

# **An Integrated Biophysical-Financial Model of Flows and Stocks in the Economy as a Basis for Understanding and Addressing Inequality**

JEL codes: H2, H3, E62, E63

## **Abstract**

In the commonly used micro-economic model of the economy households and firms engage in a circular flow of production factors, payments, and products. Households provide production factors of labor and capital to firms, and firms provide payments to households for these factors. In a separate loop firms provide products and services to households and households provide payment to firms. Everything is in a closed loop, and there is no exogenous input of natural resources or energy to the system, and no waste outputs.

Ecological and Biophysical Economists have given us more accurate models of physical flows in the economic process including throughput of natural resource and energy flows into the economy and the flow of waste and recycled materials out of it. They have often included human and social elements as well. These are primarily biophysical models excluding financial flows.

Since all of these models only deal with the flows of income, resources, energy, and services of labor and capital, none of them show the accumulation of the stocks of wealth. Few of them combine the biophysical model with financial payments. Nor do any of these models describe how the distribution of income comes about. Therefore an integrated biophysical and financial model including both flows and stocks of production factors and money is needed to fully describe the economic process as it exists in reality. Once we have constructed this model we can observe how inequality in the distribution of the stock of financial wealth occurs, and address the fundamental roots of the inequality problem in the political power acquired by those with financial means.

Keywords: Wealth pyramid, Inequality, financial-biophysical model, financial power, Treaty of Detroit, Washington Consensus

## **1.0 Current Microeconomic Models**

### **1.1 Circular Flow**

The familiar closed-cycle circular flow model has two circuits. One cycle is the physical cycle of factors of production flowing to firms (labor and capital) and goods flowing back to households. The other cycle is the financial cycle of payments to households for production factors and payments by households for finished goods. Society and the biosphere are entirely external to this model. There is no throughput of resources into the cycle or waste coming out, so it is a financial, not biophysical model. Production factors magically appear in the household to be delivered to firms, and waste magically disappears from firms after production. The classical version might include land, but the neo-classical version lumps land and capital together. “Economists are very fond of the circular flow vision of the economy, inspired by the circulation of blood discovered by William Harvey (1628), emphasized by the Physiocrats, and reproduced in the first chapter of every economics textbook. Somehow the digestive tract has been less inspirational to economists than the circulatory system. An animal with a circulatory system, but no digestive tract, could it exist,

would be a perpetual motion machine. Biologists do not believe in perpetual motion. Economists seem dedicated to keeping an open mind on the subject” (Daly 2006, P39).

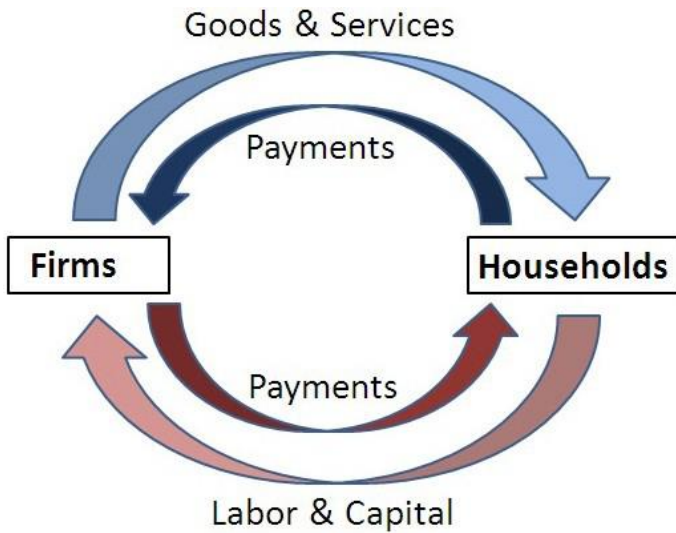


Figure One: Neo-classical Financial model (perpetual motion) Source: (Harris, 2004)

### 1.2 Circular Flow with Leakage

Slightly more complicated financial models are also available including leakages such as taxes, imports, exports, government, finance, etc, but this model shows only financial flows and shows no biophysical elements at all.

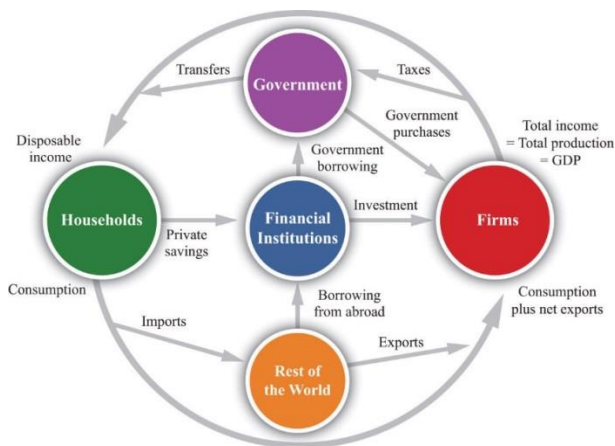


Figure Two: Circular Flow with Leakages (perpetual motion)<sup>1</sup>

<sup>1</sup> [http://images.flatworldknowledge.com/coopermacro/coopermacro-fig16\\_010.jpg](http://images.flatworldknowledge.com/coopermacro/coopermacro-fig16_010.jpg)

### 1.3 Financial/Political Model

Michael Hudson has created this financial/political model focussing on the FIRE sector (Finance, Insurance, and Real Estate) in order to illustrate the flow of interest, subsidies, bailouts, campaign contributions, and debt service to and from the FIRE sector. This is also a purely financial model, although it does provide some insight into the sources of inequality. (Hudson 2012, ch17 endnotes)

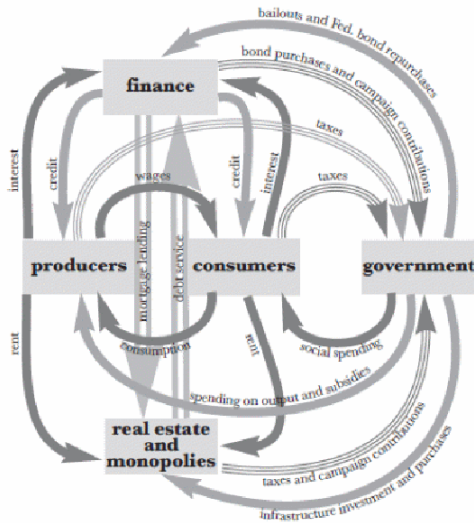


Figure Three: Financial/Political Model<sup>2</sup>

### 1.4 Biophysical Models-Daly

In this simple biophysical model Daly is showing that the economy is a subset of the biosphere, and has expanded from the “empty world” scenario of the 1800s into the limits of the biosphere creating the “full world” scenario we are in now. In this model the economy essentially consists of throughput of matter and energy, including the output of waste and heat (Daly 1996 page 49). No financial flows are shown.

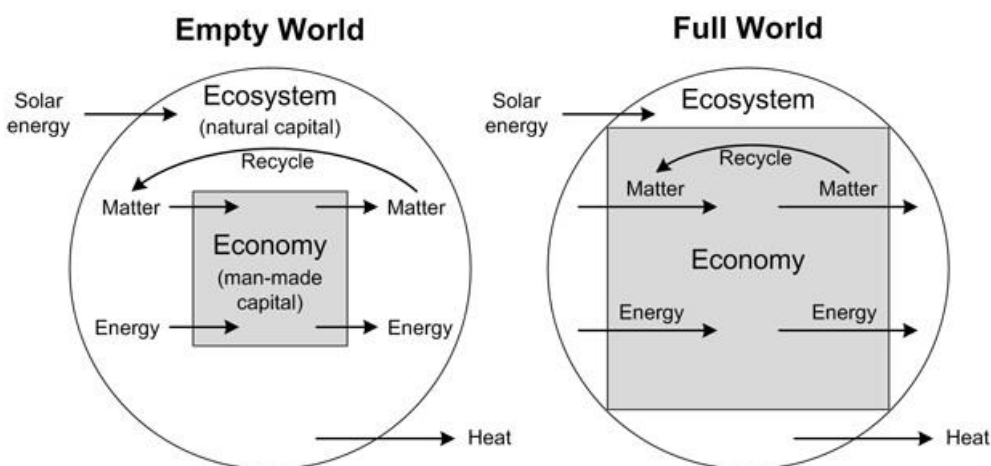


Figure Four: Daly Empty World and Full World Model<sup>3</sup>

<sup>2</sup> Hudson 2012, ch17 endnotes

<sup>3</sup> Daly 1996 page 49

## 1.5 Biophysical Models-Costanza

In a more complex biophysical model including human needs Costanza shows the inputs of the 4 “capitals”: natural, human, social, and manufactured capital into the economic process, including ecological services. Well-being is shown as the end goal, and goods and services plus “having, being, doing, and relating” are the means to achieve that end. The means to that goal is expanded beyond GDP to demonstrate the variety of factors contributing to well-being beyond just material goods. Financial capital is left out (Costanza 2001, p. 461).

