

Institutions and Income Inequality in 20th Century America:

The Bernie Saffran Lecture
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I am extremely honored to be here tonight. My job is to present a perspective on the causes of today's income inequality that adds the role of institutions to the economist's normal story of market forces. This perspective is co-authored work in progress and it is appropriate that my co-author, Peter Temin of MIT, is himself a Swarthmore graduate. Before I discuss our work, I want to talk a little about Bernie Saffran.

I first met Bernie in December 1966 in a San Francisco hotel room. I was looking for an assistant professor job and Bernie was one of several faculty members interviewing candidates for the Berkeley Economics Department.

I got to know Bernie over the last two weeks of August, 1967 in circumstances that could have been disastrous. I was arriving at Berkeley as Bernie was leaving. I was moving into Bernie's office. I was taking over Econ 103A and B, a two-semester course for non-economics majors that Bernie had built into an institution. Berkeley had let Bernie go and I was – in an accounting sense – Bernie's replacement.

How could Berkeley have let Bernie go? God knows they did not want to. As I heard the stories, his colleagues had begged him to write one or two articles so they could

¹ Rose Professor of Urban Economics, MIT. I would like to thank my collaborator on this work, Peter Temin, the excellent research assistance provided by Nirupama Rao and Julia Dennett, financial support from the Alfred P. Sloan Foundation and the Russell Sage Foundation, and seminar participants at NBER, the Sloan School of Management and the University of California at Berkeley. Much of this talk is drawn from a working paper of the same name, co-authored with Temin, and available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=984330

get him tenure. Bernie either could not or would not do it. As you know, Berkeley's loss was Swarthmore's gain.

I said those two weeks in August could have been disastrous. Bernie being Bernie, the two weeks were terrific. Beginning in those two weeks, we became good friends. From that time on, we would talk frequently on the phone and we would sometimes get together particularly after Kathy and I moved back east. Our conversations involved five of what we might call economists' Big Six Topics: Economics, Politics, Professional Gossip, Family and Food. We didn't talk sports – Bernie didn't do sports.

Our family relationship with Bernie goes beyond Kathy and me. Our son, Dave, now 29, can describe the day when he was about 11 and Bernie introduced him to Pat's Cheese Steaks and quality cannolis at the 29'th Street Market – Bernie knew a fellow connoisseur when he saw one. Our daughter Marin, now 26, can tell you how she wanted a \$3.00 set of bangle bracelets, also at the 29'th Street Market; how her parents said "Not on your life" and how Bernie bought her the bracelets anyway.

Throughout the conversations and the visits, it was always clear how much Bernie loved Swarthmore – the students, his colleagues, the Philadelphia area. So Berkeley's loss was Swarthmore's gain. And I am sure it was Bernie's gain as well.

Let me be more precise about that last point. As many of you know, Bernie worked hard to give the impression of mild physical incompetence. He learned to drive only at an advanced age. I doubt he could fix an electrical plug. But he lived through the death of his daughter, Linnea, and the death of his wife, Ellie, with a courage and grace that most of us can only dream about. Much of the courage and grace was who Bernie was – what he summoned from himself. But during these tragedies, he gained strength

from the support he received from throughout the college. Bernie and Ellie's move to Swarthmore really was a very good match.

I want to talk tonight about the role of institutions in achieving a fair distribution of the gains from economic growth. In labor economics today, institutions do not receive much attention. Most attention is reserved for market forces like the impacts of technology and international trade. The work I will discuss tonight does not deny the importance of market forces. But I will argue that institutions – unions, the minimum wage, the tax system, accounting conventions and ultimately the tone set by the government – have the power to either moderate or reinforce the underlying market. I will describe how U.S. institutions abandoned a moderating role sometime after 1975, when market forces were already tending toward greater inequality. In my story, the inequality we see today reflects continued market pressures unhampered by institutional restraint.

This story turns out to be subtle – it is not all Republicans versus Democrats, and inequality has more than one cause. In other words, the story requires you to walk and chew gum at the same time. But I believe it is reasonable description of where we are.

The story comes in four parts. The first part begins with question NBC-Wall Street Journal Poll of September 28-30, 2007. Self-identified Republicans were asked whether, on balance, free trade is hurting or helping the American economy. You can see the results (Table 1).

