Making the Poor Richer:
The Causes, Consequences and Potential Remedies
for the
Greater Inequality in the Income Distribution

By
Bernard A. Kemp, PhD

Synopsis:
From the end of World War II until 1973 the improvements in national income were shared equally by all. From then 'til now the rich have gotten a greater and have gotten a greater share of the additional income. While the income of those at the upper end of the distribution has increased significantly, the income of those at the lower and middle levels is about the same as it was or has declined. The end result is that today, a smaller and smaller portion of the population -- the rich -- have larger share of the national income and wealth.

The purpose of this book is to examine the causes and consequences of that inequality and to come up with suggested recommendations for improving the well-being of those currently at lower and middle income levels. Implementing the recommendations will lead to greater equality in the income distribution and will make it possible for those at the lower end to make a greater contribution to future growth in income and improve the well-being of all. Some of the proposed changes do not involve additional governmental involvement. Other will lead to improved conditions if some at the upper end of the distribution redirect their priorities. As a result everyone will be made better off without making them poorer.

Table of Contents

Making the Poor Richer:

The Causes, Consequences and Potential Remedies for the Greater Inequality in the Income Distribution

By
Bernard A. Kemp, PhD

I'm going to tell you about the causes and consequences of the greater() inequality in the income distribution in the United States and what can be done to correct it. In lay terms, it means that today's rich are richer and the poor are poorer than they were in the period after World War II. In more technical terms, the wealthier, those at the upper end of the income distribution, have a greater percent of the national wealth (the GDP). One of the principal causes is a change in attitudes and values. Let's call it "consumerism".

1. Introduction

Before we get into that, let me tell you a story. I was born in 1928 in Jersey City, NJ. When I was six months old the family moved to Queens in New York City. I was raised in Jackson Heights and Flushing during the Great Depression. It was followed by World War II. In 1942 we moved again, this time to Hendersonville in WWNC (Wonderful Western North Carolina). From the time I was 13 on, when I wasn't in school I was working in my Dad's business. Along the way I got my North Carolina drivers license at 15. I finished high school in New York and went to college at the University of North Carolina--Chapel Hill in 1945. That's all prologue.

You may not believe it, but at the time there was no TV, no microwave ovens, no computers and no cell phones or iPhones. We did have radio, the movies and what are now called landlines. The fastest way to go from New York to Europe was by steamer. It took five days. Oh yes, we had cars, but no superhighways -- no Interstates.

In 1946 at 18 I wanted a car. I put money aside from my earnings into an interest-bearing savings account at a small local commercial bank. When I saved up enough I bought my first vehicle -- a used 1941 two-door gray Chevy. For the life of me I can't remember how much I paid. But I do remember that at the time gas on sale was four gallons for a dollar.

That's so different from today's typical car purchase. You decide you want a car. Of course, you want it right now. You shop around and find the one you'd like. The dealer tells you the price. At that point, you go to the bank or a lending agency to get the money -- the loan. Perhaps the dealer or you made arrangements with a bank or loan company beforehand. If you pass the credit check, you get the loan along with the required insurance. The deal is consummated. You drive away with car and a commitment, an obligation -- the loan.

Before we take a look at what that really involves, let me first give you a very brief economics lesson. I promise it will be a short one. Disposable income, sometimes called discretionary income, is the amount of money you have left after you have taken care of yourself and met your obligations. Those are the funds you spend on your priorities. Remember that with every dollar you spend you are giving up whatever else you could have purchased with it. Economists call it "opportunity cost". That's my brief economics lesson for now. (If you'd like to learn more, check out Appendix A -- An Economist's Worldview with a Glossary of Concepts and Terms.) By paying attention to what we are giving up and choosing what we prefer, "We, the people" are more likely to get the goods and services we want most.

There are just two things you can do with your discretionary funds. Either you can use them for "consumption" or for "saving" (that's without the final 's'). Saving is withholding the funds from current consumption. You can put them under the mattress; put them aside, perhaps, in an interest-bearing savings account, for future consumption; or put them into an investment. Or you can give some of them to a charity or cause. That's the end of the lesson. Please keep those concepts in mind.

With that let's take a look at its implications for the two ways of buying a car. What you give up by waiting until you have enough money to buy the car is the use of it between now and then. If you delay the purchase, any money that you earn in interest in a savings account, for example, adds to your future disposable income and helps pay for the car. That assumes, of course, that the interest keeps you ahead of the rise in the price level.

By buying it with a loan you get to use the car now, but you are encumbered with the loan. Not only do you have to repay it, you must also pay any interest charges, fees and penalties that you incur.

To better understand the effect on your disposable income, let's assume for a minute that it is a one-year loan that you are scheduled to repay the following year. That means that next year, if your income remains the same, the loan repayment plus any accrued interest must be taken out of next year's disposable income. That leaves you worse off than you are now because you have to pay the interest as well. If it is a longer-term loan, the problem remains the same. It just pushes the inevitable further into the future.

There is another important consequence of taking out a loan. The payment of the interest and repayment becomes an obligation. It must be paid first, before any other discretionary expenditures. That cuts into your future disposable income and deduces the flexibility of your purchasing choices in the years ahead. Moreover, should you default, you are likely to face significant penalties, cutting into your future disposable income even further.

That is what happens if your future disposable real income remains constant. If it falls, the burden of the repayment of the loan is even greater. That could happen:

- If you lose your job;
- If you incur some other obligation that takes precedence, like having a family or incurring medical expenses for an illness; or
- If the price of things that you ordinarily buy goes up, like rent, utilities or

gasoline.

- And then there are the unpredictable adverse events, like a natural disaster, hurricane, earthquake, flood, drought, car accident, etc., that are outside your control but that nevertheless have an impact on you.

Two other important contemporary types of loans have added to the inequality in the income distribution. They are student loans and those that people take out so they can own their homes. We will discuss them later on.

When I bought my first car in 1946 most transactions were paid for in cash or by check. As part of consumerism, credit cards have replaced cash. Visa and MasterCard came into play in late 1950s and ‘60s. That was followed by ATMs and online banking. You could slip your card into a machine virtually anywhere and get cash without even having to see a real live bankteller. It has gotten to the point where today, small vendors using their iPhone and the Square can accept a credit card payment anywhere. You can sign with your finger and get a receipt over e-mail.

A complication arises when current expenditures exceed the current disposable income. When that happens the only options are to cut back on necessities, to get a loan, or to find someone or some organization that is willing to cover the difference.

Those are some of the direct consequences of the “buy now, pay later” approach. It also makes it less likely that you will set funds aside to cover the expenses resulting from unexpected adverse future events -- a contingency, rainy day or shit happens fund. Any of those adverse events could affect your credit score as well. That would make it harder to get a loan to bail yourself out. Without it, the burden of covering those expenses falls on others. More about that later as well.

The changes that have occurred since the end of World War II have made a significant difference. Along with the technological changes that brought along with it many new products, the emphasis shifted to consumption, consumption and more consumption at the expense of saving. The improvements those changes have brought about make life better for all of us. They have contributed to the significant growth in income. At the same time they have led to the greater inequality in the income distribution. The rich have gotten richer and the income for those at the lower end has not increased as much, if at all.

For those who are concerned, we will look at how the changes we all have experienced have put us, as a society, in that position. Based on that understanding I will come up with some suggested recommendations to help redress that imbalance and improve the well-being of those at the lower and middle end of the income distribution. In the process not only will it make almost everyone better off, it will also enable those at the lower end of the income distribution be better able to take care of themselves and make a greater contribution to future generations.

2. Stage I --The Post-World War II Period

Let's put those considerations into historical context. Immediately after World War II there was strong emphasis on current consumption. There was a pent-up demand. The previous focus was on producing goods for the war effort and not on consumer goods. Rationing, that further restricted consumption, was now over. Jobs were plentiful, for both men and women, making disposable income available. The forced savings during the war contributed to current disposable income as well. Oh, I forgot to mention the G.I. Bill of Rights. It enabled those who had been in the military to further their education.

All that led to a demand for housing; cars; household equipment, including washing machines, dryers and dishwashers; TVs; and air travel. The last two had just recently become available. Those are just some of the goods and services that buyers, with the available funds, were looking to buy. Furthermore, plentiful jobs were required to produce them. That contributed to the household's disposable income. That made it possible to take care of oneself and to have and raise a family. That is what things were like right after World War II.

During that period the emphasis was distinctly on current consumption. There was another factor that contributed to the focus on it. At the time the life expectancy for a male born in the US in 1945 was 63.6 years. Females could be expected to live a little longer to 66.8. That was only slightly longer than their parents. As a kid born in 1928, my life expectancy was 55.6. That is considerably less than someone born today. A male born in 2010 can on average expect to live until 76.2 -- an additional 20 years. (Just in case you haven't noticed, at 89 I've greatly exceeded those expectations and, by the way, I've taken responsibility for and taken care of myself in the interim.)

If someone was 30 in 1945 they could expect to live for another 25 years or perhaps a little longer. Under the Social Security Act of 1935 retirement age was 65. So almost everyone could expect to die before then. For those who lived beyond that, retirement was for a much shorter period. The income for those years would be covered by one's pension; Social Security benefits (at the time they were called Old-age benefits -- OAB); and the Medicare provisions to cover medical expenses. The shorter life expectancy and the other provisions all contributed to a lesser concern about the future and a preoccupation with current consumption.

The high levels of consumer demand put suppliers in the drivers seat. That was true not only for the final products but also for the intermediate products -- the goods and services required to make them -- and their suppliers. The expanded markets were aided by improved truck transportation -- a.k.a., motor carriers. Firms expanded taking advantage of larger scale, lower cost methods of production. As one example, it facilitated the movement of the textile industry from New England to the South. A significant portion of textile operations have more recently moved overseas. The moves enabled the firms to take advantage of the lower labor costs that existed in the South and later overseas. Burlington Mills became a household name. Local commercial banks morphed into State Banks, National Banks and large international banking institutions. The lending companies -- some of which were owned by the manufacturers, like

General Motors Financial and GE Capital -- followed suit. They became large companies.

Those conditions put suppliers in control. It provided the funds to promote their product and expand their market. One way they were able to was through national advertising in the media, including on newly introduced television. Not only did that enable them to expand production and provide more product at lower cost, it also made it possible to charge high prices as a result of their control over the market. That led to excess profits -- profits over and above all the costs of production. Those funds help them to promote their products and establish “National Brands”. (See Table I) They also used those funds to spread the word about their products to new customers using advertising over radio and in other media. That increased the size of their market. It also increased their revenue and that of the media companies. All became the beneficiaries of the expanded markets.

Another important change that was taking place at the time. During the period between the two wars and certainly during the Depression, there was a significant decline in the role of the military. However, prior to the official entry of the US into World War II in 1941 and beginning in 1939 with Lend-Lease, the expansion began. In fact, it contributed to the recovery from the Great Depression. The production of tanks, jeeps, aircraft, ships, armament, the military equipment, hardware and the supplies required to support military operations increased dramatically and rapidly. All in spite of the fact that the men of productive age were being drafted into military service.

The expansion of that sector of the economy significantly contributed to the success of the Allies in World War II. Postwar it remained a significant economic force. (See Table 1) A 2012 report said that the United States annually produces 60% of the munitions that are produced worldwide.

The US became a significant military power, making it possible to develop an important industrial sector with large firms with direct ties to the military. Often retired service members found employment in it. Sometimes those higher-up in the industrial hierarchy returned to government service. The Military-Industrial complex was backed up in Congress by the legislators from those districts where their plants were located. (More about that later as well.)

<u>Cover-ups</u>

At times some companies use their control over the market to enhance their revenue at the expense of their consumers or fail to disclose the harm that their activities or products can cause to their customers, to other members of society and to the environment.

The anti-competitive and antisocial activities existed long before the current era. Showing my age, I can no longer say, “At the end of the last century and the beginning of this one” when I am referring to the end of the 19th and the beginning of the 20th. That was the time when, based on the new technology that became available, the Robber Barons were notorious for those activities. They were able to gain control over their markets and use it to exert their power and influence. The names of the companies that they put together provides the evidence. They include the Standard Oil Company, United States Steel, Grand Central Railroad, General Motors, General Electric, and American Telegraph and Telephone Co. (a.k.a. AT&T). In spite of the fact that John

D Rockefeller's Standard Oil and Theodore Newton Vail's AT&T were broken up in 1911 and 1982, respectively, because they violated the 1890 Sherman Antitrust Act, all are names that you are familiar with today.

Similar activities extended throughout the earlier part of the 20th century leading to the Federal Trade Commission and Clayton Acts in 1914. And to its amendment to it in 1950 to cover mergers.
[https://en.wikipedia.org/wiki/Robber_baron_(industrialist)]

Unlike the turn of the 20th century, the recent technology brings along with it a wide range of products, giving the leading firms control over a broad spectrum of markets. For our purposes here, I will focus on contemporary examples that you are more likely to be familiar with. More importantly, the suggested remedies for the problems they pose are more relevant in today's world.

Here are some examples of substandard corporate performance and cover-ups that have reached the attention of the national media. Some have caused deaths, property damage and damage to the environment.

Causing damage to the environment:

- Exxon Valdez oil spill (1989)
  (https://en.wikipedia.org/wiki/Exxon_Valdez_oil_spill)
- BP Deepwater Horizon oil spill (2010)
  (https://en.wikipedia.org/wiki/Deepwater_Horizon_oil_spill)
- Duke Energy river pollution (2010-2014)
  (http://www.cbsnews.com/news/duke-energy-fined-102-million-in-coal-ash-spill/)
- In the 1970s DuPont informed workers at its Washington Works, near Parkersburg, W.Va., of the toxic effects of PFOA, or perfluorooctanoic acid. DuPont withheld the information from the EPA. In the early '80s DuPont purchased 66 acres for a landfill to dispose of the waste from the factory. It was dumped into unlined pits and into a creek that ran through a pasture where farmers grazed and watered their cows causing grotesque malformations and deaths among the animals. It also contaminated the local water supply well beyond what the company's own and independent scientists considered safe -- causing injury and deaths.

  A class action suit was filed against DuPont in 2001. In 2005 the company agreed to a $16.5 million settlement with the EPA. Some of the settlement issues have not yet been resolved. DuPont stopped producing and using PFOA in 2013. It has been replaced by another member of the same chemical family. DuPont claims that it will not cause harm.

(http://www.nytimes.com/2016/01/10/magazine/the-lawyer-who-became-duponts-worst-nightmare.html)

Faulty, potentially harmful products

- Ford ignition switch problem (1988-1993)
  (http://www.wsj.com/articles/SB830451770503204500)
- Takata's defective airbag cover-up and recall (2007)
  (http://www.nytimes.com/2015/10/23/business/takata-airbag-inquiry-widens.html?_r=0
- GM ignition switch problem (2000-2004) (http://en:wikipedia.org/wiki/General_Motors_ignition_switch_scandal)
- the MINI Cooper defective passenger airbag seat indicator (2005-2008)
  (http://www.edmunds.com/car-news/2005-08-mini-cooper-recalled-for-airbag-problem.html)
- Recalled tires that mechanics and consumers don't know about
  (http://www.nbcnews.com/news/us-news/system-recall-defective-tires-completely-broken-say-officials-n452506)

Intended to bypass or influence regulations

- VW's tampering with diesel emissions in order to pass inspection (2009-2015)
  (http://www.wsj.com/articles/volkswagen-emissions-scandal-relates-to-11-million-cars-1442916906)
- Monsanto's effort to protect and preserve its lucrative synthetic Bovine Growth Hormone (rBGH) market
  (https://en.wikipedia.org/wiki/Bovine_somatotropin)
  (https://www.youtube.com/watch?v=Z0AL4yml3bw)
  (http://www.foxbghsuit.com/)

Faulty or deceptive performance

- Monongah, West Virginia coal mine disaster (1907)
  (https://en.wikipedia.org/wiki/Monongah_mining_disaster)
- Bundling sub-prime loans into mortgage-backed securities, misrepresenting their value and marketing them. The practice led to a $16.65 billion fine for the Bank of America.
  Bank of America to pay $16.65bn in mortgage case, By Kara Scannell and Camilla Hall, August 21, 2014
  [http://www.ft.com/cms/s/0/472aa6be-27f3-11e4-b7a9-00144feabdc0.html#axzz4EPeTNQTB]
- Pharmaceutical companies have been known to extensively promote their products to uninformed customers; influence the results of clinical trials; extend patent protection; and acquire rivals. After a number of prior acquisitions Pfizer recently announced its intention to acquire Allergan, making it the world's largest pharmaceutical company. It also said it would shift its headquarters to Ireland in order to reduce its US tax burden while still maintaining the US plant operations.
  A number of big pharmaceutical companies marketed powerful addictive opioids that helped seed the epidemic we are experiencing today. They actively marketed it to doctors downplaying its addictive properties. They used false and misleading

aggressive marketing tactics. It led to significant increases in off-label sales for inappropriate uses for which there was no proof of effectiveness. The addictive properties contributed to the greater sales which, it turned out, increased substantially. One example was Purdue Pharma's OxyContin, whose drug was marketed by its partner Abbott Laboratories.

[(http://www.reuters.com/article/us-allergan-m-a-pfizer-idUSKBN0TB0UT20151124)]

How drug companies helped drive the opioid crisis, October 6, 2016
[http://www.pbs.org/newshour/bb/drug-companies-helped-drive-opioid-crisis/]

- The Peanut Corp. executive's prison sentence for his role in a salmonella outbreak cover-up
  (http://www.wsj.com/articles/ex-peanut-executive-sentenced-to-28-years-in-prison-for-salmonella-coverup-1442873738)
- The FIFA corruption scandal (2015)
  (https://en.wikipedia.org/wiki/2015_FIFA_corruption_case)
- Some physicians provide unwarranted medical services. An extreme case is that of Dr. Farid Fata, a well-respected Michigan oncologist, showcased on NBC's Dateline "Do No Harm". He is now serving 45 years in prison for fraud.
  (http://www.nbc.com/dateline/video)
  (https://en.wikipedia.org/wiki/Unnecessary_health_care)
- In the 1960s the Sugar Research Foundation, today known as the Sugar Institute, paid Harvard University scientists to play down the link between sugar and heart disease and to promote saturated fats as the culprit. The industry's attempt to influence dietary recommendations continues today.

How the Sugar Industry Shifted Blame to Fat, By Anahad Oconnor,Sept. 12, 2016

[http://www.nytimes.com/2016/09/13/well/eat/how-the-sugar-industry-shifted-blame-to-fat.html?_r=0]

- The large-scale for-profit colleges -- Corinthian Colleges, ITT Technological Institute and Trump University -- closed their doors in 2015, 2016 and 2010, respectively. They were largely funded by federal grants. That left their current, former students and employees high and dry, many without jobs and significant student loans.

See PBS Frontline and Wikipedia

[http://www.pbs.org/video/1485280975/]

Those are just some of the ones we know about. There are bound to be others. One wonders about the similar problems out there that are being covered up and that have not come to the public's attention and what damage they have caused.

Governments are not immune from similar problems, as the lead contamination of the water supply in Flint, MI shows. Government agencies can fail early on to acknowledge the existence of a problem and become involved in a cover-up. In Flint not only did it cause unacceptable lead levels in the children that could potentially cause serious harm, it also made the cleanup, restoration and the follow-ups to assure that the lead did not cause harm more expensive. That

placed a greater financial burden on those who paid for it, including third-parties that were not directly affected by the contamination. By handling the situation in the way they did, the responsible city, state and federal officials were not performing "efficiently"-- resources and funds were wasted.
[https://en.wikipedia.org/wiki/Flint_water_crisis]

Nor are other firms or organizations performing efficiently, as the revelations about the practices of the post-secondary for-profit educational institutions show. Their failure to be informative of and accountable for potential harm that their actions can cause makes their customers and others worse off. Similar problems also exist for other types of organizations, associations, institutions, foundations and not-for-profits, including educational institutions for their failure to address discrimination in admissions and sexual assault, for churches and for the Mafia.

Typically companies do not publicly disclose those problems at the time. Both the issue and its cover-up involve mismanagement. The problem, the failure to inform consumers and those persons affected by it and to accept responsibility as soon as the problem arises enhances the company's profits or the organization's revenue. Furthermore, it artificially supports their image in the public's eye.

The damage inflicted and the funds for the expensive recalls to rectify the problems could have been used for more constructive purposes had the corporations or organizations and their management not committed the errors in the first place and had they acknowledged their responsibility.

<u>Product promotion</u>
One way companies try to maintain control over their market is through product promotion. It informs potential customers about the product, enhancing their market and hopefully increasing their sales. Buyers benefit in that they learn about new options. However, there are significant social costs as well. Take advertising as an example. Firms spend a significant amount of money to get you to spend your disposable income on <u>their</u> product. Even when the advertising is accurate, typically it does not facilitate product and price comparisons.

We are daily bombarded by ads, many of which are for products we have no interest in or could not afford even if we did. Think about it. They arrive every time you turn on the TV; open your e-mail, a magazine or newspaper; in the flyers in your mailbox; in unsolicited phone calls; on billboards; on apps, websites, and social media; and at sporting events, just to mention a few places.

For many of us the ads are a waste of our time and effort and money. One wonders how much they actually add to sales. They certainly put the company and brand name out there. It certainly benefits the media companies. Extensive and excessive advertising is made possible from the excess profits firms obtain because of their control over the market. Smaller firms that provide the goods and services consumers want and where their prices just cover the cost of production, do not have the extra funds to enhance their market or political position.

Fraud

There are times when some companies to go even further. They misrepresent the product, engage in false and misleading advertising and in other deceptive practices. Sometimes they go beyond that by failing to disclose the potential harm that the product can cause, even when they are aware of the possible problems. When they engage in that type of activity, they are not open, honest and fully transparent about the product, including its problems and potential problems and the harm it can cause. They fail to disclose its defects; its potential problems; or what could happen when you use it. Hiding the problems leads to an increase in sales and profits.

When those responsible for corporate decisions are aware of the product's actual or potential flaws beforehand and fail to inform customers or investors, that failure falls under the legal definition of fraud, even though they do not intend to cause harm.

That is what the courts ruled in a major case against the US tobacco companies. In 1999, the United States Department of Justice (DOJ) sued several major tobacco companies for fraudulent and unlawful conduct under the Racketeer Influenced and Corrupt Organizations Act (RICO). Among other things the DOJ claimed that the tobacco companies had engaged in a decades-long conspiracy to (1) mislead the public about the risks of smoking, (2) mislead the public about the danger of secondhand smoke, and (3) misrepresent the addictiveness of nicotine. The companies included Philip Morris, R.J. Reynolds, Brown and Williamson, Lorillard, Liggett Myers, and American Tobacco.

On August 17, 2006 District Court Judge Kessler issued a 1,683 page opinion holding the tobacco companies liable for violating RICO by fraudulently covering up the health risks associated with smoking and for marketing their products to children. The Judge's opinion states, "Defendants have engaged in and executed – and continue to engage in and execute – a massive 50-year scheme to defraud the public, including consumers of cigarettes, in violation of RICO." On May 22, 2009 the three-judge Appeals Court panel unanimously upheld Judge Kessler's decision finding the tobacco companies liable and upheld most of the ordered remedies.
[Ed: http://publichealthlawcenter.org/ics/tobacco-control/tobacco-control-litigation/united-states-v-philip-morris-doj-lawsuit]

The bottom line is that even though the tobacco company executives knew about the addictive properties of nicotine and the potential health hazard of cigarettes for years, even decades, they did nothing to inform customers or investors. The Court found them in violation of the law. Yet, interestingly, under a separate provision, they could not be penalized for past activity. They could only be prevented from engaging in the practice in the future. Here we are 10 years later still trying to work out how to implement the decision and apply it to e-cigarettes as well.

There are a number of other recent examples where the corporate executives have failed to disclose problems about their product to customers and investors. In the period up to the financial crisis in 2008, Countrywide Financial and Merrill Lynch were heavily involved in the bundling of sub-prime loans into mortgage-backed securities (MBS). The MBS were given artificially high credit ratings by the bank's internally-owned credit rating agency. Both companies were subsequently acquired by Bank of America.

The Department of Justice followed through with a suit against Bank of America. In August 2014 Attorney General Eric Holder announced that the Department of Justice reached a $16.65 billion settlement with the company – the largest civil settlement with a single entity in American history — to resolve federal and state claims against Bank of America and its former and current subsidiaries. As part of this global resolution, the bank has agreed to pay a $5 billion penalty for fraud under the Financial Institutions Reform, Recovery and Enforcement Act (FIRREA) – the largest FIRREA penalty ever – and provide billions of dollars of relief to struggling homeowners. The settlement does not release individuals from civil charges, nor does it absolve Bank of America, its current or former subsidiaries and affiliates or any individuals from potential criminal prosecution.
[Ed: http://www.justice.gov/opa/pr/bank-america-pay-1665-billion-historic-justice-department-settlement-financial-fraud-leading]

In another similar case, following through on recent reports in Inside Climate News and The Los Angeles Times in November 2015 New York State's Attorney General Eric T. Schneiderman launched an investigation of Exxon Mobil regarding a potential violation for similar practices related to climate change. He subpoenaed detailed corporate records in order to determine what the corporate executives knew about it and what they told customers and investors. For more information about it see the two New York Times articles -- Exxon Mobil Investigated for Possible Climate Change Lies by New York Attorney General by Justin Gillis and Clifford Krauss, Nov.5, 2015 and The Limits of the 'Tobacco Strategy' on Climate Change by Brendan Nyhan, Nov. 6, 2015
[Ed: http://www.nytimes.com/2015/11/06/science/exxon-mobil-under-investigation-in-new-yorkoverclimatestatements.html?
rref=collection%2Fsectioncollection%2Fscience&action=click&contentCollection=science&region=stream&module=stream_unit&version=search&contentPlacement=2&pgtype=sectionfront&_r=0;
and
http://www.nytimes.com/2015/11/07/upshot/the-limits-of-the-tobacco-strategy-on-climate-change.html?
rref=collection%2Fsectioncollection%2Fscience&action=click&contentCollection=science&region=stream&module=stream_unit&version=search&contentPlacement=6&pgtype=sectionfront]

In each of those cases large companies -- commercial corporations and banking institutions -- with control over the market backed with substantial financial resources were accused of withholding information for their private benefit at the expense of consumers and investors.

Interestingly, some of those actions are based on New York State law not federal law, even though their consequences go well beyond state boundaries. The fraudulent activities could not have taken place without the knowledge of those in control of the market using accumulated funds -- the excess profits -- in the attempt to maintain or to acquire additional control. This leads us to the next step -- namely, with that objective -- enhancing their control -- in mind, they engage in anti-competitive activities.

Anti-competitive actions

One of the oldest anti-competitive activities is price-fixing. It involves setting the 'monopoly price' well above the cost of production. Individual companies can do it when they have control over the market. Sometimes it is done in collusion with other firms.

The recent EpiPen experience is a contemporary example of an old-fashioned way of doing business. Mylan, a pharmaceutical company, acquired the EpiPen, a decades-old product in 2007. It is an Epinephrine auto-injector sold in a two-pen set. At the time, pharmacies paid less than $100 for the set. Since the acquisition Mylan has steadily raised the wholesale price. In 2009 it was $103.50 for a set; in July 2013, $264.50; in May 2015, $461 and this May it was raised to $608.61. That led to a public outcry.

The EpiPen can deliver a life-saving dose for allergy sufferers. Mylan has a very substantial share of the market with no competitors in sight for now. The product and its delivery system have not changed significantly. The EpiPen patent expires in a year. Ideally, each packet should be replaced yearly. At current prices that is an additional $600 plus. In reaction to the public response Mylan recently came out with what they call the 'generic version' for $300. It is the same EpiPen with different packaging. It would be interesting to see EpiPen's price history in other countries, like Canada. During the same period Mylan's revenue, net income and executive's salaries have gone up significantly. Furthermore, the company moved its headquarters overseas, apparently to save on its US taxes.

This is a clear example of a company's using its position of power over the market to charge consumers a price well in excess of its cost of production and marketing.
EpiPen Price Rise Sparks Concern for Allergy Sufferers. *By Tara Parker-Popeand Rachel Rabkin Peachman,* August 22, 2016
[http://well.blogs.nytimes.com/2016/08/22/epipen-price-rise-sparks-concern-for-allergy-sufferers/?action=click&contentCollection=Business%20Day&module=RelatedCoverage&region=EndOfArticle&pgtype=article]

Among the other anti-competitive practices are mergers and acquisitions. In 1950 Congress passed an amendment to the 1914 Clayton Antitrust Act that made mergers illegal where there effect may "substantially lessen competition or tend to create a monopoly". It is administered by the Federal Trade Commission. In 1952 I was hired by them and assigned to that Division. (More about that later. See pp.___)

Mergers among large companies have made it possible for them to maintain and extend control. As we indicated earlier, Bank of America acquired Countrywide and Merrill Lynch to make it "Too big to fail". In November 2015 Pfizer announced its intention to acquire Allergan for $150 billion, making it the largest pharmaceutical company in the world. Along with it they said they would shift corporate headquarters to Ireland in order to reduce the company's US federal tax burden. Moving headquarters overseas is a practice that began in 1982. It has become so popular that it has acquired a title -- corporate inversion. (Again, more about that later. See pp.__)

[https://en.wikipedia.org/wiki/Too_big_to_fail]
(See Pfizer and Allergan Reach $150 Billion Merger Deal, By Michael J. de le Merced , Nov. 22, 2015
[http://www.nytimes.com/2015/11/23/business/dealbook/pfizer-and-allergan-reach-150-billion-mergerdeal.html?action=click&contentCollection=DealBook&module=RelatedCoverage&region=Marginalia&pgtype=article];
Pfizer Chief Defends Merger With Allergan as Good for U.S., By Michael J. de le Merced, David Gelles and Leslie Pickernov. Nov. 23, 2015
9http://www.nytimes.com/2015/11/24/business/dealbook/pfizer-allergan-merger-inversion.html?emc=edit_th_20151124&nl=todaysheadlines&nlid=33282262&_r=0]; and
Pfizer-Allergan Merger Reignites Tax Reform Discussion, By Iackie Calmes, Nov. 23, 2015
[http://www.nytimes.com/2015/11/24/business/drug-merger-reignites-tax-reform-discussion.html]

Consumerism

The emphasis on consumption contributed to the development of large-scale operations that give corporations control over their markets. Here are some of them.

- The commercial companies that supply products and provide services -- like GM, Ford, Chrysler, GE, IBM, International Harvester, John Deere, Caterpillar,Boeing, Douglas, Pratt & Whitney,General Mills, pharmaceutical firms -- Merck,Pfizer, SmithKline French -- the airlines -- Pan Am, TWA, American, Eastern, United -- and Walmart -- to name a few.
- The banks that provided the loans, like Bank of America and Merrill Lynch
- The lending institutions, like AIG
- The media companies, like ABC, NBC, CBS, CNN, PBS and Time Warner Cable
- The associations that promote their private corporate interests, like the Chamber of Commerce, American Petroleum Institute, Pharmaceutical Research and Manufacturers of America (PhRMA), and the National Rifle Association (NRA).
- Lobbying organizations that promote their agenda.

Some have been around for a while and others no longer exist. I'll bet there are some you may not have heard of. There are other large firms that you are familiar with that are not on the list. We'll talk about the newer ones later. When difficulties arose, in some cases, the government characterized them as "Too big to fail". After the 2007-2008 financial crisis the government took actions to help bail them out. Some see that as counterproductive.
[https://en.wikipedia.org/wiki/Too_big_to_fail]

Here's one example of consumerism that takes advantage of the current technology. NBC Nightly News (April 1, 2016) reported what might be called Friday night binge buying. Online sales of dresses, lingerie and shoes, especially with high heels, were significantly higher Friday night over the other nights of the week -- after pay day and presumably after a couple of drinks.

Retailers were well aware of it and took advantage of it.

Let's take a closer look at who benefits from the "buy now, pay later" approach. Clearly, the consumer benefits when it is important to have the commodity now, rather than later. But so does each of the companies that provide the goods and services. The extra products that consumers purchased as a result of that approach increases the firm's revenue; profits including a reasonable return on the owner's investment; and excess profits -- the revenue over and above all costs of production. Especially for the larger firms, they can be significant. When retained within the corporation and not distributed to the stockholders, it gives the corporate managers significant economic power.

In the background right after WWII and throughout most of the post-war period, there were a number of other factors that placed additional emphasis on consumption rather than saving. They include:

- Favorable economic conditions with good employment opportunities with good prospects for the future.
- The belief that through appropriate monetary and fiscal policies future downturns could be prevented. That was reinforced by the appointment of Dr. Alan Greenspan as Chairman of the Federal Reserve Board from 1987-2006.
- The belief that Social Security (Old Age Benefits) and pension programs would provide income after retirement.
- Health insurance programs and Medicare would cover any medical expenses.
- The ever-present advertising on all media, including on TV and later the on the Internet and iPhones, that promoted consumption and the "buy now, pay later" approach.
- The continuous flow of information about the new products and about new, exciting and different places to visit at reduced costs. All you have to do was to jump on a plane or into your car.
- In contrast to the decade before the war and during the war itself, there was a negative image placed on the value of government intervention. At the end of the period it led to stalemates in the U.S. Congress.

All those factors contributed to the emphasis on consumption.

It is important to remember that because of that emphasis, the general population is less likely to participate in the corporate gains except to the extent that they have a job and are part of the labor force. That is especially true for those at the lower end of the income distribution with less disposable income. More on that later as well. (See pp. ___)

If you don't think consumerism has taken over, consider this. Online shopping, that now has an important role in buyer purchases, did not exist in 1945. In 2015 Amazon was the largest online retail outlet with total revenue of $107.0 billion. Walmart, was the second-largest online retailer. With its domestic and international sales it was the largest company overall, with annual revenue of $482.1 billion. It came into business as a small retail outlet in Arkansas in 1945. Its sales in

that year were $105,000. Here's another example. Somehow or other, in the earlier years buyers were able to do all their Christmas shopping without "Black Friday". Now it happens the day after Thanksgiving, almost a month before the Christmas holiday.
[http://beta.fortune.com/fortune500/amazon-com-18]
[http://fortune.com/2016/06/06/fortune-500-top-10-companies/]
[https://en.wikipedia.org/wiki/Walmart#1945.E2.80.9369:_Early_history]

<u>The aging population</u>
Just in case you haven't noticed, there is another important change that has occurred since the end of World War II. People are living longer. As I mentioned earlier, at the time life expectancy was 65, or perhaps a little longer. When you read the obits today, it is surprising how many of us live into our 90s. Some even make it past the century mark.

The longer life expectancy has important economic consequences. Some seniors, in spite of their aging, remain in the workforce, continue to be productive, bringing in additional income, and retiring at a somewhat older age. Some make their contribution by taking on the grandparenting role. Others find their passion and continue to pursue it. But, for the most part, a greater proportion of the population spend a larger percent of their life in "retirement". They are no longer contributing to the output of goods and services.

The goods and services they consume must be produced by a smaller and smaller proportion of the population. Add to that, since they are aging their demand for some of those goods and services is greater than it was when they were younger. Health-care and support services are good examples. As a consequence, the product mix changes as well.

Since they are no longer contributing to the national output, it follows that the burden of producing it falls on the younger generation. They produce the products the "older folks" consume.

Who is paying for the products? Someone has to provide the funds. Since they are not "working", they cannot come out of their pay -- that is, from their contribution to output. Some of the funds come from their Social Security and pension payments. Those payments continue, in spite of the fact that the amount was based on the expectation of a shorter life expectancy. When the older folk were able to save during their productive years -- that is, put money aside from their disposable income -- those funds became part of the stock of capital. Now, in their senior years, the funds are used for consumption and are no longer available for capital investment. When the seniors don't have those funds, they have to rely on gifts from others or have to be supported from the balance of the population, individuals unrelated to them. One way would be for them to pay higher taxes. Doing so limits the amount of funds that they have available for their own current consumption and for saving to help when they get older.

The bottom line is that from an overall perspective, aging contributes to the focus on consumption and deemphasizes saving.

That provides an overview of what things were like in the period just after World War II. That is

Stage I. It is characterized by consumerism -- the emphasis on consumption and the de-emphasis on saving. It puts suppliers in control and provides them with the excess funds that made it possible to exert their influence. They made decisions that furthered their private self-interest and they had the funds to back them up. Typically, it was with little concern for the broader public consequences or the environment. Consumerism and supplier control set the stage for what happened next.

There are two things had a profound effect on what happened subsequently and greatly increased the inequality in the income distribution. One was that firms used the funds they acquired to attempt to develop new, improved technology -- new products and new processes of production. The other was to use the excess profits in an attempt to influence legislation and legislators in order to enhance their dominant position over the market to their private benefit and to limit government regulation of their activities. We will focus on innovation inn Stage II and the attempt to influence government activity in Stage III.

3. Stage II -- Using Innovation to Extend Control

One of the ways that corporations can extend their control is by the development of new products and processes of production -- by innovation -- and by making them available to consumers. That is the essence of Stage II.

My specialty in economics is called **Industrial Organization and Public Policy**. Over the past 70 odd years I have been studying markets, initially as a student, then as a researcher and teacher. I retired as a Professor of Economics in 1985 and have continued studying them as a "nominally retired economist".

When examining markets I attempt to answer the questions: How do they work?, How well do they work?, and How they can be made to work better? In lay jargon it is called the study of "monopolies". It is when firms and individuals manipulate the market for their private benefit at the expense of the public interest. At times, by using their control over the market, they have also been able to influence the government's activities at society's expense.

Most recently my interest has been focused on their role in creating the greater inequality in the distribution of income and wealth. My intent is to help people understand its underlying causes, the consequences and the potential remedies. It was triggered by Bernie Sander's remarks during the 2016 presidential campaign. He was right on about the corporate manipulation of the system to promote their private self-interest. But, from my perspective as an economist, he was missing some of the significant underlying factors and issues that have an important effect on any proposed remedies. Initially I thought it was going to be a paper. As you can see it has expanded beyond that.

The technological change process

The changes in technology -- that is, the development of each new product and process of production -- is made possible by the funds and resources that were made available to imaginative thinkers. Some are at academic institutions, others in business and not-for-profit organizations, and still others in government.

In every case additional time, energy, resources and funds (TERF) are required for the development and implementation of the ideas to successfully bring them to fruition as new products and processes of production and to make them available to potential buyers. When brought to fruition, they can be very beneficial for the users and profitable for those who developed the idea and produced the product. If it comes out of a company's research and development expenditures, it can reinforce their control over the market. The new products and processes of production can lead to new companies, each with control over its market.

