Competitiveness and Productivity

Intermediate Macroeconomics - UCLA - Econ 102

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UCLA

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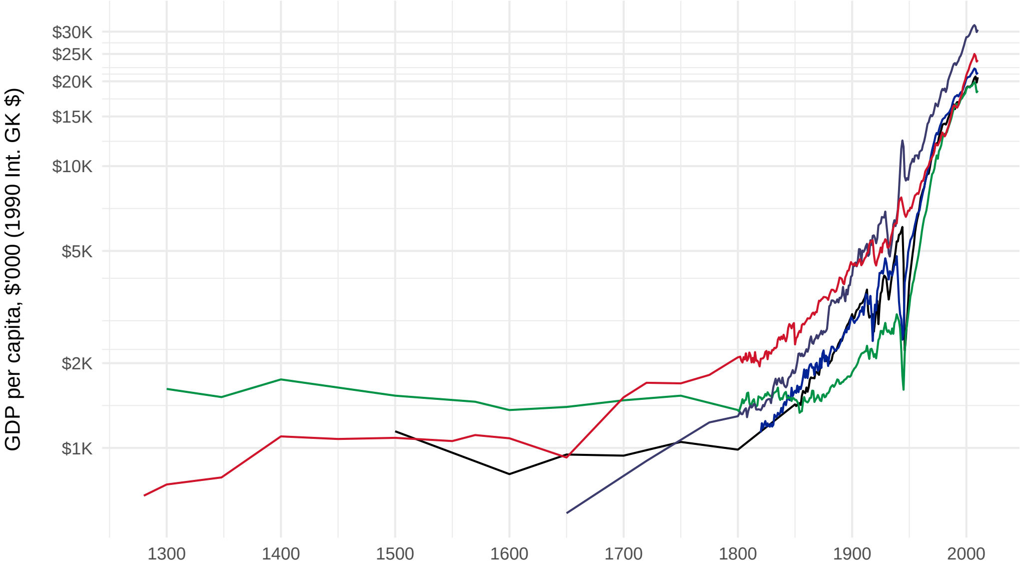
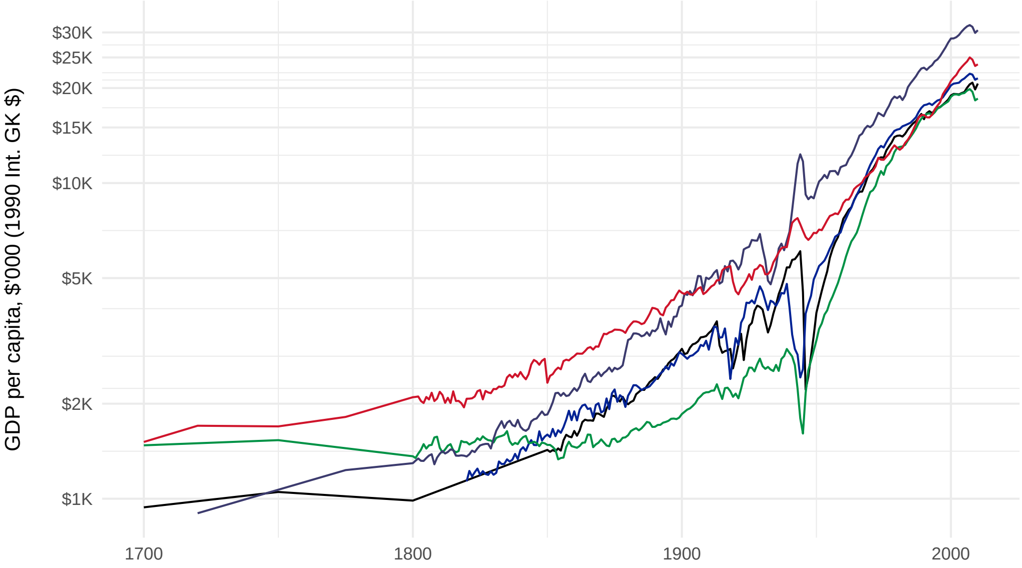
Section 1

Growth

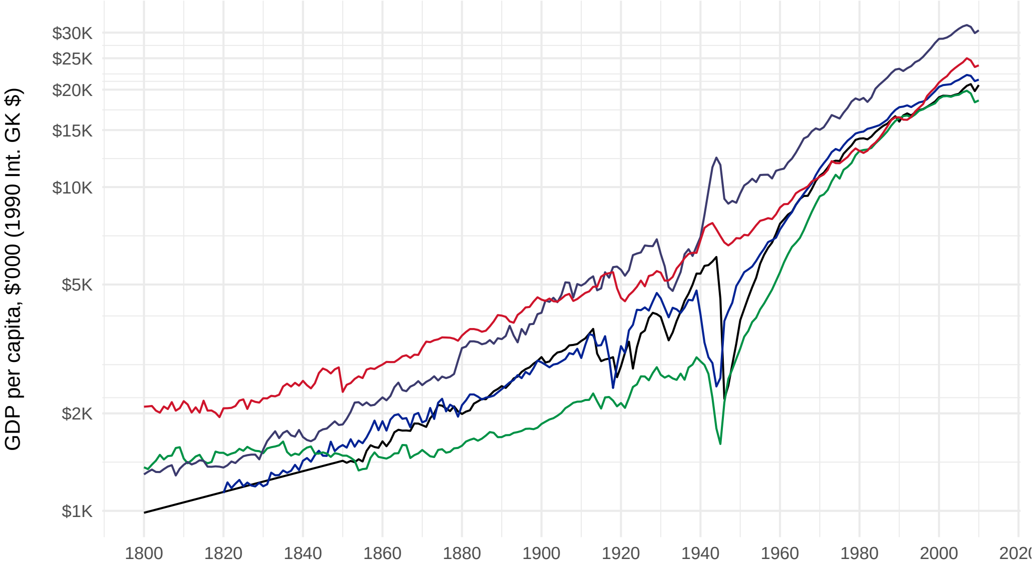
Maddison Data 1200-2010



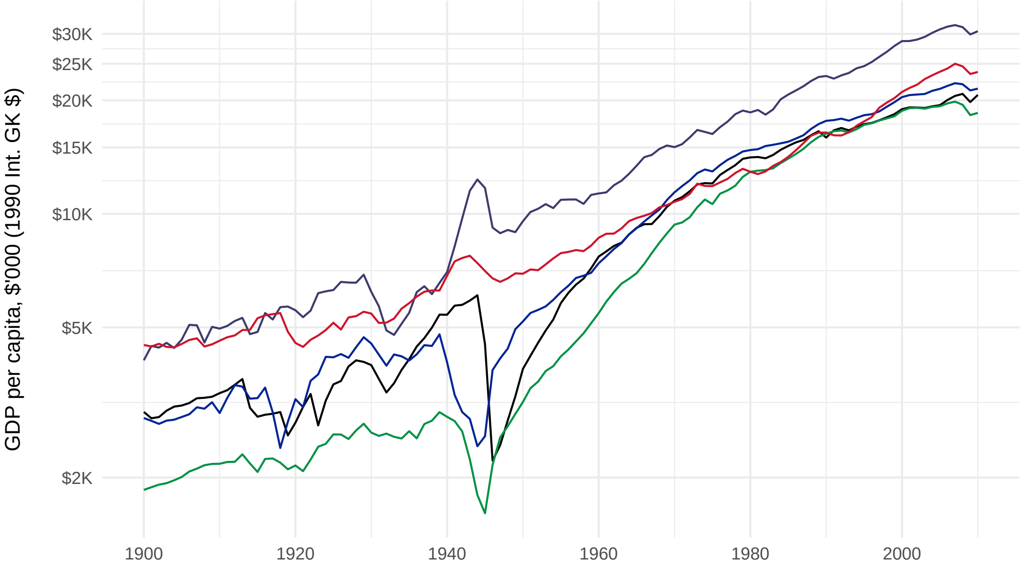
Maddison Data 1700-2010



Maddison Data 1800-2010



Maddison Data 1900-2010



Rodrik (2005) - GDP Per Capita

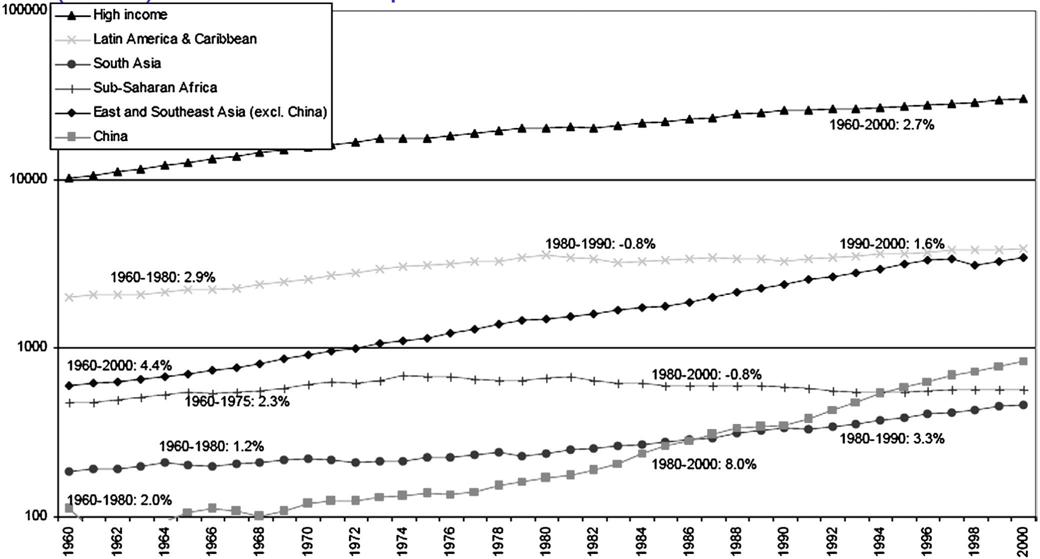


Figure 1. GDP per capita by country groupings (1995 US$).