Table 1**How Republicans View Foreign Trade**

- Foreign Trade has been Good for the U.S Economy - 34%
- Foreign Trade has been Bad for the U.S Economy - 59%

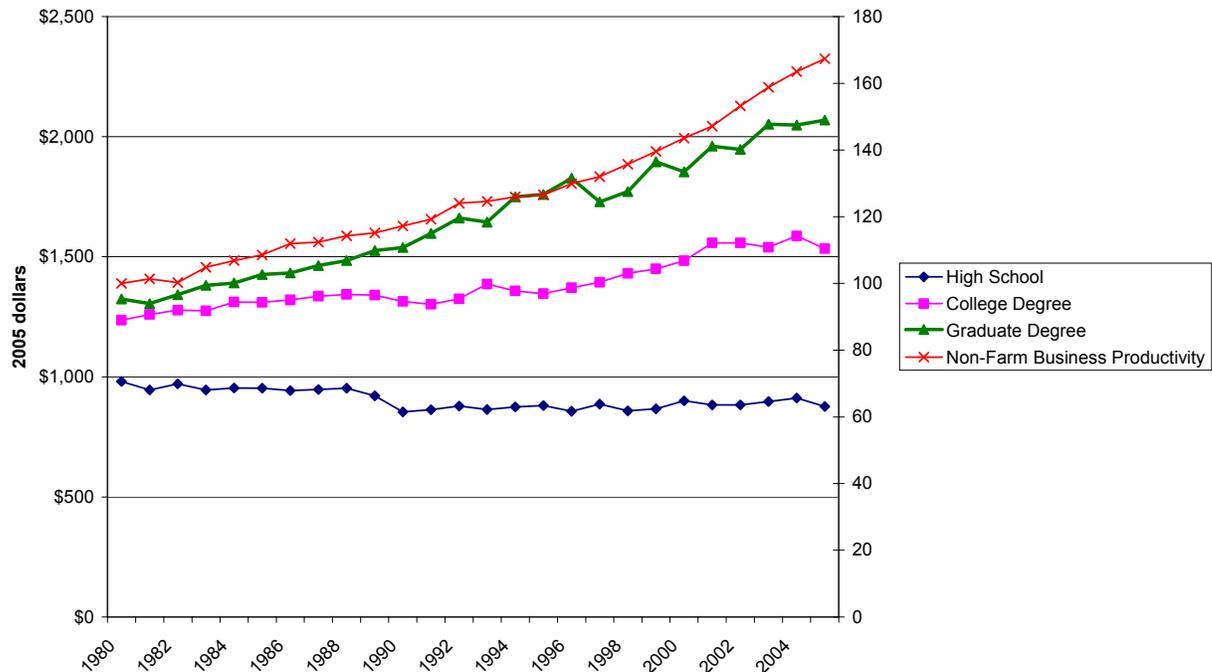
Source: NBC-Wall Street Journal Poll, Sept. 28-30, 2007

Here is the political party that stands for free markets and free trade. We know the respondents buy Japanese cars and Chinese electronics and clothes and yet 59 percent say free trade is hurting the economy more than it is helping it.

The question is why, and I would like to suggest one answer: Since 2000, average incomes have been growing very slowly for most groups in the workforce.

If economy-wide growth had been weak, stagnant average incomes would be understandable. But the dimension of growth that drives incomes is labor productivity – the average value of output produced per hour of work. And in recent years, labor productivity has grown strongly.

Figure 1
Median Weekly Compensation of 35-44 Year Old Men who Work Full Time:
Non Farm Business Productivity (Right Hand Axis)