As an aside, let's take a brief look at the consequences of the innovative process. We begin with the realization that very few of the inventions, even those that get patents, ever see the light of day. It takes considerable time, energy, resources and funds (TERF) to bring an innovative idea to fruition and to make it available to the users. All of those steps are an essential part of the innovative process.

If the product or process of production is new and novel, by definition it is one-of-a-kind. Some times others may be similar. However, none are just like it. If the buyer -- a consumer or producer -- wants "that" product, he/she must buy it from that producer. That situation creates a monopoly for every new product, giving the company control over the market. At times that exclusivity is reinforced by a patent. in the US it gives the patent holder the sole rights to produce and market the product for 17 years.

It is also important to understand that because the product or process of production is new and novel, its market has to be developed. Potential customers have to be made aware of what is available, of how to use it, of its benefits (and potential risks), and of how much it costs -- i.e, the price. Only then can they decide whether or not to buy it. Those requirements bring promotion and marketing into the picture. They are all part of the process of getting any "new" product out there and into the user's hands.

Let me take it a step further. Because the product is new some of the problems or potential problems associated with its use may not be known. Incidentally, that is also true for some of its potential uses. They can only be revealed once the product is on the market. And then, only when the problem develops and is directly associated with its use. Two words that we have heard a lot recently reveal the complexity of the problem -- climate change.

If one takes the position that it is the producer's responsibility to inform the users about potential problems, it is important to recognize that doing so can have an adverse effect on sales and profits. Consequently, the issue becomes how to make producers responsible and accountable when they don't make that information available.

Hopefully that gives you a somewhat better idea of the consequences of the innovation process. Now we are back on track.

There is no question that the new and novel products and processes of production benefit society. They allow us to do things we could not do previously and to produce goods and services less expensively. The innovators who made that possible are entitled to be rewarded and reimbursed for the costs -- the TERF involved in making that happen. The US patent system is one way to help ensure they receive those rewards.

However, that does not entitle the innovators to use their control over the market provided by the novel idea and the patent to extend that control to other areas. Their success in one area provides them with the power over the market and excess profits. Those excess profits can be well above all costs of production, including those required to bring about the innovation. The funds under corporate management's control can be used to:

• Buy up rivals
  • Extend the patent protection
  • Engage in anti-competitive practices, some of which may be illegal
  • Pay excessive salaries, bonuses and benefits to executives and managers
  • Withhold dividends from stockholders who provided funds for the innovation
  • Devise ways to avoid paying their share of taxes

Furthermore, their prior success is no guarantee future success. Nor does it give them permission to use those funds to the detriment of others; to manipulate the political system to their private benefit; to charge prices well in excess of the cost of production in order to accumulate excess profits; to spend funds in any way they choose for whatever they consider would be benefit them. Yet, they have the funds to do that, and some firms have engaged in those activities. (See pp. ___ for some examples.)

The constant barrage of innovations since the end of World War II has created a new way of life. Each new product, upgrade and product improvement puts the consumer into the "I just have to have that" syndrome. By adopting that approach, consumers can stay current, keep in touch with the goings on, and communicate with their contemporaries. That is especially true for the younger generations. The new products have led to new ways of communicating and along with it a new language. The Internet, the World Wide Web, GPS, e-mail, texting, twittering and selfies are just some examples. The new concepts have brought significant changes along with them.

Of course, each new device and upgrade is heavily promoted by the leading firms in order to reinforce its dominant position and control over their market. Just to remind you, here are some of the companies that have adopted that approach -- Apple, Microsoft, Google, Facebook and Amazon. That goes on , year after year, with the encouragement of the media who benefit from the promotion and advertising.

The significant drop in transportation and communications costs brought along with it a major change in the way firms do business. It made possible direct producer to consumer distribution systems, eliminating the middleman. Rapid delivery via UPS and FedEx is now common. Furthermore, the computers allow retailers to keep close track of their inventories. That enables them to supply customers with a considerably smaller inventory. Add to that the marked increase in individual unit packaging, frequently in plastics, with barcodes and scanning. All those recent changes led to a drop in distribution costs and the increase in direct producer to consumer sales.

Equally important, that approach reinforces the consumerism syndrome. Recently I got a direct, unsolicited ad from CVS in my e-mail account with images of products that I had purchased from them. When successful, the companies who engage in it capture more and more of your limited disposable income. Every time you follow their lead, it cuts into your disposable income; is antithetical to a minimalist lifestyle; supports consumerism; and de-emphasizes any of the advantages of withholding funds from current consumption. That makes you less able to handle any adverse future occurrences or to take advantage of new innovative opportunities.

<u>Computers</u>
To help better understand the technological change process, let's use the experience with computers as an example. They have had a profound effect on our lives. As I mentioned earlier at the end of the second World War there were no computers. Oh yes, we had adding machines with paper tapes that added and subtracted and came up with the totals. And desktop calculators -- that added, subtracted, multiplied and divided -- by Marchant, Monroe and Frieden. (Show images) A step up were the 'business machines'. They were the punchcard systems provided by International Business Machine Corp. -- now known as IBM -- and Remington Rand. But <u>no</u> computers.

In 1952-53 when I was at the Federal Trade Commission, there were only five computers in the world. IBM had one. So did the US National Bureau of Standards. The other three were at universities -- MIT, University of Illinois, and one, developed by Professors Eckert and Mauchly, at the University of Pennsylvania. It became the Eckert–Mauchly Computer Corp.

Each one filled an entire large room and was powered by vacuum tubes. The inputs and outputs were on recently designed magnetic tapes. They looked like large rolls of movie film. There were no transistors. None of those computers had the capacity of a cell phone, much less that of an iPhone or Smartphone.

At the time IBM had 90% of the business machine market, RemRand had 10%. As an aside, their punchcard machines were not compatible. IBM punch cards had rectangular holes, RemRand had round ones. In order to get into the computer business Remington Rand acquired the Eckert–Mauchly company. My job, as an economist at the FTC, was to determine the effect that acquisition would have on the market. If it would "substantially lessen competition or tend to create a monopoly", the FTC could rule against it. I can't remember which way the decision went. The bottom line is that Remington Rand acquired the company. It later merged into Sperry Rand and is now part of Unisys.

In retrospect, neither I, nor anyone else, could have predicted the profound effect that computers have had on our way of life, our livelihood, our lifestyles and our lives. We have come a far cry from the days of IBM and RemRand. Here are just a few of the new companies -- Microsoft, Apple, Sony, Panasonic, Hewlett-Packard, Epson -- that are in the production and sale of computers, its components and related equipment. And then there are the other companies --like Google, Facebook, Twitter and Amazon -- whose operations are intimately dependent on computers. And there are many, many others. Notice their international scope. They are companies you are very familiar with. None was around at the time. There is no way that anyone, not even the corporate managers at the time, could have predicted the effect computers would have .

The changes computers brought about

Let's look at a few of the changes that computers brought about. They have changed the way in which we communicate with each other and how we access information.

I told you that I was raised in Flushing. The address was 144-15 33rd Ave. When I wrote a blog post about my experience growing up there, my friend and co-author, Erin was able to find a picture of the house on Google. First, let me say that we didn't have "blogs". Now computers, websites and blogs are familiar to everyone. Some of us even have them.

Our phone number at the time was FLushing 9-8691. Notice that the first two letters are capitalized. If you wanted to give us a call and didn't remember the number, you picked up the Queens telephone book. It was listed there along with our address under my Dad's name, David. Today you go to the computer to get the number. Or it is already in your cell phone, iPhone or Smartphone. Or you can ask Siri.

Dial phones had just come in. You may have seen them in old movies. Or check out its image and later versions online. They soon developed into the ones us 'older folk' are familiar with. Our number became FL9-8691. That became the seven digit 359-8691 with ABC becoming 2, DEF 3, etc. Then on to the 10 digit number with the area code in front. The phones went on to become touch phones, push-button phones by the '70s, then cell phones, and Smartphones and iPhones in 2007 with a touch screen.
[https://www.google.com/search?q=dial+phone&biw=1280&bih=603&tbm=isch&tbo=u&source=univ&sa=X&ved=0CDMQ7AlqFQoTCNCg3LLD9MgCFUpsPgodvOcOwA#imgrc=LtJ7I4LJXT-LBM%3A]

The later ones are small computers that you can talk to and take pictures and selfies with. Most everyone has one. It is hard to imagine life without one. They are a far cry from the five computers I told you about earlier. Along the way they changed the name of my phone. It is now called a landline. When you call and I answer, you know just where I am.

Here's another of the many changes that computers have brought along with them. In the 1930s and 40s when you wanted to talk to someone outside your area, you picked up the phone and spoke to an operator. She placed the call, connected to her counterpart who, in turn, got your party. It was called making a long-distance call. You actually spoke with a person who was employed by the telephone company. Today I can pick up my phone, dial my friend Shirl who's from South Africa where she has a house or talk to her in rural Manchuria where she works at a hospital. It's all done by computer.

To make a call now you dial a number -- all 10 or 11 digits. Much of the time when calling a business or leaving a message, you find yourself talking to a computer. As long as you follow its instructions, you may eventually speak to a real person who may be able to help you. Often, a simple problem remains unresolved. Much of the time I find it unproductive, time-consuming and frustrating.That may be because I'm an 'old guy' who enjoys interacting and working with people.

There is no question that computers make it possible to do things that we couldn't do previously. They also make some things available more readily and cheaply. But we certainly do give something up in the process. One of those things is jobs, as computers replace humans.

Computers shrunk in size and grew in capacity. They went from the very large, room size ones to desktops, to laptops, to iPads and even smaller. Their benefits extended well beyond the computer industry itself. It is not an understatement to say that it could not have happened without the development of the World Wide Web, the Internet, e-mail and other related developments. They all depend on the computer. So do we. Along the way new uses were found. They made significant contributions in the scientific, industrial, commercial and consumer sectors of the economy.

The system also provides more ready access to information. If you have a question, you can always do a Google search. However, it is important to be aware that the information may not be reliable and can be subject to stakeholder bias, like an ad trying to convince you to buy their product.

What we have ended up with are relatively inexpensive, pint-size, powerful personal computers that you can put in to your pocket or purse. They give us greater access to information and provide products and services that were not previously available. Moreover, they change the way in which we communicate with each other, whether by e-mail, voice, texting or pictures. It is all facilitated by the new computer technology.

Other technological changes

Computers are just one of the recent major technological changes. They have morphed into self-driving cars and robotics. Capital-intensive robots have replaced humans on the assembly line. All that has come about since the end of World War II. Similar developments occurred in other sectors of the economy. Penicillin, the first antibiotic, was introduced in the mid-40s. It was followed by many other antibiotics that came along with other important changes in medicine, pharmaceuticals and healthcare. Black-and-white TV sets had, at the time, recently come on the market. Typically, the TV had a full-screen cathode ray tube in a large cabinet at one corner of the living room. Synthetic fibers and plastics were a new phenomenon with relatively limited uses. Jet engines had only recently evolved. Microwave ovens became commercially available in

1967. Most of today's photography is digital. GPS -- the global positioning system -- did not exist. Look around you and you will see many other products that were simply not available in 1945.

Another significant factor that had a profound effect on technological change is the development of the Military-Industrial complex. From the founding of the nation through the period prior to World War II, the military establishment was in the hands of the Departments of the Army and the Navy. The Marines were part of the Navy and the Air Force was part of the Army.

At the time the military had a much smaller role in the economy. In 1938 defense spending was 1.9% GDP -- $1.7 billion. The federal budget of $20.2 billion was 20.2% of GDP. In 2015 the allocation for the Department of Defense was $585 billion,[39] This amounted to more than one-half of the annual federal expenditures in the United States. [40] (See Wikipedia, US Department of Defense)
[http://www.usgovernmentspending.com/total_spending_1938USmn]

From 1943 on military operations were run from the Pentagon. In 1947 there was a significant restructuring. The military services were consolidated into the Department of Defense. Along with it, the United States Air Force (USAF) and the United States Marine Corps (USMC) were established as a separate departments.

The crisis in Europe in 1939 led to Lend-Lease. It brought about a significant expansion in the military equipment and supplies industries. The Japanese attack on Pearl Harbor in 1941 brought the US into the conflict. After that, operations were ramped up even further. Here are some the innovations and industries that were affected:

- Ships -- warships, submarines, transport ships, cargo vessels
- Ship propulsion -- steam, diesel and gasoline engines, turbines, nuclear power
- Vehicles -- tanks, military vehicles, jeeps
- Aircraft -- fighter planes, bombers, cargo planes, transport planes, helicopters, stealth aircraft, drones
- Aircraft propulsion -- propellers, jets, rockets
- Munitions -- rifles, pistols, machine guns, grenades, assault rifles, mortars, incendiary devices, cannons
- Military equipment and supplies
- Atomic and nuclear bombs and, subsequently, power
- Atomic, nuclear, solar and wind-generated energy
- Rockets
- Satellites, space travel
- Transistors
- Radar and sonar
- Lasers

The expansion of the military-industrial sector helped bring the US out of the depression. Once the country became actively involved in the conflict, men were drafted and went off to war. Those who remain behind and the women were actively involved in the workplace, including

‘Rosie the riveter’. That helped to bring about a major shift in the role of women in the economy.

In the period right after World War II there was a backlog of demand; a shortage of civilian goods; a multiplicity of job opportunities with the resulting greater income; and the extra funds from the money withheld from consumption during the war, like the “Savings Bonds”. Those conditions contributed to the recovery from depression and the war and to rapid economic expansion. The role of the military-industrial complex was enhanced by the wars in Korea, Vietnam, Iraq, Afghanistan and Syria and by space exploration and travel. Importantly, it was also a period of adjustment to new technological conditions -- the new products and new and upscaled processes of production. Many came from the military-industrial sector. Computers had a significant role in the new developments, but they were only a part of them.

<u>In Summary</u>

Success in developing new products and new processes of production -- innovations -- puts the company in a position of power and control. Importantly, it also provides them with the funds to take actions. Actions that enable them to maintain or extend their control over the market, should they choose to do that. A few well-known ones -- Microsoft, Apple, Pfizer, VW, Monsanto -- prove the point. For some examples see pp. ___. You can add others that you know about.

Computers, along with other innovations, have also allowed firms to increase their scale of operations and produce goods at lower costs. That gives those firms greater control over expanded markets and even higher excess profits. It also provides them with the funds to manipulate markets even further.

As an important aside, as we have shown with the computers, many of the innovations are capital-intensive, rather than labor-intensive. Since the newer operations require fewer employees, the employment opportunities declined, especially at middle income levels. That further contributed to the greater inequality in the income distribution. So did the emphasis on consumption of the new products.

When innovations are successful a share of the rewards go to those who made it possible. Not only does that include the executives and managers, it also includes those who put the money aside to contribute to the firm’s capital -- capital that made it possible for those companies to take advantage of new opportunities including the innovations. The rewards for their contribution add to the greater inequality in the distribution of income and wealth. We’ll talk more about that later in Stage VII -- Effect on the Distribution of Income. The end result is that when innovations are successful, the companies and individuals who contributed to making that happen moved higher up in the income distribution.

It is important to remember that every innovation mandates changes in the way we do things. That is especially true for those innovations that have a profound effect. Old products and old ways are outmoded. Labor and other resources must be made available to provide the new products. As an essential part of the process, those companies and individuals that are displaced are made worse off and forced into the lower end of the income distribution by the changes. Consequently, a reallocation of resources always goes along with and is an essential part of innovation. More about that in Stage V -- Mandatory Reallocation of Resources.

Next in Stage III, we will examine how those in control use the funds that became available to further enhance their position. They use some of the funds to attempt to influence government activities and the political process.

4. Stage III -- Attempts to Control the Regulatory and Legislative Process

It is well established that there are circumstances where the market mechanism does not provide the goods and services that consumers want most at a cost and price that just covers the lowest cost of production and where the laborers and other resource providers are reimbursed for their contribution. When markets do not perform up to those standards economists call them 'inefficient'. Those circumstances open up a potential role for governments -- local, state, national and international -- to help correct the situation. (See Appendix A -- A Brief Lesson in Economics -- The Government's Role in Ensuring That the Economic System is "Efficient" for a brief discussion .)

For the purpose of our discussion here we are interested in the government's role in ensuring the greatest good for the greatest number and in reining in corporate excesses.

Let me begin by giving you a bit of history. As technology advanced, industrialization and urbanization came along with it. Households had to be provided with water, sewerage and garbage disposal, electricity, phone service, natural gas, and transportation services. Often the companies that provided them were single source suppliers -- a natural monopoly. In order to ensure that they provided high quality services and did not gouge the public by charging excessively high prices, governments instituted public utility regulation. What happened next is best described in an expression from the times, "The regulated (companies) became the regulators". Individuals with an industry background and experience were given responsibility for enforcing the regulations. That still happens today.

Prior to World War II the ways in which businesses attempted to influence government activities were very different then from what they are now. The war brought with it an expansion of industrial activity that turned the United States into an industrial power. It significantly contributed to the winning of the war. It also gave rise to the Military-Industrial complex.

Before the war some lobbying existed. However, it was not prevalent and it had a very different character. Legislators from rural areas across the country lobbied for regulations to promote the best interest of small farmers and farms. Large-scale industrial farming was not in the picture. Labor unions lobbied for workers rights.

In the period right after World War II large-scale corporate lobbying, as we know it today, did not exist. Some organizations -- like the Chambers of Commerce and trade associations promoted business interests including the American Petroleum Institute (API), the American Automobile Association (AAA), The Tobacco Institute (TI) and the Pharmaceutical Manufacturers Association (PMA). However, in no way were they nearly as pervasive or influential as they are today. Between then and now corporate lobbying has expanded tremendously.

I was on the faculty at George Washington University Medical School as an economist from 1973 until the end of the decade. My office was on Washington Circle and my apartment was a block away at 22nd and L St., NW. That area has become the center of the "Lobbying Industry". To my best recollection, there were no lobbyists there at the time. It certainly wasn't known for it. The earliest figures that are available about the rise of lobbying and, along with it, the in-and-out relationship between Representatives, Congressional staff members and former government employees, begin in 1989. At the time there were 10,405 lobbyists with an annual budget of $1.45 billion. By 2015 their number grew to 11,169 with a budget of $2.40 billion. Not only has lobbying increased in scale and importance, but its effectiveness has substantially improved as well. Corporate self-interest has been promoted. Let's investigate that further.

(For additional information about the extent of lobbying see the Center for Responsive Politics OpenSecrets.org and an article, "How much lobbying is there in Washington? It's DOUBLE what you think**"** by Tim LaPira (Nov. 25, 2013)
[http://www.opensecrets.org/lobby/]
[http://sunlightfoundation.com/blog/2013/11/25/how-much-lobbying-is-there-in-washington-its-double-what-you-think/]

In this section we will look at the ways by which companies and those at the upper-end of the income distribution have used the funds they have accumulated in an attempt to manipulate the political system -- i.e., the government -- to further their private interests, often at the expense of the public interest. The approaches they have used fall into a number of different categories. They include attempts to:

A. Bypass or limit the effects of regulatory activity designed to constrain corporate excesses and to ensure that the company's performance is in the public interest.
B. Get legislation passed that furthers their private interests.
C. Help ensure that those individuals who get elected or are chosen for positions in the executive, legislative and judicial branches will support their position and further their private agenda.

Firms and individuals use the funds they have accumulated to enable them to manipulate markets and extend their control. Their concept of a "Free Market" is one where they are free to engage in activities that promote their self-interest and their private agenda without any interference from the government. For economists, a free market is one where no one has control over it and where it functions in the public interest by producing the goods and services that consumers want most at the lowest cost and price.

> Here's an example of how some people promote what they call a free market to influence the selection of legislators. The PBS Newshour reported about a Latino support organization called "Libre". Along with the support, it promotes the ideas of "limited government and free markets" in the hope convincing more of its members to vote for Republican Party candidates. The program is heavily supported by the Koch Brothers with grants in the millions of dollars.
> [http://www.pbs.org/newshour/rundown/koch-funded-initiatives-reach-hispanic-voters/]
> [http://www.pbs.org/newshour/videos/page/2/#165654]
> Transcript:
> [http://www.pbs.org/newshour/bb/can-a-gop-thats-tough-on-immigration-win-over-latino-voters/#transcript]

<u>Corporate actions to limit regulatory activity</u>

“Free markets” are not free when they are under the control of large companies, some of which are “too big to fail”. Those companies are in a position of power. They got the funds necessary to engage in those activities by charging high, “monopoly prices.” They act in their own self-interest, often at the expense of the public interest. At times those activities and the they errors commit cause lives to be lost, damage to property, the loss of valuable resources, and damage to the environment. We cited some examples above. (See p. 6-8) When they do, they often engage in cover-ups in order to protect their position and maintain their control. They also refuse to accept responsibility for their actions and fail to compensate those who were harmed. That enhances their ability to make excess profits. Sometimes the management had prior knowledge of the errors, yet they failed to inform the consumers or their investors. Legally that constitutes fraud, even when they had no intention of causing harm. (See pp. 9-11) Evidence of those types of corporate activity have come to light through the reports of investigative journalists, in civil actions against companies called “torts”; and by organizations that promote the public interest, like the Nader group.

One of the important roles of government is to help prevent that type of activity. This can be done by uncovering it, by making the information public, and, when relevant, by prosecuting the perpetrators. There is plenty of evidence that companies fight against that type of government intervention and push back against any governmental restrictions of their activity.

When companies expand and cross national borders, it is harder for governments to exercise control and to make the perpetrators accountable. Furthermore, the companies use the excess profits they get from those actions to manipulate the political system to enhance their position of power and control and to extol the benefits of “Free Markets”. In fact, those markets are not free, but rather under their control manipulated for their private advantage.

The guiding principle

For a better understanding of what some companies have done and the consequences, let me provide you with some examples. I’d like to begin the discussion, however, I from a very different perspective -- namely, it is to assume that since a company is providing a product, its objective is to be open, honest and transparent about it. In order to attract consumers, they inform customers and potential customers about the product and its benefits along with the price. They also take on the responsibility of letting customers know about any actual or potential harm that its use may cause. When a problem is disclosed they promptly take responsibility for it and provide compensation to anyone who was harmed.

That information and understanding is based on the current state-of-the-art and the knowledge that is available at the time. [Ed:]The product is produced in accordance with best practice at the time, including the attempt to ensure it meets quality control standards. Moreover, the company complies with accepted regulatory, scientific and academic procedures.

When a problem or potential problem is revealed or suspected, the first obligation all of the company’s leaders is to acknowledge it at the time. Their second is to investigate it. To do that they provide the resources necessary and cover all expenses involved in the attempt to resolve the issue. Their third is to reveal the results of the investigation -- both favorable and unfavorable -- along with what they have done to correct it. If any unanswered questions or uncertainties still remain about the use of the product or the possible outcomes, they are clear about them. That provides the consumer with the best, most accurate, updated unbiased information available. With it, each consumer can make the decision of whether or not to use the product.

Any attempt to hide from the truth, to hide it, or prevent it from being revealed is contrary to the company’s stated objective and against company policy. So is the use of any company funds that is not in accordance with this stated policy.

Take the situation when the product is new. Or when it has new ingredients or components, or when there is a change in the process of production. Under those circumstances it is virtually impossible to know beforehand what the full range of the effects -- both positive and negative -- will be. Much of the time the problem does not show up until it is out in consumers hands. As we have seen, for example, when airbags were introduced we did not know that under some circumstances they may explode. Even when the product is not new, a defect can result during the production process. That is the reason for quality control procedures.

To better understand how change and the unexpected outcomes that result from it can affect the company and the consumer, and the appropriate adjustments required to respond to it, let's take a closer look at the situation. Remember the human body is a living organism. It is like a live machine. There is no way, for example, to know what living in space would be like, and the problems it can cause, until someone has done it.

The effect of the introduction of any new product is exactly the same. Coming up with a new pharmaceutical provides a good example. Until it is tried we can't know what its effects will be. Will it have the desired effect? Will there be any complications, adverse reactions or side effects resulting from its use? In order to attempt to address those questions ahead of time, the Food and Drug Administration (FDA) has been charged with the responsibility of ensuring the drug's "safety and effectiveness". To do that the drug is put through a clinical trial. When it successfully passes that hurdle the FDA approves it for marketing. The reason for having clinical trials for pharmaceuticals and medical equipment is that it is a systematic way of getting some of that information before the product is marketed.

The attempt to get good information about outcomes is complicated in part by the fact that different people under different circumstances react differently. Only through experience can we find out what those effects are. The recent experience with the Zika virus is an excellent example. Not all women who become infected by it during pregnancy have babies with the physical deformity.

<u>A new experience</u>
Let us examine some of the implications those conditions impose. Understanding the causes for the outcomes that occur when something new is introduced is further complicated by two factors. First. even if those outcomes occurred at the same time as the change, it does not follow that the change caused it. Unless and until the cause of the outcome is identified, any adjustment to it will not necessarily improve the situation. Moreover, when the assumed cause is incorrect, the adjustment will lead to a waste of time, energy, resources and funds (TERF).

Secondly, it is important to always keep in mind that different individuals respond differently; that the problem may only occur under certain circumstances; and that the problem, like a defect in the product, may not be present or show up in all products.

Under those circumstances, identifying an issue and relating it to its cause is difficult. That determination can only be made after the product has been supplied, the problem identified and attributed to the product. Let's go back to airbags as an example. Once out there, if they perform as expected, there is no problem. If one explodes it may or may not get reported. When it is, the question becomes is it a single incident or part of pattern, part of a larger problem. Multiple reports support the latter conclusion. However, that is when it becomes necessary to determine the underlying cause and frequency of the problem. For example, is there a flaw of the airbag design; a breakdown in the production process along one production line; does the airbag fail under certain climatic conditions; or is some other factor causing some airbags to fail and not others. That opens up the question of whether all the airbags have the same defect, one which could potentially harm all customers. Under those circumstance it becomes important to determine the probability of failure. Will all fail, half of them, one in 10, 100, 1000 or 1,000,000?

In short, identifying the problem, its cause, its frequency and who could be affected by it is not easy. It can only be determined after the product is marketed and the problem identified.

> According to the best currently available information exploding Takata airbags have caused 12 deaths and some 180 injuries in the United States alone, with 5 more deaths worldwide. Prior to the most recent additional recall, 70 million Takata airbags were installed in 42 million vehicles sold in this country between 2002-2015. It is currently estimated 100 million were installed worldwide. The most recent recall adds 21.7 million airbags in US vehicles. The models were made by fourteen automakers including BMW, Chrysler, Daimler, Ford, General Motors, Honda, Mazda, Mercedes Benz, Mitsubishi, Nissan, Subaru, Toyota and VW.
>
> The National Highway Traffic Safety Administration (NHTSA*) has issued a recall for 100% of those vehicles. To date 17 million airbags had been replaced in US vehicles. Because of the backlog, many are still on the road. In fact, the current estimate is that all the defective airbags will not be replaced until 2020.
>
> Until recently according to the best current understanding, the explosions only occur when three prior conditions are met. They include airbags that use ammonium nitrate-based propellent without a chemical drying agent, that were subjected to environmental moisture and high temperatures, and those that were subject to aging. Even when those conditions are met only small percent of them explode. And not all of those failures cause death or injury. The recent recall of an additional 21.7 million airbags used calcium sulfate has a drying agent. No explosions have been reported for those airbags. It is the largest recall in automotive history
>
> Clearly, Takata is responsible for the problem, for correcting it and for compensating those who were harmed, including reimbursing vehicle owners for the reduced value of their cars. In January 2017 Takata agreed to plead guilty to charges of fraud for providing false data. Under its deal with the Justice Department Takata agreed to pay $1 billion. It included a $25 million fine and provides $125 million in compensation for the victims and $850 million to automakers, which have borne the cost of replacing tens of millions of Takata-made airbag inflaters. At the time Takata remained the second-largest producer of airbags globally, with a market share around 20%. The company is also a major supplier of seatbelts.
>
> In June 2017 Takata filed for bankruptcy protection in the United States and Japan. The company said it would sell its surviving operations to Key Safety Systems, a Michigan-based Chinese-owned American rival. The sales price is about $1.6 billion. Key Safety Systems also makes airbags, seatbelts and other auto safety equipment. The deal would give Key Safety Systems about a quarter of the global airbag market, making it the second-largest supplier in an industry dominated by just a handful of companies.
>
> The arrangement insulates Key Safety Systems from the messy

recall process. However, it is not clear that there will be enough funds to pay off all debts including the bank loans and the automobile manufacturers who have or will replace the defective airbags. The ultimate outcome is an open question.

Two things are clear. The first is that an airbag supplier,Takata, has been eliminated, leaving the market more concentrated. The second is that a large number of potentially defective airbags are still out there. If they explode and cause harm, it is not clear how those affected will be compensated.

In light of the experience, there is a significant question as to whether a total recall of all affected vehicles is the appropriate solution. It may well be that some other approach would provide greater net benefits -- the benefits minus the costs -- than the 100% recall. The likelihood of a better solution is reinforced by the stringent conditions for their likely failure, the low probability of the explosion of the airbags, and the even lower probability that the explosion will cause harm or death. We will discuss it further in Stage VII-Suggested Remedies.

Regardless of the best solution, it is important that the vehicle owners be informed about the problem and the probability of its occurrence. That will enable them to make their own decisions about whether they want to continue to own the vehicle and how they want to handle the potential problem.

Automakers Still Selling Cars With Defective Takata Airbags By Hiroko Tabuchi June 1, 2016

[http://www.nytimes.com/2016/06/02/business/automakers-still-selling-cars-with-riskiest-takata-airbags.html?emc=edit_th_20160602&nl=todaysheadlines&nlid=33282262&_r=0]

Why Are Cars With Killer Airbags Still Being Sold? By The Editorial Board June 3, 2016

[http://www.nytimes.com/2016/06/03/opinion/why-are-they-still-selling-cars-with-killer-airbags.html?emc=edit_th_20160603&nl=todaysheadlines&nlid=33282262&_r=0]

[http://www.nydailynews.com/autos/news/takata-airbag-recall-list-cars-article-1.2602999]

[http://www.consumerreports.org/cro/news/2016/05/everything-you-need-to-know-about-the-takata-air-bag-recall/index.htm]

With Guilty Plea, Takata Clears Way for a Likely Global Rescue By Jonathan Soble Jan. 15, 2017

[https://www.nytimes.com/2017/01/15/business/takata-airbag-recall-settlement.html]

Takata, Unable to Overcome Airbag Crisis, Files for Bankruptcy Protection By Jonathan Soble June 25, 2017 [https://www.nytimes.com/2017/06/25/business/takata-japan-restructuring.html]

Takata Expands Recall Again, Citing New Airbag Hazard By Micah Maidenberg July 11, 2017

[https://www.nytimes.com/2017/07/11/business/takata-recall-airbag.html?emc=edit_th_20170712&nl=todaysheadlines&nlid=33282262]

Once a problem is identified the question becomes what the supplier can and should do to rectify it. The first step is to acknowledge the problem and accept responsibility for it.

1. Be open; honest and transparent about the problem.
2. Determine the underlying cause and rectify it.
3. Determine the probability of occurrence and periodically update that information.
4. Importantly, notify all customers, potential customers, investors and regulators who are potentially affected.

Not being open, honest and transparent about it not only violates the company's previously stated principal of operations, it opens the potential for the company being charged with fraud and amounts to a cover-up. Typically the way for dealing with the problem for vehicles in the United States is for the NHTSA to issue a recall notice and the defective part or parts are replaced by authorized dealers. There are alternatives to that approach which we will discuss in Stage VII. Similar issues for other products fall under the purview of the Consumer Product Safety Commission.

[See articles By Stacy Cowley, "Product Recalls Rise With [Better Detection and Fewer Suppliers" and "From Tylenol to Fitbit: 10 Notable Product Safety Recalls", May 29, 2016

[http://www.nytimes.com/2016/05/30/business/product-recalls-rise-with-better-detection-and-fewer-suppliers.html?emc=edit_th_20160530&nl=todaysheadlines&nlid=33282262&_r=0]

http://www.nytimes.com/2016/05/30/business/from-tylenol-to-fitbit-10-notable-product-safety-recalls.html?version=meter+at+null&contentId=&mediaId=&referrer=&priority=true&action=click&contentCollection=Business%20Day&module=RelatedCoverage&region=EndOfArticle&pgtype=article]

<u>The consumer's perspective</u>
Let's look at it from the consumer's perspective. Imagine that you are one. You just got a new product, one you never had before. You check out the instructions to see how you're supposed to use it and follow all the suggestions and warnings. Initially, it works quite well and pretty much as expected. Let's say it's a toaster oven. After a few weeks with no problems, the bread came out burned. You check to make sure the settings were correct and they were. After trying again you found that sometimes the toaster oven does just fine and at others it has the same problem. The question is how to proceed from there. You can live with it and say nothing. Go out and get a different one that doesn't have that problem. Attempt to return it. Or report it to the company's customer service department. Only in the last case does the company learn there might be a problem. Sometimes someone in the company might have suspected a potential issue and reported it. That opens up the question of how the company deals with it.

From the company's perspective the customer service rep can neglect the request and not do anything about it. They can treat it as an isolated problem. The rep can assume somehow the toaster did not meet quality control standards or was damaged somewhere along the way. The company can simply accept responsibility for the problem and replace it. Or they can take the position that the problem was caused by something the customer did, they are not responsible for it and do not compensate them. Under each of those circumstances it is treated as an isolated incident. Even then it would be helpful to keep a record of it. Doing so makes it possible to identify multiple requests regarding the same issue. In that way a potentially systemic problem that requires additional attention can be identified and passed on to the higher-ups for subsequent action. At that point management becomes aware of a potential problem.

When that happens the company has added responsibilities in order to conform to its objective of making sure that the product does just what it is expected to and does not create any problems that could potentially be harmful. They include:

- To determine if there is a defect in the product or in the process of production that led to the problem
- If a problem exists, to determine its cause and correct it, so that it does not occur in future output
- Attempt to determine how likely it is that past customers will experience the problem and what can be done to make that less likely
- Inform consumers and potential customers about the problem and the steps they should take to correct it or prevent it from happening
- Compensate them for any harm the problem has caused or any costs they incur to correct it
- If the problem is intrinsic to the use of the product, like adverse reactions or side effects, inform consumers about it, about their frequency and the likely consequences.

Under those circumstances the company has a potential conflict of interest. That is especially true when the product is highly profitable. In the early stages when it is unclear whether a problem exists and when its nature and consequences are unknown, the tendency would be not to say anything about it. That approach allows the company to maintain its sales, revenue and profits. Some companies have even been known to influence the results of the scientific studies or the findings of reports.

Once the nature of the problem has been identified, to be consistent with the established policy, the company must inform its customers and investors about the results of the inquiry. Taking other actions that promote company self-interest at the expense of others and the failure to acknowledge and disclose situations that cause harm is inconsistent with the company's policy.

When there is a divergence of opinion about the effects of using a new product, there is an alternative. Often different professionals have very different opinions about the likely outcomes. Scientific research can help. But here again, more often than not, the results will not be definitive. Under those circumstances an independent research group, not under the control of the producer, could conduct a study. All divergent views should be represented. The results are then made available to all, including any remaining uncertainties about potential outcomes (along with the probability of their occurrence). Providing that information to lay decision makers in language that they can understand will allow them to make the choice that is best for the decision-maker.

If any outcomes remain uncertain, the company has the responsibility of clearly stating the limits of the knowledge regarding the outcomes; of making clear what questions remain and what is known about the answers to them; and of revealing the nature and extent of any remaining uncertainty.

Following this approach makes it more likely that the company has met its objective -- namely, that the product will do what they say it will do and that it will not cause harm. When the company doesn't perform in accordance with those standards or when the product causes harm, the company takes responsibility for it and reimburses those who have been hurt or made worse off.

Let's begin by providing some examples where the best evidence is that the company has not abided by that principle. First let me say that I am piecing the story together using the best available information that I can find. Assume that I am a potential customer trying to decide whether or not to purchase the product. If the information presented here is incorrect, I'm open to correcting it. All the supplier has to do is provide me with the information they think is correct, along with the evidence to support their position.

Monsanto

The growth hormone -- somatotrophin -- is produced naturally in humans and cattle. In the 1970s the biotech company Genentech discovered and patented the gene for bovine somatotrophin (BST). That made it possible to synthesize the hormone using recombinant DNA technology to create recombinant bovine somatotropin (rBST), also known as recombinant bovine growth hormone (rBGH). Monsanto licensed the patent from Genentech, developed a synthetic version, got approval from the US Food and Drug Administration (FDA) and marketed it as "Posilac".

In cattle rBGH regulates milk production in lactating cows. Monsanto found supplementing the hormone increased milk production by some 10+ percent over the lactation period. The rBGH is administered by injection. Some cows have adverse reactions that include a significant increase in the incidence of mastitis, foot problems, weight loss and reduced fertility. (See pp. 6-7 for the references)

Clearly those problems open up the question for milk producers as to whether they want to use rBGH. After reviewing the evidence the FDA cleared rBGH for use by milk producers in this country. Taking account of the difficulties, some 17% of the producers have chosen to use it. Other countries (Mexico, Brazil, India, Russia and at least ten others) have followed suit and also approved rBST for commercial use. However, other countries have banned its use, largely because of its effect on the animals. They include Canada, Australia, New Zealand, Japan, Israel, Argentina and the European Union. Some retailers and companies that use milk to produce other products have also chosen not to use milk that is produced using rGBH.

There is another very important issue. Let's look at cows as a milk-producing machine. Injecting them with the synthetic hormone increases their milk production. Along with that comes the question, "Does that lead to an increased concentration of rBGH in the milk they produce?" (Or, for that matter, in the beef if they are slaughtered?) Even if the synthetic and the natural forms of the hormone are identical, the way in which the synthetic is made; the method of administering it; and its formulation and concentration are different. That opens up the question of what effects will result from human consumption.

The importance of getting a satisfactory answer to that question is reinforced by what we already know. First and foremost, the method of producing the synthetic version (rBGH) is different from the way it is produced naturally. So is the method of administration, the formulation and the dosage. Furthermore, the increased dosage in cows is not benign. In order to be effective the cows must consume additional amounts of food. Moreover, it has caused negative outcomes in a significant portion of them. In spite of that, as we said earlier, based on the evidence Monsanto presented to the FDA, the agency concluded that it was okay for Monsanto to market rBGH and for consumers to use the milk produced by it.

