How Fools Work

Money Distribution

Readjustment Compensation & Useful Idiot Payroll

New Money

Rich and Corrupt's Money

Old Money

Middle's Money
(Equalizing With Poor's Money but Unevenly Among Individuals: Treadmill Casualties)

Poor's Money

Population Distribution

Rich and Corrupt

Middle Class

Poor Class

'Reality' Doug

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Preface

This book is one of the How Fools series. Economics, politics, and culture are inseparably linked. This installment focuses on economics. All aspects of our mortal existences are subject to the imperative of natural progress. The law of conservation permits only the most powerful users of resources to use them. Are you the most powerful user of the resources you use? The many are called by necessity to compete with arms of competition and cooperation. The few are chosen to thrive as riches fashioned from those arms. The riches of being are greater than the riches of having.

Who will measure his value and values directly on the scales of life? Who will honor the privilege and duty of a superlative heritage? Who will dare answer the civic challenge of corrupt fellows and alien designs? Who will impose an uncompromising standard of precious citizenship, directed by wisdom, common but individual, free yet guarded, honorable but amenable. Popular sovereigns ought to weigh their civic bonds more than players organizing a pick-up game weigh their teammate options.

The author's intent with the How Fools series is to coble together a cadre of Americans who unflinchingly esteem the power of civilized freedom and the riches of being. Sincere and critical-of-the-work feedback is appreciated. Send thoughtful comments to: realitydoug@gmail.com.
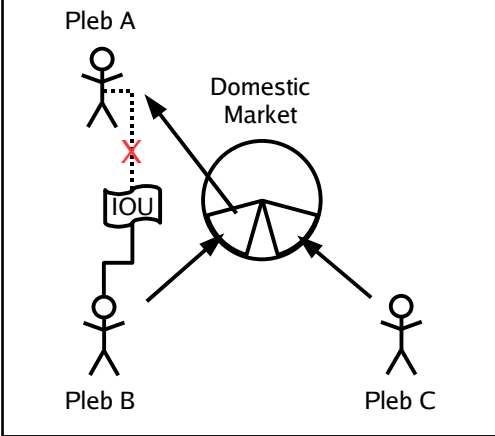
Chapter 1

Only Livestock Sells Itself Out

"'Money is a medium of exchange' we are told," cried the street proselytizer. Bustling humanity passed him by with fortified faces. They had important things to do. They had careers, children, homes. They took responsibility for themselves and advocated compassion.

*Figure 1 Honest Use of IOU Money, Part 1*

For entertainment, they tested their intelligences against fifth graders. Mass media was choreographed under the care of government regulators and the interlocking ownerships and directorships of big business. His filmed arrest some years ago didn't make the local news. He had harangued a reporter covering weather, traffic, and remaining evening daylight live from the curb just across the street. The lone cell phone video did not go viral.

"If only they knew or cared what they were exchanging," the eccentric muttered. Our eccentric understands that fiat money has no intrinsic value. He believes that by force of habit and government guns fiat money is simply accepted by most without thought. Modern money he regards as an IOU. More idea fragments are arranged here, at the forefront

Figure 2 Honest Use of IOU Money, Part 2
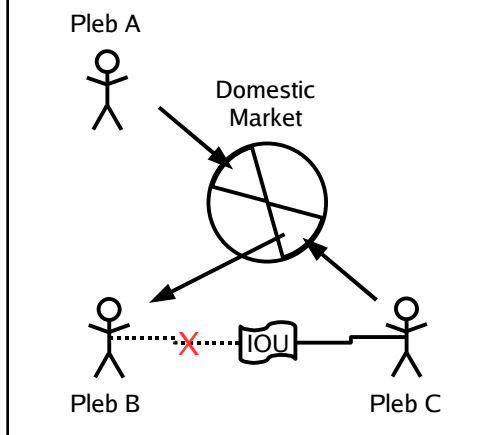
of his troubled consciousness. Come on. I'll give you a tour. Watch your step.

The market is where money is exchanged for goods and services. For simplicity, we may speak in terms of goods or wealth alone. Money has purchasing power. It represents a claim on so much value. That's what an IOU is.

The honest man earns the purchasing power he spends by first supplying wealth of equal value for others to buy. For example, the productive employee earns a wage more than offset by his contribution to wealth creation. Then he spends his earnings for wealth of a different kind but equivalent value. With market accessibility and transparency, the equivalence of wealth for wealth is reasonable. It jibes with reality. The exchange of wealth for wealth is voluntary and win-win. Things get better for all participants.

The dishonest man gives himself purchasing power without reciprocity. He supplies nothing for something. Feel that? Reading that last memory segment just triggered an association. I'd stand over here. From below a steamy bubble popped and echoed, "Those rented economists on TV talking about the need for economic trust!" It says here he hates how the looters empty the domestic market like that. The legal looters are first to use new legal IOUs. Counterfeiters are the criminals, hah...it's annotated as bombast.

Modern governments work with two types of IOUs: immediately exchangeable money IOUs and the try-back-later IOUs called government bonds. The wait time is the difference, but the difference is not technically crucial as money goes. There is no innate reason why a clerk could not take paper government bonds in payment like he takes government paper deemed official money.   In fact, the first U.S. greenbacks were paper money redeemable for U.S. bonds that in time were redeemable for U.S. gold coin money. I feel rumblings. Let's stand over here. "The War's Carnival of Fraud!" "War is a Racket!" All clear.

Modern governments claim for themselves the power to define and make the popular IOUs used within their jurisdictions. However, they delegate the amount of money creation to central banks. It makes the bankers happy. The central bankers decide how much in new money IOUs to make, and the public bureaucrats make all the investment

IOUs they want. The utensil instrumentality government domineers the debt market. Bankers control every basic market in your life.

Oh, we've looped back to the same thought strand. The dishonest man gives himself purchasing power without reciprocity. The extra IOUs change the numerical or nominal amount of money available, but the wealth available does not grow because of it. In fact, it shrinks. Looters taking things out of the market without putting in raises the costs on everyone else. Honest economic opportunities weaken, and domestic wealth creation declines. The IOUs work domestically, that is in a particular economy defined by political forces.

The excess domestic consumption of leeches cannot be satisfied by domestic production. Foreigner merchants supply imports in exchange for domestic money IOUs. Because of the new money IOUs, because domestic consumption is cunningly greater than domestic production, foreigners can't purchase enough exports to unload the IOUs they earn. They don't spend elsewhere, so rich foreigners buy commercial real estate, businesses, and government debt in the economy you call home.

Figure 3 Dishonest Use of IOU Money
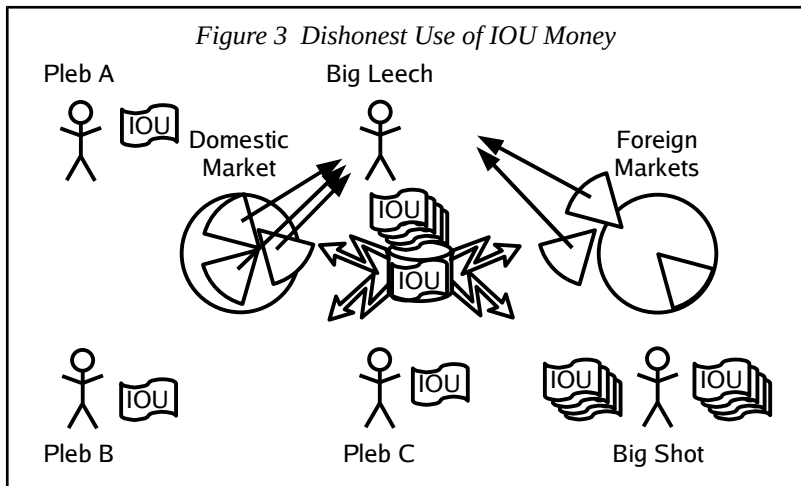
Here's the summary strand on this thought of our crank friend. Government deficit spending causes trade deficit spending causes the sell out of America or whatever spendthrift Western country of your choice. Why would we sell out our own livelihoods? Why would we sell our country out from under ourselves? Brace yourself. That tingling means an emotion front is passing through. "What's this we $ %!#, white man?!" a surrounding crackle demanded. Indeed. On the

street our crank encountered an objectifying bevy of amused looks. His defiance was eye contact acknowledging physical but not psychological currency. He wasn't trying to herd cats. "I'm not trying to herd cats!" his consciousness bellowed.

Chapter 2

Modern Moneychangers

"The world is full of brutes. Let them pull the physical levers. I give that street-corner shlimazel credit. He almost made the news last week. That organizer babe from the symposium was great, a great one-two media punch with Rozenberg." A knowing smirk blossomed on the old man's face. He savored a taste from his cigar, then ejected it out and upward with smooth efficiency. He and another man sat alone in a room of his mansion. The large den had a bar and from the recliner a nice view. One ashtray and two snifters containing brandy waited patiently on the smoked glass tabletop. Quiet hung like a pall. The aged patriarch stared out into the vista.