### Expanded Model of the Ecological Economic System

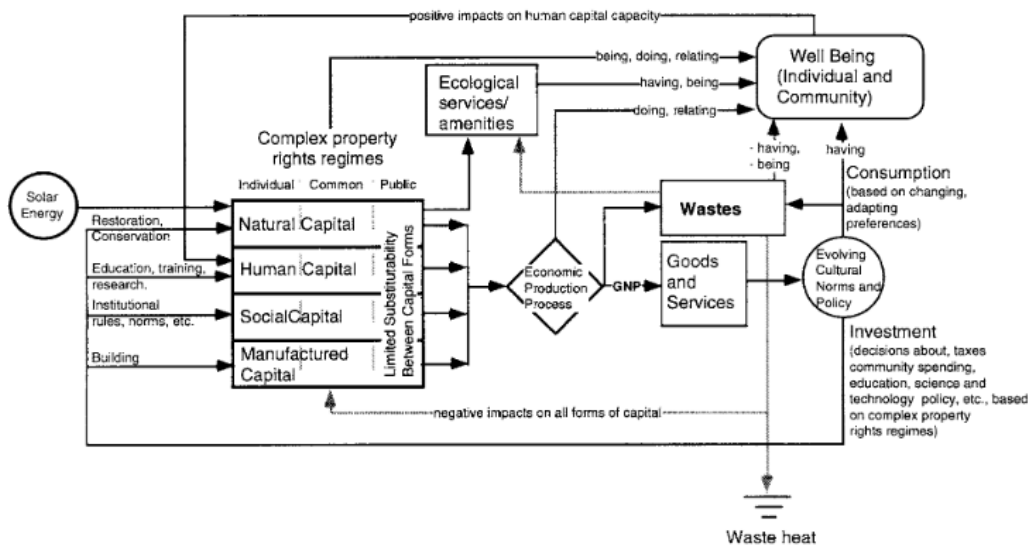


Figure Five: Costanza Ecological Economic Model<sup>4</sup>

## 1.6 Biophysical Models-Hall

Charlie Hall’s biophysical model gives a very detailed description of the flows of energy and resources into and through the economy, but the flow of payments is left out (Hall, et al 2011, p.665)

<sup>4</sup> Costanza 2001, p. 461

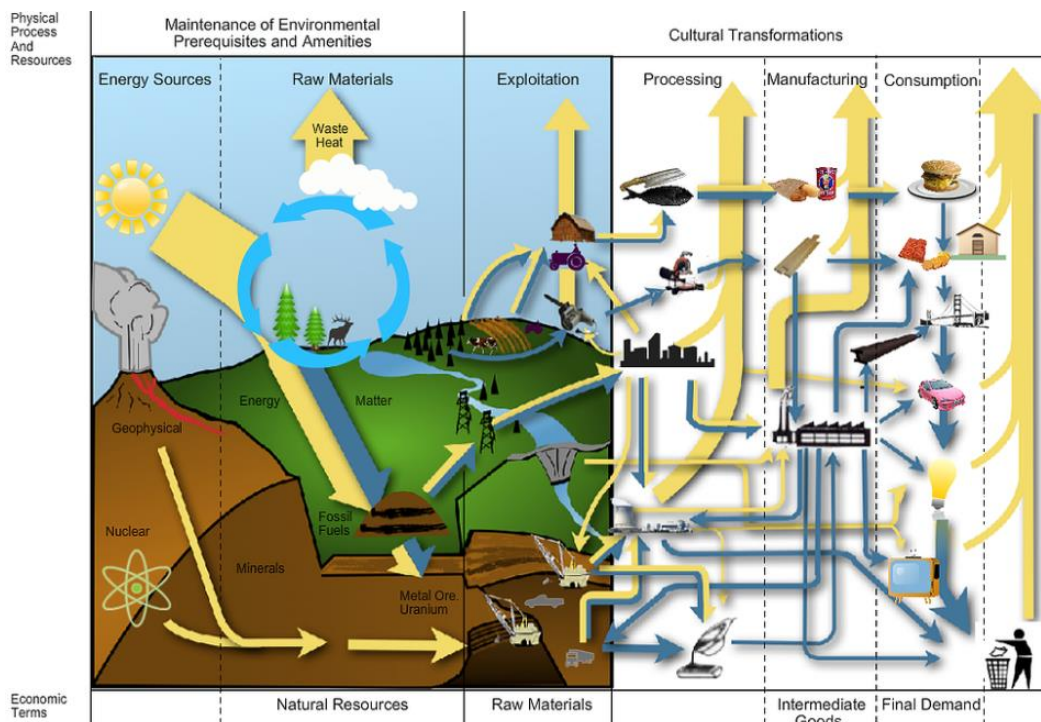


Figure Six: Charlie Hall Biophysical Model<sup>5</sup>

### 1.7 Biophysical-Financial Flow Model-GDAE

A simple model putting financial and biophysical flows in their proper context, embedded within the biosphere is shown by the diagram above from GDAE (Harris, 2004). This is the only model showing the flows of energy and resources into production and waste coming out of production, in addition to the flow of payments. However, there is not much detail, nor are the stock of wealth explained.

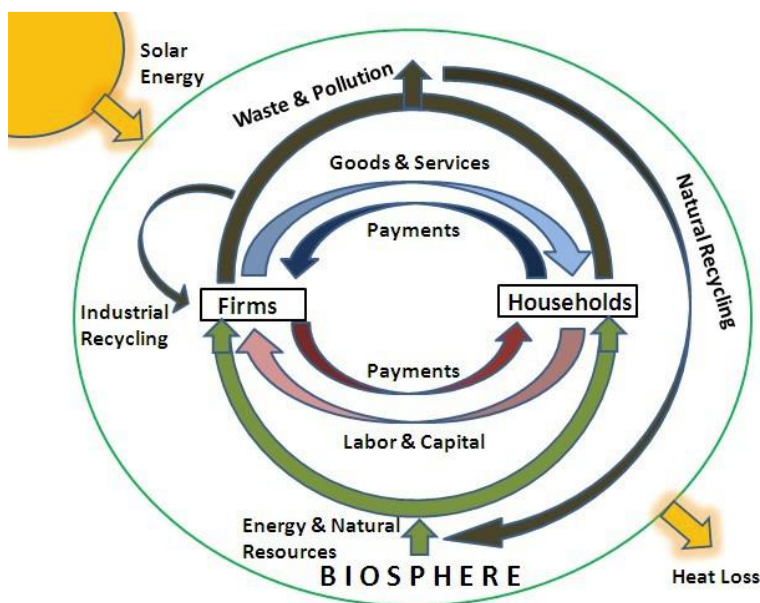


Figure Seven: GDAE Combined financial-biophysical model

<sup>5</sup> <http://www.ngei-usa.org/#!economics/cx3> (28 Jan, 2015)

## 1.8 Schematic Models-GDAE

In this schematic GDAE model, “Businesses (both foreign and domestic), households and communities (the core sphere) and public-purpose institutions (governments and nonprofit organizations) are all involved in productive activities in the economy. These economies are, in turn, embedded in a context of the larger society (social context), and the natural environment (physical context)” (Goodwin, et al 2014, p81). This model shows resources and energy flowing through the economy to become products and waste, and expands the conception of the economy beyond the business sphere to include the Core (subsistence) and public purpose (NGOs and Govt) spheres. However, it doesn’t show the financial flows or the stock of wealth created.

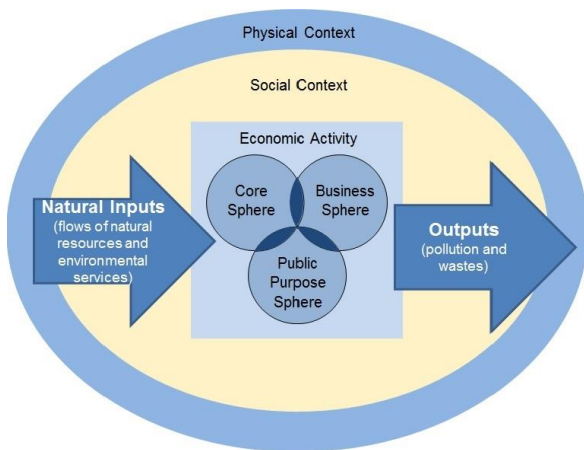


Figure Eight: GDAE Multipurpose spheres model

## 1.9 Schematic Models-Eisler/Caring Economy

Riane Eisler in her book, “The Real Wealth of Nations” introduces a diagram showing all the official and unofficial sectors of the economy, including those not counted in national GDP accounts. This is a useful diagram to emphasize the importance of care-giving for children and elders provided for free, mostly by women. It also illustrates other important elements of the unofficial economy such as subsistence, the contributions of nature, volunteer work, and illegal activities. However, it does not show flows of resources, products, or money, and does not show stocks of wealth.

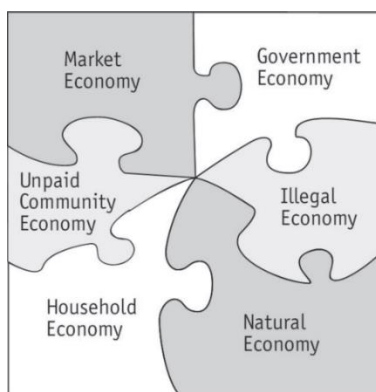


Figure Nine: Caring Economy Campaign Model<sup>6</sup>

<sup>6</sup> [http://www.cadmusjournal.org/files/v1i6articleimages/caring\\_economy\\_2.pn](http://www.cadmusjournal.org/files/v1i6articleimages/caring_economy_2.pn)



left. Payments to these factors are shown as capital gains to the FIRE sector, interest paid to commercial capital, rent paid for land and resources (and some pollution rent/tax), wages paid to labor, and profit paid to entrepreneurial business. The stock of wealth is shown as a US wealth pyramid on the left, resulting from the flows of income to various factors of the economy. Households providing production factors in the neo-classical model are replaced by owners of the various factors of production. All factors of production including land, resources, financial and commercial capital, labor, and businesses are owned by someone, and ownership is best illustrated by the payments they receive resulting in the wealth pyramid on the left.

Nominal marginal tax rates paid to government are shown for each of these types of factor payments, which provide the funds that government spends on goods and services in the economy. Rules governing taxation of various income flows are shown as blank boxes which we will explore in detail. These rules give us an explanation of how wealth is concentrated, and how the top 10% of the wealth pyramid is able to use its financial power to influence government to lower taxation of factors leading to their enrichment, by diverting taxation to those paid by the lower deciles, primarily wages, and directing subsidies to themselves. This is shown as “R”, a reinforcing loop. Real biophysical goods and services appear on the right-hand side, and money or claims on these goods and services on the left-hand side. Herman Daly, quoting Frederick Soddy, “Wealth is the positive quantity to be measured, and money as the claim to wealth is a debt” (Soddy, p. 103). A dynamic model of these factors could be constructed, which could simulate over time the concentration of wealth that we see in reality.