Just because rGBH is cleared for use by the FDA does not mean that it is identical to the natural version. As we explained earlier, its method of production, administration and dosage etc. and the outcomes in the cows demonstrate that difference. [Ed:] Furthermore, the effect of using milk containing it is nor necessarily the same as milk containing in the natural form for all users. The fact that the synthetic and natural forms of the hormone have the same effect is something that must be proven -- and not just assumed. Until then, it is perfectly reasonable for any supplier to say that their milk does not contain the synthetic version. That is simply a statement of fact. One that consumers should be made aware of. If the consumer elects to use milk produced containing the synthetic hormone, by doing so they take responsibility for any effects that it might have. On the other hand, if they are uninformed about it, the responsibility for any harm that might be caused falls on the supplier, especially when there is a cover-up about a potential problem.

That is where Steve Wilson and Jane Akre come into the picture. They were a team of investigative reporters who worked for the Fox-owned TV station in Tampa, Florida, WTVT (Channel 13). A series that Wilson-Akre prepared about synthetic Bovine Growth Hormone was about to be aired. In it they questioned Monsanto's procedures in seeking and getting FDA approval to market the rBGH. Monsanto got word of the report and threatened the station with a lawsuit. Monsanto also said that if the report was aired they would stop their advertising. The station attempted to get Wilson and Akre to edit the report to make it conform to the changes the Monsanto lawyers insisted on. In the end, the report never aired, Wilson and Akre were fired. They sued the station under a Florida whistleblower statute. Akre won in the lower court. However, it was reversed on appeal. Agreeing to accommodate to Monsanto's lawyers demands was an inappropriate response for a public media company.Some of the information that the report would have made available is on a YouTube video.
(https://www.youtube.com/watch?v=Z0AL4yml3bw)

It is important to realize that rather than take the path they chose, the TV station had a very different option. Instead of agreeing to modify the report to meet Monsanto's attorneys demands, it could have convened a group of independent experts to ensure the report's accuracy. A final report, reflecting any divergence in professional opinion that met the group's approval, could then be aired. That approach would make the public better informed about the likely consequences of using the synthetic BGH. In short, it would make it possible for consumers to make better, more informed decisions. Furthermore, that approach is consistent with the media's public responsibility.

Instead of being open, honest and transparent about the situation and providing the consumer with the best available accurate information, Monsanto used their power, control and influence -- even over the media -- to ensure that <u>their</u> position was the one that consumers heard. That makes it appear that they used their power and influence to prevent the FDA from carrying out its responsibility and to aid in the cover-up.

There is an interesting and important aside. Namely, one wonders how much money Monsanto spent in order to protect its market position in rBGH, rather than use that same amount of money to learn more about the effects of using the synthetic Bovine Growth Hormone and to inform consumers about them.

The pattern continues with a recent whistleblower revelation. A former employee revealed Monsanto manipulated financial accounts in 2009 and 2010. The company transferred expenses from one year to the next in order to increase its reported net revenue in the previous year making it come closer to market expectations. That led to an action by the SEC under the whistleblower statute. The company paid $80 million in penalties. The corporate officials, accountants and the auditing firms were not held accountable.
Monsanto Whistle-Blower: $22 Million Richer, but Not Satisfied, Fair Game, By Gretchen Morgenson, Sept. 9, 2016
[http://www.nytimes.com/2016/09/11/business/for-monsanto-whistle-blower-a-22-million-award-that-fell-short.html?emc=edit_th_20160911&nl=todaysheadlines&nlid=33282262&_r=0]

The story is capped off by the announced acquisition in September 2016 of the large US multinational agribusiness corporation -- Monsanto -- by the large German multinational agribusiness firm -- Bayer. Monsanto is 189 and Bayer is 165 in the Fortune 500 list. The merger

is subject to review by the regulatory agencies. It will be interesting to see the outcome along with its effect on worldwide agriculture.
Bayer Deal for Monsanto Follows Agribusiness Trend, Raising Worries for Farmers, By Leslie Picker, Danny Hakim and Michael J. de la Merced, Sept. 14, 2016
[http://www.nytimes.com/2016/09/15/business/dealbook/monsanto-bayer-deal.html?emc=edit_th_20160915&nl=todaysheadlines&nlid=33282262]

Let's look at a few other examples where companies have taken actions that they were not open, honest and transparent in an attempt to influence the regulatory and legislative process.

Tobacco companies
I started smoking at 15. Virtually everybody smoked -- both the guys and the girls. It was the thing to do. I started with a pipe along with the aromatic Mixture 79. When I showed them off to my buddies during an air raid drill, I was called into the Principal's office and admonished. I explained my Dad had given the pipe to me. He said well you can't bring it to school. Shortly afterward I switched to cigarettes. Lucky Strikes was my brand. When I started going steady with Edie (we later got married), she smoked Camels. So that I wouldn't have to carry two packs, we agreed to shift to Chesterfields. That's what I smoked until I decided to quit in my early 30s. By then I was up to a pack a day. Part of the reason for quitting was that more than a pack a day made me feel uncomfortable. For me stopping cold turkey was no problem. There were no adverse consequences. I went back and forth a couple of times and finally quit altogether by my mid-30s. And I haven't smoked since.

During the 1930s and 40s when I was growing up, tobacco was all the craze. We were bombarded by the sight of cigarettes. To see what I mean check out the men and women in any of the movies at the time. As a sign of the times guys always carried a pack of matches or a lighter to light up a girl's cigarette. To see what it was like in the 'olden days' take a look at the 1946 movie "Gilda". The extremely attractive Rita Hayworth, who plays the title role, asks, "Do you have a light?". You follow the script. You pull out your lighter and light up her cigarette. Cigarettes were ever present and secondhand smoke billowed in the air throughout the movie and in life. Today guys don't ordinarily make sure they have a lighter or book of matches in their pocket.
[Film Gilda -- https://en.wikipedia.org/wiki/Gilda]

Cigarette ads were everywhere. They were in newspapers, on radio, on billboards, in sports arenas and in full-page ads in magazines. Let me remind you in those years there was no TV or computers. We were bombarded by myriad cigarette ads. If you'd like to see some, Google 'cigarette ads'. They include a signed picture of a much younger Ronald Reagan pushing Chesterfields, probably before he even thought of becoming President. Chesterfields, Lucky Strikes, Camels, Marlboro and Philip Morris were household names. Cigarettes were a major industry, especially in North Carolina and Virginia, backed up by tobacco farming.
[https://www.google.com/search?q=cigarette+ads&safe=active&biw=1231&bih=581&tbm=isch&tbo=u&source=univ&sa=X&ved=0ahUKEwi5vevzlrnMAhWB4yYKHSv_D_MQ7AkIRQ#imgrc=xqhR5Fhh6nMkXM%3A]
[[https://www.google.com/search?q=cigarette+ads&safe=active&biw=1231&bih=581&tbm=isch&tbo=u&source=univ&sa=X&sqi=2&ved=0ahUKEwiarP6mvbbMAhVKQSYKHZGIDqgQ7AkIOg#imgrc=vGhgbi_LAjjw9M%3A]

The cigarette companies heavily promoted their use even though, as we learned decades later, the tobacco company executives and managers knew they were addictive and could cause serious medical problems. Clearly ads were designed to capture new smokers from the time they were in their teens. Once caught, many became smokers for the rest of their lives. Cigarettes were at the top of their priority list of purchases, especially for 'chain smokers'. A significant part of their disposable income was spent on cigarettes first. I even remember seeing homeless men on the streets salvaging through garbage for cigarette butts.

As I mentioned earlier in 1999, by then I was over 70, the US Department of Justice (DOJ) brought a landmark case against the tobacco companies. It charged them for violations of the Racketeer Influenced and Corrupt Organizations Act (RICO). Among other things the DOJ claimed that the tobacco companies had engaged in a decades-long conspiracy to (1) mislead the public about the risks of smoking, (2) mislead the public about the danger of secondhand smoke, and (3) misrepresent the addictiveness of nicotine. (See p. 9-10)

On August 17, 2006, in a 1,683 page opinion, District Court Judge Kessler held that the tobacco companies were liable for violating RICO by fraudulently covering up the health risks associated with smoking and for marketing their products to children. On May 22, 2009 the three-judge Appeals Court panel unanimously upheld Judge Kessler's opinion. The tobacco companies were not penalized for their decades long past behavior. They were only prohibited from engaging in similar practices in the future. It led to significant changes in the public's attitude towards cigarettes and in the industry itself. There are "no smoking" areas in public places. Fewer companies remain and their structure and operations have changed all the way back to the tobacco farms. [Ed: vineyards]The workers and the towns and cities where their plants were located were significantly affected. Only one company, Philip Morris International, is in the top 50 companies in 2015.A number of the companies that were parties to the suit are no longer household names. [Ed: tax]

The opinion is based on the legal doctrine that if a company knowingly fails to inform its customers and investors about the potential harm the use of its product can cause that constitutes fraud. It involves fraud even though they had no intent to cause harm.
[http://publichealthlawcenter.org/topics/tobacco-control/tobacco-control-litigation/united-states-v-philip-morris-doj-lawsuit]

Since then smoking is less prevalent. So are the ads and secondhand smoke. To this day, in part because of the pushback by the cigarette companies, the Federal Trade Commission has not yet decided on the appropriate nature of the warning labels. Moreover, similar issues revolve around e-cigarettes and chewing tobacco. (See "Let Smokers See the Warning They Need" By Joanna Cohen, June 3, 2016)
[http://www.nytimes.com/2016/06/03/opinion/let-smokers-see-the-warning-they-need.html?emc=edit_th_20160603&nl=todaysheadlines&nlid=33282262&_r=0]

Based on the law that was handed down in the landmark tobacco industry case, from that point on, any company that engages in cover-ups faces potential prosecution for fraud.

<u>VW</u>

Based on testing performed at West Virginia University, in April 2014 a non-profit group, the International Council on Clean Transportation disclosed that Volkswagen had installed a "defeat device" in its diesel cars. When the car was being tested to determine whether it met emission standards, the control device was activated. It showed that the nitrogen oxide emissions met EPA standards. When the car was back on the road, the device shut off. In normal operations the nitrogen oxide was from 9 to almost 40 times greater than the EPA standards. If the device were activated full-time it could cause serious engine damage, reduce the engine performance and lower gas mileage

EPA's Tier 1 emission standards were in effect from the mid-1990s to the early 2000s. Beginning with the 2004 model year they were replaced by the EPA Tier 2 standards. The US standards are more stringent than those in other countries.VW installed the "defeat device" in 2009-2016 2 liter and 3 liter diesel models, as well as some Audi and Porsche models. Over 575,000 of those vehicles were sold in the United States and 11 million worldwide.

[https://www.epa.gov/vw/laws-and-regulations-related-volkswagen-violations#authorities]

On September 18, 2015, five companies -- Volkswagen AG, Audi AG, Volkswagen Group of America, Inc., Porsche AG and Porsche Cars North America -- were charged with violations of the Clean Air Act. The five companies were collectively referred to as Volkswagen. On January 4, 2016, the Department of Justice filed a complaint on behalf of EPA. California has initiated its own investigation and is also working closely with EPA on further testing of diesel engines. [https://www.epa.gov/vw]

In June Volkswagen reached a proposed settlement in the class action suit. It agreed to pay the US owners of the about 475,000 Volkswagen vehicles a maximum of $10.03 billion to buy back affected cars at their pre-scandal values and provide an additional cash compensation. The cash compensation offered to each car owner will range from $5,100 to $10,000. Both the buyback price and amount of the additional compensation will depend on the car's value before Volkswagen's public admission last September that its supposedly "clean diesel" cars had been deliberately designed to cheat on air-quality tests. Rather than sell their vehicles back to Volkswagen, car owners in the United States can choose to have their vehicles modified to meet emission standards. Previous owners who may have sold their diesel vehicles after the cheating became known would be compensated at a lower rate.

Volkswagen would also pay $2.7 billion into an E.P.A. fund to compensate for the environmental impact of the cars that had "defeat devices". It also agreed to spend $2 billion on new cleaner-vehicle projects.

Volkswagen Reaches Deal in U.S. Over Emissions Scandal, By Jack Ewing, April +21, 2016

[http://www.nytimes.com/2016/04/22/business/international/volkswagen-emissions-settlement.html?emc=edit_th_20160422&nl=todaysheadlines&nlid=33282262&_r=0]

Explaining Volkswagen's Emissions Scandal, By Guilbert Gates, Jack Ewing, Karl Russell and Derek Watkins, Updated April 22, 2016
[http://www.nytimes.com/interactive/2015/business/international/vw-diesel-emissions-scandal-explained.html]

Volkswagen to Pay $14.7 Billion to Settle Diesel Claims in U.S., By Hiroko Tabuchi and Jack Ewing, June 27, 2016

[http://www.nytimes.com/2016/06/28/business/volkswagen-settlement-diesel-scandal.html]

VW management made a conscious, some would say deliberate, attempt to circumvent US EPA regulations by installing a "defeat device". Corporate time, energy, resources and funds (TERF) went into the design, implementation, production, and installation of the device well before it was initially installed in the 2009 vehicles. Authorities within the companies had to know about it long before the 2009 model year. It was done behind closed doors. Its existence was not revealed until it was discovered by outsiders in 2014. The company actions and the cover-up is in marked contrast to the historical company policy of providing the “People’s car” and their long-standing reputation. It certainly appears to be an overt attempt to get around the US’s more stringent nitrogen oxide emission regulatory control standards. (See Stage VII for a discussion of the impact, the potential remedies and the cost of those actions.)

If any company engages in practices that are designed to or have the potential to violate laws and regulations or if they fail to reveal potential harm that the use of their products can cause, they are not being open, honest and transparent about their products. They are engaging in cover-ups.

Cover-ups that we know about include others in the automotive industry. VW’s civil settlement of $14.7 billion would be the largest yet by an automobile company. It has to be approved by the judge. It dwarfs the $1.4 billion that Toyota paid to settle a class-action lawsuit over flawed accelerators and the more than $2 billion General Motors has paid so far to settle claims from owners of cars with faulty ignition switches. In addition, Toyota paid $1.2 billion to settle criminal charges and GM paid $900 million. There were cover-ups in other industries as well. (See page 6-8) Those are ones we know about. It seems highly likely that there are others as well.

As long as some companies continue to engage in those practices, there is an important role for regulatory agencies, civil action suits against the companies called ‘torts’, investigative journalists, whistleblowers and organizations that reveal and make public those transgressions. All we can say to them is, “Thank you”. What we can hope for is that before a company considers engaging in those practices it recognizes that it is not being open, honest and transparent about their products. Moreover, that engaging in those practices opens up the possibility of legal liability. Hopefully they learn from the experience of others how expensive cover-ups can be and how badly they can damage their reputation and their bottom line.

<u>Tax avoidance</u>

The typical way governments fund their operations is through taxation. Corporations, especially large ones and those in the military-industrial complex, benefit directly as suppliers of goods and services for government operations. Yet they are the ones, along with those at the upper-end of the income distribution -- the ‘upperenders’ -- who have been very successful in reducing their tax burden and who have developed ways to avoid paying taxes.

Corporations, even those that were originally formed in the United States, who are registered this country and who have their primary headquarters and operations here, have become ‘multinationals’. Like GE, not only do they ship products made in the United States abroad, they have operations worldwide. In large part the reduction in transportation and communications costs (See Stage IV) have contributed to their expanded operations, operations that are no longer within the boundaries of a single country. It goes both ways. For example, Toyota and Honda have plants in the US as well as supplying some of their vehicles from overseas.

As an aside, their owners -- the stockholders -- are not necessarily US residents. They are not ultimately responsible for paying federal, state and local taxes. The stockholders can be other companies, pension and mutual funds, organizations or foundations, etc. Moreover, the owners can be residents of other countries, foreign companies or even the countries themselves.

Some companies have set up what are effectively tax divisions. Their objective it is to minimize the company's tax burden. General Electric is a good example. In 2015 it was the 8th largest US company with total assets of $662.3 billion, revenue of $ 148.3 billion and profits of $15.2 billion. It had operations and sales worldwide for making jet engines, medical devices, oil drilling and electrical equipment. It also had significant operations in financial sectors.

The GE tax department is manned by highly qualified, experienced individuals, some of whom had held high-level positions in the Department of Treasury, the IRS and the tax writing committees of Congress. They were tasked with the mission of spending half their time ensuring compliance and the remaining half "looking to exploit opportunities to reduce tax". According to Mr. Kocieniewski in the New York Times report, the 2008 budget for its in-house lobbying department was $18 million and it spent an additional $3 million to lobbying firms. There is no question that they were highly successful in creating tax provisions and loopholes that enable them to significantly reduce their US tax burden even though their profits from both US and foreign operations were extremely high. If they were as successful in recent years as they were earlier, $5.5 billion of the $15.2 billion in current profits comes from US operations. Previously the tax bill was zero. In fact, GE got a tax credit. All we can do is wonder how much they paid in US taxes out of their current profits.

G. E.'s Strategies Let It Avoid Taxes Altogether, by David Kocieniewski, March 24, 2011

[http://www.nytimes.com/2011/03/25/business/economy/25tax.html?_r=0]

In that context it is important to remember that part of GE's US revenue and profits came from direct contracts with the Federal government and as subcontractors for military and industrial equipment. It directly benefits from governmental expenditures That is true for other companies as well. Others get direct subsidies and grants from the government to fund projects, like nuclear, solar and wind electrical generation and the Alaskan petroleum pipe. Some of the government-sponsored R&D projects turn into patentable products or processes. Other companies get tax breaks as an incentive to build their plant in a particular locality. Yet, in spite of the fact that government payments and actions contribute to their revenue and profits, the companies attempt to lower their tax burden. Another way in which some companies have been successful at reducing taxes is to charge-off unsuccessful ventures as a cost. In September 2015 Royal Dutch Shell announced the session of drilling operations in the Arctic after spending $7 billion on the project.

Why Shell Quit Drilling in the Arctic, Paul Barrett , September 28, 2015

[http://www.bloomberg.com/news/articles/2015-09-28/why-shell-quit-drilling-in-the-arctic]

The success of US companies in getting tax breaks came to a head in 2015. In order to avoid a government shutdown, Congressional Republicans and Democrats allowed the US oil companies to export domestically produced petroleum. The law contained a number of other porkbarrel provisions.

It's Official: There Won't Be a Government Shutdown, National Journal, December 18, 2015

[http://www.govexec.com/pay-benefits/2015/12/house-easily-clears-massive-omnibus-spending-bill-avoid-shutdown/124620/]

In spite of the fact that a significant portion of the company's operations are in the United States, like GE, they use various techniques to reduce their 'tax burden'. Some of the techniques that we know about that they have developed -- the tax loopholes -- include:

- "Corporate inversions" -- Corporations that move their corporate home and identity overseas to reduce their tax burden while still keeping their headquarters and operations where they were previously. Those regulations have led to a spate of international mergers and acquisitions including the proposed one between Pfizer and Allergan.
- "Earnings stripping" -- It involves the situation where the American subsidiary borrows from the foreign parent. The interest payment results in a reduction in US taxes but the overall company's income is unaffected.
- The regulation that makes it possible for US corporations not to consider the profits from overseas operations as part of its income unless those funds are transferred to the US.
- The income earned from capital gains is taxed at a lower rate than the income from operations.
- Tax shelters

For the Wealthiest, a Private Tax System That Saves Them Billions, By NOAM SCHEIBER and Patricia Cohen. Dec. 29, 2015

[http://www.nytimes.com/2015/12/30/business/economy/for-the-wealthiest-private-tax-system-saves-them-billions.html?_r=0]

Pfizer and Allergan Are Said to End Merger as Tax Rules Tighten, By Michael J. de la Merced and Leslie Picker, April 5, 2016

[http://www.nytimes.com/2016/04/06/business/dealbook/tax-inversion-obama-treasury.html?_r=0]

The Corporate Tax Dodge Continues, By The Editorial Board, Jan. 29, 2016

[http://www.nytimes.com/2016/01/30/opinion/the-corporate-tax-dodge-continues.html?_r=0]

Those at the upper end of the income distribution have been successful in the pushback of any attempt to ensure that they pay their legally required taxes. Cutbacks in the IRS funds and staffing have made it more difficult to ensure that they pay their fair share of the tax burden. Those individuals and organizations supported by them, on all sides of the political spectrum, do all they can to avoid paying any higher taxes. (See For the Wealthiest, a Private Tax System That Saves Them Billions)

Those practices increase the firm's excess profits and keeps those funds inside the corporation and in the hands of its executives and managers. It allows them to use those funds in ways that enhance their power and control. It also increases their salaries and bonuses, further contributing to the greater inequality in the income distribution. As the Panama and Paradise Papers and other sources reveal, some individuals have adopted various techniques to avoid paying their personal fair share of taxes. The amounts of money involved are not trivial.

Panama Papers Show How Rich United States Clients Hid Millions Abroad,By Eric Lipton and Julie Creswell, June 5, 2016

[http://www.nytimes.com/2016/06/06/us/panama-papers.html?emc=edit_th_20160606&nl=todaysheadlines&nlid=33282262&_r=0]

How Business Titans, Pop Stars and Royals Hide Their Wealth by Scott Shane, Spencer Woodman and Michael Forsythe, Nov. 7, 2017

[https://www.nytimes.com/2017/11/07/world/offshore-tax-havens.html?emc=edit_th_20171108&nl=todaysheadlines&nlid=33282262=

The development of multinationals has made it more difficult for any country to regulate the company's operations and to collect the taxes that it is entitled to. As a side effect, the companies can move operations, revenue and profits from one country to another as a way of reducing the taxes they have to pay. It is further complicated when a company acquires or merges with another one from a different country. As an example, Pfizer is one of the largest pharmaceutical companies with a long history in the United States. It planned on using a merger with Allergan to move its corporate identity to Ireland as a way of avoiding taxes. Of course, most of the company's operations including its headquarters remain in place. Pfizer backed out of the merger when the Treasury Department change the rules in early 2016.

As I mentioned earlier, companies like GE have gotten really good in their attempts to influence legislation and regulations and the regulators and legislators as well. The growth of the 'Lobbying Industry' is evidence of it. Corporations, corporate executives and those at the upper end of the income distribution have also attempted to influence who gets elected and who holds public office in the executive, legislative and judicial branches. They have been able to exert their influence at the Federal, state and local levels. Some of the techniques they have used to promote their private agenda include:

- Funding foundations, institutes or associations that promote their agenda, like the Koch Brothers.
- In response to the solicitation for political donations, corporations, their executives and managers make campaign contributions and attend upscale dinners.
- Super PACs -- They are political action committees that they support and that help ensure the election of the individual candidates they want. They can do that without having to reveal who the contributors are and how much they contribute.
- American Legislative Exchange Council (ALEC) -- It is an organization of state legislators in cooperation with and sponsored by corporations dedicated to the principles of limited government, free markets and federalism.
- Using their financial power and influence to promote legislation that violates the democratic principle of one-person, one-vote by preventing potential opposition from voting or by gerrymandering restricted political districts.

- Behind-the-scenes manipulation of financial, accounting and auditing rules.

Traditionally think tanks have been thought of as not-for-profit, independent, quasi-academic institutions. They have built their reputation by providing unbiased research and analysis on policies and issues and by coming up with recommendations that are in the public interest.The RAND Corporation comes to mind. Another was ORI, the Operations Research Institute, an arm of MIT. I was on the staff when it morphed into CNA, the Center for Naval Analyses. That was when in the early 1960s it was taken over by the Franklin Institute of Philadelphia. Think tanks are not lobbying groups set up to promote the private interest of their sponsors. As such they have been given tax exempt status.

Things have certainly changed. According to the recent New York Times article some of the well-known ones promote the private interests of corporations and get funding from them only when they have reached a mutual agreement. Sometimes the companies can review and modify the findings. Sometimes the officers of one organization are on the board of the other. Those practices make one question the results of nominally independent, unbiased research organizations. They undermine the role and image of the institutions -- think tanks -- and lead one to question their value. It certainly appears that they had been taken over by the companies. That enables them to promote the company's private self-interest and in return the think tanks to get funding.

How Think Tanks Amplify Corporate America's Influence, By Eric Lipton and Brooke Williams, Aug. 7, 2016

[http://www.nytimes.com/2016/08/08/us/politics/think-tanks-research-and-corporate-lobbying.html?_r=0]

Those are some of ways in which money can be used to influence the political process with the objective of furthering one's private agenda. The funds corporations have acquired -- the excess profits -- as a result of the corporate control over the market have been used to influence government activities -- federal, state and local --in order to protect and extend their control and their position of power and to promote their private agenda. Those activities make it less likely that the goods and services produced will make the population as a whole better off.

Which Presidential Candidates Are Winning the Money Race, By The New York Times, Updated April 5, 2016
[http://www.nytimes.com/interactive/2016/us/elections/election-2016-campaign-money-race.html?_r=0]
Ruling From the Shadows, By Karthik Ramanna, NYTimes, Nov. 21, 2015
[http://www.nytimes.com/2015/11/22/opinion/sunday/ruling-from-the-shadows.html?emc=edit_th_20151122&nl=todaysheadlines&nlid=33282262&_r=0]

Those actions by the corporations and the upper-enders lead to a reduction in the funds available for acknowledged traditional government operations, including those government activities that they directly benefit from. It also provides less funding for government programs that are designed to uncover and reign in corporate excesses. Furthermore, that leads to an increase -- rather than a reduction in -- the national debt, in spite of the fact that is something they typically favor.

As an aside, as an alternative they could take the same amount of money they use for the cover-ups and related activities -- money that they acquired by charging prices over and above the minimum cost of production -- and give it back to the people they took it from. That would allow the people to decide how they want to spend their money. It is money that was taken out of the consumer's pockets, making it harder for them to buy goods and services they need and want and for them to put money aside, that is to save. Their actions contributed to the greater inequality in the income distribution. For an additional discussion of Proposed Remedies see Stage VII.

The increase in corporate power and influence has come about largely because of the changes in technology which have given rise to significant reductions in transportation and communications costs. We will examine them and their consequences in the next Stage IV -- Reduced Communications and Transportation Cost.

5. Stage IV -- Reduced Communications and Transportation Cost

The changes in technology -- the new innovations -- have led to significant changes in the way we live and the ways in which we do business. Two of the changes have had an especially profound effect. One led to the ease with which we communicate and exchange ideas. It has lowered the costs of communication. The other involves the ease and reduced cost of moving around -- that goes for both people and products. Let's look at them more closely and see what changes they brought about.

The changes in communication

Right after World War II, we had touchtone phone service as long as we were connected by phone lines. Some rural and remote areas and some other countries had no phone service. Western Union telegrams and Postal Service, along with some airmail, was available. So was radio. TV had just been introduced. You could watch it in black and white on a cathode ray tube in one corner of the living room. Other than face-to-face, those were the ways of communicating that were available for those who could afford them.

Contrast that with the way things are today. How often do you see someone walking down the street with their hand up to their ear talking on their cell phone? Or have you gotten a call from a friend while they are driving in their car? Or seen someone using an iPhone checking to see if the restaurant is open or using the GPS system for instructions on how to get there? Or asking Siri for good place to eat? Or checking an app to find where you can get the cheapest gas? And how about passing the word or a picture on to friends using Facebook, checking on something in Google, texting or tweeting?

I still use what used to be called a phone. It is now called a landline. I must admit when I'm on the phone you don't get a "busy signal". When I'm away from it, you get my answering service and I'll call you back. That puts the responsibility on me, not you. Hopefully you'll be available so we won't be playing telephone tag.

I stay in touch with friends by calling them on their birthday. I first met Shirl when she was taking care of my mother at St. Vincent's Hospital in Manhattan. She's from South Africa and currently works in Manchuria. On her birthday I pick up my phone to wish her a happy birthday regardless of whether she's there or at her home in South Africa. It's certainly easier to keep in touch with someone these days.

I certainly must admit that as long as my computer or your iPad, iPhone or Smartphone, that are effectively minicomputers, are working and you haven't left it at a restaurant or lost it, sending an e-mail makes it much easier, cheaper and faster than using the U.S. Postal Service, even if you were to use priority mail. (You may not believe this, but when I was growing up a first-class stamp cost three cents.) In addition, you can use e-mail to send large documents to a colleague for their rapid response, check out current articles without leaving home, or get pictures or selfies virtually instantaneously. If you want to know more about someone and what they do, all you have to do is Google them and check out their website. Even more importantly, when you can't make it to the office, with the new technology you can work from home. Using the World Wide Web over the Internet makes it easier and faster to communicate with one another.

In 1937 the dirigible, the Hindenburg, blew up in Lakehurst, NJ. I heard about it over the radio with my ear glued to the speaker. All I could do was imagine what it looked like. I had to wait 'til the next day to see a picture of it in the newspaper. Later that week on the Newsreel at the movie theater I saw images of the disaster. After World War II if you had a TV set, you could see black and white images in the news report. On today's TV newscasts images of disasters all across the globe are available in full color almost as soon as they occur, like the megaquake in Nepal in April 2015. Shortly afterward we get an idea of the emergency response as reporting teams arrive from distant places -- all in full-color. We may not know more about the causes, the consequences, or what we can do about it, but we surely get a better picture of the reality. The same is true for the terrorist bombing in Paris and the Syrian migration crisis in Europe. We learn about them in real time.

The ease, speed and reduced loss of communications goes well beyond personal communication. In the 1930s and 40s when you wanted to purchase something, anything, you went to the store -- to the butcher, the baker, the candlestick maker or the clothing, hardware or drugstore. You had your shopping list in hand or in your head. When you got there you checked out what was available and the price. When you decided what you wanted the vendor would get it for you, package it and give you the final price. You paid in cash and left with the package. By the way, the first supermarket -- King Kullen -- opened up in the 1930's in Queens in New York City where I grew up.

As part of the communications revolution, today when you want something you can stay at home, check it out online, see images of it that are almost as good as being up close and personal, put it in the virtual shopping cart and pay for with a credit card. It arrives next day, or the day after, on your doorstep via UPS, FedEx or USPS. You didn't have to leave the house or even get dressed. Amazon, the large online retailer, did not come into existence until 1998. Today is the 18th largest company in the Fortune 500 list.

In addition to being able to shop without leaving home, here are some of the other ways that computers have made it possible to communicate and get information or get it cheaper and faster that were not available previously. We can now have online conference calls, use Skype, take online courses, see podcasts and webinars, participate in an auction online, and see on-demand movies and DVDs without going to the theater.

Importantly, online marketing and the reduced cost of communication drastically increases the size of markets. As a result it brings vendors to your doorstep. It also provides information about the products and services that are available, where you can buy them and how much they cost. That makes informed choice easier. It has another effect as well. We are constantly bombarded over all the media with the suppliers' ads trying to get us to buy their products, often based on things we previously purchased.

,The new technology has changed communication in other ways as well. Not only has direct interpersonal communications changed, as I mentioned earlier, group and social communication, including through social media, have made a drastic difference as well. That includes the use of online messaging, Facebook, Google, texting or twittering. Another important change is that it allows companies, institutions and organizations to reach out to you, advertise and consummate the transaction online. Moreover, how often have you found yourself directly dealing with a computer -- online banking is an example -- or talking to one and not to a person. In order to have a successful transaction it has to understand you and you have to understand it, whether it is orally or in writing. The replacement of a person with a machine and its consequences is part of the story we will discuss later.

Since your phone is no longer connected to the wall, sometimes you misplace or lose it. Then and when it breaks, rather than repair it, you must immediately replace it. Moreover, you are constantly informed about the new upgrades. To keep up, you have to get the newest model. That puts pressure on you to spend more of your limited disposable income -- to consume more and to save less. As we mentioned earlier, the emphasis is on consumerism. Clearly, the companies that produce the products and services and promote their use, benefit. [Ed:]

The changes in transportation

Another important effect that the new innovations have brought along with them is that it has physically brought us closer together. The time and cost it takes to get from one place to another has dropped dramatically.

The first time I came South was in 1942 at the age of 14. I got on the train, a sleeper, at Penn Station in New York in the middle of the afternoon. When I raised the curtain and looked out the window at around sunup, we had just pulled into the Richmond, Virginia station. Later in the morning we arrived at Spartanburg, SC. I got off the train there and was picked up by someone who drove to my final destination, Hendersonville in Wonderful Western North Carolina. It took almost a full day. Today you'd get on a plane at LaGuardia Airport. Three hours and fifty minutes later you'd arrive at Asheville. In about a half-hour after that you'd be in Hendersonville. That's all of five hours for the same trip.

In the 1930s the trip from New York to England by steamship took five days. For those who could afford it, the liner Queen Mary held the record, cutting the crossing time to four days. Transit time was cut to 3½ days by the liner the United States in 1952. From New York to San Francisco by rail took about 3 days. After World War II the prop plane flight from New York to London took 17 hours and 40 minutes in a DC-4. To San Francisco it took 16 hours. Today's jet plane flights take 7 hours and 6½ hours, respectively.

(See https://people.hofstra.edu/geotrans/eng/ch3en/conc3en/linertransatlantic.html0

It is also important to remember that Interstates did not exist at the time. It was authorized during

Pres. Dwight D. Eisenhower's administration in 1956 and completed some 35 years later.

As an economist I am obligated to remind you that included in the cost of traveling is the <u>time</u> it takes to make the trip. During the 10 days it took to get to Europe and back, you had to be fed and otherwise taken care of. Moreover, you gave up whatever else that you would have been doing during that same timeperiod. Today, getting to Europe and back takes all of 14 hours, not ten days. That makes the time cost and foregone "opportunity cost" markedly less.

Those time savings are not only true for us as individuals, but for the products we consume as well. It makes no difference whether movement is overland or by sea. The time it takes to get products from one place to another has declined dramatically and the cost has dropped as well. Let's take a look to see some of the consequences of those changes for producers and consumers.

<u>Over-the-road shipments</u>

At the end of World War II products were moved locally by truck and over longer distances by rail or tractor-trailers. When I graduated from UNC-Chapel Hill in December 1948 I got a job with Associated Transport, Inc. At the time it was the largest motor freight carrier in the East. AT moved truckload and less-than-truckload (LTL) shipments anywhere from New England to the South and everywhere in between. The home office was in Charlotte.

Any AT shipment that moved south of New England and north of southern Virginia was my territory. It was in the Middle Atlantic States Motor Carrier Rate Conference. The next day the waybill came across my desk. My job as the rate revision clerk to make sure that the rate clerk at the originating terminal assigned the correct rate. Since the shipments moved across state lines the rates were regulated by the Interstate Commerce Commission and published in the tariff. Actually, it was AT's way of ensuring that they got the correct rate -- the rate for the shipment they that were entitled to. I doubt that you have ever heard of Associated Transport. They went out of business in 1976. My job lasted for the nine months. In September 1949 I went off to Vanderbilt to graduate school.

The freight was picked up at the origin, transported to the local terminal, loaded on a tractor-trailer, moved to a terminal near the destination, unloaded, put on a truck and delivered to the destination. The shipments involved a lot of handling. All motor traffic moved along two-lane blacktops through one town to the next. Most of the long distance movement was along US routes, like US 1, US 70, and Rt. 66. In North Carolina it could be along NC 64 from Manteo to Murphy. Remember the Interstates that we are so familiar with today and that are integral to the way we get around, did not exist. UPS and FedEx were not around either. Today they move many of the packages by air.

If you'd like to see what an AT tractor-trailer looked like at the time, check out the picture. Today's tractor-trailers are much different and much larger. To get a better idea of how they look check out the PBS program Raw to Ready: Mack Truck. Although the new version and the old one go by the same name -- tractor-trailer -- the program provides an understanding how different they are in form and function. It also shows how the new technology and materials are incorporated into the motorized freight carrier. That allows the new version of the rig to perform in ways the old ones simply could not. It performs better, travels greater distances, uses less fuel, is electrically controlled, has GPS, leaves behind negligible pollution, resists breakdowns and lasts longer. It comes off the line with a cab that is the driver's home away from home.

Once the tractor-trailer comes off the production line, it is shipped throughout the country, across the continent and abroad. Mack Trucks produces many other types of trucks and heavy equipment. In 1990 Mack Trucks became a wholly owned subsidiary of Renault Véhicules Industriels and in 2001 Mack together with Renault became part of Volvo AB of Sweden, the parent company. In 2016 Volvo was 185th in the Fortune 500 list.

The program also provides a very important insight. It shows how robotics and computers are integrated into the production process along with humans. The end result is just one example of the large-scale, lower-cost methods of production that are currently available.

Today's tractor-trailer contributes to lower cost of transportation services. It is also adaptable for use with the new containers. You often see the trailers moved by rail on flatbeds or pictures of them loaded on ships designed to carry them as containers for shipment overseas. Let's talk more about that in the next step -- containerization.

[http://www.hankstruckpictures.com/pix/trucks/morton/2003/sept/file0017.jpg]

Raw to Ready Mack Truck

[http://www.pbs.org/show/raw-ready/]

Containerization

Containerization as we know it today also did not exist at the time. Malcom McLean was the former the head of McLean Trucking. It had pretty much the same territory as Associated Transport. In 1955 he came up with and developed the idea of the shipping container. It was 8' tall x 8' wide x 10' long box, constructed from thick corrugated steel. The design incorporated a twistlock mechanism. That made it possible to use cranes to easily lift and stack the containers and they could be secured to each other. McLean's containers developed into the international standardized shipping containers -- TEU -- twenty-foot equivalent units, each about the size of a small room. I'm sure you've seen them loaded on tractor-trailers moving along the Interstates or row-on-row on flatbed railcars. Or perhaps you've seen pictures of them in ports or on the container ships specifically designed to carry them that followed shortly afterward.

The new technique made it easy to ship fully loaded containers directly from the point of origin to the destination. Products can be packed in cartons, stacked on pallets and moved directly into and out of the containers. They can then be shipped directly to the final customer or a distribution center. That saves the intermediate handling, storage, time and effort. It significantly reduces the cost of transportation. How different that is for the international shipments in the olden days when it took a crew of longshoremen to load and unload the cargo into the hold of much smaller, slower vessels and vehicles at both the origin and destination. It is another fine example of the replacement of capital-intensive for labor-intensive methods of production.

