

Why Offshoring is Economically Unsustainable

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Introduction

This paper explains a basic systems concept: there are situations for which, while individual decisions may be logical, they produce behavior of the whole that is collectively insane. It describes, with parallel wording, the behaviors for Sports Spectators, Ocean Fishing, Farming, and Offshore Outsourcing that are subject to the effects of the “Escalation” and “Tragedy of the Commons” systems thinking archetypes.

The “Fallacy of Composition”

The column at right by Daryll E. Ray in the box on this and following pages defines the “Fallacy of Composition” as when “we act as if what is true for a part is true for the whole.”

It explains parallels between our problems with an oversupply of farm commodities and with the outsourcing of jobs. It uses an easily-understood parallel to spectators at a sporting event to illuminate how solutions for individuals can fail for the whole.

Parallels

The “Fallacy of Composition” can result from the combined effects of the “Escalation” and “Tragedy of the Commons” systems thinking archetypes. The parallels in these disparate situations are evident when similarly described.

Sports spectators

A spectator logically decides to stand to get a better view of the action. If only one spectator stands, this action is effective. But one spectator standing can prompt an “Escalation” that leads others to stand. And when every spectator stands, no one can see any better than before (and short people can’t see as well). The “sitting view of the field” is the “commons” that is subject to a “Tragedy of the Commons” dynamic.

Add to this that the system is less efficient, because the spectators expend more energy when standing.

Ocean fishing

A fisherman logically decides to put out more boats to catch more fish. If only one fisherman does this, the action is effective. But one fisherman putting out more boats can prompt an “Escalation” that leads other fishermen to compete by putting out more boats. And when every fisherman does so, too many boats result in overfishing that depletes the stock of fish. The ocean fishery is the “commons” that is subject to a “Tragedy of the Commons” dynamic and market failure.

The irony is that, as fish become more scarce, the price goes up, prompting even more over fishing. In this case, the market sends a signal exactly opposite that needed to preserve ocean stocks of fish ... an extreme market failure.

Farming

A farmer logically decides to put more land in production and invest in technology to grow more wheat or other farm commodity. If only one farmer does this, the action is effective. But one farmer planting more crops with more technology can prompt an “Escalation” that leads other farmers to

“Fallacy of Composition” — When we act as if what is true for a part is true for the whole.

Jobless recovery: Another example of the fallacy of composition?

<http://www.agpolicy.org/weekcol/183.html>

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As I listen to Lou Dobbs talk on CNN about the exporting of American jobs and as I read about the jobless recovery that it seems we are now in, I am struck by how similar some of the dynamics are to what has been happening in agriculture for decades, if not longer.

It reminds me of sitting in the back row of the bleachers during a basketball game. The child of a friend of mine comes off the bench and onto the court and so I stand up to get a better view. From this position my view is better. But then, there is a dramatic play and everyone stands up. They stand up to get a better view and when everyone does that no one can see any better than when we were all sitting. An action that provides benefits for one person may provide no benefits at all if everyone does it. People who study logic call this the fallacy of composition.

In crop agriculture, the number of producers is large and the impact any one individual has on the market is minimal. For the most part, farmers are price-takers not price-setters. Starting back with some of the earliest research and extension work, the goal has been to help individual farmers improve their profitability in the context in which they find themselves. One of the sure fire ways to help an individual producer is to help that producer find ways to increase production at a faster rate than costs.

This has been achieved through the use of better cultivation techniques, increasing soil fertility, and increasing yields. If any one farmer finds a way to increase yields and thus production that farmer benefits. After all, the production of one farmer does not significantly affect the overall amount of grain available and thus the price is not affected. However, when the neighbor and the neighbor’s neighbor and farmers across the country all begin to use this production-increasing technique, the result is a significant increase in production. If demand for that product does not increase at the same rate, what happens? Prices fall. We have all seen that time after time.

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plant more crops with improved technology. And when every farmer does it, more commodity production creates too much supply, driving down farm commodity prices. The “farm commodity market” is the “commons” that is subject to a “Tragedy of the Commons” dynamic and market failure.

One might think that land would be taken out of production in response, but farmland in production is relatively inelastic to commodity prices (Daryll Ray documents this at his site). Land is fundamentally different, because it is not created and destroyed as are factories.

Similarly demand for farm commodities is inelastic to price; people don't eat all that much more as prices decline.

An article¹ by Bill Hawkins, Senior Fellow in National Security Studies, at the United States Business and Industry Council (USBIC) explains the flaw in the argument that the decline in the number of people working in manufacturing should be no more troubling than the decline in the number of people working on the farm. The flaw is that product demand for farm commodities is relatively inelastic, but demand for manufacturing products is relatively elastic. Therefore, there is no reason why manufacturing employment should fall as farm employment has.

Offshore outsourcing

A company logically decides to outsource labor offshore to reduce costs, gain competitive advantage and increase profits because the benefits are substantial, perhaps a \$60,000 differential:²

Add the low-cost, nearly instantaneous communication afforded by the Internet, and an Indian computer programmer making \$20,000 a year or less can replace an American programmer making \$80,000 a year or more.

Or even \$55,000 to \$75,000:

Forrester Research has estimated that 3.3 million U.S. service-sector jobs will flee to foreign countries over the next 15 years, along with \$136 billion in wages.

They'll be drawn by stark economics: Computer programming jobs that pay \$60,000 to \$80,000 per year in the United States can go for as little as \$8,952 a year in China, \$5,880 in India or \$5,000 in the Russian Federation, according to the UC-Berkeley study.³

And it's not just manufacturing and programming, it's engineering, too.⁴

Moving jobs to lower-cost countries is part of that, Mr. Chambers said. Cisco, based in San Jose, Calif., has moved jobs to India and China, though he said he did not know the exact number.

“If you're talking about an engineering job in the U.S., or here in Europe, versus an engineering job in China or India, the price differential is 5 or 10 to 1,” he said. “That's not going to change.”

Jobless recovery: (cont'd)

This technology treadmill comes about because in the face of lower prices, a farmer acting rationally seeks to find new techniques or technologies to decrease per unit production costs as a hedge against lower prices. The early adopters achieve some benefits, but these benefits quickly disappear as more and more farmers come on board. What makes sense as an action for any one producer has negative consequences when put in the broader perspective of the crop agriculture sector. This, again, is an example of the fallacy of composition because we act as if what is true for a part is true for the whole.

Let us now turn to the exporting of American jobs and the jobless recovery. In a competitive environment, the manufacturer of any given product has an incentive to reduce costs to increase profits and price competitiveness. Often one of the biggest costs is labor. One surefire way to reduce costs is to export jobs. Labor costs in the maquiladores in Mexico and the shops of China and Southeast Asia are a fraction of what they are in the U.S.

In the past, most of the jobs leaving the U.S. have been in textiles, shoes, and heavy manufacturing. We have been told that this is OK because America will convert its workforce to take the high-end skilled technical and software jobs, leaving the U.S. better off. But now the jobs that are leaving are high tech and back office support jobs.

When calling for technical support for my computer, I used to get someone somewhere in the U.S. Today that 800 number call lands me somewhere in India. The quality of support is great and a supervisor in the U.S. comes on line at the end and confirms the transaction. In December IBM announced that it was planning to move the work of as many as 4,730 programmers to India, China and elsewhere. From the perspective of IBM it is a no-brainer. Total costs overseas are around \$15 per hour vs. \$50 in the U.S.

One firm at a time it all makes sense. They can lower costs, increase profits and watch stock prices rise. But what happens as more and more firms begin to do that? We have a jobless recovery with stock prices rising. Once again, the fallacy of composition.

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¹ Bill Hawkins, “Intellectual Deception Reveals Weakness of Free Trade Ideology,” February 5, 2004, <http://www.usbusiness.org/i4a/pages/Index.cfm?pageid=56>. The United States Business and Industry Council (USBIC) and its affiliated research arm, the USBIC Educational Foundation, champion the interests of America's domestic family-owned and closely-held firms - our nation's “main street” businesses - who create new products, jobs and growth here in the United States. The Council's mission is to expand our domestic economy, with particular emphasis on our manufacturing, processing, and fabricating industries, and through the resulting growth to extend a high standard of living to all Americans. <http://www.usbusiness.org/>

² “Many New Causes for Old Problem of Jobs Lost Abroad,” *New York Times*, February 15, 2004, <http://www.nytimes.com/2004/02/15/business/15JOBS.html>

³ “Anxious About Outsourcing — States Try to Stop U.S. Firms From Sending High-Tech Work Overseas,” *Washington Post*, 1/31/04, <http://www.washingtonpost.com/wp-dyn/articles/A64696-2004Jan30.html>

⁴ “Cisco Chief Calls Productivity New Engine of Wealth,” *New York Times*, 1/27/04, quoting John T. Chambers, chief executive of Cisco Systems, <http://www.nytimes.com/2004/01/27/business/27growth.html>

If only one company does this, the action is effective. But one company outsourcing can prompt an “Escalation” that leads other companies to outsource. And when every company does it, no company has lower costs than any other. The lower wages paid reduces overall market purchasing power, increases cost pressures on everyone, and decreases the number of jobs. “Market purchasing power” is the “commons” that is subject to a “Tragedy of the Commons” dynamic and market failure.

Outsourcing advocates argue that the lower costs increase what can be purchased and that the savings will either be spent on other things or productively invested. However, this argument requires ignoring that outsourcing significantly undermines purchasing power because

- the new jobs found by those who are displaced don’t pay as much,
- pay of other jobs is depressed in the sectors from which jobs are outsourced due to low wage competition, and
- the pay of the jobs outsourced pay very little, often not more than subsistence level, which depresses worldwide purchasing power.

The savings that increase return to capital occur quickly relative to the overall erosion of market purchasing power,⁵ which makes the erosion easier to ignore.

To see the system structure that produces this behavior, see Appendix I: The System Structure.

The Result

Corporations effectively use outsourcing to maintain returns to capital throughout the escalating cycle of more outsourcing, lower wages, and lower prices.

