Note to teachers

I use this case study early in the economics class, after PPF's and opportunity costs but before supply and demand curves. Just before this, I do examples of how trade between two people in a two-good economy with linear PPF's will enable each person to expand their PPF (assuming the opportunity cost of one good in terms of the other is not identical for the two people). We then look a bit at free trade between nations in the real world and how much more complicated it seems.

It typically consists of approximately 75% ff one week's classes and homework. Much of class time is devoted to students working in assigned groups of three or four people discussing the questions. I encourage the groups to jot down notes during their discussions and write up more formal responses as their homework.

What I hope students get out of this:

- 1. The real world is complicated! I think of "Economics in One Lesson" by Hazlitt. We need to look at secondary and tertiary effects of policies. You might recognize question #6 in the case study as Hazlitt's broken-window example.
- 2. The US importing lamb from Oceana does hurt US lamb producers. But the dollars that go overseas come back when these countries by jet aircraft—creating US jobs. Additionally, access to less expensive imported lamb allows US consumers to spend less on lamb and more on other goods—also creating jobs.
- 3. Exposure to the ideas of Schumpeter about creative destruction. One the one hand, jobs are good. On the other hand, jobs are always being created as destroyed. An economy that devotes much of its human resources to low-value industries has less labor to devote to higher value-added ones.
- 4. Later questions address some issues such as why protectionism might make sense in some cases, how trade between countries can be compared to trade between US states, cities, or families, and how a tariff on an intermediate good might cost domestic jobs.
- 5. The last question relates tariffs to a policy pushed by President Trump. I hope students see how what they learn relates to contemporary real-world issues.
- 6. I work closely with students to improve their writing; this is the second writing assignment of the semester.

Case study information for students

- 1. Use full sentences; grammar etc. counts. Your grade will be based both on your economic insights and how clearly you communicate them!
- 2. You can use the textbook as a reference but should not need to. No other resources (such as the internet). The only people you can work with are your assigned groupmates: not parents, friends etc.
- 3. You are encouraged to talk to your group about the questions, but the writing should be completely your own. Unless there is a particularly compelling reason to create a shared Google-doc, it may be better for each person to create his or her own.
- 4. You should answer the questions one by one. You do NOT need to copy down the question you are about to answer, but your answer should refer to the question. For example, suppose the question is, "Does America have an absolute advantage in ice?" An answer that begins "Yes, because..." is far worse than one that begins "Yes, America has an absolute advantage in ice because...".
- 5. Grading: it will be graded like a paper. This one is worth about 80 points. A full-period test is worth 100 or so points.
- 6. An appropriate length is about six pages, 1.5 spaced. But there is no explicit length requirement.

7. Due at the start of class on Thursday February 10th. A pdf submitted to schoology.

8. Representative answer. While one could write a book about this question (and people have!), a solid paragraph suffices. This question does not require taking a position, so it is fine that the answer does not to do. Some questions do require you to take a stand.

Question: Imagine a Massachusetts resident with the choice of buying an object produced in a factory in Indiana and buying the same object from a factory in India. Assume the quality was the same. What are some reasons the person should prefer one to the other?

Answer: In addition to feelings of patriotism, there are a few good economic reasons for a Massachusetts consumer to prefer having jobs created in Indiana to having them created in India. The workers in Indiana pay tax on their earnings, which theoretically reduces the taxes required from Massachusetts residents. Likewise, unemployed citizens of Indiana receive government aid, some of which comes from taxes of other states' citizens. The workers in Indiana are also more likely to spend their incremental earnings in the US, creating more jobs—thus more tax revenues and less government aid. On the other hand, the good from the Indian factory is almost certainly less expensive. The workers in India also probably need their jobs more. While most US residents are likely able to attain decent nutrition and medical care without a job, it is more likely that the citizens of India need the jobs to meet their basic human needs.

Read the first article attached (Sheep industry to recommend increase in tariffs) and discuss the following questions.

