A Birthday Poem

I am 75 years old
Going on 76
Lots of things wrong
That I don't intend to fix

I'll hobble over here
I'll hobble over there
But I'll not hobble to a room
That doesn't have a chair



1 Timothy 6:10

... The love of money is the root of all evil



There is only one class in the community that thinks more about money than the rich, and that is the poor. The poor can think of nothing else.

- Oscar Wilde -



Money is the root of all evil, and yet it is such a useful root that we cannot get on without it any more than we can without potatoes.

-Louisa May Alcott

$$\mathbf{\hat{S}} = \sqrt[n]{\sum_{i=1}^{\infty} e^{\mathbf{V}_i l}}$$

A Short History

- Economics is basically a narrative art, a frame across which data points are woven into stories about how the world should work while purporting to be a science describing how the world does work
- In the narratives, from Malthus to Marx to Thomas Piketty, poverty and "idleness" have remained an intractable reality that neither leaves nor is resolved
- Economics has always been constrained by the limits of the physical world and its capacity to feed everyone
 - Too many mouths to feed has always been a problem
- Throughout, the main theme is that whoever is in control, is the "main" player; everyone works for someone above them
 - The original Golden Rule

A Short History

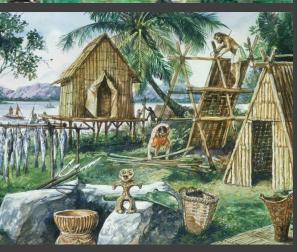
- The underpinnings of our "economics" is simple
 - Sovereigns create stable market and protect individual ownership under the rule of law
 - Individuals were assumed to interact in ways that would produce the optimal amount of goods and services that people needed and desired to consume and invest
- Left to its own devices (without the interference of unions or minimum wages or food stamps or distortionary taxes) the system hits an optimal equilibrium at prices and wages that match supply with demand

A Short History

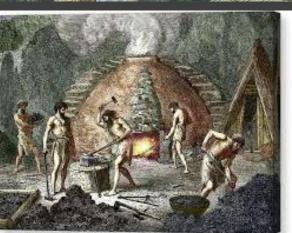
- Our economic practicum (from tax cuts favoring the wealthy to work requirements hassling the poor) dominate the conservative policy agenda
 - It assumes rational behavior on all actors
 - It assumes that this is the most efficient system
- Regardless of the theoretical labels of historic economic systems, this is the basic M.O. of economic activity for the last 12,000 years
 - Since we stopped being hunter-gatherers













This Is How They Did It (BCE)

- Lots of scenes of hunter-gatherer life
- Other than archeology, I am not aware of any documentation of how pre-agricultural society got on
- There are many accounts of Rousseautype life styles, but no actual proof
- Bone measurements do show that South American Indians were larger before the Spanish took over

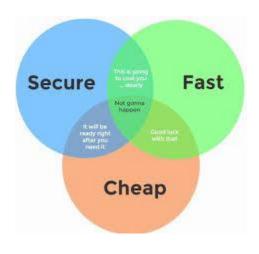
- The beginning of human activity on earth reveals the emergence of production modes
- The energy consumed in transforming resources into goods is called labor
 - Labor is the fundamental element in economic activity
- Pre-capitalist modes of production are classified as primitive production, slave production and feudal production

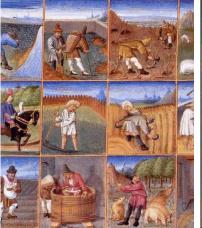
- Pre-modern people assumed that stations in life were mostly immutable, and that improvements were gained only through theft
 - A not unreasonable theory
- Large projects required financing, which was hit or miss and unbelievably cumbersome
 - Cathedrals took a century; roads & canals were exceeding difficult to build unless there were extra bodies to be had a a low cost
 - This applied to the American South, which helps explain the duration and harshness of slavery and post reconstruction black codes

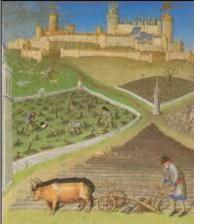
- Prior to the breakup of the Roman empire the mode of production was conditioned at the level of the totality by a tax collecting state, whose officials not only ensured those revenues were raised, but also guaranteed the far-flung estates of the slave-owning senatorial aristocracy
- Slavery was an integral part of making early economies work
 - Some things never change

Value vs. Cost

- Value as a social relation can only function when prices reflect their production conditions
 - This occurs only when the relations of production are governed by the law of value
- To save time and avoid eyes glazing over, we shall simply call pre-feudal economies value economies