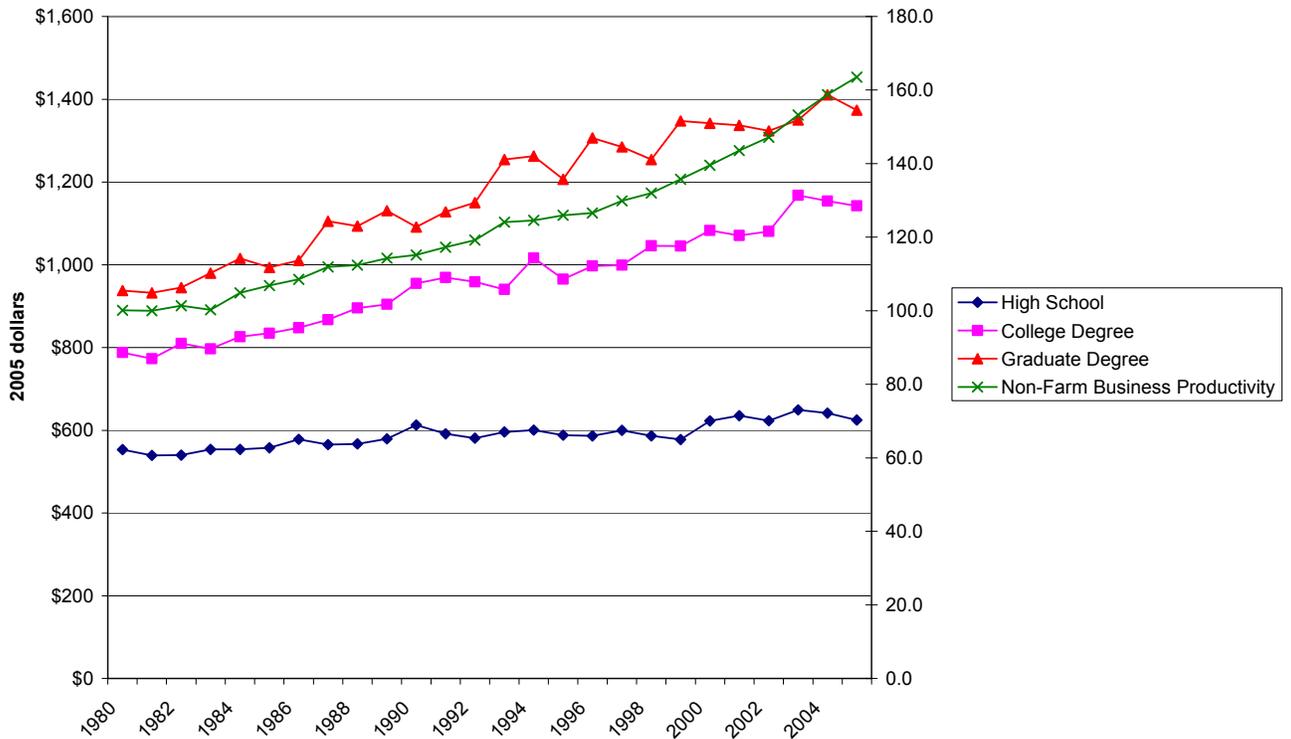


Figures 1 and 2 show median weekly compensation for 35-44 year-old men and women who work full time. The figures give you a sense of what I mean. When I say *weekly compensation*, I include the estimated value of health insurance and other fringe benefits.

Since 2000, labor productivity has grown by about 16 percent. But:

- The median weekly compensation of male high school graduates in this age range has declined slightly.
- The median compensation of male college graduates (without graduate work) has grown by only 3 percent.
- Only the median compensation of men with post-graduate training has kept up with productivity growth.

Figure 2
Median Weekly Compensation of 35-44 Year Old Woman who Work Full Time:
Non Farm Business Productivity (Right Hand Axis)



The data for women is somewhat more optimistic – the median compensation of women with either a BA or post-graduate training has kept up with productivity growth. But only one-third of women in this age group have a BA or more while the compensation of the other two-thirds generally lags behind productivity growth.

Let me make several points about these numbers. First, both these graphs and the term “stagnant incomes” are a little too simple. Consider the following two questions:

- Does a man earn more at 40 than he did at 30?

The answer to this question continues to be YES particularly for men or women who have college or post graduate education. These increases reflect normal experience-related promotions rather than any increase in the economy's general wage level.

- Does a 40 year old man earn more today than a 40 year old man earned 10 years ago?

The answer to this question is YES for the moment because of gains between 1995 and 2000. But the answer will be NO for men of most education levels if post-2000 trends continue – that is the implication of the flat or declining lines in Figure 1. The data for well educated women, as we have seen (Figure 2) looks better on this score.

So rather than talk about stagnant wages, we should talk about “Mass Upward Mobility” – the idea that each generation earns significantly more than the previous one. The loss of mass upward mobility would put a big dent in the American Dream. I will return to this point shortly.

Finally, many people argue that today's earnings problem is really an education problem – that the labor market is changing and we don't have enough well educated workers. That is clearly a part of the story – in these figures, you can see the growing gap between college and high school graduates. But you also can see the problem goes deeper since, for example, the compensation of the average 40-year-old man with a bachelor's degree is not growing in line with productivity. In other words, we can't seriously talk about an education problem whose solution requires making everyone an MBA, a lawyer or a PhD.

To summarize so far, each calendar quarter, the business press reports the latest productivity statistics. The stories usually include this sentence - “Increased labor productivity is the source of higher living standards.” What these graphs remind us is

that increased labor productivity is the source of higher **aggregate** living standards. The distribution of that aggregate across the workforce is always up for grabs.

