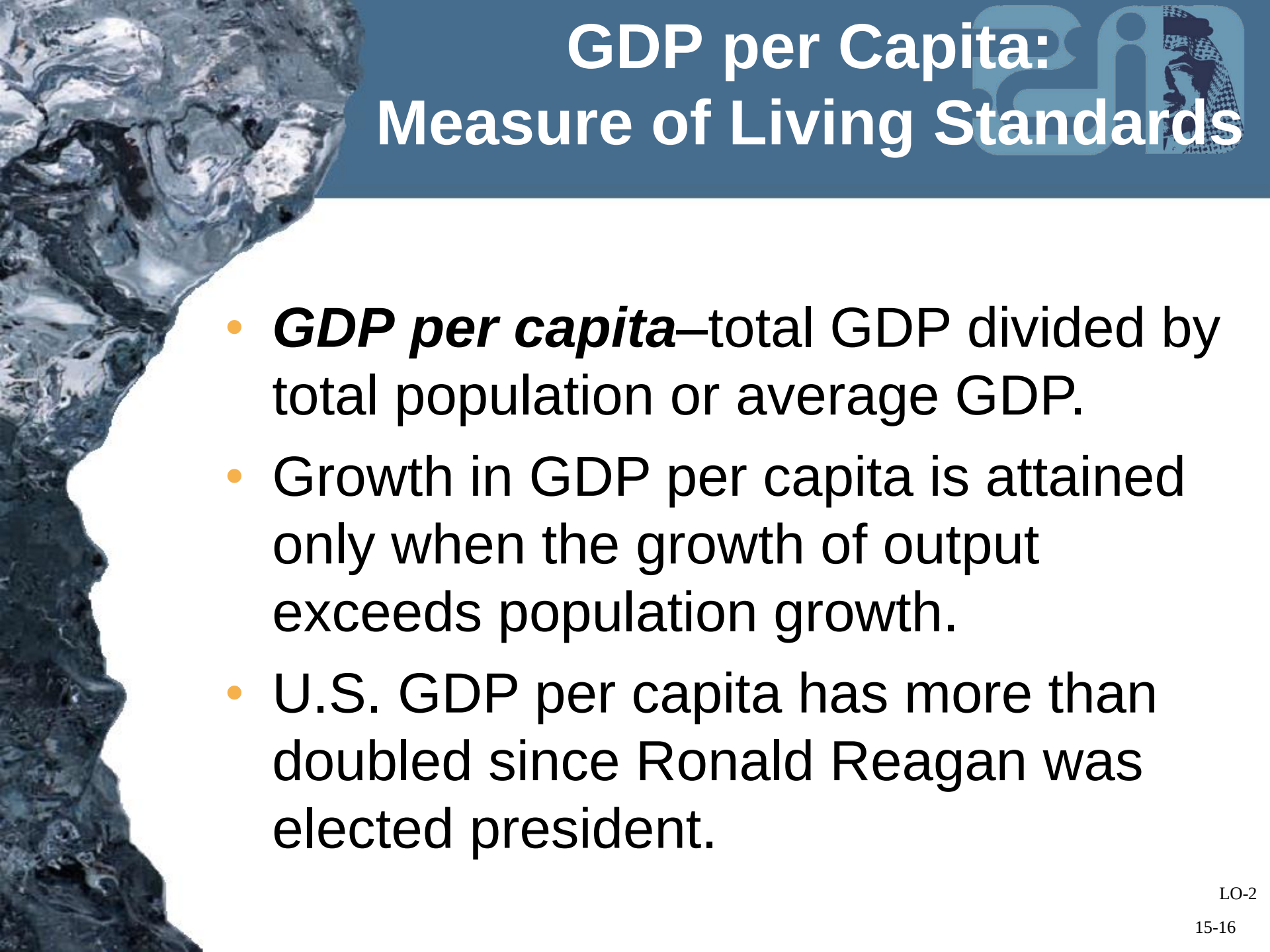
Figure 9.3



The Exponential Process

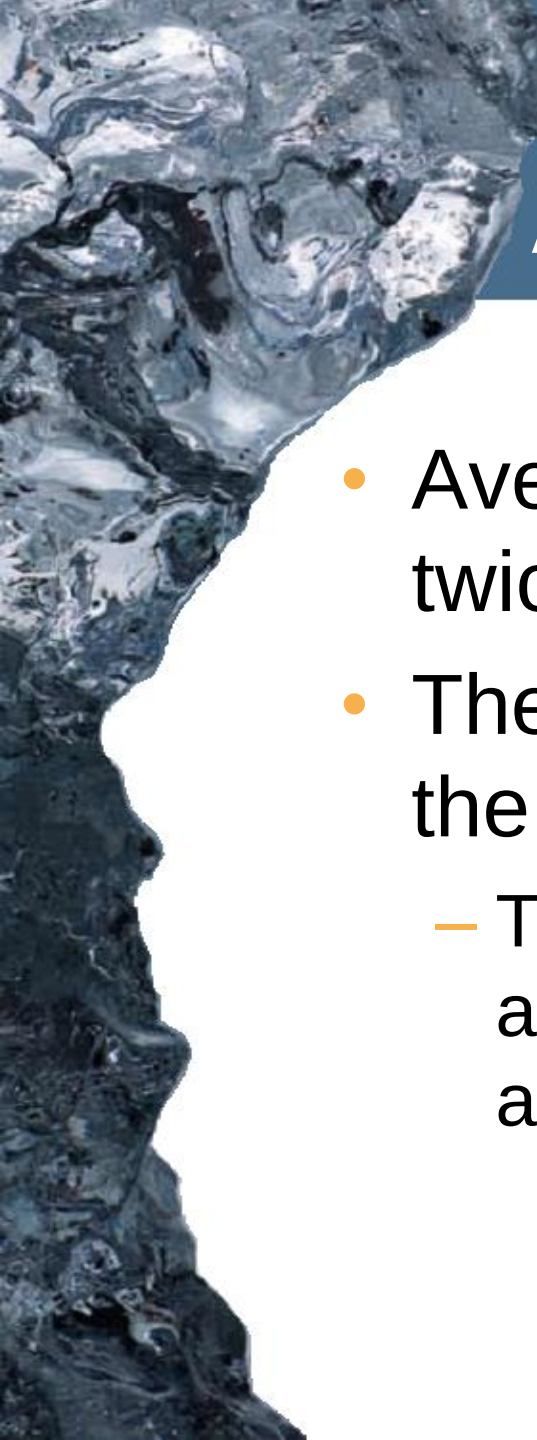


- Even one year of “low” growth implies lost output.
- Economic growth is a *continuing* process where gains made in one year accumulate in future years.
- This cumulative process is called an *exponential* process.



GDP per Capita: Measure of Living Standards

- ***GDP per capita***—total GDP divided by total population or average GDP.
- Growth in GDP per capita is attained only when the growth of output exceeds population growth.
- U.S. GDP per capita has more than doubled since Ronald Reagan was elected president.