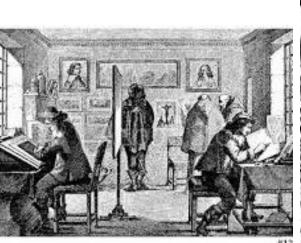


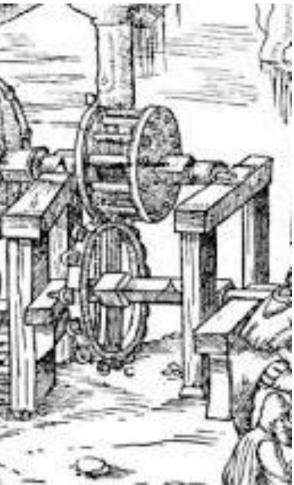






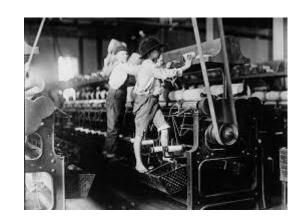






This Is How They Did It (medieval)

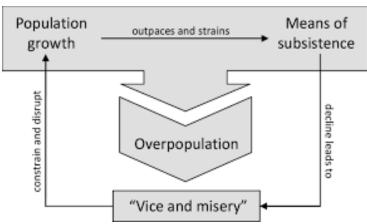
- Lots of sweat for the workers; no equity
- Note the adoption of mechanistic forms of production
- Safety rules were probably non-existent
 - Besides, not that many people could read



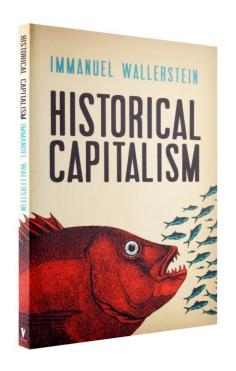
- The collapse of the Roman state, its armies, and the commodity exchange system which it supported, meant that social relations became radically localized
- The Roman class structure, which had depended upon a widespread system of enforcement, could no longer be sustained
- All sorts of elements of class society fell apart with the fall of the state, and the surviving aristocracy necessarily transformed itself into more regional feudal elites, with a much narrower and poorer base of exploitative relations

The Enabling of Economic Growth

- Economic expansion is dependent on people's belief in future well-being
 - For thousands of years people had little faith in the future as being better
 - Our evolutionary heritage conditioned us to understand that the world works on a zero-sum equilibrium
 - The fox-rabbit conundrum implies that growth in supply only works like a fertile field;
 - eat too many rabbits and foxes starve
 - The basic Malthusian assumption
 - Humans were slow to figure out that agriculture & science could circumvent this conundrum



- Immanuel Wallerstein published "The Modern World-System I: Capitalist Agriculture and the Origins of the European World-Economy in the Sixteenth Century," the first of four landmark volumes, in 1974
- Historical Capitalism (2011)
 - While capitalism has changed and evolved over 500 years, the development of a world market, and subordinated labor have remained constant
 - Secondly, many different types of economic arrangements co-existed, but they were all participating in a world market



Economic Growth

- Economic growth moved more quickly after the crusades
 - The monastic knight organizations, in conjunction with Venetian merchants, organized money transfers for pilgrims
 - The term credit is simply the 3d person singular word for credo (I believe)
- The ability to safely transfer credit is a key component of financial transaction
 - Pilgrims could deposit money with the Templars in London or Paris and receive a like amount from the Templars in the Holy Land

The Life and Bizarre Death of Thomas Midgley Jr. (1889–1944)

Living Embodiment of Creative Destruction &

Paragon of Unintended Consequences



- Was an alchemist with a knack for problemsolving
 - Systematic examination of an issue
 - Trying anything that came to mind until he found a solution . . . Not unlike Thomas Edison
- Pre-WWI he worked on the problem of engine knocking which made cars inefficient and balky
 - At Delco he and his boss (Charles Kettering) determined that fuel was the problem, not engine design
 - Search for an additive to reduce the uneven fuel burn rate
 - Their hunch focused on the color red, alchemy at its best

- Had no oil-soluble red dye, but realized that iodine was both reddish and easily dissolved in petroleum
 - Added iodine to the fuel and
 - IT WORKED!!!
- Iodine is expensive thus not a mass-product candidate
- Tried thousands of other red chemicals and stumbled upon tetra-ethyl lead (red in color)
- It worked, and was patentable
 - The product had to be patentable to ensure Delco (GM) would make money
 - After all, it's a capitalist economy