So if productivity gains are not going to the average worker— including many college graduates – where are they going? Any Paul Krugman reader can tell you the answer – most of the gains went to the very top of the income distribution (Figure 3):

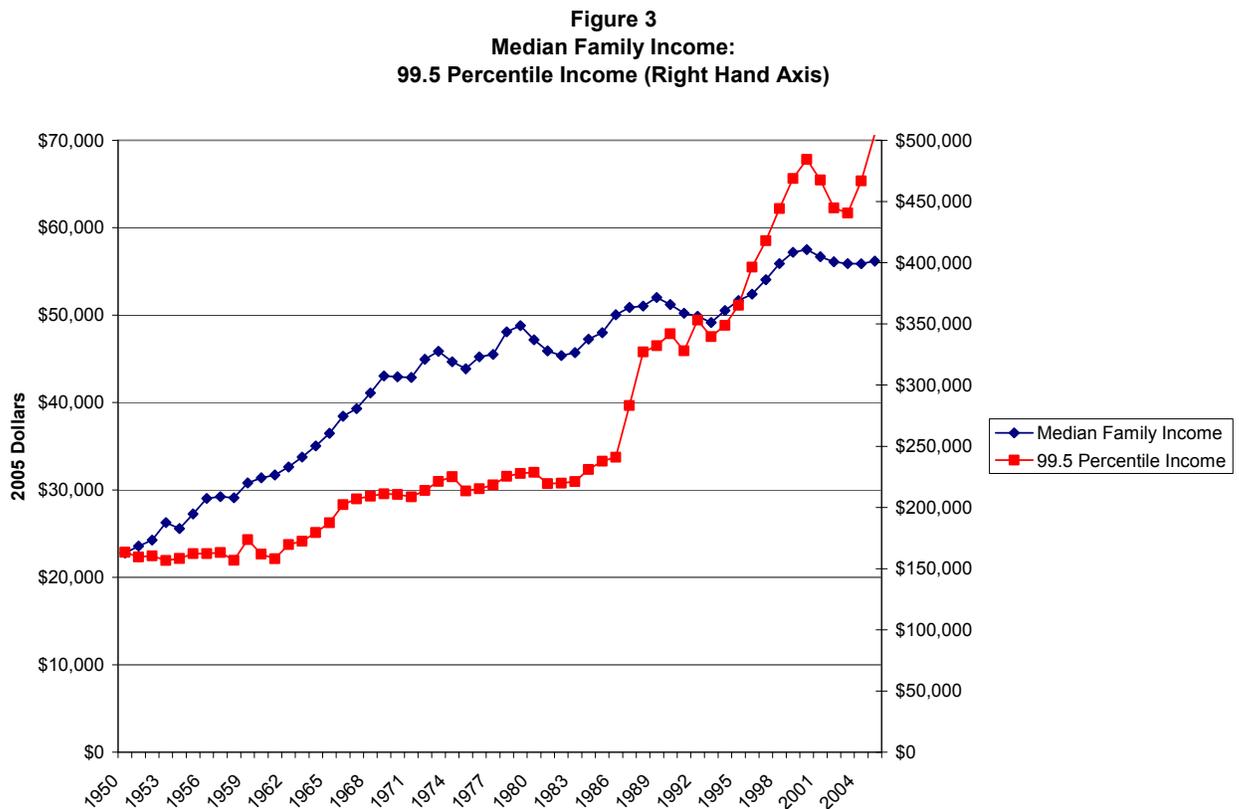


Figure 3 uses two axes to compare median family income (without fringe benefits) to the 99.5th percentile of the distribution – the median of what is today the top 1.4 million tax filing units – a measure similar to households. That top median comes from the work of Thomas Piketty and Emanuel Saez.² As you can see, from World War II through the

² See the Piketty and Saez data updated to 2005 on Emmanuel Saez' website <http://elsa.berkeley.edu/~saez/> (URL). Their calculations are based on pre-tax market income (wages, partnership income, interest,

1970s, rising productivity translated into gains for the average family. Median family income rose from about \$22,000 to \$50,000 in 1980. Since 1980, median family income has been fairly flat except for a \$7,000 bump in the latter part of the 1990s.

Conversely, the top 1 percent median was fairly flat from the mid-1960s to the mid-1980s but it then took off. Between 1986 and 2005, the median of the top 1 percent increased by about \$250,000.

What changed? The standard economic explanation centers on market forces – the rise of computerized work, increased trade and offshoring, and so on. We can stipulate those forces are important but I want to tell a parallel story about changes in institutions and norms. In particular, the fact that median family income tracked labor productivity so well from the late 1940s through the mid 1970s was not just a free market outcome. The free market had a lot of institutional help.

The second part of our story begins with a question: Where did these now discarded institutions and norms come from?

Many of the institutions arose in the Great Depression where they reflected, in part, a misguided attempt to stimulate the economy.

When Roosevelt came to office in 1932, unemployment stood at 25 percent. But Keynes was still working on the General Theory and there was no clear concept of aggregate demand. Instead, many of the people around Roosevelt pursued a theory of

dividends, rents, etc.) excluding transfer payments. A tax filing unit is represents a tax return (which may be single or joint). Piketty and Saez estimate the total number of tax filing units that would occur if all U.S. households filed federal income taxes and figures like the “top 1 percent of tax filing units” refer to the top 1 percent of that estimated number rather than the top 1 percent of those who actually file. The resulting number is somewhat larger than the number of households..

what might be called individual demand – if prices and wages could be kept high, people would have enough spending power to get the economy going.