- 1. Can we conclude that any country has an absolute advantage in sheep production? Explain. If we cannot, what information would we need to determine who has an absolute advantage?
- 2. Who appears to have a comparative advantage in sheep production? What are some possible reasons for this (you don't need to be an expert on farming, but speculate)? Don't worry too much about transportation costs; they are surprisingly low!
- 3. The US sheep industry wants the US government to raise the tariff on imported lamb from less than 1% to 30-50%. That money would get paid to the US Treasury by the companies that import lamb (and then presumably sell it to grocery stores and restaurants). Exactly how would this help the US sheep industry? Assume the tariff will continue indefinitely.
- 4. When Americans buy lamb from overseas producers, Americans give them US dollars. Assume that those dollars are really only of use if they are spent in the US (they can be exchanged for other currencies, but then whoever gets them must eventually spend them in the US). [Note-this is true of most currencies but not really of the dollar, since it often plays the role of something called a "reserve currency"] What are some things that those foreigners then do with those American dollars? Note: the biggest US export to New Zealand is jet aircraft. What impact does this have on jobs in the US?
- 5. Who would be most hurt and helped by the proposed tariff? Think of the following groups, and perhaps more! Explain your answers briefly. You can use bullet points instead of paragraphs, if you want. Some of these benefits and costs are not particularly visible, but don't ignore them!
 - -Producers of lamb in US and abroad.
 - -Consumers of lamb in the US and abroad.
 - -US companies that export to Australia and New Zealand.
 - -Producers of beef and pork in the US.
 - -(??) People who clean houses or provide other services for Americans who eat lots of lamb.
- 6. The US sheep industry may argue the following:

Protecting the sheep industry in the US will keep more Americans employed in sheep farming. The money they earn enables them to buy clothes, food, restaurant meals, etc. The businesses providing these items to the farmers would stand to lose if farmers lost their jobs. And people working for these businesses spend money supporting other businesses and their employees. Losing some jobs in the sheep farming industry would create a widening series of ripples that would hurt countless people in numerous businesses.

Is this argument convincing?

7. If Joseph Schumpeter was president instead of Bill Clinton, what would he likely decide, and how would he justify his decision? Note: see the document I gave you about Schumpeter.

8. What do you think President Clinton should do? Be sure to explain the strongest arguments for and against the tariff in your answer.

Now read the excerpts from the article (US lamb producers applaud plans to boost tariff) and answer the following:

- 9. Among the responses, the administration granted assistance to the sheep industry. Assume this money came from US taxpayers. Do you think it is a good idea? Would it be more sensible to make the assistance be permanent (indefinite horizon) or temporary (expiring at a fixed date)? Explain.
- 10. It turns out the agriculture is among the most protected industries in most parts of the developed world—meaning it is protected from foreign competition. Why might this be the case? Who are the biggest winners and losers from this?
- 11. Are there some industries that governments should be more willing to protect (from foreign competition) than others? What are some justifications for protecting certain industries?
- 12. Imagine that New York City is concerned about unemployment and decides to try to develop a sheep-farming industry to put people to work. Is it possible that NYC has an absolute advantage in sheep production relative to other places? To help make it competitive, the city institutes a high "tariff" on all lamb products imported into New York City. Is this a good idea? How is it similar to and different from what the US decided to do about protecting jobs from New Zealand and Australian competition?
- 13. Now imagine that, instead of competition from foreign countries, somebody in the US invents a machine that greatly reduces the need for people to work in the sheep-farming industry. Some combination of robots and sheep dogs enables sheep farmers to produce the same amount of meat with half of the employees. The employees want the government to outlaw this machine since it will eliminate their jobs. Should the government outlaw it in order to protect jobs? What are some major similarities and differences between this threat from technology and the threat from foreign competition?
- 14. The lamb that is imported from Australia and New Zealand is mostly bought by consumers. Other imported goods, such as sugar, may go both to consumers and to producers that use the good as an input into their production process. Sometimes economists might refer to lamb as a "finished good" or a "consumer good", while sugar could also be considered an "intermediate good" because companies use it as an input. Read the information below about Oreos. In terms of protecting *jobs* in the US, what, if anything, is different about a tariff on finished goods versus intermediate goods?
- 15. Read the excerpt from the article on President Trump's proposed 20% tax on imports from Mexico. He claims that this how Mexico will pay for the wall between our countries. To what extent is this claim accurate? Explain how a tariff on imports from Mexico will result in Mexico paying for the wall or explain who would most likely pay the tax if it were implemented.