Structural reform index

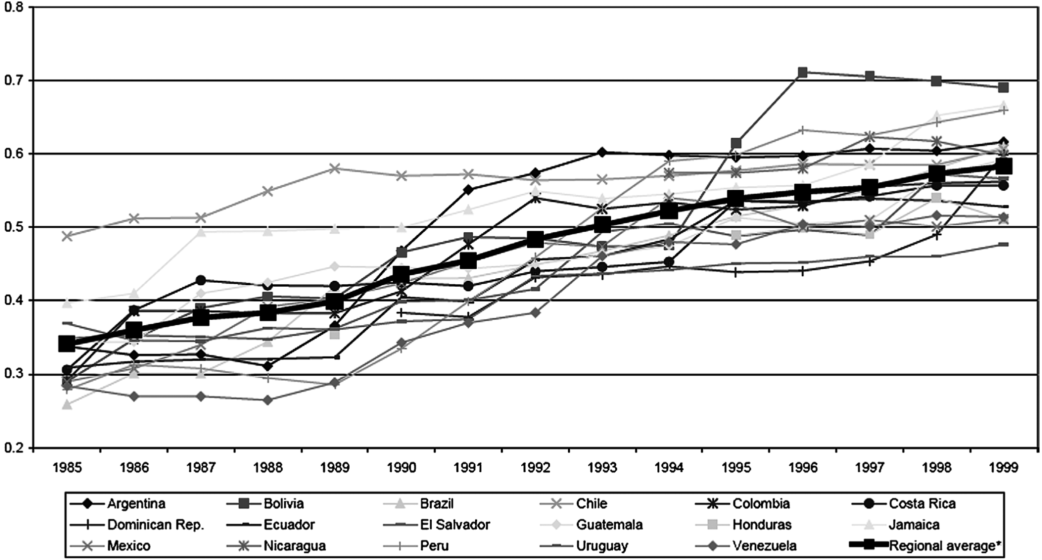


Figure 2. Structural reform index for Latin American countries. Source: Lora (2001a)

Section 2

Cross-section of Countries

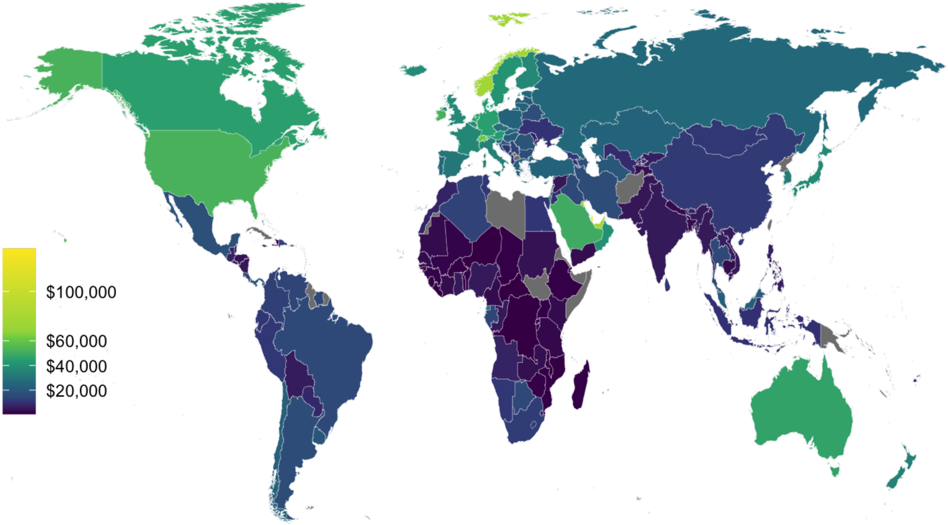
Countries with GDP per capita lower than $1.5K

Country	GDP per capita
Ethiopia	$ 1,489
Togo	$ 1,446
Sierra Leone	$ 1,353
Guinea-Bissau	$ 1,257
Madagascar	$ 1,237
Mozambique	$ 1,211
D.R. of the Congo	$ 1,199
Malawi	$ 971
Liberia	$ 877
Niger	$ 868
Burundi	$ 840
Central African Republic	$ 599

Countries with GDP per capita higher than $40K

Country	GDP per capita
Qatar	$ 146,037
China, Macao SAR	$ 130,758
Norway	$ 75,920
United Arab Emirates	$ 68,021
Kuwait	$ 67,432
Brunei Darussalam	$ 66,968
Singapore	$ 66,050
Luxembourg	$ 65,842
Switzerland	$ 61,570
United States	$ 51,623
Ireland	$ 51,224
Netherlands	$ 47,392
Saudi Arabia	$ 46,772
Germany	$ 46,190
China, Hong Kong SAR	$ 45,399
Austria	$ 45,158
Denmark	$ 43,733
Australia	$ 43,590
Canada	$ 42,794
Sweden	$ 42,117
Taiwan	$ 41,514

2014 GDP per capita (Penn World Tables)



Section 3

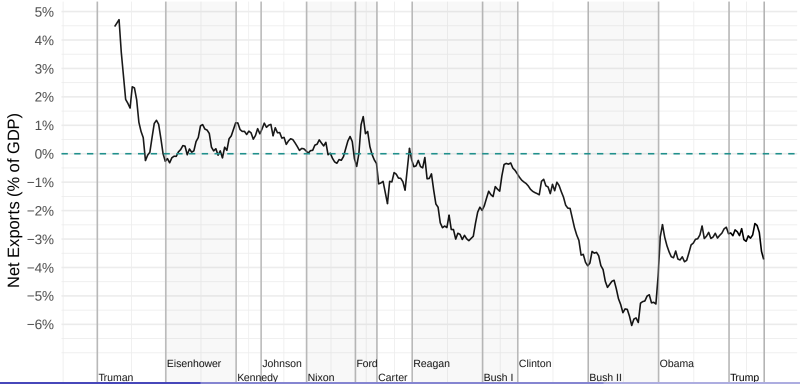
Issues with Competitiveness ?

Net Exports

Net Exports (% of GDP)
5%
4%
3%
2%
1%
0%
−1%
−2%
−3%
−4%
−5%
−6%
Truman
Eisenhower
Kennedy
Johnson
Nixon
Ford
Carter
Reagan
Bush I
Clinton
Bush II
Obama
Trump
45
53
61
63
69
74
77
81
89
93
01
09
17
21

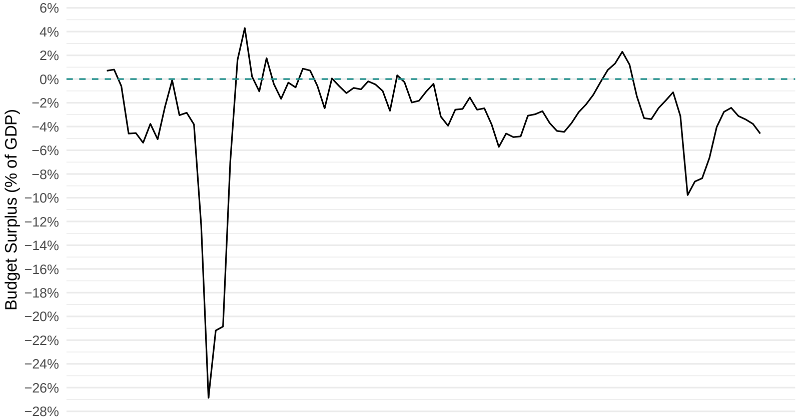
Warning

- Trade deficits since the end of the convertibility.
- Warning - I am **more worried about trade deficits and manufacturing decline than most economists**.
- *The Economist* magazine says that Germany's surpluses are a threat to free trade).



Budget Surpluses

- Most of the time budget surpluses are negative. (except briefly under Bill Clinton)
- Often, large trade deficits are blamed on too large budget deficits. If the U.S. is unhappy about its trade deficits, then it should simply save more, that is do less government deficits.



Nixon's worries about competitiveness

Source: Binyamin Appelbaum - The Economists' Hour: False Prophets, Free Markets, and the Fracture of Society

> together. By the early 1970s, the American economy was faltering — and Japan and West Germany were resurgent. "We can't compete in making cars, or making steel, or making airplanes," President Nixon fretted. "So are we going to end up just making toilet paper and toothpaste?"[27] Nixon and his successors, Gerald Ford and Jimmy Carter, kept trying the interventionist prescriptions of the Keynesians until even some of the Keynesians threw up their hands. Juanita Kreps, an economist who served as Carter's commerce secretary, told the *Washington Post* when she stepped down in 1979 that her confidence in Keynesian economics was so badly shaken that she did not plan to return to her position as a tenured professor at Duke University. "I don't know what I would teach," she said. "You do lose faith in the catechism."[28]

Activist "hands-on" approach is no longer working

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# [1] "Link to the video:"
# [1] "https://fgeerolf.com/econ102/handouts/competitiveness.html"
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Juanita Kreps & Carter's problems with Keynesianism

JUANITA M. KREPS
. . . doubts economic dogma

Kreps: Introspective Farewell

By Hobart Rowen
Washington Post Staff Writer

Juanita M. Kreps, who wound up her Cabinet career yesterday as President Carter's secretary of commerce, is leaving town with the feeling that the president's economic advisers "have not served him as well as we might have."

She says she was excluded from a major role in economic-policy formulation "by the boys at the breakfast table" who managed Carter's top-level Economic Policy Group, and she deeply resents that exclusion, although she readily concedes that her participation would not likely have made much difference in results.

"I felt a keen sense of pecking order among certain of my colleagues," she said in an interview Wednesday. If she had to do it over again, she smiled, "I would be more flamboyant . . . I would have come into town clanging bells a bit."