- Lead was a known killer some have even posited that Rome declined because Romans use lead cups and plates
 - Ironically, ethanol had been tried and worked well,
 but it was common, easily manufactured and not subject to patent protection
- Public health officials all over the nation and world were alarmed and warned against tetraethyl lead as an additive

- It went on sale in 1923 over the protest of the US Public Health Service
 - A leading toxicologist wrote in 1924 "the development of lead poisoning will come on so insidiously that leaded gasoline will be in nearly universal use . . . before the public and the government awaken to the situation"
- Midgley figured Ethyl would cost \$.03/gallon and that GM could figure on 20% of the gasoline market
 - Within 10 years Ethyl had 80% of an expanding market

- There were warning signs
 - Midgley had to take a month off to recover from working with the lead additive
 - Some workers at the factory that produced lead-ethyl died and 35 workers went insane, as in Mad Hatter crazy:
 - "the patient becomes violently maniacal, shouting, leaping from the bed, smashing furniture and acting as if in delirium tremens"
- Sale of Ethyl was suspended, and the U.S.
 Surgeon General set up a committee to determine the safety of the plant

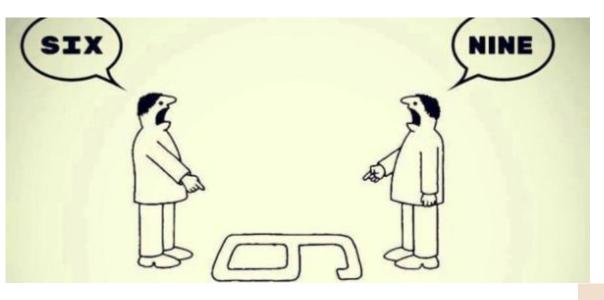
- Midgley and GM made lemonade out of lemons
 - They focused on the <u>manufacture</u> of Ethyl and promised to make the process safer
 - GM promised to make the workplace safe and protect employees from lead
 - Declared Ethyl "safe" and garnered the support of a grateful public
- No one mentioned a word about the prolonged persistence of lead in the air

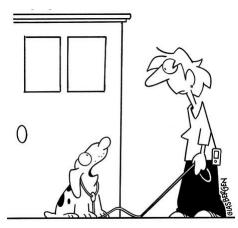
- Lead ethyl additive was saved by
 - A desire to have powerful cars
 - Aggressive advertising
 - Woefully inadequate science
 - Wrong questions, inapplicable answers
- The rest of the world accepted the U.S.' OK
- It's estimated that in the US alone millions of children had toxic levels of lead in their blood between 1920 and 1970
 - Lead damages the neurological development of children causing an IQ drop as well as other intellectual disabilities in exposed populations

- Midgley went on to improve air conditioning in 1928
- He developed CFCs which
 - Were much safer than the flammable and explosive chemicals used at the time
 - CFCs improved A/C efficiency dramatically
 - CFCs were thought to be harmless and were also used for aerosol propellants
- In the 1970s the hole in the Ozone layer was discovered and addressed

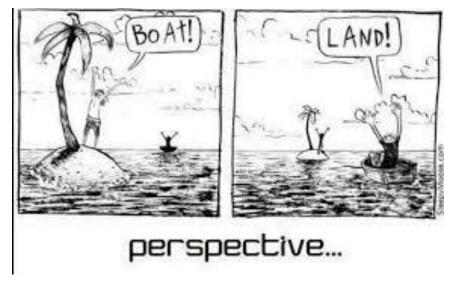
- Interestingly Thomas Midgley is pivotal in the development of modern America
 - Powerful and smooth-running cars with air conditioning
 - Movie theaters with A/C and plots involving car chases
 - Lead remediation industry
 - A dim awareness of unintended consequences
 - An understanding of the complexities of cause and effect versus post hoc ergo propter hoc; a confusion with which we still struggle
- Midgley strangled himself on his own apparatus in 1944
 - Hero or Goat?

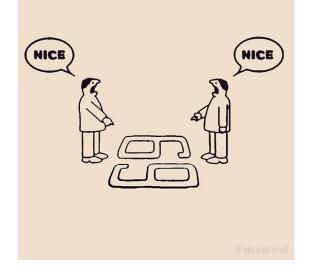
It All Depends on How You See It





"How come you need \$150 walking shoes, but I have to do 2 miles in bare feet?!"