## **2.0 Concentration of Wealth**

### **2.1 Wealth pyramid**

Looking at the stock of wealth created by the flows of income from factor payments, the most obvious feature is the huge disparity in wealth between the top 1% and 10% and the rest of the population. In addition to inherited wealth, this is created by the flows of income for factor payments. A forensic study requires evaluation of the rules guiding these factor payments. As of 2013 the top 1% accumulated 36.7% of the total wealth in the US, and the top 10% of the population accumulated 77.1% (36.7+40.4) of the total wealth in the US (Wolff 2013, p50). “In the US, the wealthiest one percent captured 95 percent of post-financial crisis growth between 2009 and 2012, while the bottom 90 percent became poorer (Saez 2013). The Great Recession did not change the trend in concentration of income: the share of US national income going to the top decile stands at 50.4 percent – its highest since World War I (Saez 2013)” (Oxfam, 2014). This is reflected in a 30% increase in the US Gini coefficient for income from its low in 1968 of .348 to its high in 2012 of .451. See chart below. Wealth is even more concentrated than income, as the gini coefficient for wealth is at .871 as of 2013 (Wolff, 2013, p. 50).

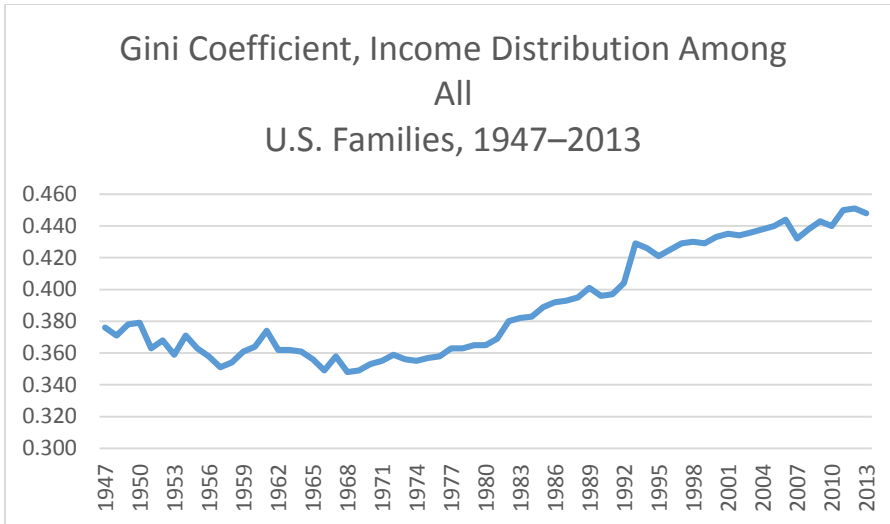


Figure Eleven: US Gini coefficient (Author from US Census Bureau 2014)

The wealth divide is also true globally. The wealth of the one percent richest people in the world amounts to \$110 trillion. That’s 65 times the total wealth of the bottom half (Credit Suisse 2013). The 85 richest people have more accumulated wealth than the bottom half of humanity, 3.5 billion people (Oxfam 2014, p.2). We will first analyse the factors resulting in this inequality in the US example, and then look at the rules governing each type of factor payment and some possible solutions.

## 2.2 How Do They Do It?

Financial power results in political power, which has been known back to the times of Aristotle, “Immoderate wealth, as where one man or the few have greater possessions than equality or the frame of the commonwealth will bear, is an occasion of sedition, which ends for the greater part in monarchy, and that for this cause the ostracism hath been received in diverse places, as in Argos and Athens.”<sup>7</sup>

A recent Princeton University Study found that the average American has a near-zero effect on public policy, while economic elites have the majority of the influence: “When the preferences of economic elites and the stands of organized interest groups are controlled for, the preferences of the average American appear to have only a minuscule, near-zero, statistically non-significant impact upon public policy” (Giles/Page 2014 p. 575).

The massive increase in inequality had some of its genesis in the confidential “Powell Memorandum or Manifesto” from 1971 (Moyers 2011). In this letter written to the President of the Chamber of Commerce, future Supreme Court Justice Lewis Powell, claimed that the free enterprise system was under attack, and that corporate America needed to confront it as a “primary responsibility of corporate management”, and the US and local Chambers of Commerce should help to organize the effort.

<sup>7</sup> Aristotle, *Politics*, v, iii Sir Ernest Barker’s translation (the *Politics of Aristotle*, Oxford, 1946, P. 208) cited in Harrington, James, *The Commonwealth of Oceana*, p. 14.

“Within two years the board of the U.S. Chamber of Commerce formed a task force of 40 business executives – from U.S. Steel, GE, GM, Phillips Petroleum, 3M, Amway, and ABC and CBS (two media companies, we should note). Their assignment was to coordinate the crusade, put Powell’s recommendations into effect, and push the corporate agenda...The National Association of Manufacturers announced it was moving its main offices from New York to Washington. In 1971, only 175 firms had registered lobbyists in the capital; by 1982, nearly twenty-five hundred did. Corporate PACs increased from under 300 in 1976 to over twelve hundred by the middle of the 1980s. From Powell’s impetus came the Business Roundtable, the American Legislative Exchange Council (ALEC), the Heritage Foundation, the Cato Institute, the Manhattan Institute, Citizens for a Sound Economy (precursor to what we now know as Americans for Prosperity) and other organizations united in pushing back against political equality and shared prosperity...They triggered an economic transformation that would in time touch every aspect of our lives” (Moyers, 2011).

This trend toward control by corporations and the wealthy accelerated during the Reagan/Thatcher era, and took off even further after the Soviet Union collapsed in 1991, leaving no adversary for neo-liberal globalization. Initially, the corporate counter-revolution was based on industry, but gradually it became more focussed on finance as the economy became financialized in the 1990’s and 2000’s. The US Supreme Court put the final nail in the coffin with its 2010 “Citizens United” decision allowing corporations and wealthy individuals to spend unlimited sums of money to influence elections as a “free speech” right. The recent trend of privatization extends to government, as it becomes a subsidiary of the private sector. Another way to look at it is the enclosure of government, just as the common lands were enclosed in England in past centuries.

### **2.3 Strategies of Tax Avoidance**

David Cay Johnson in his book, *Perfectly Legal*, details myriad tax rules exploited by the wealthy over the years leading to inequality. There is not enough space to expand on each one of them here. I list them here only to point out there are hundreds of tax shifts, loopholes, subsidies, and other mechanisms used by the wealthy and their hired accountants to gradually shift taxation off their income, or make it exempt entirely.

1. Gift, estate tax exemptions, “step-up in basis” exemption
2. Regressive mortgage interest deduction, income stagnation of the lower incomes
3. Stock options, deferred compensation, executive pay, offshore deferral accounts, untaxed endowment investments in hedge funds,
4. Corporate exec perks, private jets, etc.
5. Alternative minimum tax shifting to lower incomes
6. Social security increased and used for general fund expenses
7. Disproportionate tax audits of lower income earners, high interest payment on loans to poor people receiving earned income credit
8. Handcuffing, underfunding the IRS
9. Tax-exempt partners
10. Tax-exempt insurance and life insurance
11. Blatant tax evasion by the wealthy by not filing or claiming taxes not due with no enforcement

12. Offshore tax havens and partnerships
13. Short-selling tax dividend scams, foreign tax credits
14. Corporate inversions, renouncing citizenship
15. Switching fixed pensions to company stock, supplemental executive retirement plans (SERPs),
16. Cancelling Congressional tax hearings
17. Retention of employees withholdings by 3000 corporations

Instead of reviewing these tax evasion and distortion techniques of the wealthy, which can be found in Johnson's book, I will focus on the systemic aspects of each tax under discussion, and also overall changes in tax rates over time.

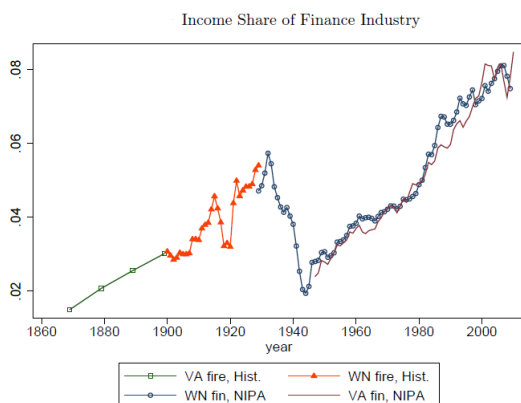
## **2.4 The Need for Democratic Renewal**

Most of the solutions to the problems of inequality require democratic governance to make decisions for the benefit of the populace or "common good". As Giles and Page have demonstrated, the US public has near zero statistical influence on government decisions at the national level. Therefore all the recommendations that will follow are in the realm of theory, and not realizable in practice at the current time. Portions might be implemented at the state and local level, where some democratic influence still exists. A similar situation existed during the "Gilded Age" in the late 1800's and progressive reform did emerge. I won't speculate on the mechanism that will allow reform to take place in the current situation. The reforms advocated here will require democratic influence to re-emerge as a pre-requisite. Until then, any change to the status quo is unlikely.

## **3.0 Evaluation of Tax Rules**

### **3.1 FIRE Sector: Financialization and Capital Gains-Rule #1 Nominal Marginal (Highest) Tax rate 15%**

As shown in figure 12 & 13, the finance sector has grown from less than 1% of gdp in 1860 to over 8% by 2008, and achieved a high of 40% of all corporate profits in the US in 2004, as the manufacturing base has declined. The "FIRE" sector, an acronym for finance, insurance, and real estate, is shown in our model as exclusively extractive since this sector primarily engages in buying and selling existing assets for capital gains, and therefore is mainly parasitic. Some readers may object to including capital finance in two locations in the chart. Let us distinguish financial speculation capital from commercial investment capital. Daly refers to financial speculation as "chrematistics" (Daly and Cobb 1994, p.138) defined as "the branch of political economy relating to the manipulation of property and wealth so as to maximize short-term monetary exchange value to the owner". "Oikonomia" or economics by contrast, is defined by Daly as "the management of the household so as to increase its use value to all members of the household over the long run."



Notes: VA is value added, WN is compensation of employees, "fin" means finance and insurance, "fire" means finance, insurance, and real estate. For "NIPA", the data source is the BEA, and for "Hist" the source is the Historical Statistics of the United States.