This worldview was reflected in many initiatives – a high minimum wage, support for union organizing to raise wages, fair trade prices to ban “cutthroat competition”, a bias toward industry regulation to similarly limit price competition, and steep marginal tax rates on high incomes. Once the nation entered World War II, the government imposed direct wage and price controls. All this was part of a heavy government involvement in the setting of wages and prices.

When the war ended, the government lifted wage and price controls. But many other initiatives stayed in place and were generally accepted.

For example, in November 1945, President Truman convened a three week National Labor-Management Conference to discuss post-war labor relations. Two features of the conference stood out.

One was the small guest list – 36 business and labor leaders and public officials. The short list was commentary on the concentrated nature of industry and the concentration of union power, both of which the New Deal had helped to create.

The meeting’s other feature was the message that even in peacetime, business-labor relations would remain a tri-partite process with government actively involved. While the conference did not reach agreement on specific proposals, Truman’s outlook received broad support. An example is a statement made by Eric Johnston, president of the U.S. Chamber of Commerce:

Labor unions are woven into our economic pattern of American life, and collective bargaining is a part of the democratic process. I say, recognize this fact not only with our lips but with our hearts.³

These institutions and government involvement helped to broadly distribute productivity gains in the decades after the war. This was the mass upward mobility I described as being an important part of the American Dream. For example, social historians argue that the 1950s and 1960s saw a big expansion of the American middle class. This did not mean that the income distribution was becoming much more equal. Rather, it meant, as we have seen, that the real income of the average American family was doubling - because labor productivity had doubled – and so many more American families could afford to buy a “Middle Class Lifestyle” – a single family home, one or two cars, air conditioning, and so on.

Throughout these years, government continued to involve itself in wage and price decisions. One example was John Kennedy’s anti-inflation wage and price guideposts – a strong governmental suggestion to business and labor that since labor productivity was rising at 3 percent per year, compensation could rise at 3 percent per year without any need for price increases.

A more dramatic intervention was Kennedy’s 1962 confrontation with the U.S. Steel Corporation. Kennedy had used political capital to persuade the Steelworkers’ Union to accept a contract with moderate wage increases. Shortly after the contract was signed, U.S. Steel announced it was increasing the price of steel by \$6.00 per ton – a

³ Quoted from Harry C. Katz and David B. Lipsky, 1998, “The Collective Bargaining System in the United States: The Legacy and the Lessons,” in M. Neufeld and J. McKelvey eds. *Industrial Relations at the Dawn of a New Millennium*, Ithaca: New York State School of Industrial and Labor Relations. pp. 145-162.

signal to the rest of the steel industry to do the same. Kennedy held a press conference accusing U.S. Steel of disregarding the national interest and threatened to limit government steel purchases to companies that did not raise prices.⁴ The \$6.00 per ton increase was soon rescinded.

In 1964, under Lyndon Johnson, Congress passed a general tax cut lowering marginal rates on the highest incomes from about 85 percent to 75 percent. These rates were still very high but contrary to recent experience, the reduction in rates stimulated no increase in reported high incomes. We can assume some of this restraint reflected the fear that claiming a very high salary could attract Lyndon Johnson's spotlight just as U.S. Steel had attracted John Kennedy's.

We now come to the third part of our story and another question: If these institutions were so great, why were they dismantled? The roots of the answer lie in the early 1970s when the economy stopped producing broad benefits.

Going back a little, the 1960s ended in a terrific boom – the result of Vietnam War deficits piled on top of an economy that was already at full employment. A byproduct of this boom was an increasing rate of inflation. Inflation was reinforced in the early 1970s by two big price shocks – one in food and the other, of course, in oil.

In this chaotic environment, labor productivity stopped growing. This further stimulated inflation since higher wages could only be paid for by price increases. From

⁴ See the transcript of Kennedy's press conference on April 11, 1962:
[http://www.jfklibrary.org/Historical+Resources/Archives/Reference+Desk/Press+Conferences/003POF05P
ressconference30_04111962.htm](http://www.jfklibrary.org/Historical+Resources/Archives/Reference+Desk/Press+Conferences/003POF05P ressconference30_04111962.htm)

1970 to 1980, the Consumer Price Index literally doubled and median family income increased only slowly.

By the mid-1970s, Republicans and many Democrats including Jimmy Carter and his advisor Fred Kahn were arguing that the economy's inflationary bias reflected a lack of real price competition. The result was a bi-partisan push toward deregulation in airlines, telecommunications, trucking and other industries.