Sheep industry to recommend increase in tariffs

Published: Tuesday, February 23, 1999 (The New York Times)

WASHINGTON (AP) Basking in a trade commission ruling that increased lamb meat imports are harming U.S. producers, the American sheep industry this week will recommend increased tariffs to stave off the import surge.

The U.S. International Trade Commission ruled unanimously this month for a petition by the sheep farmers that cheap lamb imports have hurt their industry.

On Thursday, the U.S. industry will appear before the commission to offer its recommended remedy, massively higher import tariffs. Officials from Australia and New Zealand, where 95 percent of the foreign lamb originates, also are expected to make suggestions.

The commission will then make its recommendations to President Clinton, who has final authority.

"The imports came, and the prices just crashed," said Lorin Moench Jr., president of the American Sheep Industry Association and a Salt Lake City sheep farmer.

The industry has complained that tariffs currently assessed on imports are much too low-- less than 1 percent. The sheepherders are requesting a four-year period of a 30 percent tariff on imports up to 40 million pounds, increasing to 50 percent for imports over 40 million pounds.

Essentially, the proposal would make those who import more pay more.

U.S. sheep growers said the remedy will give them an opportunity to recover after facing an onslaught of imports.

"The provision of relief for the full four-year period is essential to give the U.S. industry an adequate amount of time to implement initiatives ... that will ultimately enable it to compete more effectively with imports," attorneys for the American sheep industry wrote in a brief to the ITC last week.

Sheep producers said that during the first nine months of last year, 76.9 million pounds of imports entered the United States 19 percent more than the first nine months of 1997. Imports now comprise almost one-third of the domestic market.

Imports from Australia and New Zealand consistently undersold the U.S. product, officials said, particularly loins and racks, the largest revenue-generating products for domestic producers.

In the time since the import surge started, producers said they watched prices drop from \$1 a pound to 65 cents a pound.

Prices paid to American producers fell during the 1998 Easter-Passover season, the market's traditional

peak, and reached a four-year low of 60 cents a pound for slaughter lambs, the industry said.

Sheep producers said the import increase came at a particularly bad time when farmers were just

beginning to recover and adjust after losing years of government subsidies in 1995.

"It wrecks our markets," said Cindy Siddoway, a Terraton, Idaho, sheep producer who also serves as

vice president of the sheep association.

U.S. lamb producers applaud plans to boost tariffs

Published: Friday, July 09, 1999 in The New York Times

<excerpts from article >

The administration announced Wednesday that it was imposing higher tariffs ranging from 9

percent to 40 percent on imported lamb in an effort to protect American producers from a flood of

imports from Australia and New Zealand.

Senate Democratic leader Tom Daschle of South Dakota said Clinton's decision to impose higher

tariffs on imported lamb would provide badly needed help for U.S. producers, who have seen lamb

prices fall by as much as 40 percent since 1995 while imports have climbed by more than 50

percent. Imported lamb has captured about a third of the U.S. market.

Officials in Australia and New Zealand reacted with outrage Thursday, threatening to bring a case

against the United States before the Geneva-based World Trade Organization.

Spokesmen for lamb producers said the administration's offer of \$100 million in a package of direct

payments to producers and market promotion incentives over the next three years would help the

domestic industry become competitive.

The leading sheep-producing states in order of production are Texas, California, Wyoming,

Colorado, South Dakota, Utah, Montana, Idaho and Iowa, according to the Agriculture Department.

It said there are 74,700 sheep producers in the country.

Oreos and 600 Jobs Going to Mexico Because of US Sugar Policies

From Liberty Alliance AUGUST 22, 2015 (libertyalliance.com), which is a right-wing news source:

The beloved Oreo is going to be manufactured in Mexico, and you can thank sugar tariffs designed to protect one industry over other industries.

"The manufacturer of Oreo cookies recently <u>announced</u> plans to move production of Oreos from Chicago to Mexico, resulting in a loss of 600 U.S. jobs.

"This should be a wake-up call to defenders of the U.S. sugar program and other job-destroying trade barriers.