Moving Right Along

- Economics as an academic venture has given us a plethora of economic models to explore, discuss and get lost in
- The two basic models are
 - Free Trade: self-explanatory
 - Mercantilism: basically hoarding on a state level
- Donald Trump is a neo-mercantilist
 - Mercantilism is an expensive way to get rich for a society, which is probably why these societies do their best to spread the costs while keeping the rewards to the owners

25 Economic Theories

- Supply and Demand (Invisible Hand)
- Classical Economics
- Keynesian Economics
- Neoclassical Synthesis (Keynesian for near-term macro; Classical for micro and long-term macro)
- Neo-Malthusian (Resource Scarcity)
- Marxism
- Laissez Faire Capitalism
- Market Socialism
- Monetarism
- Solow Model (growth comes from capital, labor, and technology)
- New Growth Theory (Romer & endogenous growth)
- Institutions and Growth (rule of law, property rights, etc.)
- Efficient Markets Hypothesis
- Permanent Income / Life Cycle Hypothesis
- Rational Expectations
- Rational Choice Theory
- Something Behavioral (e.g., Prospect Theory)
- Adverse Selection and the Lemons Problem
- Moral Hazard
- Tragedy of the Commons
- Property Rights as a solution to the Tragedy of the Commons
- Game Theory (e.g., Prisoner's Dilemma)
- Comparative Advantage
- New Trade Theory
- The Trilemma (exchange rates, capital flows, and monetary policy)

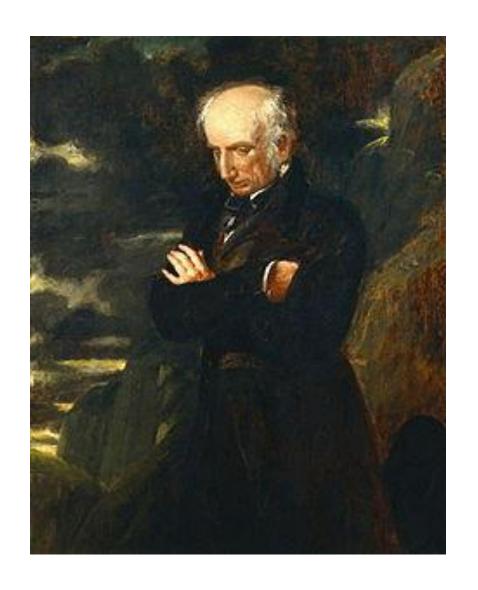
37 More Theories

- Washington Consensus
- Financial Accelerator
- Theory of Independent Central Banks
- Bagehot Theory of Central Bank Lending
- Creative Destruction (Schumpeter)
- Ricardian Equivalence
- Dynamic Consistency
- Diversification and Investment Portfolio Design
- Capital Asset Pricing Model
- Option Valuation (Black-Scholes et al.)
- Austrian Economics
- Speculative Bubbles (e.g., Minsky)
- Liquidationist View of Downturns
- Time Value of Money (incredibly important but very old)
- Public Choice / Economic Theory of Regulation (politicians and government workers as self-interested maximizers)
- Arrow's Impossibility Theorem
- Welfare Theorems
- Veblen and Conspicuous Consumption
- Polluter Pays Principle (e.g., Piouvian Taxes)
- Offsetting Behavior (e.g., people drive safe cars more aggressively)
- Heckscher-Ohlin Trade Theory
- Optimal currency areas
- Exchange Rates and Purchasing Power Parity
- Mercantilism
- Rubinomics
- Supply-side Economics
- Laffer Curve
- Phillips Curve
- Theories of Economic Geography
- Fisher Theory of Interest Rates
- Liquidity Traps
- Resource Curse (Dutch Disease)
- Exchange Rate Overshooting (Dornbusch)
- Auctions
- Mechanism Design
- Principal-Agent Theory (e.g., separation of management and ownership)
- Theory of Optimal Taxation (e.g., broad base, low rate, tax less-elastic activities)

The world is too much with us; late and soon

Getting and spending, we lay waste our powers;

Little we see in Nature that is ours;



William Wordsworth (1807)

Economic Growth

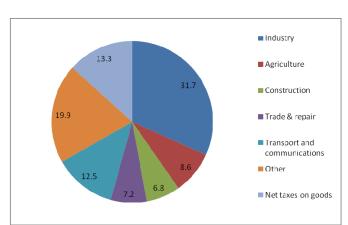
- Power is fueled by an alliance between scientific progress and economic growth
 - For most of history science has been a slow growth sector and economies were in in the mud
 - Gradual increase in population led to economic increase; periodic science breakthroughs resulted in per-capita growth
 - Mostly slow agricultural growth limited economic growth
- Today growth is the goal, in pre-modern times, people were oblivious to it

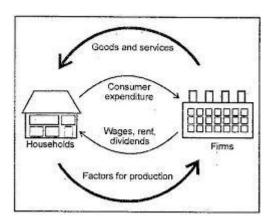
Economic Activity

The activity of making, purchasing, or selling goods or services.