The failure of economists in and out of government to understand the pervasive "inflationary bias" of the last several years has raised so many professional questions in her mind that Kreps is resigning her richly endowed teaching position at Duke University, to which she had the right to return. She was an economic professor and vice president there before joining the Carter team.

Now 58, Kreps said, "I've been teaching since I was 20, and to tell you the truth, I don't know what I would teach now . . . . You do lose faith in the catechism after a while."

Even Brookings economist Arthur M. Okun, creator of the famed "Okun's Law" that is supposed to predict the unemployment rate,

See KREPS, A4, Col. 1

"You Lose Faith" in Economic Dogma

Juanita Kreps' Introspective Farewell: 'You Lose Faith' in Economic Dogma

KREPS, From A1

"doesn't know why it isn't going up faster," she said.

"According to Okun's Law, which I have been teaching for the last half-decade, the unemployment rate should be much higher than we're getting. And when I ask him — dear Art — he's as puzzled as the rest of us, and he's been the best thinker we've had on that subject," Kreps said.

She agreed with a statement made by former treasury secretary W. Michael Blumenthal to the effect that the Carter administration's basic error was in underestimating inflation, and worrying too much about unemployment instead.

In addition, she said "our common mistake was being too short-range in our attention. All of us concentrated on [things like] this week's CPI number, rather than the fundamental problems of, say, productivity declines."

record is darn good," she volunteered.

Her basic reason for leaving is her husband's health problem. "It would not be in the best interests of my family" to complete the four-year term, she said. She plans "to make a living" by serving on corporate boards of directors, and will maintain some academic tie.

Kreps comes away with "heightened respect" for Carter. She says she always had access to him, and "never for an instant" had the kind of communications problems with Hamilton Jordan and Jody Powell that Blumenthal has complained about. "They knew, and the president knew," Kreps said, "that I was completely dedicated to what he was doing, and that once a decision was made, I would not second-guess it."

Her chagrin at being shut out of the Economic Policy Group process is undisguised. She attributes the exclusion to the fact that she was secretary of commerce, a department that was

In retrospect, she thinks that a low-key, substantive approach "does not pay off in Washington. Rather, the fellow who can hold an audience, who can go with a minimum of information and a maximum of political savvy —that's the way to get ahead in Washington," Kreps concluded.

She has a very positive and upbeat view of Carter, sharply contrasting with the negative picture of an inefficient leader drawn by former speech writer James Fallows and others.

In terms of Carter's reliance on fellow Georgians, such as Jordan and Powell, she said: "Each of us is comfortable, I think, with the people we've worked with for a long time, and there is a terrifying quality to coming to Washington for a major job."

But Kreps conceded that Carter should also have "reached out for a

Juanita Kreps Short Video (with Kuznetsov and Blumenthal)

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# [1] "Link to the video:"
# [1] "https://fgeerolf.com/econ102/handouts/competitiveness.html"
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Secretary of Commerce

Commerce was perhaps the most unglamorous, thankless job in the cabinet: managing 38,000 employees and an oracular mandate to promote economic growth while taking the census, forecasting the weather, recording patents and trademarks, standardizing weights and measures, charting seas, collecting statistics on the nation's output of goods and services, and managing $6 billion in public works projects.

Like her predecessors, Dr. Kreps was an advocate for the business community, promoting exports, international trade and domestic commerce amid rising inflation and unemployment. She became the nation's traveling saleswoman, taking trade missions to the Soviet Union, Europe, Africa and Asia. In 1979, she negotiated a historic trade agreement with China.

While not in the inner circle of Carter advisers, she gave the president a crucial boost when his standing with business had ebbed, organizing meetings for him with corporate leaders in 1977 to map anti-inflation and economic strategies. Talk of a crisis in business confidence waned, and many executives, though skeptical at first, came to regard Dr. Kreps as an ally.

Academic Career

Her specialty, the labor demographics of women and older workers, infused her articles and books, including “Sex in the Marketplace: American Women at Work” (1971), which examined employment discrimination and the burdens of working women with families; “Lifetime Allocation of Work and Leisure: Essays in the Economy of Aging” (1971); and “Women and the American Economy” (1976).

Like many women she wrote about, Dr. Kreps faced conflicts between her private and public lives. When President Carter offered her the cabinet post, a family discussion ensued. Her children were grown, but her husband could not leave his post as Wachovia professor of banking at the University of North Carolina, Chapel Hill.

Her Washington experience proved to be exhilarating but lonely, Dr. Kreps told The New York Times in 1977. She went home to Durham almost every weekend, but travel and other duties limited her family contacts.

In June 1979, her husband suffered what the police called a self-inflicted gunshot wound to the head. He survived, and a few months later, Dr. Kreps resigned and returned to Duke, where she retired as vice president emerita.

In 1985, Duke established the Juanita and Clifton Kreps chair in economics. In later years, she served on government commissions and was the recipient of many awards and 15 honorary degrees.

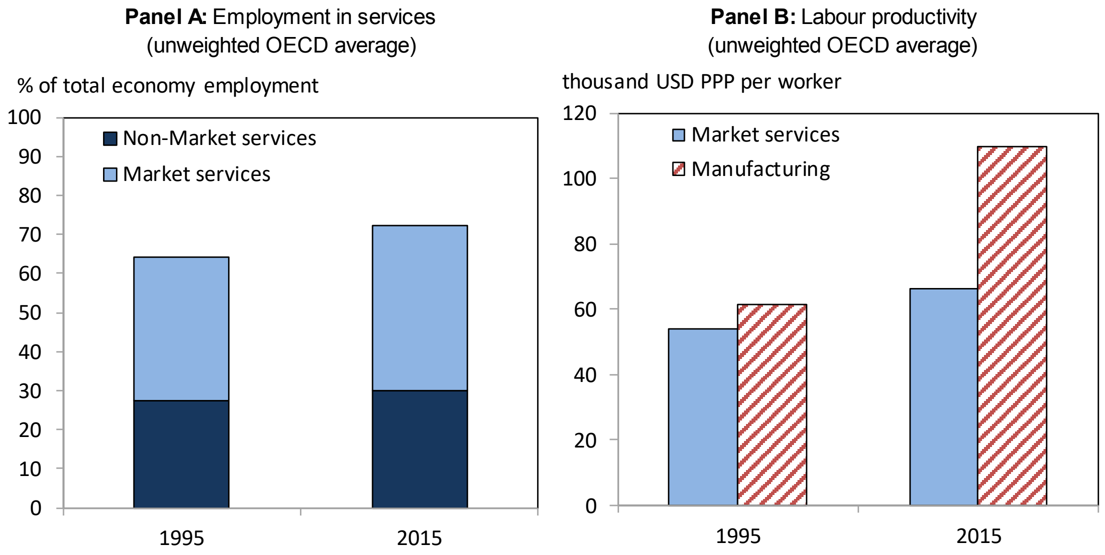
Section 4

Baumol (1967); Baumol (1968)

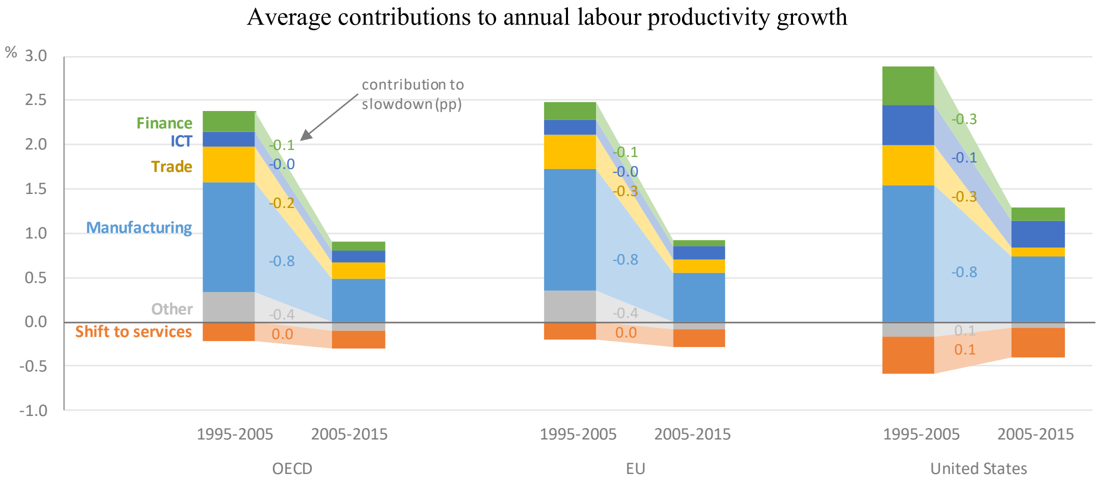
Idea

- Services industry sees less rapid productivity gains.
- Therefore, services are an increasingly larger share of the economy.
- This is an important fact, because some deindustrialization is needed.