   "Do you know what it means to lead as a chosen person?" the mentor inquired of his protégé. The old man turned his head slightly to look intently at his junior. He was not about to proceed without confirming an intimate mental connection. The younger man, thirty something, dutifully looked back through steady steel-blue eyes and thick glasses.

   In a measured, raspy voice the aged patriarch answered his own question, "It means to wield the power of distinction. Our distinction is our sanction." For effect he half shouted, "It means to protect our virtuous selves using tools worthy of who we are!"   Coolly he soliloquized, "We use abstract levers. And the technology is only getting better." The old man drew a mouthful of flavor from his cigar as if returning to the ecstasy of a lover's clutch.

   Now the lesson flowed effortlessly.   "'Money is a medium of exchange' we are told, but it doesn't have to be an egalitarian exchange." The two shared a little chuckle. "Any exchange requires an exchange rate. Market forces fix the exchange rates of commodities by their comparative supplies, a reality, subject to whatever transient adjustments may be granted human fashion, a psychology.

   "But what is a commodity? It is an item belonging to a class of items with interchangeable utility. Any ounce of gold is an ounce of gold. A liter of drinking water is a liter of drinking water. To some degree, a

flatware spoon is a flatware spoon. Commodities establish an exchange rate in civilization because commodities are fungible. Why buy a dozen eggs for twice as much if they aren't twice as good?

"Money of the same monetary unit is fungible. It is a commodity as far as market forces are concerned. Fiat money is money by force of law. Those who make the laws can make money without intrinsic value. Modern money is fiat money with an abstract, fungible face value. It is not wealth like gold coins are. It is only exchanged for wealth. Every major currency unit in the world is a yardstick etched in sand. Government gets all that seigniorage. 'Cheap to make, costly to take.' Ahh, ha, ha, haa! We only control the supply of modern money. You can bank on it!

"Measuring is the counting of fixed units. Measuring determines the exchange rate between an unknown quantity being measured and a known quantity with which to measure. The measurement is an exchange ratio. It is the unknown quantity divided by the know quantity. It is how many times the measuring unit as divisor goes into the unknown quantity as dividend. It is exactly how many times a unit must be repeated to equal something else. To measure wealth properly, one needs a fixed unit. But to measure wealth requires equality according to market forces, and market forces only balance between groups of commodities having finite supplies. In the degenerate case a group is a singleton, naturally.

"A measuring unit of wealth has fixed wealth value, but this is impossible. Market forces can't measure a purely hypothetical wealth value, and the value of actual wealth will vary with the eye of the beholder. Old cars are less fashionable than new cars unless they become fashionable classic cars. Gold comes closest to having constant intrinsic value, but if technological advance makes gold an indispensable anticancer drug, its utility, its intrinsic value, has increased through external esteem.

"Since a measuring unit cannot be constant if defined in terms of wealth, it must be based on the variable purchasing power of something. That something may be fixed in supply if it is an abstraction. An abstract unit of purchasing power could be a fixed share of purchasing power within an economy. It could only happen with a constant supply of fiat money, but who would do that?" The two men chuckled, and in the moment the junior gentleman subconsciously

ceased swirling his brandy. He resumed swirling, sniffed the aroma, and gave it a sip. He was now comfortably situated on the end of a plump black leather sofa.

"A 'real' measure," the old man inflected with synchronized gesticulation of finger quotes, "of wealth can only be approximated. We can measure wealth over time in comparative terms, natural apples to synthetic apples, by adjusting for the change in money's exchange value. We do that by looking at prices of items in a 'basket of goods'. The relative change in the cost of the basket of goods is not an exact measure of overall price change in the economy, but it's what we sell. If the cost of the basket is normalized by a multiplication factor to an even 100 at some reference point in time, we call it an inflation index. With it wealth or money values are converted to a single fiat currency from a particular time. For example, year 2008 dollars are dollars of the purchasing power dollars had in 2008, perhaps on average for the year or maybe at year end. In essence, year 2008 dollars are dollars of a fixed supply, frozen in the year 2008. Although the perfect wealth unit is only hypothetical, it is the greatest tool of mankind. With it one can fashion abstract levers of currency to control all other levers of society—political, cultural, material, everything."

"Purchasing power is the amount of wealth that may be had in exchange for so much money. Typically, we speak in terms of wealth per unit of currency. How much you can buy with a dollar is the purchasing power of a dollar. Purchasing power is essentially all wealth measured in wealth units divided by all money measured in money units. The inverse opposite of purchasing power is price level, they call it. I prefer pric-ing level because price level literally means the level of one price of one commodity.

"Don't be a prisoner of vocabulary. Own your philosophical premises. Black people own white people with the n-word. Distinction is sanction is power." The old man looked directly at the younger man out of the corner of his eye and confessed, "I reserve the right to think my language when I speak any language. Terminology worship is for the brutes." With an air of mock seriousness the old man charged, "Anti-Semitic, anti-Jewish, Islamophobic, homophobic, racist, sexist bigot with mental issues who would take from others in a world of limited resources." He dragged his cigar into an impassioned red glow. With a discharge of smoke he uttered, "Works every time."

"Pricing level is all money divided by all wealth, hypothetically. It is the amount of money required for exchange with a hypothetical unit of wealth. It represents an ag-gre-gate price level for the entire economy. Purchasing power is so much wealth per money, whereas pricing level is so much money per wealth. If prices rise overall, inflation is said to occur. If prices fall overall, deflation is said to occur. If the rise in the price of corn is exactly offset by the fall in the price of carrots and beets, whatever that means in weighted terms, the overall pricing level of the economy did not change. Only the diets of the plebs."

The old man grabbed a yellow notepad and pen from under the table. He quickly reviewed the tabular data written on the pad and continued. "Let's imagine a basket of goods gathered from all commodities available in an example economy. In this economy the only forms of wealth are hats, coats, and gloves. The total market value or 'worth'"—he inflected—"of the economy is simply the sum of price times quantity for each commodity. We might assume the usual consumer would like to have one hat, one coat, and one pair of gloves." The old man pushed the tablet over with a third of a twist. The younger gentleman positioned and studied it. Nine columns were on the paper. The first column had the names of the commodities. The remaining columns were grouped in pairs of prices and quantities for the four example economic states.

Table 1 Basket Cases

Commodity	Economy A		Economy B		Economy C		Economy D	
	Price	Qty.	Price	Qty.	Price	Qty.	Price	Qty.
Hats	$10	30	$14	30	$13	70	$12	60
Coats	$80	4	$70	10	$78	5	$75	8
Gloves (pair)	$10	38	$16	55	$14	50	$8	85
1-1-1 Basket	$100		$100		$105		$95	
30-4-38 Basket	$1,000		$1,308		$1,234		$964	
Economy Size	$1,000		$2,000		$2,000		$2,000	

"Economy A is the economic state at point A, our starting point," the old man explained. "If the economy changes from A to B, we have no inflation or deflation according to the 1-1-1 basket. Pricing level is supposedly unchanged overall. Individual prices did change, but with arbitrarily equal weight for each price the cumulative effect of all price

levels remained unchanged. If the economy changes from A to C, we have inflation of 5 percent. If the economy changes from A to D, we having deflation of 5 percent, which is inflation of negative 5 percent. It works like deceleration."

"The 1-1-1 basket does not reflect how the economy is doing. It reflects only how a hypothetical buyer is doing. To better reflect the economy, we might look at the whole wealth of the economy at point A. The 30-4-38 basket tells a different story, but an economy is dynamic. If the basket of goods is not the dynamically changing total wealth in the whole economy, what does it indicate? Core inflation: yah, that makes sense. Ah, ha. In the example there, if the economy transitions from A to B, C, or D without a change in the supply of dollars, the market value of the economy has doubled. Taken at face value, the economy has essentially doubled, the purchasing power of the same money supply has doubled, and pricing level has deflated by half. We can see pricing level did not deflate because the component price levels by commodity did not drop by half in even one case. The data is without the benefit of market forces, held or not to a constant money supply. Perhaps we could introduce money supply changes for each transition to make the example work logically. Perhaps our models predict global warming will make the planet toast by 2020. What chutzpa."

Then the old man's eyes gleamed and his face gathered a smile. "If all the money in the U.S. economy were only four dollars, how much more money would Americans need in the economy?" In a friendly glance he shared his gleam with the younger man. The monologue continued. "None," the patriarch answered himself. "None. But do the fools know that? We've trained them to want more money from us and to us, for price stability, for the security of bank lending. What sheep. If you introduced paper bills in trillionths of a dollar called trollars, and if you had coins in hundredths of trollars called trents, a loaf of bread might cost 2 trollars and 53 trents." The old man quipped, "plus trax."