GDP per Worker: A Measure of Productivity

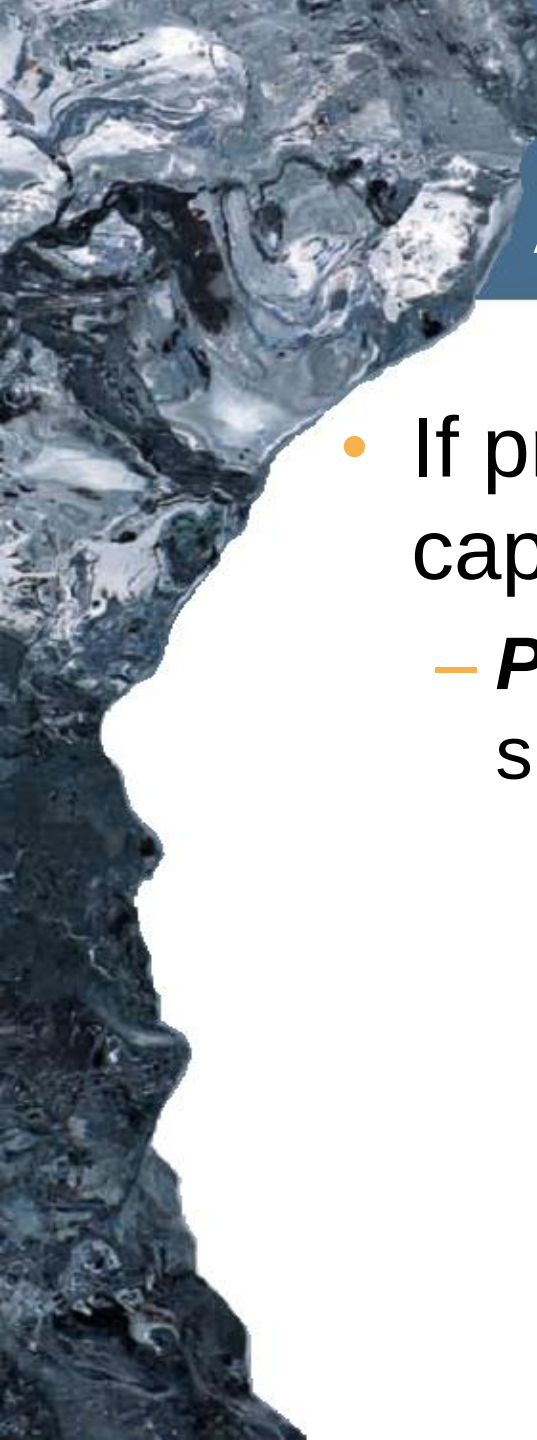


- Average workers today produce nearly twice as much as their parents did.
- The U.S. labor force grew faster than the population during the 1990s:
 - The **labor force** includes all persons over age 16 who are either working for pay or actively seeking paid employment.



GDP per Worker: A Measure of Productivity

- The U.S. employment rate also increased:
 - The ***employment rate*** is the proportion of the population that is employed.



GDP per Worker: A Measure of Productivity

- If productivity is increasing, then per capita GDP is likely to rise as well.
 - ***Productivity*** is output per unit of input, such as output per labor hour.

Figure 9.4



Growth Explosion



GDP per Capita in 1990 International Dollars

Year	0	1000	1500	1820	1995
World	\$425	\$420	\$545	\$675	\$5,188
The West	\$439	\$406	\$624	\$1,149	\$19,990
West Europe	450	400	670	1,269	17,456
North America	400	400	400	1,233	22,933
Japan	400	425	525	675	19,720
The Rest	\$423	\$424	\$532	\$594	\$2,971
Other Europe	400	400	597	803	5,147
Latin America	400	415	415	671	5,031
China	450	450	600	600	2,653
Other Asia	425	425	525	560	2,768
Africa	400	400	400	400	1,221