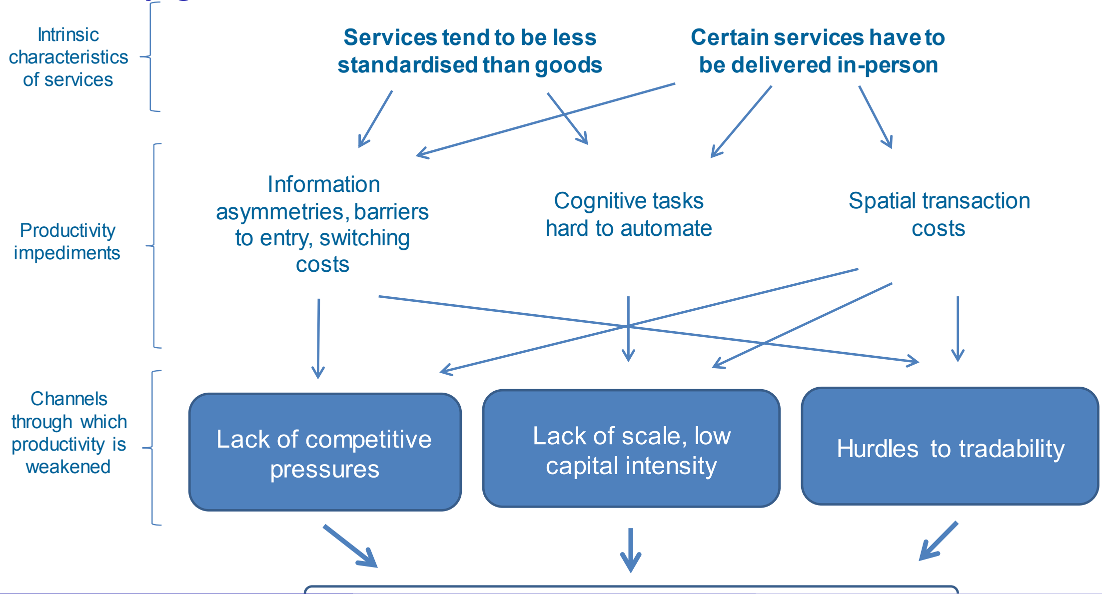
Productivity gains low in Services



Manufacturing Productivity

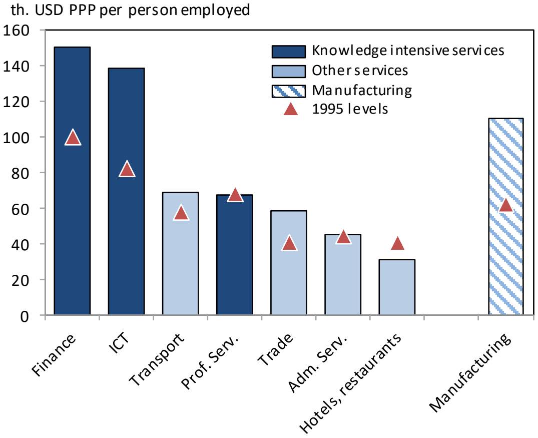


Productivity gains low in Services

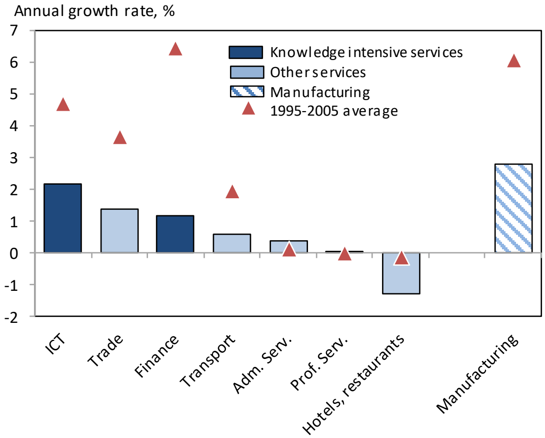


Productivity gains low in Services

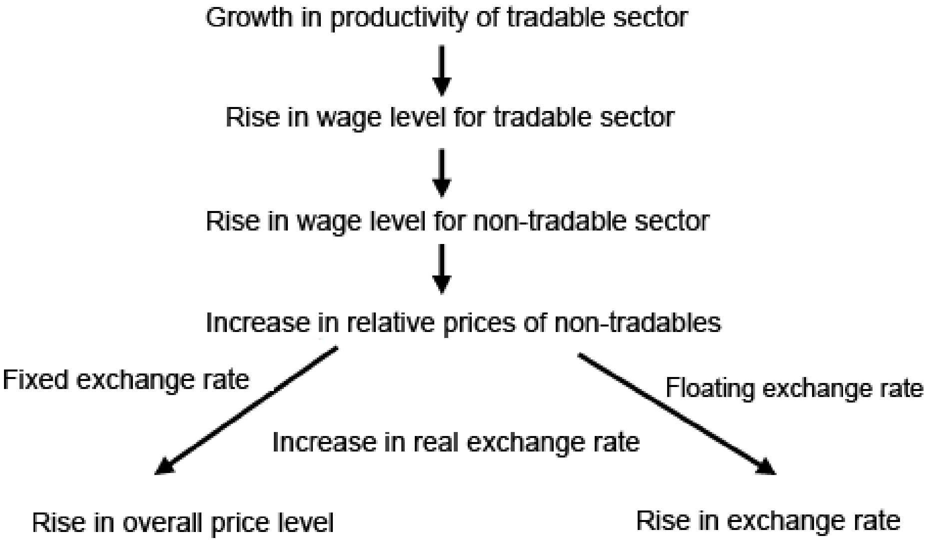
Panel A: Labour productivity levels (2015)



Panel B: Labour productivity growth rates (2005-2015)



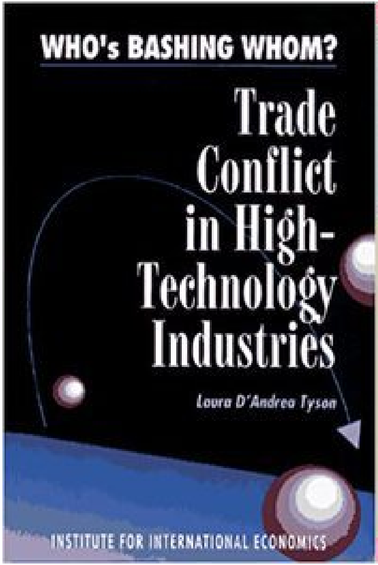
Balassa-Samuelson Effect

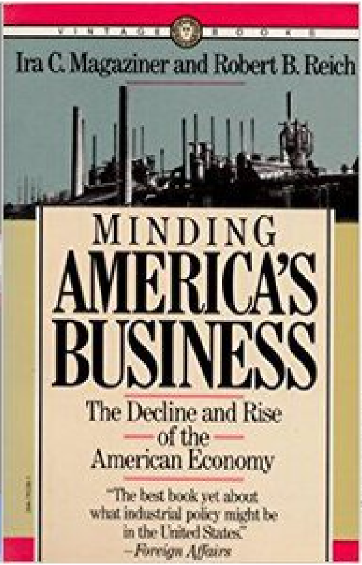


Section 5

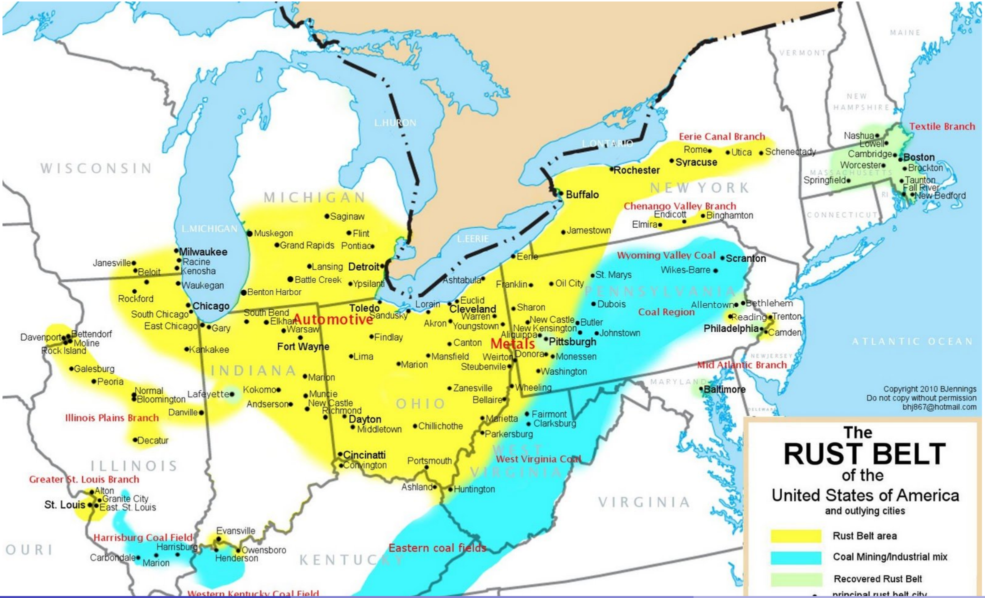
1980s: Reagan, The Rust Belt, etc.