"There is never too little fiat face value. Face value is an abstract vessel of exchange utility. If you don't peg face value to intrinsic value, you can divide it logically into chunks of whatever number. There are no physical limitations to an abstraction. We don't like to use progressively smaller units. We like progressively larger units if

anything. We could drop pennies and nickels. A tenth of a dollar is precision enough these days. Ha, ha.

"Modern fiat money is said to be 'elastic'." He brushed finger quotes into the air. "A political descriptor retained from the gold standard and the real-bills doctrine. It's flowery bull to indicate that the money supply changes for business needs. Yah, ours, but everything about exchange rates is elastic anyway. Creation of elastic Federal Reserve notes doomed the gold standard, but I digress. Sure, you could replace four dollars with four trillion trollars by exchange with the public, but the public keeps the purchasing power that way. It's better to make 3,999,999,996 new dollars and keep calling dollars dollars. The government gets all but 4 trillionths of what dollars can buy. The public gets to sit on its ass."

"Think of wealth in an economy as a big block, in two dimensions a rectangle. Imagine the wealth is distributed evenly in that rectangle. Any two sections of the rectangle with equal area represent two samplings of wealth with equal market value. Think of all the money in an economy as another rectangle. The area of the money rectangle represents the total face value. We can subdivide the total area into block sections representative of one currency unit each, such as a dollar.

"Fiat money of fixed supply has currency units that are stock of a civilization suitable for measuring constant wealth shares. However, the wealth units used to construct and scale the wealth rectangle are unrelated units, some hypothetical fixed units. It's like measuring the money rectangle in square cubits while measuring the wealth rectangle in square paces. It's really apples to oranges, where apple and orange are units of uncertain definition. That uncertainty is why economic data measured in currency has little value until compared relative to other economic data. Absolute dollar figures mean nothing without some context whereas percent changes between dollar figures do. The context is built in.

"I see some doubt in your body language. What?—you don't think wealth units have real meaning? You gonna believe Einstein's theory of special relativity based on a photon clock? The universe works according to rules, and with intelligent abstraction we can keep our modeling on track. If you can imagine a series of photon passes, you can imagine constant wealth units. Thought experiments are as

scientific as empirical ones. Cosmopolites think music is the universal language, but math is. Okay, Einstein?" Junior cracked a smile. The old man smiled back. "Alright."

Figure 4 Opposing Forces on Purchasing Power
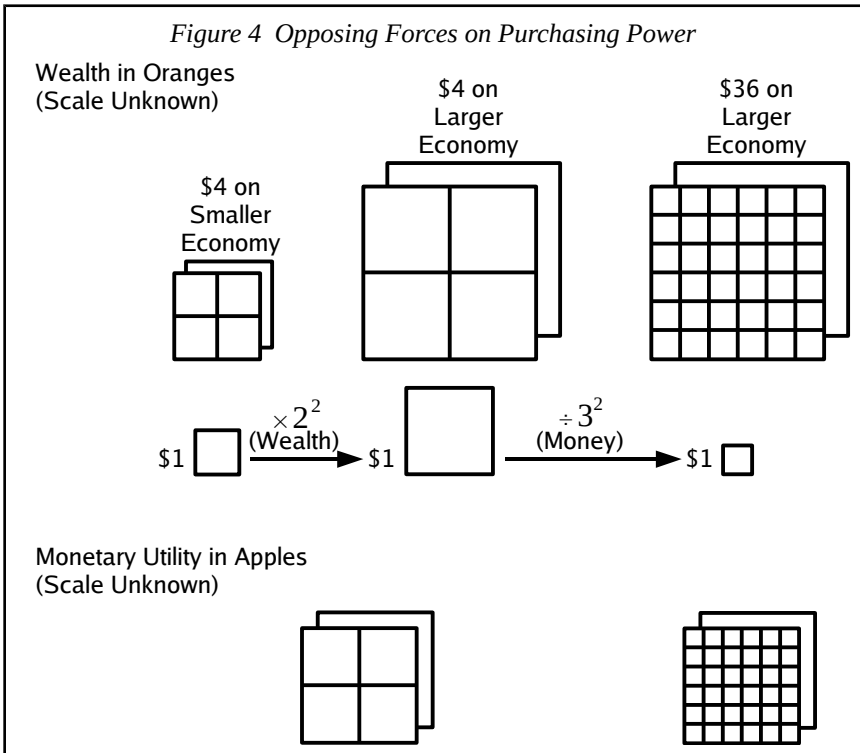
"Market forces adapt the total value of the money rectangle to the amount of existent wealth represented by the wealth rectangle. Imagine the money rectangle as an elastic sheet that is stretched over the wealth rectangle. It scales itself to fit. The money units themselves do not change with respect to total purchasing power if the supply of money units does not change. Only the amount of wealth each money unit commands by exchange may vary, stretch. The purchasing power of fiat money, a commodity having fiat monetary utility, is equated by market forces to the size of the economy.

"Let's speak in terms of the U.S economy and dollars as convenient, shall we? If the wealth of an economy grows, the purchasing power of each currency unit, of each dollar, grows. If the economy shrinks, the purchasing power of each dollar shrinks. This makes perfect sense. If technology doubles the amount of wealth available, the purchasing

power of the dollar doubles. People on average get twice as much as before because twice as much is available. If there is a natural disaster that destroys half the wealth living standards will drop on average by half. Dollars keep score on who contributes, and it's fair. If one person becomes rich by being productive, he does so by making much wealth, which makes every dollar holder richer because every dollar has greater purchasing power in the market, in the economy. Getting rich individually means being the beneficiary of a large economic impact on people's lives. Whether it was very negative, very positive, or some of both depends on how it was done. I love philanthropy.

"Again suppose the wealth of the economy has doubled, and suppose the money supply stayed constant. In real terms the dollar has doubled in exchange value. I am, of course, supposing a mechanical calculus of natural forces to which any incongruent psychological force of the public must eventually submit. That is to say, in practice we can expect the prevailing purchasing power of the dollar to fluctuate about some mechanically exact value. In nominal terms, going by face value, a dollar is always the same dollar unit. So it is a mistake to judge economic performance over time in nominal currency units because the real value of purchasing power is not measured.

"Alternatively, we might suppose that while the total wealth of the economy changed, the monetary supply was adjusted by the exact same percentage with the exact same timing. Then the ratio of wealth to dollars was kept constant. Since the amount of wealth doubled, the number of dollars in the economy doubled too. In this case the purchasing power of the dollar in real terms has not been permitted to change at all. If we suppose population held steady, the average share of wealth doubled. Then to command one's double share of wealth, one must command double the number of nominal dollars. It begs the question: Who gets the new dollars? Who gets something for nothing?

"So let's review. Our hypothetical wealth units tell us infallibly if the total wealth is growing, shrinking, or holding steady. If the purchasing power of each fungible dollar does not entirely reflect the same percentage change of wealth, that purchasing power was taken from dollars that were removed or lost to dollars that were added. Price stability occurs if the growth of wealth is exactly offset by the growth in money supply. If the growth in money supply is less, prices fall. If the growth in money supply is more, prices rise. Isn't it funny how the

exponential growth of technology and the exponential growth of the economy do not result in the exponential improvement of the average standard of honest living. Per dollar purchasing power does not grow exponentially, and pricing level does not decrease exponentially. Only the size of government and the national debt seem to grow exponentially. Isn't that strange?" The patriarch paused to enjoy the bouquet and flavor of his brandy.
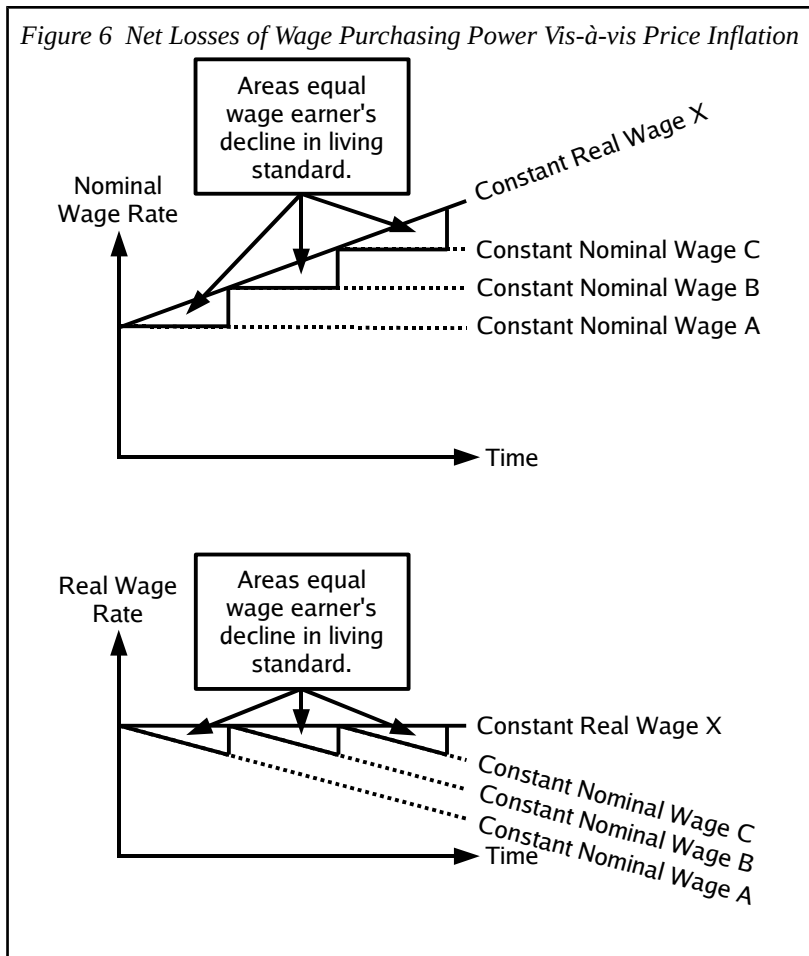
"I've explained how the general rise in prices is inflation, and how the general fall in prices is deflation. That is the understanding of a brute chained by the word inflation. Now is a good time to identify an orthogonal distinction. Real inflation and deflation are caused by the decrease and increase of wealth, respectively. Apparent inflation and deflation are caused by increase and decrease of the money supply, respectively. Real change to the pricing level reflects a benefit or loss shared equally on a per dollar basis. Apparent change means the public is being taxed equally on a per dollar basis to benefit us. Of course...it's not equal. The labor golems raise their prices last and least." The mentor held out his snifter in the direction of his protégé. Ching. A friendly and otherwise silent toast was made.