Figure Twelve: Growth of the Finance Sector<sup>8</sup>

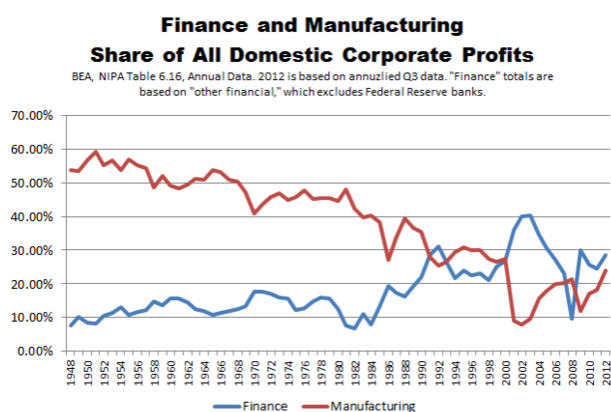


Figure Thirteen: Share of US Profits<sup>9</sup>

The classical definition of “investment” in economics is input of money or resources into an enterprise for the purpose of increasing the productive capacity of the firm such as the purchase of new capital equipment, labor, intellectual property, or production facilities, also called “capital formation”. The definition of “investment” in finance is putting money into an asset with the expectation of gain. This does not require any contribution to the productive assets of any enterprise, and is merely financial assets exchanged for other financial assets, with no intermediary product or service produced, what Marx called M-M\*. An example is buying and selling existing real estate or stocks, where nothing is actually produced, except “liquidity”. This type of activity is mainly extractive, so it is listed separately from commercial investment capital. “... nearly all financial observers expected banking to become the economy’s industrial planning agency, alongside government. But contrary to their expectation that banking would become industrialized, the opposite has occurred: Industry has been financialized. Companies are being turned from means of production into vehicles to extract interest, generate banking fees and register stock market gains for the banking and financial sector” (Hudson 2010). In financialization, the creation of money or claims on future production is confused with the production of wealth, which are real

<sup>8</sup> (Philippon 2012, p. 7)

<sup>9</sup> <http://www.theatlantic.com/business/archive/2013/03/how-wall-street-devoured-corporate-america/273732/>

goods and services. The financial sector makes no distinction between the two, and engages primarily in the extraction of wealth from society.

### 3.1.1 Capital Gains Tax Reduction

As shown in figure 14, capital gains taxes have been reduced over time from a high of 40% in 1975 to their rate of 15% as of 2008. The effective rate is much lower. “Absent a convincing estimate of the effective capital gains tax rate, I assume that the effective rate is 50% as large as the statutory rate” (Gruber, 2006, p.14). They have also lobbied for loopholes such as the rollover rule on real estate, meaning if a new property is purchased then the capital gain is not taxed. According to D.C. Johnson, the “step-up in basis” allows property to be transferred to heirs at its original purchase price, with no tax obligation (Johnson, Ch. 6). Warren Buffet noticed that his secretary was taxed at a higher rate on her wages than he was on his capital gains, and he publicly called for equalizing the tax rates. This is the origin of the so-called Buffet rule<sup>10</sup>. The reduction in capital gains taxes is due to relentless lobbying on the part of the wealthiest Americans and corporations.

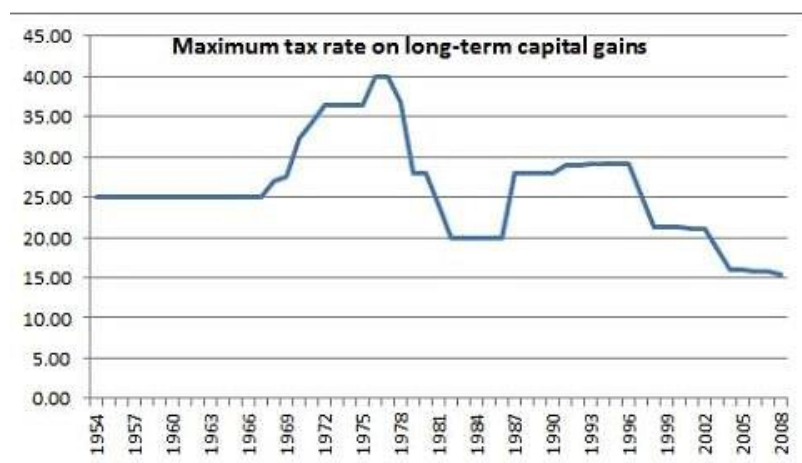


Figure Fourteen: Changes to Tax on Capital Gains<sup>11</sup>

### 3.1.2 Hostile Takeovers, Leveraged Buyouts, and Stock Repurchases

One of the parasitic activities engaged in by the financial sector is buying companies on credit, such as with junk bonds, then downsizing employees, or looting pensions funds to pay interest on the debts incurred for the hostile takeover, and finally selling the companies for a capital gain.

“Following an acquisition of this type, the buyer usually cuts wages, lays off many employees, raises leverage, eliminates executive perquisites, and in general significantly tightens operations.”

(Shleifer, Summers, 1988, p. 42) An entire industry of hedge funds and private equity firms specialize in these activities. “Capital formation today is financed mainly out of retained business earnings. The stock market was supposed to supply investment funding, but since the 1980s it has

<sup>10</sup> [http://www.whitehouse.gov/sites/default/files/Buffett\\_Rule\\_Report\\_Final.pdf](http://www.whitehouse.gov/sites/default/files/Buffett_Rule_Report_Final.pdf)

<sup>11</sup> [http://krugman.blogs.nytimes.com/2012/01/18/the-history-of-capital-gains-taxes/?\\_r=0](http://krugman.blogs.nytimes.com/2012/01/18/the-history-of-capital-gains-taxes/?_r=0)

and <http://www.taxpolicycenter.org/taxfacts/displayafact.cfm?Docid=161>

been turned into a vehicle for corporate raiding. By permitting interest to be tax-deductible and taxing capital gains at low rates (and often not at all), the tax code favors replacing equity with debt. The effect is to make asset-price inflation the quickest mode of “wealth creation”—buying real estate, monopolies and financial securities on credit, and hoping to emerge with a ‘capital gain’” (Hudson, 2010, p. 82). In order to prevent hostile takeovers, corporations engage in massive repurchasing of their own shares. The added advantage is it drives up stock prices which increase the value of executive shares. “Companies in the Standard & Poor’s 500 Index....They’re poised to spend \$914 billion on share buybacks and dividends this year, or about 95 percent of earnings, data compiled by Bloomberg and S&P Dow Jones Indices show” (Wang & Bost 2015). “Why are such massive resources being devoted to stock repurchases?...Stock-based instruments make up the majority of their pay, and in the short term buybacks drive up stock prices. In 2012 the 500 highest-paid executives named in proxy statements of U.S. public companies received, on average, \$30.3 million each; 42% of their compensation came from stock options and 41% from stock awards. By increasing the demand for a company’s shares, open-market buybacks automatically lift its stock price, even if only temporarily, and can enable the company to hit quarterly earnings per share (EPS) targets” (Lazonick, 2014).

### **3.1.3 Control Fraud**

Due to rampant speculation, mortgage fraud, securitization fraud, and what William Black calls “control fraud”<sup>12</sup>, the financial sector experienced a massive collapse in 2008. Black defines “control fraud” as executives using the company as a weapon to achieve massive payments for themselves of salaries, bonuses, and stock options based on fictitious “profitability” of the firm, prior to collapse. Following free market principles these bad decisions would have resulted in bankruptcy for these companies. Instead a massive taxpayer and Federal Reserve financed bail-out took place. Since 2008, no one in the financial sector has been indicted or held accountable for massive fraud and malfeasance. During the S&L crisis in the 1980’s one thousand bankers were convicted of felonies<sup>13</sup> and did jail time. The Global financial crisis in 2008 was 60 times bigger than the S&L crisis and not one banker was indicted. This indicates the magnitude of the capture of the government and regulatory mechanism by the finance industry.

### **3.1.4 Relationship between Fire Sector and Government**

Hudson notes in figure 15, the relationship between the FIRE sector and government, with FIRE making campaign contributions to candidates, and government returning the favor with bailouts. What is not listed is the revolving door between financial firms and the national government, especially the Treasury Department, and tax breaks and subsidies received by the financial industry. Finance also has a monopoly on monetary policy through the private federal reserve bank, which serves the banking sector.

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<sup>12</sup> Black, William K., Epidemics of 'Control Fraud' Lead to Recurrent, Intensifying Bubbles and Crises (April 15, 2010). Available at SSRN: <http://ssrn.com/abstract=1590447> or <http://dx.doi.org/10.2139/ssrn.1590447>

<sup>13</sup> ibid

Interaction Between the FIRE and Government Sectors

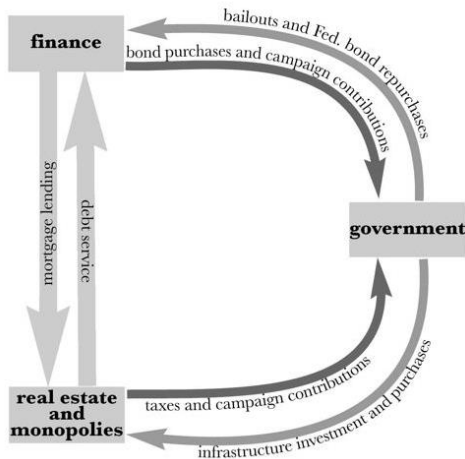


Figure Fifteen: Relationship between FIRE Sector and Government<sup>14</sup>

3.1.5 Deregulations and Inequality

As financial deregulation progresses, inequality increases, as shown in figure sixteen above. Two key bills deregulated finance under President Clinton. They first was the Gramm–Leach–Bliley Act also known as the “Financial Services Modernization Act of 1999”, which abolished the Glass–Steagall Act of 1933 separating Investment and Commercial banks. The second was the Commodity Futures Modernization Act of 2000 which deregulated derivatives. Financial industry lobbying goes on worldwide. The Corporate Europe Observatory (CEO), in their 2014 report found that the finance industry employs 1700 lobbyists spending 123 million Euros influencing EU financial policy, as compared with NGOs, trade unions and consumer organisations together spending a total of 4 million Euros, which is a 30:1 advantage for finance (Wolf 2014, p. 15).