By 2012 30 ports along the United States' East and West coast had installed the equipment necessary to handle the containers. The largest one was at Los Angeles. In the first quarter of 2012 it moved over 929,000 inbound TEUs. On the West Coast it was followed by Long Beach, Seattle, Oakland and Tacoma. Each of them offloaded over 100,000 TEUs that same quarter. The largest East Coast port was Newark/New York that moved 673,000 during the same period. On that side of the country it was followed by Savannah, Norfolk, Houston and Charleston, again each with more than 100,000 TEUs each. In order to accommodate the large container vessels ports have been dredged and the Panama Canal was widened.

The ships carry two-way traffic. The imports included electronics, wood furniture, apparel, bedding, toys, sports equipment, auto parts, coffee, and bicycles. They departed with dried fruit and nuts, wine, rice, cotton, recycled paper and metal scrap, machinery, chilled and frozen meat and poultry, as well as vehicles.

(http://www.logisticsmgmt.com/images/site/LM1205_TopPorts.pdf)

In December 2015 the Benjamin Franklin, a mega container ship, nearly a quarter-mile-long, just cleared the Golden Gate Bridge with about 20 feet to spare. That was what it took to make a stop in Los Angeles. It can hold up to 18,000 TEU. Typically the largest ships serving U.S. ports can carry 14,000 containers. (See figure)

(http://www.nbcnews.com/business/business-news/biggest-container-ship-visit-u-s-barely-clears-golden-gate-n488641)

The bottom line is that those changes have brought about a significant decline in transportation costs both within the United States, on the North American continent and to places around the globe.

Packaging

There is another important development that has contributed to the changes in communication and containerization and, in turn, is supported by them. It is individual packaging. It was made possible by the introduction of plastics materials.

In the ‘olden days’ you took the groceries home in a paper sack or in the basket that you brought along with you. The foods often came in barrels, cartons or sacks. Other foods came in Mason jars, cans, cardboard boxes or glass bottles. Milk was delivered daily at your doorstep in glass bottles. The empty bottles were picked up the next morning.

Today almost everything comes in individual standardized packaging. It comes in a plastic jar or sealed plastic bag with brightly colored, nicely designed labeling. Sometimes it comes in the old-fashioned cardboard box with the plastic bag inside. The new approach promotes product identification, company branding, the preservation of the product and product promotion. Typically they have a uniform size and weight. The package also provides information about the contents, the nutrients, its uses and preparation along with a product bar code that makes scanning possible. That facilitates a more rapid check out and inventory control. At the check out line you are asked, “Paper or plastic?” You leave the store with the bags in hand filled with its contents along with the receipt. By the way, the plastics, which are not typically biodegradable, end up in a landfill or the ocean. For more about the changes brought about by plastics see p. 49. The use of plastic packaging makes it possible to reduce time and costs from the end of the production line until it gets into the hands of the consumer. It has also contributed to large-scale production, promotion and marketing and to expanded markets.

Expanded markets

The reduction in both the communications and transportation time and costs result in an expansion of markets. Customers that a firm could not previously reach become accessible. If the company can maintain a large, stable customer base, they can consider expanding output and adopting a larger, lower cost scale of operations. They can also use the newly available methods of communication -- a.k.a., advertising -- to promote their products.

Those reduced costs have led to profound changes in production and marketing both in the United States and in the rest of the world. The initial affect is that it opens up markets that were not previously accessible. The companies that can take advantage of the larger markets can expand output and adopt larger scale, lower cost methods of operation. In some cases the expanded markets make it possible to adopt larger-scale, mechanized -- and, in some cases, computer-controlled -- lower cost methods of production and distribution. Furthermore, by adopting newly available product promotion techniques and adapting to new technology, the firms can reduce costs and expand output even further. The classic example is “industrial agriculture”. Those farmers no longer use tractors or mules. Instead they you are using large-scale equipment controlled by computers with a GPS system. The new, larger markets, as long as they are sustainable, make that possible.

For the customers who use those products -- both consumers and producers -- potentially the expanded markets allow you to purchase materials, supplies and other inputs at a lower cost than you could previously. Some buyers can now get products from producers outside the US and vice versa. All that falls under the term “globalization”.

However, there is another side to expanded markets. If you are a business executive, firms that did not have access to “your” market, to your customers, now do. If they are able to take them away, your sales, revenue and profits decline. Because of that you may have to change your operations or it could even force you to go out of business.

The bottom line is that all those changes mandate a reallocation of resources. The new products and services are the ones people want to put their money into. They have to be produced. Some of the goods and services that were previously profitable no longer are. The changes, including those brought about by any new innovation -- especially those that attract a large number of buyers -- mandate a shift. For example, the shipments of Smartphones increased by 10.4% in 2015 to 1.44 billion units. [Ed: add link] Resources must be reallocated from producing the old products into making the new ones. The effects of that reallocation and how it has resulted in a greater inequality in the distribution of income and wealth is what we will explore in the next Stages V -- Mandatory Reallocation of Resources and VI -- Bringing Twinkies Back and More.

(http://arc.applause.com/2015/08/26/smartphone-market-growth-projection-2015/#.VsUQ7OpgN4I.mailto)

6. Stage V -- Mandatory Reallocation of Resources

As I indicated, every innovation requires a reallocation of resources. Here’s where I step in as an economist. I promise it will be brief and easy for you to understand.

Just think about it. The innovation brings along with it a new product. It has to be produced.

Potential buyers have to be made aware of and learn about it and decide to buy it. Then it has to be delivered to them. When lots of people **must** have it, like a new iPhone or Smartphone, lots of resources have to go into making that happen. Typically, those resources were previously used to provide something else. They have to be shifted into making the new product in order to accommodate buyers' demand. The sales, revenue and profits of the suppliers go up. Their employees -- a.k.a. their human resources -- and their suppliers also benefit.

The necessity of shifting resources from the production of the old products to new ones has been going on for a long time. Mining towns became ghost towns when the mines ran out of gold. The miners lost their jobs. Importantly, that also happens whenever any innovation is introduced. For example, when production and transportation costs fell, textile production moved from New England to the South. Some New England plants went out of business. Locals had to find employment elsewhere or move in order to find new jobs. What is new currently is the scale of the dislocations.

Complications arise under today's conditions. As I explained earlier, there has been a significant reduction in communications and transportation cost. The reduced costs make it possible for suppliers in foreign countries to provide some of the new products -- again, like the cell phones, iPhones or Smartphones -- or the materials and supplies required to make them. The local suppliers and employees who were displaced find it harder to find alternative employment -- a.k.a. jobs. That is often further complicated by the fact that they may not have the appropriate skills for the new jobs. Even when they do, those jobs are a long way away, perhaps in a foreign country.

Keep in mind that the new innovations, along with the reduced communications and transportation costs, have opened up expanded markets for both old and new domestically produced products. Soybeans, rice, agricultural equipment and autos that are produced in the US and sold to foreign buyers are just a few examples. The BMW X-series vehicles you see in Germany were produced in South Carolina. Moreover, the lower transport costs along with their expanded markets allow consumers and producers to get products less expensively than they could previously, frequently from a foreign country. Those changes have also have added to the complexity of readjustment process in allocation of resources.

The important thing to remember is that people who were previously employed producing and marketing the products that are no longer in demand are displaced. They lose their jobs and their source of income. That is a direct consequence of the introduction of the new products and integral to the adjustment process. The rash of unemployment that we are currently experiencing is an integral part of the readjustment process brought about by the innovations.

Any suggested remedies must take that fact into account. You can't have the new products without bearing the economic consequences that having them brings about.

That is what economists mean when they say that each new innovation mandates a reallocation of resources. It is also the end of my economics lesson. I hope it wasn't too painful.

<u>Changes in the Top 25</u>

To get a better understanding of what has happened since the end of World War II let's take a look the Top 25 companies in the 2015 Fortune 500 list. (See Table II)   I'm sure you'll recognize most of them. The largest is Walmart. It had revenue of $485 billion and a net income of $16 billion in 2015. The 25th company was Marathon Petroleum with revenue just under $100 billion and a net income of $2½ billion. Together the total revenue of the initial Top 25 for that year was $3,830 billion and their total net income was $221 billion. The largest companies based on revenue are not the largest ones on the basis of net income. On that basis Apple(#3) ranks first, JPMorgan Chase(#23) ranks second, and Berkshire Hathaway(#4) third. Their 2015 net income was $53, $24 and $19 billion, respectively.

Nine of the top 25, 36%, were around in 1945.They include companies whose names you're familiar with -- Ford, General Motors, General Electric, Kroger. Some of the others that predate 1945 are listed as having been formed since then. For the most part that's because they are part of more recent mergers. Typical examples include the petroleum companies -- Exxon Mobil, Chevron and Marathon Petroleum -- J.P. Morgan Chase and AT&T. Their predecessors date back to the early 1900s. Some that were around then have fallen down into the pack. Others have been absorbed in mergers. Still others have gone out of business, including A&P -- also known as The Great Atlantic and Pacific Tea Company. From 1915 to 1975 it was the largest food retailer in the United States.

Of the 25, 16 or 64% were not around at the end of 1945 right after World War II. Among them are those companies that are household names today -- like Microsoft (it's actually 27th), Apple, Verizon, Costco and Amazon. Some produce very different products today than they did then. For example, General Electric is real big in jet engines, nuclear, wind and solar energy equipment, medical devices and financial services, In addition to phone services AT&T is in the cable TV business and provides Internet and e-mail services. Berkshire Hathaway no longer makes any textile products. Some sectors of the economy had a number of companies in the Top 25. They include retailers, healthcare providers and pharmaceutical firms.

Another interesting aspect is that 14 companies, 56%, list themselves as multinationals with operations all around the globe. Four others have some operations outside the United States. However, it is only a minor part of the company's business. The remaining six, 24%, are exclusively domestic firms. They include CVS, Verizon, Kroger and Fannie Mae.

The Walmart experience

A look at the growth of today's largest company, Walmart, is informative. Sam Walton opened for business in 1945 when he purchased a store in Bentonvillle, Arkansas. At the time it was called a 'five and dime'. His business plan was to purchase the goods at a lower price and pass those savings on to customers.

The business expanded rapidly. Within five years, the company had 24 stores across Arkansas. In 1968 it added two more, one in Missouri and the other in Oklahoma. The nature of operations changed as well. First the stores became larger discount stores and then expanded to become Supercenters. The company was incorporated as **Wal-Mart Stores, Inc.** in 1969. A year later it opened its home office and first distribution center in Bentonville. The hyphen was later dropped and it simply became Walmart. It expanded to other states in the Midwest and South. In 1987 the company completed its satellite network linking all operating units to the Bentonville office via two-way voice and data transmission and one-way video communication. That allowed the corporate office to track inventory and sales and to instantly communicate with the stores. It also opened up Sam's Club, a membership Big-box store.

By 1990, Walmart, a retailer of groceries and consumables, became the largest U.S. company in terms of revenue. In the early1990s it added stores on the East and West Coast, then throughout the rest of the United States as well as in Mexico and Canada. By the end of the decade it had extended operations to South America and Europe.

In June 2016 Walmart had 4,627 stores in the United States. It had three types of retail outlets -- Supercenters, Discount Stores and Neighborhood Markets. The 3,493 Supercenters vary from 69,000 to 260,000 square feet, averaging about 178,000. They stock general merchandise and a full-service supermarket. The 432 Discount Stores average about 104,000 square feet and carry general merchandise and limited groceries. Some of the newer and remodeled ones have an expanded grocery department. They provided one-stop shopping accessible by car. Both operate under the brand name Walmart. The third type is the Neighborhood Market. It is a chain of grocery stores that average a smaller 42,000 square feet. They are used to fill the gap between Supercenters and Discount Stores, offering a variety of products including full lines of groceries. In June 2016 Walmart had 668 of them.

Again, in 2015 ranked first among the Fortune 500 companies with total revenue of $482.1 billion.

[http://fortune.com/2016/06/06/fortune-500-top-10-companies/

]

On January 15, 2016, Walmart announced it will close 269 stores in 2016. 154 out of the ones earmarked for closure are in the U.S. Eighteen of them were "Walmart" stores, 23 were Neighborhood Markets and 4 were Sam's clubs. They said that 95 percent of them are located 10 miles from another Walmart store.

Let's take a look at the impact of the closures. There is no question that the people in the local areas benefited from Walmart's presence. Their anger about the closures is ample evidence. Presumably the stores were shut down because they were no longer viable -- that is, its revenue no longer covered its costs. In some cases that could have been because a newer, larger store opened, like the one in Durham, NC. For some locations, especially in urban areas, there may have other viable options. However, for some closures, especially in low income, low density areas, the closing made it harder for locals to get the products they need. The store in Whitewright, Texas was one of them. Its effects on the locals were discussed on CBS News.

Walmart closures a "double blow" for many frustrated residents, CBS News, January 29, 2016

[http://www.cbsnews.com/news/walmart-stores-nationwide-closures-impact-small-towns-employees/]

Remember that before Walmart came in, the goods and services locals required were provided by Mom-and-Pop stores. They were forced out of business by Walmart. One wonders why some of the $16 billions of their 2015 net income could not be used to help reestablish those businesses, the ones necessary to provide the things locals need. It would also be helpful to keep the store open in the interim. But we are getting ahead of our story. I will talk more about suggested remedies in Stage VII.

In looking back over the Walmart experience, it is interesting to note that s growth has been extraordinary. In contrast to the big companies in the earlier part of the 20th century, using lay terms, Walmart is in distribution, not in production. From an economist's perspective, however, distribution is part of the production process. It is the way of getting the product into the user's hands. Walmart's large-scale distribution and its growth worldwide is evidence of and was made possible by an obsession -- consumerism. It is also integrally related to the significant decline in the communications and transportation costs brought about by the technological and economic conditions discussed in Stage IV. Walmart is just one of the companies and industries that participated in the changes that occurred in the 70 years since the end of World War II.

Other changes

Can you imagine life without plastics? They have brought about and contributed to the significant change that has occurred since the end of World War II. There was a time when there were no plastic bags, only paper sacks. Bottles were made of glass with metal tops. Toothpaste came in metal tubes or as a powder in a metal can. Water came in a glass or paper cup, not in a plastic cup or bottle. As I mentioned earlier, the individual plastic packages that we so are familiar with, simply did not exist. The only plastic products that were around at the time were those made from Bakelite, the world's first synthetic material. Packaging materials were made of paper, fiber and corrugated paper. Furthermore, water pipes were made of metal and not PVC. There was no vinyl sheeting. Clothing and other materials were made from natural fibers -- cotton, wool, linen and silk. Shoes, boots and rubbers were made of leather and natural rubber. Unlike plastics, all were biodegradable. At the end of their life they return to the Earth Mother, contribute to everyone's well-being in the future and do not clutter the land or the oceans, the way plastics do. The first man-made fiber -- rayon -- was introduced just before World War II. It was followed shortly thereafter by DuPont's nylon and other synthetic fibers. Penicillin, the first antibiotic, was introduced in the mid-40s in its natural form. Synthetic penicillin and the other synthetic pharmaceuticals came afterward. That was the way things were when I was growing up in the 1930s and 40s.

We think of petroleum as fuel. As the source of gasoline, diesel oil, JP-5 jet fuel, LPgas and natural gas. (By the way, jets were introduced only in the 1940s and became popular afterward.) Importantly, today petroleum is the raw material for the many products produced by the petrochemical industry. That includes most of the plastics that we see and use every day.

As an interesting aside, at the Smithsonian's National Zoo this summer there is an exhibit, "Washed Ashore: Art to Save the Sea". It has 17 marine larger-than-life wildlife sculptures— from jellyfish to sharks. They were made entirely of plastic directly recovered from the oceans -- as pollutants.. Unlike most of their predecessors, plastics are typically not biodegradable. They contaminate the oceans and landfills and will be around long after we are gone. From the 1950s to today, 8.3 billion metric tons of plastic have been produced, with around half of it made since 2004. A new study estimates that about 4.9 billion metric tons is in landfills, in the ocean or scattered in the environment.

The Immense, Eternal Footprint Humanity Leaves on Earth: Plastics By Tatiana Chlossberg, July 19, 2017

[https://www.nytimes.com/2017/07/19/climate/plastic-pollution-study-science-advances.html]

That introduces us to another economic concept -- externalities. They are company actions that cause harm where those harmed are not compensated for the damage caused. Plastics that pollute the ocean are just one example. The degradation of the atmosphere by the nitrogen oxide from the VW diesel engines, the chemical pollutants that DuPont poured into the West Virginia streams and soil, and the damage caused by cigarettes and secondary smoke, all mentioned earlier, are some other examples. That's the topic of a separate paper.

[https://nationalzoo.si.edu/ActivitiesAndEvents/Celebrations/washed-ashore.cfm]

The petrochemical industry is just one of the ones that came into being and were developed in the period of consumerism and that contributed to it. That is the period we are discussing. All the products they produced are involved in the readjustment process. That process is designed to help ensure that the limited resources are used in a way that provides the products consumers want most at a price that just covers the lowest cost of production.

<u>The Ghost Town syndrome</u>

I alluded to the following situation earlier. Think about this for a moment. Once upon a time the town was a bustling mining town. The mine was the focus of local operations. There were bars, a general store, a bank, a barber shop where the men came to get a shower and shave, a church, a mortuary, a cemetery and a house of prostitution. But the mine ran out of gold, diamonds, copper, iron ore or whatever it produced. It could no longer sustain operations and no other business could be found to replace it. Everyone left. The town became a ghost town. All that survived were the buildings. Now, after decades of decay, that is all that is left. Let's call it the "Ghost Town syndrome."

That is one possible result of the mandatory reallocation of resources that I have been talking about. The people who lived in that area can no longer produce the goods and services that enable them to make a sustainable living. Their only option is to leave. If they don't, either they had to survive on past savings, or someone else -- outsiders -- must support them until the inevitable happens. When it does, the town becomes a true ghost town.

That is pretty much what happened to the towns in the Rust Belt, like Flint, Michigan and many of the mill towns in the Carolinas. They were one-plant operations. When the company went out of business or moved operations overseas, they faced the Ghost Town syndrome.

There is an outside possibility. It is that someone comes up with an idea that turns the same location into a sustainable business. Perhaps it can become the set for movies, a ski resort, or a tourist attraction. When that happens it is back in business. It is no longer a ghost town. That happened in Hotchkiss, Colorado. Coal industry operations shut down. Today's residents are considering revising the law in order to make medical and recreational marijuana legal. That would replace the jobs that have been lost, allowing residents to remain there. The types of changes we are experiencing today are not new.

[http://www.nytimes.com/2016/03/24/us/as-coal-prospects-decline-a-colorado-town-reconsiders-marijuana.html?emc=edit_th_20160324&nl=todaysheadlines&nlid=33282262]]

As I mentioned earlier as part of the adjustment to economic and technological change in the earlier 20th century, New England cotton mills moved operations to their neighbors in the South. This past year Carrier -- it was acquired by United Technologies in 1979 -- announced that they were moving their air conditioner operations from Illinois to their neighbors in the south. It was made feasible by the lower communications and transportation costs. The only difference is that this time the south is over the border in Mexico. The Illinois employees were affected, aggrieved and complained. If US companies move operations to Mexico or other overseas locations some qualified employees, who would otherwise be displaced, could make the move with them. Clearly, that is harder when it is across national borders. Under current conditions Carrier's move has a potential advantage. It provides employees in Mexico and their families with income and benefits. They allow them to stay at home and support themselves and their families. That reduces their incentive to migrate to the States. It also makes erecting a wall along the border less necessary.

Carrier Workers See Costs, Not Benefits, of Global Trade, By Nelson D. Schwartz, March 19, 2016 and other reports.

[http://www.nytimes.com/2016/03/20/business/economy/carrier-workers-see-costs-not-benefits-of-global-trade.html?_r=0]

We hear frequent complaints about the loss of jobs. But one doesn't hear many complaints about being able to get bananas and pineapples at your local supermarket any time of the year, including in the middle of winter. Yet it is all part of the same process.

Here's an interesting counter example to the Carrier experience. It, too, is part of the same process. Kamatsu, a Japanese multinational and the second largest earth moving equipment company, has had operations in the United States beginning in the early 1970s. The company dates back to the early 1920s. It set up US headquarters outside of Chicago; has plants in Illinois, Tennessee and South Carolina; and has distributing centers throughout North America. The largest earth moving equipment company is Caterpillar. It is a US multinational that is 59th in the 2015 Fortune 500 list. Workers in Japan could have the same complaint as those in Illinois. Expansion across national borders can go in both directions.

The PBS America Revealed program Made in USA provides important insights into some of the profound changes in the very character of US manufacturing. The first is the focus on "lean manufacturing". It involves paying attention into hyper-efficiency by eliminating all forms of waste in the production process. It requires a careful step-by-step review of the production process and reintegrating each efficiently produced component back into the final assembly. It also in corporates robotics and addresses the way in which robots replace humans when it is appropriate to ensure efficiency. The end result is even larger scale plants using current state-of-the-art processes of production that take advantage of robotics and computerization.

Historically, much of the US production and exports have been in "low value" products. They are products involving a large number of producers that charge prices that just cover the cost of materials. Some examples are paper, corn and its derivatives like dextrose, corn syrup, oil and starch, rice, and soybeans. They continue to be important in both the domestic and export markets. In contrast, the new products produced by the new techniques of production are "high-value" products. Their price is significantly above the cost of materials. Typically they are produced by one or a few manufacturers, often with a well-known brand. That gives the company significant control over its market and, when successful, excess profits. The lower costs of production have made it possible for some companies to ship their products overseas. Some have even become multinationals.

Similarly, some foreign companies, taking advantage of the new technology, have built the larger scale plants in the US. The automotive industry with new plants by VW, Mercedes-Benz, Honda, Toyota, Nissan and BMW is a good example. The new plants are capital intensive and use fewer laborers for each unit of output. They rely on local suppliers and distributors. To some extent they have replaced the US companies that used old-fashioned assembly line with a larger number of employees.

Another important factor that the program emphasizes is the significant role of the military-industrial complex -- what it calls the munitions industry. It too has adopted and adjusted to lean manufacturing techniques.

Other companies are taking advantage of the reduced cost and communication and transportation to expand their production into the new era. The report highlights the role of containerization, the production of steel from scrap, and the use of fiber optic cables. Still other companies, like Intel and Facebook, are paying attention to and are trying to stay ahead of their competitors by coming up with advances in the techniques of production and with the next line of products. They are attempting to predict the future or, in some cases, buying potential rivals with new ideas.

The program makes very clear, the importance of computers, robotics and containerization in today's life.

[http://www.pbs.org/video/2227791872/]

The PBS Newshour Weekend on August 27, 2016 presented a special entitled "Why some manufacturers are returning to the U.S.". Reversing a trend, some companies have decided to bring operations back to the US. It is called 'reshoring'. In part, it is because wages in China have risen; because of the greater shipping and delivery times involved in overseas production; and because local operations provide closer customer contact.

[http://www.pbs.org/newshour/bb/manufacturers-returning-u-s/]

All are examples of companies taking advantage of and adjusting to the new technological and economic realities. To do that they must build plants, acquire equipment, hire laborers, acquire materials, etc. and do all the other things necessary to put together a successful operation. That requires capital. Those who are able provide it are the ones who have the excess funds -- they are the companies and the individuals at the upper end of the income distribution. They benefit when the operation is successful, further contributing to the greater inequality in the distribution of income.

Those who don't benefit from the new economic and technological conditions are the ones who were displaced by them and those who did not have sufficient disposable income to enable them to participate in the new investments. They include the people at the lower end of the income distribution and the individuals burdened with student loans.

Like it or not, we are now living in "One World" with easier access to one another. It is all part of the reallocation of resources that is mandated by the current technological economic changes. For any "solution" to be appropriate and successful, it must take account of the bigger picture that gave rise to the problem in the first place. We will take a closer look at it when we examine potential remedies in Stage IX. Before we do let's look at the effect that the mandatory changes that we have just discussed have had on the distribution of income. (See Stage VII)

7. Stage VI -- Bringing Twinkies Back and More

Introduction

Private equity firms claim that they provide expertise and financial resources to turn around companies in distress to the benefit of all concerned. In this section we will examine that claim to see who benefits from their operations and how they affect the distribution of income and wealth. The review relies heavily on the New York Times article by Michael Corkery and Ben Protess "How the Twinkie Made the Superrich Even Richer"

Thanks to their fine investigative reporting, we now have a greater insight into the operations of private equity firms, operations that are often conducted behind closed doors. It allows us to get a better understanding of who benefits from the firm's operations and who are displaced or harmed by them. (For a closer look at the details, I suggest you take a look at the original article.)

How the Twinkie Made the Superrich Even Richer, By Michael Corkery and Ben Protess, NYTimes, Dec. 10, 2016

[http://www.nytimes.com/2016/12/10/business/dealbook/how-the-twinkie-made-the-super-rich-even-richer.html?emc=edit_th_20161211&nl=todaysheadlines&nlid=33282262&_r=1]

The opportunity

Twinkies, the Hostess snack cake, goes back to the early 1900s. They became well known and had a well-established national brand name. The snack was ideal for those who had a craving for sugar, some would say an addiction.

Hostess went bankrupt in 2012. They had eight plants that exclusively produced Twinkies throughout the United States with about 8,000 employees. Six other plants produced some of the snack cakes. The recent drop in sales came about because of the dietary changes that played down the use of sugar. Americans were turning to healthier snacks and eating less junk food. Apparently, however, there is more to it. The plants used old-fashioned, high-cost, outmoded production methods that were highly labor-intensive. Moreover, the way in which Twinkies were marketed did not take account of the recently adopted, large-scale lower-cost distribution methods.

The Hostess management had not adjusted to the new technological and economic conditions, putting the company in distress. Initially the bankrupt company was taken over by the private equity firm, Ripplewood Holdings. Two years later in 2012, it went bankrupt again. All the plants were closed. The assets were put up for auction to satisfy the creditors. Although Twinkies were no longer available, buyers still had a craving for them.

That is where two other private equity firms, Apollo and Metropoulos, come into the picture and the beginning of our story. Think of it as two producer-directors who got hold of a script and decided to put on a play. Its title is "The Twinkies Revival".

The producers-directors

To get a better understanding of who the potential beneficiaries are, let's take a closer look at Apollo and Metropoulos. Apollo Global Management and Metropoulos & Company are two large, well-established, well-known private equity firms.

Apollo was founded in 1990 under the guidance of Leon Black, its CEO. As of August 2016, Apollo managed over US$188.8 billion of investor commitments making it the second largest US-based alternative asset management firm. According to the New York Times article Mr. Black's 2015 income was $199.8 million, making him the second largest income earner in the country.

Metropoulos & Company was formed in 1993. Its CEO is C. Dean Metropoulos. Although he did not show up in the New York Times list because the company is not publicly traded, he is probably not very far behind Mr. Dean. According to Forbes, Mr. Metropoulos has a net worth of $2.5 billion as of October 2016.

Among the investors in public equity firms are pension funds for public workers. Those funds are some of the biggest investors in Apollo. Nearly half of private equity's invested assets now come from public and private pensions around the world. The pension fund money helps make it possible for private equity firms to place their bets on companies like Hostess.

Pre-production

At the auction in early 2013 Apollo and Metropoulos purchased the Twinkie brand name and some of Hostess's snack cake bakeries. They bought some of the other Hostess brands as well. They paid $186 million for the entire package. Previously Hostess had 8 plants with about 8,000 workers.

One plant -- the one in Schiller Park, Illinois -- was reopened a few months later. Twinkies started rolling off the line there at its brick bakery, which opened nearly a century earlier. Some of its previous employees were rehired. That made it possible for Apollo and Metropoulos to provide their customers with Twinkies. They had been off the market for several months. The employees had an extremely heavy schedule. They worked on one of two 12-hour shifts, six, or even an optional seven, days a week under grueling conditions.

"Twinkies" were out there and on the market again. That maintained the brand name. Twinkies were not being replaced by competitors' brands. The operations brought in revenue while Apollo and Metropoulos made the other changes. When the changes were completed, the Schiller Park plant was shut down for a third time in 2013. The 415 employees were 'rewarded' for their contribution by being laid off. They were out of work again.

During the pre-production period Apollo and Metropoulos made other very important changes.

The performance

At the end of the restructuring there were three plants. Apollo and Metropoulos introduced new, capital-intensive, automated production lines with fewer employees; developed a new recipe so the product had a shelf life 2½ times longer up to 65 days; and adopted streamlined distribution methods. The new Hostess employed only 1,200 people, a fraction of the roughly 8,000 workers the company employed earlier. Many drivers, loaders and bakers who lost their jobs when the Hostess's snack cake business went bankrupt in 2012 remained out of work.

The plants were located in Emporia, Kansas; Columbus, Georgia; and Indianapolis, Indiana. At the flagship facility in Emporia, Hostess installed an automated baking system. The picture in the New York Times article of that plant's packing facility gives us an idea of the extent of the automation and of how few employees are required.

The private equity firms had additional had incentives for putting the plants at those locations. The Columbus plant received a government subsidy. Georgia's economic development agency provided Hostess with tax credits and the Town of Columbus chipped in with a $1 million grant. The other plants received financial assistance from Emporia, the State of Indiana and the City of

Indianapolis. Employment totals at those plants have since increased.

As an aside, the Emporia plant is not unionized. The other two are. Shortly after the union threatened to strike at the Schiller Park plant, it was closed. There is good reason to believe that Apollo and Metropoulos had no intention of keeping it open in the long term. The Schiller Park plant was not consistent with the ‘lean production’ philosophy -- production that uses the most recent technological advances and eliminates waste. That is how the private equity firms Apollo and Metropoulos brought Twinkies back to life.

Take a look at the Hostess Twinkies -- a “Golden Sponge Cake with Creamy Filling”, 10 a box. Each is individually labeled and wrapped in plastic to help preserve its shelf life. Printed on the box is the shelf life along with its retail price, $3.99, and the barcode. During the year prior to July 2016, when Apollo and Metropoulos sold the company, it brought in $650 million in sales. That’s a lot of Twinkies at four dollars a box of 10. Furthermore, over the previous three years, Apollo and Metropoulos received several hundred million dollars in dividends. [Ed: Add pictures]

[http://www.nytimes.com/2016/12/10/business/dealbook/how-the-twinkie-made-the-super-rich-even-richer.html?emc=edit_th_20161211&nl=todaysheadlines&nlid=33282262&_r=1]

[http://www.nytimes.com/2016/07/06/business/dealbook/twinkies-gores-hostess-brands.html]

Audience reaction

Now let’s take a look at who benefited and who were harmed or displaced by the Apollo and Metropoulos intervention.

In making that assessment it is useful to take a close look at the starting point. The traditional way of looking at the situation is that Hostess was in bankruptcy. The 8 plants had closed and the 8,000 previous employees were out of work. The assets, including the physical plants, were put up for auction. That is when Apollo and Metropoulos took over.

It is important to remember that behind the scenes changes in important technological and economic conditions had taken place. The previous owners had not adjusted to the new conditions. Under bankruptcy rules, any cash from the sale of the buildings and other assets at the auction go to pay off previous creditors. The new owners have no responsibility for paying off prior debts; in fulfilling previous agreements, including those in union contracts; or in fulfilling contractual obligations, including providing any severance pay or the pensions of previous employees.

As we shall see later, there alternate way of looking at this situation. For now, however, we will look at it from the traditional perspective.

On the benefit side at the top of the list are the Twinkies lovers. From the time previous operations were shut down in 2012 until shortly after Apollo and Metropoulos took over, there were no Twinkies on the market -- a period of about six months. When they brought the Schiller Park plant back online, consumers were happy. They had their Twinkies again.

That allowed Apollo and Metropoulos to satisfy the customers while they instituted the changes in the production and distribution operations. Those changes resulted in having three plants rather than eight devoted exclusively to making Twinkies. The new set up used 1,200 workers, rather than 8,000. Clearly, the employees, suppliers and the companies involved in the upscaling and in the continued operations at the newly renovated plants benefited from the Apollo and Metropoulos decision to take over. So did the three communities they decided upon.

Apollo and Metropoulos transformed Hostess and Twinkies into a viable business again.

In the four years from when the two private equity firms purchased the brand, brand name and the plants at auction until they sold the revitalized company to Gores Group in July 2016, Apollo and Metropoulos benefited.

To recoup the benefits that resulted from their intervention, they could:

- Continue to own and manage the company and collect their return from the profits the successful company that they created generates.
- Sell the company to the highest bidder. After deducting the costs of the venture including their initial purchase price, they walk away with the difference.
- Go public. That is, set up an IPO (Initial Public Offering) and sell the stock on the market. The market value of the stock from the transfer (again minus any costs involved) is what they take away. If they elect to keep some of the stock, they get additional income from any dividends and from the increase in the value of the stock, if its market price goes up.

Here's how Apollo and Metropoulos elected to handle the situation.

<u>Post-production</u>

Now comes the interesting part of the private equity firm story. The <u>New York Times</u> article calls it "The Money-Making Machine".

Using their financial expertise, Apollo and Metropoulos arranged for Hostess to take out a loan for $1.3 billion from the banking giant Credit Suisse. The two firms then pocketed about $900 million of it for themselves and their investors. Hostess, meanwhile, is stuck with repaying the debt, along with the interest.

That type of arrangement has a title -- "dividend recapitalization". That shows that it is not unusual in private equity firm's operations. It allows the firm to skim funds off the top and profit from current and future operations, even before they sell a company. Dividend recapitalization provides an added bonus to the private equity firms, its executives and their investors.

The practice limits the new firm's financial flexibility in managing operations; makes repayment of the loan along with the interest a top priority; reduces the firm's future net income and the profits of subsequent owners; limits the firm's access to capital and makes that more expensive even when that is the appropriate way forward; increases the risk of future bankruptcy; and puts cash in the hands of the current private equity firms, its owners, executives, managers and investors.

The Credit Suisse loan also highlights a significant potential conflict of interest for Apollo and Metropoulos as owners and managers of Hostess and Twinkies and for Apollo and Metropoulos as private equity firms. The loan places a significant financial burden on Twinkies' future operations. It also allows Apollo and Metropoulos to take away $900 million in cash now. Had Apollo and Metropoulos only been interested in ensuring the Hostess's and Twinkies' future success, they would not have taken out the loan. Instead, Apollo and Metropoulos would have been rewarded by the additional profits the company would have made from future operations or from the higher price that would be paid for the company if it were sold.

A few months later in July 2016, Apollo and Metropoulos sold the company. Instead of selling it outright, Hostess was acquired by a shell company created by another private equity firm, the Gores Group, for about $725 million. The newly acquired company then went public and Apollo and Metropoulos retained a combined 42 percent stake in it.

Apollo and Metropoulos invested $186 million in cash when they bought the company in 2013.

They took out a loan to help finance the rest of the $410 million deal. Their investment was now worth 13 times that initial cash investment. William Toler, Hostess's chief executive, said the company spent more than $140 million "to get the business up and running, and certainly our results suggest we made very good choices." He stayed on as CEO in the new company and C. Dean Metropoulos became the executive chairman. He added that the new arrangement would "propel Hostess into a growing and innovative company." If that is his objective, it is interesting that he saddled the company with a significant loan, took out $900 million in cash, and cut into future profits for himself and his fellow private equity firms' investors.

Hostess Brands, Maker of Twinkies, to Get a New Owner, By Michael J. de la Merced, July 5, 2016

[http://www.nytimes.com/2016/07/06/business/dealbook/twinkies-gores-hostess-brands.html]

The advantages for the private equities firms, like Apollo and Metropoulos, don't end there. The monies from any deal ultimately flows into the hands of the recipients -- the companies themselves, their executives, managers and investors -- in ways that lower their tax burden.

Apollo and Metropoulos took the industry's 20% off the top, as their cut of the profits — also known as 'carried interest'. It is taxed at the lower long-term capital gains rate. That rate is roughly half the 40 percent rate that people with high incomes ordinarily pay. Since private equity executives receive much of their money from carried interest, they enjoy a tax advantage over the rest of us. It has been characterized as the "carried-interest loophole". Regardless of whether or not it is a "loophole", it makes it possible for them to pay less than their proportional share of the taxes.

In the Hostess deal, Apollo and Metropoulos found other ways to use the tax code to their advantage. Had Apollo and Metropoulos elected to sell Hostess out right and not devised ways to tap into future earnings, it would have left Hostess with money on the table. These arrangements, which are now commonplace in private equity deals, allow the firms to collect cash from a company they may no longer own. The Hostess "tax-receivable" benefits, according to previously unreported securities filings and estimates by the Apollo spokesman, could provide Apollo and Metropoulos up to $400 million for the next 15 years or more.

Since the company was in bankruptcy when Apollo and Metropoulos took over, one wonders whether they, or the previous owners, were able to play it 'smart' and take advantage of the same tax playbook that was used by Pres. Trump when his Atlantic City casinos went bankrupt.

<u>Effect on the income distribution</u>

As the owners of the private equity firms, Apollo and Metropoulos arranged to have a greater share of Hostess's current and future income. They have also made sure that they do not pay a proportional share of the taxes. Consequently, the burden of supporting the government falls on those who are less well off. It is important to remember that the income of the owners of the Twinkie brand ultimately comes by charging Twinkies customers prices that are well in excess of the cost of production and distribution. Ultimately, the money comes out of the consumers' pockets.

The <u>New York Times</u> investigation of the financial maneuvering at Hostess shows how private equity firm executives have amassed great fortunes and contributed to the greater inequality distribution of income and wealth in the modern era.

When private equity firms are successful, their owners, executives, managers and the pension holders share in the profits from the deals. That includes domestic and foreign individuals; institutions; organizations; funds, including pension funds; companies, including banks and insurance companies; and, perhaps even, governments. When the private equity firms use the funds they have access to are successful, those who invested in the firm benefit.

Not included among the beneficiaries are the individuals:

- Who can not afford to put money aside because whatever disposable income they have, has to go into purchasing the goods and services necessary to survive;
- Who, in order to avoid defaulting on prior obligations (including student loans, car loans, mortgages and other loans), have to prioritize interest payments and repayment of the loan;
- Who choose to put all their disposable income into consumption;
- Who put funds aside to cover unexpected emergencies; or
- Who, after covering higher priority expenditures, invest in less risky investments.

Clearly, those at the lower end of the distribution of income and wealth are unlikely to benefit from private equity firms contributions, even when those firms are successful. When they are unsuccessful, the investors who gambled on their success are not rewarded either.