The rationale is described by Carly Fiorina:⁶

“There is no job that is America’s God-given right anymore,” Carly Fiorina, chief executive for Hewlett-Packard Co., said Wednesday. “We have to compete for jobs.”

In a report by a trade group for some leading technology companies, executives argued that moving jobs to countries such as China or India — where labor costs are cheaper — helps companies break into lucrative foreign markets and hire skilled and creative employees in countries where students perform far better than U.S. students in math and science.

“Countries that resort to protectionism end up hampering innovation and crippling their industries, which leads to lower economic growth and ultimately higher unemployment,” said the Washington-based Computer Systems Policy Project, whose member companies include Intel Corp., IBM, Dell Inc. and Hewlett-Packard.

But her message is also that there is a God-given right to maintain return to capital, no matter what the cost to return to labor, U.S. economic security and U.S. military security. Dividends and capital gains must be maintained, but not wages. The full headline of this story, conveys this message loudly and clearly:

Tech Firms Defend Moving Jobs Overseas
Leading U.S. Computer Companies Defend Sending Jobs Overseas As Necessary for Future Profits

Profit share rises at the expense of labor’s share:⁷

“The goal of companies is not to hire,” said Larry Geiger, a vice president of the American Management Association who supervises the association’s surveys of corporate executives.

The executives are focused instead on fattening profits to push up stock prices and recover ground lost in the market plunge that started in 2000, he said. Since they cannot raise profits by raising prices in a period of low inflation, they are doing it by suppressing labor costs — getting more output from the existing work force. And the profit share of corporate income has risen in recent quarters at the expense of labor’s share, the Bureau of Economic Analysis

Jobless recovery: (cont’d)

Like with farmers, there is a crunch when everyone engages in a behavior that is rational at the individual level. With all of the good paying manufacturing and tech jobs being exported overseas, who is going be able to afford to buy the computers, and blue jeans and running shoes? Not only could this create problems in the U.S., other countries could be hurt as well. As the income of U.S. consumers shrinks they will be able to afford fewer imports. Increasing electronic communication and lower transportation costs for products may only accelerate the trend.

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⁵ Those displaced can draw on their savings or home equity for a time.

⁶ “Tech Firms Defend Moving Jobs Overseas, Leading U.S. Computer Companies Defend Sending Jobs Overseas As Necessary for Future Profits” Ted Bridis, AP Technology Writer, 1/7/04, http://biz.yahoo.com/ap/040107/technology_jobs_24.html

⁷ “New Patterns Restrict Hiring,” LOUIS UCHITELLE, *New York Times*, 3/6/04, <http://www.nytimes.com/2004/03/06/business/06HIRE.html>

reports.

Outsourcing is certainly effective in increasing returns to capital:⁸

Columnist James K. Glassman recently constructed a "Dobbs Rogue Fund" (taking its name from CNN commentator Lou Dobbs, who compiled a list of firms that have moved jobs overseas). Glassman calculates that, as a group, these 216 companies registered a remarkable 72 percent return over the last 12 months.

... More than 4 million workers, [Georgetown University economist Harry] Holzer notes, have run through their unemployment benefits without finding jobs and, in the last 12 months, inflation-adjusted hourly wages have barely risen.

... Since 2000, labor productivity has grown at a 3.7 percent annual rate, high even for a recovery period. Offshore outsourcing contributes to the trend, since hours put in by foreign workers are both cheaper and uncounted in traditional productivity measures. Home-shore outsourcing helps, too, by replacing full-timers with on-call piece workers who earn no benefits or overtime pay. In the past, higher productivity has translated into higher wages and more jobs as employers share the gains with workers. But this time that hasn't happened yet. Instead, the returns from higher productivity are going into higher profits and lower prices. Using official Bureau of Labor statistics, Johns Hopkins University economist Arnold Packer calculates that employees' share of the value added in the U.S. economy has fallen to its lowest point since records were first kept in 1947 -- and the rate of decline is accelerating. "The real damage is not the number of jobs, but their pay and quality," Packer says.

Josh Bivens, Economic Policy Institute economist, also describes who wins and who loses:⁹

Within nations, trade tends to redistribute a lot of income. The gains get pretty concentrated in the pockets of capital owners. The people who lose out are the blue-collar workers. Now you've got this class of white-collar workers who are much more insecure about their job prospects, and their labor market bargaining power is being undermined. It doesn't mean we need walls all around the economy, but it does mean we need to get really serious about making sure all these gains are distributed.

But these shifts are happening very rapidly, so successful adjustments to share gains with the losers would be difficult, even if there were the political will to do so.¹⁰

The market research firm Gartner estimates that one of every 10 jobs at American technology vendors or service providers will move overseas by the end of this year. By 2008, one-quarter of all traditional information technology jobs will be in emerging market nations.

"These dislocations can be substantial," said Michael D. Fleisher, the chairman of Gartner. "Work can move offshore very quickly, and it remains to be seen how quickly we can innovate to replace those jobs."

Protectionism?

The comment in the previous section,

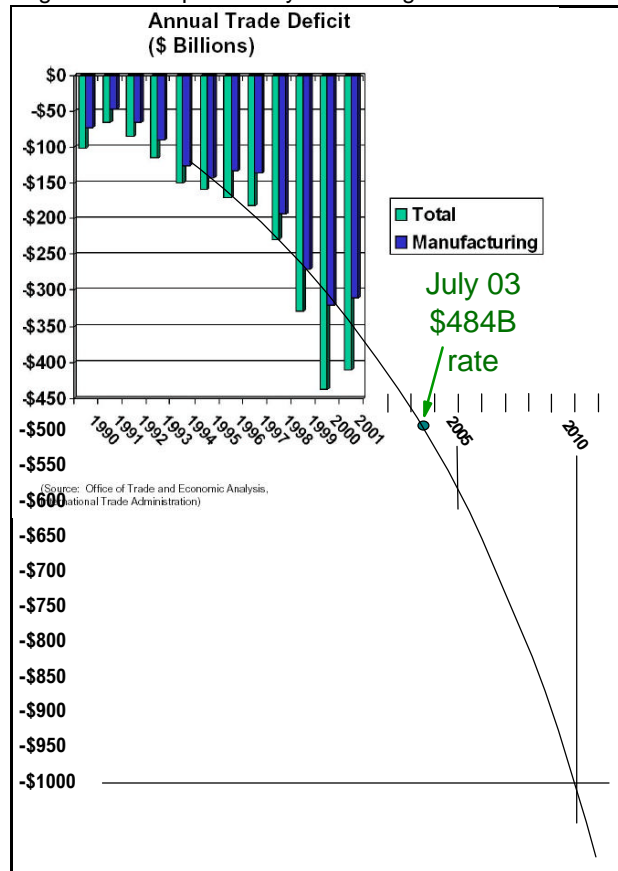
"Countries that resort to protectionism end up hampering innovation and crippling their industries, which leads to lower economic growth and ultimately higher unemployment ...",

is revealing. It essentially says that we must lose jobs to save them. It also ignores losses of intellectual property that fuel innovation and the losses of innovation due to less integration of engineering design and manufacturing. The result of "protectionism" is described in this same article:

Erecting barriers, they said, "could lead to retaliation from our trading partners and even an all-out trade war."

This is ironic because the U.S. is already in an economic trade war against other countries, such as China. The U.S. is under constant attack and need not wait for "retaliation."

Figure 1. An exponentially-increasing trade deficit



The proof is the exponentially-increasing, \$500 billion trade deficit shown in Figure 1. It indicates that U.S.

⁸ "Maybe We Could All Deliver Pizza . . .," Jodie T. Allen, 3/06/04, *The Washington Post*, <http://www.washingtonpost.com/wp-dyn/articles/A35469-2004Mar6.html>

⁹ "Who Wins and Who Loses as Jobs Move Overseas?," *New York Times*, 12/7/03, <http://www.nytimes.com/2003/12/07/business/yourmoney/07out.html>

¹⁰ "Cisco Chief Calls Productivity New Engine of Wealth," *New York Times*, 1/27/04, <http://www.nytimes.com/2004/01/27/business/27growth.html>

policy is the exact opposite of “protectionist.” If U.S. were even remotely “protectionist,” the U.S. would have a trade surplus. U.S. policy is, in effect, “reverse protectionism” that encourages companies and jobs to leave the country.

Examples of “reverse protectionism”:

- Allowing other countries (e.g., China) to manipulate and undervalue their currencies to maintain trade advantages.
- Giving investment tax credits to companies that do not keep their complementary assets (e.g., manufacturing) in the U.S., because the nation subsidizes the innovation, but does not fully profit from the innovation.
- Not including labor and environmental standards in trade pacts creates a uneven playing field by allowing countries that do not respect labor standards to burden their population and mortgage their long-term future for short-term gain.
- Trading with countries that lower taxes to the point that they mortgage their long-term future for short-term gain.
- Allowing corporations to engage in flawed transfer pricing schemes to avoid U.S. taxes.
- Allowing corporations that move headquarters out of the country to perform government contracts, but avoid paying U.S. taxes that support the protections (courts, police, fire, military, etc.) that allows them to do business .

The U.S. has essentially declared unilateral surrender, because some economic interests maintain high profits even as most of the nation’s population suffers and even as they sacrifice the long term future of the nation.

And it’s not simply about “protectionism,” it’s about what we protect. “Free trade” advocates believe in protectionism for private capital and intellectual property, but unfortunately they don’t believe it’s legitimate to protect the social capital built up in the U.S. over hundreds of years. This is also worthy of “protection.”

Offshoring, as Practiced, is Unsustainable

The U.S. trade deficit for 2003 hit \$489 billion, a 17% increase over the previous record set in 2002. The trade deficit in January 2004 was a record \$43.1 billion, which over a year would be \$517 billion/year. It’s now at about 5% of GDP and, as Figure 1 shows, continuing its exponential increase will lead it to approach 10% of GDP in 5 or 6 years. Like all exponential behaviors, this is simply unsustainable.¹¹

Aside from the social costs of such an outcome, there is the more pressing matter of paying our offshore bills.