1990s: Rising Japan - Books





The Rust Belt



Plaza Accords

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# [1] "Link to the video:"
# [1] "https://fgeerolf.com/econ102/handouts/competitiveness.html"
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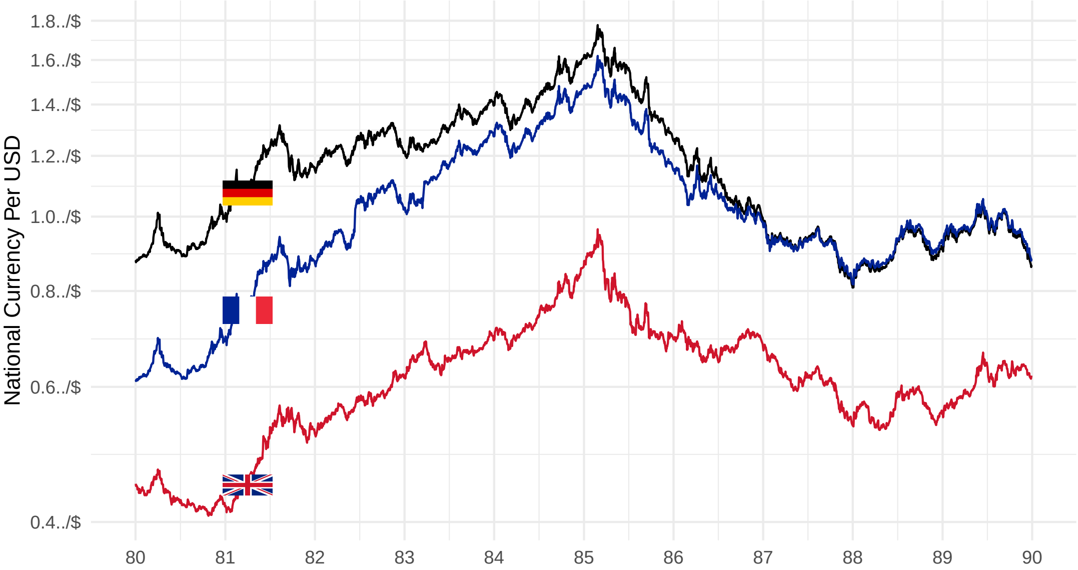
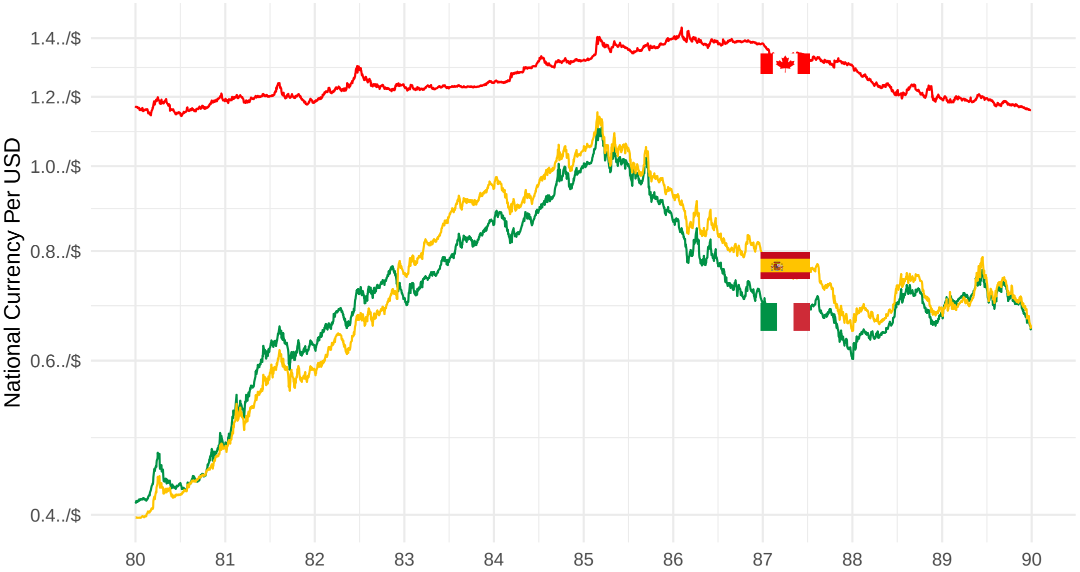
Xrates against US. Dollar (1980-1990)



Xrates against US. Dollar (1980-1990)



Xrates around Plaza Accords (1980-1990)

Section 6

Porter (1990) - The Competitive Advantage of Nations

Title

INTERNATIONAL BUSINESS

The Competitive Advantage of Nations

by Michael E. Porter

From the March–April 1990 Issue

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National prosperity is created, not inherited. It does not grow out of a country's natural endowments, its labor pool, its interest rates, or its currency's value, as classical economics insists.

Why do some nations succees and other fail?

Why do some nations succeed and others fail in international competition? This question is perhaps the most frequently asked economic question of our times. Competitiveness has become one of the central preoccupations of government and industry in every nation. The United States is an obvious example, with its growing public debate about the apparently greater economic success of other trading nations. But intense debate about competitiveness is also taking place today in such "success story" nations as Japan and Korea.[1] Socialist countries such as the Soviet Union and others in Eastern Europe and Asia are also asking this question as they fundamentally reappraise their economic systems.

Germany

How can we explain why Germany is the home base for so many of the world's leading makers of printing presses, luxury cars, and chemicals? Why is tiny Switzerland the home base for international leaders in pharmaceuticals, chocolate, and trading? Why are leaders in heavy trucks and mining equipment based in Sweden? Why has America produced the preeminent international competitors in personal computers, software, credit cards, and movies? Why are Italian firms so strong in ceramic tiles, ski boots, packaging machinery, and factory automation equipment? What makes Japanese firms so dominant in consumer electronics, cameras, robotics, and facsimile machines?

Horizontal Competitiveness

The Competitive Advantage of Nations rejected industrial policy. All clusters can support prosperity if they can be productive. Instead of targeting particular industries, all a nation's existing and emerging clusters deserve attention. Government should not get involved in the competitive process—its role is to improve the environment for productivity, for example, by improving the quality and efficiency of business inputs and infrastructure and creating policies and a regulatory context that stimulate upgrading and innovation. While industrial policy seeks to distort competition in favor of a particular location, diamond theory seeks to remove constraints to productivity growth. While industrial policy rests on a zero-sum view of international competition, diamond theory is based on a positive-sum world in which productivity improvement will expand the market and in which many nations can prosper if they can become more productive and innovative.

Section 7

Krugman (1994) - Does competitiveness exist?

Lester Thurow

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# [1] "Link to the video:"
# [1] "https://fgeerolf.com/econ102/handouts/competitiveness.html"
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Bill Clinton's speech

- Bill Clinton talks about Lester Thurow's book. html
  In his most recent book, "Head to Head," the economist Lester Thurow (sp) argues that there are ***seven major areas of technology*** *which will produce the lion's share of the high-wage, high-growth jobs of the 21st century, at least as far as we can see into that century, that aerospace is one of those areas, and that a nation with a stake in any of these technologies gives it up only at its peril. We have enjoyed an enormously positive position in aerospace for a long time now, but if you look at our airlines, the airlines alone have lost as much money in the last four years as they made in the previous 60.*

Clinton's economic advisors

Paul Krugman

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# [1] "Link to the video:"
# [1] "https://fgeerolf.com/econ102/handouts/competitiveness.html"
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Foreign Policy Piece

Competitiveness: A Dangerous Obsession

Paul Krugman

Critiques of Books

[1] See, for just a few examples, Laura D'Andrea Tyson, *Who's Bashing Whom: Trade Conflict in High-Technology Industries,* Washington: Institute for International Economics, 1992; Lester C. Thurow, *Head to Head: The Coming Economic Battle among Japan, Europe, and America,* New York: Morrow, 1992; Ira C. Magaziner and Robert B. Reich, *Minding America's Business: The Decline and Rise of the American Economy,* New York: Vintage Books, 1983; Ira C. Magaziner and Mark Patinkin, *The Silent War: Inside the Global Business Battles Shaping America's Future,* New York: Vintage Books, 1990; Edward N. Luttwak, *The Endangered American Dream: How to Stop the United States from Becoming a Third World Country and How to Win the Geo-economic Struggle for Industrial Supremacy,* New York: Simon and Schuster, 1993; Kevin P. Phillips, *Staying on Top: The Business Case for a National Industrial Strategy,* New York: Random House, 1984; Clyde V. Prestowitz, Jr., *Trading Places: How We Allowed Japan to Take the Lead,* New York: Basic Books, 1988; William S. Dietrich, *In the Shadow of the Rising Sun: The Political Roots of American Economic Decline,* University Park: Pennsylvania State University Press, 1991; Jeffrey E. Garten, *A Cold Peace: America, Japan, Germany, and the Struggle for Supremacy,* New York: Times Books, 1992; and Wayne Sandholtz et al., *The Highest Stakes: The Economic Foundations of the Next Security System,* Berkeley Roundtable on the

Delors and competitiveness / high technology

Guess what? Delors didn't confront the problems of either the welfare state or the EMS. He explained that the root cause of European unemployment was a lack of competitiveness with the United States and Japan and that the solution was a program of investment in infrastructure and high technology.

Trade is not important ?

Consider, for a moment, what the definition would mean for an economy that conducted very little international trade, like the United States in the 1950s. For such an economy, the ability to balance its trade is mostly a matter of getting the exchange rate right. But because trade is such a small factor in the economy, the level of the exchange rate is a minor influence on the standard of living. So in an economy with very little international trade, the growth in living standards—and thus "competitiveness" according to Tyson's definition—would be determined almost entirely by domestic factors, primarily the rate of productivity growth. That's domestic productivity growth, period—not productivity growth relative to other countries. In other words, for an economy with very little international trade, "competitiveness" would turn out to be a funny way of saying "productivity"

Why is that not true ?

[2] An example may be helpful here. Suppose that a country spends 20 percent of its income on imports, and that the prices of its imports are set not in domestic but in foreign currency. Then if the country is forced to devalue its currency—reduce its value in foreign currency—by 10 percent, this will raise the price of 20 percent of the country's spending basket by 10 percent, thus raising the overall price index by 2 percent. Even if domestic *output* has not changed, the country's real *income* will therefore have fallen by 2 percent. If the country must repeatedly devalue in the face of competitive pressure, growth in real income will persistently lag behind growth in real output.

It's important to notice, however, that the size of this lag depends not only on the amount of devaluation but on the share of imports in spending. A 10 percent devaluation of the dollar against the yen does not reduce U.S. real income by 10 percent—in fact, it reduces U.S. real income by only about 0.2 percent because only about 2 percent of U.S. income is spent on goods produced in Japan.

Reducing the trade surplus

Trade Deficits and the Loss of Good Jobs. In a recent article published in Japan, Lester Thurow explained to his audience the importance of reducing the Japanese trade surplus with the United States. U.S. real wages, he pointed out, had fallen six percent during the Reagan and Bush years, and the reason was that trade deficits in manufactured goods had forced workers out of high-paying manufacturing jobs into much lower-paying service jobs.