"The leading <u>ingredient</u> in Oreos is sugar, and U.S. trade barriers currently require Americans to pay twice the average world prices for sugar.

"Sugar-using industries now have a big incentive to relocate from the United States to countries where access to their primary ingredient is not restricted."

Reader comments on this (from the same web site)—I make no claim to their accuracy!

Trump also says that "Mexico is the new China." Businesses who move across the border will be faced with the same tariffs and restrictions that China imposes on companies like Boeing. So in the end, it buys the company little to nothing, but they do walk away from the US and into ... Mexico. But then again, it probably resembles Chicago a great deal these days. Just sayin'. Trump says our leaders setting these rules and taxes in motion are stupid... boy, truer words were never spoken. Nabisco will invest \$170 million in the installation of four "state-of-the art" production lines at the new Mexican plant to replace nine "older, inefficient lines" at the Chicago facility. According to analysts, the move by the multi-national company was spurred by soaring production costs caused by the prohibitively high price of imported sugar.

According to a 2006 report compiled by the U.S. International Trade Administration, Chicago "has lost nearly one-third of its SCP [sustainable consumption production] manufacturing jobs over the last 13 years. These losses are attributed, in part, to high U.S. sugar prices." The decade-long issue of cheap sugar imports from Mexico came to a head last December when the U.S. Department of Commerce (DOC) inked agreements to suspend the antidumping and countervailing duty investigations of sugar imports from Mexico "that would prevent an oversupply of sugar" to the U.S. market. "With the stroke of a pen, these agreements dismantle the unrestricted free trade of sugar between the United States and Mexico since 2008 and undermine the core principles of the North American Free Trade Agreement," the Sweetener Users Association (SUA) said in a statement reacting to the move by the DOC. You see, this is also wealth redistribution. It is a concerted plan between the US and Mexico to relocate manufacturing and businesses to further blur the borders between the two nations and to weaken America and strengthen Mexico. This is no way to make America great again.

Trump Floats 20% Border Tax as Mexico Feud Deepens

by Justin Sink and Nacha Cattan Bloomberg.com January 26, 2017, 3:44 PM EST January 26, 2017, 6:39 PM EST

The Trump administration floated a 20 percent tax on imports from Mexico to pay for a wall along the southern U.S. border, a plan revealed hours after Mexican President Enrique Pena Nieto canceled his first meeting with the new U.S. leader.

The idea of a border tax was first proposed by White House Press Secretary Sean Spicer to reporters on board Air Force One as Trump returned from a congressional Republican retreat in Philadelphia. Later in the day, Spicer amended his remarks in a meeting with reporters in his office.

"When you look at the plan that's taking shape now, using comprehensive tax reform as a means to tax imports from countries that we have a trade deficit from, like Mexico, if you tax that \$50 billion at 20 percent of imports," Spicer said on the president's plane. "By doing that we can do \$10 billion a year and easily pay for the wall just through that mechanism alone."

Spicer didn't explain how such a tax would work or how it would affect U.S. consumers and companies. Asked if the tax could be applied to other countries, Spicer said the administration is "focused on Mexico right now."

Later, Spicer summoned reporters to his office and said the tax was only "one solution" to pay for the wall and might be applied at a lower rate. He said its economic impact would have to be examined.

The comments nonetheless suggested the White House is moving toward a "border adjusted" tax plan on companies' domestic sales and imports that is favored by House Republicans as a replacement for the current U.S. corporate tax. House Ways and Means Chairman Kevin Brady, a Texas Republican and backer of the approach, called Spicer's comments "very encouraging news."

Spicer's remarks were part of a conflict between Trump and Mexico that escalated over a 24-hour period after the U.S. president signed a directive Wednesday to initiate the process of building the border wall. Trump's border plan rapidly exploded into a showdown that threatens one of the world's biggest bilateral trading relationships.

The cross-border sparring prompted a drop in the Mexican peso, which fell 0.7 percent to trade at 21.21 per U.S. dollar following Pena Nieto's announcement. Mexico's currency has plunged almost 14 percent since Trump's election on concern that Trump will renegotiate or scrap the North American Free Trade Agreement.