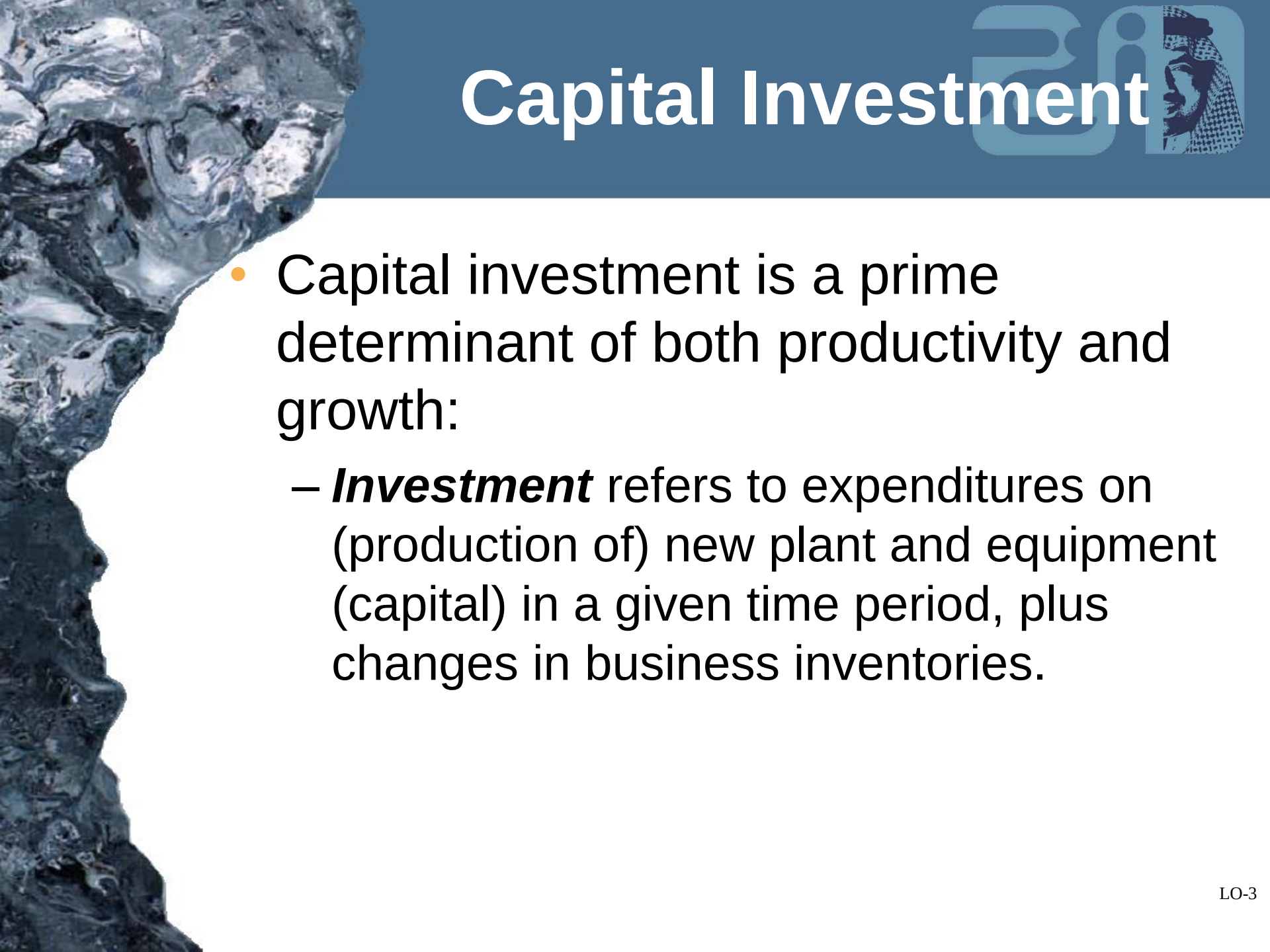
Sources of Productivity Growth

- The sources of productivity gains include:
 - Higher skills
 - More capital
 - Improved management
 - Technological advance

Labor Quality



- As education and training levels rise, so does productivity.



Capital Investment

- Capital investment is a prime determinant of both productivity and growth:
 - ***Investment*** refers to expenditures on (production of) new plant and equipment (capital) in a given time period, plus changes in business inventories.

Management



- Entrepreneurship and the quality of continuing management are major determinants of economic growth.
- There is a potential conflict between short-term profits and long-term productivity gains.
- Managers must develop personnel structures and incentives that make employees contribute to production.