Once Ronald Reagan took office, support for unencumbered markets became more extreme – for example, the fiction that tax cuts would stimulate so much growth that they would be self-financing. Herb Stein – Bernie's onetime boss on Richard Nixon's Council of Economic Advisors – once labeled Reaganomics as the shift from real supply side economics to punk supply side economics.

Reagan's firing of the Air Traffic Controllers, his significant tax cuts and his general attitude that being rich was no crime all gave strong signals that employers could do whatever they wanted with their employees, and no salary, however high, would be subject to government scrutiny.

Two events from this time deserve special mention. One was Paul Volcker's tight money policy and its impact on union membership. Volcker, an inflation hawk, was the new chairman of the Federal Reserve, reluctantly appointed by Jimmy Carter in 1979 to deal with accelerating inflation. In order to break inflation, Volcker sharply tightened the money supply leading to high interest rates and a deep recession. When Ronald Reagan assumed office, he gave Volcker's anti-inflation policy his strong backing.

The tight money policy worked far better than most economists had predicted. Inflation fell from 12.5 percent per year in 1980 to 3.8 percent in 1982. But by 1982,

Reagan's tax cuts had led to projections of large future deficits. Financial markets, fearing the deficits would recreate inflation, kept interest rates high even as inflation fell. High interest rates increased global demand for U.S. securities and the dollars required to buy them. Between 1979 and 1984, the value of the dollar rose by 55 percent in international markets.

As a result, old line U.S. manufacturing firms – the heart of private sector unionization – were hit first by the deep recession and then by a high dollar that crippled export sales. More generally, high interest rates restricted investment opportunities for mature firms in all industries, making them targets for takeovers and restructuring.⁵ The loss of old line manufacturing jobs together with new employer boldness caused union membership to fall from 23 percent of private sector workers in 1979 to 16 percent in 1985.

The second event requiring comment was the increasing deregulation of financial markets and what we might call the financialization of the economy. Earlier, I said that Bernie did not do sports. That is not quite true. I remember one conversation in the late 1970s about the dramatic attitude shift among Swarthmore students who suddenly wanted to make lots of money. “You are a New York Knicks fan,” he said. “Some of my students want to **own** the New York Knicks”. (I note that any past or present Swarthmore undergraduate could do a better job of running the Knicks than the current ownership.)

⁵ This argument was initially put forth by Margaret Blair of Vanderbilt University in an unpublished Ph.D dissertation. Blair argued that the high interest rates of the early 1980s limited investment opportunities and so stimulated the growth of “free cash flow” (i.e. retained earnings) that lies at the center of Michael Jensen's arguments in favor of corporate takeovers.

Some of this attitude shift reflected economic problems of the 1970s – the realization that students wouldn't automatically live better than their parents, particularly since their parents were doing pretty well. But Swarthmore students could also talk about owning the Knicks because deregulated financial markets were opening up enormous opportunities to make money.

When I asked my son Dave, currently studying for his MBA, how to get a grip on this period, he told me to reread Michael Lewis' 1989 book *Liar's Poker*. Dave was right. In that book, Lewis tells the story of Howie Rubin, a story Bernie probably read and certainly would appreciate. Rubin was a chemical engineering major at Lafayette College who worked briefly as an engineer and soon went to Las Vegas to make his living as a gambler. He next went to Harvard Business School and then took a job at Salomon Brothers where he went through the firm's bond trading program. In his first year on the trading floor, Rubin generated \$25 million of revenue trading mortgage backed bonds. Quoting from Lewis:

...Rubin, like all trainees, was placed in a compensation bracket. In his first year, he was paid \$90,000, the most permitted a first-year trader. In 1984, his second year, Rubin made \$30 million trading. He was then paid \$175,000. He recalls, "The rule of thumb at Harvard [Business School] had been that if you are really good, you'll make a hundred thousand dollars three years out." The rule of thumb no longer mattered. In the beginning of 1985 he quit Salomon Brothers and moved to Merrill Lynch for a three year guarantee: a minimum of \$1 million a year plus a percentage of his trading profits (p. 126)

Many of Salomon's other mortgage bond traders soon left for similar packages.