Those at the upper end of the distribution of income and wealth benefit from the operations of private equity firms and they contribute to the greater inequality in its distribution. As a New York Times article put it, they "Made the Superrich Even Richer".

Summary

In attempting to understand who are the winners and who are the losers in what happened as a result of the Apollo and Metropoulos intervention, we need to remember that when they took over Hostess was in bankruptcy. Eight Hostess Twinkie plants had been shut down and the 8,000 employees were out of work. The employees had also lost severance pay and their pensions. Because the company was in bankruptcy, legally Apollo and Metropoulos were not responsible for covering those costs.

Clearly, those costs are significant. Not only did they fall on the company's creditors, they fell on the former employees and their families and those in the rest of society who picked up some of the burden. Under bankruptcy rules, none of the burden falls on the previous managers or owners.

It is also important to remember that often behind the scenes, the underlying real cause for the disruption is the changes in technological and economic conditions. Those changes can lead to the mandatory reallocation of resources, making the old ways of doing business no longer viable. The adjustment falls on those who were actively involved in the old ways. That includes the employees, the suppliers and those in their surrounding community. Anyone in Schiller Park would be glad to testify to that.

Apollo and Metropoulos are due credit for recognizing the possibility of making Twinkies a profitable venture again and for making it happen. Along with that credit comes some financial reward. Under bankruptcy rules, however, they are not responsible for covering the severance pay or pensions of prior employees. Moreover, those rules also provided Apollo and Metropoulos with a clean slate, liberating them from union contracts, labor rules and any debt or from any obligation to make individual pension payments.

Nonetheless, the endeavors of the prior employees made Twinkies possible. They produced a quality product and established the brand and the brand name in the public's eye -- and in their taste, as well. Apollo and Metropoulos took advantage of that when they purchased the brands along with the plants.

Viewing it from that perspective, Apollo and Metropoulos could well thank the prior employees for their contribution. That is especially true for the Schiller Park employees who made it possible to put Twinkies back on the market during the restructuring. One way to honor that contribution would be to share some of the rewards with them. Doing so would aid the prior employees in their readjustment process. That approach comes into play even before we consider the extra financial rewards that Apollo and Metropoulos were able to garner from their financial market activities while they had control of the firm.

Some suggestions for how might be possible to achieve that objective are made in Stage VIII -- Suggested Recommendations. (See pp. 76-78) [Ed: Ck reference]

8. Stage VII -- Effect on the Distribution of Income

During the period since the end of World War II, a large number of factors have led to the greater inequality in the income distribution -- where the rich have gotten richer and the poor poorer.

The underlying changes

The underlying changes include:

- Consumerism -- the emphasis on consumption and the de-emphasis on saving -- withholding from current consumption.
- Consumerism was enhanced by innovation that brought about the development of new products.
- Those new products -- especially computers and containerization -- led to reduced communications and transportation costs.
- That, in turn, led to an expansion of markets.
- Firms, taking advantage of the expanded markets and utilizing the new technological developments, were able to adopt large-scale, lower-cost methods of production.
- That led to an increase in corporate profits, economic profits and excess profits.
- Which, in turn, gave the firms, their executives, managers and owners -- the stockholders (those who provided the capital that made the expansion possible) -- greater power over the markets and made them wealthier.
- Importantly, the new products were capital-intensive and not labor intensive. Making and distributing the products took fewer employees. Employees were replaced by equipment, computers and robots.
- Typically, the employees who were displaced, as part of the mandatory reallocation of resources, did not have the skills demanded by the new technology.
- Equally important was the fact that the reduced communications and transportation cost made it possible for firms to take advantage of lower labor costs at more distant locations (a.k.a., overseas).

Consequently, the production of labor-intensive products could be moved there. That led to an increase in local unemployment.

- The expanded markets allowed some companies to increase foreign sales and others to become multinationals. Examples include the producers of large-scale industrial agriculture, aircraft, jet engines and electrical equipment.
- The expanded markets also made it possible for products made overseas, some of which were not previously available to US customers, to be marketed here, reinforcing the emphasis on consumerism. Some of those products were the "new" ones.
- The exceptions include the service industries, the health-care sector and the new, smaller startup operations that were made possible by the new technology.

There are some other related changes that contributed to the greater inequality in the income distribution. They include:

- The buy-now, pay-later approach to consumption.
- The expansion of online marketing along with direct delivery from producers to consumers.
- The de-emphasis of putting funds aside to cover future contingencies.
- The expectation that the future would be better than the past and that it would lead to economic expansion.
- The emphasis on, some would say the preoccupation with, home ownership.
- The expansion of banks, mortgage companies and other financial institutions.
- The marked increase in subprime loans, some of which were bundled into mortgage-backed securities.
- The prevalence of student loans.
- Colleges that provide programs that do not increase the likelihood of employment or improve the student's earning potential. Often those institutions charge high fees, and are financed, in part, out of public funds.
- The use of excess corporate and individual funds with the intent of manipulating markets, including the market of public opinion, and to promote their private agenda in the regulatory, legislative, judicial and political process.
- That led to the rapid expansion of the "Lobbying industry" in the attempt to influence the legislative process.

All of that consumption and expansion had to be financed. It was financed by those who had the discretionary funds available, those with the capital. Those funds came from the successful companies and those who were at the upper end of the income distribution. They benefited by the changes and were rewarded with greater income.

<u>The changes in the income distribution</u>

Let's see what the numbers tell us about the changes in the US national income and its distribution. We will begin by putting aside, for now, the questions about the causes for the changes. The updated 2017 fine report from the Center on Budget and Policy Priorities entitled, "A Guide to Statistics on Historical Trends in Income Inequality" by Chad Stone, Danilo Trisi, Arloc Sherman, and Emily Horton is very helpful. It provides a clear understanding of the changes in family income and its distribution from the end of World War II to the present. The report discusses the issues and limitations associated with the various series designed to show what happened to US income.

From the report we can draw two important conclusions. First, by combining the data from the three series we can see how the national income changed over the period. We begin by dividing the period into two parts -- from 1947 to 1973 and from 1973 to 2016. In the first period US real family income, adjusted for inflation, just about doubled from $119,291 to $232,557. At the end of the second period in 2016, it rose to $356,290, an increase of 153% above the 1973 level. That is a little over half again over what it was four decades earlier.

During the earlier years, the increased income was shared about equally. It just about doubled for all levels of the population. The income of the median income group -- the 60 percent of those in the middle of the population -- increased by 204%. While the income for the lowest 20% of the population increased by 197% and those in the top 20% had a 191% rise. (For a visual image of the changes, See Figure 1)

Beginning in 1973 until the end of the period, the data present a very different picture. The income of the upper end of the distribution grew more rapidly than the other segments. During the later period, the income of the median income group increased by 25%, above 1973 levels. At the same time, the family income of the top 5% of the population rose 73%, almost 3 times as much. And the family income of those with the lowest 20% of the income was only 10% higher than it was in 1973. Those differences have led to a much greater spread and much greater inequality in the income distribution.

Not only is the more recent disparity confirmed, it is even greater in the report's data using household real income after taxes in the later period -- 1979 to 2014. (See Figure 2) For those at the very top of the income distribution -- the wealthiest of the wealthy -- those with an income at the top 1% of the population, their income rose by over 190%. During the same period, the income of those at the middle and bottom end of the distribution grew a little over 40%. The pattern varies somewhat from year to year, but the overall picture remains the same.

Furthermore, it is highly likely that the data understate, perhaps significantly, the inequality in the income distribution. By taking advantage of the favorable tax provisions and loopholes, those at the upper end pay less than their proportional share of taxes. Consequently, when income after taxes is used as the measure, the distribution widened even further. The disparity is further exacerbated by the fact that part of their increase in wealth does not show up as an increase in income. For example, when the value of an asset -- like stocks or a piece of property -- goes up, even though their income does not increase, the owner is made better off.

Whatever the causes, since 1973 those at the upper end of the distribution now receive a significantly greater share of the increases in income. The rich have gotten richer at the expense of everyone else in the population.

I want to thank the Center on Budget and Policy Priorities for their permission to use the data and the figures provided in their paper, " A Guide to Statistics on Historical Trends in Income Inequality”. Additional information is available in the paper and on their web site http://www.cbpp.org.

[https://www.cbpp.org/research/poverty-and-inequality/a-guide-to-statistics-on-historical-trends-in-income-inequality]

Circular flow

A typical way that the household to gets its income is for one or more of its members provide labor services to a firm in exchange for their compensation. The jobs can range anywhere from a janitor to a CEO. The workers may also provide those services to government units, to not-for-profit organizations or to other households. The money they bring in enables the household to purchase the goods and services they need and want.

There are other ways for the household to get income. Some some households function as firms. They produce products that other households use. Examples include the traditional family farm, an artist who sells his/her artwork in order to make a living, or by providing services to another household as a caregiver, domestic or personal assistant. Other households sell resources that they have access to. One example would be a household that has timber on its property. Another would be when a household that has excess disposable income uses it to provide capital to a firm, perhaps by purchasing corporate bonds or investing in stocks. Those are the ways in which the household obtains income.

For those of you who do not have a background in economics, bear with me for a moment and let me explain how things work through the eyes of an economist. From their perspective there are three basic economic units -- households, firms and government. While we typically think of households as a family unit -- with a father, a mother and children -- they can vary widely in the number of individuals, their age, gender, marital status and skills. The limiting case is a single person who lives alone. In all other households a larger number of people live together.

To sustain life each individual must have the basic inputs on a daily basis. They include air, water, food, sleep, clothing and shelter. The typical way the household gets those things, and the others they things require, is to use their income to purchase them from firms.

That is where firms come into play. They are the organizations that provide the goods and services the households require. They produce the outputs by using the labor services to combine the required inputs into the final product and deliver them to the consumers. That is how firms get their revenue. Some of that revenue provides the laborers and those who contributed the other resources with their income. As mentioned above, some households also function as firms and others provide resources to the firms.

That is where “price” comes into play. It is the rate of exchange for a unit of the product or service. It is the amount of money required to acquire it. Another way of looking at it is that price is the amount of their income that the household must give up in order to obtain the product and that the firm has to pay an employee (a.k.a., their wages) for an hour of their services. That money becomes part of the household’s income. The money a firm pays for the inputs required to produce the product or service is part of the cost of production. Those funds increase a household's income and a firm's revenue.

The household gets its income by providing labor services and other resources to the firms. The firms use that revenue to pay for those inputs, which gives the providers the income to pay for the goods and services they want. That is how the system economists call "Circular flow" works. For a visual image of how the process, check out the diagram. Part two of the figure shows how government fits into the process.

Government is the other basic economic unit. The executive, legislative and judicial branches of government provide a wide variety of goods and services. Typically, however, the government does not charge a price for them. In order to get access to the labor and other resources necessary to produce 'government services', the governments -- federal, state and local -- need to obtain the funds necessary to produce and supply those services. Typically, they do so through taxation. Taxes come in a number of different varieties -- including income, property, estate and sales taxes. Taxes are a way of transferring income from the households (and businesses) to governments in order to finance their operations. That is the end of the short economics lesson.

Taxes have a significant effect on the distribution of income and wealth.

<u>Proportional taxation</u>

There is a long-standing, centuries-old economic concept. It is that the tax burden should be shared equally. One way to accomplish that would be to tax everyone based on their income. That is, everyone would be taxed at a fixed percent of their income, regardless of one's income level. Those at the lower and middle income levels are charged at the same rate as those with higher incomes. Using that approach, the tax burden would be shared equally at all income levels. It is called 'proportional taxation'.

Some people argue that those with higher incomes should be charged at a higher rate. The basis for that position is that their higher incomes makes any given amount of tax easier on them. To accomplish that objective, those with a higher income are taxed at a higher rate. The proponents of that approach argue that it leads to sharing the tax burden more equitably. It is called 'progressive taxation'.

Still others argue that at the upper levels should pay less than their proportional share of the taxes. Their contention is that this approach -- which, by the way, is based on the assumption -- will lead to greater economic growth that will benefit all. It is called 'regressive taxation'. The only problem is that the assumption has never been shown to be correct. One example of regressive taxes are sales taxes. They hit the lower and middle income levels the hardest.

<u>The effects of income taxes</u>

Let's take a look at the effect of the income taxes on the income distribution. A casual look at the situation would lead one to believe that the problem is pretty straightforward. All you have to know is the person's income and the tax rate in order to determine their income tax. As it turns out, it is much more complicated and those complications significantly affect the inequality in the income distribution.

The result depends on what is considered “income” and what isn’t; on the difference between actual income and reported income; and on the tax rate. Let’s take a closer look at each of those elements.

Income sources

If you are a typical employee, at the end of each tax period, you receive a statement showing the amount of money you earned, the deductions for Social Security and Medicare payments, your income tax payment and your net take-home pay. That is your contribution to household income. If your partner also has a job and you are filing jointly, the money they receive adds it to the joint household income. Incidentally, those numbers are reported to the IRS and to your state’s Department of Revenue.

If you have hired yourself out as a “contract employee”, the paycheck is your gross income and you are responsible for making the other payments. The situation is similar when you produce and sell a product. Any costs you incurred over and above your “salary” are deducted from the receipts for the sale of the product to determine your gross income.

But as we have shown, working on a job is only one possible source of income. Imagine the following situation. You have an asset -- it could be a piece of property, a bond or a number of shares of stock, or painting you bought. Since you acquired it, its market value (a.k.a., the price) went up. Effectively, the increase in value adds to your income and wealth. That is called ‘passive income’. Ordinarily, the increased value is not included as income unless it is sold. When it is, the increased value becomes an income source entitled “capital gains”. Typically, it is taxed at a rate below the income tax rate. (More on that later.)

The Twinkies experience we detailed above shows how private equity firms use their financial expertise to develop ways to increase their income and the income of its executives, managers and investors. (See pp. 63-64) Apollo and Metropoulos arranged for Hostess to take out a loan for $1.3 billion from the banking giant Credit Suisse. They pocketed about $900 million of it. This arrangement is called “dividend recapitalization”. It allows the private equity firm to skim funds off the top and draw profits from the company’s current and future operations, even before they sell it.

A few months later, Apollo and Metropoulos sold the company. Instead of selling it outright, Hostess was acquired by another private equity firm for about $725 million. The newly acquired company then went public and Apollo and Metropoulos retained a combined 42 percent stake in it.

Apollo and Metropoulos also took the industry’s 20% off the top, as their cut of the profits. It is known as the “carried-interest loophole”. It is taxed at the lower long-term capital gains rate. That rate is roughly half the 40 percent rate that people with high incomes ordinarily pay. Those arrangements increase the revenue for the private equity firms and the income for the individuals that are the beneficiaries. It allows them to pay less than their proportional share of the taxes.

Another income source for individuals is the money they receive from prior investments that they still hold. That includes the dividends on any stock holdings and the interest from bonds. The dividends and interest are taxed as income, sometimes at a lower rate. The increase in the value of the holdings is not, although it adds to one's wealth. Funds received from other sources also add to individual and family income. That includes any income transfers, like gifts, Social Security or insurance payments, refunds, your winnings at poker, etc. Even though they increase the recipient's income, they are not typically considered as income sources for tax purposes.

Actual vs. reported income

There is a significant difference between actual income and reported income. Penalties aside, the lower the reported income, the lower the taxes. Corporations and individuals have devised numerous ways to reduce their reported income. We know about some, others we don't know about. Some of the techniques are currently legal, others push the boundaries, and still others are illegal. Provisions that make it possible to reduce reported income were lobbied for by the companies and individuals who benefited from them. Those provisions were passed by the legislators. Others are known as "tax loopholes". Let's look at some of the techniques and show how they make a difference between actual and reported income.

There are two ways of reducing reported income. The first is the failure to report income that is supposed to be reported. The second is to take advantage of some types of expenditures that can be used to reduce reported income. Here are some examples of the ways that individuals and corporations have accomplish that objective.

Looking at individuals first. When reporting on incomes, the Census provides more limited information about incomes at the very top of the income distribution than it does for incomes elsewhere in the distribution. Census does not collect information about earnings over $1,099,999 for any given job. Earnings above that level are recorded in Census data as $1,099,999. The balance is not included as income. Press reports reveal another technique. Some individuals who received money from foreign governments failed to report it as income. Other examples are described in the reports in the Panama and Paradise papers. Some individuals, including those at the very upper end of the income distribution and some who are involved in private equity firms, have used 'tax havens' in Panama, Bermuda and the Cayman Islands to cover up some of their income sources. It also seems likely that some of the direct cash payments for services and some tips, either intentionally or unintentionally, do not get reported as income. Similarly, the mutual exchange of services is not reported as income by either party. In each of those situations, reported income is less than actual income.

A discussion of the techniques companies have devised to reduce reported income, taxable income and taxes is provided in an earlier section entitled "tax avoidance". (See pp. 41-45)

Taxable income

Back to the individual. To arrive at taxable income, the first deduction from reported income are the 'personal exemptions'. Beyond that, individuals can choose to use either the 'standard deduction' or an 'itemized deduction'. The itemized deduction allows them to reduce reported income by the amount of certain types of expenditures.

Each individual can file as a single person, as married filing jointly, as married filing separately or as the head of the household. For the purpose of our discussion, to be more consistent with the economic concept of the household, we will use the information for “married filing jointly”. We will further assume that there are two adults in the household.

The deduction for personal exemptions was designed to provide sufficient income for basic needs. For 2016 the allowable deduction was $4,050 for each adult and each of their dependents. That deduction phases out at the upper levels of the income distribution. For our hypothetical household, that amounts to a deduction of $8,100.

If the family elects to take the standard deduction, it would allow them to take an additional $12,700 off of their reported income.

If they chose to itemize their deductions, they could reduce their taxable income even further by charging off their medical expenses; state and local taxes; mortgage interest expense for up to two homes; investment interest expenses (interest paid to borrow money used for investing); charitable contributions to allowable recipients; some casualty and theft losses; some gambling losses; and some miscellaneous business type expenses. The amount spent on each of those specific types of expenditures is treated as a deduction in reported income in arriving at “taxable income” when using itemized deductions. If the total expenses on those allowable deductions exceed the standard deduction, then it pays to itemize. They tend to be the type of expenditures that are made by those in the upper end of the income distribution.

The bottom line is that the taxable income determines which of the seven tax rate categories you fall into. The lower one’s the taxable income, the lower one’s tax rate and the lower one’s taxes are.

<u>Determining the tax</u>

Let’s apply that approach to see how one’s US federal income tax is determined. The first step is to establish the taxable income. It is their reported income minus both the personal deduction and either the standard deduction or the itemized one. For our example we will assume a couple filing jointly take the standard deduction. That enables them to determine their taxable income.

The accompanying table makes it possible to compute the taxes for a couple filing jointly in 2016 once their taxable income is determined. Both the tax rate and, consequently, their income tax depends on the level of their taxable income.Taxable Income	**Tax Rate**
	$0—$18,55010%
	$18,551—$75,300$1,855 plus 15% of the amount over $18,550
	$75,301—$151,900$10,367.50 plus 25% of the amount over $75,300
	$151,901—$231,450$29,517.50 plus 28% of the amount over $151,900

	$231,451—$413,350$51,791.50 plus 33% of the amount over $231,450
	$413,351—$466,950$111,818.50 plus 35% of the amount over $413,350
	$466,951 or more$130,578.50 plus 39.6% of the amount over $466,950

The taxable income is broken into seven separate stages depending upon the income level. The lower the level, the lower the tax rate. That is consistent with the concept of 'progressive taxation' discussed above -- where those at a higher income level pay at a higher rate than families who have a lower income.

If the family's annual taxable income falls between $0 and $18,550 their tax rate is 10%. That tax rate goes up to a maximum of 39.6% for incomes over $466, 951 in six steps. The table shows how to determine the tax.

It is important to recognize that the base tax for every family with a taxable income at or above $466,950 is <u>exactly</u> the same. They only pay the higher 39.6% rate on the portion of their taxable income that is over that base amount.

If they choose to itemize their deductions, it is because the total of the allowable deductions is greater than the standard deduction. The difference between the itemized and the standard deduction is subtracted from reported income in order to determine their taxable income and, along with it, the appropriate tax rate. The only other variable is the household's category. For example, is it an individual filing alone or as a family filing separately? Similar tables are available for each category. Each one embodies the same seven tax rate stages.

The table makes it easy to determine the tax rate for every taxable income level. Let us assume that the family has the 2016 median family income of $57,617. Half the families had a larger income and half a smaller one.

We begin by taking $57,617 as their reported income. To arrive at the taxable income, we deduct the personal deduction ($4,050 for each family member) and the standard deduction ($12, 600), bringing their total deductions to $20,700. Their taxable income is $36,917. That puts them in the 15% tax bracket. At that level their base tax is $1,855. In addition they have to pay 15% for any reported income over and above $18,550. The added tax is 15% of $18,367, or $2,755.05. Adding that to the base tax of $1,855 brings the family's federal income tax for the year to $4,610.05.

That example provides us with some important lessons. The first is that the actual tax rate -- the tax divided by reported income -- is 12.5%. That is less than the marginal rate of 15%. That higher rate only applies to the income that is not covered by the earlier stages.

The second lesson is that tax rate is based on reported income. The actual income is greater than the reported income. It is at least $20,700 higher -- the minimum value of the deductibles. Adding the $20,700 back into reported income, gives us an actual income of at least $57,617. That brings the effective tax rate -- the taxes paid divided by the actual income -- down to 8.0%, considerably below the marginal rate of 15%.

If the itemized deductions are greater than the standard deduction, that adds an additional amount to actual income. So does any unreported income, including the money that is covered up in tax havens. Any activity that leads to a reported income lower than the actual income results in an even lower the effective tax rate. In some cases, it can be considerably lower. In determining whether or not an individual pays their proportional share of the tax burden, the effective tax rate is the appropriate measure.

Taxes at the upper end

Now let's apply the same principles to families at the upper end of the income distribution to see its effect on inequality. Let's begin with a family with a taxable income of $466,950. That is just before the marginal tax rate goes up to the maximum rate of 39.6%. They pay a tax of $130,578.50, giving them a tax rate of 28.0% of their taxable income. If they are a married couple that took the standard deduction, their reported gross income would be $20,700 higher, or $487,650, dropping their effective tax rate to 26.8%. Both are lower than the 35% rate they paid on their last dollar of income.

Had they chosen to itemize their deductions, the increase over and above the standard deduction would have reduced their taxable income and effective tax rate even further. Moreover, to the extent that they had any hidden, unreported income, their actual income is greater than their reported income. Consequently, their effective tax rate would be still lower. All those actual rates are considerably lower than the maximum marginal tax rate of 39.6%.

Table VII-A: Determining the Effective Income Tax Rate

The calculations are based on the 2016 US Federal income tax rates

for a couple filing jointly with no dependents

Income Type	Amount	Deductions		Tax Rate	Tax
		Type	Amount		
Actual Income	$487,650			26.8%	
		Unreported income	$0.00		

Reported Income	$487,650			28.0%	
		Personal deduction	$ 8,100		
		Standard deduction	$12,600		
		Itemized deductions	›$12,600		
Taxable Income	$466,950			35%	$130,578.50
Marginal Income	$0.00		$0.00	39.6%	$0.00

Had our hypothetical couple chosen to itemize their deductions, in order for their taxable income to remain at $466,950, the reported income would have had to increase by the difference between their itemized deductions and the standard deduction. That would have resulted in a drop in reported tax rate below 28.0%. Furthermore, itemizing deductions and any unreported income would also have caused a drop in the effective tax rate below its 26.8%. (See Table VII-1) Had the family's hidden income been $100,000, their actual income would increase by that amount and their effective tax rate would fall to 22.2%.

It is important to recognize that all this comes into play before the maximum 39.6% rate applies. And it only applies to every dollar of taxable income over and above $466,950. That is true not only for this family, but for any family that has a reported income in 2016 over that amount. Moreover, all families with actual, reported and taxable income above that level have the same base rate. They also only pay 39.6% tax for each dollar of taxable income above $466,950. Their effective tax rate is lower than the marginal rate of 39.6%, perhaps considerably lower.

For tax purposes capital gains are not treated as income. The funds derived from them do not affect the individual's taxable income bracket. In general, the capital gains tax rate is significantly below the income tax rate. For example, the maximum marginal tax rate for a couple filing jointly in 2016 is 39.6%. Their maximum capital gains tax rate is 20%, and it can be even lower depending on the circumstances.

Equal sharing of the tax burden would come about if those at each income level pay the same proportion of their income in taxes. As we have shown the effective tax rate within any given category and between categories can be lower and considerably different from the nominal tax rate. Currently the tax system is not structured to meet that objective. Without better information about effective tax rates is not clear who bears the tax burden. What is clear is that some at the upper income levels have devised ways to lower their effective tax rate. When that happens, the rich are benefiting at the expense of the poor. Moreover, given the way taxes are determined, the marginal rate at the upper end is not a good measure of the effective tax rate. The effective tax rate for those at the upper end is guaranteed to be lower then 39.6%, perhaps significantly.

Corporate income taxes

Now let's take a look at the corporate income tax rate.

Corporate Tax Rate Schedule (2005 through 2017)

If taxable income is:Over	But not over	Tax is	Of amount over
	$0$50,000	15%	$0
	50,00075,000	$7,500 + 25%	50,000
	75,000100,000	13,750 + 34%	75,000
	100,000335,000	22,250 + 39%	100,000
	335,00010,000,000	113,900 + 34%	335,000
	10,000,00015,000,000	3,400,000 + 35%	10,000,000
	15,000,00018,333,333	5,150,000 + 38%	15,000,000
	18,333,333____	35%	0

At the first look, US Federal corporate income tax rates appear to be similar to individual income taxes. In 2016 the rates ranged from 15% to 35% (or slightly more) of taxable income. However, a closer examination reveals that rates below 35% only apply to taxable income below $75,000 per year. The actual tax rate is 35% for all corporate taxable income above that level. That tax applies to the total taxable income, and not just for the extra (a.k.a., marginal) income.

Effectively the corporate taxable income levels are reduced to three categories, not seven. For taxable incomes above $75,000 per year, the marginal rate is 35%. At the upper income levels, $75,000 is such a small percent of total taxable income, that the marginal and average rates are virtually the same, 35%. When the corporation's taxable income accurately reflects their actual income -- that is, if there is no hitting or unreported income -- then their effective tax rate is also 35%.

The key to understanding whether a family or a corporation has paid its proportional share of the tax burden is the effective tax rate -- the percent of their actual income paid in taxes. As we have shown, individual reported income exceeds taxable income by the amount of the "deductions". At the least, they include the personal deductions and the standard deduction. If they choose to itemize their deductions, certain specific types of 'permitted' expenditures are also deducted from income. To the extent that itemized deductions exceed the standard deduction in arriving at taxable income, taxable income is further reduced. The bottom line is that reported income exceeds taxable income. Furthermore, actual income exceeds reported income to the extent that the individual and the corporation have devised ways to underreport their actual income. Since the effective tax rate is the percent of their tax to their actual income, any underreporting of the actual income results in a higher effective tax rate and, therefore, overstates their contribution to the tax burden. It has been clearly shown that for both individuals and corporations the amounts of hidden income can be significant.

It is not possible to determine how the tax burden is shared and the effect that taxes have had on the distribution of income and wealth without a clear understanding of the effective tax rate at all income levels. Moreover, it is unlikely that we will be able to obtain information about the actual income and taxes paid unless those involved are open, honest and transparent about their experience.

Without that, it is unlikely that the necessary information will be made available. The information we have now and the leaks make it likely that, at least a significant number of cases, the dollar amounts can be quite large. Furthermore, it is also clear that those at the upper end have the incentive and funds to develop ways to avoid paying a greater share of the taxes. Furthermore, their activities have lowered their tax burden and contributed to the greater inequality in the distribution of income and wealth.

As a brief aside, let's take a look at the history of tax rates. The last major tax reform occurred in 1986 under Pres. Reagan. Prior to that for a couple filing jointly there were 15 tax brackets. The maximum marginal tax rate was 50% of taxable income above $175,250. As we indicated above, currently the maximum marginal tax rate is 39.6% when the family income exceeds $466,950.

The tax rate corporations pay is less than the rate for individuals. Currently, the marginal tax rate for corporations with a taxable income over $75,000 is 35%. It has been about at that same level since 1950. As I explained earlier some corporations and individuals have arranged to pay significantly less. The differences that they pay at the marginal and effective tax rates can have a significant effect on the inequality of the income distribution.

It is December 2017. The Senate and the House have passed and the President signed a significant income tax reform, nominally designed to lower individual and corporate taxes. Now that the bill has passed, until it plays itself out through the responses to it and we learn the courts' response to the challenges, it is impossible to know what effect it will have on the distribution of income and wealth. What we do know is that the talk about the effect of taxes and tax rates is a far cry from reality, especially when we look at effective tax rates.

In addition to the effect on the income distribution, let's take a brief look at some of the consequences that the changes in the last 70 years have brought about. That understanding will provide insights into the potential remedies and their consequences.

<u>Impact on those at the lower end</u>

The preoccupation with consumerism is a significant contributor to the greater inequality in the income distribution. For example, the insistence on owning one's home, along with the monthly payments, interest charges and all the attendant expenses, puts those payments at the top of the expenditures priority list. In addition, the repayment of the loans resulting from the buy now-pay later approach carries along with it as an additional expense, the interest charges and potential penalties. Add to the priority list, the payment for all the extra things that the members of the household consider important.

It is important to remember that all payments come out of one's limited disposable income. First and foremost, among them are the expenses involved in paying for the basic survival inputs -- air, water, food, rest, clothing and shelter -- for each person in the household. They must be covered. After that, the more money that is put into consumption, the less of it is available for saving. That is where the crux of the problem lies.

The decision of how much of one's disposable income to spend on consumption and how much to save is a household decision. Obviously, it depends on the level of income. The higher the income and the fewer members in the household, the greater the possibility there is to withhold some disposable income from current consumption.

The buy now-pay later approach clearly places the emphasis on current consumption. It carries with it the underlying assumption that the future will be better than the present. Not only will you have to be able to repay the amount you borrowed, but you must cover the interest charges as well. If it turns out that your disposable income in the future is the same as it is now, you will necessarily be worse off then than you are now. The same thing holds for payday loans that you take out to cover current expenditures. In addition, along with that approach, no money has been set aside to cover unexpected contingencies, like an accident, illness or the loss of your job.

Furthermore, living at the margin -- where most, all, or even more than all, of your current disposable income is spent on current consumption -- does not allow you to take advantage of future changes in spending opportunities or in new priorities. That includes having sufficient additional funds to take care of your newborn child, providing for his/her education or investing in new technological developments with the hope of increasing your future income.

Those are just some of the issues involved when consumers, by necessity or choice, focus on current consumption.

The student loan albatross

The average student loan for those who graduated in 2015 was just over $35,000. For the Class of 2016 the average student loan debt burden is $37,172 , up six percent from previous year. Moreover, there are the student loans that previous students, some of whom never graduated, still hold and the loans that parents took out to help pay for their child's education. Over 70% of today's graduates are faced with that situation. All together, the estimated total educational debt –

including federal and private education loans – tallies to nearly $68 billion in 2015 for graduates with a bachelor's degree and their parents. By 2016 it is estimated that Americans owe nearly $1.3 trillion in student loan debt, spread out among about 44 million borrowers.

[http://blogs.wsj.com/economics/2015/05/08/congratulations-class-of-2015-youre-the-most-indebted-ever-for-now/]

[[https://studentloanhero.com/student-loan-debt-statistics/]

Imagine the following scenario. You are from a low or middle income working-class family with a number of younger sibs. Neither your father nor your mother went to college. You did well in school and, at your teachers' recommendation, you went on for a college education. They said it would make it possible for you to find a job that you are good at, one you enjoyed, and one that would enhance your income earning potential.

You took their advice and got into a good school. You did well and graduated four years later. You got some financial aid from the college, but none from the family. They simply could not afford to help. The summer jobs were helpful, but you were unable to cover all your college expenses. To cover the balance you took out a student loan. By the time you graduated it amounted to $35,000.

The college education enabled you to find your calling, perhaps as a journalist, graphic designer or teacher. However, the economy turned sour, so no jobs were available in your field. If they were, your entry-level salary would have been about $65,000 per year or $1,250 per week. As a high school graduate your median salary would be about $32,440 per year or $750 per week.

Let's take a ballpark look at what that would mean for your life and your lifestyle. Had you gotten a job, the first thing you'd have to pay out of the $65,000 is $4,4115 in federal income tax. In addition, your contribution to Social Security and Medicare would be $4,973. Add to that the state and local taxes of $3,414. That would leave you a net of about $52,500 a year. Next comes out the cost of the basic survival inputs. We'll estimate them at $11,770 -- the federal estimate of the amount of money necessary to keep you above the poverty level. That gives you a balance of $41,730 per year, or $783 per week. That is your disposable income, the money available to cover all your other expenses.

Those calculations are based on information provided by the following sources.

[http://blogs.wsj.com/economics/2015/05/08/congratulations-class-of-2015-youre-the-most-indebted-ever-for-now/]

College Majors Figure Big in Earnings, Wall Street Journal, By Melissa Korn, Updated May 7, 2015
[http://www.wsj.com/articles/college-majors-figure-big-in-earnings-1430971261]
[http://time.com/money/3829776/heres-what-the-average-grad-makes-right-out-of-college/]

https://aspe.hhs.gov/2015-poverty-guidelines
PBS Newshour, March 14, 2016, “How the Deck is Stacked”
[http://www.pbs.org/newshour/rundown/introducing-how-the-deck-is-stacked/]
https://www.dinkytown.net/java/Payroll.html

Let’s think about what some of those expenses might be. You’re just out of school, starting a new job and a new life. In all probability that involves moving to a new location, buying some clothes, learning about the new environment, establishing new friendships, etc., etc. Perhaps you’d like a car. You might even be considering about developing a long-term relationship and a family. All of that takes money. It is money that comes out of your limited disposable income of $783 per week. If you don’t have a student loan, that’s what you would be spending your money on.

If the interest rate on the $35,000 student loan was at a low 4.5%, the estimated interest payment would be $30.29 per week -- about 4% of your weekly disposable income. That only allows you to avoid defaulting on the loan. If you miss a payment there will be additional charges and a drop in your credit rating. Furthermore, those payments do not pay back any of the principal. Consequently, they continue as long as the loan is outstanding. Paying the interest has to go to the top of your priority list. It leaves you with a balance of $753 of disposable income to cover all other expenditures.

Obviously, if the interest rate is higher the weekly payments will be greater. Remember, that does not include any repayments of the loan. You decide you want to be free of the debt. Let’s see what that involves. To pay off the $35,000, 4.5% loan over10 years, your monthly payment for the next 120 months would be $363 each month -- that is about $81 per week. That is about 10% of your weekly budget. That payment would have to come off the top in order to avoid a defaulting on the loan. Importantly, that money is not available for you to spend on other things for the next 10 years.

Hopefully, you arrive at a position where your disposable income exceeds current consumption. For those with a student loan, it is likely that some of that money goes toward the repayment of the loan -- not into an investment. That makes those with student loans unable to put money aside for contingencies or into investments that would lead to a greater stream of income in the future.

The burden of a student loan comes at a time in one’s life, when without it, he/she can focus on improving their future income stream. Consequently, the student loan tends to lock the individual and their families into the lower end of the income distribution.

The problem becomes more burdensome when you can’t find a job based on your higher skill level and training. Under those circumstances you would have to fall back to a job in the service industries. If you were successful in finding one, that would give you an annual salary of about $39,000 per year. Based on the same type of calculations, the balance after deducting the taxes and related expenses would be $32,440. After deducting $11,770 for the basic inputs your remaining disposable income would be $20,670 per year, or $398 per week. The student loan drops that down to $368 per week. Again, that does not provide for any repayment of the principal of the loan. That is about one half of the disposable income of the student who had a successful college experience. The 10 year repayment plan discussed above would mean that $81 per week comes off the top. That takes away 22% of your disposable income.

When you don't have the funds to repay it, the burden of the student loan remains with you. As the PBS Newshour Weekend program showed, it can follow you for the rest of your life. It can make it more difficult to pay for your children's education and can also affect your choices, many years later, when you go into retirement.
[https://www.pbs.org/newshour/show/pbs-newshour-full-episode-oct-14-2017]

Furthermore, during the four years in college, the student was not in the workforce. Therefore he/she was unable to contribute to their own personal support or add to the family's disposable income.

Students from an upper middle or upper class family that could afford to send their children to college -- perhaps using funds they had set aside for that purpose -- have a very different experience. Upon graduation the student does not have the burden of a student loan. They can go on with their life and career, just as someone in their early 20s would expect to do. Moreover, their parents are no longer burdened with college expenses, so they can afford to spend that portion of their disposable income on whatever else they choose.

<u>For-profit colleges</u>
In recent years there has been a significant increase in the number of private, fraudulent, expensive for-profit colleges with poor educational programs. They were financed largely through public funds. Some have gone bankrupt. That leaves the students and the public high and dry. Moreover, they contribute to the greater inequality in the income distribution.

The problem is further complicated when large-scale for-profit post-secondary educational chains go belly up. Included among them are Corinthian Colleges, ITT Technological Institute, and Trump University. When Corinthian Colleges closed in the spring of 2015, it had over 100 campuses with more than 16,000 students in the US and Canada. When ITT Technological Institute closed its doors in the fall of 2016 it had about 45,000 enrolled students spread over more than 130 campuses all across the country. It had received an estimated $580 million in federal money the previous year.

In the mid-1990s liberals and conservatives came together and a wholehearted embraced academic privatization on the theory that professionally managed, profit-oriented businesses could do a better job of delivering public services than non-profits or government institutions.

For-profit colleges were a magnet for billions of dollars in federal student loans and grants to low-income students. A Senate committee inquiry in 2010 found that they gobbled up more than $32 billion, a quarter of all federal financial aid. That was nearly double their share less than a decade earlier. [See the Senate committee inquiry] Hundreds of millions more flowed in from the Pentagon and veterans' programs through the G.I. Bill. For ITT, the total haul in federal dollars that year equaled $1.1 billion. Absent that steady stream of public funds, these privately managed businesses collapsed.

They reportedly adopted deceptive marketing; recruited unqualified students; used strong-arm recruitment tactics; provided misleading information about costs, courses, graduation and job placement rates; gave inflated enrollment numbers; adopted bait-and-switch schemes; provided substandard instruction; reneged on their promise to provide training in contemporarily relevant skills and ensure job placement; and more. That is the situation faced by many of the current and former students when the institution shuts down.