After Pena Nieto said in an address Wednesday that his country would refuse to pay for a barrier on the U.S. southern border, Trump blasted him with a tweet Thursday morning. "If Mexico is unwilling to pay for the badly needed wall, then it would be better to cancel the upcoming meeting," Trump wrote.

Pena Nieto, who was to meet with Trump Jan. 31, responded a few hours later with his own tweet: "This morning we've informed the White House that I won't attend the working meeting scheduled for next Tuesday with @Potus."

<story continues... but this all I want you to read>

JOSEPH SCHUMPETER (1883–1950) coined the seemingly paradoxical term "creative destruction," and generations of economists have adopted it as a shorthand description of the **FREE MARKET**'s messy way of delivering progress. In *Capitalism, Socialism, and Democracy* (1942), the Austrian economist wrote:

The opening up of new markets, foreign or domestic, and the organizational development from the craft shop to such concerns as U.S. Steel illustrate the same process of industrial mutation—if I may use that biological term—that incessantly revolutionizes the economic structure from within, incessantly destroying the old one, incessantly creating a new one. This process of Creative Destruction is the essential fact about capitalism. (p. 83)

Although Schumpeter devoted a mere six-page chapter to "The Process of Creative Destruction," in which he described <u>CAPITALISM</u> as "the perennial gale of creative destruction," it has become the centerpiece for modern thinking on how economies evolve.

Schumpeter and the economists who adopt his succinct summary of the free market's ceaseless churning echo capitalism's critics in acknowledging that lost jobs, ruined companies, and vanishing industries are inherent parts of the growth system. The saving grace comes from recognizing the good that comes from the turmoil. Over time, societies that allow creative destruction to operate grow more productive and richer; their citizens see the benefits of new and better products, shorter work weeks, better jobs, and higher living standards.

Herein lies the paradox of progress. A society cannot reap the rewards of creative destruction without accepting that some individuals might be worse off, not just in the short term, but perhaps forever. At the same time, attempts to soften the harsher aspects of creative destruction by trying to preserve jobs or protect industries will lead to stagnation and decline, short-circuiting the march of progress. Schumpeter's enduring term reminds us that capitalism's pain and gain are inextricably linked. The process of creating new industries does not go forward without sweeping away the preexisting order.

Transportation provides a dramatic, ongoing example of creative destruction at work. With the arrival of steam power in the nineteenth century, railroads swept across the United States, enlarging markets, reducing shipping costs, building new industries, and providing millions of new productive jobs. The internal combustion engine paved the way for the automobile early in the next century. The rush to put America on wheels spawned new enterprises; at one point in the 1920s, the industry had swelled to more than 260 car makers. The automobile's ripples spilled into oil, tourism, entertainment, retailing, and other industries. On the heels of the automobile, the airplane flew into our world, setting off its own burst of new businesses and jobs.

Americans benefited as horses and mules gave way to cars and airplanes, but all this creation did not come without destruction. Each new mode of transportation took a toll on existing jobs and industries. In 1900, the peak year for the occupation, the country employed 109,000 carriage and harness makers. In 1910, 238,000 Americans worked as blacksmiths. Today, those jobs are largely obsolete. After eclipsing canals and other forms of transport, railroads lost out in **COMPETITION** with cars, long-haul trucks, and

airplanes. In 1920, 2.1 million Americans earned their paychecks working for railroads, compared with fewer than 200,000 today.

What occurred in the transportation sector has been repeated in one industry after another—in many cases, several times in the same industry. Creative destruction recognizes change as the one constant in capitalism. Sawyers, masons, and miners were among the top thirty American occupations in 1900. A century later, they no longer rank among the top thirty; they have been replaced by medical technicians, engineers, computer scientists, and others.

Technology roils job markets, as Schumpeter conveyed in coining the phrase "technological unemployment" (<u>Table 1</u>). E-mail, word processors, answering machines, and other modern office technology have cut the number of secretaries but raised the ranks of programmers. The birth of the <u>INTERNET</u> spawned a need for hundreds of thousands of webmasters, an occupation that did not exist as recently as 1990. LASIK surgery often lets consumers throw away their glasses, reducing visits to optometrists and opticians but increasing the need for ophthalmologists. Digital cameras translate to fewer photo clerks.