The patriarch waved for the return of the yellow notepad. The younger man leaned forward in pushing it back. The old man removed the top sheet and started working the pen on the freshly exposed one. "Anytime we draw a picture, we use two dimensions. The concept of area is important: integral calculus. Distance equals rate times time. If a car travels at 20 miles per hour for a half hour, it traveled 10 miles. The calculation is represented graphically by a rectangle one half hour wide and 20 miles per hour tall. The area is 10 miles. I can generalize to a curve, right here, meaning varied speed, but the area is still the distance traveled." The old man pushed the notepad across the table to arm's length, keeping the top end under his fingers.

Figure 5 Area Under the Curve as a Related Value
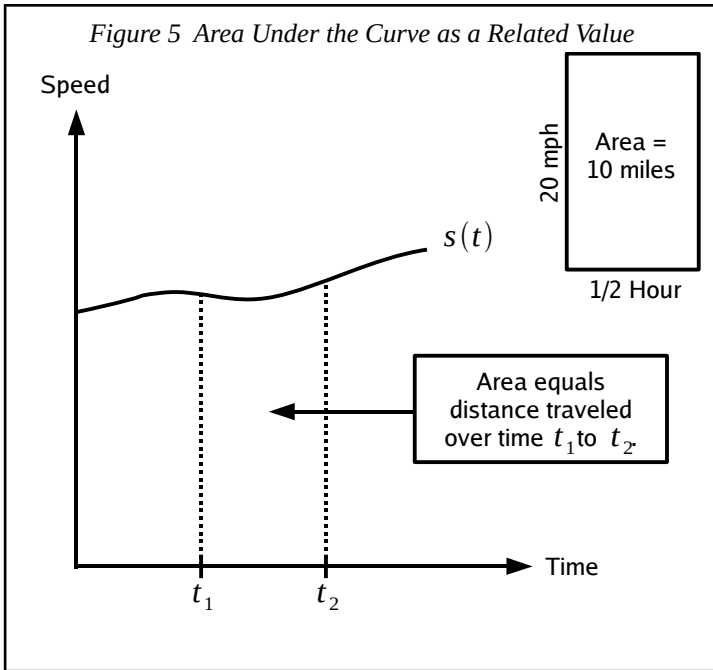
After a moment the old man slid the notepad to himself, ripped away the used sheet, and began sketching anew. He made two graphs. Upon completion he pushed the yellow notepad over with a third of a twist. Junior studied. The patriarch took the near snifter into his palm and looked beyond the battery of window panes.

"On the top graph, we have nominal wages plotted over time. The worker gets a periodic inflation adjustment. The adjustments put him back on track, back to the purchasing power his wages had initially. The constant slope of the line shows inflation is constant.   The triangular areas between the lines of the constant real wage and the actual wage in nominal steps is the loss of purchasing power to the worker. The bottom graph is the same as the top except the vertical axis represents real wages. Nominal wages fall steadily in real terms with steady inflation.

Figure 6 Net Losses of Wage Purchasing Power Vis-à-vis Price Inflation

Areas equal wage earner's decline in living standard.

Constant Real Wage X

Nominal Wage Rate

Constant Nominal Wage C
Constant Nominal Wage B
Constant Nominal Wage A

Time

Areas equal wage earner's decline in living standard.

Real Wage Rate

Constant Real Wage X

Constant Nominal Wage C
Constant Nominal Wage B
Constant Nominal Wage A
Time

"I've been talking about price inflation, mind you. The downward pressure on overall prices due to prosperity is offset by increasing the money supply. Inflation of the money supply is increase of the money supply, or the resulting loss of purchasing power. We can hide money supply inflation with the real deflation of increased wealth. Price inflation is essentially money supply inflation in excess of real deflation. Grunts don't care about mild price inflation. They have sports entertainment. Aww, ha, ha, ha, ha.

"Inflation is an abstract lever of men, if you can call socially ballistic drones men. It works because old fiat money is a medium of fair exchange, but new fiat money is a medium of theft. It takes time for the wave of price inflation to propagate throughout the economy.

When prices are pressured to rise by new money, new money has bought at old prices, and the seller and competing consumers have been robbed. When prices are pressured less only to fall more slowly, new money steals by offsetting a portion of real deflation, taking only from what competing consumers would have been able to afford for the first time. It all depends on how aggressive you want to be.

"If new money causes price inflation and most of that new money is directed into the domestic economy, the domestic market is sufficiently robbed for domestic consumption so that an excess of imports is stimulated. It's not economically sound business, and so the investment surplus of foreigners isn't sound either. If new money causes price inflation and most of that new money is directed into the international currency markets, the domestic market is depleted more for foreign consumption. Exports are stimulated. Either way, the most vulnerable of honest domestic businesses and workers go bust. It's a refined sort of cannibalism. Money supply inflation sheers the sheep until price inflation occurs, at which point the harvest includes mutton. Government deficit spending greater than wealth expansion causes an intractable trade deficit. Politicians present themselves as foes of the trade deficits they cause. The trade deficit implies that most new money is spent for domestic consumption, which it is.

"What I'm saying, Daniel, is that you'll have a public persona like you've always had, with that Keynesian diversity crap, but behind closed doors it's winners take all. Don't get the two confused." The old man pointed his cigar accusingly.

"No, sir," the younger man responded.

"Good. You'll be great at the IMF. I love my network, and my network loves me. In five years or so you could be on the Board of Governors. Did I ever tell you the story of how we created the Goldilocks economy? Greatest professional accomplishment in my life, and I was only in on it. Oy, that was almost twenty years ago. I was there! I was a newlywed then. Which reminds me." The aged patriarch reached under the table and retrieved a thin saddle-stitched booklet of folded white paper, somewhat aged. On the cover, in nondescript black cloistered by fields of white, it simply said 'Goldilocks'. He pushed it over to his protégé, one third of a twist. *You can turn the abstract levers too far too fast,* the old man mused.

Chapter 3

Manicured Fields of Discontent

"Wel..."—wheeeouuuu. Two technicians scurried back and forth between the microphones on the lectern and the speaker system panel on a wall. "Testing. How's that in the back?" A cameraman gave a thumbs up. "Welcome to the Social Justice for All symposium. We have several great speakers today. I thank them all." Kind applause erupted from the students seated in the auditorium. More were standing in clusters; others were coming and going. "At 7pm, in our final talk, we will learn about the burgeoning field of Nonviolent Communication, or NVC, from the man himself. You won't want to miss it. We will have more pizza and pop roughly fifteen minutes before each talk. Help yourselves to what we have in the back, between those doors."

"As a graduate student of economics, I feel that my study and research don't mean anything without that humanistic dimension. It's the growing synergy of disciplines, perspectives, and ideas that will make social justice a reality for ourselves and the planet. Our first speaker is from Community Organizers Making Messes In Everything. They are a non-profit 501 and 527, and donations are tax deductible. A warm applause, please, for Ms. Penny Handouts." Clap, clap, clap, clap...

"Thanks, Larry. Thank you. Thank you so much." The applause faded as most lights dimmed except for the few over the pizza in back. A large screen now revealed her lead slide. "What a pleasure to be here. I can feel the collectivity. Unfortunately, the spirit we have here this afternoon is not being translated economically. Before I present statistics comparing demographic groups, I think it's important to look at the big picture." With a click of the device in her hand the next slide appeared on the screen.