Thanks to our insatiable appetite for the world’s bounty, foreign investors now hold some \$1.5 trillion in U.S. public and private debt. Much of that debt is held by members of OPEC and by the central banks of the big exporting nations of Asia -- notably China and Japan. Someday those offshore investors may tire of financing our greedy habits, at which point the already weakened dollar could plummet, inflation spike, interest rates rise and a nasty and enduring economic downturn ensue.

So current policies called “free trade” cannot continue; those who promote it are simply in denial of reality. Those now accepting the dollar in exchange for U.S. goods and services will soon no longer do so. And as Eamonn Fingleton notes in a *Wall Street Journal* story, “Long-Time Trade Deficit Critic Notes Ominous Benchmark.”¹²

“When a country is increasingly owned by foreign interests, it becomes difficult for its government to assert itself,” said Fingleton. That’s because the demands of major creditors are hard to ignore.

The bottom line is that, even though many in the U.S. want to maintain current trade policy, we can’t.

Partial “solutions” for systemic problems

Numerous solutions are suggested to correct the aspects of the problem with “trade.”¹³ Unfortunately, partial or piecemeal solutions won’t correct systemic problems. Let’s examine a few.

What about “fair trade?”

“Fair trade,” if achievable, might do it. The problem is that the factors that influence “fairness” are too many and too complex to resolve.

Beyond this practical barrier, it’s doubtful that even a level playing field would eliminate the trade deficit, because what’s happening is not simple “trade of products” (discussed below).

¹¹ “Maybe We Could All Deliver Pizza . . .,” Jodie T. Allen, 3/06/04, *The Washington Post*, <http://www.washingtonpost.com/wp-dyn/articles/A35469-2004Mar6.html>

¹² “Long-Time Trade Deficit Critic Notes Ominous Benchmark” By CHRISTINE RICHARD, *Wall Street Journal*, 2/14/04, http://online.wsj.com/article_email/0_BT_CO_20040213_004411-1Bje4NklaR3mpymaqHa6uBm4_00.html. Eamonn Fingleton notes that “... the American public is being massively -- and disastrously -- misled about the realities of globalization” at <http://www.unsustainable.org>.

¹³ For a thorough discussion of these issues, see “A Systems Thinking Perspective on Manufacturing & Trade Policy” at <http://www.exponentialimprovement.com/cms/fostermfg.shtml>.

Cut taxes on corporations?

The dilemma is that the U.S. already has large and growing infrastructure backlogs. Cutting taxes to attract companies further decreases funds for infrastructure. Even cutting taxes to zero wouldn't be enough to address the cost imbalances that drive outsourcing.

Educate companies to not outsource activities that undermine core capabilities and innovation; that is, to not "outsource beyond the appropriate level?"

Some recommend "outsourcing labor-intensive, low-value-added" activities, but not activities that would undermine company long-term competitiveness or company ability to innovate.¹⁴

Don't get me wrong, this is an excellent policy and every company should practice it and be sensitive to the danger of not doing so. The problem is it requires the equivalent of defying gravity. It requires companies to exercise the discipline to value the future over the present, which is difficult, if not impossible.

The same valid arguments that Hamel and Prahalad have made for years against excessive downsizing¹⁵ can be made against excessive outsourcing. They rightly note that the focus *should be* on numerator management, developing new products and services and increasing sales, instead of on denominator management, cutting costs by downsizing and giving up market share.

But downsizing continues, as will excessive outsourcing. The reason is that the forces (the rewards) in the system are greater for the CEOs who make the decision to downsize and outsource. And, Hamel and Prahalad explain, stockholders are perfectly willing to profit in the short run, because they can shift to other investments over the long run. Asking companies to not downsize or outsource is like pushing someone off a 10 story building and then telling them to defy gravity and not fall. It just doesn't happen very often.

There are many other reasons why the idea of not "outsourcing beyond the appropriate level" is inadequate to address the dangers to the U.S. economy from offshore outsourcing.

- First, there is no magic wall between "innovation & design" and "manufacturing" ... and not even between design and "low-value-added manufacturing."
- Second, an "innovation and design" economy won't simply replace the "old manufacturing economy" because the "innovation and design" and "old manufacturing" economies are each other's customers.
- Third, important technology-advancing synergies are lost when design is separated from manufacturing.¹⁶
- Fourth, it's difficult to define the "appropriate level of outsourcing" and it's likely different for every company. As a proponent says,¹⁷ "I don't think anyone has a firm grip on the answer yet." Even if they did, it's a slippery slope.
- Fifth, the primary reasons may be that short-term thinking is embedded in our culture and that the tyranny of net present value (NPV) devalues future returns.

One argument is that it doesn't matter that some, or even many, companies will fail, because companies that are able to think strategically and long-term will prosper and survive and that the others will either muddle through in mediocrity or get caught in a death spiral and disappear. However, such "creative destruction" will cause a lot of pain for many people, but probably not for the executives whose compensation packages isolate them quite nicely from major personal impacts of their decisions or for stockholders who move on to other investments once the ride is over.

Implementing a policy such as Warren Buffett's Import Certificates mechanism to create balanced trade (described below) will be beneficial for companies because it will allow them to shift their focus

- from short-term outsourcing and downsizing "solutions" that are subject to the fallacy of composition
- to creating true, long-term competitive advantage based on fundamental product and service improvement and innovation.

¹⁴ Jim Leonard calls this "outsourcing beyond the appropriate level."

¹⁵ See the excerpts from *Competing for the Future* by Hamel & Prahalad in *A Systems Thinking Perspective on A Manufacturing Base Restoration Initiative - Part II* at <http://www.exponentialimprovement.com/cms/STMfgBaseRestorlnit.shtml>. They rightly note that the focus *should be* on numerator management, developing new products and services and increasing sales, instead of on denominator management, cutting costs by downsizing and giving up market share.

¹⁶ See a Systems Thinking Perspective on Manufacturing Base Restoration on manufacturing and engineering improvement, on interactions between mfg'g & eng'g, and on how fully profiting from innovation ... as a company or a nation ... requires having manufacturing at <http://www.exponentialimprovement.com/cms/STMfgBaseRestorlnit.shtml>.

¹⁷ E-mail communication from Jim Leonard, 2/18/04.

Gear domestic tax policy to increase demand, not promote investment?

In the trough of the long wave,¹⁸ there's overcapacity and supply that exceeds demand for almost everything (steel, autos, semiconductors, laid optical fiber, etc. ...). Current administration policies are designed to increase investment and further increase capacity. But they will not work. because, no matter how much taxes are cut for corporations and the wealthy, there will be no investment without demand, as noted in this story:¹⁹

"The goal of companies is not to hire," said Larry Geiger, a vice president of the American Management Association who supervises the association's surveys of corporate executives. ...

Mr. Geiger said he was not surprised. "What these executives do is budget for an increase in employment, and their answers reflect the budgeted funds," he said. "But if revenue projections are not met, they cancel the budgeted hiring, and that is happening frequently."

Current policy is prolongating economic stagnation in the trough of the long wave.²⁰

The needed policy is for taxes on corporations and higher income individuals to return to previous levels and cut income and payroll taxes (at least temporarily) for lower income individuals to increase demand. Do this and everyone will do better ... as they did in the 90s.²¹

But even policies that increase demand will not be enough, because much of the increased purchasing would be for products from foreign countries, instead of from the U.S.:²²

... a growing portion of the spending is going abroad, creating jobs in other countries rather than the United States. That is because the value of imported capital goods, measured as a percentage of total expenditures, excluding cars and trucks, rose to just under 40 percent last year from just over 30 percent in 1990 and 15 percent in 1980. Similarly, spending on imported consumer goods and services as a percentage of total outlays stands at 12 percent today, up from 7 percent in 1990 and 4 percent in 1980.

The hazard

The hazard is thinking that implementing solutions to parts of the problem will be adequate to slow, much less reverse, the steady erosion of our economy and economic security from offshore outsourcing.

Some Characteristics of, and Influences on, "Trade"

"Comparative advantage" vs. "absolute advantage"

"Comparative advantage" is when "You do what you do best and I do what I do best, and we trade products." But "comparative advantage" does not primarily apply to what's happening today.

First, world conditions do not conform to the assumptions²³ of the underlying theory. We're not at full employment, transition costs between regions, industries, and firms are not zero, and job shifts are reducing wages.

Second, "absolute advantage" applies, not "comparative advantage."²⁴ Given free migration of the factors of production (labor, capital, and land), they will move from the U.S. to other places, such as China, as long as they are places of greater composite attractiveness due to low wages, low taxes, and numerous other factors.

Because China, India and other relatively undeveloped countries have a virtually inexhaustible supply of cheap labor, with many of them highly educated as well, if unchecked this "economic migration" will continue for decades, if not the next century. This undercuts U.S. wages, working conditions, environmental protections, quality of life and economic and military security. It erodes social capital.

So what is happening now is not simple "trade" justified by the theory of "comparative advantage;" it is

¹⁸ For a overview of the "long wave" economic cycle, see "A Systems Thinking Perspective on Manufacturing & Trade Policy" at <http://www.exponentialimprovement.com/cms/fostermfg.shtml>.

¹⁹ "New Patterns Restrict Hiring," LOUIS UCHITELLE, *New York Times*, 3/6/04, <http://www.nytimes.com/2004/03/06/business/06HIRE.html>

²⁰ In which there will be business cycles and a "bumping along the bottom."

²¹ The Federal Reserve raised interest rates to burst the speculative bubble of the 90s: When the bubble did burst, it made the downturn worse than it would have been. Speculators generally have high enough expectations of returns that they are not deterred by a few percentage points increase in interest rates. The Federal Reserve should have instead increased margin requirements to lessen speculators' ability to borrow to fuel their speculation.

²² "New Patterns Restrict Hiring," LOUIS UCHITELLE, *New York Times*, 3/6/04, <http://www.nytimes.com/2004/03/06/business/06HIRE.html>

²³ None of the assumptions is valid today. From Lester Thurow, *The Future of Capitalism* (1996, pp. 69, 70): **First**, full employment is assumed to exist. Free trade does not push anyone into unemployment. **Second**, transition costs are assumed to be zero. There is no region-, industry-, or firm-specific physical or human capital that is destroyed when workers are forced to shift between regions, industries, or firms. **Third**, returns are assumed to be everywhere equal. Each industry has the same rate of return on human or physical capital. Each firm and industry pays the same wage rate for a worker's being willing to give up an hour of leisure. As a consequence, being forced to shift jobs doesn't change wages very much, if at all.