This is not an original view; it is very widely held. But Thurow was more concrete than most people, giving actual numbers for the job and wage loss. A million manufacturing jobs have been lost because of the deficit, he asserted, and manufacturing jobs pay 30 percent more than service jobs.

Back of the envelope calculation

Both numbers are dubious. The million-job number is too high, and the 30 percent wage differential between manufacturing and services is primarily due to a difference in the length of the workweek, not a difference in the hourly wage rate. But let's grant Thurow his numbers. Do they tell the story he suggests?

The key point is that total U.S. employment is well over 100 million workers. Suppose that a million workers were forced from manufacturing into services and as a result lost the 30 percent manufacturing wage premium. Since these workers are less than 1 percent of the U.S. labor force, this would reduce the average U.S. wage rate by less than 1/100 of 30 percent—that is, by less than 0.3 percent.

This is too small to explain the 6 percent real wage decline *by a factor of 20*. Or to look at it another way, the annual wage loss from deficit-

Facts

Well, *Minding America's Business* contains a lot of facts. One thing it never does, however, is actually justify the criteria set out in the introduction. The choice of industries to cover clearly implied a belief among the authors that high value-added is more or less synonymous with high technology, but nowhere in the book do any numbers compare actual value-added per worker in different industries.

Such numbers are not hard to find. Indeed, every public library in America has a copy of the *Statistical Abstract of the United States,* which each year contains a table presenting value-added and employment by industry in U.S. manufacturing. All one needs to do, then, is spend a few minutes in the library with a calculator to come up with a table that ranks U.S. industries by value-added per worker.

Value Added Per Worker, 1988
(in thousands of dollars)

CIGARETTES	488
PETROLEUM REFINING	283
AUTOS	99
STEEL	97
AIRCRAFT	68
ELECTRONICS	64
ALL MANUFACTURING	66

The table on this page shows selected entries from pages 740-744 of the 1991 *Statistical Abstract.* It turns out that the U.S. industries with really high value-added per worker are in sectors with very high ratios of capital to labor, like cigarettes and petroleum refining. (This was predictable: because capital-intensive industries must earn a normal return on large investments, they must charge prices that are a larger markup over labor costs than labor-intensive industries, which means that they

Free market argument

Economists were skeptical of this idea on principle. If targeting the right industries was simply a matter of moving into sectors with high value-added, why weren't private markets already doing the job?[4] But one might dismiss this as simply the usual boundless faith of economists in the market; didn't Magaziner and Reich back their case with a great deal of real-world evidence?

Krugman's neoclassical argument

By contrast, the well-received presentation of Bill Clinton's initial economic program in February 1993 showed the usefulness of competitive rhetoric as a motivation for tough policies. Clinton proposed a set of painful spending cuts and tax increases to reduce the Federal deficit. Why? The real reasons for cutting the deficit are disappointingly undramatic: the deficit siphons off funds that might otherwise have been productively invested, and thereby exerts a steady if small drag on U.S. economic growth. But Clinton was able instead to offer a stirring patriotic appeal, calling on the nation to act now in order to make the economy competitive in the global market—with the implication that dire economic consequences would follow if the United States does not.

1994 Foreign Affair Reponses

- Krugman (1994) - Competitiveness: A Dangerous Obsession ?
- Responses:
  - Thurow (1994) - Microchips, not potato chips
  - Prestowitz (1994) - Playing to Win
  - Scharping (1994) - Rule-Based Competition
  - Cohen (1994) - Speaking Freely
- Krugman (1994) - Proving my point.

Section 8

Prestowitz (1994) - Playing to Win

Prestowitz's response 1/4

Playing to Win

CLYDE V. PRESTOWITZ, JR.

Paul Krugman first achieved a measure of public recognition with a study of competition in the aircraft industry, which proved mathematically the potential efficacy of strategic—that is to say managed—trade. That this analysis was considered important might seem odd in view of the fact that the German-American scholar Friedrich List had done more or less the same work nearly 150 years ago and in view of the experience of the Japanese, who had been practicing strategic trade for more than 40 years at the time of Krugman's study. But given the narrow scope of the research considered permissible by the conventional wisdom of U.S. economists, as well as their ignorance of history and other disciplines, Krugman's analysis was a notable, iconoclastic achievement.

Indeed, it may have been too daring because ever since its publication Krugman has been running away from the implications of his own findings. His diatribe in *Foreign Affairs* (March/April) against the concept of competitiveness and those who espouse it is only the most recent example.

Krugman not only claims that concern with competitiveness is misplaced. He attacks all those who think otherwise—including leading members of the Clinton administration such as Robert B. Reich, Ira C. Magaziner, Laura D'Andrea Tyson and the president himself—as protectionists whose work is careless if not dishonest and whose motives run from simple greed to chauvinism and demagoguery.

Krugman contends that concern about competitiveness is silly because as a practical matter the major countries of the world are not in economic competition with each other. He attempts to prove this by making three points. First he argues that trade is not a zero-sum game. Trade between the United States and Japan is not like competition between Coca-Cola and Pepsi because whereas Pepsi's gain is almost always Coke's loss, the United States and its trading partners can both be winners through the dynamics of comparative advantage.

Although true to some extent, this rationale ignores that different kinds of trade take place. Surely Krugman is cor-

Prestowitz's response 2/4

rect in the case of trade between the United States and Costa Rica, where America imports bananas it does not grow and exports airplanes and machinery that Costa Rica does not make. Both countries come out winners by devoting their resources to what each does best. But what about the kind of trade typified by the recent Saudi Arabian order for $6 billion of new airplanes? Why were the Europeans so upset and Clinton so happy when the Saudis announced that U.S. producers would win all the orders? Both the Europeans and the Americans make airplanes, and this order means that the United States will gain jobs and income that Europe might have had but lost. This was largely a zero-sum trade situation, and ironically it was precisely the case that first brought Krugman to prominence. Maybe he was right the first time.

IT'S LIVING STANDARDS, STUPID

In fact, Krugman later concedes the point by allowing that "in principle" competitiveness problems could arise between countries. But he insists that they do not in practice because trade is a relatively small part of GNP in the major countries. Consequently, living standards are determined almost wholly by how well the economy works domestically rather than by international performance. In this vein, he observes that exports constitute only 10 percent of U.S. output, apparently leaving 90 percent of the economy to purely domestic factors. Moreover, he attributes 91 percent of the 1973 to 1990 stagnation in U.S. living standards to declining domestic productivity growth and only 9 percent to deteriorating terms of trade.

But competitiveness proponents have never denied the importance of domestic economic performance. Indeed, virtually all competitiveness prescriptions emphasize domestic savings and investment rates, education, cost of capital and research and development. Trade is typically treated as a secondary issue—more a symptom than a cause of subpar competitiveness. Second, Krugman ignores

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America's imports—which equal 11 percent of GNP and nearly half of U.S. manufacturing output. Thus, overall trade is equivalent to about 21 percent of GNP, and by some estimates the impact of trade is felt directly by at least half the U.S. economy. Take the U.S. auto industry. It is not a big exporter, and imports account for only about 15 percent of the U.S. market. But the prices and quality of those imports help determine the retail prices U.S. automakers can charge, wages of U.S. auto workers and incomes of those who service the U.S. auto industry.

Krugman does not explain the slowdown in U.S. productivity growth, but he implies that domestic factors are the sole culprits. Yet the slowdown came just when U.S. imports were soaring and entire industries such as consumer electronics were being wiped out by foreign competitors pursuing mercantilist tactics. Surely these dislocations had some impact on U.S. productivity growth.

Krugman's third and final argument is that although countries may be rivals for status and power, such rivalry is something apart from economics and has no impact on living standards. A high relative growth rate may enhance Japan's status, for example, but it does not reduce the living standard of other countries. Although this notion may be true in the short-term, absolute sense, it is not necessarily true in the long-term, potential sense. Since the end of World War II, the United States has grown faster than Great Britain. The United States has done so in part by taking British inventions such as jet planes and radar and commercializing them faster than the British, thereby closing off those industries as potential avenues of British growth. Of course, if Britain could enter other high-growth, high-wage industries, the U.S. position would make no difference. But at any one time the number of those industries is limited; missing the boat on one can mean losing potential gains in living standards. In the extreme, loss of economic competitiveness can weaken national security and cause greater vulnerability to political regimes and international cartels that may severely constrain a country's economic potential. This competition is, after all, what imperialism and its opposition has been all about.

SPLITTING HAIRS

To buttress his arguments, Krugman attacks his critics' arithmetic as careless. Yet Krugman's own arithmetic is careless and selective. His analysis of how manufacturing job loss affects real average wages ignores the relationship between service and manufacturing wages. American barbers are not notably more productive than Bangladeshi barbers. But their wages are much higher because their customers work with much higher productivity than the customers of their Bangladeshi counterparts. Loss of high-wage U.S. manufacturing jobs also depresses not only manufacturing wages, but service industry wages as well. Krugman, however, fails to mention this drag.

Krugman's discussion of value added is even more questionable. He may have a point in that "high value added" has become a kind of shorthand for technology-intensive and high-wage industries when that is not always the case. But Krugman uses very broad industry cate-

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gories to make his point, although the data he draws on clearly show that a huge industry like electronics consists of many sectors, some with high value added and others with low. Overall, Krugman notes a figure of value added per worker in the electronics industry of only $64,000. But why did he ignore the tables showing the figures of $443,000 for computers and $234,000 for semiconductors?

Krugman concludes by expressing fear of the possible distortion of the U.S. economy through the application of flawed competitiveness policies. He could, of course, be right. But can the United States be confident that an analyst who has such obvious gaps of his own and who has now argued both sides of the competitiveness issue can be relied on as the guide? Perhaps he is wrong, and competitiveness, far from being a dangerous obsession, is an essential concern.