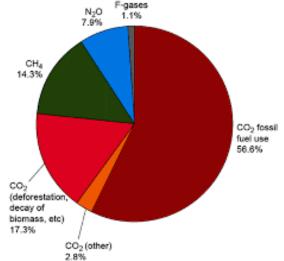


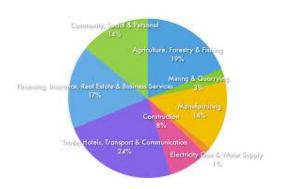
Getting And Spending





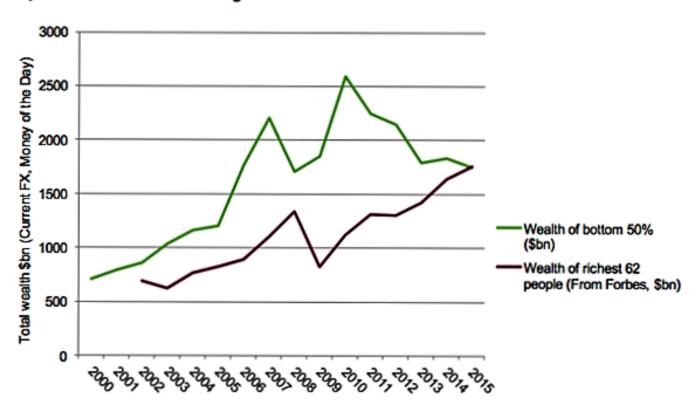






Oxfam's Chart of Wealth Distribution

Figure: The wealth of the richest 62 individuals continues to grow, while that of the poorest half of the world stagnates⁴



Some Do Much Better At "Getting"

- Despite all of the talk about the wealth gap,
 Americans vastly underestimate wealth inequality in the US
- Americans, even Republicans, support a more equal distribution of wealth than now exists
 - The distribution most imagine we have, is actually closest to that of Sweden – a country we consider socialist
- A huge number of Americans who would benefit from unions, oppose organized labor
 - Union dues are viewed as a tax on a person's right to keep their take-home pay over and above the other deductions from take home-pay

Extremely Low Unemployment Rate

- One hears quite a bit about how well the economy is doing how there are so many jobs in need to workers
 - Seems as if some employment Eden is just around the corner
- This is a misleading indicator: In Ohio, in this area: (from the Enquirer, 4 Aug 2019)
 - The fastest growing jobs are for personal care aides, earning on average \$24,200 /year
 - This is just above the federal poverty line for a family of three
 - It is also well within SNAP guidelines

Full Employment = LITTLE HOPE FOR THE LOW END OF THE JOB SKILLS POPULATION

- Unemployment in the metro area has shrunk to the lowest level in decade, much of this growth has been in occupations that offer low wages and few-to-no benefits, even for full-time work
- Already in 2000, 5 of the 10 most common occupations in Ohio paid so little that a family of three was dependent on food assistance
 - In 2019, it's 6 of 10
- Ohio's rate of multiple job holders was 6.5% in 2015, higher than the national rate of 4.9%
 - Kentucky the rate was 5.2%

Nationwide Job Numbers

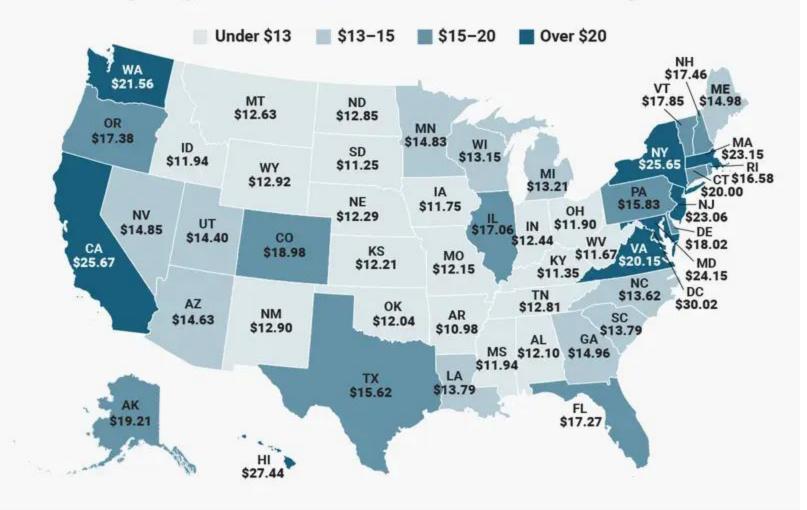
- Across the country, some 7.8 million people work two or more jobs
- Women and African Americans are more likely than men or whites to work multiple jobs
 - The most common multiple-job arrangement is primary fulltime and secondary part-time work
- Ironically, food service workers are in the forefront of those workers needing food assistance
 - More than half of fast-food workers across the U.S. and in Ohio are eligible for SNAP benefits
- Food service industry employs 104,000; the area's cooks, waiters and bartenders earn an average of \$11/hr
- 60% of the working poor in this area are working two jobs
 - NKY has the lowest unemployment rarte in KY, yet 73% of the people at NKY food pantries had a job