"We know from the Flow of Funds report the total non-corporate wealth in this country is $53 trillion. We know from the *Statistical Abstract of the United States* the total population is 298 million. That

means we have, well into the 21st century, more than $177,000 of wealth for every man, woman, and child. For every millionaire—or even billionaire—that means the rest of us are that much farther away from the American Dream. Fortunately, a few of the rich are philanthropists, giving back, but many are not." She advanced to the next slide.

"The Survey of Consumer Finances, or SCF, gathers data on the finances of U.S. families every three years. A SCF working paper is a paper that analyzes the raw SCF data. One such paper came out this year entitled *Currents and Undercurrents: Changes in the Distribution of Wealth, 1989–2004*. The title is inspired by the water metaphors economists are prone to use. The title is apropos. There is no universal rising tide, as some pundits like to assert. We know prosperity does not 'trickle down'." Click.

Table 2 Percent Distribution of Total Net Worth Held by U.S. Families

	Net Worth Percentile Group				
Year	*0–50*	*50–90*	*90–95*	*95–99*	*99–100*
1989	3.0%	29.9%	13.0%	24.1%	30.1%
1992	3.3%	29.6%	12.5%	24.4%	30.2%
1995	3.6%	28.6%	11.9%	21.3%	34.6%
1998	3.0%	28.4%	11.4%	23.3%	33.9%
2001	2.8%	27.4%	12.1%	25.0%	32.7%
2004	2.5%	27.9%	12.0%	24.1%	33.4%

"This is an important summary data. Family riches have been monotonically arranged, from poorest to richest, and segmented into percentile groups. The 50–90 percentile group is those families richer than 50 percent of all families without being richer than 90 percent of all families. They are the 40 percent of families above the bottom 50 percent. The bottom half has about 3% of the wealth, and the top 1 percent has about 33% of the wealth.

"The poor are getting a little poorer, relatively, since 1995. Relative wealth matters because of political power. What they have in money, we only have in numbers with collectivism. That's the beauty of democratic centralism, which is really at the heart of social justice. We can consider the 50–90 percentile group to be the middle class. They have been getting relatively poorer too except for the uptick from 2001

to 2004 of 0.5%. We can add adjacent percentile groups. The bottom 90 percent has about 30%, nearly what the top 1 percent has. That leaves the 9 percent just under the top 1 percent with about 36%. The wealth in this country is roughly divided into thirds held by the bottom 90 percent, a middle 9 percent, and the top 1 percent." Click.

"If we follow the bottom 90 percent over the triennial survey years from 1989 to 2004, we see decline from 39.9% to 30.2% in 2001, followed by the uptick in 2004, this time of 0.2%. Why was that? Remember it was really an uptick of 0.5% for the middle class. This reversal of wealth consolidation is important." Click.

"From the U.S. Budget, table 3.2 we are able to get annual federal expenditures by fiscal year for unemployment compensation. Fiscal years for the U.S. Government run from October through September, three months earlier than the calendar year. If we adjust the numbers with the Consumer Price Index for All Urban Consumers, the CPI-U, the precipitous decline in support of the unemployed from 1992 to 1995 is made more clear. I have values of at least $25,000 in real September 2006 dollars in lighter gray and of at least $30,000 in darker gray.
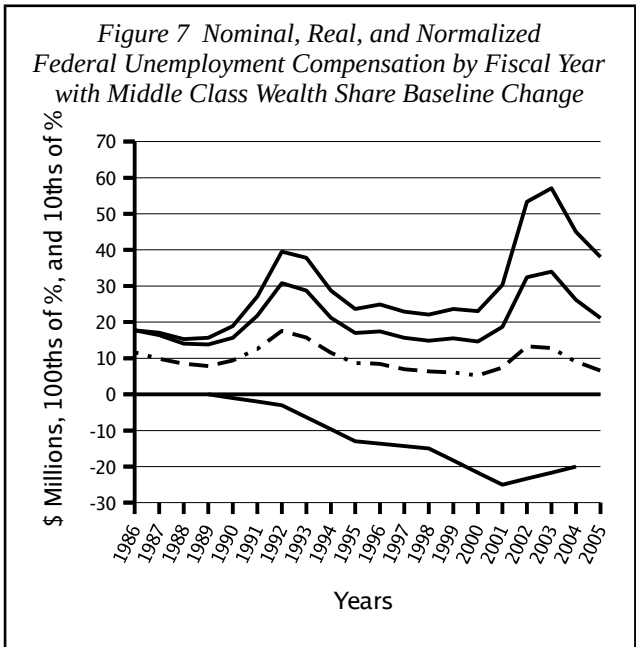
Table 3 Federal Unemployment Compensation and CPI-U

Fiscal Year (Oct.–Sept.)	Nominal UC (millions of USD)	CPI-U Index of Sept.	Real UC (millions of Sept. '06 USD)
1986	17,753	110.2	17,753
1987	17,080	115.0	16,367
1988	15,271	119.8	14,047
1989	15,616	125.0	13,767
1990	18,889	132.7	15,686
1991	27,084	137.2	21,754
1992	39,466	141.3	30,780
1993	37,802	145.1	28,710
1994	28,729	149.4	21,191
1995	23,638	153.2	17,003
1996	24,898	157.8	17,388
1997	22,888	161.2	15,647
1998	22,070	163.6	14,866
1999	23,631	167.9	15,510
2000	23,012	173.7	14,599
2001	30,242	178.3	18,691
2002	53,267	181.0	32,431
2003	57,054	185.2	33,949
2004	44,994	189.9	26,110
2005	38,066	198.8	21,101

"Keep in mind that real dollars represent constant purchasing power in terms of the innate value of wealth. A percentile group's portion of the total net wealth is proportional to the total net wealth available,

which grows as the economy grows. If the growth in the economy is proportionally shared in terms of net wealth held, the proportion of net wealth by percentile group will stay constant. How the gains and losses of the economy are assessed to the living standards of economic classes is different than how living standards of economic classes change in absolute terms with respect to themselves. In a booming economy, getting a few more crumbs every year is not success.

   "Therefore, it is useful to normalize nominal unemployment in terms of total net wealth.   That means to divide something like unemployment compensation by total net wealth. I don't have figures on the nominal total net wealth from the SCF working paper, and certainly not for every year. However, table B.100 from the Flow of Funds report has data for nominal net wealth at year end and quarter end. To normalize the unemployment compensation by fiscal year, I will use the Flow of Funds values for the 3rd quarter of calendar years, which is the end of fiscal years." Click.

"This graph is a bit complicated because we have four curves with three scales. The top line represents nominal unemployment compensation from the federal government in millions of dollars. The second line from the top is the same unemployment compensation adjusted for inflation into dollars as they were in September 1986. The dashed

Figure 7 Nominal, Real, and Normalized Federal Unemployment Compensation by Fiscal Year with Middle Class Wealth Share Baseline Change
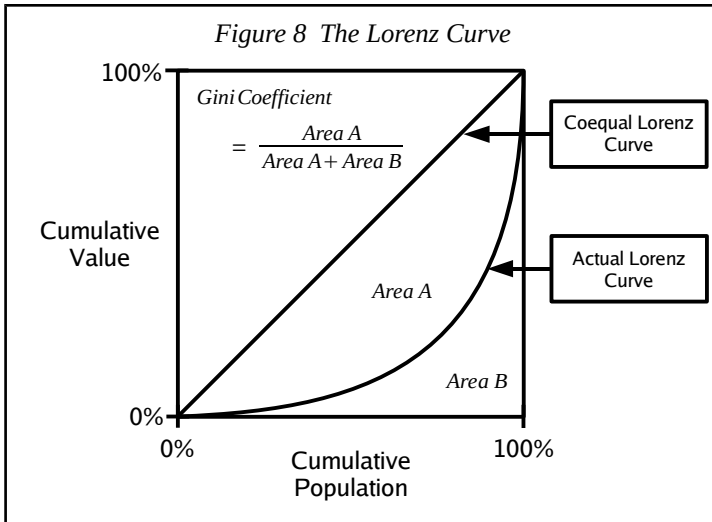
line is nominal unemployment compensation divided by net wealth. The dashed line shows how much of the net wealth unemployment compensation could buy on a scale of 100ths of a percent. The bottom line is the cumulative change in the percentage of net wealth held by

the 50–90 percentile group on a scale of 10ths of a percent. The change is relative to the percentage of net wealth held in 1989. Also, the SCF data is triennial. We don't know exactly how the changes of net wealth occurred between sample years. The line segments represent average change. We see two peaks in unemployment compensation. The relative lack of impact from the first peak on net wealth may have to do with the timing of the triennial survey in 1992. The benefit to the middle class has been divided between two SCF periods, each of which includes a time of low unemployment compensation. The middle class shows improvement only in the period from 2001 to 2004. The second peak of unemployment compensation is close to the center of that period. The living standards of the middle class seem to have improved with government aid. Without it the wealth share of the middle class deteriorates." The spectre of progressive dependency was her tacit impossibility.