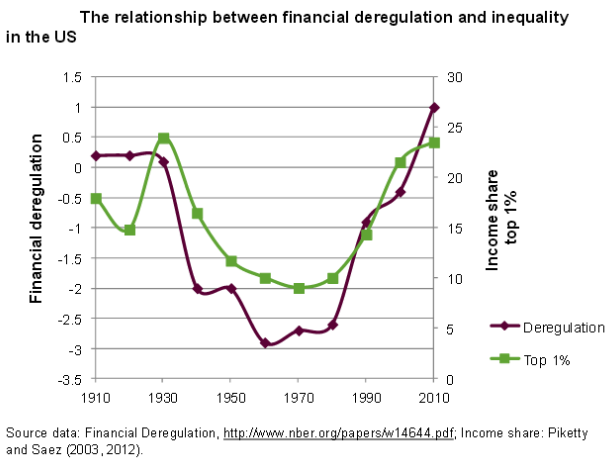


Figure Sixteen: Financial Deregulation and Inequality<sup>15</sup>

<sup>14</sup> From Hudson, 2012, ch. 17 endnotes

<sup>15</sup> Oxfam, 2014, p. 12

### **3.1.6 Solutions to FIRE Sector Financialization**

#### **3.1.6.1 Return of Democracy**

The primary reform necessary to re-regulate finance and other benefits of the wealthy in the US is the return of democracy. Campaign finance reform is an important element of that. As long as money is defined as a form of “political speech”, then very little change will be possible. “Move to Amend” and other organizations are working for a constitutional amendment to overturn the Citizens United Supreme Court ruling.

#### **3.1.6.2 Financial Transaction Taxes**

There are a number of solutions to the problem of asset speculation that could be brought to bear on financial markets. One of the most widely known is the Tobin Tax, or a tax on financial transactions. Even a small amount such as .25% would generate a tremendous amount of revenue, and could have a dampening effect on speculation, especially computer arbitrage. Dean Baker has made numerous calculations of the revenue available from financial transaction taxes on stocks, bonds, commodities, swaps, currencies, etc. amounting to as much as US\$354 billion (Baker, et al 2009). Legitimate transactions would be little affected, but high volume computer arbitrage would be discouraged. Several economists have suggested abolishing derivatives entirely, which are simply bets on the movement of prices of commodities, bonds, or equities.

#### **3.1.6.3 Buffet Rule and Control Fraud**

An important remedy is the “Buffet Rule” or to tax capital gains at the same rate as other income or up to 35%. Real estate capital gains could be mitigated by taxes on the annual economic rent of land, which will be discussed in a later section. In order to prevent control fraud, government enforcement will have to be restored, and bankers will have to face jail time. Since very few of these reforms have been implemented, the most likely scenario is another collapse of the financial sector due to overleveraging, derivatives, or fraud.

#### **3.1.6.4 Return Glass-Steagall**

Reinstatement of the “Glass-Steagall” act separating commercial banks and investment banks is essential. Depositor funds are now at risk, since banks have agreed to use “bail-ins” of depositor funds in the future to cover banking losses from speculation. This retains the “moral hazard” that led to the 2008 global financial crisis. Abolishing or limiting derivatives may be necessary.

### **3.2 Commercial Credit, Interest and Money creation-Rule #2 Nominal Marginal Tax Rate 35%**

The issuance of credit is of crucial importance to advanced economies. Private banks create 97% of the money supply through interest bearing loans<sup>16</sup> primarily for real estate, but also to support business development through commercial loans. Banks create this money supply through fractional reserves, because they only need to keep 10% on hand to meet the needs of depositors according to current Fed fractional reserve requirements<sup>17</sup> in the US. Britain has no reserve requirement. Modern Monetary Theory and Endogenous money theory posit that banks actually

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<sup>16</sup><http://www.bankofengland.co.uk/publications/Documents/quarterlybulletin/2014/qb14q1prereleasemoneycreation.pdf>

<sup>17</sup> <http://www.federalreserve.gov/monetarypolicy/reservereq.htm>

loan out as much as possible to credit worthy borrowers, and find reserves later through deposits, interbank borrowing, or central bank discount window borrowing, but in that case the reserve rate would provide even less of a limitation. For purposes of discussion here, it is sufficient to understand that banks create most of the money supply and it is done through private loans, primarily for real estate<sup>18</sup>.

Banks are not acting as an intermediary for savers, as most people think, but create loans as new money in the borrowers account electronically<sup>19</sup>. They receive interest on money they create “from thin air”, rather than as a service charge for acting as an intermediary by loaning out funds of savers. Bankers manage risk, but their ability to add to the money supply is a government privilege, and fractional reserves require FDIC insurance to protect against bank runs. If banks simply loaned out funds that were placed on term deposits, then there would be no need for FDIC insurance, as the amount loaned out would be exactly equal to the amount on deposit and there would be no leverage to create problems (Dyson, et al 2014, p. 19).

### **3.2.1 Growth Imperative**

Since interest to repay loans is not created at the same time as the original loans, the result is a growth imperative. The economy must grow in order to generate money to repay interest on the loans, and the value of the currency is constantly depreciating since the money supply must constantly expand to pay back interest. One dollar in 2014 is equivalent to four cents in 1913 according to the Bureau of Labor Statistics inflation calculator<sup>20</sup>. That means that the dollar has depreciated by a factor of 25 in 100 years, or 3.27% per year compounded annually. The growth imperative of debt-based money is of interest to ecological economists as one of the fundamental root-cause drivers of the growth society. The constantly depreciating currency is built into all economic models as the 2-3% annual price inflation expected under normal conditions. It is never even questioned. Why isn't money stable like a yardstick? Every dollar created has interest attached, even private central bank money which is loaned to government at interest. Only coins and notes are created without interest.

### **3.2.2 Driving Inequality**

The most insidious and virtually unknown factor about the monetary system is the fact that the monetary system itself, at its core, redistributes money from the lower 80% of society to the upper 10%, with the 80-90<sup>th</sup> percentile breaking even (Figure 17). Most people are net debtors, and only a few are net lenders, and most of the money supply is created through interest-bearing debt. Most people hold mortgages for their primary residence, and many have loans for their automobiles. Many people have unpaid school loans, and some have loans for their business or venture, and credit cards. Only 10% of the population, according to Creutz, are net lenders who have money invested in banks, bonds, and other interest bearing vehicles, and thus are the net recipients of all the interest payments of the bottom 80% of the population. So the monetary system itself pumps money from the poor to the already rich.

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<sup>18</sup><http://www.bankofengland.co.uk/publications/Documents/quarterlybulletin/2014/qb14q1prereleasemoneycreation.pdf>

<sup>19</sup> Ibid, page 1

<sup>20</sup> [http://www.bls.gov/data/inflation\\_calculator.htm](http://www.bls.gov/data/inflation_calculator.htm)

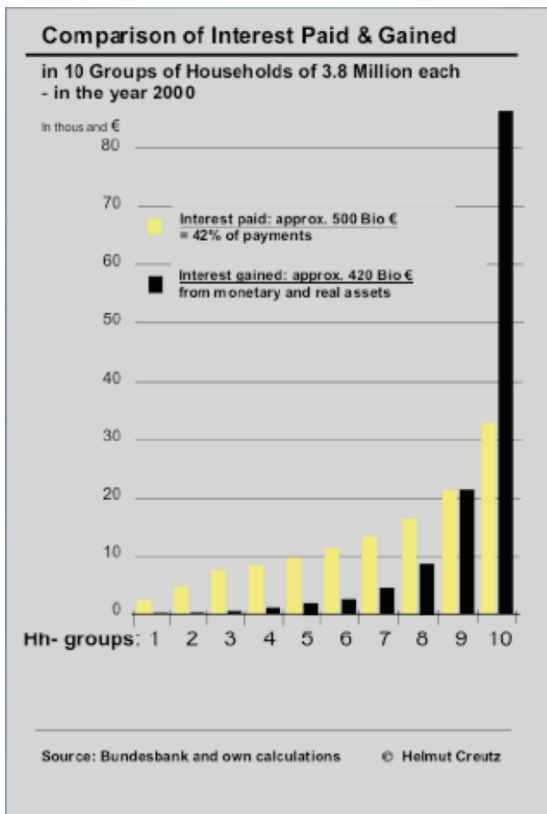


Figure Seventeen: Interest Paid and Received by Decile<sup>21</sup>

### 3.2.3 Interest Costs

Another impact of the current debt-based money system is the huge impact of interest on the cost of everything we use. The percentage of capital costs of various items determines the amount of interest paid for these items, which determines the interest paid to banks for the creation of everyday items like housing, drinking water, and waste collection. On average we pay about 40% interest in all the prices of our goods and services (Figure 18). This interest is paid to banks, so also goes to shareholders, which are the top 10% wealthiest of society. In addition, interest income is treated more favorably than wages and taxed a lower rate. “Carried interest” or management fees of hedge funds and private equity is another payment to corporate managers which is taxed at the lower capital gains rate, rather than regular income rate.

<sup>21</sup> The Money Syndrome Helmut Kreutz, page 18 via Margrit Kennedy

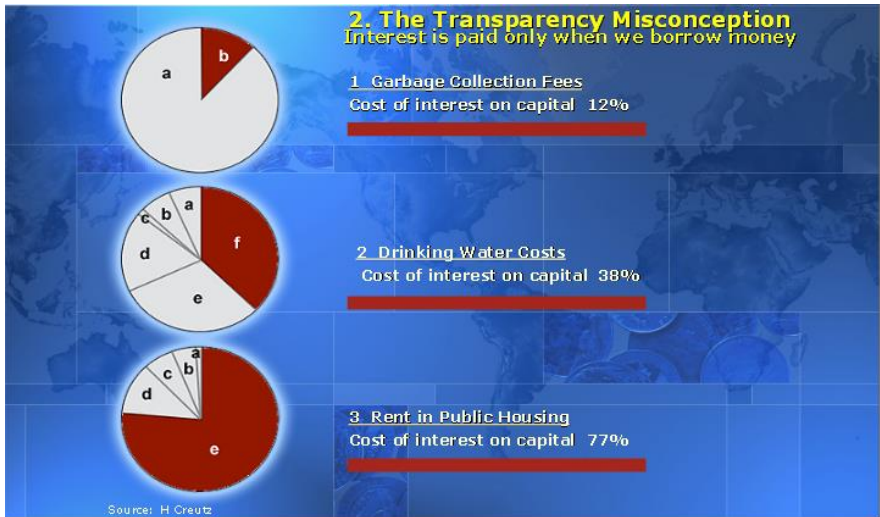


Figure Eighteen: Cost of Interest Payments

### 3.2.4 Asset Bubble

Critics of 100% reserve requirements warn that governments cannot be trusted to regulate the money supply and will overprint it leading to rampant inflation in the real economy. This did not happen in Canada prior to 1974, when Canada issued its currency essentially interest free through loans to the government. The private Federal Reserve Bank has engaged in a huge increase in the money supply since the global financial crisis in 2008 through quantitative easing, which has primarily been for the purchase of mortgage backed securities from banks and Treasury bonds (Figure 19). Since banks mainly invest in equities, real estate, and bonds, and not in the industrial economy, true to theory, this has created price inflation in the stock, housing and bond markets (Figure 20). Inevitably this new bubble will burst leading to calls for another bailout of the TBTF banks.