Research and Development

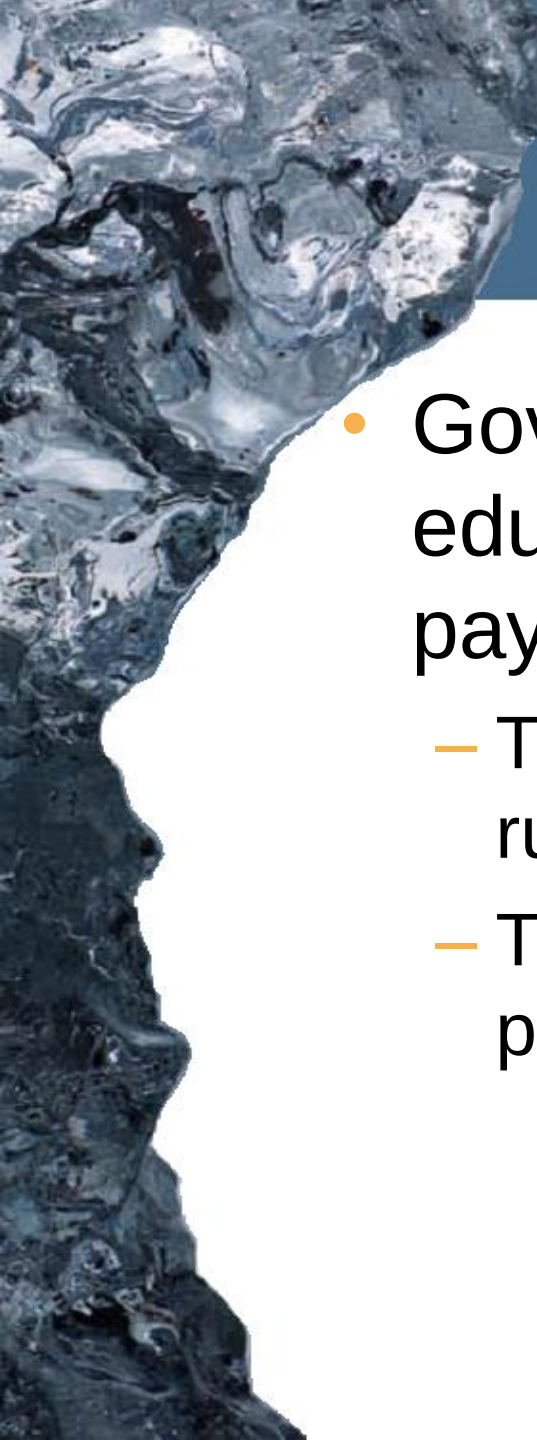


- Research and Development (R&D) is a broad concept that includes:
 - Scientific research
 - Product development
 - Innovations in production technique
 - Development of management improvements

Policy Levers



- Government policies can have a major impact on whether and how far the aggregate supply curve shifts.



