

Technological Change

Year	US	UK
1776	\$1,450	\$1,350
1860	\$2,550	\$3,000
1900	\$5,450	\$5,300
1950	\$12,500	\$8,150
1998	\$31,500	\$22,000

What is New Technology?

- New Inventions and Discoveries

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 - The steam engine
 - The electric light bulb
 - The tractor

What is New Technology?

- New Inventions and Discoveries
- Diffusion of the Knowledge
 - My new pizzeria
 - The computer

What is New Technology?

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- Diffusion of the Knowledge
- New Types of Industrial Organizations

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- New Inventions and Discoveries
- Diffusion of the Knowledge
- New Types of Industrial Organizations
 - Limited Liability Corporations
 - Financial Intermediaries
 - National and Multinational Companies

What is New Technology?

- New Inventions and Discoveries
- Diffusion of the Knowledge
- New Types of Industrial Organizations
- Increased Specialization

What Causes Technological Change?

- People learn new ways of doing things
- I find a way to improve output at Miller's pizzeria.
 - Designing a radically new oven.
 - Regularly reading *Pizzeria Management*.

Barriers to Improvement

- Inept Government
 - High taxes.
 - The technicians are foreign; the government restricts imports.
 - Onerous “red tape”.

More Barriers to Improvement

- Corrupt Government
 - Officials sometimes simply take over profitable firms for their own benefit.
 - The pizzeria needs a loan, but banks only lend to government-approved businesses.
 - The local police force insists on expensive bribes.

Even More Barriers

- Ineffective Government
 - A group of thugs roams the streets demanding protection money.
 - Any contractor for a new oven fears it cannot collect for its services. There is no effective legal system.

Barriers to Economic Freedom

- Poor Government is a Barrier to Economic Freedom
 - Corrupt, inept, or ineffective governments are all Barriers.
 - Reduced incentives to acquire technology
 - Reduced incentives to develop technology

Barriers to Economic Freedom

- Used to talk about Government Programs to boost technology.
- Now, talk about restructuring Governments to provide the right incentives.

The Basics

- New technology improves income.
- People acquire new technology when profitable.
- Government restrictions on economic freedom reduce profit.
- Thus economic freedom and technological change are linked.

Where This Began

<i>Real Per Capita GDP in 1998 Dollars</i>		
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Why did the industrial revolution begin in the UK?

A Little British History

- *Magna Carta* (1215)
- The Glorious Revolution (1688)
- The Process was slow, but by the end of the 18th Century, England had true economic freedom.

End

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