²⁴ "Guest Commentary: The Harsh Truth About Outsourcing, It's not a mutually beneficial trade practice -- it's outright labor arbitrage," Paul Craig Roberts, 3/22/04, *Business Week*, http://www.businessweek.com/magazine/content/04_12/b3875614.htm

“transfer of the factors of production” that create the products due to “absolute advantage.” It’s “economic migration” that will continue for decades, if not a century.²⁵ This is because China, India and other relatively undeveloped countries have the “absolute advantage” of low wages, low taxes, low worker & environmental protections, and undemocratic governments.

Democracy and its relation to labor and environmental protections

Some maintain that the environment is a “good” and that, like any other market commodity, individuals will increasingly value it and invest in it as their incomes and wealth increase. However, individuals are not able to individually value the environment or the benefits of labor standards; they cannot “purchase” them. Only governments can value the environment (a public good or “commons”) and the overall well-being of their citizens.

But if a government is not a constitutional democracy (especially if it’s a dictatorship) and/or does not have the technical competence and financial means to perform sound science, it cannot properly value the environment or estimate the value of reducing the detrimental effects of labor practices. That government cannot properly represent the interests of its citizens.

Not requiring labor and environmental standards allows countries to lower labor standards to shift the gains of trade to a relative few and shift the costs of trade (in negative impacts on health) to the many. Therefore when trading with undemocratic regimes we must either require comparable labor and environmental standards as a part of trade pacts to actually lift up the people of that country as valid criteria for trade policy. If we don’t, we are strengthening and growing undemocratic regimes such as Mexico and China, which we are rapidly doing (see Figure 2):²⁶

The United States’ politically sensitive deficit with China in 2003 was almost \$124 billion, the biggest ever, as imports from China hit a record high. By country, the U.S. trade gap with China was the largest.

The Sunday, 2/27/04, *Parade* magazine ranks Hu Jintao, president and general secretary of the Communist Party of China, as #3 on it’s list of “The World’s 10 Worst Dictators.”²⁷ The article notes

... the party still controls all media and uses 30,000 ‘Internet security agents’ to monitor online use. More than 300,000 Chinese are serving “re-education” sentences in labor camps. China carries out in excess of 4000 executions a year, more than all other nations combined.

An article that raises the human costs of globalization, the rapid loss of jobs, and the fear of a political reaction in the U.S. noted the rapid growth of China’s economy:²⁸

The fears are intensified by the rise of China, one of the prime destinations for jobs moving out of the United States and Europe. Goldman, Sachs issued a study here predicting that China’s economy would overtake that of Germany within a decade, and surpass the American economy by 2041.

Zhu Min, an economic adviser to the president of China, was met with silence at a dinner last week when he asked Americans at the conference how their country planned to finance its economy when both blue-collar manufacturing and white-collar service jobs were going elsewhere.

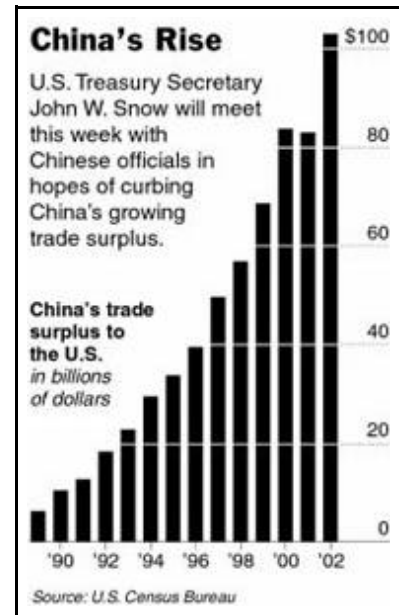
What a good question! Considering the economic toll of globalization on so many in the U.S. and the nature of China’s government, perhaps fear and a political reaction is justified.

However, many are unconcerned. During the hearing on Colorado Senate Bill SB-04-170, Keep Jobs in Colorado,²⁹ on 2/09/04 State Senator Andrews (R) said it would be bad economics to require that companies that work on taxpayer-funded state contracts hire employees from the U.S. He asked one person testifying in support of the bill to explain the difference between the state contracting for the lowest price with a company in Ohio, or Canada, or China. It’s amazing to hear such a question considering the lives lost in the fight against totalitarian Communism.

Seeking lower taxes offshore

Obviously companies want to move the factors of production to other countries to avoid taxes and worker

Figure 2. The exponentially-increasing trade deficit with China



²⁵ Actually, it won't last a century because the U.S. and world economy will collapse first.

²⁶ “Greenspan Says Weaker Dollar May Help Narrow Trade Gap” By REUTERS, 3/2/04, *New York Times*, <http://www.nytimes.com/2004/03/02/business/02WIRE-GSPAN.html>

²⁷ *Parade*, “The World’s 10 Worst Dictators” by David Wallechinsky, 2/27/04.

²⁸ “Cisco Chief Calls Productivity New Engine of Wealth,” *New York Times*, 1/27/04, <http://www.nytimes.com/2004/01/27/business/27growth.html>

²⁹ My testimony supporting this bill (2 pages, 211K) can be found at <http://www.exponentialimprovement.com/cms/fostermfg.shtml>.

protections to increase profits. But they still want to take advantage of all the U.S. government support and services (courts, police, fire, military, etc.) that protects their property and capital and allows them to do business. If companies want to move services offshore, then they should pay significantly higher taxes to pay for these protections and services. If they don't, they're essentially being subsidized to outsource offshore.

Seeking investment tax credits

Companies seek investment tax credits:³⁰

Even as technology companies lobby against limits on offshore employment, they are urging the Bush administration to approve new tax credits on research and development spending, spend more on university research on physical science and adjust tax depreciation schedules for technology purchases. They said they also want improvements in education, especially in elementary through high schools.

But companies that move manufacturing and other jobs out of the U.S. should NOT get investment tax credits or tax breaks of any kind, because the nation as a whole does not profit from such investments.³¹

On Achieving Balanced Trade

The only way to effectively achieve balance and avoid economic collapse is through high-level systemic policy that requires balance. What we need is not "free trade" or "fair trade," but "even trade."

To achieve this, Warren Buffett, who is also concerned with the long-term problems caused by international trade that's "out of balance," has proposed an Import Certificates mechanism to create balanced trade to deal with what he describes as "a shifting maze of punitive tariffs, export subsidies, quotas, dollar-locked currencies, and the like."

Buffett's article in *Fortune* should give pause to even the most ardent "free trader," because he's not just calling attention to the problem, he's taking action. He wrote:³²

I'm about to deliver a warning regarding the U.S. trade deficit and also suggest a remedy for the problem. But first I need to mention two reasons you might want to be skeptical about what I say. To begin, my forecasting record with respect to macroeconomics is far from inspiring. For example, over the past two decades I was excessively fearful of inflation. More to the point at hand, I started way back in 1987 to publicly worry about our mounting trade deficits-and, as you know, we've not only survived but also thrived. So on the trade front, score at least one "wolf" for me. Nevertheless, I am crying wolf again and this time backing it with Berkshire Hathaway's money. Through the spring of 2002, I had lived nearly 72 years without purchasing a foreign currency. Since then Berkshire has made significant investments in-and today holds-several currencies. I won't give you particulars; in fact, it is largely irrelevant which currencies they are. What does matter is the underlying point: To hold other currencies is to believe that the dollar will decline.

... as head of Berkshire Hathaway, I am in charge of investing its money in ways that make sense. And my reason for finally putting my money where my mouth has been so long is that our trade deficit has greatly worsened, to the point that our country's "net worth," so to speak, is now being transferred abroad at an alarming rate.

Such a systemic solution is appropriate for addressing a systemic problem.

Understanding how the world works

There is a lack of understanding of these system dynamics as well as a lack of understanding of the seriousness of the problem of unbalanced trade. Fingleton writes that ³³

... the American public is being massively — and disastrously — misled about the realities of globalization.

As Fingleton notes, in agreement with Buffett, a perpetuation of this imbalance will lead to economic collapse.³⁴

... in the absence of drastic policy changes, the truth will come out, probably in the form of a devastating dollar crash.

³⁰ "Tech Firms Defend Moving Jobs Overseas, Leading U.S. Computer Companies Defend Sending Jobs Overseas As Necessary for Future Profits" Ted Bridis, AP Technology Writer, 1/7/04, http://biz.yahoo.com/ap/040107/technology_jobs_24.html

³¹ *A Systems Thinking Perspective on A Manufacturing Base Restoration Initiative* on manufacturing & engineering improvement, interactions between mfg'g & eng'g, fully profiting from innovation requires having manufacturing, and how Federal Reserve policy affects manufacturing. June 14, 2002 (revised 7/23/02). at <http://www.exponentialimprovement.com/cms/STMfgBaseRestorInit.shtml>.

³² Warren E. Buffett, "America's Growing Trade Deficit Is Selling the Nation Out From Under Us. Here's a Way to Fix the Problem — And We Need to Do It Now." *FORTUNE*, 11/10/03. <http://www.fortune.com/fortune/investing/articles/0,15114,525644,00.html>.

³³ Eamonn Fingleton, "About Unsustainable.org," http://www.fingleton.net/about_un.php

³⁴ Eamonn Fingleton, "The Sphinx in Winter," http://www.fingleton.net/view_art_un.php?AID=292, Thursday, February 26th, 2004.

The imperative: seeking balance

Between the short-term & the long-term

Capitalism is bound by the logic of Net Present Value (NPV) that devalues the benefits in out-years that would be achieved by taking actions for the long term.

Between the individual & the collective

As individuals we live in the logic of the individual and are largely unaware of the effect of that logic on the collective and how it feeds back to affect our individual experience.

Therefore we, as individuals, do not modify our behavior; instead we follow our individual logic to produce results that are often the opposite of what we desire.