CLYDE V. PRESTOWITZ, JR.

President of the Economic Strategy Institute and Director-General of the Pacific Basin Economic Council

Section 9

Thurow (1994) - Microchips, not potato chips

Microchips, not potato chips

Microchips, Not Potato Chips

LESTER C. THUROW

The Gang of Eight (Bill Clinton, John Major, Jacques Delors, Robert Reich, Laura D'Andrea Tyson, Mickey Kantor, Ira Magaziner, Lester Thurow) pleads not guilty to Paul Krugman's charges that it is grossly exaggerating the importance of international competitiveness.

Krugman asserts that, economically, nations have "no well-defined bottom line." Wrong! Nations seek to raise the living standards of each citizen. Higher living standards depend on rising productivity, and in any economy the rate of productivity growth is principally determined by the size of domestic investments in plant and equipment, research and development, skills and public infrastructure, and the quality of private management and public administration.

I have written articles referring to strategic trade policies as the "seven percent solution." Ninety-three percent of economic success or failure is determined at home with only seven percent depending on competitive and cooperative arrangements with the rest of the world. My book, *The Zero-Sum Solution: Building a World-Class American Economy*, contains 23 pages on competitiveness issues, 45 pages on the importance of international cooperation and 333 pages on getting things right at home. The centrality of domestic invention and innovation is precisely why I agreed to lead the Lemelson-MIT program in invention and innovation, one part of which is a $500,000 prize for the American inventor and innovator of the year. The corpus of writings, speeches and actions of the rest of the Gang of Eight contains similar quotations, proportions and actions.

But remembering this sense of proportion, what is the role for competitiveness? Clearly something is wrong with Krugman's arithmetic that shows international trade cannot make much difference to American productivity. If his arithmetic were correct, then it follows that a lot of American protection might be quite a good thing.

Disequilibrium

Today 6 million Americans are working part-time who would like to work full-time, and almost 9 million are unemployed. In the last 20 years the bottom two-thirds of the male work force has taken a 20 percent reduction in real wages. The American work force could use a few million extra high-wage jobs. Suppose the United States were to impose quotas on manufactured imports so as to bring American imports (now 14 percent of gross domestic product) down to the 10 percent of GDP currently exported—that is, increase the domestically produced GDP by $250 billion. According to the U.S. Department of Commerce, if one divides manufacturing output by manufacturing employment, every $45 billion in extra output represents one million jobs. Production of current imports would absorb more than 5 million of those 15 million underemployed and unemployed people.

Since more Americans would be working in a sector with above-average productivity, national output and earnings would rise. The losses to the American consumer in the form of higher prices would be smaller than the gains to American producers in the form of higher earnings unless American producers were less than half as efficient as those abroad (an unlikely event). But even if that were the case, the economic burden of their inefficiency would be trivial relative to American GDP of $6.5 trillion. The gains to workers would be well worth the loss in output. But certainly none of the Gang of Eight advocates such policies, although they would seem to be called for by Krugman's simple arithmetic. Why?

WELCOME TO THE REAL WORLD

The simple arithmetic of what economists call "comparative statics" is technically right but economically wrong. If the domestic economy is to succeed in moving to higher levels of productivity and income, it must first compete successfully in the global economy. Foreign competition simultaneously forces a faster pace of economic change at home and produces opportunities to learn new technologies and new management practices that can be used to improve domestic productivity. Put bluntly, those who don't compete abroad won't be productive at home.

Although he denies saying it, Michael J. Boskin, chairman of President Bush's Council of Economic Advisers, will go down in history as the man who said, "It doesn't make any difference whether a country makes potato chips or computer chips!" The statement is wrong because wages and rates of return to capital are not everywhere equal.

The real world is in a perpetual state of dynamic disequilibrium where differentials in wages and rate of return to capital by industry are both large and persistent (these above-average wages or returns to capital are technically called disequilibrium quasi-rents). Within manufacturing in 1992 there was an almost four-to-one wage gap between those working in the highest- and lowest-paid industries. The industries at the top and bottom have changed little since World War II. Rates of return to capital similarly ranged from plus 27 percent in pharmaceuticals to minus 26 percent in building materials.

Pharmaceuticals top the rate of return charts every year. The market is always eliminating the high rates of return on

Jobs

existing drugs, but disequilibrium quasi-rents are always being created on new drugs. Because every successful pharmaceutical firm requires huge amounts of time and capital to build physical and human infrastructure, those already in the industry find it relatively easy to stay ahead of those who might seek to enter.

PUTTING PEOPLE FIRST

Those who lost jobs in autos and machine tools as American firms lost market share at home and abroad typically took a 30 to 50 percent wage reduction, if they were young. If they were over 50 years of age, they were usually permanently exiled to the periphery of the low-wage, part-time labor market. Their losses might not be a large faction of GDP, but those losses are important to the millions of affected workers and their families. The correct redress for their problems, however, is not to keep Japanese autos or machine tools out of the American market but to organize ventures such as the government-industry auto battery consortium that seeks to expand the American auto industry's market share by taking the lead in producing tomorrow's electric cars.

Since aircraft manufacturing generates technologies that later spread to the rest of the economy and above-average wages, the United States cannot simply ignore the government-financed European Airbus Industrie challenge in an industry America currently dominates.

The fastest-growing and technologically most exciting industry over the next decade is expected to be the industry that lies at the intersection of telecommunications, computers, television and the media arts. Given this prospect the United States cannot afford to let itself be locked out of the Japanese wireless telecommunications market or permit the Europeans to limit American movies and television programs to 40 percent of their markets. To do so is to make the entire American economy less dynamic and less technologically sophisticated and to generate lower American incomes than would otherwise be the case.

In the traditional theory of comparative advantage, Boskin and Krugman are correct. Natural resource endowments and factor proportions (capital-labor ratios) determine what countries should produce. Governments can and should do little when it comes to international competitiveness. With a world capital market, however, all now essentially borrow in London, New York or Tokyo regardless of where they live. There is no such thing as a capital-rich or capital-poor country. Modern technology has also pushed natural resources out of the competitive equation. Japan, with no coal or iron ore deposits, can have the best steel industry in the world.

This is now a much more dynamic world of brainpower industries and synthesized comparative advantage. Industries such as microelectronics, biotechnology, the new materials industries, telecommunications, civilian aircraft production, machine tools, and computer hardware and software have no natural geographic home. They will be located wherever someone organizes the brainpower to capture them. With man-made comparative advantage, one seeks not to find disequilibrium quasi-rents (the gold

Mixed economy

mine of yore) but to create the new products and processes that generate above-average wages and rates of return.

In their funding of education, skills and research and development, governments have an important role to play in organizing the brainpower necessary to create economic leadership. Just as military intelligence estimates about U.S.S.R. intentions partly guided yesterday's strategic military research and development, so the actions of U.S. economic competitors will partly guide tomorrow's civilian research and development. If the Japanese have an insurmountable lead in flat-screen video technology, it does not make sense to invest government or private resources or talent in a hopeless attempt to catch up.

The smart private firm benchmarks itself vis-à-vis its best domestic and international competition. Where it is not the world's best, it seeks to adopt the better practices found elsewhere. A smart country will do the same. Is America's investment in plant and equipment, research and development, skills and infrastructure world class? Do American managers, private and public, have something to learn from practices in the rest of the world? The purpose of such benchmarking is not to declare economic warfare on foreign competitors but to emulate them and elevate U.S. standards of performance.

Obsessions are not always wrong or dangerous. A passion for building a world-class economy that is second to none in generating a high living standard for every citizen is exactly what the United States and every other country should seek to achieve. Achieving that goal in any one country in no way stops any other country from doing likewise.

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Section 10

Dani Rodrik

Barbarians, Barbarians everywhere

MAY 09, 2007

Barbarians, barbarians everywhere

Some ten years ago, I remember sending a draft of my book *Has Globalization Gone Too Far?* to a very well known and outspoken economist (and no knee-jerk free trader) whose views I admired greatly. He told me he had no quarrel with my economics, but that I should not be "providing ammunition to the barbarians"--that is, I should not give comfort to all those protectionists who stand ready to hijack any argument that seems to provide intellectual respectability to their positions.

Has Globalization gone too far ?

17 I had taken a different position in this debate, arguing that there were many channels through which globalization could imperil the incomes and economic security of the low-paid. See Dani Rodrik, *Has Globalization Gone Too Far?* (Washington, DC: Institute for International Economics, 1997). The empirical studies available at the time had looked at only a few of those channels and therefore had been too quick to dismiss popular concern about trade. The tendency of economists at the time was to dismiss these arguments. Even worse, books like mine could be dangerous because they would end up providing "ammunition to the barbarians," as Krugman himself warned me in a personal communication before my book was published.