Women & Economic Justice

- Advocates for wide range of economic justice issues from the glass ceiling to the sticky floor of poverty
 - These include welfare reform, livable wages, job discrimination, pay equity, housing, social security and pension reform, meaningful and affordable childcare and much more
 - It would be nice if their domestic situations would be more secure
- In 2017, female employees made only 80.5 cents for every dollar earned by men
 - This difference constitutes a twenty percent gap in wages between male and female employees.

Economic Fairness



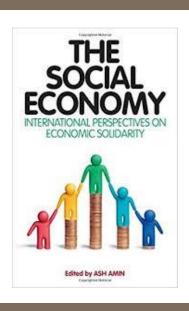


How Fairness Actually Works



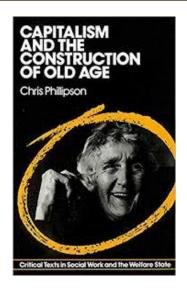
Do Economic Issues Sway Voters?

- Just 62 ultra-rich individuals have as much wealth as the bottom half of humanity
 - Five years ago, it took 388 rich guys to achieve that status
- The wealth of the richest 62 has increased 44 percent since 2010, to \$1.76 trillion
 - Meanwhile, the wealth of the bottom half of the world dropped by 41 percent
- Can Democrats make a political case out of this?
 - They haven't managed to do so yet

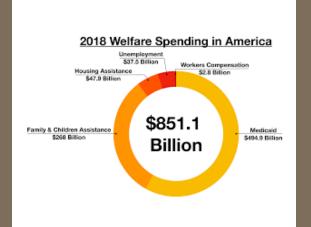












Economic Justice

- Economic justice is a set of moral principles for building economic institutions
 - The ultimate goal is to create an opportunity for each person to create a sufficient material foundation upon which to have a dignified, productive, and creative life
- It is unclear that there has been a period of economic justice since the inception of agriculture
 - Archeological artifacts don't suggest that economic justice has ever been a part of human civilization













Laying Waste Our Lives

Reasons For Not Sharing?

- As humans have globalized, family sharing rules have not scaled well – the family unit is basically a communist unit
 - To each according to their need is not the way things work in the U.S.
 - From each according to his ability, well, that is not the way things in the U.S. work either
- Minus social control, exploitation runs amok
 - Our current political climate definitely dissolves social control in terms of compassion for the other
 - We are a collection of PLU modules looking to make sure we don't have to give away anything of value

Economic Equality

- Effects of inequality include higher rates of health and social problems, and lower rates of social goods, lower population-wide satisfaction
 - There is a lower level of economic growth when human capital is neglected to promote consumption
- For the top 21 industrialized countries, counting each person equally, life expectancy is lower in more unequal countries
 - A similar relationship exists among US states
- 2013 Economics Nobel prize winner Robert J. Shiller said that rising inequality in the United States and elsewhere is the most important problem
- The economic stratification of society into "elites" and "masses" played a central role in the collapse of other advanced civilizations such as the Roman, Han, and Gupta (northern India, 319-543 CE) empires

Free Market Economics

- Do we have a truly free market?
- Is an unfettered free market a good thing in today's world?
- Free Market Shortcomings (as I see them)
 - No long-term strategic mechanism
 - No government or religion allows all things to be sold
 - Free markets are not free when one side has preponderant power; or cheats
 - Monopolies
 - Monopsonies

Free Market Capitalism

- The credo of FMC: all problems can be solved by using free market solutions (e.g.: hire a nurse to care for an old parent rather than make other adjustments or have government intervention)
 - The Free Market always adds cost
 - The Free Market also works to keep costs (wages) down as well
 - The Free Market solution is said to be free of restrictions, but there are few, if any, equal trades