Companies show the same pattern of destruction and rebirth. Only five of today's hundred largest public companies were among the top hundred in 1917. Half of the top hundred of 1970 had been replaced in the rankings by 2000.

"The essential point to grasp is that in dealing with capitalism we are dealing with an evolutionary process," Schumpeter wrote (p. 82).

The Power of Productivity

ENTREPRENEURSHIP and competition fuel creative destruction. Schumpeter summed it up as follows:

The fundamental impulse that sets and keeps the capitalist engine in motion comes from the new consumers' goods, the new methods of production or transportation, the new markets, the new forms of industrial organization that capitalist enterprise creates. (p. 83)

Entrepreneurs introduce new products and technologies with an eye toward making themselves better off—the profit motive. New goods and services, new firms, and new industries compete with existing ones in the marketplace, taking customers by offering lower prices, better performance, new features, catchier styling, faster service, more convenient locations, higher status, more aggressive marketing, or more attractive packaging. In another seemingly contradictory aspect of creative destruction, the pursuit of self-interest ignites the progress that makes *others* better off.

Producers survive by streamlining production with newer and better tools that make workers more productive. Companies that no longer deliver what consumers want at competitive prices lose customers, and eventually wither and die. The market's "invisible hand"—a phrase owing not to Schumpeter but to <u>ADAM SMITH</u>—shifts resources from declining sectors to more valuable uses as workers, inputs, and financial capital seek their highest returns.

Through this constant roiling of the status quo, creative destruction provides a powerful force for making societies wealthier. It does so by making scarce resources more productive. The telephone industry employed 421,000 switchboard operators in 1970, when Americans made 9.8 billion long-distance calls. With advances in switching technology over the next three decades, the **TELECOMMUNICATIONS** sector could reduce the number of operators to 156,000 but still ring up 106 billion calls. An average operator handled only 64 calls a day in 1970. By 2000, that figure had increased to 1,861, a staggering gain in **PRODUCTIVITY**. If they had to handle today's volume of calls with 1970s technology, the telephone companies would need more than 4.5 million operators, or 3 percent of the labor force. Without the productivity gains, a long-distance call would cost six times as much.

The telephone industry is not an isolated example of creative destruction at work. In 1900, nearly forty of every hundred Americans worked in farming to feed a country of ninety million people. A century later, it takes just two out of every hundred workers. Despite one of history's most thorough downsizings, the country has not gone hungry. The United States enjoys agricultural plenty, producing more meat, grain, vegetables, and dairy products than ever, thanks largely to huge advances in agricultural productivity.

Table 1 Technological Unemployment

| New Product Labor Needed | | Old Product | Labor Released |
|---------------------------------|-------------------|--------------------|----------------|
| Automobile | Assemblers | Horse/carriage | Blacksmiths |
| | Designers | Train | Wainwrights |
| | Road builders | Boat | Drovers |
| | Petrochemists | | Teamsters |
| | Mechanics | | RR workers |
| | Truck drivers | | Canalmen |
| Airplane | Pilots | Train | RR workers |
| | Mechanics | Ocean liner | Sawyers |
| | Flight attendants | | Mechanics |
| | Travel agents | | Ship hands |
| | | | Boilermakers |
| Plastics | Petrochemists | Steel | Miners |
| | | Aluminum | Founders |
| | | Barrels/tubs | Metalworkers |
| | | Pottery/glass | Coopers |
| | | | Potters |
| | | | Colliers |

| Computer | Programmers | Adding machine | Assemblers |
|---------------|-----------------------|-----------------|---------------------|
| | Computer engineers | Slide rule | Millwrights |
| | Electrical engineers | Filing cabinet | Clerks |
| | Software designers | Paper | Tinsmiths |
| | | | Lumberjacks |
| Fax machine | Programmers | Express mail | Mail sorters |
| Email | Electricians | Teletype | Truck drivers |
| | Software designers | | Typists |
| Telephone | Electronic engineers | Mail | Postal workers |
| | Operators | Telegraph | Telegraph operators |
| | Optical engineers | Overnight coach | Coach drivers |
| | Cellular technicians | | |
| Polio vaccine | Chemists | Iron lung | Manufacturers |
| | Lab technicians | | Attendants |
| | Pharmacists | | |
| Internet | Programmers | Shopping malls | Retail salespersons |
| | Network operators | Libraries | Librarians |
| | Optical goods workers | Reference books | Encyclopedia |
| | Webmasters | | salespersons |
| | | | |