"This is proof how we can all come together, and proof that we haven't. When we look at inequality by race, you will see how deep the discrimination runs. I have a tri-racial background, and I love it: two moms and a dad. I don't understand..." A hesitant swell of applause came and went. "I don't understand how we can overlook the riches of diversity." The applause now asserted itself. "I can tell you from personal experience we have so much to learn from each other."

"I want to look at the overall economy with the SCF data again. This time we will boil down the amount of wealth concentration into a number known as the Gini coefficient. We could call it the injustice coefficient. It's value indicates the degree of economic social injustice we have." Click.

Figure 8 The Lorenz Curve

Cumulative Value (vertical axis, 0% to 100%)

$Gini\,Coefficient$

$$= \frac{Area\,A}{Area\,A + Area\,B}$$

Coequal Lorenz Curve

Actual Lorenz Curve

Area A

Area B

Cumulative Population (horizontal axis, 0% to 100%)

"The Gini coefficient is based on the Lorenz curve. The Lorenz curve is a plot of cumulative value versus cumulative population. Since we are using the Survey of Consumer Finances, we are going by families for the population. Again, we order the families from the poorest to the richest. We can look at the cumulative net wealth held by the poorest families of a certain portion from 0 to 100 percent. The Lorenz curve always spans from no wealth held at the lower left corner to all the wealth held at the upper right corner. If every single family had the same amount of wealth, the Lorenz curve would be a straight line, with a slope of 45 degrees. With equality, every one percent of families has 1% of the wealth. The area between the fair Lorenz curve and the actual Lorenz curve is the economic injustice. The area below the actual Lorenz curve represents what sharing of the wealth there is. The Gini coefficient is the fraction of the graph area under the 45-degree line not also under the actual Lorenz curve. It is the degree of injustice on a scale of 0 to 1. Sometimes we multiply by 100 percent to work in percent." Click.

"These are values calculated by the SCF working paper from before. As you can see, the values of the Gini coefficients for net wealth are large and creeping upward. The values of the Gini coefficients for income are much more fair. So what can we conclude? That income is not the whole issue. If you want to know how people are doing

Table 4 Gini Coefficients of U.S. Net Wealth and Income

Year	Net Wealth	Income
1989	0.786	0.540
1992	0.781	0.501
1995	0.784	0.515
1998	0.794	0.530
2001	0.803	0.564
2004	0.805	0.541

economically, you must look at who controls the wealth. The rich don't rely on income like the poor do. They don't work; they control assets!" A rolling wave of claps encouraged her. "It's always the working men and women, including those who would like to work, for a decent wage, who always get screwed!" The students burst into applause peppered by howls and whistles.

Chapter 4

Subprime Market

"As a Christian, I just can't accept government-chartered inflation mainly benefiting bankers is a good thing," complained a grad student named Paul. He was sharing the booth of a restaurant just off campus with four other students. They knew each other from living in the same apartment building. "Hi, everyone," a vivacious female interjected, abruptly standing there. "Thanks for coming." She handed out free beer tokens, one at a time, with a bubbly smile. Gleefully she remarked, "If we don't use up our student activity grant money, we lose funding for next year." After an inclusive sweep of friendly eye contact she glided to another group. Just as she was out of conversational range, the five students chuckled in amusement or incredulity.

"There's a case in point. As I was saying, Jesus used force only with corrupt moneyed interests. I have never heard one preacher mention the bankster syndicate. Any of you?" The replies were negatory head shakes of varying distinctnesses. "My professor is a neo-neoKeynesian. How many times can you revamp and sell failed Keynesianism?"

"About once in a generation," James quipped. He was a history major, seated diagonally across the table from Paul.

"Keynes assumed that inflation from an increase in money supply would be offset by more wealth creation until full employment. Wra-ong-guh. Government stimulation of employment perverts the quality of employment and the application of limited resources to wealth creation. Keynesianism is disproven by the stagflation of the 1970s, and by more economic data before and since. You can't alchemize money corruption into money virtue."

"All that from one lecture?" asked Suzy from the other end of the same bench seat. She was majoring in pharmacy, as was Evette, who was sitting between Suzy and Paul.

"No, we met this really cool old dude who got kicked out of the Watson library," said Joe. He sat directly opposite Paul. Joe was an MBA student.

Paul continued, "Turns out the street crusader was disturbingly correct. You'd think a bankster syndicate would warrant discussion. We don't distinguish between government money and private bank credit anymore. The 'experts'"—Paul added his finger quotes—"all speak of high-powered money and low-powered money since Nixon took us off the gold standard in 1971. That includes my professor of Global Economic Environment. Vocabulary control: that's what Dr. Hammond calls it. We had a nice talk over beers after he got escorted off campus. He gave me a copy of his virtually unpublished book, *Bit Goldilocks*. Insightful stuff."

"Yah," Joe interjected, "I'm half way through it. If that guy's right—" Joe shook his somber, incredulous face. "Coming out of the recession of 1990–1991, the Fed, our central bank, started managing the economy and us with behavioral macroeconomics. Specifically, they were nearly finished transitioning from money supply targeting to interest rate targeting. The Bureau of Economic Analysis or BEA switched from Gross National Product, GNP, to Gross Domestic Product or GDP in 1992. GNP measures the productivity of Americans in the world, and GDP measures the productivity of the world in America, but neither is a measure of existent wealth. GDP is a measure of our collective utility, not our welfare. Interest rates are set to keep us gerbils running."

"That's right," Paul agreed, "and it can only get worse with a compliant population. Cultural corruption is directing globalization to change the political as well as economic structure of Western civilization. Dr. Hammond said don't invest in growth stocks anymore. Only businesses with state connections will thrive in the foreseeable future. International conglomerates are swallowing up everything. I'm not going to stop at an MBA. As Dr. Hammond suggested, I'm getting the Finance and Economics Ph.D. The math is gonna suck, and I probably won't like the corporate culture surrounding the job prospects, but I have a second baby on the way."

"Congratulations on the new baby," said Suzy. "Congratulation," said Evette, and James. Joe, who already knew, raised his glass. "A toast to family and friends." The usual glass bumping and verbal confirmations followed.

"I did some volunteer work with Suzy," Evette offered. "The big drug companies are doing a lot of good for the needy. I don't think it's as bad as you say. Big business can and should do so much more."

"I must respectfully disagree," Paul said. "In the end, it's about the control. The hallmark of freedom is the middle class. Isn't that right, James?"

"That's right, Paul," James replied.

"As Dr. Hammond explained in his book, focus on the poor is focus on poverty not prosperity. If you give people rights for being poor, you give dictators rights for being dictatorial. The middle class by functional definition is the group of people who can comfortably meet their basic needs without directly holding the levers of political power. When one must cling to the levers of power for economic means, there are only governmental haves and nongovernmental have-nots.

"The poor's inferior definition of rich is materialistic, one-dimensional. Culture, politics, and economy are inextricably linked. The economy is us, a network of producer-consumers interacting on some social basis and utilizing limited resources in some way. We have thrown away our political and cultural riches. We are locked into economic musical chairs, a less-than-zero-sum game. The elites are the house. Our win-lose competition with the upper middle class is artificial. The only sure way to be one of the winners in this malignant game is to take inflation and debt money from either government or banking. The foundering members of the middle class will always do better moving to unemployment compensation, but only for a time. Fiat money is not wealth, and the wealth has to come from somewhere. Gradually cannibalizing the middle class from the bottom up for redistributed benefits going mainly, eventually, to the corrupt rich is a socioeconomic tsunami advertised as a rising tide. The greedy rich are projecting themselves onto the functional middle class, the productively rich, and the stupid poor are happy to believe it."

"The poor aren't stupid," Suzy asserted. "Sorry," Paul answered, wondering how good intentions would support his family in the coming years.

Chapter 5

Genuine, Counterfeit, Government

"Let's get started," the professor announced. "Welcome back to BS 2226, Global Economic Environment, section 3. This is the second lecture." The professor paused to give the attendees time to reconsider. He smiled pleasantly and surveyed the class with steady steel-blue eyes behind thick glasses.

"We are going to look at the relationship between money and banking." As he spoke, he walked over to the light switches and turned off most of the lights. A student weary from an all-nighter of social research laid his head on folded arms. He would be a millionaire financier in ten years. The title slide of Lesson Two notes was visible on the whiteboard. As the professor settled into a chair facing his laptop and the class, a future financial engineer charmingly took an open seat.

"Banking is bookkeeping with other people's money," the professor began. "What the bank owes other people are liabilities. What other people owe the bank are assets. What the bank actually has are reserves. I like to dichotomize liabilities, reserves, and assets as dirty or clean. Dirty liabilities and reserves are more likely to be extinguished by withdrawal. Dirty assets are less likely to be redeemed by payment. Clean reserves are gross profit. I will explain. The night is young. Oh yah, this is New York." With drollery and the press of a button, the next slide in the presentation appeared.