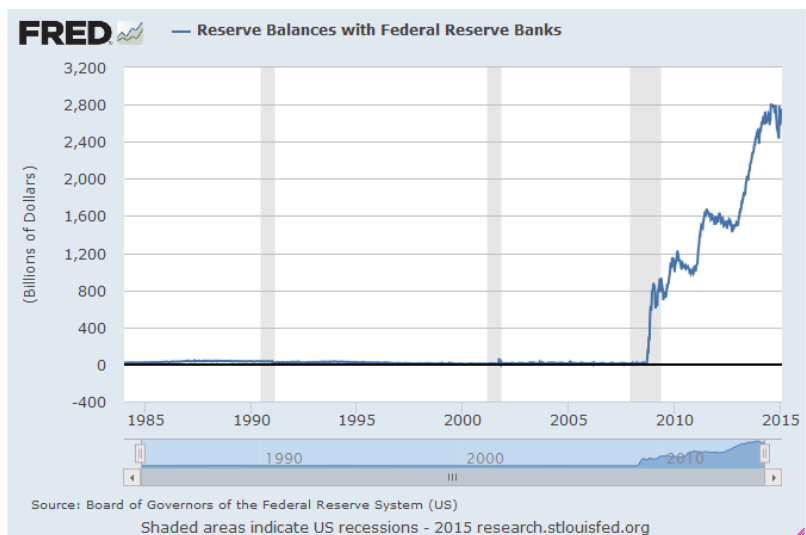


Figure Nineteen: FED Money Supply

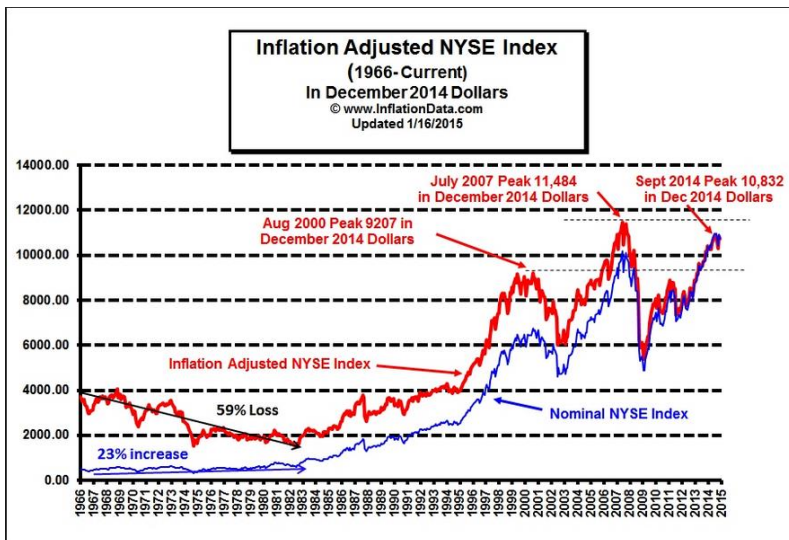


Figure Twenty: Stock Index

### 3.2.5 Solutions

#### 3.2.5.1 100% Reserve Requirements

The fact that 97% of the money supply is created by interest bearing loans is the crux of the problem. As we have shown it transfers money from the poor to the rich, adds the cost of interest to everything, creates perpetual inflation, and causes a growth imperative due to the need for economic expansion to provide the money for interest payments. Many economists and writers over the years have recommended 100% reserve requirements, most recently in an IMF working paper entitled, "The Chicago Plan Revisited" (Benes, Kuhhof, 2012). This refers to the plan by University of Chicago economists led by Frank Knight in the 1930's and also supported by Irving Fisher and Henry Simons, to require 100% reserve requirements on all bank loans, and require government to provide the entire money supply. Ecological Economists have also advocated 100% reserve requirements since this would eliminate the creation of new money with interest, if government issued it interest free for the purchase of public goods (Farley, et al 2013). Public money advocates have suggested turning the money supply over the US Treasury department, but others suggest a more decentralized approach of public credit at the state or local level. Crypto and digital currencies are also gaining ground, and may lead to a decentralized alternative to the monopoly of the private banking sector over the money supply.

Interest payments for commercial credit are taxed the same as interest income gained by banks for speculative investments. No distinction is made between earned and unearned income, or productive vs, speculative investments. Productive investment should be treated more favourably than unproductive speculative investment.

#### 3.2.5.2 Public Banks and Complementary Currencies

Another solution being proposed recently is the creation of public banks like the Bank of North Dakota. In this scenario all government revenues at the state or local level are deposited in a publicly owned bank. The bank engages in housing, infrastructure, student, or economic development loans, and all the interest is returned to the public purse. This is a partial solution that returns some seigniorage to the public. Complementary currencies are another approach that

has been used successfully at the local and state level in the past, including Argentina during their recent financial crisis.

### **3.2.5.3 Interest-free money**

US Treasury Notes, Greenbacks, Colonial scrip, Continentals, and Canadian Central Bank notes before 1974 were all issued without interest. Continentals were successfully destroyed by British counterfitting. Colonial scrip worked well and was banned by Britain helping to lead to the US secession from England. Lincoln issued Greenbacks interest-free to pay for the Northern US war against Southern states' secession, rather than pay extortionate interest demanded by New York bankers. After Lincoln's death Greenbacks were no longer issued. Canada's government began borrowing its currency in 1974 at the insistence of the Bank for International Settlements (BIS), and its debt skyrocketed thereafter. On January 26, 2015 a lawsuit challenging the Bank of Canada to return to interest free sovereign money issuance was won in the Appeals Court of Canada (Financial Independence Hub, 2015). The island of Guernsey has also issued its currency historically interest-free for construction of public infrastructure. The private banking system has privatized the right of sovereign states to create the money supply. Returning the right to create the money supply interest free to sovereign states is a fundamental change needed to solve the money problem.

### **3.2.5.4 Distinction Between Earned And Unearned Income**

Interest payments for commercial credit are taxed the same as interest income gained by banks for speculative investments. No distinction is made between earned and unearned income, or productive vs, speculative investments. Productive investment should be treated more favourably than unproductive speculative investment. Collection of taxes on economic rent, would make the distinction between earned and unearned income. The Glass-Steagall Act should be reinstated separating "investment" banks from commercial banks issuing credit for homes or business.

### **3.3 Land Rent and Housing-Rule #3 Nominal Tax Rate 1.5-2.5%**

"Flatters, Henderson, and Mieszkowski [1974], and Stiglitz [1977] have shown that in a simple spatial economy, where the spatial concentration of economic activity is due to a pure local public good and where population size is optimal, aggregate land rents equal expenditure on the pure public good. This result has been dubbed the Henry George Theorem (HGT)...(Arnott and Stiglitz, 1979, p. 471-471). This sums up one of the essential problems with the privatization of land rent. Land rent or the annual return to land is primarily due to the expenditure by government on public goods. Other factors include population growth, business development, access to transportation, etc. Ricardo first published his law of rent, explaining that land is pre-existing and not produced, and those who have title receive rent, equal to the agricultural output of any piece of land over the worst available land. The concept of rent has been expanded to include any unearned income from land due to location, fertility, mineral content, scarcity, etc. Adam Smith, John Stuart Mill, and Thomas Paine all held that the return to land being unearned belonged to society as a whole and not to the owner.

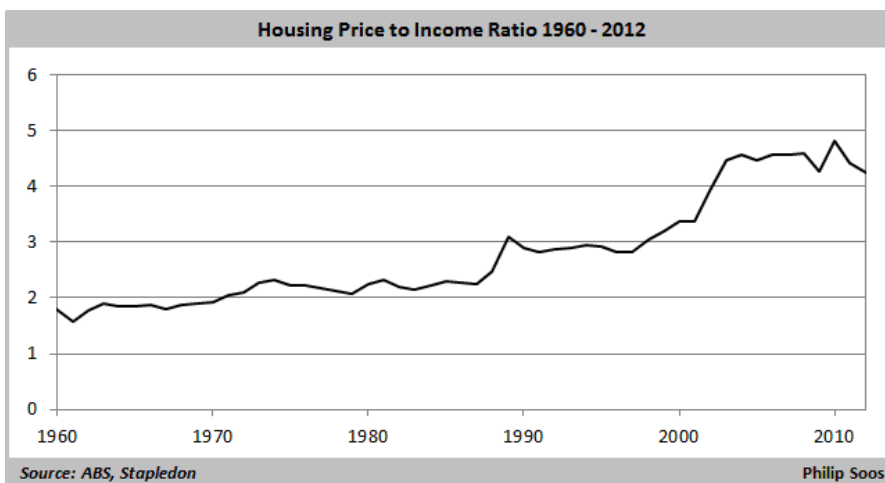
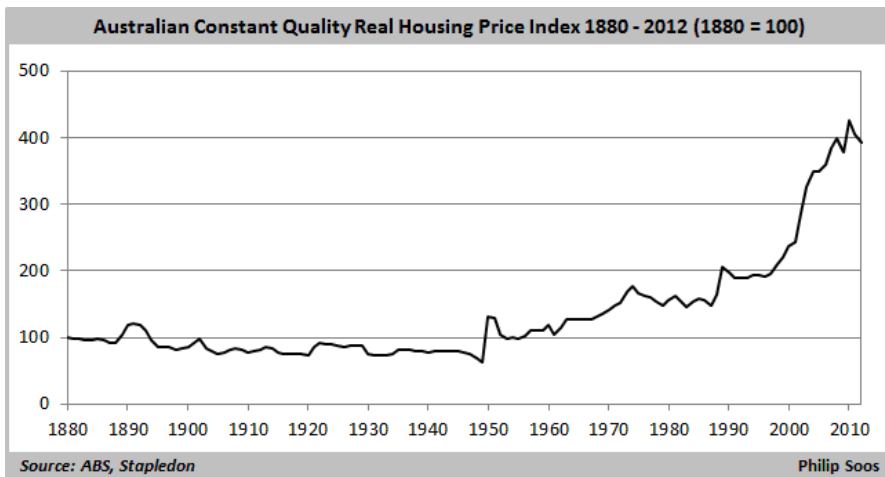
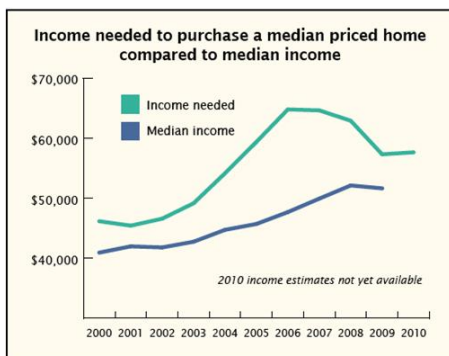