Resources no longer needed to feed the nation have been freed to meet other consumer demands. Over the decades, workers no longer required in agriculture moved to the cities, where they became available to produce other goods and services. They started out in foundries, meatpacking plants, and loading docks in the early days of the Industrial Age. Their grandsons and granddaughters, living in an economy refashioned by creative destruction into the INFORMATION Age, are less likely to work in those jobs. They are making computers, movies, and financial decisions and providing a modern economy's myriad other goods and services (Table 2).

Over the past two centuries, the Western nations that embraced capitalism have achieved tremendous economic progress as new industries supplanted old ones. Even with the higher living standards, however, the constant flux of free enterprise is not always welcome. The disruption of lost jobs and shuttered businesses is immediate, while the payoff from creative destruction comes mainly in the long term. As a result, societies will always be tempted to block the process of creative destruction, implementing policies to resist economic change.

Attempts to save jobs almost always backfire. Instead of going out of business, inefficient producers hang on, at a high cost to consumers or taxpayers. The tinkering shortcircuits market signals that shift resources to emerging industries. It saps the incentives to introduce new products and production methods, leading to stagnation, layoffs, and bankruptcies. The ironic point of Schumpeter's iconic phrase is this: societies that try to reap the gain of creative destruction without the pain find themselves enduring the pain but not the gain.

About the Authors

W. Michael Cox is senior vice president and chief economist at the Federal Reserve Bank of Dallas. Richard Alm is an economics writer at the Dallas Fed. They are coauthors of *Myths of Rich and Poor* (1999).

| Job Destruction | Now (2002 |) Then | Year |
|---|-----------|------------|------|
| Railroad employees | 111,000 | 2,076,000 | 1920 |
| Carriage and harness makers | * | 109,000 | 1900 |
| Telegraph operators | * | 75,000 | 1920 |
| Boilermakers | * | 74,000 | 1920 |
| Milliners | * | 100,000 | 1910 |
| Cobblers | * | 102,000 | 1900 |
| Blacksmiths | * | 238,000 | 1910 |
| Watchmakers | * | 101,000 | 1920 |
| Switchboard (telephone) operators | 119,000 | 421,000 | 1970 |
| Farm workers | 716,000 | 11,533,000 | 1910 |
| Secretaries | 2,302,000 | 3,871,000 | 1980 |
| Metal & plastic working machine operators | 286,000 | 715,000 | 1980 |
| Optometrists | 33,000 | 43,000 | 1998 |
| Job Creation | Now (2002 |) Then | Year |
| Airplane pilots and mechanics | 255,000 | 0 | 1900 |
| Auto mechanics | 867,000 | 0 | 1900 |
| Engineers | 2,028,000 | 38,000 | 1900 |
| Medical technicians | 1,879,000 | 0 | 1910 |
| Truck, bus, and taxi drivers | 4,171,000 | 0 | 1900 |
| Electricians | 882,000 | * | 1900 |
| Professional athletes | 95,000 | * | 1920 |
| Computer programmers/operators/scientists | 2,648,000 | 160,613 | 1970 |
| Actors and directors | 155,000 | 34,643 | 1970 |
| Editors and reporters | 280,000 | 150,715 | 1970 |
| Medical scientists | 89,000 | 3,589 | 1970 |
| Dietitians | 74,000 | 42,349 | 1970 |
| Special education teachers | 374,000 | 1,563 | 1970 |
| Physicians | 825,000 | 295,803 | 1970 |
| Pharmacists | 231,000 | 114,590 | 1970 |
| Authors | 139,000 | 26,677 | 1970 |
| TV, stereo, and appliance salespersons | 309,000 | 111,842 | 1970 |
| Webmasters | 500,000 | 0 | 1990 |