Table 5 Banker's Books with Loan Winding

Step	Liabilities		Reserves		Assets	
	Dirty	Clean	Dirty	Clean	Dirty	Clean
1		$100K	$100K			
2	$100K	$100K	$100K			$100K
3		$100K				$100K
4		$200K	$100K			$100K
5	$100K	$200K	$100K			$200K
6		$200K				$200K
7		$300K	$100K			$200K
28		$1M	$100K			$900K

"Step 1: a bank opens for business and attracts deposits worth $100,000. Those deposits are there for safe keeping, so we categorize it as clean. The depositors have accounts with credit totaling $100,000. As a result of the deposits, the bank has $100,000 in the vault. The $100,000 of reserves are dirty; not really, they just aren't profits.

"In step 2, the bank negotiates a loan. As a result an account is opened for the borrower with credit of $100,000, the amount of the loan principal. The borrower is likely to withdraw that money, so the liability is dirty. Banks make money on outstanding debt, and unused debt credit can easily be returned. The loan is an asset to the bank. At this point we have every reason to believe the loan will be repaid. If the loan, or some portion thereof, is deemed to be in jeopardy of default, it is reclassified as dirty.

"In step 3, the borrower has withdrawn all the loan principal.

"Now is where the magic happens. Money moves throughout the economy. The banking system, forming the hub of the economy, is the focal point for that movement. If a bank is maintaining market share, it holds a corresponding share of money velocity or turnover. The daily share will tend to be close to an average share, perhaps proportional to its clean liability deposits.

"The velocity of money is the number of transactions experienced by the average currency unit of money over time. For example, velocity may be defined as Gross Domestic Product, GDP, over some period

divided by the average monetary base, the amount of non-credit money in the economy. The monetary base is the cash in an economy, inside the banking system as reserves or outside as cash in circulation.

"Typically, loan money is spent and then deposited by another party into a bank. It might be the same bank or another bank. Money is as likely to move into a bank with established market share as out. There is no generic bias in the flow of money between healthy banks, and we may suppose equilibrium is maintained. We expect the gains and loses between our example bank and the remaining banks to cancel out.

"We are taking a homogeneous view of the banking system because we are not differentiating the banking of the example entity with that of any external portion. For all we know, we are looking at the consolidated books of many banks, perhaps a cartel, forming a portion or the entirety of some banking system.

"Therefore, we can expect our $100,000 in loan principal from step 3 to come back home as a regular deposit, as shown in step 4. Now compare step 4 with step 1. We have added $100,000 to clean liabilities, we have the same $100,000 in reserves, and we have loan assets of $100,000.

"The bank has liabilities twice the amount of reserves. The leverage is 2 to 1. Put another way, the bank has one half of the liabilities covered by deposited reserves. Fractional reserve banking is a shell game, but we aren't done there. In step 5 we make another loan of $100,000. In 28 steps we reach $1 million in deposit liabilities backed by $100,000 in reserves. This leverage has reached the approximate legal limit in the United States of 10 to 1, assuming all deposits are subject to the reserve requirement. Nine tenths of the liabilities are out working for the bank.

"Based on this example, what would short circuit this ability to iteratively leverage deposits?" The professor looked over his class roster. "James McGovern," he called out. Mr. All-nighter wheeled his head over his arm until arriving at a balance on his chin. "If cash in circulation increases at the expense of bank reserves, loan chaining for the amount of the increase is terminated." "Very good, Mr. McGovern. Now we will look at the unwinding of leverage." The professor advanced the slide.

Table 6 Banker's Books with Neutral Loan Unwinding

Step	Liabilities		Reserves		Assets	
	Dirty	Clean	Dirty	Clean	Dirty	Clean
7		$300K	$100K			$200K
8		$200K				$200K
9		$200K	$100K			$100K
10		$100K				$100K
11		$100K	$100K			
8/9b		$300K	$200K			$100K
10/11b		$300K	$300K			

"Step 7 is the same as before, which is represented by the light gray. Let us require loans to be repaid all at once, and let us further require that the loans have zero percent interest. The simplicity allows us to focus on the fundamentals of banking leverage and the requirements for bank profits. Again, a banking entity with steady market share could represent the banking system at large with 100% market share. The magic of the credit nexus works in the reverse direction too.

"If we consider repayment by withdrawal from the banking system, our example bank experiences its share of withdrawals proportional to its share of loan repayments, assuming a homogeneous system. If all loans are paid strictly by withdrawal, on average each bank will have withdrawals equal to its loan repayments. The momentary circumstances do not vary greatly from the average without some market bias between banks. If we are modeling the entire banking system, any withdrawals to pay off loans just directly offset.

"The repayment from bank liabilities held by our example bank is shown in step 8. Liabilities decreased from $300,000 to $200,000. In step 9 the assets decreased from $200,000 to $100,000, and the reserves are restored to $100,000. By repeating the unwind cycle we return to where we started, with liability deposits of $100,000.

"If the loan repayment does not come from the bank that made the loan, we have the steps labeled 8/9b and 10/11b. Instead of receiving loan payments with corresponding loan repayment withdrawals, the bank has effectively gained two unimpaired deposits of $100,000. The

result is the same as simply attracting liability deposits without having issued loans because the loans have been retired by external payment. External loan repayment offers a less obvious back door avenue to reserve accrual.

"Based on this second case, where does the reserve money come from." The professor looked over his class roster. "Frederick Feinstein," he called out. Mr. Late smiled. "Mr. Feinstein, if the loan payment does not come from the liability deposits of the bank in question, where does it come from?" "It comes at the expense of reserves in other banks or it comes from the money in circulation." "Very good, Mr. Feinstein."

"I have given the two cases: repayment by retirement of a bank's own credit or by outside cash. We expect some combination of the two when we look at a portion of the banking system. If we are considering the whole system, outside cash comes from cash in circulation and not bank reserves. Once we consider profits on loan interest, it is possible for bankers to eventually corner the cash and exhaust banking business unless more government money is created.

"It should be mentioned that we have an absolute baseline reference for banking leverage: liabilities = reserves + assets. Any time we add or subtract a deposit liability, we add or subtract reserves by the same amount. Transactions involving deposit liabilities do not change the amount of credit being leveraged, only the leverage ratio if credit assets are nonzero. However, if we add or subtract a loan asset, we expect to subtract or add reserves by the same amount.

"The difference between loan principal and loan repayment, the interest, makes leverage profitable. Once we have reserves plus assets in excess of liabilities, we have, on paper, a projected gross profit. I say projected because we have the risk of default. If we have liabilities in excess of reserves plus assets, we know we will be in trouble even without default and overhead. Sell your bank shares." The whole class laughed. "Now let's modify our example unwind of loan chaining." The professor advanced the slide.

Table 7 Banker's Books with Negative Loan Unwinding

Step	Liabilities		Reserves		Assets	
	Dirty	Clean	Dirty	Clean	Dirty	Clean
7		$300K	$100K	[$-20K]p		$180K
8		$210K	$10K			$180K
9		$210K	$100K			$90K
10		$120K	$10K			$90K
11		$120K	$100K	$-20K		
8/9b		$300K	$190K			$90K
10/11b		$300K	$280K	$-20K		

   "In this case the total repayment of each loan is $90,000. It is less than the principal amount by $10,000. The losses to the bank are straightforward, baked in from the start. The bracketing tagged with 'p' on step 7 indicates a projected loss. With no loan assets after the unwind, it is caveman obvious the bank is short of money to cover the deposit liabilities. In all steps 7–11, dirty reserves plus clean assets fall short of total deposit liabilities by $20,000. A default on the loans would result in a 100% loss of principal, owed to depositors. But never fear, we can move failed assets into the dirty asset column and make some calls." Half the class responded with laughter. Half the class didn't get it. Button press.

Table 8 Banker's Books with Positive Loan Unwinding

Step	Liabilities		Reserves		Assets	
	Dirty	Clean	Dirty	Clean	Dirty	Clean
7		$300K	$100K	[$20K]p		$220K
8		$190K	$-10K			$220K
9		$190K	$100K			$110K
10		$80K	$-10K			$110K
11		$80K	$80K	$20K		
8/9b		$300K	$210K			$110K
10/11b		$300K	$300K	$20K		

"In this case the total repayment of each loan is \$110,000. It is more than the principal by \$10,000. That's a good thing, but notice a shortage of cash to handle the withdrawals to make repayments. Banks need enough cash on hand to meet withdrawals. As a banker, you gotta ask yourself, 'Do you feel lucky?' Enough said. Oh, looky. Profits.