This produces individual behaviors that are perfectly logical, but collectively insane.

Free market ideology

Free market ideology assumes that individuals taking action for their own self-interest will work through the “invisible hand” to benefit the collective as well. Unfortunately too often, because of “The Fallacy of Composition,” this is not the case.

Despite logical flaws and free market failures, free market ideology remains strong.³⁵

As the old joke goes, “How many libertarians does it take to change a light bulb?”

The answer is, “None, they just sit in the dark and wait for the invisible hand to do it for them.”

Free market ideology requires an emphasis on the short-term, but it goes well beyond that: whenever even short-term benefits are to the collective, they can be ignored entirely.

A Call for Balance?

There is often violent support of capitalism by some and violent support of socialism by others.

A call for “balance” seems bland and uninspiring in comparison. This is one barrier to achieving balance. But that’s what we need to create a society that works. If we want a sustainable society, to some extent we must all be both capitalists and socialists.

And yes, I know this is a politically incorrect thing to say.

Two Disciplines: Dedication to the Truth and Balancing

Two basic challenges:

- understanding real-world dynamics
- balancing between the extremes.

Coping with these challenges requires two of the four disciplines M. Scott Peck describes in *The Road Less Traveled*. It’s an understatement to say that these are a very difficult disciplines.

Dedication to the truth or reality

Scott Peck defines dedication to the truth as an “openness to challenges to my map of reality.”

We must be willing to understand “how the world really works,” rather than basing our understanding on ideologies that represent part of the truth, but not all of the truth.

This is difficult:

“Faced with the choice of changing one’s mind and proving one doesn’t need to do so, ... we get busy on the proof.”

John Kenneth Galbraith

Balancing

Scott Peck defines balancing as “an ability for flexible response.”

Examples are balancing:

- “living in the moment” and “planning for the future”
- looking out for the well-being of individual and the collective (individuals in the family and the family unit)
- local control and national control

This requires the systems thinking skill of “both-and” thinking, in contrast to “either-or” thinking.

The “Fallacy of Composition” is when “we act as if what is true for a part is true for the whole.” This principle tells us that we must balance the needs of the individual and the needs of the collective in order to increase benefits to *both* the individual and the collective.

³⁵ Bill Hawkins, “Intellectual Deception Reveals Weakness of Free Trade Ideology,” February 5, 2004, <http://www.usbusiness.org/i4a/pages/lnIndex.cfm?pageid=56>. Bill Hawkins is Senior Fellow in National Security Studies at the United States Business and Industry Council (USBIC). This article explains flaws in an argument by free trade proponent Alan Reynolds, Senior Fellow at the libertarian Cato Institute. After this quote he continues, “But as the “invisible hand” turns off the lights in one factory after another in America, the intellectually dishonest Reynolds has the temerity to deny that it is dark at all.”

Appendices

Appendix I:

This section uses systems thinking diagrams to illustrate the outsourcing dynamic described based on statements by those with favorable and unfavorable views of offshoring.

The basic escalation

Figure 3 shows how the escalation works. Both Company A and Company B see outsourcing as a way to become more productive and cost competitive to increase market share as shown by balancing loops B1 & B2.³⁶

When one company takes this logical step, the other feels pressure to do more of the same. An example:³⁷

“Our competitors are doing it and we have to do it,” said Tom Lynch, I.B.M.’s director for global employee relations.

Another example:³⁸

Harris Miller, president of the Information Technology Association of America, said companies could suffer if they are unable to use cheaper foreign workers to stay competitive. ... The ITAA is monitoring the legislation in states around the country and helping organize business leaders to lobby against it. Companies need the flexibility to use cheaper, offshore workers to help them hold down costs, Miller said.

Figure 3. The Escalation of Outsourcing to Improve Competitiveness

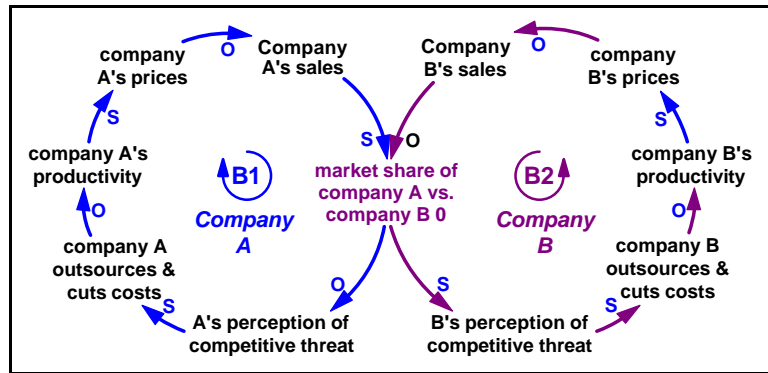


Figure 4 explicitly shows the reinforcing feedback from taking a “figure 8” path around the loops in Figure 3. This “Escalation” archetype is the same structure that applies to downsizing, price wars, arms races, competition between regions for sports teams, and competition between regions for jobs.

Figure 4. Taking a “figure 8” path around the Escalation structure in Figure 1.

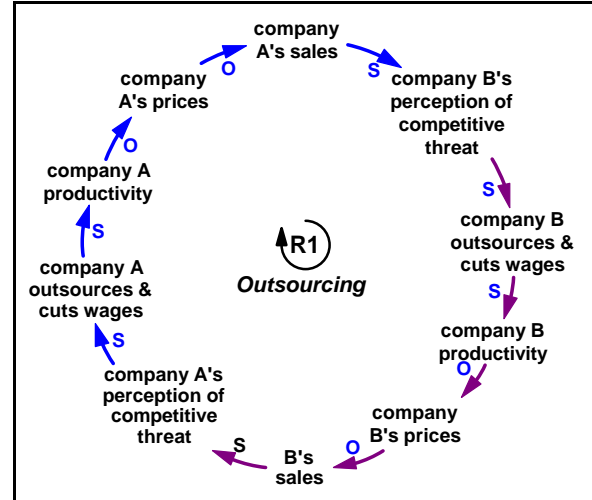
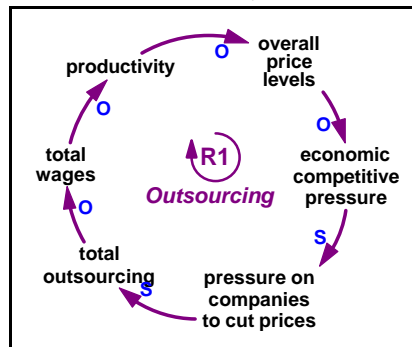


Figure 5 shows this reinforcing feedback, **R1, Outsourcing** for the economy as a whole. In response to pressure on companies to cut prices, companies increase “total outsourcing” to reduce expenses by cutting “total wages” to increase “productivity”, which allows “overall price levels” to fall. The competition of lower “overall price levels” increases “economic competitive pressure” and puts more “pressure on companies to cut prices” by further increasing “total outsourcing”.

Figure 5. **Outsourcing, R1**, for the economy as a whole.



However, this isn't all there is to it, there are other feedback loops in the system that have both positive and negative effects.

Explicit modifications to show outsourced jobs & pay

Figure 6 is a slightly modified version of Figure 5 that shows the “number of outsourced company jobs paying

³⁶ For *A Brief Introduction to Systems Diagrams* go to <http://www.exponentialimprovement.com/cms/PracticalST.shtml>.

³⁷ “Bracing for the Blow” By BOB HERBERT, New York Times, December 26, 2003, <http://www.nytimes.com/2003/12/26/opinion/26HERB.html>

³⁸ Anxious About Outsourcing, States Try to Stop U.S. Firms From Sending High-Tech Work Overseas, Washington Post, 1/31/04, <http://www.washingtonpost.com/wp-dyn/articles/A64696-2004Jan30.html>

much lower wages” reducing “wages paid by companies”. Figure 7 explicitly shows the details of this link. While the “pay of an outsourced company job” adds to wages, it’s more than offset by the decreased cost of the “pay of a displaced company job”.

This enhanced structure is needed to show the beneficial and adverse side effects of outsourcing.

A beneficial side-effect: Lower prices allow other purchasing and investment

Offshore outsourcing proponents correctly point out that there is an effect that opposes, or balances, the downward spiral. The increased “purchasing power” from outsourced jobs that increase productivity and reduce prices leads to purchasing of other products, investment, and therefore “economic growth”. David Brooks, New York Times columnist, concisely describes the effect:³⁹

... the pure free-market answer ... says the market will take care of itself. Productivity gains will eventually lead to job creation, and workers will learn to adapt.

In the same vein, in examining “The Bright Side of Sending Jobs Overseas”, another writer observes:⁴⁰

In many ways, the economists’ argument for outsourcing is as straightforward as the case for importing products. If an Indian software programmer is paid a tenth of an American’s salary, a company that develops software in India will save money and — provided competitors do the same — the price of its software will fall, productivity will rise, the technology will spread, and new jobs will be created to adapt and improve it.

As lower-priced technology flooded the marketplace, it helped generate new jobs, as companies that snapped up computers suddenly required software and workers who could adapt the products to their needs. ...

Yet most economists agree that the impact on productivity, economic growth and jobs should be similar to that of the outsourcing of hardware in the late 1990’s. Prices of technology services will fall, technology will become more pervasive, and jobs will be created as businesses find new things to do with the technology.

Diana Farrell, the director of the McKinsey Global Institute, which is McKinsey & Company’s internal economics research group, is a big proponent of outsourcing:⁴¹

Those savings enable me, if I am an investor, to consume more and therefore contribute to job recreation, and if I am a company, to re-invest and create jobs. That’s important because I agree that we are migrating jobs away, some of which will never return, nor should they.

But it’s OK because⁴²

... job growth eventually will resume, as aggregate demand bounces back.

Figure 8 shows loop **B2, Lower Prices, More Spending & Investing**, that illustrates the beneficial effect of lower “overall price levels.” This frees funds consumers would otherwise spend and increases “purchasing power”. This leaves resources available for other “purchasing & investment” to fuel economic growth and

Figure 6. **Outsourcing, R1**, slightly modified to show the number of outsourced company jobs.