Education and Training

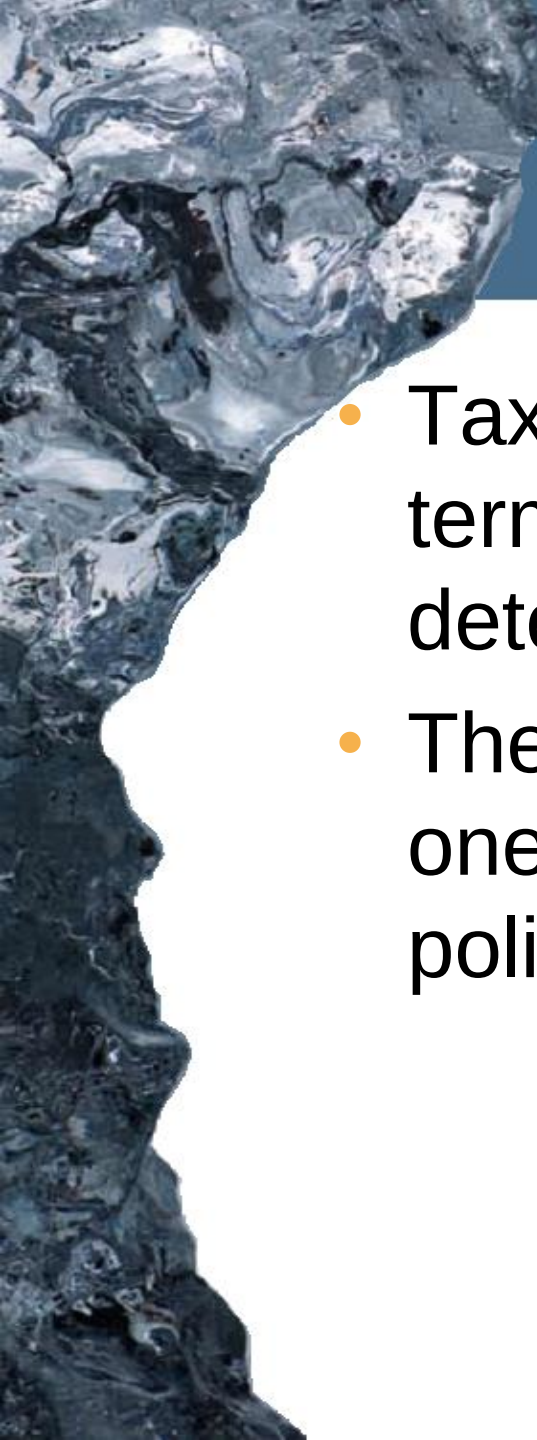


- Government policies that support education and training have a dual payoff:
 - They stimulate the economy in the short run
 - They increase the *long*-run capacity to produce

Immigration Policy



- The quality and quantity of labor are affected by immigration policy because:
 - It is a direct contributor to an outward shift of our production possibilities
 - Recent immigrants have much lower educational attainments than native-born Americans



Investment Incentives



- Tax policy is not only a staple of short-term stabilization policy, but a determinant of long-run growth as well.
- The tax treatment of capital gains is one of the most debated supply-side policy levers.