Capitalism

 Historians of social welfare have an inadequate conception of capitalism which leads them to ignore

crucial distinctions between this economic form and earlier peasant-based societies

- Capitalism, as a social system, tends to be indifferent to and destructive of social norms and environmental sustainability
 - Exploitation of people and resources is not something conservatives own up to





Marxism vis à vis Capitalism

- Marxism is not simply a form of anti-capitalism, but also is a theory of the social and historical nature of humanity
 - Capitalism was understood by Marx to be a specific historical phase, in which the cycles and tendencies of human activity are qualitatively different
- Capitalism is, therefore, a 'mode of production', a complex system composed of the social forces of production and technology of industrial production around which are articulated specific social relations of production

Economics of Modernity

- Modern politicians and economists insist that growth is vital for 3 principal reasons
 - Produce more, we can consume more
 - As long as humans increase, growth is needed just to remain where we are
 - If the economy doesn't grow, the poor will not get more unless you take it from those not poor (a reincorporation of the pie analogy)
 - Social Security works along this line of thinking
- Modernity has turned "more stuff" into a panacea applicable to almost all public and private problems

Free Market Capitalism

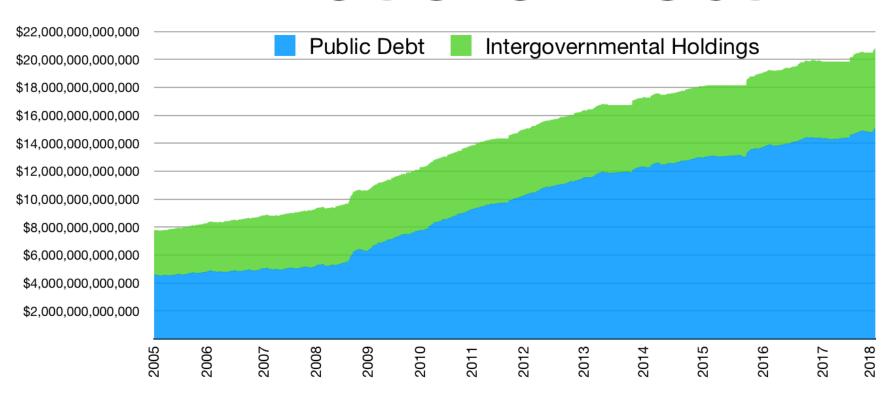
- Hiring someone to perform a task, or firing a person because a machine can perform a task better for less money, is not a value free decision
- The ideology of FMC is potent, widely accepted and destructive of time-honored values
 - The very first "conservatives" opposed this thinking and market solution
 - Modern conservatives are little more than shills for capitalism
- The key to this transformation is based on "more stuff"; aka money

Free Market Capitalism vs Conservatism

- FMC as a political force reintroduced the Malthusian pie trap into modern thinking by making riches so rewarding
- By giving people a taste of how nice things can be right here on earth if you have lots of money, we seem to be shifting the power of gods downward to a very human class system
 - Regardless of whether one identifies as a Marxist,
 Monarchist, Capitalist, Liberal or Benthamite,
 money is the real issue

Only Astronomers Can Appreciate These Numbers

National Debt



Paul Krugman on National Debt

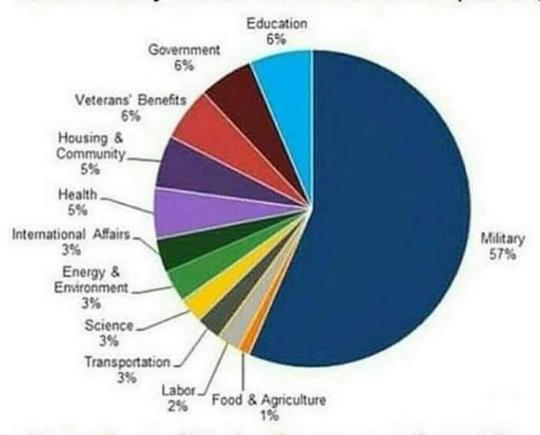
- The red line on debt, it turns out, was an artifact of dubious statistics, reinforced by bad arithmetic
- Countries that borrow in their own currencies operate under very different rules from those that rely on someone else's money
 - After years of repeated warnings that fiscal crisis is just around the corner, the U.S. government can, and does, still borrow at incredibly low interest rates

Our National Debt

- Do we really want to "fix" it?
 - Do we really even need to fix it
- Is the national debt going to destroy Social Security?
- Why on earth is Andrew Jackson still on the \$10 bill, and why do we not put women on our currency?
- Who can actually remember how the debt is carved up?