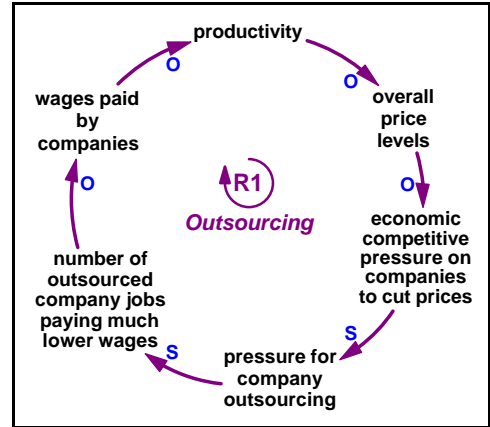
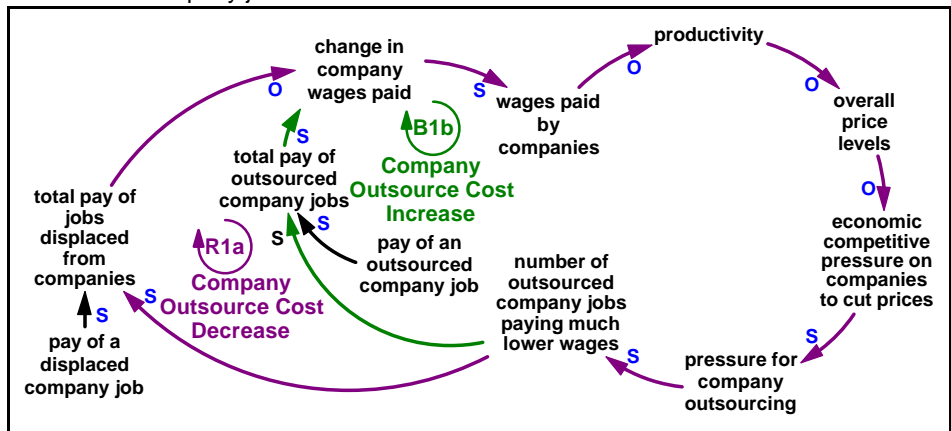


Figure 7. **Outsourcing, R1**, slightly modified to explicitly show the number of outsourced company jobs.



³⁹ “The Ownership Society” DAVID BROOKS, *New York Times*, 12/20/03, <http://www.nytimes.com/2003/12/20/opinion/20BROO.html>

⁴⁰ CASE STUDY: CELLPHONES — “The Bright Side of Sending Jobs Overseas,” EDUARDO PORTER, 2/15/04, <http://www.nytimes.com/2004/02/15/weekinreview/15porter.html>

⁴¹ “Who Wins and Who Loses as Jobs Move Overseas?,” *New York Times*, 12/7/03, <http://www.nytimes.com/2003/12/07/business/yourmoney/07out.html>

⁴² “Nice Work If You Can Get It,” Robert B. Reich, *The American Prospect* Web Exclusive, 12/26/03, <http://www.prospect.org/webfeatures/2003/12/reich-r-12-26.html>

push wages back up.

It's for this reason that many say that outsourcing isn't a problem, and in fact say it's a good thing:⁴³

The movement, known as offshore outsourcing, is growing, Mr. Mankiw acknowledged. But he said it was "just a new way of doing international trade" and "a good thing" that would make the American economy more efficient and would free American workers to eventually get better jobs.

In this view, the future is bright indeed.⁴⁴

Greenspan and Mankiw have also both advanced the argument that the jobs shipped overseas in manufacturing in recent years are not lost forever because a dynamic U.S. economy will produce new jobs in different fields.

This "people will get new jobs" effect is shown in Figure 9. Note there is can be a significant delay associated with putting "workers in replacement U.S. jobs".

This balancing loop, **B3b, Regained U.S. Purchasing Power**, opposes the downward spiral of wages.

In addition, a fraction of the outsourced wages will be spent on U.S. products, creating balancing loop, **B4, Regained U.S. Purchasing Power from World Wages**.

However, this effect is smaller than in the past:⁴⁵

In past recoveries, companies stepped up their hiring in response to two other dynamics. As the economy improved, they invested in new machinery, computers and other capital goods to meet rising demand. The capital goods manufacturers in turn

added workers, who then spent their salaries on goods and services, and employment rose in these sectors, too.

The same dynamic is happening now, but a growing portion of the spending is going abroad, creating jobs in other countries rather than the United States. That is because the value of imported capital goods, measured as a percentage of total expenditures, excluding cars and trucks, rose to just under 40 percent last year from just over 30 percent in 1990 and 15 percent in 1980. Similarly, spending on imported consumer goods and services as a percentage of total outlays stands at 12 percent today, up from 7 percent in 1990 and 4 percent in 1980.

Figure 8. Continuing **Outsourcing, R1**, for the economy as a whole reduces prices. The benefit is that **Loop B2, Lower Prices, More Spending & Investing**, frees purchasing power for additional economic growth, which again pushes wages back up.

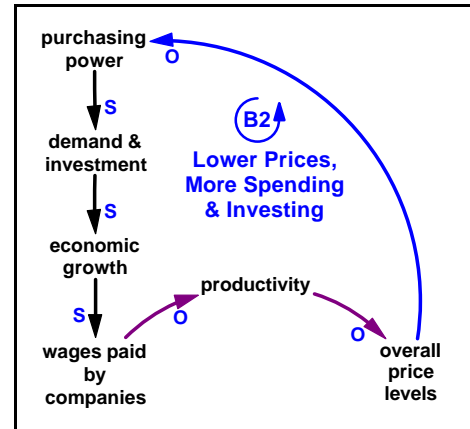
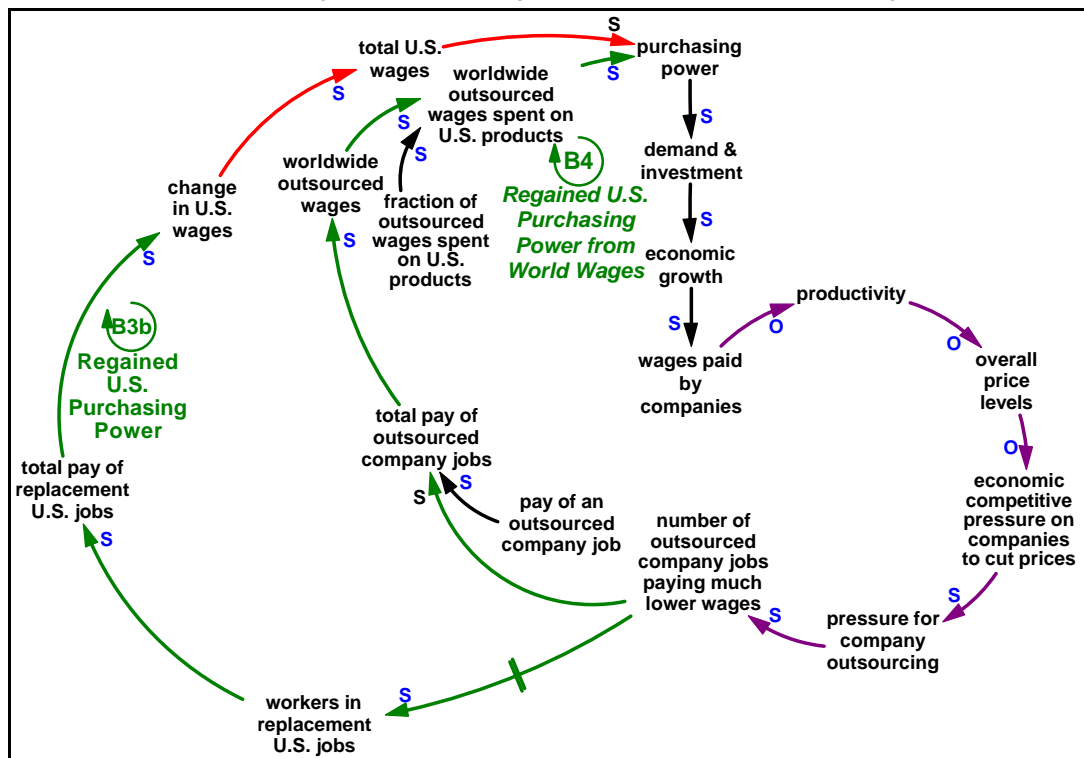


Figure 9. **Loop B3b, Regained U.S. Purchasing Power**, shows that workers find replacement U.S. jobs and the wages add purchasing power to oppose a downward wage spiral.



⁴³ "Many New Causes for Old Problem of Jobs Lost Abroad," *New York Times*, 2/15/04, <http://www.nytimes.com/2004/02/15/business/15JOBS.html>

⁴⁴ Bush Adviser Draws Ire for Job Comments, *The Associated Press*, 2/12/04, <http://www.nytimes.com/aponline/national/AP-White-House-Jobs.html>

⁴⁵ "New Patterns Restrict Hiring," LOUIS UCHITELLE, *New York Times*, 3/6/04, <http://www.nytimes.com/2004/03/06/business/06HIRE.html>

But these loops aren't all there is to it.

An adverse side-effect: Lower wages reduce purchasing power

Another effect is, as Daryl Ray points out in his column, "Jobless recovery: Another example of the fallacy of composition?":

With all of the good paying manufacturing and tech jobs being exported overseas, who is going

be able to afford to buy the computers, and blue jeans and running shoes? Not only could this create problems in the U.S., other countries could be hurt as well. As the income of U.S. consumers shrinks they will be able to afford fewer imports.

Figure 10. **Loop B3b, Regained U.S. Purchasing Power**, shows that workers find replacement U.S. jobs and the wages add purchasing power to oppose a downward wage spiral.