Can you imagine arriving to take classes for your final term only to find the doors had closed? You had decided to go on with your education in order to get a better job. You spent four or more years getting there and what do you have to show for it? You don't have a degree. The courses you took were probably substandard and did not improve your job prospects. Few, if any, of the credits are transferable to another institution. That puts you pretty much back at Ground Zero.

You are still in your old job. With life pretty much the same, except for the fact that you paid the tuition, took out a student loan, and lost all the time you spent in class, studying and getting back and forth to school. The school's promises were unfulfilled and none of the time, effort and money can be reclaimed. The same is true for the money and time that you could have used for some other constructive purpose. In spite of all the things that you did not get, what you do have is a sizable student loan plus interest that you are now obligated to repay. Moreover, since federal funds were used to finance the institution, taxpayers bear part of the burden as well.

References:

[https://en.wikipedia.org/wiki/Corinthian_Colleges]

Downfall of ITT Technical Institutes Was a Long Time in the Making, By Patricia Cohen, Sept. 7, 2016

[http://www.nytimes.com/2016/09/08/business/downfall-of-itt-technical-institutes-was-a-long-time-in-the-making.html?emc=edit_th_20160908&nl=todaysheadlines&nlid=33282262&_r=0]

Crackdown on For-Profit Colleges May Free Students and Trap Taxpayers, By Patricia Cohen, Aug. 28, 2016

[http://www.nytimes.com/2016/08/29/business/crackdown-on-for-profit-colleges-may-free-students-and-trap-taxpaytwhoion=click&contentCollection=Business%20Day&module=RelatedCoverage&region=EndOfArticle&pgtype=article]

PBS Frontline

[http://www.pbs.org/video/1485280975/]

New rule aims to streamline debt forgiveness for victims of rogue for-profit schools ,

June 13, 2016, By Jennifer C. Kerr, Associated Press

[http://www.pbs.org/newshour/tag/for-profit-college/]

Corporate responsibility

Trust me, the companies-- especially those that have control over their market and can charge high prices -- benefit from consumerism. They bombard consumers with ads in all media in order to get them to buy their products and to take out loans to pay for them. They promote and continuously reinforce consumerism. If you don't believe me, just turn on your TV set or open up your computer or smart-phone.

The companies who engage in those activities and who benefit from them are partly responsible for consumerism and its consequences. Nevertheless, the consumers who adopt that approach bear part of the responsibility as well. The emphasis on consumerism, along with the significant changes that we discussed earlier, have contributed to the greater inequality in the income distribution.

Here's how that works. A firm's ability to gain control over the market is enhanced when it can develop new products or processes of production and adopt large-scale, lower-cost methods of operation. That allows them to distribute in the expanded markets. Moreover, the newer technologies made it possible for firms to adopt even larger-scale, lower-cost methods of operations, many of which are capital intensive and use robotics. The net result is that the companies' corporate profits, economic profits and excess profits are increased. So is the income and wealth of its executives, managers and the owners of the corporation, the stockholders, who were able to invest in the company. That has further contributed to the greater inequality in income distribution. Furthermore, it provides those individuals with the additional funds to further their private agenda.

Summary

In summary, people have been living in high style with the emphasis on consumerism, often spending all or even more of their current income on consumption. Funds have not been set aside for contingencies. They have acted with the expectation that the future would be better than the past, and that their retirement would be covered by Social Security (a.k.a., Old Age Benefits) and pensions. On top of that, the population has been continuously bombarded by the companies that produce new products that 'they just have to have' in order to keep up. Some of those products are produced outside the country.

All the while, in the background, changes are going on. Those changes mandate a reallocation of resources to adjust to the new technological and economic opportunities. For some, the future will not be like the past. The jobs their parents held are no longer available. Old jobs -- typically in labor-intensive industries -- are lost or transferred overseas. Higher levels of unemployment prevail. Household incomes fall.

The old jobs are replaced by industries and jobs that take advantage of the new technologies, the new innovations. Unlike those in previous generations, they are capital-intensive and not labor-intensive. Furthermore, the old jobholders don't have the skills required for the new jobs. The owners of the new companies -- those who were able to withhold from current consumption earlier on and provide the capital for the new developments -- are in the upper end of the income distribution. So are the company's executives, managers, employees and suppliers. They benefit from the company's success. That adds to the greater inequality in the income distribution.

In that setting, given their previous focus on consumerism, if someone loses their job or even if they simply maintain their current salary, they are placed in a very difficult position. The available jobs -- the ones that match their skills -- are in the service industries and the health-care sector with considerably lower salaries. Their lower disposable income makes life harder, especially when they have accumulated prior debt, like large house payments or student loans.

But what about those at the upper end of the income and wealth distribution. They were able to put funds aside as 'saving'. Some of it could well have gone into investments in companies that produced the new technology. That provided them with higher future income. Those individuals who embraced the new technology benefit as well.

Who benefits from the mandatory reallocation of resources that result from new innovations?

- The individuals and companies that came up with the innovation and the spinoffs that resulted from it.
- The new employees (new jobs) in those companies, their suppliers and distributors.
- Those who had sufficient disposable income, the ability and the foresight to invest in those companies -- typically they are at the upper end of the income distribution.
- The companies that were able to take advantage of the innovations to increase the size of their market and introduce larger-scale, lower-cost methods of production and distribution. They were able to utilize the excess profits that they derived from those changes to maintain and increase their control over the market (including by utilizing extra-market techniques) and thus and thus they enhanced their profits even further.

Those activities lead to a greater inequality in the distribution of income and wealth, especially when the beneficiaries are focused on enhancing individual or corporate power and wealth and not on the redistribution of income.

Let's briefly review the Twinkies experience as one example of what happens when those at the upper end use their control over the situation, along with the newly acquired wealth, to further enhance their status and see how it affects the distribution of income and wealth. Twinkies went bankrupt. Two private equity firms, Apollo and Metropoulos, stepped in and purchased the brand name and some of the other assets. Prior to the bankruptcy, the company had eight plants and

8,000 employees. After Apollo and Metropoulos reorganized operations, there were three highly automated, capital intensive plants with 1,200 employees that relied heavily on the new techniques of distribution and marketing. Apollo and Metropoulos brought Twinkies back to life.

When they acquired Twinkies, Apollo and Metropoulos reopened the Schiller Park, Illinois plant, rehired 415 employees and worked them on a grueling schedule. That enabled the company to supply their customers with Twinkies during the transition period. At the end of the six months, they were laid off again. (For additional details see Stage VI -- Bringing Twinkies Back and More.)

There are two ways that Apollo and Metropoulos and their investors could be rewarded for their success. The first would be to continue to manage the revived company and share in its profits. The second would be to sell off the revived company. The money they receive would be their reward for bringing Twinkies back to life.

Instead, by using their control over the situation, Apollo and Metropoulos adopted a number of different ways that provided the private equity firms with even greater revenue. They included taking out a significant loan in the company's name and turning over a significant share of it to the private equity firms; selling off the company while retaining a 42% share of the stock; and using a technique called "tax-receivable benefits" to tap into Twinkies future earnings. Incidentally, that revenue was taxed at the lower long-term capital gains rate rather than as income. All were ways of taking money out of Twinkies operations. See The New York Times article called it the "Money Making Machine". Taking out the funds ahead of time made it more difficult for the company to be successful and provided Apollo and Metropoulos with a share of future earnings even before they were earned. It also contributed to the greater inequality in the income distribution.

Instead of laying off the Schiller Park employees without compensation, Apollo and Metropoulos could have rewarded them for their assistance in making the company's transition successful. For example, Apollo and Metropoulos could have been given them shares in the private equity firms. That certainly would have made their transition easier.

The techniques used by Apollo and Metropoulos show how a successful private equity firm is able to use their control and the funds they receive to increase the income and wealth of those at the upper end of the income distribution to the detriment of those at the lower end.

Apollo and Metropoulos elected not to use their understanding of operations and their skills to ensure that Twinkies continued to be produced and distributed at the lowest possible cost. Their financial activities led to an increase in the company's current and future costs. In order to cover those costs, the company had to raise the price of Twinkies, taking additional money out of its customer's pockets. Moreover, Apollo and Metropoulos did not use any of the funds they acquired to assist those who had helped in the transition, who contributed to restablishing the Twinkies brand, or who had been displaced or harmed by the reorganization. Apparently, Apollo and Metropoulos, as successful private equity firms, did not use their experience and expertise, and the funds they garnered, to turn around other companies that were in bankruptcy.

Marcus Ryu was instrumental in putting together a large, successful multinational corporation, Guidewire Software. His view, as a successful entrepreneur, is presented in the New York Times op-ed piece. He argues that increasing the income of those at the upper end of the income distribution, and lowering the tax rate to accomplish that objective, is not an incentive for increased economic growth. It will not improve the well-being of society as a whole. (See Why Corporate Tax Cuts Won't Create Jobs, by Marcus Ryu, Oct. 9, 2017.) His contention is certainly supported by the Apollo and Metropoulos experience.

[https://www.nytimes.com/2017/10/09/opinion/corporate-tax-cuts-entrepreneur.html?emc=edit_th_20171009&nl=todaysheadlines&nlid=33282262]

What the Panama and Paradise papers and other evidence clearly show that the 'Upper-uppers' -- those at the very top of the income and wealth distribution -- have other objectives for the use of the extra income that they would receive as a result of a tax reduction. For a clearer understanding of how tax havens and related techniques work and how they put more money into the hands of profitable companies and wealthy individuals and make it possible for them to pay fewer taxes, see How Corporations and the Wealthy Avoid Taxes (and How to Stop Them) by Gabriel Zucman,.

[How Corporations and the Wealthy Avoid Taxes (and How to Stop Them) by Gabriel Zucman, November 11, 2017]

[https://www.nytimes.com/interactive/2017/11/10/opinion/gabriel-zucman-paradise-papers-tax-evasion.html?emc=edit_th_20171111&nl=todaysheadlines&nlid=33282262]

One could argue that those individuals and corporations at the upper end of the income distribution who receive extra funds are unlikely to put them into activities that would lead to economic growth. Instead they will use the funds to promote their personal objectives. They include promoting their private agenda whatever it might be, perhaps by financing lobbying; attempting to influence the regulatory process and by promoting legislation that makes it easier for them to accomplish their objectives; and helping to ensure that the political candidates they approve of get into office; or, perhaps, by funding a museum or engaging in activities that protect the value of their assets. Even if the changes brought about by their increased income result in increased economic growth, there is no guarantee that the changes will address the imbalance or be shared more equally by all levels of the income distribution.

Even though in the period after 1973 the national income and wealth increased, there are two sectors of society that were made worse off. One group are the companies, their employees, their suppliers and distributors who were displaced by the innovations. The other are the individuals who did not have sufficient disposable income to be able to invest in the innovations. Typically they were at the lower end of the income distribution.

A significant number of those who have benefited from the changes have not devoted their newly acquired money, time and energy into achieving greater US economic growth. Nor did they put it into programs designed to make the poor richer, helping those who have been displaced by the firms' activities, or helping those at the lower end of the income distribution to improve their well-being and that of their children -- the future generation. That would make it it possible for them to contribute to a better future for all.

The next Stage -- Stage VIII -- Suggested Remedies -- is devoted to coming up with ways that those at the upper end of the distribution of income and wealth and the rest of us can help by putting money, time and effort into achieving greater equality in the income distribution and making life better for those at the lower end of it. Some recommendations will directly address the causes for the inequity. Others will lead to a more even income distribution without making anyone worse off. Some remedies can be achieved by changing individual behavior without involving any form of government intervention. An important objective is to put conditions in place that improve the well-being of everyone in the population, not just those at the upper end of the income distribution. Importantly, that goal not only applies to those of us who are alive now, but to future generations as well. Let's begin.

9.Stage VIII -- Suggested Remedies

An overview

In examining remedies designed to correct the inequality of income and wealth, it is important to take advantage of the fact that we are living in a new era. The new products and services make life better. The new opportunities they open up make it possible to do and see things that we would never have dreamed of previously. They also create new job opportunities.

It is equally important to acknowledge and reward the creative thinkers and entrepreneurs who enabled us to get here. Their contribution made it possible for them to get into the upper end of the income distribution. Their greater disposable income provides them with additional discretionary funds, funds that make them better off.

It is also possible for some of them -- especially those who are corporate executives and managers -- to charge prices well in excess of the cost of production; to use the resulting funds to maintain and enhance their power and the company's position, power and influence; to pay themselves higher salaries, commissions and pensions; and to manipulate the system to promote both the company's and their private agenda. The end result is that they, and the company they work for, have even greater income and wealth.

The changes that they have brought about do not come without a cost. Moreover, those changes mandate a reallocation of resources. In the process some people are made worse off. That includes those who were harmed by the unforeseen and unintended consequences and those who were displaced. They were adversely affected by changes over which they had no control.

Those who deserve, take credit for and benefit from the favorable consequences of their actions are entitled to the rewards. However, they could also take responsibility for the adverse unpredicted and unintended consequences. For example, once it is revealed, DuPont should promptly rectify the damage to the rivers and lands in West Virginia caused by the installation of a toxic waste dump. (See p. 6)

Rather than promote their private agenda and make themselves and the companies they work for even wealthier, there is one thing they can do. It is to provide the funds and resources and put their creative energy into improving the well-being of those who have been made worse off; to facilitate the readjustment process; and to help those who have been forced into the lower end of the income distribution get a new and better life. It is from that perspective that we will examine potential remedies to achieve a more equitable income distribution.

They can accomplish that by using their creative imagination and understanding of the new developments to devise remedies that will help those who have been harmed or displaced. There is another way they can help. They can use some of their excess disposable income to provide the funds to help in the readjustment process and to remedy the situation.

Importantly, if the individual or corporation elects to use those funds to promote their private agenda, they should be open, honest and transparent about it. The first step is to reveal who the recipients are and how much they got. If the donor elects to contribute to a 'cause', they should have no control over or influence in the decisions about who receives those funds. Those decisions should be placed in the hands of a separate, independent organization. In that way the donor cannot be accused of promoting their private agenda. On the other hand, it is quite appropriate to say where the funds came from and give the donor credit.

<u>Program evaluation</u>

In coming up with each of the suggested remedies designed to correct the greater inequality in the income and wealth distribution it is important to keep in mind:

- The underlying causes of the inequality.
- Who benefits from current situation and to recognize that they are likely to oppose any change.
- That each proposal should be evaluated for its likely benefits and costs.

> Namely, who benefits from it and what are the benefits are likely to be? And, who is harmed by it, and what are the monetary and non-monetary costs likely to be?

Not only should those issues be addressed from perspective of the individuals who will be directly affected by the program, but from a broader social viewpoint as well. That can be done by asking what will be given up if the remedies are implemented. Utilizing that approach, let's take a look at some possible programs.

Some Suggested Proposals

Government's role

It is well established that government has a legitimate role. Its principal units are the executive, legislative and judicial branches. Even the Libertarian Party, that promotes a marginal role of government, has to agree to that, since its members run for positions in it.

Government has an important economic role as well. It provides public services, like the military; police and fire protection; the Postal Service; the response to natural disasters, like hurricanes, earthquakes, tornadoes, forest fires, and tsunamis by the Federal Emergency Management Administration (FEMA), The U. S. Fish and Wildlife Service and UN agencies; and the GPS and public goods, like public roads. Government is also responsible for reigning in corporate excesses when the companies do not perform in the public interest. Examples include public utility regulation, control over monopoly that began in the US with the 1890 Sherman Antitrust Act, and ensuring that pharmaceuticals are safe and effective.

The criteria for ensuring that each of the economic units -- firms, households and government -- is performing in the public interest are that the goods and services they provide are the ones that society wants most and that they are supplied at a price and a cost that just covers the lowest cost of production -- unlike EpiPens. When both the private and the public sectors conform to those criteria, economists call them "efficient". In that way, the public gets the goods and services it wants most out of the limited resources available -- the land, labor, capital and natural resources -- that are available.

The traditional way that governments get access to the funds required to provide those services is through taxation. Taxes are said to be proportional when the share each individual pays is a fixed proportion of their income. Regardless of their income, they pay the same X % of it to the government. When those with a higher income pay a smaller share, the taxes are called regressive. When they pay a larger share than those with less income, the taxes are called progressive. Tax avoidance and tax loopholes are ways that those with higher incomes pay less than their proportional share. That puts the burden of supporting government operations onto those with lower incomes.

Many of the companies and individuals at the upper end do not pay their proportional share of the tax burden, even in those cases where they or the companies they manage are direct beneficiaries of government expenditures. That is especially true of firms involved in the military-industrial complex and for those who support greater involvement in hostilities in foreign conflicts. Often, they are among those who complain about the failure to reduce the size of the national debt. The bottom line is that by avoiding paying their share of the taxes, they are contributing to it.

One way to help ensure that government provides goods and services that the population wants most, and that it does not act in a way that benefits 'special interests', is for the government to be representative of the population -- that is, it is based on one person, one vote. That is especially important when the population is diverse. In that way, the rules, regulations and their implementation provided by the government will more likely be representative of the demands of the people and not of any special interest group.

In recent years corporations, especially those firms with control over their markets, and individuals at the upper end of the income and wealth distribution have been very effective in promoting their private interest. The expansion and influence of lobbying is clear evidence of it. (For details See p. 22) Frequently, the lobbyists become directly involved in drafting legislation. Those at the upper end often also use their available funds to support candidates for office who promote their private agenda at the federal, state and local levels.

Gerrymandering

Economic and financial power can extend into the political arena. After every ten-year U.S. Census the States reapportion their delegations to the House of Representatives to reflect their current population. Traditionally that has been done by the State legislatures. It is especially relevant in large states with diverse populations.

After Republicans dominated the 2010 midterm elections, there was a significant impact. They took control of both legislative chambers in 25 states and governorships in 29 states, sometimes by relatively small margins. The practice of drawing districts to benefit one political party over another or to protect incumbents is called gerrymandering.

As a result in 2014, Democrats got about 57 percent of the vote in Maryland, but won seven out of eight House seats. In North Carolina, Republicans won 56 percent of congressional votes in the same year, and they won 10 out of 13 races. In Pennsylvania 44 percent of the voters chose Democratic candidates for the House of Representatives. Nevertheless, 13 of the 18 districts – more than two-thirds of them– are represented by Republicans. In Ohio, about 40 percent of the voters chose democratic candidates for the House of Representatives, but 12 out of 16 seats – three-quarters of them – are represented by Republicans.

Last year, Maryland's governor created a commission to look at the issue. It recommended

Maryland join California, Arizona, Idaho and Washington state by taking the power to draw these lines away from the legislature and put it into the hands of an independent commission. It failed to pass in the legislature.

Gerrymandering violates the principle of one person, one vote. It does not give each person an equal voice in the legislative process. Typically, it is promoted by individuals or groups who wish to further their private economic, political or social agenda through the use of their political power and influence. Often that includes companies and individuals at the upper end of the income distribution with excess funds available. Those activities do not lead to a representative democracy. Moreover, gerrymandering does not lead to the economic ideal of ensuring that the population gets the goods and services they want most.

Gerrymandering can secure political positions term after term. Unlike the Presidency, the Representatives can retain their position beyond two terms. Because of the homogeneity of their constituents, they do not have to understand or appeal to those disagree with their 'position' in order to get things done. Furthermore, since they develop seniority, they rise up within their own Party, and gain even greater influence. They tend to hold onto and represent a narrower, less representative position -- one that is not representative of the broader population. That is even true when their gerrymandered district is close to one with individuals with very different opinions and when times change.

Ensuring that the legislatures are more representative of the overall population, rather than in the hands of financially powerful subgroups, is more likely to lead to legislation that is in the general, not private, interests.

North Carolina and Maryland challenge gerrymandering, September 24, 2016

[http://www.pbs.org/newshour/bb/north-carolina-maryland-challenge-gerrymandering/]

<u>Efficient production</u>

A "lean manufacturing" -- a.k.a. hyper-efficient -- production system is one that eliminates waste. In order to design and create that system, it is essential to have a deep and profound understanding of the production process, including the entire sequence of tasks required to convert the raw materials into the finished product and deliver it to the final consumer. That requirement holds true for both the private and the public sectors.

In 'olden times' that level of understanding was achieved by becoming an apprentice, a journeyman and finally a master craftsman. One step beyond that was the Acknowledged Master, recognized by piers as a fine craftsman, one who comes up with new ideas, new products and more efficient methods of production. He/she is the innovator.

In today's environment nothing has changed. In order to have a lean, hyper-efficient production process, and develop ways to eliminate waste and inefficiencies, it is essential to have an accurate understanding of how the system works.

A counter example occurs in medicine. There are times when physicians make an incorrect diagnosis or refuse to admit that they do not fully understand what is going on. In spite of that they recommend a course of action -- a prescription or surgery -- that results in “waste”. To add to the problem, they are frequently reimbursed for the inappropriate actions.

In order to be able to participate in a lean system, those involved in creating and maintaining it must be trained to a high level of understanding. That level enables them to function in a lean system, to recognize waste and inefficiency, and not to contribute to it by their own activities.

To be innovators in that system involves taking a step further. The required deep understanding of the way things work opens up the potential of seeing how to make things even better.

In order to achieve that level of understanding it is necessary to provide today’s young people with the prerequisite educational background that allows them to be able to:

- to take care of themselves,
- recognize their skills and passion,
- receive training in their area of interest, and
- identify and develop their specialty.

That approach will make it possible for them to develop the understanding of the system that will enable them to perform the tasks and functions efficiently. Hopefully, they will achieve a level of understanding that makes it possible for them to create the innovations for the next generation.

If the young are impoverished and living at or below the margin, they will simply not be able to take care of themselves, much less have the education and training that makes it possible for them to perform in and contribute to a lean, hyper-efficient system. In addition, they will be unable to understand how and where robots can replace human beings or to develop the robots that make the system more efficient.

Here’s my suggestion to those at the upper end of the distribution. It is that they share some of their additional income and wealth with those who have been displaced, harmed or impoverished by the changes they have made. Doing so will allow those individuals to be better able to take care of themselves, become educated and knowledgeable about the current system and, ultimately, be able to better take care of themselves and make their contribution to future generations.

Rather than use some of the funds you have acquired to enhance your position of power and influence or to promote your private agenda while you are alive, or even after your death, how about considering using some of them in a way that will enable those at the lower end of the income distribution to make their contribution to future generations. That is especially true for the younger generation. How can we help them in a way that will make it possible for them to make their contribution? One way to consider is to share the wealth with them and provide them with the resources necessary to make their creativity possible.

MyRA

The government has recently devised a program to encourage saving. It will help reverse the 70-year-old consumerism movement. The program is called MyRA -- my retirement account. You can check it out. [https://myra.gov/about/] It reminds me of the War Bonds and savings bond programs during World War II. For those of you who weren't around at the time, you might want to check out the posters. At the time we were heavily bombarded by them. I haven't seen any ads about MyRA on the Internet or on TV. Have you?

[https://en.wikipedia.org/wiki/War_bond#United_States]

[https://www.google.com/search?q=war+bond+posters&rlz=1C1PRFA_enUS497US497&espv=2&biw=1164&bih=538&tbm=isch&tbo=u&source=univ&sa=X&ved=0ahUKEwjX7Lqqr5TQAhVIbiYKHQiED_sQsAQIGg#tbm=isch&q=war+bonds&chips=q:war+bonds,g_1:american,g_1:ww2]

The Salon -- Making a difference

In August 2017 I was invited to participate in the 100th Salon. It is a group in Chapel Hill that gets together monthly to discuss topics of current interest. The question for the night was "What can we do, personally, to make a difference about poverty?". A number of ideas came up during the get-together. On arriving home, all I could do was to thing of ways, from my professional and personal perspective, that I would address the question. Here's what I came up with.

First is a fact. It is, that our time here on earth is limited. Whatever we do, has to be done between now and the time we die.

The second is that in order to survive on a daily basis each of us has to have the primary inputs -- clean air, water, food, sleep, shelter, clothing, etc. Making them available requires some of our time, energy, resources and funds (TERF), all of which are limited. Not only are they limited from each individual's perspective, most are limited when viewed from society's perspective as well. There are simply not enough to go around to satisfy everyone. Food is a good example.

When anything is limited, that's where I come in as an economist. Economics is the study of the allocation of scarce resources. It is important to remember that when anything is limited, you always give up whatever else that you could have done with those same resources. Time is a good example. If you decide to go to the Salon from 3:45 to 7:30 on a Saturday afternoon, you are giving up whatever else you could have done during that time. Economists have a name for it -- opportunity cost. The cost of anything is what you give up when you choose one option over another. In order to do what's best for you, it is important to make sure that what you choose to do with your limited resources, makes you better off than whatever else you could have done with it.

The same principle holds true for society's limited resources. Whenever society's resources or funds are used for some purpose, they are not available for anything else, or anyone else. Since that concept applies to the basic inputs required to sustain life, it is directly related to poverty. Whenever resources are used by someone, they are not available for anyone else. One good example occurs after a hurricane or earthquake. In the crunch to get a hold of the limited water and food, some are successful, others not.

Imagine the following, hopefully hypothetical, situation. You chose to have surgery based on the doctor's recommendation. It turns out that the surgery was unnecessary. Either it was based on false positive test results -- a test that said you had a problem when, in fact, you didn't -- or on the doctor's error in diagnosis. You bear the costs. They include the payments to the doctor, the hospital, the anesthesiologist, etc. An additional cost is the disability you suffered as a result of the operation and during the recovery period. Also a part of the cost is any assistance required during your recovery.

That is an extreme case. All of your TERF involved in the process was wasted. You did not benefit from the operation. Yet you incurred all of the costs involved. The service providers are the only ones who benefit. Importantly, anyone else who could have used their services and those resources to correct their problem, does not have access to them. Consequently, there was a 'social cost' as well as a 'private cost'.

That same analysis applies to any policies, or policy recommendations, designed to correct a problem. If the policy is unworkable, not only are the people affected by its implementation harmed, but those who would have benefited from the use of those same resources and funds lose out as well. There is reasonable evidence that building a wall on our Southern border is likely to be a good example. The TERF used to make it happen is not available to reduce poverty, and poverty will continue to be a problem.

Let's see how this approach influences one's choices of ways to help reduce poverty.

- It is necessary to take care of oneself and the members of one's household first, to pursue a lifestyle that you are comfortable with, and to do that in a way that utilizes the least amount of your time, energy, resources and funds (TERF). The more you expend on consumption, the less will be available for other things, like helping others. Any choice you make is doubly wasteful when the activity does not help meet your objectives. The more TERF you put into unproductive activities, the less of it will be will be available for other things.

- That opens up the question of how you want to expend your discretionary TERF. In making those decisions is important to recognize that your remaining time here on earth is limited. If you're curious about how long that is likely to be, you might want to check out the University of Pennsylvania life expectancy calculator.

[http://gosset.wharton.upenn.edu/mortality/perl/CalcForm.html_backup]

- It is also useful to recognize that the future is unpredictable. Consequently, putting some of the TERF aside to cover any unexpected occurrences -- like an illness, accident or the death of a partner or child or for the newest version of the Smartphone that you just have to have -- is likely to be helpful.
- That opens up the next question, namely, "What do I want to do with the time I have left?" To answer that it is necessary to look inside oneself and ask "What is my passion? What is really important to me? What do I want to accomplish?"
- Asking that question will enable you to decide what you want your legacy to be. It makes it possible for you to establish your priorities.
- Setting priorities will enable you to decide how you want to spend your limited discretionary TERF. Recognizing, of course, that anything you choose to do necessarily means you will be giving up something else.
- Wherever you go from there is up to you. You will bear the consequences, both the favorable and the unfavorable ones.

Let's look at how that approach and your decisions can help resolve poverty issues. By living comfortably and modestly without waste, you are less of a drain on society's resources. Moreover, it provides you with greater personal discretionary TERF.

Consider making your primary objective being able to take care of yourself and those in your household for the rest of your life. Importantly, if you don't meet that precondition, someone else must take care of you and you will be a drain on social resources. Should you choose to adopt that approach and have remaining disposable TERF, you could use some of it to help improve the well-being of others. Doing that makes it possible to improve the lot of someone who has been harmed or who is hurting. It can also be used to help the younger generations along their path. While you are still around, not only can you use the extra funds you have available, you can use your valuable knowledge, expertise and experience to help as well.

If helping reduce poverty is one of your priorities, you can use some of your discretionary TERF to engage in activities that meet that objective. An example would be to become actively involved in food service programs for the poor. You could serve as a volunteer in a soup kitchen. Taking that on would be particularly useful if your background, training, skills and experience make you especially qualified to provide those services. A reminder, engaging in those activities makes it impossible for you to use the TERF involved to contribute in other ways.

To see how some friends have used their skills to get others out of poverty, check out my blog post entitled, The Salon. (www.berniekemp.com). Taking advantage of your expertise and skills can be your part of your legacy. Additional suggestions for ways in which you can help can be found in the discussions of Revisiting student loans (See pp. ___) and Proportional taxation (pp. ___) below.

Another way that you can help is by making sure that you have a larger amount of discretionary TERF. That can be accomplished by limiting the use of your TERF to the activities that are important to you and by making sure that you perform those activities in the most efficient, least costly way. That approach can be helpful in reducing poverty in another way. Not only does it increase your individual/household discretionary TERF, that approach also releases some of society's resources. That makes them available to help eliminate poverty.

<u>Revisiting student loans</u>

In coming up with suggested remedies for relieving the student loan burden, I would like to look at the situation from a somewhat different perspective -- from the student's point of view. They are in their early 20s. Importantly, that is a time of transition from being a teenager into being an adult. A time when each of us is trying to figure out who we are, who we want to be and what we want to do for the rest of our lives. It is also a time to realize that as an adult we are responsible for taking care of ourselves and figuring out what that involves.

Consider the following situation. After four years at an academic institution he/she has just graduated. The college met their expectations. They enjoyed the four-year experience, did quite well, and discovered an area of interest they want to focus on and pursue. They got a job at a company they like, at a salary considerably higher than those who had not gone to college. Along the way they had a broadening experience, see the world in a somewhat different light, and have met some neat new friends. All in all, it was a worthwhile four years.

They are the time in their lives when they are looking towards the future. Perhaps they have to move to the new job, get a car, get set up at the new location, put time and effort into learning the new job and improving their skills, make new friends, and work on developing a relationship with the hopes of having a family. Those are the things it is necessary to pay attention to and that preoccupy us at that time in our lives. Doing all of that takes up some of our limited time, energy, resources and funds (TERF).

Before we see how student loans affect that process, let's take a look at what the recent graduate gave up to get there. It is whatever else he/she could have done with the limited TERF that they spent during those four years. That is the real cost of a college education. In part those costs include the college tuition and fees, living expenses while there and the trips there and back. But also included is the income that they would have earned during that period. Those costs were incurred regardless of whether or not they ended up with the student loan that needs to be repaid. Incurring those costs made it possible to get the benefits the college education providde.

One possibility is that the student came from a family at the upper middle or upper end of the income distribution who was able to pay for their college education out of current disposable income. Or, recognizing the value of their child's education, they had put money aside for it. Upon graduation they are not burdened with any student debt. At that point they are free to pursue their life's path without the burden of a loan.

The story is a very different story when the student comes from a family at the lower end of the income distribution, especially when no one in the family had any knowledge or experience about the potential value and the real cost of a college education.

As a brief aside. Whenever I wasn't in school -- weekends, holidays and summers -- I worked in my Dad's business from the time I was 13 on. I enjoyed it and, as his eldest son, was expected to take over when he died, just as he had done. My dad was able to accomplish what he had with just an eighth grade education. He came to me at the beginning of my senior year at UNC-Chapel Hill and asked me to leave school and come to work full-time. I refused. By the way, I paid for most of my college expenses out of the money I earned working for him. Tuition and expenses were much lower then than they are now.

When college expenses cannot come from the family, if the student is good enough, he/she may get a scholarship, tuition waiver or grant. The rest of their expenses has to come out of their pocket, perhaps from some of the income they earn during those four years, or from a student loan. There is another significant cost involved. It is any of the income or the support that they would have provided to the family, had they not gone to college. That potential benefit is foregone.

Let's look at the effects of having a student loan. As we showed earlier the median student loan for those who graduated in 2015 was $35,000. The loan is a burden and significantly restricts the freedom of choice at a time when many additional expenditures are required. Out of the higher salary, the first thing that must be paid are the Federal and state taxes, Social Security and unemployment benefits and insurance payments. The next is the interest on the student loan. It must be paid in order to avoid defaulting on the loan, and the penalties that go along with it. Any payments to reduce the principal are over and above that. All those funds must come out of gross income even before the money required to live even a minimal lifestyle.

In order to avoid defaulting on the loan and incurring the problems and costs that go along with that, it is necessary to put the periodic interest payments at the top of your expenditures list. As shown above, those interest payments can lead to a significant reduction in disposable income. (See pp.___) That problem occurs even when interest rates are low and last as long as the loan as long as the loan remains repaid. Clearly, the remaining disposable income is even less when interest rates are higher, when penalties are incurred, or when any funds are used to repay the loan. The balance is the amount of your disposable income that is left, that was not cut into by the student loan. It is the money that is available to do all the things listed above, things that you are likely to want to do as a new graduate. The interest on the student loan and any repayment of the principal places you in a more difficult position than any of your cohorts whose college expenses were covered.

Even when the college education was successful, the student loan comes at a time in one's life when its existence limits the progress of getting out of the lower end of the income distribution. That is not only true for the individual, but for their family as well. The loan makes it harder to capitalize on the benefits of the education because it reduces disposable income at a time in one's life when any additional funds can be used to make a number of important consumption decisions. Furthermore, it restricts the use of those funds in ways that promote future growth in income.

The problem becomes much more serious when the college education did not meet expectations. For example, when the student met all the requirements and did well, but it did not lead to a higher paying job. The problem is compounded when college did not help in finding one's mission or in developing the required skills. And, in those situations where the student was misinformed about the quality of the education provided or when the economy experienced a downturn, the situation is made even worse. Under any of those circumstances the existence of the student loan makes it more likely that they and their families will be forced to remain in the lower end of the income distribution.

There is a way around the problem. It is one that relieves the burden of the student loans and puts those students and their families in the same position at graduation as the ones who could afford to pay for the education.

Some of the 2016 presidential candidates proposed free college tuition for qualified students when their families cannot help finance their post-secondary education. We are certainly not there yet. Moreover, it is of no help to the students who have existing loans. As long as the unpaid loans still exist, the students and we, as members of society, face the undesirable consequences.

Here's a suggested remedy. Establish a not-for-profit organization, a nongovernmental organization (NGO). The sole purpose of the organization would be to pay off student loans. The goal of the institution is to put itself out of business. That will happen when all student loans are paid off. Moreover, it can be done without any government involvement.

As long as any outstanding student loans exist, this program would make it possible for qualified individuals to be relieved of that burden, and at no expense to taxpayers. The program provides an opportunity for those whose creativity and entrepreneurship has gotten them into the upper end of the income distribution; for those who think that this approach to reducing student debt is worthwhile; and for those who want to help promote the development of the same skills in others that made them successful.

They would provide the initial funding through donations. Or, they may want to make a contribution by giving a proportion of the value of their estate at the time of death to the NGO's fund. If additional funds are required, the organization will promote the idea that for every dollar that someone puts into a SuperPAC or spends on a campaign contribution, an equal amount will go into the fund to reduce student loans.

Each student loan that is paid off is similar to adopting him/her. Importantly, it allows graduates to focus on their current life without having a financial burden either on them or on the rest of society. If the contributions were made tax-deductible, the balance of society would share part of the costs and contribute to the benefits.

At the time it is formed, the organization will establish the repayment plan. The loans that get paid off first are those where the student's and their family's income is at the lower end of the distribution. The lower the income, the sooner the loan gets paid off. The repayment priority also takes into account those who have been harmed by the premature closing of the for-profit educational institutions.

The organization would be managed primarily by highly qualified, former top-level business and financial professionals who have retired. It could be staffed by volunteers or the employees could get minimal salaries to compensate them for their time, effort and transportation costs. That would make it possible for those in retirement to contribute by using their expertise without having to compromise their disposable income. Because of their experience they are in a position to renegotiate with the lending institution regarding the terms of the loan. Special care will be taken to ensure that no unnecessary costs are incurred, that the staff performs at a high level of efficiency, and that the funds are appropriately spent.

This approach will make it more likely that the students will be able to benefit from their post-secondary education, have higher incomes currently and in the future, and be able to contribute their expertise and creativity to make the future better for all. Importantly, those at the upper end of the income and wealth distribution who contribute to the NGO can feel proud in the knowledge that they helped make that possible.

A related alternative suggestion comes directly out of the question posed at The Salon -- "What can we do, personally, to make a difference about poverty?" (See pp. 94-96) Anyone who would like to help and has sufficient disposable income could take on the task of paying off someone's student loan. It could be a gift to a friend, a thank you for a helpful employee, or for someone on a list on the list of those at the lower end of the distribution who could use that help.

A student loan makes it possible for some individuals to get an education that they could not have had without it. Hopefully the education improves their economic opportunities and their sense of well-being. There is no question, however, that the student loan constitutes a significant burden. Finding ways to remove that burden could well improve his/her current lifestyle and make it more likely for them to provide a greater contribution in the future. Whichever path you take, know that by eliminating the burden of someone's student loan you have helped put them in a position where they are more likely to flourish.

B Corps

Typically corporations are private entities with the objective of making a profit for the owners. The stockholders provide the funds -- a.k.a. the capital -- makeing it possible for the corporation to purchase or to hire the resources that are necessary to produce and market their products. Those resources include the equipment, materials, supplies and, importantly, the labor services necessary to put it all together. When the products are sold, the stockholders come away with the profits.

Benefit Corporations -- B Corps -- are different. They have an additional objective. Not only are they intent on making a profit, they have a social or environmental mission as well. That mission includes providing a public benefit and having a positive impact on society, workers, the community and the environment. Thirty-three states and the District of Columbia certify B Corps.

One way for B Corps to achieve that objective is to ensure that the product that they produce, and the way in which is made, has no negative externalities. That is, that it does not cause harm to anyone not involved in the transaction. A counter example is toxic waste that is dumped into the local stream. The company can provide positive externalities, benefits to those who were not directly involved in the production process or in the exchange. An example would be establishing a park or recreational area on their property that locals could enjoy.