Figure Twenty-one and Twenty-two: Real Housing Costs and House Price/Income Ratio<sup>22</sup>



SOURCE: "INCOME NEEDED" ESTIMATES ARE BASED ON VT PROPERTY TRANSFER TAX DATA AND AFFORDABILITY ASSUMPTIONS LISTED IN ENDNOTE 8. "MEDIAN INCOME" ESTIMATES ARE BASED ON DATA FROM THE 2000 CENSUS AND THE AMERICAN COMMUNITY SURVEY FROM THE U.S. CENSUS BUREAU AND ON VERMONT INCOME TAX SUMMARY DATA FROM THE VT DEPARTMENT OF TAXES.

Figure Twenty-Three: Median House to Median Income Ratio, Vermont

Currently unearned income from land (land rent) accrues to landowners. As of 2012 Q3 data, 29% of US homeowners own their property "free and clear" (Zillow, 2015). Therefore most of real estate equity is held by banks. Landowners pay minimal land tax of 2-2.5% as part of the local real estate tax in most US jurisdictions. Land rent absorbs most of social surplus driving wages to subsistence. Median income is less than needed for median house mortgage payment or median

<sup>22</sup> Philip Soos, <http://www.prosper.org.au/2013/02/22/a-long-ugly-list-of-house-price-precedents/>

rent in many places. The “Wage Gap report” (Figure 23) from the state of Vermont documents that the median income required to pay the mortgage on a median house exceeds the actual median income of Vermont residents by \$5000-\$20,000 in any given year. In recent years land values have increased far faster than wages.

As shown by Figures 21 and 22 for Australia, the housing price index has risen in real dollars by a factor of four since 1960. This is exactly what we would expect of an asset with a limited supply or nearly vertical supply curve. In terms of average incomes housing prices have gone from under 2yrs of annual income to over four. Land prices increase on average 6-7% per year, and prior to the financial crisis were increasing by 20% annually in the US. Ebitda stands for (earnings before interest, taxes, depreciation, amortization). For real estate investors depreciation, interest, taxes, and maintenance costs are all deductible from income. For homeowners in the US only mortgage interest and taxes are deductible. Real estate investors are also able to depreciate buildings to reduce their tax burden:

“Land is not depreciable. Being supplied by nature, it has no cost of production. It is not used up in production, nor does it become technologically obsolete. Yet most property assessors pro-rate each sales price so that the value of buildings appears to rise proportionally to the overall gain. After they have been depreciated once, buildings can be resold and depreciation write-offs can start all over again, without limit—at so high a rate as to offset a large portion of the new landlord’s erstwhile taxable income. This poses a logical problem: How can buildings gain in assessed valuation if they are supposed to be depreciating? Indeed, how can the economy’s most sustained capital gain—that of real estate—reasonably be depicted as operating at a loss for years on end? The explanation is to be found in the ability of lobbyists to find lawmakers willing to distort the tax code’s “small print” in a way that makes owning real estate much like owning an oil well in the heady days of the oil-depletion allowance. No profit appears in this “Hollywood accounting.” From the 1954 tax act through its sequels in 1972, 1979 and the Economic Recovery Tax Act of 1981, the depreciation treatment. When one finds a statistical distortion at work, a special interest is almost sure to be involved. Misrepresentation and a false empiricism becomes a highly professionalized part of the economics of deception. The result is junk statistics. Replacement-cost accounting assumes a higher value for buildings, and hence a higher write-off each time a new buyer plays the game. But unlike investment in machinery, property tends to rise in price, thanks to the land’s rising site value. The deception that buildings are depreciating results in a fictitiously high ratio of ostensible building valuation to land. Precisely because the land site ostensibly cannot be depreciated, the tax privilege of depreciating buildings provides a motive for maximizing their valuation.... Despite the reported net \$5.1 billion pretax loss, \$5.9 billion after-tax loss and \$1.2 billion negative cash flow in 1990, real estate corporations paid \$3.9 billion in dividends and were the largest source of interest for banks, maintaining the almost steady rise during the postwar period. Yet the NIPA show it often not to be earning any income and paying almost no income tax.” (Hudson, 2010)

### 3.3.1 Solutions

Arnott and Stiglitz sum up one solution to the land problem as follows: "...since a confiscatory tax on land rents is not only efficient, it is also the "single tax" necessary to finance the pure public good" (Arnott and Stiglitz, 1979, p. 471-471). If holding costs are less than the annual capital gains, then financiers will continue to speculate on land and housing. If land tax or capital gains taxes removed the unearned income from real estate, then land would no longer be subject to speculation or bubbles. Other options include leasing land as Singapore and Hong Kong do, or placing land in community land trusts which remove land from the market, and eliminate the speculative gain with limited-return contracts.

### **3.3.2 Natural Resources and other common assets**

Taxation of throughput includes taxes on depletion, land use, and pollution. Many valuable and depleting natural resources are not adequately taxed, leading to greater income inequality. For example, the Mining law of 1872 still guides the purchase of federal mineral bearing land for \$5 per acre. Vast tracts of the Gulf of Mexico were exempted from oil royalties during the Bush Administration. 98% of the broadcast spectrum has been given away for free to media companies and only 2% auctioned. Bottled water companies take ground water usually for free. The list is extensive. In addition it is justifiable to collect rent for the use of the atmosphere as a dump for wastes such as pollution from coal power plants including mercury, particulates, radon, sulphur, nitrogen, and carbon dioxide. These could take the form of taxes or cap and permit payments. Taxation of throughput can be implemented as a tax shift off of more regressive forms of taxation, or by the collection of economic rent, which by definition has no impact on investment decisions. Taxation of throughput and land also results in more efficient use of land and resources, and less pollution. According to studies of taxation of economic rent, it could be possible to replace all taxes with charges on economic rent from land, natural resources, and socially created assets (Fitzgerald, 2013).

### **3.4 Wages-Rule #4 Nominal Marginal Tax Rate 35%**

One major factor contributing to inequality since the 1970's is the stagnation in real wages while productivity continued to rise. "We call the post-World War II institutional arrangements the *Treaty of Detroit*, after the most famous labor-management agreement of that period. This agreement was replaced in the 1980s and surrounding years by another set of institutional arrangements we call the *Washington Consensus*" (Levy & Temlin, 2007, p. 6). According to Gregory Mankiw, Chairman of the Economics Department at Harvard, "Economic theory says that the wage a worker earns, measured in units of output, equals the amount of output the worker can produce<sup>23</sup>." In developed countries there was a trend for wages to follow the increase in labor productivity until the early 1970s, then this relationship completely broke down. Productivity continued to increase at a rapid rate, especially after the invention of the internet, but real wages remained constant for the next 40 years in the US (Figure 24). History doesn't follow economic theory.

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<sup>23</sup> <http://gregmankiw.blogspot.com.au/2006/08/how-are-wages-and-productivity-related.html>

## Since 1979, productivity has risen eight times faster than pay

*Disconnect between productivity and typical worker's compensation, 1948–2013*

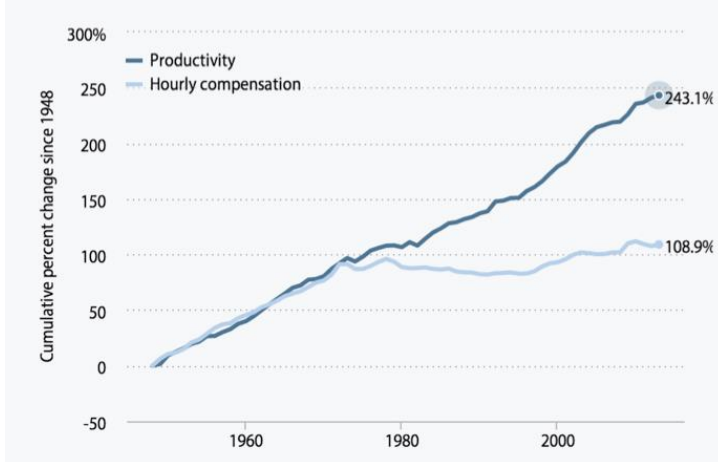


Figure Twenty-Four: Productivity to Wage Ratio<sup>24</sup>

One exception is Marxist economist Richard Wolff.

“By the end of the decade, a new president [Reagan] was elected who identified the state and unions as special interest groups that threatened all Americans. With compliant legislators and public opinion makers, he attacked unions, reduced chiefly corporate taxes and individual taxes on the rich, and deregulated...More surplus value was thereby produced and more was freed (by lower corporate tax obligations) to be redirected to...the costly shift of production facilities outside the United States where wages and other costs were far lower. A substantial and sustained entry of women into the labor force...only added to the downward pressure on real wages. Computerization of most workplaces across the country, starting in the 1970s, also changed the supply and demand conditions in labor markets to the detriment of real wages. Massive immigration in search of jobs and the American dream, actively abetted and abused by countless employers, likewise operated to undermine real wage increases” (Resnick and Wolff, 2010, P. 178).