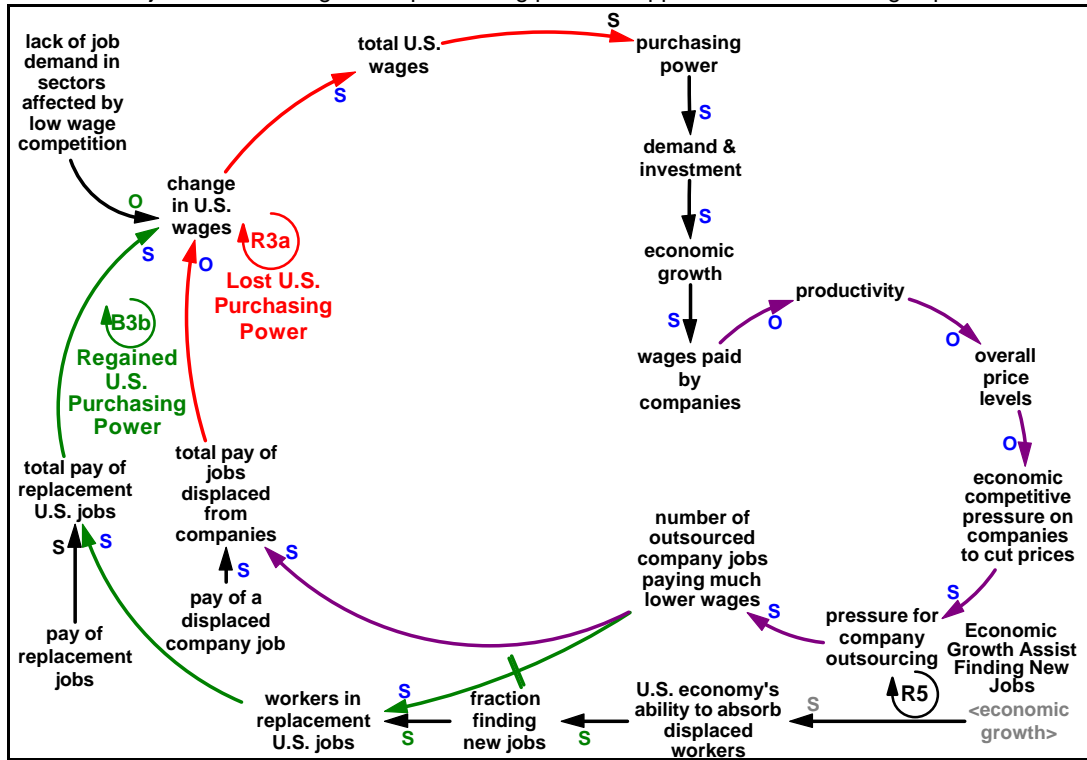


Figure 10 shows this effect by adding loop **R3a, Lost U.S. Purchasing Power**, where the wages of displaced jobs subtract from "purchasing power".

In addition, the assumption is that workers will find new jobs that are equivalent and everyone will gain. However, this is not the case. For example, Stephen S. Roach, managing director and chief economist of Morgan Stanley, notes:⁴⁶

Over the September to November [2003] period, employment has turned up, but many of those jobs came from the temporary hiring industry. These are service jobs, contingent workers without benefits and significantly lower pay scales.

The rise in temporary and contract jobs also reduces wages:⁴⁷

Temporary workers, in fact, are the fastest-growing segment of the work force, according to the Bureau of Labor Statistics. Since August, when employers finally began to add more jobs than they eliminated, temporary workers have led the parade. Temporary help jobs increased by 112,000 in this period, bringing the total to 2.37 million as of last month. That is up from virtually zero in the late 1970's.

Temporary workers, and their first cousins, contract workers, play a crucial role in a growing corporate practice. Companies increasingly divide their work forces into a core group of permanent, well-paid employees surrounded by less-skilled, lower-wage workers who can be brought in and sent away as demand fluctuates.

Josh Bivens, an economist with the Economic Policy Institute, a nonprofit research group in Washington notes:⁴⁸

The best research on what happens to people displaced from manufacturing is that they eventually find a new job, but they take an average wage cut of 13 to 14 percent. The people who are hit hardest are older workers. Also, it's not just the worker who is directly displaced from a sector that is hurt by international trade, it is also every other worker in the economy who has a similar skills profile.

Because the "pay of replacement jobs" is less than the "pay of a displaced company job", loop **R3a, Lost U.S.**

⁴⁶ "Who Wins and Who Loses as Jobs Move Overseas?," *New York Times*, 12/7/03, <http://www.nytimes.com/2003/12/07/business/yourmoney/07out.html>

⁴⁷ "New Patterns Restrict Hiring," LOUIS UCHITELLE, *New York Times*, 3/6/04, <http://www.nytimes.com/2004/03/06/business/06HIRE.html>

⁴⁸ "Who Wins and Who Loses as Jobs Move Overseas?," *New York Times*, 12/7/03, <http://www.nytimes.com/2003/12/07/business/yourmoney/07out.html>

Purchasing Power, is more powerful than loop **B3b, Regained U.S. Purchasing Power**.

Another factor is that the “fraction finding new jobs” is less than one because not all workers find new jobs ... the number of discouraged workers is rising.⁴⁹

The economy added just 21,000 jobs last month, the Labor Department reported today [3/5/04], down sharply from January’s gain and far below the type of increase that was common in the 1980’s and 1990’s. The unemployment rate held steady at 5.6 percent, mostly because many people have stopped looking for work since late last year, removing them from the governments official count of the unemployed. ...

Despite the meager job growth, the unemployment rate remained at 5.6 percent last month, down from 6.3 percent in June of last year. The decline is partly a mirage, many economists say, reflecting the large number of people who are not looking for work and thus not counted as unemployed. If the same portion of Americans were in the labor force last month as had been in June, the jobless rate would have been 6.4 percent last month.

Another factor is that there can be (and is currently) a long delay in finding a replacement job

Job creation all but stalled in February [2004], surprising Wall Street forecasters ...

The problems cut across much of the labor market. Manufacturers eliminated jobs for the 43rd consecutive month. Weekly wages for most of the workforce have risen less than 2 percent over the last year, roughly the rate of inflation. The average length of unemployment increased to 20.3 weeks, its highest level since 1984.

This was also noted by Op-Ed columnist, Paul Krugman on 2/10/04:⁵⁰

In the last three months, more than 40 percent of the unemployed have been out of work more than 15 weeks. That’s the worst number since 1983, and a sign that jobs remain very hard to find — which is what anyone who has lost a job will tell you.

One last statistic — not about jobs, but about wages. Since the last quarter of 2001, real G.D.P. has risen 7.2 percent. But wage and salary income, after adjusting for inflation, is up only 0.6 percent. This matches what the employer survey is telling us: America’s workers have seen very little benefit from this recovery.

These delays reduces U.S. wages paid.

Beyond this, as Bivens notes, wages are lower for “every other worker in the economy who has a similar skills profile” which is captured by the link from “lack of job demand in sectors affected by low wage competition” to “change in U.S. wages”.

Note that Figure 10 also shows loop **R5, Economic Growth Assist Finding New Jobs**. If “economic growth is high enough, it will increase the “fraction finding new jobs”, if not, it will decrease the “fraction finding new jobs”.

So which loops win?

Figure 11 shows the combined structures described. Loops **R1, Outsourcing**, and **R3a, Lost U.S. Purchasing Power**, will lead to a downward economic spiral unless balancing loops **B2, Lower Prices, More Spending & Investing**, **B3b, Regained U.S. Purchasing Power**, and **B4, Regained U.S. Purchasing Power from World Wages** are powerful enough.

It would take detailed analysis to determine which effects dominate. Here are some considerations.

The additional purchasing power derived from outsourcing is due to the reduction in wages, therefore the gains in purchasing power in loop B2 can’t be greater than this. And also, a large portion of the gains are distributed, not as price reductions, but in increased profits as that is the primary justification for outsourcing.

Because the wages of the jobs in the outsourced country are only a small fraction of the wages of the jobs lost, many of the jobs pay at a subsistence level, it’s unlikely that much of those wages will be returned to the U.S. economy. For example, this 2003 report by the Carnegie Endowment for International Peace observes:⁵¹

Though sorting out the exact causes is complicated, trends are clear. Real wages in Mexico are lower now than they were when the [NAFTA] agreement was adopted despite higher productivity, income inequality is greater there and immigration has continued to soar.

Below is a summary of the effects.

Positive effects:

- Lower outsourced wages reduces price levels and increases purchasing power that can be used for additional purchasing and investment, increasing economic growth.

⁴⁹ “Job Growth Stalls in February, Surprising Forecasters,” *New York Times*, 3/5/04, <http://www.nytimes.com/2004/03/05/business/05CND-ECON.html>

⁵⁰ “Jobs, Jobs, Jobs,” Paul Krugman, *New York Times*, 2/10/04, <http://www.nytimes.com/2004/02/10/opinion/10KRUG.html>

⁵¹ “Report finds few benefits for Mexico in Nafta,” *New York Times*, 11/19/03, <http://www.nytimes.com/2003/11/19/international/americas/19NAFT.html>

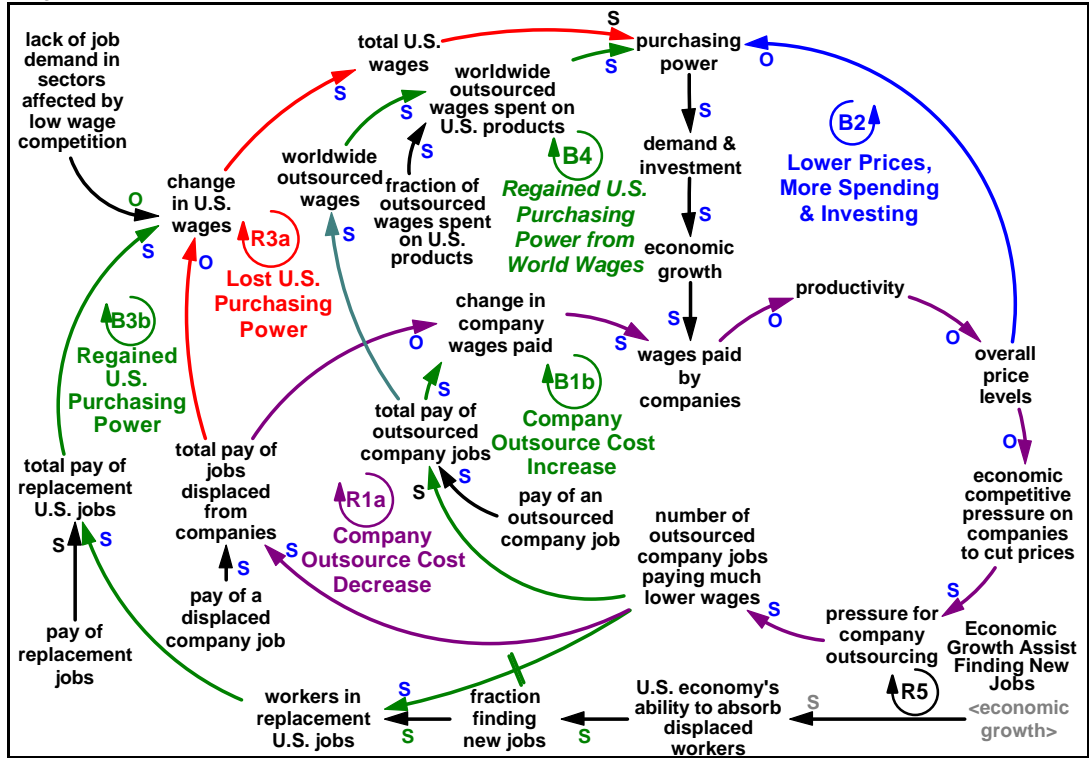
- Some outsourced wages are spent in the U.S.