Section 11

PIIE

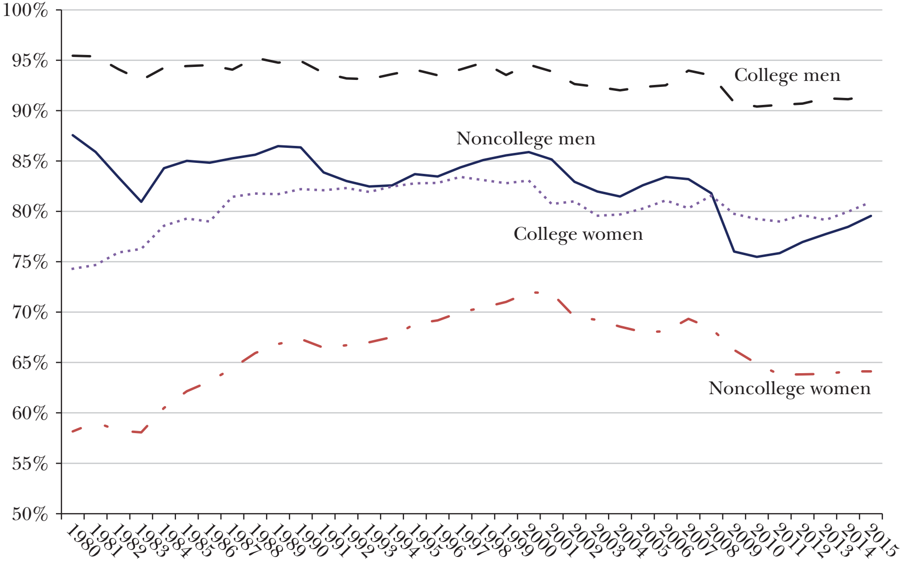
Trade Deficit Problem

- Our trade deficit problem. html

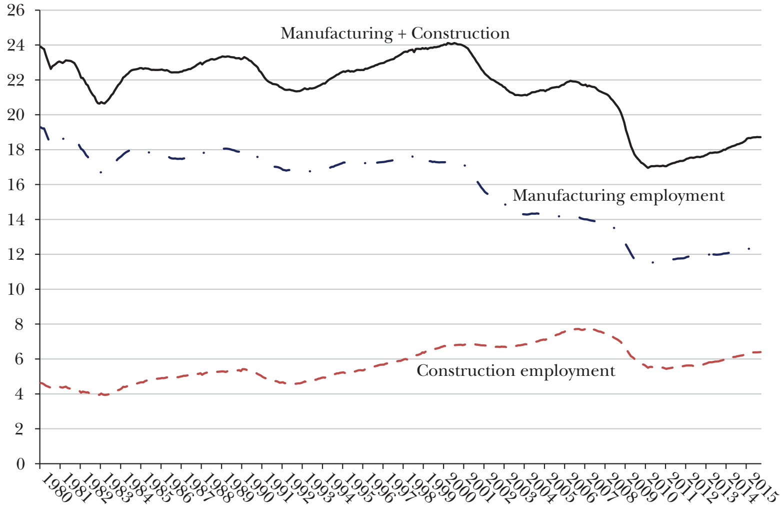
What are the economic costs of the trade deficit?

- Since the trade deficit is concentrated in manufactured goods, a larger deficit translates into fewer manufacturing jobs. In 1970, 26.4 percent total US nonfarm employment was engaged in manufacturing; in 2016, the figure had dropped to 8.5 percent. Automation explains most of the decline, but if the United States had no trade deficit in 2016, manufacturing employees might have accounted for 10 percent of the labor force. Those who view manufacturing as superior to the service industry accordingly criticize the trade deficit.

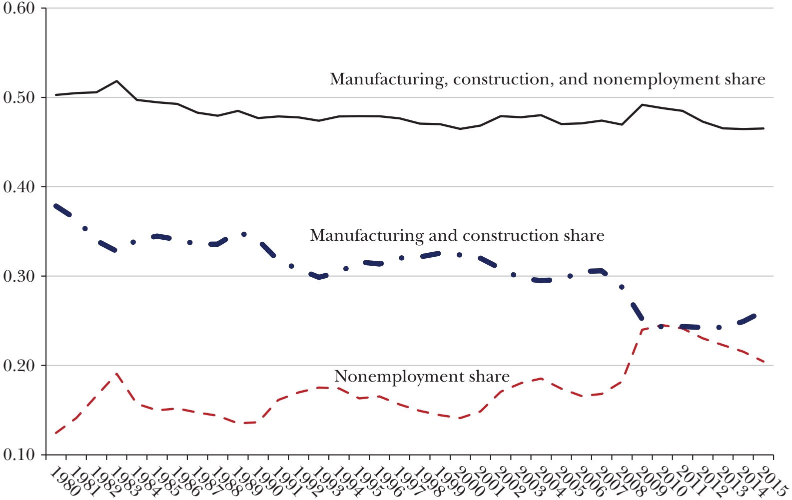
Labor Participation



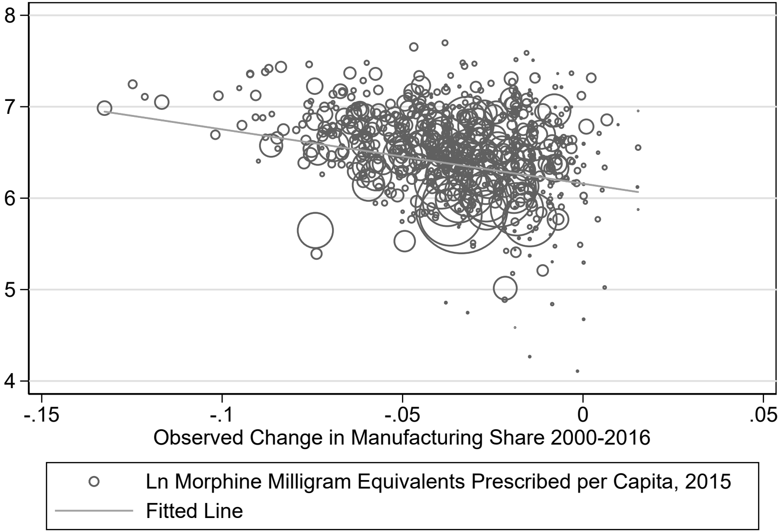
Masking of Unemployment by the Housing Boom



Share of Noncollege Men not Working



Manufacturing Decline and the Opioid Crisis

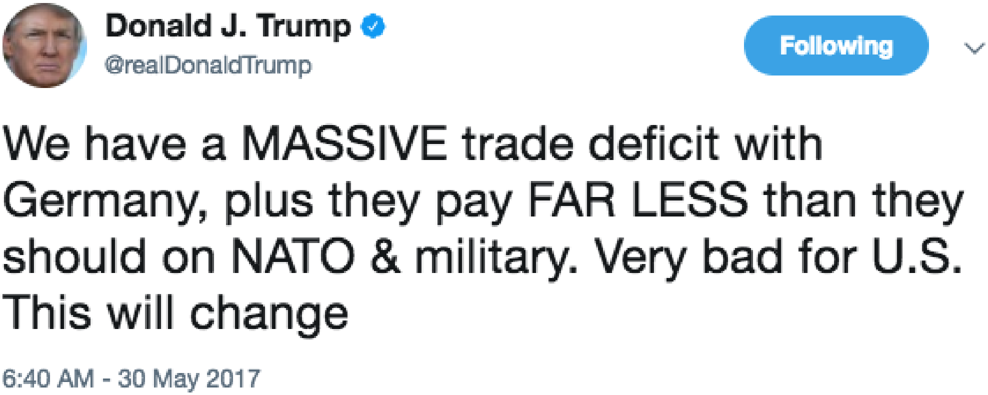


Coefficient = -5.95*** (1.74)

Section 12

IMF's view

Germany VS U.S.



Germany VS U.S.

Maury Obstfeld's 2018 view

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# [1] "Link to the video:"
# [1] "https://fgeerolf.com/https://fgeerolf.com/econ102/handouts/competitive
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IMF: Protectionism is not the answer

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# [1] "https://fgeerolf.com/econ102/handouts/competitiveness.html"
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Public debt and external debt

What are the economic costs of the trade deficit?

- Since the trade deficit is concentrated in manufactured goods, a larger deficit translates into fewer manufacturing jobs. In 1970, 26.4 percent total US nonfarm employment was engaged in manufacturing; in 2016, the figure had dropped to 8.5 percent. Automation explains most of the decline, but if the United States had no trade deficit in 2016, manufacturing employees might have accounted for 10 percent of the labor force. Those who view manufacturing as superior to the service industry accordingly criticize the trade deficit.

Manufacturing VS Services

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# [1] "Link to the video:"
# [1] "https://fgeerolf.com/econ102/handouts/competitiveness.html"
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Section 13

Savings glut and open economy

Creditor or Debtor adjustment

- Reading: "Two out of three ain't bad." *The Economist*, August 27, 2016.
- According to J.M. Keynes, the problem of fixed exchange rates such as a Gold Standard was that it forced the **adjustment of balance of trade imbalances onto deficit countries**. Deficit countries were forced to respond to an outflow of gold by curbing the demand for imports, and cutting wages to restore export competitiveness.
- Whose fault is it? Is Germany not consuming enough or U.S. consuming too much?

The Keynes plan at Bretton Woods

- J.M. Keynes was proposing that creditor countries would share symmetric blame for trade imbalances.
- There would both be penalties for being overly lax, just as there would be penalties for having too large a trade surplus.
- However, Keynes was not able to get enough support for such creditor adjustment.
- The United States (dominating power at Bretton Woods) opposed the idea for the same reason Germany resists it today: it was a country with a big surplus on its balance of trade.

The management of the Euro Area crisis

- Austerity policies which were implemented in Europe after 2011, following the Greek debt crisis.
- An alternative adjustment would have been to have Germany and the rest of Europe increase their aggregate demand, to boost Greece's exports and help pay for imports.
- Instead, Greece (and Spain) was forced into costly import compression through tax increases and spending cuts, which hurt internal demand a lot.

The neoclassical View

- Reading: Robert J. Barro, Stimulus Spending Keeps Failing; If austerity is so terrible, how come Germany and Sweden have done so well?, *Wall Street Journal*, May 9, 2012.
- According to Robert J. Barro, Germany and Sweden have done very well macroeconomically, despite having moved to rough budget balance from 2009 to 2011.
- A Keynesian economist would actually give would be to say that the reason why Germany and Sweden have done so well is that they have largely benefited from growth in their external demand, themselves due to other countries implementing Keynesian aggregate demand stimulating policies during the period.
- And indeed, both Germany's and Sweden's net exports have substantially increased during that period, or at least they have stayed strong, as shown here there for Sweden (you can see both here).

Section 14

Bibliography