Savings Incentives

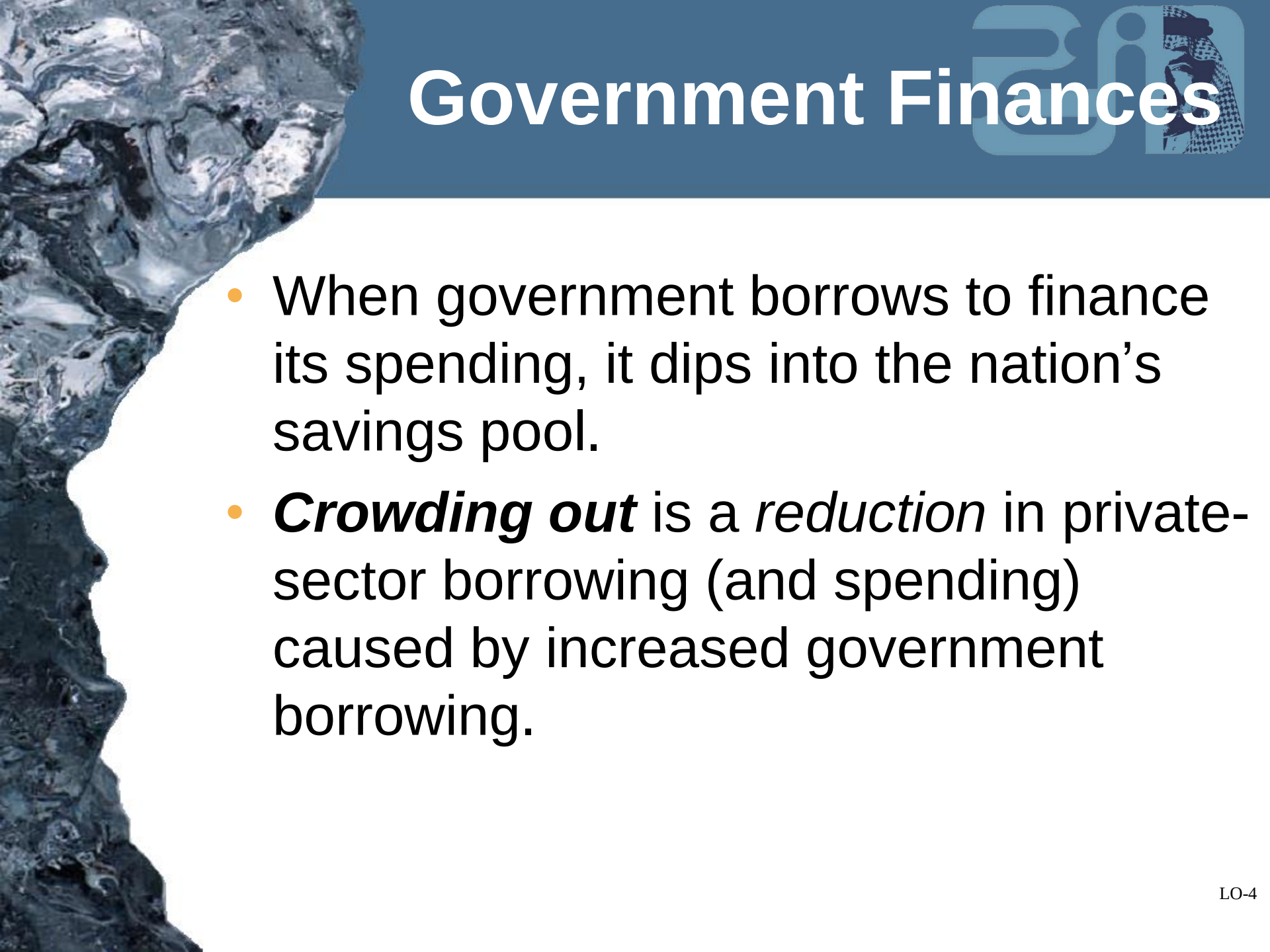


- Supply-side economists favor tax incentives that encourage saving as well as greater tax incentives for investment:
 - ***Saving*** is that part of disposable income not spent or income minus consumption.
 - By 2006, the U.S. saving rate was negative as consumers were spending more than they were earning.