One approach some B Corps have adopted is to treat their employees as part of a "team". When an employee makes a contribution to the corporation's operations, in addition to their pay, they would get a reward. How different that was when Apollo and Metropoulos fired the employees of the Schiller Park plant in spite of the fact that they had been essential in maintaining the Twinkies brand during the transition. (See Stage VI and Re-examining private equity firms approach below.)

Regardless of the B Corp's additional objective, from an economics perspective it is important to remember that they always produce their products in the most efficient, least-cost way. Charging prices in excess of that cost could provide the B Corps with the funds necessary to engage in the additional activities.

Re-examining private equity firms approach

As we saw earlier the changes in technological and economic conditions opened up the possibility for Apollo and Metropoulos to step in and facilitate the adjustment to the new conditions. Their successful intervention provided benefits for consumers. It brought Twinkies back again. Apollo and Metropoulos and their investors shared in the rewards.

Nevertheless, the process demands a readjustment to the new conditions. Those who benefited from the previous conditions are made worse off and are forced to adjust. By recognizing that the prior employees helped to create the opportunity, Apollo and Metropoulos could have used some of their rewards to aid them in their readjustment. That is especially true for the Schiller Park group who helped make the transition successful.

To help better understand the value of previous employees contribution, imagine if Apollo and Metropoulos had decided to put a snack cake on the market from scratch. That is, without having a previously established, reputable product that consumers liked with a well-recognized brand name like Twinkies. Had Apollo and Metropoulos gone that route it would have required much more time, energy, resources and funds (TERF). Moreover, there would be no guarantee that they would have the same level of success. That is the valuable asset that Apollo and Metropoulos purchased and took advantage of.

Apollo and Metropoulos deserve credit for recognizing the potential and implementing the changes required to bring Twinkies back to life and making the business profitable again. But so do the previous employees who lost their jobs after the restructuring. They produced a product consumers wanted and helped reestablished the Twinkies brand name. Apollo and Metropoulos understood and capitalized on that contribution when they reopened the Schiller Park plant. There are a number of ways that Apollo and Metropoulos, as private equity firms, could have rewarded them for their contribution that would havebeeen to the long-term benefit of all.

In attempting to understand who are the winners and who are the losers in what happened when Apollo and Metropoulos took over and to come up with suggested remedies, it is important to keep in mind that Hostess was in bankruptcy. Its 18 Twinkie plants had been shut down and the 8,000 employees were out of work. The workers had also lost their severance pay and pensions.

Because the company was in bankruptcy, Apollo and Metropoulos were legally not responsible for covering those costs. (For the details regarding what happened, see 7. Stage VI -- Bringing Twinkies Back and More, pp. 55-61)

Clearly, Hostess's bankruptcy is significant. The costs involved fall on the company's creditors. However, they also fall on the former employees and their families and those in the rest of society that pick up some of the burden. Under bankruptcy rules, none of the burden falls on the previous managers or owners.

It is also important to remember that, as in this case, often behind the scenes, the underlying real causes for the disruption are the changes in technological and economic conditions. Those changes can lead to the bankruptcy. They also lead to the mandatory reallocation of resources, making the old ways of doing business no longer viable. The adjustment falls on those involved in the previous way of doing business. That includes the employees, the suppliers and those in their surrounding community. Anyone in Schiller Park would be glad to testify to that.

Apollo and Metropoulos are due credit for recognizing the possibility of making Twinkies a profitable venture again and for making it happen. Along with that credit comes some financial reward. Under bankruptcy rules, however, they are not responsible for covering the severance pay or pensions of prior employees. Moreover, those rules also provided Apollo and Metropoulos with a clean slate, liberating them from union contracts, labor rules and relieving them from any obligation to repay any debts or from making individual pension payments.

Nonetheless, the endeavors of the prior employees made Twinkies possible. They produced a quality product and established the brand and the brand name in the public's eye -- and in their tastes, as well. Apollo and Metropoulos took advantage of that when they purchased the brands along with the plants.

Viewing it from that perspective, Apollo and Metropoulos could well thank the prior employees for their contribution. One way to honor that contribution would be to share some of the rewards with them. Doing so would aid the displaced employees in their readjustment process. That is even before considering the extra financial rewards that Apollo and Metropoulos were able to garner from their financial market activities while they had control of the firm.

This alternate approach is especially relevant for the 415 Schiller Park employees. By working under grueling conditions, they made it possible to bring Twinkies back much sooner. They reestablished the brand during the restructuring period.

Imagine this scenario: Apollo and Metropoulos decided to give each of the 415 Schiller Park employees a share in the private equity firms to acknowledge their contribution during the transition and for making Twinkies a valuable brand again. Apollo and Metropoulos capitalized on their contribution. By giving them shares, Apollo and Metropoulos would acknowledge their help and recognize that they were displaced by the adjustments to the new conditions. Furthermore, the reward would assist the former employees in their adjustment process.

Now back to reality: as their reward, the 415 employees were permanently laid off.

Once operations were back on track Apollo and Metropoulos arranged a loan Credit Suisse for $1.3 billion. $900 million of it in cash went to Apollo and Metropoulos and their investors. Some of the $900 million could also have been used to reward the former employees.

Here is an additional suggestion. It is a way of also acknowledging the contribution of the 8,000 former Twinkies employees who lost their jobs when the company went bankrupt. Apollo and Metropoulos could replace their lost severance pay and pensions by setting up a Prior Employees Relief Fund.

Here's how it would work. Currently, the Apollo and Metropoulos companies take 20% of the earnings off the top. Some small percentage of that -- say, perhaps 1% -- could go into the Fund. The Fund would then distribute those funds to each of the former employees depending upon their length of service and previous salary. In that way, the more they helped to make Apollo and Metropoulos successful, the greater their reward. The contribution to the Prior Employees Relief Fund would be made before any of the financial maneuvering. That would enable the Fund to take advantage of Twinkies future profits, just as Apollo and Metropoulos have done. The small Apollo and Metropoulos contribution would aid in the former employees' adjustment. All of the workers were part of the success and deserve to be taken care of .

Using this alternative approach is a way of recognizing that Apollo and Metropoulos deserve credit for having seen the need for the adjustment to the new technological and economic conditions and for successfully capitalizing on that need for change. The displacement of the former employees was an integral part of the required changes. Nevertheless, the opportunity would never have arisen if the former employees had not produced a product and helped establish the Twinkies brand, something that consumers had a craving for. Consequently they also deserve to receive credit and to be rewarded for their contribution, similar to the way in which the financial investors in the private equity firms do. Treat them as investors in the private equity firms. By rewarding them, Apollo and Metropoulos would acknowledge that they could not have been as successful without the previous employees contribution.

Moreover, doing so would make life better for their families and children. It will also help them have a better life, help to get them out of the lower end of the income distribution, and make it possible for them to make a greater contribution to future generations.

Sharing profits with employees

Contrast the Apollo and Metropoulos treatment of their Schiller Park employees, who were essential in reestablishing the Twinkies brand, with that of Chieh Huang, the CEO of Boxed. Boxed provides a wide range of packaged retail items at low prices, just like the wholesale outlets, like Costco. The difference, however, is that the products are delivered directly to your door. It's a good option when you know just what you want. Since they are delivered directly to you, none of the time, effort and funds are required when you have to go to the store. A growing portion of Boxed's sales are B2B -- business-to-business.

The company started its nationwide service in 2014. Sales revenue for 2017 is expected to surpass $100 million. Currently the company has 400 full-time employees at four 'fulfillment centers' -- a.k.a. distribution centers -- spread across the country. The company functions as a team and each of the employees, from the top level on down, is expected to spend some time at a fulfillment center.

As reported by NBC Nightly News on June 29, 2017, the company will cover the expenses for the marriages of each of its full-time employees up to $20,000 -- 13 happened in 2017. It also provides parental leave for its full-time employees. Mr. Huang pays all the college tuition of his full-time employees' children, regardless of the institution they attend. It effectively covers a portion of their student loans and relieves the employees and their children of that debt when they graduate. It is Mr. Huang's way of sharing the company's profits with them. That gift enables the recipients to pursue their life without that financial burden, improves their well-being, and makes it more likely for them to have a higher income in the future.

Due credit to Mr. Huang. He's using some of the profits that he is entitled to for being able to implement his creative idea, for the benefit of his employees who helped make it happen. Rather than using the profits to increase his personal wealth, promote his private agenda, or manipulate the regulatory, legal and political system for his personal benefit, he shares part of those profits with his employees and still he is making a considerable profit.

As favorable as that approach is, it carries with it some issues. It discriminates among employees depending upon their activities and lifestyle, not on their performance. For example, those highly productive employees who are single or who got married previously, and those couples who are unable to have children, do not benefit from his generosity. As an alternative, Mr. Huang, to acknowledge their contribution, could provide an annual bonus to each of the employees across the board. That approach would not discriminate among them and would allow them to spend the reward in anyway they choose.

His approach also opens up another realization. Namely, the excess profits are made possible by the fact that the company is charging consumers a price that is in excess of all the costs of production, in both the short and the long run. Effectively, the company's customers are paying for the reward Mr. Huang provides his employees.

Unlike Apollo and Metropoulos, Mr. Huang is not using the excess profits to add to his personal wealth, either currently or in future years at his employees' expense. Instead, by electing to share some of his wealth with Boxed employees -- team members who helped make it possible -- not only does Mr. Huang improve their current and future well-being, it helps move them up in the distribution of income and wealth, making it more equal. His approach motivates them to do better work. He is making the less wealthy better off currently and in the years to come.

Facilitating the reallocation process

Importantly, every innovation mandates a reallocation of resources. As a result companies that were profitable under the old order no longer are. Their employees lose their jobs and their suppliers lose sales. Some companies go out of business. For example, automobiles replaced horses and buggies, iPhone replaced cell phones and landlines. Once upon a time they were called 'phones'.

The creative individuals who came up with the new idea and brought it to fruition, deserve to be rewarded. Those rewards can come from the new company's excess profits. They can be substantial, especially when the innovation makes an important contribution and is well received, like iPhones. In all cases, but especially in those that lead to a significant readjustment, the innovator could acknowledge the harm the innovation has caused to the displaced companies and individuals. They could follow through by taking responsibility for the harm their actions have caused and use some of their excess profits to compensate those harmed by facilitating the readjustment process.

[http://www.nbcnews.com/nightly-news/video/nightly-news-full-broadcast-june-29-979997251714]

[https://www.forbes.com/sites/forbestreptalks/2016/10/19/costco-for-millennials-how-chieh-huang-built-boxed-a-mobile-juggernaut-with-100m-in-revenue/#5cad61dd2adb]

Foundation to Promote Fundamental and Independent Research

Let me propose the idea for another not-for-profit NGO. Let's call it the Foundation to Promote Fundamental and Independent Research.

Before getting any further into it, let me explain something. Not all new and novel ideas lead to successful, marketable innovations. Many patents never see the light of day. Moreover, even though someone or a company was previously successful, it does not follow that subsequent new ideas will lead to successful innovations. The lack of downstream success of a number of pharmaceutical companies is clear evidence of that. Clearly, the previous successes have led to significant increases in revenue, corporate earnings, corporate profits, economic profits and excess profits.

Rather than reducing their excess profits by lowering consumer prices or by returning a portion of the profits to the company's owners by increasing dividends, the executives frequently use the funds to enhance the company's position of power and control. One way is to attempt to develop new innovations. Their rationale, and the underlying assumption, is that since they were previously successful, they are highly likely to be successful in the future and everyone will benefit. Things don't necessarily work out that way. Again, the experience of the pharmaceutical companies certainly supports the conclusion that there is no guarantee of their future success. As an aside, some of the prior successes were partially financed out of public funds.

Here's a suggestion for a different approach. Set up a foundation to promote fundamental and independent research. The Foundation will be similar to the National Institutes of Health and the National Science Foundation, both of which are government organizations, and the National Academy of Medicine, which is an NGO. The Foundation will be a not-for-profit NGO. It will be administered by Creative Masters from various disciplines, like previous Nobel Prize winners.

The funding will come from companies whose previous innovations were successful. The companies will provide a fixed percent of the current net income before taxes. The funds will be used to provide grants to support the development of new and novel ideas. Part of the benefits the company received as a result of their creativity is taken out of their hands and used to promote other innovative ideas. In that way the company will not be able to use those funds to enhance their position of influence. Furthermore, they will be unable to write off the research costs as a way of reducing their tax burden. Currently, they are able to do that even when they are unsuccessful in developing any new innovative ideas. Hopefully, the Foundation will lead to the development of future innovative ideas over which the original company has no control. That limits the ability the ability of the company to use future innovations to enhance their position and privately benefit from future successes.

Developing an innovative solution is only a first step. In order to get any new idea into production, to get it accepted by potential buyers, and to get it to market, requires additional time, energy, resources and funds. That can be the function of startups. Some innovations led to products that "everyone must have", like TVs after World War II, the refrigerators and air conditioners that came on the market in the early 1950s, and the computers, cell phones, iPhones and iPads that arrived since then. All of them go through the same process. For examples see the PBS program, "How We Got to Now with Stephen Johnson - "Cold".

[https://www.youtube.com/watch?v=m4c4TqKfQcI]

When the Foundation's grants are successful and lead to patentable ideas, the patents are made available to all potential users for a nominal fee. The fee will be based in part by the recipient's success in marketing the innovation. Part of the fee would go back to the Foundation to fund future grants and a portion of it would go to the innovators as a reward for their success.

Shortening the pre-Presidential race

You might very well ask, as an economist, "What do you have to say about shortening the pre-Presidential race?".

Before we get into the discussion, let me remind you of the acronym that I came up with. It is TERF, with an 'e'. As I mentioned, it stands for time, energy, resources and funds. They are what it takes to get the job done. For each of us our TERF is limited. There are only 24 hours in a day. Like time, the other three are limited as well. Not only is that true for each individual, it is also true for any organization and for society as a whole. Since the TERF is limited, that's where I come in as an economist. Our specialty is the study of the allocation of scarce resources.

When I initially wrote this recommendation, voting in the 2016 US Presidential race was almost here. For about the last year and a half the focus had been on the race. We were bombarded daily about it in the news media, to the neglect of other important issues. It reminds me of a horse race where bets have been placed and most of the horses were scratched before they even enter the starting gate. One stable started with sixteen runners, another with two. Both ended up with a single entry. The expectation is that the first two had about an equal chance of winning. The backers of the 16 horses that were scratched before the race began put up very large amounts of money, time and effort and got no payoff.

It seems to me that we ought to be able to come up with a different way of doing things -- one that conforms to the concept of "lean production" and eliminates waste. Think of all the productive purposes that some of the time, energy, resources and funds (TERF) could have been used for. It seems to me that there would be a better use of society's limited TERF. By the way, other countries have come up with ways of accomplishing similar ends in a much shorter time.

Proportional taxation

Can you imagine this fantasy -- a tax system where everyone takes responsibility for and pays their share of the tax burden. It is called proportional taxation. It is not a regressive system, like the one we have now. Today those with a greater income pay a smaller percentage share. To get closer to the fancy it would be necessary to close the tax loopholes and to prohibit tax avoidance.

Let's take it a step further. Can you imagine a system that economists call "progressive taxation'? It is one where those with higher incomes pay a larger share of the tax burden and those with lower incomes a smaller share. That surely sounds revolutionary in today's environment.

Interestingly, many of those who are in favor of the current tax system also support military involvement in foreign conflicts; benefit as part of the military-industrial complex; receive a significant portion of their revenue directly or indirectly from government contracts; oppose an increase in the funding to the Veterans Administration to provide additional healthcare services for veterans, including those with PTSD; oppose to any government action designed to reverse, or at least slow down, climate change; and oppose a reduction in incarceration.

All those activities require additional government funds. Corporations and those at the upper end of the distribution can afford to hire highly qualified, specialized tax attorneys and accountants to reduce their tax burden. Some even set up departments within the company dedicated to making sure they pay as little taxes as possible. Others arrange to get legislation passed that provides for tax loopholes and tax avoidance schemes. The amount of the taxes they avoid paying are not trivial.

The bottom line is that <u>their</u> bottom line goes up and the tax burden is transferred to the rest of society. Among them are the individuals who consider that behavior to be “smart”. As a result of their activity there is an increase in the national debt. In spite of that, they are also among those who strongly in favor of reducing the debt.

A number of proposals designed to correct the inequities in today’s tax system have been put forward. One way to get around the inequities would be for those with higher incomes to accept responsibility by paying their proportional share of the tax burden and by closing tax loopholes and preventing the use of tax avoidance schemes.

<u>Mandatory reallocation</u>

The new technological and economic conditions provide new opportunities. It is important to acknowledge and to take advantage of them. They necessitate a mandatory reallocation of resources. Some companies and individuals will benefit. Others will be displaced or harmed.

One way of approaching the remedies for the resulting inequality in income distribution is for those who benefited and accumulated wealth as a result recognize the consequences of their activities and take responsibility for the “harm” their actions caused. Help the individuals and families, especially those at the lower end of the income distribution, who have been harmed or displaced by the changes that you have helped bring about. By compensating them and assisting them through the readjustment process, they will be better able to take care of themselves and make a contribution in the future. Furthermore, it will lead to greater equity in the income distribution.

Innovation leads to imitation and to new startups. That is a part of the economic readjustment process. Hopefully it will also result in to more “efficient production” and place limits on the power of those in control. Not allowing the innovative firms to acquire the startup firms limits their ability to enhance their power through mergers. The new creative opportunities, along with the rewards brought about by the original innovation, kead to the possibility that those at the upper end will be able to increase their income and wealth by participating in startups and other new ventures. Limiting their ability to do so would lead to greater inequality in the distribution of income and wealth.

Post-innovation changes

Innovators frequently engage in activities designed to prevent the deterioration of their position of power, control and influence through the manipulation of the economic and political system. Part of the economic system's appropriate adjustment process is a deterioration of their dominance . Therefore, any activities they engage in that are designed to manipulate the economic and political system in order to protect and enhance their position of control and prevent the readjustment should be examined carefully. Most likely is not in the public interest and should be monitored and prevented.

It is important to carefully review all situations where companies attempt to promote their private agenda by influencing the regulatory process or the political system. That includes a review the circumstances where companies exercise control over and attempt to manipulate the markets for their personal benefit -- like EpiPen -- and their attempts to avoid tax payments.

The same holds true for the activities of any corporate executives and managers or those at the high-end of the income distribution. Make sure that their activities are not designed to advance their private agenda at the expense of the public interest.

Instead of providing special benefits for some industries and companies, especially in the long run, it is important to level the playing field for all companies. That achieves by eliminating federal subsidies, including those currently place in petroleum, ethanol and corn. Moreover, when companies in the private sector that received grants are successful, at a minimum, they should be required to reimburse the grantor.

It is easy to understand why companies push back against the government's regulatory activity. It constrains their actions and limits the firm's ability to maintain their position of power and control. That includes the companies that engage in activities behind closed doors and utilize coverups. It is important to remember that one of the functions of government is to ensure that firms act in the public interest. Hopefully governments do as well.

An appropriate response

Imagine the situation where a company comes out with a new product. It is well received and the firm sells a large number of them, perhaps worldwide. Suddenly, a few of them develop a serious problem. The company accepts responsibility for it and recalls all of them and replaces them with a model they think corrects the problem. That is the way the company responded, in spite of the fact that the problem showed up in only a few of the items. It turns out that a few of the replacements have the same problem. The company responds by recalling all the previously sold items, giving the buyers refunds and shutting down the production of all of the affected models.

In effect that is just what happened to Samsung, a large South Korean company. It is a major player on the world stage. Its primary rival in the smartphone market is Apple. Early in August 2016 Samsung launched the premier Galaxy Note 7 Smartphone. They were sent to 10 markets, including those in South Korea, China and the United States. Shortly afterward a problem developed. Some phones exploded or caught fire. Initially about five instances were reported. Early in September Samsung issued a global recall of 2.5 million phones. The US Consumer Product Safety Commission also announced the recall of about 1 million of them in the US. Samsung replaced them and by mid-September the company reported that more than 1 million people globally were using them with a safe battery. It turned out that the replacement phones had a similar problem. In mid-October Samsung permanently halted all sales and production. They asked customers to stop using the phones. As an incentive the company offered to pay them an additional $100 when they returned the phone. Samsung took responsibility for the problem, rectified it and reimbursed its customers.

Samsung acceptance of responsibility and being open, honest and transparent about it is an important first step. Even though the problem initially occurred in very few of the Galaxy Note 7 Smartphones, their approach eliminates the fear that <u>your phone</u> might catch fire and cause a problem. Due credit to Samsung for acting promptly and appropriately, in spite of the significant financial costs. Their reputation remains intact.

Contrast that with all the coverups we discussed previously, including VW's "deceit device", the Takata airbags (See pp.31-32) and Wells Fargo Bank's opening accounts and credit cards without their customer permission. (See pp.7-10) When a company is not open, honest and transparent about a problem and fails to disclose the conditions where its customers might be harmed, the company is an attempting to protect their control over the market and their financial position. Coverups diminish their reputation and their brand name, especially when the problem finally comes to light.

Timeline: Samsung Electronics' Galaxy Note 7 Recall Crisis, By Reuters, Oct. 12, 2016

[http://www.nytimes.com/reuters/2016/10/12/business/12reuters-samsung-elec-smartphones-timeline.html?_r=0]

First it is important to recognize that there is an alternative to using 'total recalls' as the solution when a problem develops. As a starter it is important to recognize that, frequently, the problem does not occur in every unit of the product. When all the items do not have the problem, the frequency of the occurrence and the seriousness of its consequences come into play. The question becomes, "Of all the items out there, how many of them have the problem and what are its consequences?" Moreover, it is highly likely that it is impossible to know beforehand which ones are affected. That situation can make the product owner apprehensive. It is highly likely that different owners will react differently to that uncertainty. An alternate approach to total recall may be a benefit to everyone involved.

A total recall was Samsung's answer to its Smartphone problem and to the US National Highway and Traffic Safety Administration's (NHTSA) response to the Takata airbag problem. (See pp. ___ above) An important component in deciding upon the appropriate response is determining how frequent and serious the problem is. That is not easy to do, especially when it was just recognized. Using the Samsung case as an example, initially there were five instances where the smartphone caught fire or exploded among the 2.5 million worldwide, 1 million of which were marketed in the United States. That is only 1 in every 100,000 Samsung Galaxy Note 7s. In the US, exploding Takata airbags have caused 12 deaths and some 180 injuries. That is 192 failures out of the 91.7 million Takata airbags that were installed in 42 million vehicles sold in this country between 2002-2015. That is 2.1 per million or 1 for every 500,000 airbags.

If the problem occurs one time in 100,000, total recall has no positive effect in 99,999 of the cases. In each of them, from a practical point of view, the owner is no better off after the intervention than before. The problem is that it is impossible to know beforehand which of the 100,000 units has a potential problem. The process of replacing the item or part can be very expensive and take a considerable amount of time. During that time, additional failures may occur. Moreover, as we saw in the Samsung case, the replacement part can have a similar defect. Furthermore, after having her airbags replaced, my friend Jean's dashboard warning lights no longer functioned. Those circumstances make it likely that is possible to devise an alternative to total recalls that is cost-effective.

The alternative is predicated on the condition that the company immediately acknowledges the existence of the problem, determines its frequency and cause, accepts responsibility for the problem, and agrees to compensate anyone who was harmed by it. No attempt is made to cover up the problem or to deny responsibility for it.

After the company has satisfied the initial phases of its responsibility, the first step in the alternative approach is to reimburse all the current owners of the item because of its decline in value. The product may not perform the way it is supposed to. An estimate of the drop in value can be made by comparing the pre- and post-prices of comparable products immediately following the announcement of the potential problem.

The second step is to buy back the item from the owners who no longer want to keep it. The company, if it chooses, can repair or replace the defective part and put the product back on the market, making clear what changes were made in it. Those owners who elect to keep the item are guaranteed that they will be fully compensated for any damage caused by the defect, should it occur.

The third step is to form a separate, independent organization to implement reimbursement. It could be a government agency or a NGO. The initial funding would come from the company and be based on the expected frequency of the occurrence of the problem, the seriousness of the harm that it could cause, and the amount of money required to compensate the affected parties. The organization would be similar to the one that was set up after the BP oil spill in the Gulf of Mexico. When a problem occurs and the organization pays those who were harmed, the company reimburses the organization for whatever costs were involved. That approach ensures the stability of the organization at its initial funding level. The organization would continue to exist as long as the product with a potential problem remains in consumers' hands.

This is a suggested alternative to a total recall when an unexpected problem happens that has a low frequency of occurrence. The parties that are affected by the problem are compensated. Moreover, those who do not benefit from the total recall intervention do not incur any of the costs. In short, it is a less wasteful way to resolve the problems caused by the unexpected, unpredictable breakdown of a widely used product.

Perhaps you can come up with other suggestions along similar lines.

Before we get into the next group of suggested recommendations, from society's perspective let me remind you of three things:

- We can't go back to where we were previously, not five years back, 10 or 20. We must to take account of current conditions. Importantly, the changes make it possible to do and have things that we could not even have dreamed of.
- The second, is that as a result of the changes, people have been displaced and made worse off. They had no control over what happened to them.
- The third is that when the economic system is working properly, those who created the new innovations deserve to be compensated. However, once the new ideas are adopted, other people will come along and capitalize on them. Their response will erode the position of the original innovators. One way to think about the process is to consider patents. As additional firms come into the market, the price of the new product will fall until it just covers the long run cost of production. Furthermore, others will be able to capitalize on the new ideas in a way in which the original innovator never even thought of.

Based on that brief economics lesson let us look at some additional remedies.

<u>Looking at things differently</u>

The continuous flow of new products and the updated versions that you as a consumer "must have" just to stay current and up to date places the emphasis on current consumption.

Importantly, it de-emphasizes the benefits of saving. Saving provides a number of important opportunities. Funds are set aside to help handle unexpected adverse events. It also makes it possible to take advantage of the opportunities of having greater income in the future and other possibilities. That is especially true for the younger generations where neither they nor their parents. have a history of living through downturns, recessions or depressions and where the expectations are that the future would always be better then the past.

Here are some of the current values, attitudes and activities that contribute to the greater inequality in the income distribution.

- When one's principal goal in life is "I'll do anything I can to improve my position, even if it is at the expense of others."
- When one engages in activities that attempt to manipulate the system to promote one's personal agenda and that of the company regardless of its effect on others.
- When one refuses to acknowledge that the Government has a positive role in ensuring good performance in the economic system and that in order to perform that role the Government must collect taxes.
- When there is a lack of trust in the Government.
- When there is a lack of sense of "Community".
- When one has no concern about the broader consequences of the resource requirements of any action, of its effects on the environment, or of its unintended consequences. For example, how will the activity affect the marginalized population or will it result in a decline in the infrastructure?
- When one acts in a way that avoids or bypasses regulations or disregards any governmental attempt to restrict their activities (e.g., tax avoidance).
- When there is a lack of "economic efficiency" in the performance of government agencies and not-for-profit organizations

Along with those values for most of their life those in the upper end of the income distribution have been self-focused, pursuing their own ideas, vision and goals. That approach and their drive have been essential to achieving their accomplishments. They are entitled to be rewarded for them.

Along the way, some have developed a team that works along with them and helps accomplish their goals. They are accepted as their leader and share in the rewards that the vision and the team's functioning have made possible.

The team approach, when successful, provides significant rewards, including the financial ones.

It provides the leader and the team members with greater income. That makes it possible for all to move into the upper end of the distribution of income and wealth. Again, let me say, as the leader you are entitled to be rewarded for your accomplishments. Clearly, others who take advantage of the new ideas -- in some cases many others -- have benefited from your self-focus and your achievements.

But there is another side to the picture. Because of your successes and the ideas that you have brought to fruition, each of those innovations mandates change. It requires a reallocation of resources. Companies, that were successful under previous conditions may go out of business. Their employees lose their jobs and along with it their source of income. They move down in the income distribution. They are displaced and forced to adjust to the new conditions. The more successful the innovations are, the greater the readjustment process is. That means that a greater number of people will be harmed. Add to that, the new products and new processes of production often require fewer employees and a different set of skills than the old ones. That makes finding a new job, certainly one that is close by, even harder. The new conditions lead to dim prospects for the future.

That is where those who have been successful can help. They can realize that through no fault of theirs, others have been harmed. Recognizing that, some of the benefits you have gotten -- some of your increased income and wealth -- can be shared with them. It will help in the readjustment process and make them better off and better able to contribute to the growth of future income.

Fairly typically many who have been successful remain singularly focused on maintaining and enhancing the company's and their position. Some continue to put their time, energy, resources, and funds (TERF) into attempting to maintain and enhance their and the company's position of power, influence and control. Others put some of their discretionary funds into projects that promote their private agenda in order to make the world into the way they think it should be.

As an alternative, those who have achieved success can consider giving some of the funds back to the people who were harmed by the changes they brought about. Imagine that the product was very successful and that millions of them were sold worldwide, like the smartphones and airbags. Their price was set at $1.00 above the total cost of production. Every 1,000,000 that were sold puts an extra $1,000,000 in your pocket. It is money that the customers could have spent on something they wanted. By sharing some of those funds with them, it will let them decide how to spend them in their best interest.

Importantly, these suggestions provide a different way of looking at things. It is a less self-centered approach to life. Along with it comes the realization that others have new ideas and visions, just as you have, and that they are able to make a contribution as well. In the final analysis we are all part of one Community. It is helpful when we accept responsibility for our actions and act on it by sharing some of the wealth we have accumulated with others. The distribution of funds should be made in a way that gives you no control over who the recipients are. It is a way of giving back money to those customers you took it from by charging high prices. Doing so allowed you to have a greater income. Some people were harmed by your actions. Providing them with additional funds allows them to decide how they want to spend those funds in the way they choose rather than pushing your own agenda. Perhaps some of the funds will be used by others to develop new ideas, including ones that were made possible by your innovation.

The Post-Retirement Years

As a 90-year-old who began writing this book about two and a half years ago, I can make the following suggestions based on personal experience. I want to talk to you about what I'll call the 'Post-Retirement Years'. It is the time after you have actively left the workforce or when most of your time and effort is no longer is taken up with the responsibility of making the household into a functioning unit.

For me that happened in 1985 when I was 58. I retired from teaching for Virginia Tech. That was some 32 years ago. If you are a retiree, or considering becoming one, this discussion is particularly addressed to you. I hope you will think about it. When we retire, there are three things we all have in common. It makes no difference whether we are a man or a woman. They are our:

- Unique set of skills based on our background and experience,
- An expected lifespan, the time we have left. You can find out how long that is likely to be by checking out the University of Pennsylvania life expectancy calendar website, and
- The knowledge that someday in the future we will die.

It is with that in mind that I would like to address the post-retirement years.

Remember as part of my experience, I am an economist. I always look at things with an economist's eye. While we are here we are using some of the Earth Mother's resources to stay alive. If we didn't use the water, food, clothing, housing, etc., it will be available to help support others. From my perspective, that places an obligation on each of us. Namely, it is to use our unique talents and skills to make a contribution as long as we can. For each of us that opens up the question, "What can I do while I'm still around to make things better for others?"

The first thing is to take responsibility for and take care of myself as best I can. And to do that in a way that is not wasteful of resources. When I can't do some of that, I have to have the funds available to pay someone else for the products, services or care they provide. When I don't reimburse them or pay them back in some fashion, I am relying on someone else to take care of me and using up social resources that could make someone else better off. That reminds me of a story I once heard about an elder Eskimo who felt that he had become a drain on the community and walked out of the igloo never to return.

The next step is to take a close look and ask ourselves the question, "How, with my background, experience and skills, can I continue to make a contribution?" The answer to that question for me, at 87, led to the decision to write this book. The idea for it, which originally I thought would lead to a paper, came to me after listening to Bernie Sanders speaking out against the greater inequality in the income distribution and about the corporate responsibility for it. Both of which I readily agree with. However, what he was missing was the underlying understanding of what got us here and what could be done to rectify the situation. Without that understanding, coming up with reasonable solutions is highly unlikely. That's how I got started.

Only you can decide what is right for you, what contribution you want to make. It is a contribution that will make others better off. They can be family members, friends or others, perhaps many others, who can benefit from it. It is a way of recognizing that, in truth, we are all members of the Community -- brothers and sisters all.

There is one way in which those in the upper end of the distribution of income and wealth can make a contribution. Start by making sure we have accumulated sufficient funds to enable us to take care of ourselves in our post-retirement years in a way that we are comfortable with. For some of us there will be some funds left over. The more minimalist our lifestyle is, the less of a drain we will be on society's resources and more goods and services will be available for others to get what they need and want. We can use those funds to help make others better off. That is in addition to using our time, effort and other resources on projects that contribute to the well-being of others. That approach is especially relevant in those cases where, because of our prior activities, others have been displaced or harmed. The remaining funds can help make restitution for prior actions and make the recipients better off, while at the same time helping to reverse the greater inequality in the income distribution.

There is something else that is clear. It is that once we die, we can no longer benefit from those funds. Nor can we say how they will be used. Consequently, the time to act is now. Make whatever arrangements that are necessary, recognizing and taking account of any decline in capabilities that aging brings on. And, in doing so, with whatever excess time, energy, resources and funds (TERF) you have available, remember, just as the old Eskimo did, that you are part of the Community. Some ways that you can use those extra funds to make others better off are suggested earlier in this section. (See pp. ___) You may come up with other methods for achieving that objective. Only you can decide how you want to make a difference and leave your mark.

After retirement, refocus your attention. Instead of trying to protect your position and increase your income and wealth and that of the company or of promoting your private agenda, consider using some of your knowledge, experience, unique skills and funds to improve the well-being of those who have been displaced, harmed and made worse off as a result of the recent changes, some of which came about because of your prior accomplishments. The individuals affected include those who have been pushed into the lower end of the income distribution and are locked into it through no fault of their own. Some of your TERF can be used to help them and enable them to make a contribution in the future.

Figure out how you can do that in your remaining time here on Mother Earth. Consider my suggested solutions for ways to correct the greater inequality in the income distribution and come up with your way. Make that your Post-Retirement Project. Go for it. In the process always pay attention to what you are giving up by not using the same amount of TERF on something else. There I go sounding like an economist again. Let me suggest that you do it in a way that does not promote your self-interest, but rather focuses on how you can help others.

I decided about the things I want to do. Working on this book was one of them. I hope you find it helpful. I'm off to my next project. I hope you enjoy yours as much as I have enjoyed mine.

10. Summary

Hopefully, the previous discussion has helped develop a better understanding of the underlying causes of the greater inequality in the income distribution. Since the end of World War II there have been pervasive changes. They are due in significant part to the introduction of new innovations. Probably the most important of them is the development of computers. They have gone from room-sized monsters to small pocket computers. The pocket-sized ones that are much more powerful than any of the earlier ones and can do things that we could not have imagined at the time.

The computers, the related technological changes including the Internet and the other innovations, along with containerization, have led to a significant reduction in communications and transportation costs. In turn, they have led to an expansion of markets. Those changes along with the new innovations led to the introduction of large-scale, lower-cost methods of production and robotics. This development has put large firms in many sectors of the economy in control of their markets. That is true even in agriculture. Previously it was in the hands of small-scale family farms.

Importantly, the new innovations are largely capital-intensive, rather than labor-intensive. Here again, farming with large computerized equipment is a classic example. The introduction of the new capital equipment led to a net reduction in jobs. It also has contributed to the greater income inequality. Moreover, the jobs that became available required skills the older employees did not have. Fewer jobs were available and those that were tended to be in the lower paying service industries. In addition, the more labor-intensive jobs moved foreign countries with lower pay rates. The reduced transport costs enable the companies to ship greater distances. All those factors contributed to the greater inequality in the income distribution.

Another important underlying cause is consumerism. Along with the good times after World War II, came the expectation that every year would be better than the previous one. Consumers responded by spending all or almost all of their disposable income on consumption -- and sometimes they spent more than they earned. Funds were not withheld from current consumption, funds which could have been used to invest in new innovative developments. That approach was especially true for the lower- and middle-income families. There is no doubt that consumption, consumption and more consumption was pushed by the large-scale producers whose operations and profits depended upon a continuous demand for their standardized, well-advertised, low-cost products. It was reinforced by the “buy now, pay later” approach that benefited lenders. Consumerism was reinforced by the continuous flow of new products and upgrades. Typically, consumers did not even put funds aside for unexpected contingencies. Admittedly, the suppliers pushed for greater consumption. Nevertheless, consumers have to accept responsibility for exceeding to those pressures.

When they did so, their disposable income was not put into investments. Had some of it been invested, the way upper middle and upper income families were able to do, they would have had greater disposable income in the future. That is especially true when the companies they invested in, like those who produced the new, innovative products, were successful. Had they made those investments they would have contributed to the firm’s capital and they would have been rewarded when the company was successful. Again, the ability of those families who were able to invest and take advantage of the investment opportunities contributed to the greater inequality of the income distribution.

Far and away, the most important cause for the greater inequality is the reallocation of resources mandated by the new technological changes. Those changes introduced new products and made it possible to produce them, and older products as well, at significantly lower costs and to deliver them to customers in distant markets. Some of the consumer products and of the supplies and equipment used by US manufacturers came from outside the US. The changes go both ways. The buyers of products made in the US go to consumers and producers in foreign countries. Soybeans, corn and its derivatives are just a few examples.

Shifts are required to adjust to the new circumstances. In the process, some previously successful companies who are unable to adjust are made worse off. So are their employees and their distributors and suppliers. Those who can adapt to the new circumstances survive. Frequently that involves adopting large-scale, capital intensive, lower-cost methods of producing standardized products. Some of the time humans are replaced by robots. Often the changes result in a net reduction in jobs. The transition gives the firms greater control over the expanded market.

Those who lived outside the previous market area benefit economically from the transition. For example, those in the South benefited when textiles moved there. So did those who moved south or west to take advantage of the new employment opportunities. That includes those who live in the Research Triangle Park, NC and Silicon Valley, CA after the introduction of computers. With each of those changes previous suppliers are displaced. Recent changes bring along with them an additional complication. Often those new products came from outside national borders.