In another example, a friend of Peter Temin's who I will call "Robert" wrote us the following description of his career:

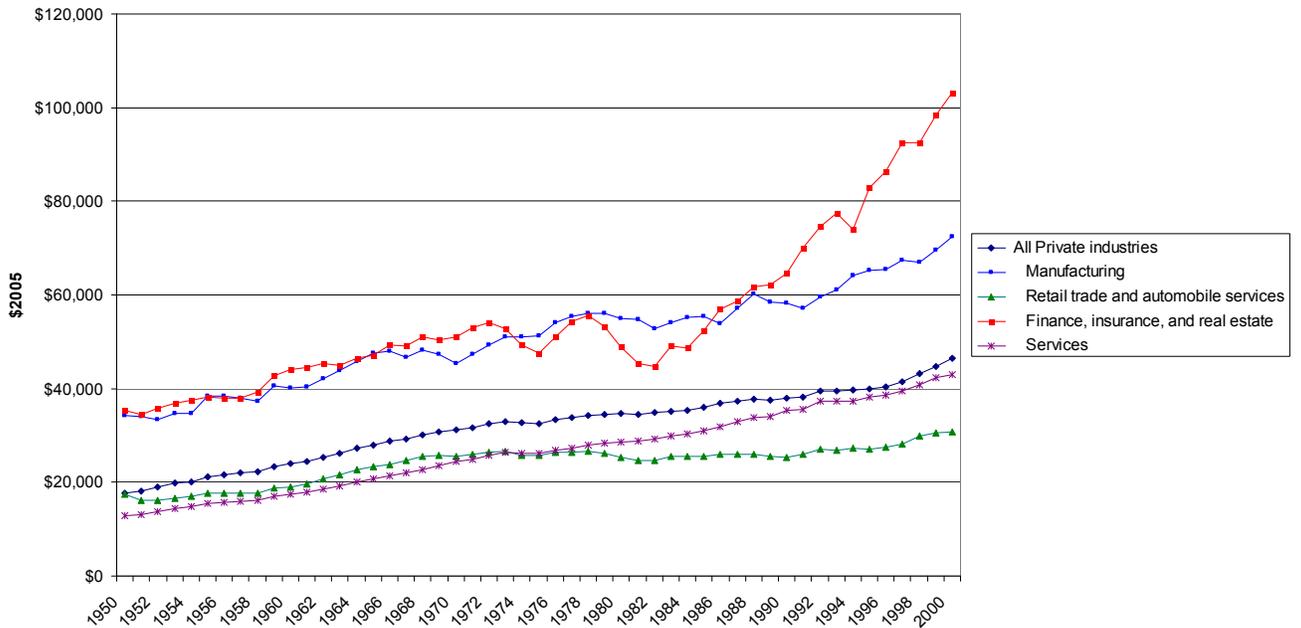
In 1974 as a successful young investment banker with 8 years experience, I was paid less than my peers in the large industrial companies or utilities and had no benefits of

significance. Everyone left the office at 5:00 o'clock and it was resented if you tried to come into the office on weekends (doors locked, no staff, no lights, a/c almost off). By 1985 I was a mid-level partner earning \$4 million a year, working 12-14 hour days and frequent weekends, and the busiest parts of the firm had second shifts of support staff every day and all weekend.

An economist would argue that Rubin's compensation, in particular, was a winner-take-all salary – the extremely high salary that accrues to unique talent. There is obviously a lot to this, but there are also two caveats. First, Merrill Lynch could offer Rubin that salary knowing there would likely be government applause rather than the government scrutiny of the 1950s and 1960s.

Second, Rubin, Robert and others in the financial sector were redefining high salaries not just for themselves but for everyone including people whose talent was not being judged in a free market. An example are the CEO's with compliant boards who hire their own compensation consultants.

Figure 4
(Compensation + Corporate Profits) per FTE in Selected Private Industries



For all the talk about CEO's, however, it is the financial sector that really rose to prominence in this period. You can see this in Figure 4 that shows, for different industries, the sum of corporate profits and compensation per person employed. Through the early 1980s, the growth of that number in the financial sector tracked its growth in most other industries. Then, the financial sector took off and profits plus compensation has continued to grow at high rates since. When we say that the top one percent of tax filers now receive something over 17 percent of all taxable income, it will not surprise you that a significant fraction of that top 1 percent comes from the financial sector.

We come now to the last part of our story where again we have two questions: Where are we now? And where are we going?

With respect to now, the market forces that emerged in the 1980s have continued apace. Roughly speaking, the economy's balance of power continues to shift from labor to capital. Thirty years ago, this shift largely affected high school graduates and drop-outs. As we have seen, there is still a big advantage to going to college. But the evolution of computerized work and the growth of offshoring have begun to create competition for college graduates as well. The recent stagnation of male college graduates' compensation is a tip-off to that.

As a result, we are seeing two values in conflict. On the one hand, we value the power of markets to allocate resources efficiently and that includes allocating labor. On the other hand we recognize that mass upward mobility is an important part of the American Dream.

The conflict arises when, as is the case today, a free labor market no longer produces mass upward mobility. To be sure, this earnings-productivity disconnect since 2000 may reverse itself. But the continued evolution of computers and trade suggests we should take the conflict seriously.

The economists' solution has always been to let the market do its work and then have the government redistribute ex post to reduce market inequality. In other words, rely on the market to maximize efficiency and then turn to government to tidy things up.