Saving Ratings

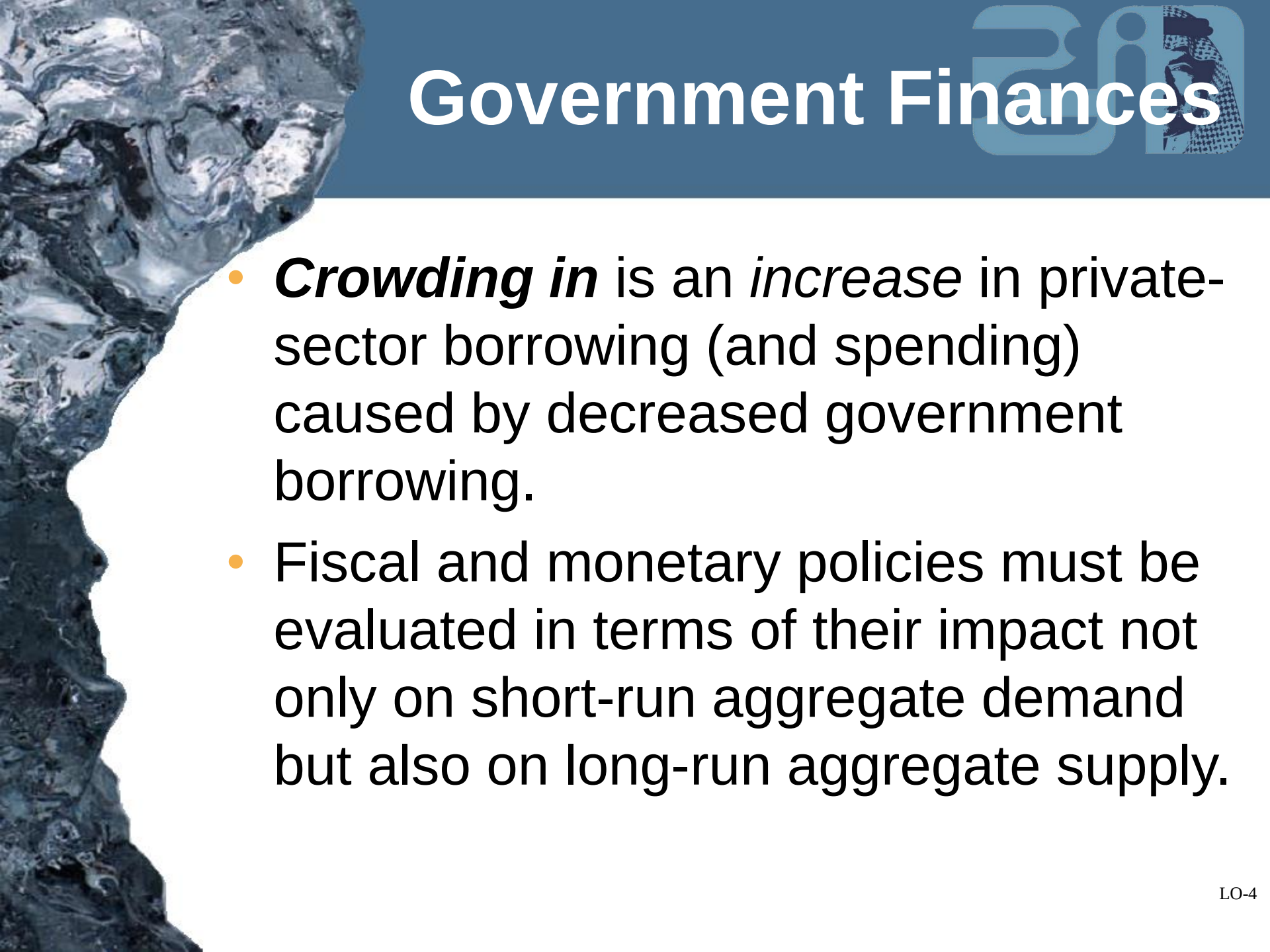


Country	Saving Rate (2006)
France	11.9
Switzerland	7.6
Great Britain	4.9
Korea	4.3
Japan	3.2
Canada	1.8
United States	-1.1



Government Finances

- When government borrows to finance its spending, it dips into the nation's savings pool.
- ***Crowding out*** is a *reduction* in private-sector borrowing (and spending) caused by increased government borrowing.



Government Finances

- ***Crowding in*** is an *increase* in private-sector borrowing (and spending) caused by decreased government borrowing.
- Fiscal and monetary policies must be evaluated in terms of their impact not only on short-run aggregate demand but also on long-run aggregate supply.

Deregulation



- Government regulations impact aggregate supply by:
 - Limiting the flexibility of producers to respond to changes in demand.
 - Raising production costs.

Factor Markets



- Regulation of factor markets include:
 - Minimum-wage laws
 - Occupational Safety and Health Administration (OSHA) standards

Product Markets



- Regulation of product markets include:
 - Transportation costs
 - Food and drug standards
- Regulation causes restricted supply
- The basic contention of supply-side economists is that regulatory costs are too high.



Economic Freedom

- Nations with the most economic freedom have the highest GDP per capita and grow the fastest.

Is More Growth Desirable?



- More growth can lead to:
 - Congestion
 - Air pollution
 - Depleted natural resources
- The debate usually centers around the *mix* of goods and services being provided rather than the quantity of output.

- End chapter 9