It all brings us to another very important change. Those companies that take advantage of the new innovations and survive are large entities with control over their markets. When successful, they have significant excess profits -- returns well above all costs of operations. Often, they have no, or few, rivals. The funds they accumulate make it possible for them to manipulate the markets to maintain, and even extend, their control; to buy up rivals; and through lobbying enhance their market position; and using Super PACs and ALEC to manipulate the government and the political system to their private advantage. All are ways enhance their corporate power and control. That control provides greater income not only for the companies but for the corporate executives, officers, managers and owners as well. It also contributes to a greater inequality in distribution of income and wealth. Clearly, they have a vested interest in maintaining the status quo and can be expected to push back against efforts to redress the imbalance in the income distribution.

In the attempt to come up with suggested recommendations for improving the well-being of those who have been displaced by the changes or harmed by them, it is important to acknowledge and take account of the benefits those changes provide us with today. We cannot, nor should we want to return to the past. It is also important to acknowledge, give credit to and reward the innovators and entrepreneurs who make those changes possible. In light of that, it is also important to restrict any activities that are designed to unduly enhance their position of power, influence and control; that inhibit the readjustment and economic reallocation process; or that influence it in their favor.

The self-centered approach of doing the best one can to improve one’s own situation often neglects the effects our actions can have on others. Gerrymandering is just one example. That approach frequently leads to a “my way or the highway” attitude rather than an attempt to try to understand the other’s position and point of view. And also it precludes the search for ways to reconcile differences and come to a mutually acceptable arrangement.

It reminds me of Wendell Wilkie’s 1940 campaign slogan. He was the Republican candidate for President who ran against Pres. Franklin Delano Roosevelt. His slogan was “One World”. Just to remind you, that was before we had the United Nations. We are all human beings. In spite of our apparent minor differences, we are all basically the same -- all brothers and sisters. Admittedly, each of us is unique. Each has our own talents and our own different, personal life experience.

That is what makes each of us special.

Once we are born, one thing is guaranteed. One day we will die. We will leave this planet in our current form. While here, we will use up the resources necessary to keep us alive -- the air, water, food, clothing, shelter, etc. Those are resources someone else, one of our brothers or sisters, could use to keep them alive.

Because of that, it seems to me that each of us has obligation when we become adults. That obligation begins by taking responsibility for and taking care of ourselves. The more 'efficient' we are in doing that -- that is, the more we follow the principles of "lean production" with minimal waste -- the greater the amount of resources that will be available for others.

While we are alive, we have an additional responsibility. It is to make our personal contribution. We can do that by using our unique talents, skills and experience, so that the world we leave behind is a better place than when we arrived.

It is important to recognize that some people may have been displaced, harmed or made worse off, by your actions -- as a result of your successes. Perhaps they were unrelated third parties who were adversely affected (what economists call 'negative externalities') or as the result of the unintended consequences of those actions. Consider using some of your expertise, skills, experience, knowledge, time, and disposable funds to compensate them. Finding your way to make the poor richer will make them better able to take care of themselves and their families. It will lead to greater equality in the income distribution, making it possible for them to make a greater contribution to us all, now and in the future.

If we make that our personal objective, our having been here will make those we leave behind better off, not worse off. That contribution can be made in any of a number of different ways. Perhaps it is a new idea that we bring into being, what we produce or create, or how we helped others by making them better able to handle the challenges we all face. That contribution will help ensure that the resources we use up will make a net positive contribution, rather than cause harm or make things harder for those who remain. That will be our legacy.

Table I -- Some of the Important Post-World War II Products, Companies and Brands

Here are some of the prominent national products that were available in 1945 at the end of World War II, along with the large companies that produced them and their brands. Many were promoted in advertising over the airwaves on radio and in print in newspapers and magazines.

- Cars
  - General Motors, Ford, Chrysler
- Tractors and agricultural equipment
  - International Harvester, Farmall
- Tires
  - Firestone, Goodyear, Goodrich
- Gasoline
  - Standard Oil's Esso, Mobil (before their merger when it became Exxon), Texaco, Shell
- Cigarettes
  - Camels, Chesterfields, Lucky Strikes
  - Reynolds, Liggett and Myers, American Tobacco
- Electrical equipment and appliances
  - General Electric (GE), Westinghouse
- Beer
  - Millers, Anheuser Busch
- Textiles
  - DuPont (the first man-made fiber, rayon; the first synthetic fiber, nylon)
  - Burlington Mills
  - Fairforest Finishing Co.
- Radios
  - RCA Victor, Philco
- Soaps
  - Colgate-Palmolive Peet, Procter & Gamble
- Supermarkets
  - King Kullen, A&P, Kroger, in the South Winn-Dixie
- Aircraft
  - Boeing, Lockheed, Martin, McDonnell Douglas

Helicopters

Sikorsky

“Liberty” Merchant Ships

18 shipyards (See https://en.wikipedia.org/wiki/Liberty_ship#Shipyards)

Naval Vessels

Bethlehem, Federal, Newport News, Todd

Aircraft Carriers

Newport News, Fore River, Brooklyn, Philadelphia and Norfolk Shipyards

Submarines

Electric Boat Division of the General Dynamics Corp., Tenneco Inc.'s Newport News Shipbuilding

Jet engines

Pratt & Whitney, GE, Rolls-Royce

Table II --2015 Top 25 Fortune 500 Companies by Revenue

Rank	Company	Revenue (millions of $)	Year of Founding
1	WAL-MART STORES INC.	485681	1945
2	Exxon Mobil Corporation	268882	1882
3	APPLE INC.	233718	1977
4	Berkshire Hathaway Inc.	194673	1889
5	MCKESSON CORPORATION	179045	1833
6	Unitedhealth Group Incorporated	157107	1974
7	CVS Health Corporation	153290	1963
8	GENERAL MOTORS COMPANY	152356	1908
9	FORD MOTOR COMPANY	149558	1919
10	General Electric Company	148589	1892
11	AT&T Inc.	146801	1983
12	CHEVRON CORPORATION	138477	1926

13	Amerisourcebergen Corporation	135962	2001
14	VERIZON CORPORATION INC.	131620	1983
15	COSTCO WHOLESALE CORPORATION	116119	1983
16	FEDERAL NATIONAL MORTGAGE ASSOCIATION	110359	1883
17	The Kroger Co.	108465	1994
18	AMAZON.COM, INC.	107006	1938
19	Walgreens Boots Alliance, Inc.	103444	2014
20	HP inc.	103355	1939
21	Cardinal Health, Inc.	102531	1979
22	Express Scrips Holding Company	101752	2011
23	JPMorgan Chase and Co.	101006	1968
24	Phillips 66	100949	2012
25	Marathon Petroleum Corporation	98102	2009

Source: 2015 Fortune 500 list

Appendix A -- An Economist's Worldview with a Glossary of Concepts and Terms.

This appendix is designed to help you understand how economists view the world. Some say it is a weird a way of looking at things. But please stick with me for a little while and I will try to make it more understandable. From an economic perspective the objective of every society is to provide consumers with the goods and services they want most at a cost and price that just covers the lowest cost of production. When a system performs in a way that meets those conditions, economists say that it is performing optimally. They also call it "efficient".

Every society has limited resources from which the products -- the goods and services -- required to satisfy the needs and wants of the population are produced. Society's resources include the land, labor, capital and natural resources required to produce those products. To help understand that process, economists have come up with three basic economic units -- households, firms and government. There are other units that we shall discuss later.

<u>Circular flow</u>

Let's first look at the roles of households and firms. The members of society live in the households. They ultimately have control over the resources, including the labor services. They provide those resources to the firms, who in turn convert them into the goods and services. The firms do that by putting the resources through the process of production. It converts the raw materials and labor services into semifinished and finished products and delivers them to the final consumers -- the members of the households.

That is the first step in the concept of “circular flow”. (See the diagram -- Figure 3)

In return for providing the resources -- including their labor services -- to the firms, the money that they receive provides the households with their income. That income allows them to purchase the products they want most from the firms.

Now let me introduce another important concept -- price. Price is the rate of exchange between the monetary unit (say, a dollar) and a unit of the product. For example, a loaf of bread costs $2. That is its price. The same concept holds true for the resources. The price a laborer receives for his/her services is $10 per hour -- the wage rate. The number of hours they work per week determines their weekly pay, the income they contribute to the household.

That allows us to complete the concept of circular flow. Households provide the resources, including labor services, to the firms in exchange for the money they receive -- the household income. They use that income to purchase the products that the firms produce. The money the firms receive -- their revenue -- makes it possible for them to acquire the resources necessary to produce the products.

Determining the market price

That takes us to the next step, namely the concept of demand. It is the amount of any particular product that the consumer is willing to buy at each of the various prices during a given period of time. Typically, as the price goes down the amount that the consumer is willing to buy -- the quantity demanded -- goes up. (See Figure 4) The quantity demanded depends on the consumers’her income, their tastes and preferences and the prices of all other goods and services. If we add up the quantities demanded at each of the various prices for all the consumers interested in buying that product, we have the market demand for it. That is the amount of that product that all buyers taken together are willing to buy at each of the various prices. That’s one side of the picture.

The other side is the supply side. From the firm’s perspective each additional unit of the product it produces requires more resources. To cover those costs the firm must charge higher prices. At each level of production the firm can determine how much labor and other resources are necessary to produce an additional unit of the product. That information, along with the prices of the inputs, makes it possible for the firm to come up with its marginal cost curve -- the extra cost required to produce an additional unit of the product. Using it as the firm’s supply curve -- a.k.a. the amount of the product the firm is willing to supply at each price -- carries along with it a very significant consequence. Namely, by providing that amount at each price, the firm maximizes its profits.

The firm’s supply curve shows the maximum amount that it is willing to supply at each of the various prices. Typically at higher prices the firm is willing to supply more. Consequently, typically the firm’s supply curve moves upward to the right. By adding each firm’s quantity supplied at each price we arrive at the market supply curve. (See Figure 4) It tells us the amount of the commodity that all firms taken together are willing to provide at each of the various prices.

Remember that these are competitive markets. Each one has a large number of buyers and sellers of identical products, where none of the firms have control over the price.

By putting the market supply curve together with the market demand curve we can show how the market price is arrived at. The relationship between the demand and the supply curves falls into three categories. At any given price, either the market quantity demanded is less than the market quantity supplied. Or, the reverse is true. Or supply and demand are equal.

In the first category, the amount that suppliers are willing to provide exceeds the amount buyers would like to buy at that price. (See Figure 4) At each price in the second category, the amount that buyers want to buy is greater than the amount sellers are willing to sell. The third possibility is the price at which the quantity demanded equals the quantity supplied. At that price the amount that the buyers would like to buy is the same amount that sellers want to sell.

Let’s see what happens under each of those circumstances. In Category 1, the amount that sellers want to sell exceeds the amount buyers are willing to buy. The gap is called the excess quantity supplied. Unhappy sellers lower their price. As prices fall, more buyers come into the market and sellers reduce the amount they offer. The net effect is that the gap gets smaller.

When the amount that buyers want to buy is greater than the amount that sellers want to sell (Category 2), the gap is called the excess quantity demanded. Unhappy buyers offer a higher price. As a result some buyers decrease the amount they are willing to buy and sellers increase the quantity supplied. Again, the gap between them closes.

In both cases when they reach the price where the quantity demanded equals the quantity supplied (Category 3), economists call that the “equilibrium market price”. At that price each of the buyers and each of the sellers is happy. That is the price where they are willing to buy or to sell the same amount. That is why it is called the equilibrium price. There is no incentive for either of them to change the price.

When the market is one where there are a large number of sellers selling identical products -- “homogeneous products” and where none of the firms has control over the market, the price is called a “competitive price”. Many markets have “differentiated products”, where the products vary somewhat and are not quite identical. Their prices can also differ somewhat. As long as a large number of firms are supplying similar products, the markets are reasonably competitive.

The process of production

Let’s take a step backward for a moment and talk about the “process of production”. It is what it takes to transform the raw materials into the intermediate products, then into the final product and deliver it to the final consumer. When I was growing up my Dad manufactured canvas products -- drop cloths, tarpaulins, tents and camping equipment, like knapsacks and haversacks. Today you call them backpacks. Making them was called the cut, sew, finish operations. He purchased the canvas in the grey (undyed and unfinished) and had it dyed and finished to his specifications. It came back in 36” or 42” rolls. The canvas was laid up on the cutting table and cut to match the patterns. The pieces were turned over to the sewers at their Singer or Union Special sewing machines, who put them together. Then the grommets were added along with the other finishing touches. It then went to the shipping area where it was inspected, folded, packed into cartons and shipped off to the customer who delivered it to the final consumer. Every product goes through its own “process of production”.

If you have ever prepared, cooked and served a dish or completed the household chore, you are fully familiar with the sequence of tasks involved in the process of production. Of course, it always includes the cleanup afterward so that you are at ground zero and ready for the next go around.

The market periods

With that in mind, let’s look at the four market periods identified by economists. Each has its own supply curve. They are the market period, the short-run, the long-run and the evolutionary-historical period.

Let’s begin with the short-run. The firm has its production facilities in place. The only way it can increase output is to hire additional employees and provide them with the necessary materials. Those inputs are called the “variable factors” of production and their costs, the “variable costs”. The “fixed costs” are those for the fixed factors of production, like the building, machinery and equipment, that are in place. Those costs do not vary in the short run. When output increases, the firm must charge higher prices to cover the higher variable costs. Consequently, at higher prices the short-run supply curve moves upward and to the right.

In the long-run all factors of production become variable. It is possible to put in place additional equipment, to set up a new building with all its equipment, to shut down the production line, or go out of business. If the firm is going to operate in each of those settings it must acquire the variable factors of production and cover their costs as well. In the long-run all those costs must be covered in order for the firm to remain in business. Meeting those conditions, the firm’s long-run supply curve tells us the amount of the product that it is willing to provide at each of the various prices.

In the market period, the product is already produced and the amount the firm can supply remains constant. The easiest way to think of it is a farmer bringing his/her produce to sell at the Saturday farmers market. The quantity supplied does not very with the price. The price that is set determines how much the buyers will buy. Either the sellers sell all the produce at the market, disposes of it in some other fashion or takes it home.

In all three of those periods it is important to remember that the technological conditions remain the same. Any company deciding to come into the market has the same technological options and input prices as those already in the market. When those conditions change economists say that the firms are in a different evolutionary-historical period. The new conditions bring along with them new set of short-run and long-run cost and supply curves for existing and potential suppliers. Innovations also bring new products to market, products that were not previously available. Under each of those circumstances the firms are in a different evolutionary-historical period.

Market structures

Markets can have a wide variety of structures. There can be a single seller -- a monopoly. Two sellers -- a duopoly -- with equal or different shares. A market with few sellers is called an oligopoly. Some markets have a single large seller and a number of smaller ones. They are called “price leadership” markets. The structure can vary on the buyer side as well. A market with a single buyer is called a monopsony.

As we indicated above, the products that firms sell can be identical -- economists call them homogeneous -- or vary somewhat from one to the other -- differentiated products. Some firms produce a wide variety of products and sell them in different markets. They are called conglomerates. Some are multinationals as well. The markets we have talked about up to this point are “competitive markets”, those with a large number of buyers and sellers selling identical products. All the other structures are called “imperfectly competitive markets”.

Imperfect competition has an important effect on economic performance. Let’s begin with the extreme case -- a monopoly. Someone comes up with a novel idea for a product. Sometimes they are able to get a patent for it. In the US that guarantees their monopoly position for 17 years. Importantly, even if they are able to produce the product and put it on the market, there is no guarantee that there will be sufficient demand to make it profitable. In 1930s my Dad came up with the idea for an umbrella tent. He got a patent for it, but that is as far as it ever went. For a new product to be a successful venture, potential consumers must learn about it and the demand for it must be great enough for the price covers the long-term costs of production and marketing.

One way to help understand how imperfectly competitive markets function is to look at monopolies. Imagine that you are at well-advertised, high-level auction where an authenticated original painting of a well-known artist is up for sale. Not only are potential buyers in the audience, others can bid by phone. Once the bidding begins the price goes up and up. It is important to remember that there is only one like it. The number of potential buyers gets smaller and smaller until only one is left. If the seller accepts their last bid, the market price is determined and the sale is consummated. The monopoly may have only one painting to sell or it may have many millions, like Samsung's Galaxy Note 7 Smartphone.

If a monopoly, or any other firm, wants to maximize its profits, it sets the output at a level where the marginal cost -- the cost of producing an additional unit of output -- is just equal to its marginal revenue -- the additional revenue it gets for selling that unit. When a firm has control over the market, that makes it possible to determine how much of the product it wants to sell. Once the quantity is set the market demand curve for that product determines the price and how many the buyers there will be and who they are.

As long as the price is at or above the long-run average costs of production, the firm can supply the product and cover all the production and distribution costs. That enables the firm to remain in business over the long haul. When the price is higher than long-run average costs, the firm makes excess profits. The excess profits provide the company with the funds that it can use to protect and enhance its monopoly position in ways that have been discussed above.

Markets with more than one firm are 'imperfectly competitive'. The firms vary in size and produce differentiated products. As long as a firm is able to charge prices in excess of long-run average costs, it can use the excess profits they acquire to further its private objectives, including engaging in activities designed to improve its position of power and control or engage in activities that are unrelated to the products it produce. It is important to remember that ultimately the additional funds that make those activities possible come out of its customers' pockets because of the higher prices the firm charges.

One of the functions of government is to restrict the activities of firms when their actions are not in the public interest. As I explained earlier, when markets are competitive they provide the goods and services that consumers want most at a price that just covers the lowest cost of production. They are efficient and there is no need for government intervention. Firms in imperfectly competitive markets can obtain excess profits and engage in activities that are contrary to the public interest. When they do, the firms are not meeting the standards of economic efficiency. That opens up the possibility that government intervention can improve the firm's performance.

Interestingly, firms that have manipulated markets and the regulatory process to their private advantage have adopted the term "free competition" -- by that they mean without any government intervention. That is in spite of the fact that there is strong evidence that their activities are not in the public interest.

Other economic units

In addition to households, firms and government there is another important group of the economic institutions. They are the numerous organizations, foundations, federations, institutes and institutions that we hear about daily. These are some of the organizations that were around In the 1930s and 40s: the Chambers of Commerce, trade associations -- like the American Automobile Association (AAA), the Pharmaceutical Manufacturers Association (PMA), labor unions, including the CIO and the AF of L, the American Red Cross, the National Association for the Advancement of Colored People (NAACP) and the Sierra Club. Today these types of organizations are much more prevalent. And that does not include a new industry -- the lobbying industry. When I was at George Washington University Medical School as an economist in 1973, I my apartment was at 22nd and L St. There were no lobbying groups on K St. at the time. Today that is their current home.

Those groups are now called Non-Governmental Organizations (NGOs), Non-Profits (NPOs) and Not-for-Profit organizations. Unlike firms, their primary objective is not making a profit. Their agenda is to support the interests of their sponsors. The sponsors are the ones who provide the funds to keep them in business. Prominent examples include the Pharmaceutical Research and Manufacturers of America, (PhRMA), the AARP, Inc. (American Association of Retired Persons) and the National Rifle Association (NRA). As an aside, in the 1930s NRA stood for the National Recovery Administration.

Firms get their revenue directly from the sale of the goods and services they provide. For NGOs, NPOs and not-for-profit organizations to get the income required to survive, they must convince third parties, who do not directly benefit from their services, to donate the necessary funds. Typically, a significant amount of their effort is devoted to fundraising. There is no guarantee that the organizations adhere to the principles of ‘lean production’ or that the services they provide are the ones that the public wants most.

Effect on the distribution of income

Some of those at the upper end engage in activities that exacerbate the inequality in the distribution of income and wealth. Examples include operations of the private equity firms Apollo and Metropoulos and the political activity of the Koch Brothers. Other organizations and individuals support activities that make the distribution more equal. This is my hope. Namely, before they take any action, those who have the funds available, aught to take into consideration the effect their activities will have on those at the lower end of the income distribution and use some of the available funds to focus on activities that make the poor richer to the benefit of all.

Glossary

Economic units: households, firms and government.

Other units: foundations, organizations, associations, etc.; not-for-profit (non-profit) organizations; nongovernmental organizations (NGO)

Circular flow

Products: goods and services

Final products

Intermediate products

Gross National Product (GNP)/Gross Domestic Product (GDP)/Net National Product

Process of production is the sequence of tasks involved in converting the raw materials into finished products and delivering them to the final consumer

Society's **resources** include the **land,** Labor, Capital, and Natural Resources

Labor/human resources

Tools (augment labor)/machines/capital equipment/robotics

Resources/natural resources/raw materials

Price: the rate of exchange between a unit of the product and the monetary unit (a.k.a., a dollar)

Demand/quantity demanded -- individual/market

Supply/Quantity supplied -- individual/market

equilibrium price -- the market quantity demanded equals quantity supplied//the market is in equilibrium

excess demand -- at that price quantity demanded exceeds quantity supplied

excess supply -- at that price quantity supplied exceeds quantity demanded

Revenue: Gross revenue, net revenue, net income

Cost:

Private cost

Long-run cost

Short-run cost

Social cost

Profits: Revenue minus Cost

Marginal revenue -- the additional revenue from an additional unit of output

Marginal costs -- the extra cost of the resources required to produce an additional unit of output

Short-run marginal costs

Long-run marginal cost

Maximum profits -- when marginal revenue equals marginal cost

A firm's net revenue, corporate profits, economic profits, excess profits

Market structure -- number and relative size of suppliers (and buyers)

Perfect competition -- large number of firms with no control over the market; homogeneous product

Monopoly/oligopoly/price leadership

Opportunity cost

Capital: real capital (see tools), monetary capital

Capital goods: Machinery and equipment used in the production process

Capital: Funds used to purchase machinery, etc., provided by an owner or partner, typically in exchange for stock

Optimal economic performance -- when a society is to provide consumers with the goods and services they want most at a price and cost that just covers the lowest cost of production.

Allocation of scarce resources

Taxation -- Proportional/regressive/progressive

Consumerism

"Buy now, pay later" approach

"Free market"

Efficient production/"Lean manufacturing"/"hyper-efficient production"

Waste

Entrepreneur/entrepreneurship

Invention/innovation/production

Market period/short run/long run/evolutionary-historical perio

MyRA

TERF -- turf with an 'e' It is an acronym for Time, Energy, Resources, and Funds. All of which are limited and therefore subject to the economic principles of the allocation of scarce resources.

OHT -- An anachronism for being Open, Honest, and Transparent. It relates to a firm's dealing with its customers and investors about any issues or problems about its products. Management's failure to disclose that information falls within the legal definition of "fraud".

Appendix B -- A Brief Lesson in Economics --

The Government's Role in Ensuring that the Economic System is "Efficient"

For those of you who are not familiar with economics, let me give you a brief lesson in it. I promise it will be brief.

Economics begins with the premise that resources are limited. Not everyone can have all of the goods and services they want. It follows that anytime you get additional goods or services someone else gets less of them. Similarly, since you are operating on a limited budget, when you buy something, you are giving up something as well. Economists have a name for it. They call it the “opportunity cost”. Whatever you give up is the foregone opportunity.

When an economic system is working in the best possible way, consumers get the goods and services they want most at a price that just covers the lowest cost of production. Along with that the laborers -- currently known as human resources or HR -- and other resource providers are reimbursed for their contribution. Here again, economists have a name for it. The system is operating in a way that “optimizes allocation of scarce resources”.

When systems function in the best possible way, markets can provide those goods and services without government intervention. When markets and the systems perform in that way, they are said to be “efficient”.

Before we get there, it is important to recognize that governments as an institution -- federal, state, and local -- have important non-economic functions. They include the executive, legislative and judicial branches. To perform those functions, governments require access to their share of the limited resources. It follows that any government program has its opportunity cost as well -- namely, using the required resources for the particular program precludes using them for anything else. The typical way governments get the funds required to obtain those resources is through taxation.

Markets are “competitive” and perform efficiently when there are a large number of buyers and sellers who do not have control over the market. When there is one firm -- a monopoly -- or a few of them -- an oligopoly -- the firms have control over the market. Under those circumstances they are able to make excess profits.

What people say “profits” they are actually talking about accounting profits. They are the return to the owners of the company -- the revenue minus the costs. Economic profit is the revenue minus all short-term and long-term costs, including a reasonable return for the capital invested in the business. Excess profits are the profits over and above that. They result from control over the market and market manipulation. Furthermore, when firms have control over the market they are not forced to adopt the lowest-cost methods of production or provide the goods and services consumers want most.

That brings us back to the potential role of government in the economic system. There are circumstances when the market mechanism left on its own does not provide the goods and services the consuming public wants most at the least cost. The three conditions where government intervention may be appropriate are:

- The provision of public goods, including defense, police and fire protection, roads and bridges, education, lighthouses, providing services for the indigent (those who are unable to sustain life by contributing to the economic system), etc.
- Redressing the imbalances when “externalities” exist. Those are the circumstances when economic units, either a household or a firm, provide benefits for which they are not reimbursed or “disbenefits” -- actions that make others worse off -- and do not compensate those who are harmed. When that happens the economic system is not performing efficiently. Examples are when a beautiful household garden next door gives satisfaction and provides fruit for the neighbors or in contrast when firms discharge pollutants into a stream.
- Reining in corporate excesses that can result from ‘natural monopolies’ -- markets that can only support one firm -- or when firms engage in collusive behavior or anti-competitive practices or when they manipulate the regulatory and political system.

In order for any government program to provide a net benefit, the benefits must be greater than the benefits that would be derived from using the same amount of resources in any other public or private program. There is the ‘opportunity cost rule’ raising its head once again. It is important to recognize that the underlying conditions that governments face when providing services do not force them to be economically efficient. That is especially true when changing conditions mandate the adjustment in the nature or amount of the services provided or in the techniques for producing them. Those changes include new technology and the increase or decrease in the availability of resources, like new petroleum reserves or the closing of mines. The readjustment is especially difficult when the circumstances would lead to the need for a reduction in government services.

That’s the end of economics lesson. All in just over a page. Not too bad!

Appendix C -- Ensuring the Economic Efficiency of Government Programs and Not-for-Profit Organizations

From an economist's perspective, the economic objective of every system is to provide the goods and services that consumers want most at a price and cost that just covers the lowest cost of production. When it does, economists call the system "efficient". As we have shown, when markets have a large number of buyers and sellers where no one has control over it -- that is when the markets are competitive -- they meet those standards and are efficient. However, there frequently are circumstances when they are not. (See Appendices A and B for the details) When that happens there is a potential role for government to correct the inefficiencies.

Whenever government becomes involved, it uses up some of society's limited resources -- some of the labor, land, capital and natural resources. Consequently, it is appropriate to ask whether the government program -- federal, state and local -- is efficient. Does it provide the governmental goods and services that consumers want most at the lowest cost? Another way of posing that question is to ask whether the government program has greater net benefits -- the benefits minus the costs -- than any other government program using the same or fewer funds.

The need to address that issue becomes especially apparent when corporations and big spenders at the upper end of the income distribution can influence legislation and regulations and their implementation for their personal benefit at the expense of the public interest.

While the question is relevant in comparing government programs, it is also important in a broader context. When you think about it, the funds required for any program can not only be used for a different one, they can always be used by the private sector. Consequently, the net benefit comparison should be made between the government program and the use of equivalent funds by the private sector.

That is fine in theory, but much harder to implement in practice. While the cost of any program is relatively easy to determine especially after it is in place, assessing the benefits is very difficult. In part that is because typically the users don't pay for the service. Nonetheless, that does not defeat the relevance of the concept. It is important to keep the concept in mind because serves as a standard of performance. The difficulty of comparing the benefits of government programs showed up in the late 1950s with the initial attempt to apply Benefit/Cost analysis to military systems. A careful look at who benefits from the program and the extent of those benefits can be very insightful as a first step.

Government programs, by their very nature, present important difficulties when attempting to look at them from an efficiency perspective. That is especially true when one is trying to decide whether to pass legislation that puts the program in place. Some of the problems include:

1. The final legislation is often a compromise with each side having a different position regarding the objective and how to get there.
2. Legislation often promotes the private interest of some subgroup and they have a say in the wording. They can affect its implementation as

well.

3. Frequently, government programs are new and novel. That is, they have never been tried before. Consequently, we are without any experience on what it takes to implement them. Furthermore, it is impossible to know what the benefits and costs will be beforehand. Most often revaluation is not put into the legislation.
4. There is no guarantee that the funds provided will be adequate for the program to perform efficiently, especially on a year-after-year basis.
5. Once the program is put in place, it is difficult to change or eliminate it. Importantly, by then those involved in the program have a vested interest in keeping it going.
6. In outlying years, those involved in the program will push for greater funding. Since the departmental or agency budget (and the overall budget as well) is limited, in order to ensure economic efficiency the Benefit/Cost evaluation must be made annually. Not only is that difficult in principle, it is very time-consuming, especially since the governmental system is very complex. It is even harder to achieve across departments that represent very diverse interests, objectives and segments of the population.
7. The different programs within a given department or agency will be competing for their share of the limited budget. The department or agency will also be pressing for a greater share. What is not clear is what the basis for choice should be, or even whether economic efficiency will be one of the criteria for selection. Certainly, power and influence among the decision-makers will favor their agenda.
8. We have heard of cases where a significant amount of funds had been funneled off for unrelated purposes. For example, the money was used to pay off high level officials and went into the corruption in foreign countries.
9. Underlying economic and technological conditions are continuously changing. So are world conditions that influence the demand for governmental services. Those changes mandate a change in priorities among the programs and in the amount of the limited resources required to fulfill them. Existing programs tend to be locked in and stable regardless of those changes.

All those factors contribute to the difficulty of ensuring that government programs are efficient, even those that everyone recognizes provide important benefits. Namely, that they provide the goods and services that the population wants most at the lowest cost.

When the program is new and novel, when it did not exist previously, it is impossible to know ahead of time what it takes to get it up and running, what it will cost, and how well it will meet its objective. That information can only be gotten through experience. In addition, it is impossible to know its unintended consequences. They are likely to occur when those affected by the program respond in ways that promote their self-interest and private agenda. For example, when corporations shift their headquarters overseas, to Ireland or the Bahamas, in order to reduce their tax burden. Or when VW installed a component in their diesel engines that provided fraudulent results when the engine was being tested to see whether it met carbon emission standards.

Typically the recipients of government services do not have to pay for them. Consequently, there is no easy way to assess the value they place on them. Moreover, since they are "free" -- that is, there are no out-of-pocket expenses -- recipients tend to consume a greater amount than they would if they had to pay for them. However, the government services are never free. They use up resources that could be used to make someone else better off.

Another difficulty is that it is hard to determine what the population as a whole wants -- what their priorities are -- and what they're willing to give up in order to get it. That is especially true in a large country like the United States with diverse populations, landscapes and resources covering four time zones. For example, the people come from different backgrounds; have different life experiences; are urbanites, suburbanites or live in rural areas; are of different ages; or possess other factors that lead to a different set of priorities. In the final analysis what one groups wants, others may not. For the population as a whole those differences must be reconciled in order to determine which government services are provided. Once the determination is made, it is virtually inevitable that some portion of the population will not be satisfied.

Recent experience shows that choosing the decision-makers in government -- whether we are talking about the executive, legislative or judicial branches -- is complicated. Some might even say convoluted. What is clear is that not everyone who is entitled to, has an equal voice in making that decision. Let's look at the process in legislative branches. They institute, arrange for the financing and implement laws and regulations. Yet they are not representative of all the people. That is especially true for those individuals who have been excluded from the process or gerrymandered out of it. It is further complicated when, as a result, the legislatures become gridlocked, nonfunctional or end up being representative of some subset of the population. Those with power and influence, and the money to back it up, push for their private agenda. Lobbying and Super PACs are two techniques that they use. Under those circumstances it is extremely unlikely that the legislative body will be able to reconcile its differences and come to a consensus about what the population as a whole would prefer. Because of the way its members are selected, those difficulties exist in the executive and judicial branches as well.

For all those reasons economic efficiency in government hard to achieve. Recently we have seen examples of "inefficient" government programs. The long waiting lines at airports are evidence. Clearly, those two or three hours that passengers spend in line could be used for other purposes.

That is to say nothing of the cost to passengers and the airlines for those who missed flights because of the delays. The same can be said regarding the delays in getting appointments for health-care services at the Veterans Administration clinics. The inability to know the path of a hurricane or potential epidemic beforehand makes it difficult to determine the appropriate governmental services, services designed to prevent the potential adverse outcomes. See the discussion of the likely Zika epidemic in the section on remedies. (See Stage VII, pp. ___)

Whenever a government program does not perform in an efficient manner, the resources that could have been used for something else -- something that would have made someone else better off -- are wasted.

The same difficulties exist in attempting to ensure the economic efficiency of the operations of not-for-profit organizations. Typically they do not sell the good or service they provide. For their products to meet the efficiency criteria, they must be ones that consumers want most and be produced at the lowest cost.

Nongovernmental organizations

Much of the time nongovernmental organizations (NGOs), like foundations, institutes, organizations, unions, etc. non-profits (NPOs) and not-for-profit organizations come into existence when someone or some group sees a deficiency in the system. Their objective is to provide the services that fill that gap. Ordinarily the provider is not directly reimbursed for the services they provide. Just as with most government services, the funds do not come from the direct recipients.

Consequently, those organizations are into fundraising. They have to convince potential donors that the services that they provide to others are worthwhile and deserve their support. Donors are asked to provide funding even though, as third parties, they do not directly benefit from services. In addition to the time, energy, resources and funds (TERF) required to produce the product, obtaining those funds requires additional TERF. When the organization has a singular, well-defined objective, finding potential supporters becomes easier. The National Rifle Association (NRA) is one successful example. Those of us who watch Public TV are constantly bombarded with requests for money. In my view, it is a form of advertising.

When the organizations are small they tend to have limited funds. In those circumstances they are under some pressure to provide their products in the least expensive way possible. That forces them to meet one of the criteria of efficiency. One way they accomplish that is to use the services of volunteers. Effectively, that is an alternative to fundraising and involves people who think the organization's objective is worthwhile. Clearly, the donators and the volunteers, as one subset of the population, consider that the services the organization provides are worthwhile.

Appendix D -- Loans and Gifts

Let's take a closer look at debt. When anyone goes into debt, during the current period they are consuming more of society's resources than they are adding by their contribution to the production process. When someone takes out a loan, the lender gives the recipient permission to use some of the funds the lender has accumulated. The recipient, as debtor, becomes responsible for repaying the lender in the future along with the interest.

The funds allow the borrower to purchase the goods and services they want. The lender doesn't use the funds to purchase what they want. The loan allows the recipient to get the products he/she wants now. With it they take control over the resources required to make those products. As a result society's product mix changes and so do the companies who benefit from those decisions. When a large number of individuals adopt a "buy now, pay later" approach to life, the effects can be significant.

That opens up the question of why anyone would be willing to cut back on current consumption. One reason is that it provides then with the opportunity to have a greater income and greater consumption in the future. That is where interest comes into play. When the borrower pays back the loan plus the interest, the lender can buy a larger amount of goods and services in the future.

In order to be as well off in the future as they are now, borrowers must have a greater income then than they would have had they not taken out the loan and gone into debt. If their income is the same in both periods, when they pay back the loan they will be worse off then because they must pay the interest and any other charges as well. The bottom line is that unless the loan makes you better off in the future, taking out the loan will make you worse off then. If the borrower does not live up to their commitment and defaults on the loan, the lender is made worse off as well.

The same holds true for producer loans. Firms borrow money in order to get operations up and running. When they are successful and it brings in extra revenue enabling them to pay back the lenders along with the interest. When future sales do not cover costs and the firm is unable to pay back the loan, the lenders are left holding the bag.

Borrowing/lending is based on the assumption that the future is predictable. And, furthermore that it will be better than the past. When that is not realized, the borrowers are put in a worse position than they would have been had they not taken out the loan. For the borrower, the expectation is that increasing expenditures now will put them in a better position in the future, typically by enabling them to earn a greater income. That goes for both consumer and producer loans. For the lender the expectation is the reverse, reducing current expenditures will make it possible for them to have greater disposable income in the future. Unfortunately, the expectation about the future doesn't always pan out. Often it is because events occur over which we have no control. That is just what happened when the launch vehicle blew up on the launchpad destroying the satellite.

Looking at loans and debt from this perspective opens up an interesting aside. As children and teenagers we consume more than we produce. To survive, our parents or someone else must supply the basic inputs and whatever else is required to get us through the early stages of life. In order to do that, those providers must produce more than they consume. Societies where the adults consume more than they produce cannot survive, especially when their actions destroy the infrastructure that is required to sustain life.

Some members of the society currently consume less than they produce. Most often they are those at the upper end of the distribution of income and wealth. Not only are they potentially the lenders, they can be the giftgivers. They are in a position to provide some of their available funds without the expectation of any future return, other than the knowledge that they have made someone else better off. The beneficiaries can be the children, theirs or others'. The gifts they give may be designed to promote their private agenda; to making others who are less well off better off; or they may be made in the hope of promoting greater social welfare. One example would be gifts used to pay off student loans. It would enable those burdened with the loan to live their lives in a way they could make a greater contribution to everyone's future income and wealth. (See pp.___)

Figure 1 -- Income Gains Widely Shared in Early Postwar Decades -- But Not Since Then: Real family income between 1947 and 2017 as a percentage of 1973 level

The updated 2017 version of Figure 1 from the Center on Budget and Policy Priorities entitled, "A Guide to Statistics on Historical Trends in Income Inequality" by Chad Stone, Danilo Trisi, Arloc Sherman, and Emily Horton is available on the website as Figure 1.

https://www.cbpp.org/research/poverty-and-inequality/a-guide-to-statistics-on-historical-trends-in-income-inequality

I have their permission to use it in the book. A copy of the figure was sent to me in an e-mail from Chad Stone on August 24, 2017.

Figure 2 -- Income Gains at the Top Dwarf Those of Low- and Middle-Income Households: Percent change in real after-tax income since 1979

Figure 2 is in the same article. I have not yet gotten specific permission to use it from CBPP.

Figure 3 -- Circular Flow

If you Google 'Images for circular flow diagrams' the fourth one is the one I'd like to use for Figure 3.

Figure 4 -- Determining the Competitive Market Price:

The Market Demand and Supply Curves

If you Google 'Images for supply and demand curves' the second one is the one I'd like to use for Figure 4.

Figure 5 -- Twinkies Are Back Again

Figure 5 is a picture of an opened Twinkies box, showing the Twinkies wrapped in plastic. I'll get a friend who is a professional photographer to take the picture.