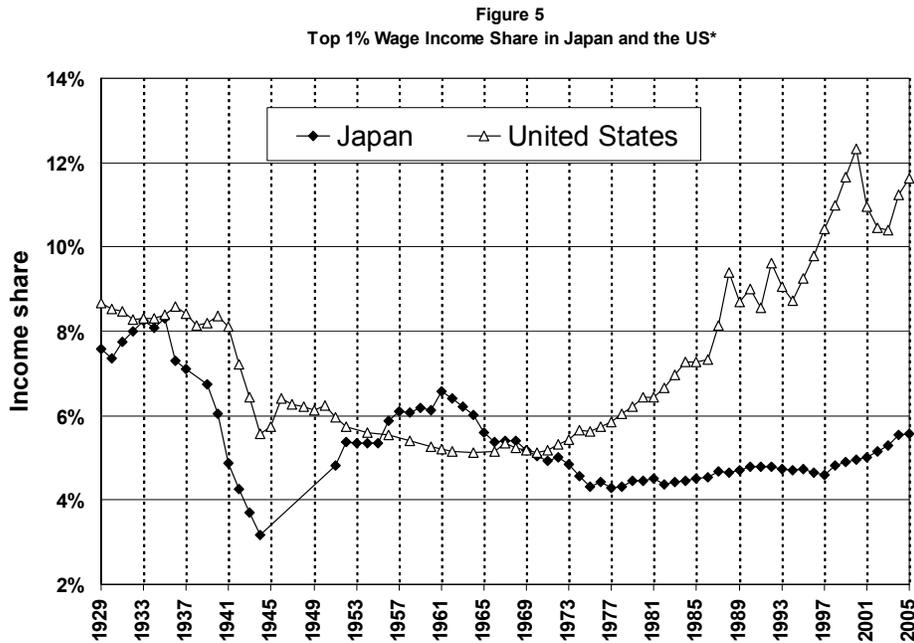
In terms of economic theory, the solution is impeccable. In terms of political feasibility, you are right to be skeptical.

Our political system depends heavily on money. It is reasonable to think that in times of extreme inequality, those at the top will spend heavily to protect their interests. Bill Clinton did increase top income tax rates in 1992, but George Bush reversed the Clinton increases and he shows no taste for protecting those who aren't doing well.

More telling is the example of New York Senator Chuck Schumer, chairman of the Democratic Senatorial Campaign Committee. Schumer has been quick to attack Bush for favoring the rich. But recently Schumer had to decide whether to support abolishing preferential tax treatment for hedge fund managers' fees – the so called “carried interest” issue. A broad spectrum of economists argues that eliminating this preference is this is the right thing to do. But hedge fund managers are big Democratic contributors and Schumer took a walk.

This is where we are – we have a problem and we are looking for solutions. So what comes next?

A starting point is to recognize that contrary to supply and demand in Economics 1, an economy can have many equilibria and the current division of productivity gains was not determined on Mt. Sinai.



Source: Emanuel Saez and Chiaki Moriguchi, "The Evolution of Income Concentration in Japan, 1886-2005: Evidence from Income Tax Statistics" forthcoming *Review of Economics and Statistics*

As a case in point, Figure 5 compares the share of wages received by the top 1 percent of earners in the U.S. and in Japan. Japan is subject to many of the same market forces that affect the United States – computerized work, trade, an important financial sector – and yet the top 1 percent of wage earners receives a little less than 6 percent of all wages – half of what the top 1 percent receives in the United States. So alternatives are possible.

Evidence on multiple equilibria exists on a smaller scale as well. Six weeks ago, many economists would have argued that Walmart's limited provision of health

insurance was a free market outcome – nothing could be done about it. But within the last week, Walmart announced it was significantly expanding the insurance it offered to employees. Walmart, of course, is fully non-union but as Ezra Klein has argued, the threat of unionization and reams of bad publicity likely helped Walmart to change its mind.

Bernie was a big fan of democracy and he would recognize Walmart's change of heart as the democratic system at work. The same can be said about the first slide I put up tonight – the possibility that even Republicans might turn protectionist. To an economist, this reaction is very short sighted reaction because protection hurts economic growth.

But viewed in terms of current politics, protectionist sentiment does not seem so crazy. Rather, it looks like the opening bid in what may become a national discussion of fairness.

This discussion would emphasize that economic growth is important to the extent that its benefits are broadly shared. And so, for example, corporations who have a strong interest in expanded trade should also have an interest in issues like more progressive taxes or, like Walmart, broader availability of health insurance.

This is a messy, uncertain view of the future. It does not conform to conservative predictions of free market utopia nor liberal views of Armageddon and despair. It is the kind of view, I think, with which Bernie would have been comfortable.

Thank you.