Negative effects:

- Replacement jobs on average don't pay as much as the jobs lost, which reduces wages and U.S. purchasing power.
- An increasing number are not finding new jobs.
- Wages are depressed in sectors affected by low-wage job competition.
- There are increasingly long delays in finding new jobs.

Without more analysis, it doesn't appear to be obvious either way. However, I suspect the negatives outweigh the positives, especially considering that a \$500 billion, exponentially-increasing trade deficit cannot be sustained.

Figure 11. All structure combined



Appendix II: The Sustainability Institute

An Institute that deals with the sustainability challenge is the Sustainability Institute.⁵² It's described as:

A think-do tank dedicated to sustainable resource use, sustainable economics, and sustainable community. The Institute was founded in 1996 by the late Donella Meadows and is anchored on the philosophy that unsustainability does not arise simply out of ignorance, irrationality or greed. Unsustainability is the result of the collective consequences of rational, well-intended decisions made by people caught up in systems — ranging from families and communities to corporations, governments and economies — that make it difficult or even impossible to act in ways that are fully responsible to all who are impacted in the present and future.

Appendix III: The Links between NAFTA, Farm Policy, Outsourcing, Jobs in the U.S. and Mexico, and Overweight Americans

How farm policy and NAFTA promote outsourcing to Mexico and lead to overweight Americans

In working on a paper, *The Tangle of Growth*,⁵³ I developed a structure explaining falling farm commodity prices and increasing subsidies. Then I found testimony by Daryll E. Ray, University of Tennessee, that described exactly the behavior expected from the systems thinking structure I'd created.

How the influences play out for farming ... and affect outsourcing:

- Farmers under price pressure either don't earn enough or want to earn more.
- Each farmer makes a logical decision to increase land in production or invest in equipment to increase efficiency.
- A greater supply of farm commodities depresses market prices because demand is relatively inelastic (i.e., demand doesn't increase much as supply increases ... people who can afford food can only eat so much).
- Farm income falls due to depressed farm commodity prices.
- Farmers ask for price supports, subsidies and loans so they can keep farming and invest in equipment to increase efficiency to increase profits.
- This cycle continues to increase supply, depress prices and increase subsidies.
- Excess farm commodities are sold on the world market at low prices.
- World farm commodity prices are depressed.
- NAFTA opened markets in Mexico to farm commodities at low prices.
- Mexican farmers can't make a living farming because of depressed prices.
- Mexican farmers leave farming and move to cities and are willing to work for poverty wages.
- U.S. jobs move to Mexico because of the abundant supply of cheap Mexican labor.
- U.S. workers displaced to lower wage jobs need assured supplies of inexpensive food.
- Congress is under pressure to maintain farm subsidies to assure low prices.
- Cheap food leads to restaurants encouraging us to "upersize."⁵⁴
- Americans gain weight.

The story below describes this effect on subsistence farmers in Mexico due to U.S. farm subsidies. That NAFTA failed to generate jobs in Mexico may be due to the displacement of subsistence farmers and the shifting of jobs from Mexico to China.⁵⁵

As the North American Free Trade Agreement nears its 10th anniversary, a study from the Carnegie Endowment for International Peace [described in the story as "an independent, Washington-based research institute"] concludes that the pact failed to generate substantial job growth in Mexico, hurt hundreds of thousands of subsistence farmers there and had "minuscule" net effects on jobs in the United States.

The report seeks to debunk both the fears of American labor that Nafta would lure large numbers of jobs to low-wage Mexico, as well as the hopes of the trade deal's proponents that it would lead to rising wages, as well as declines in income inequality and illegal immigration.

Though sorting out the exact causes is complicated, trends are clear. Real wages in Mexico are lower now than they were when the agreement was adopted despite higher productivity, income inequality is greater there and immigration has continued to soar.

"On balance, Nafta's been rough for rural Mexicans," said John J. Audley, who edited the report. "For the country, it's

⁵² <http://www.sustainabilityinstitute.org>

⁵³ <http://www.exponentialimprovement.com/cms/TangleOfGrowth.shtml>. See the Appendix to *The Tangle of Growth* on "The Squeeze on Farmers" that explains the structural causes of increasing farm subsidies.

⁵⁴ The last two bullets in the sequence were explained on NPR's "Living on Earth" program (<http://www.loe.org/>) during the last weekend of January in a story on "Factory Farms & the Politics of Food." These two effects were mentioned: "Pollan also tells LOE about how the increase of corn production for cattle and the marketing of super-size products have contributed to the problem of American obesity." http://www.loe.org/ETS/organizations.php3?action=printNewestContentItem&orgid=33&typeID=18&templateID=56&User_Session=6469fa2379f9f6255b45fa9005e232a4

⁵⁵ "Report finds few benefits for Mexico in Nafta," *New York Times*, 11/19/03, <http://www.nytimes.com/2003/11/19/international/americas/19NAFT.html>

probably a wash. It takes more than just trade liberalization to improve the quality of life for poor people around the world.”

...

Trade negotiators for Central and South American countries, they said, should bargain for more gradual tariff reductions on corn, rice and beans — the staples of subsistence farming — to give peasants time to adjust to tough competition from large, highly efficient and heavily subsidized American farmers.

Carnegie’s researchers also say developing countries should push international donors and rich countries to finance transitional assistance for the retraining of workers and farmers displaced by global competition.

Developing countries should also seek greater leeway to promote the use of domestic suppliers in manufacturing over imported components — a step that would increase job creation, the authors say.

The Carnegie report argues that the growth in manufacturing resulting from the trade agreement was largely offset by lost employment among rural subsistence farmers, who were adversely affected by falling prices for their crops, especially corn — a problem intensified by the Mexican government’s decision to lower tariff barriers to American-grown corn even more rapidly than the agreement required.

It’s disturbing that “Real wages in Mexico are lower now than they were when the agreement was adopted despite higher productivity,” as that’s a major rationale for “free trade” agreements.

NAFTA and Jobs in the U.S.

NAFTA has resulted in net job losses in every state. For example, in Colorado, from 1993 to 2002 job gains have been 9,354 and job losses 19,684 for a net job loss of 10,330; and in New Mexico, job gains have been 4737 and job losses 9,310 for a net job loss of 4,573.⁵⁶

Despite the net losses, “export-related job growth” tends to be cited ... and even this proponent notes the lack of job creation in Mexico and that immigration hasn’t abated.⁵⁷

“It has definitely created export-related job growth,” said Bill Richardson, the governor of New Mexico. As the Democratic whip, he helped pushed through passage of Nafta in the House.

“On the whole Nafta’s been a plus, but still, with a lot of alarmingly bad follow-up on commitments made on the border,” he said. Promises to protect workers’ rights and the environment have “failed alarmingly.” So have pledges to close the economic gap between the United States and Mexico.

“The whole idea that Nafta would create jobs on the Mexican side and thus deter immigration has just been dead wrong,” he said. “That was oversold.”

...

Few manufacturers have been able to resist the seemingly tidal pull of globalization that includes Nafta. One is Gerald A. Trolz, a local hero because he would not sell or relocate Goshen Stamping, his small hardware manufacturing firm, even after his main customer moved to Mexico and half his sales went with it.

He said the only reason he has been able to keep his firm in Goshen is that he owns it: he does not answer to stockholders. “The experts don’t see what’s happening here, on the shop floor, so it’s easy for them to say that Nafta was good or bad,” Mr. Trolz said. “Until this levels out, it is just plain havoc.”

The increasing competition from cheap labor abroad has deepened a decades-old trend toward depressed wages, as has another unexpected impact of Nafta the arrival here of hundreds of Mexican migrants looking for work.

An excess of labor supply over demand will maintain downward pressure on wages in countries such as Mexico and China for some time. Stephen Roach.⁵⁸

China for all practical purposes has an infinite supply of labor: 400 million in its urban population and another 900 million in the rural area. The average wage of a Chinese worker is still 2.5 to 3 percent of the counterpart in the developed world. Those are disparities that will be around for a long time.

⁵⁶ “The high price of ‘free’ trade, NAFTA’s failure has cost the United States jobs across the nation,” Robert E. Scott, EPI Briefing Paper #147, Economic Policy Institute, 12/17/03, http://www.epinet.org/content.cfm/briefingpapers_bp147

⁵⁷ “Free Trade Accord at 10: Growing Pains Are Clear, *New York Times*,” 12/27/03, <http://www.nytimes.com/2003/12/27/international/americas/27NAFT.html>

⁵⁸ “Who Wins and Who Loses as Jobs Move Overseas?,” *New York Times*, 12/7/03, <http://www.nytimes.com/2003/12/07/business/yourmoney/07out.html>