Congressional Budget Fix

Look closely at this chart of federal spending.



Somewhere within the tiny orange sliver at the bottom is the food stamp program that Republicans blame for our budget deficit.

Problems with Capitalism Today

- As with the end of feudalism 500 years ago, capitalism's replacement by post-capitalism will be accelerated by external shocks and shaped by the emergence of a new kind of human being
- Post-capitalism is possible because of three major changes information technology has brought about in the past 25 years
 - First, a reduced need for work as blurred the edges between work and free time and loosened the relationship between work and wages
 - The coming wave of automation, currently stalled because our social infrastructure cannot bear the consequences, will hugely diminish the amount of work needed – not just to subsist but to provide a decent life for all

Problems with Capitalism Today

- Information corrodes the market's ability to form prices correctly
 - Markets are based on scarcity, today information is abundant
 - The system's defense mechanism is to form monopolies the giant tech companies – on a scale not seen in the past 200 years
 - Building business models and share valuations based on the capture and privatization of all socially produced information, such firms are constructing a fragile corporate edifice at odds with the most basic need of humanity, which is to use ideas freely
- The spontaneous rise of collaborative production: goods, services and organizations are appearing that no longer respond to the dictates of the market and the managerial hierarchy
 - The biggest information product in the world Wikipedia is made by volunteers for free, abolishing the encyclopedia business and depriving the advertising industry of an estimated \$3bn a year in revenue.



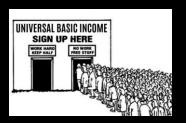
UBI

Universal Basic Income is a pipe dream in some ways, yet also it is a solution to the problem of what happens to all the people who may yet be out of work thanks to Al and modern production methods











Binyamin Appelbaum's New Economic Theory

- The Economist's Hour, Little, Brown & Co., 2019
- "New Economics" doesn't reject efficiency, but neither does it fetishize it
 - Efficiency is one laudable goal among many
 - It is guided by Appelbaum's recognition that "efficiency has no special claims as the primary purpose of a marketplace"
 - A higher tax rate, minimum wage, or regulation might or might not ding growth — there's evidence on both sides
 - But a society might decide that because we want workers to earn living wages, the wealthy to pay a fairer share, and businesses not to degrade the environment and regularly blow up financial markets, the benefits of these policies outweigh their costs

New Economic Theory

- While inequality has not grown much in recent years, it remains at levels as high as the late 1920s
- Recent research reveals that inequality of income and wealth increasingly meld with the inequality of life expectancy
- The assumption that self-interested firms would self-regulate gave rise to repeated rounds of deregulation that gave us "shampoo economy": bubble, bust, repeat

New Economic Theory

- The old economics wrongly claimed we couldn't have persistently low unemployment without spiraling inflation, yet that's precisely what we've enjoyed in recent years
- New economics isn't arising just because we want "better" outcomes from our markets
- It's arising because a lot of the old stuff has turned out to be just plain wrong

New Economic Theory

- Thomas Piketty, Emmanuel Saez, Gabriel Zucman are leading the New Economics movement
- Much of their work can be found in Elizabeth Warren's Plans, especially the Wealth Tax
- Even the Federal Reserve's data-driven look at the monetary policy rulebook
 - For years, those rules militated against letting unemployment fall to levels where working people might gain a bit of the bargaining power they sorely lacked in slack labor markets
 - The rulebook said that to allow this to occur would lead to runaway inflation
 - It hasn't

Overcoming the Malthusian Trap



- Evolutionary pressures condition humanity to see the world as a static pie; one gets more, others get less
- Traditional religions adapted to this trope seeking ways to solve humanity's problems with the help of static resources at hand
 - Redistribute the existing pie (Diggers, Hussites)
 - Promising a pie in the sky
- Starting with the Christian concept of man having dominance over nature, the notion slowing grew that nature could be "worked" to improve material existence
 - Cistercian monks, deep plows, horse collar, 3-field farming

Hard Economic Lessons

- The economy in which we operate is not a "natural" artifact of nature; it is the way we organize our society
 - It certainly has never been a situation of equality but it could and should be fair
- As Julia Heath has written: "equal and fair are not synonymous"
 - She is quite right
 - But there is no law of nature that says our economy must be unfair, and that full-time work should not cover your basic food and health care needs
 - This is all on us