Wolff also points out that banks, now in possession of huge surpluses from corporations, loaned money to workers to replace their previous increase in wages. This debt peonage, further enriched the financial sector and impoverished workers.

<sup>24</sup> Economic Policy Institute

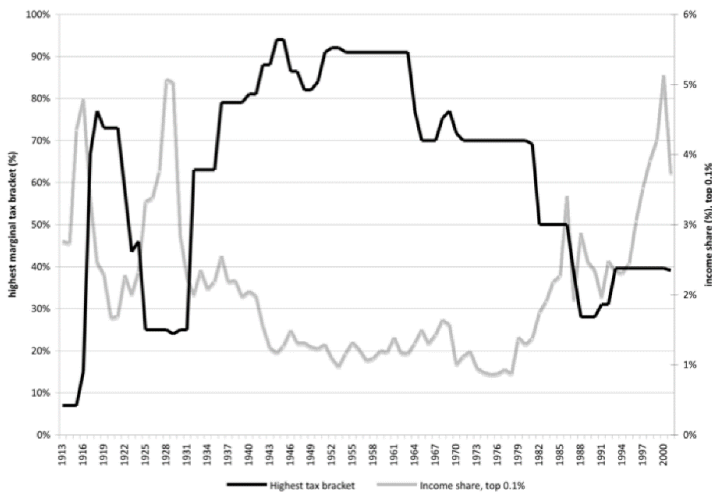


Figure Twenty-Five: Inequality and Marginal Tax Rates<sup>25</sup>

During this stagnating period of real wages, the highest marginal tax rate was reduced from 70% to below 40%. The resulting inequality demonstrated by the rising income share of the top .1% is shown in Figure 25. As a result of the financial crisis there was a huge increase in unemployment, leading to loss of income, foreclosures, loss of savings, and loss of assets, adding to the increase in inequality and resulting social problems.

### 3.4.1 Solutions

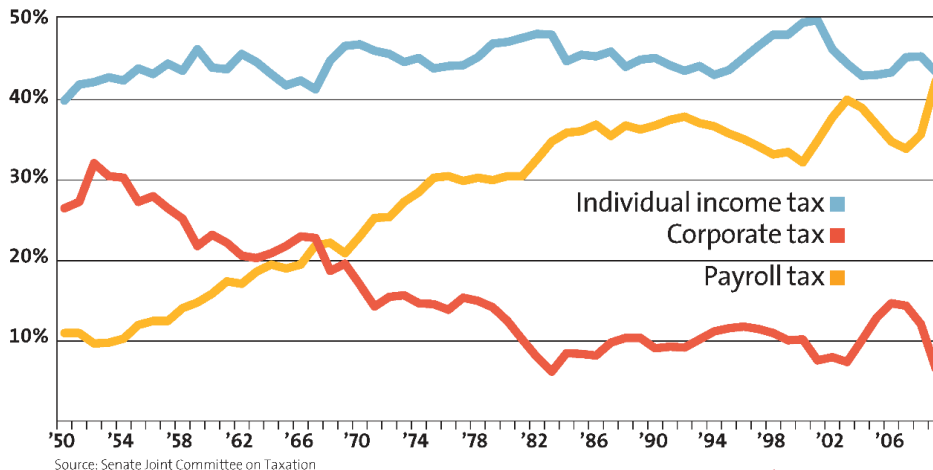
During the time of the “Treaty of Detroit”, labor received a share of increasing productivity in industry. As de-industrialization took place, this agreement broke down, contributing to the stagnation of real wages. A mandate for correlation between labor productivity and wages would remedy this situation. Many have advocated worker ownership, and worker control or participation in corporate boards of directors, replacing stockholders with stakeholders on corporate boards. Coops, ESOPS, and other forms of worker ownership have been proposed as remedies for the loss of economic power by workers. A basic unconditional income to all citizens or negative income tax has been proposed as a means to give people subsistence income, not dependent on employment, and greater bargaining power. Government health care such as Medicare for all would remove the employment requirement for health care coverage.

The original income tax in 1913 taxed only incomes above \$3000 (Wikipedia). That is equal to \$71,738 in 2014 dollars (BLS.gov), so clearly the income tax has become much more regressive, since the current standard deduction is only \$10,150 for a single person (irs.gov 2014). Increasing the standard exemption to median income or above, and revising the payroll tax to include a standard exemption would aid greatly in reducing inequality.

### 3.5 Business Profits-Rules #5 Nominal Marginal Tax Rate 35%

<sup>25</sup> Farley et al 2013

## SHARE OF FEDERAL TAX REVENUE



Mother Jones

Figure Twenty-Six: Share of Federal Tax Revenue<sup>26</sup>

### 3.5.1 Reduction in Corporate Taxes

As shown in Figure 26, over the decades, corporations were able to influence tax policy and drastically reduce their share of taxation, while increasing it for individuals. Payroll tax is currently only charged on incomes below \$118,500 (SSA 2015). Income above that amount is exempt. Secondly, every dollar of income starting from zero is taxed for payroll taxes, unlike income taxes which have a standard exemption of around \$10,150 (irs.gov 2014). Both of these factors make the payroll tax highly regressive. The graph above shows the increase in payroll tax percentage equals or exceeds the decrease in corporate tax percentage, although payroll tax did not replace corporate tax. Payroll taxes fund Social Security and Medicare, which is supposed to be a “trust fund”, entirely separately from income taxes which fund government. In reality it has been placed in the general fund for current expenses, and payments to retirees have been turned into a pay-as-you-go system. The decrease in corporate taxes is probably better explained by the increases in government annual deficit and cumulative debt. At the same time the highest marginal tax rate on individuals was lowered from 90% to 40%. The resulting inequality illustrated by the top .1% income share is shown as a strong inverse correlation to the marginal income tax rate as seen in figure twenty-four.

### 3.5.2 Favoritism for Business

Calvin Coolidge once said that, “The business of America is Business”. Tax laws certainly favour business over people. Businesses are defined as “artificial persons” for legal purposes as compared with human beings which are defined as “natural persons”. Natural persons are taxed on Gross income with minor deductions, while artificial person are taxed on NET income deducting nearly all

<sup>26</sup> <http://www.motherjones.com/files/shareoffederal.pdf>

their costs of operation. Many corporations offshore their income, pay no taxes, or get a refund. A partial list of tax deductible items for business follows (irs.gov):

Accounting fees, Advertising, Bank charges, Commissions and sales expenses, Consultation expenses, Continuing professional education, Contract labor, Credit and collection fees, Delivery charges, Dues and subscriptions, Employee benefit programs, Equipment rentals, Factory expenses, Insurance, Interest paid, Internet subscriptions, domain names, and hosting, Laundry, Legal fees, Licenses, Maintenance and repairs, Office expenses and supplies, Pension and profit-sharing plans, Postage, Print and copy, Professional development and training, Professional fees, Promotion, Rent, Salaries, wages, and other compensation, Security, Small tools and equipment, Software, Supplies, Taxes, Telephone, Trade discounts, Travel, Utilities.

Few or none of these are available to individuals. Most of the 14<sup>th</sup> amendment “equal protection” cases in the US have been filed on behalf of corporations claiming their rights have been violated with respect to natural persons. Clearly there is a legitimate question under the 14<sup>th</sup> amendment to the constitution if natural persons should have an equal right to deduct these expenses claimed by business.

### **3.5.3 Tax evasion by Offshoring**

Tax evasion by corporations and wealthy individuals using profit shifting, transfer pricing, inversions (becoming subsidiaries of foreign branches or companies) and other methods in offshore tax havens is a big enough problem that it was a major agenda item at the recent G-20 summit in Brisbane, Australia. Recent tax discussions in the US reveal that US companies have about \$2 trillion of profits hidden offshore (Welch, Baigorri, 2014). The Congressional Research Service estimates that wealthy individuals evade between \$40-\$70 billion in taxes offshore, and corporations from \$10-\$90 billion or higher (Gravelle 2015, P. 1) annually.

### **3.5.4 Tax Avoidance**

A recent report looks at the profits and U.S. federal income taxes of the 288 Fortune 500 companies that have been consistently profitable in each of the five years between 2008 and 2012. The report found that, “As a group, the 288 corporations examined paid an effective federal income tax rate of just 19.4 percent over the five-year period — far less than the statutory 35 percent tax rate. Twenty-six of the corporations, including Boeing, General Electric, Priceline.com and Verizon, paid no federal income tax at all over the five-year period. A third of the corporations (93) paid an effective tax rate of less than ten percent over that period. Of those corporations in our sample with significant offshore profits, two-thirds paid higher corporate tax rates to foreign governments where they operate than they paid in the U.S. on their U.S. profits” (McIntyre, et al 2014, P. i). So in addition to paying lower rates over the last several decades, many profitable corporations are able to greatly reduce their taxes or paying nothing at all. This has also contributed to shifting the taxes onto less wealthy individuals.

### **3.5.5 Solutions**

Many of the benefits enjoyed by corporations are due to corporate personhood, and constitutional rights enjoyed by corporations. Stripping corporations of these rights and returning them to temporary charters serving a public purpose would help remove some of their political power.

Marjorie Kelly advocates that all stakeholders including employees and communities receive returns from corporations, rather than just shareholders, who do nothing to earn it. Shareholders on net remove assets from corporations, yet receive all the financial returns according to Kelly. She compares this to a feudal system in her book *The Divine Right of Capital* (Kelly 2001).

### 3.6 Conclusion

As Warren Buffet once said, “Actually, there has been class warfare for the last 20 years, and my class is winning” (Sargent 2011). Through an examination of the rules governing taxation of various forms of income, and the influence of money on government policy, we can understand the recent concentration of wealth in the US and worldwide. Further analysis of taxes and rules guiding capital income (capital gains, interest, dividends, etc), interest on commercial credit, rent on land, wages for labor, and profit from business can provide insights into addressing inequality in income and wealth. A more accurate model of the flows of income leading to stocks of wealth, and rules guiding taxation has been provided to make clear the pathways of inequality.

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