"Profits are clean reserves, unimpaired by deposit liability. What might we conclude about profitable banking?" The professor looked over his class roster. "Ms. Taylor." An attractive blonde with confident posture and bearing answered. She had a future with the U.S. Treasury. "Banks make money by charging positive interest on other people's money not in circulation but safely in the bank." "And what does that say about inflation and banking, Ms. Taylor?"

The shiny demeanor of Ms. Taylor did not flinch whatsoever. "The banking business model must charge a positive nominal fee to restore nominal reserves to cover nominal deposit liabilities. Loans are more difficult to sell and recover if prices are generally falling because positive loan interest requires the price of loan money to rise. But all money is a fungible medium of exchange, currency. Falling prices mean that the price of money itself is falling too, opposite to the rising strength of money. In a deflationary environment, the public can simply wait to afford things. The return on investment required to make a bank loan good business is raised to a higher relative standard. The borrower must loose the appreciated purchasing power of the loan principal plus the purchasing power of the interest. In an inflationary environment, the borrow gives up the purchasing power of interest but avoids the loss of purchasing power on principal. The gain of purchasing power by spending early offsets the cost of interest, but the banks can raise interest rates even more. Holding money is more profitable than loaning at negative interest, a limitation of nature. A deflationary environment encourages less spending and less economic activity. An inflationary environment encourages spending, so it encourages borrowing, employment, and prosperity." A smile had blossomed on the professor's face. "Excellent, Ms. Taylor."

A bit annoyed by the professor's assessment was a student named Paul. He thought to himself, *Our professor knows better, doesn't he? Wouldn't a deflationary environment encourage less spending by the government and higher quality investment by a private sector left with more purchasing power and thus more control of limited resources?*

Wouldn't an inflationary environment encourage the employment of limited labor and resources to less productive purposes, just the way the economically corrupt like it? Aren't deflationary busts a way for economies to heal from 'irrational exuberance'? Why wouldn't the same healthy standards of economic activity work all the time? Of course, Paul's undergraduate degree was only in History. He knew something of the Weimar Republic, the Dawes Plan, the politicians and financiers of Germany and the Allies, and the transfer problem ably described by Hjalmar Schacht if no one else. History shows us that lawful transfer problems mainly afflict the middle classes.

"Money is a medium of exchange, but we have several types of money stock here in the United States and around the world. There is the cash money issued by government, and there is the credit created by banks. If a bank has $300,000 in deposit liabilities and $100,000 in reserves, it has created $200,000 in credit. We are concerned with the liabilities vis-à-vis the reserves. What the depositors and line-of-credit borrowers have is not actually money deposits but bank credits. What the depositor has done for the banker is loan him his money. The bank credits that deposit in an account. If the rules of the account permit money withdrawal against the account's credit at any time, the credit represents a demand deposit. We emphasis the deposit of money, not the credit given in exchange. Makes people feel better. Demand deposits are money; they are a medium of exchange. Swipe card and go. Bank accounts that are more restrictive on withdrawals are savings deposits, time deposits, that sort of thing.

"Cash money comprises the monetary base or MB. It is physical. M1 money stock is cash in circulation, not on reserve, plus demand deposit credits. M2 money stock is M1 plus non-demand deposits. M2 is close money. It requires some effort to make liquid. Debt chaining can involve the creation of M1 or M2. Credit that is M2 money stock but not M1 money stock leads to the creation of M1 money stock. Thus, we are not talking about a severable type of credit with M2 not M1 stock.

"Leverage is built by chaining loans. The amount of leverage is the ratio of liabilities divided by reserves. The lent principal amounts from which assets derive equal the difference between deposit liabilities or clean deposits and the reserves left from those deposits. More loans, more interest, more leverage, more risk of insolvency. Banking is a

shell game. Game theory applies. The behavior of other banks, the government, and the general public are important factors to sound management and profitability. Elite bankers cultivate predictability, regularity, and pliancy from game participants.

"The greatest tool for managing the banking environment is the central bank. Central banks monetize government debt. That is to say, central banks create new cash money and give it to the government after expenses. Typically this is done by purchasing government debt instruments. The central banks might buy government debt instruments from a third party, but eventually the debt instruments will mature and the government will pay the central bank as an investor. The investment proceeds are returned to the government. Incidentally, while the debt instruments mature in possession of the central bank, the increase in the money supply from their purchase pushes prices and nominal tax revenue upward. In a convoluted way, the central bank retires government debt by substituting new money for government's lack of old. However, government is not the unrivaled beneficiary of money creation.

"A central bank directly expands only the monetary base of an economy. The monetary base, made exclusively of government legal tender, is leveraged by banks to create private bank credit. If the central bank adds $1 million of fiat cash to the economy, in time with enough loan chaining private banks could add $5 million, $10 million, or more in credit. Cash is described as high-powered money. Money used by the public is described as low-powered money. It is a combination of cash money and credit money.

"Let's summarize the consequential importance of today's lesson. If banks earn interest on loans at a rate greater than price inflation, bankers increase their living standards by keeping what affluence they have and claiming a share of the growth of the economy. Positive price inflation is beneficial to the loan chaining process and bank profits. Bankers are the principal beneficiaries of inflation because most new money is new private bank credit and because hefty individual gains from bank profits are more permissible than by direct government outlays. Drive through a business area and observe the bank buildings. The inflation-flexible credit portion of money is leveraged as a future claim on others' cash. As a result, the bankers' share of the economy will increase. This stimulates the economy and creates prosperity.

Paul, you have a question?"

"Yes, Professor. Doesn't the concentration of purchasing power with bankers come at the expense of the general public?"

"Yes, temporarily. That's what stimulates workers to work, returning purchasing power back to the workers. The velocity of money is increased, increasing production and the average standard of living."

"But Professor, what right have bureaucrats and bankers to decide how hard men should work for others? What limits the burden placed on the working class? Doesn't economic growth prove that the average standard of living is growing, and yet doesn't price inflation prove the average standard of living for those who are economically upright with respect to inflationary largess is in decline? Doesn't price inflation prove government stimulation of economic activity is wasteful at the expense of people who live within their means and who need means to produce? Given that wealth is finite and has to go somewhere, given that the economy is usually expanding and prices are always rising, given the expansion of government welfare and patronage at all economic strata and sectors, and given that bankers leverage most money, the inflation-proof credit money, doesn't that mean the living standards of bankers and bureaucrats are going up by making the masses poorer of property and of character?"

"Ahhh, haw," Paul, "we live in the freest, most prosperous country in history. We have so much compared to the rest of the world. We have many philanthropists in this country that are doing great things. The world is getting smaller, and we have to learn to pull together. It's the best system we know. It's definitely not a perfect system, but what human system is?"

The professor punctuated a pause with raised eyebrows and shrugged shoulders. He continued, "So what are the risks to banking and the modern economy? The bugaboos of banking are deflation, default, and deposit aversion. Central banking protects the economy against all three. Banking is a shell game played to optimize government sponsorship and public patronage. I would be remiss to lecture on the Global Economic Environment and not tell you that. Thanks for your attention, everyone. Don't forget the reading assignment: reserve requirements, the Lost Decade, the liquidity trap, and quantitative easing from chapters 1 and 2. Everything is online. Class dismissed."

Chapter 6

Players Only

"Have a seat, Dr. Hammond," the university president said coolly. The decor of the office was predictably clinical, political. The portraits of a deceased wealthy patriarch, a living grandson, and a living great-grandson featured prominently. Rich wood textures tastefully accented lighter fabrics, paints, and wallpaper. Two walls of tinted window glass met in a corner. In attendance, two boldly sweeping valances marshaled drapery pairs in the open formation. It was a beautiful day outside.

"Dr. Hammond, have you seen the latest review of your book in the student paper?" The young professor felt his body react defensively to the first pitch of this civilized exchange. He hoped his instincts were wrong. "Yes, I have," he said assertively. "It is a completely distorted assessment." She looked him square in the eyes. "Then why has your book been so poorly received everywhere?" Dr. Hammond remained silent. He wasn't going to help her further along this line of conversation.

"Dr. Hammond, the article refers to an abstract treadmill of yours compelling workers to work?" "Yes, Madam President—", but the question was rhetorical. "It comes across as conspiratorial or delusion-al." "It could to the uninformed, Dr. Tipper.—" "I like Madam President," she interjected with a friendly, self-congratulatory tone.

The university president put on the reading glasses lying on her desk with authoritative deliberateness. Similarly, she picked up a copy of the student paper. When she was good and ready, she read an excerpt from the article in solemn near monotone. "Dr. Hammond models the economy as a workers' treadmill. The general response I gathered from faculty members well versed in the field of economics was that his exposition was circular reasoning from sociopathic assumptions."

"Madam President, that is not an accurate characterization of what I wrote in my book," he said as he reached into his briefcase. He made a habit of carrying a few promotional copies. The treadmill metaphor I

used was taken out of context as causative, but it was only descriptive. This is the passage in question. 'Inflation is the perfect tax on labor. No one's fiat legal tender may escape. As much as workers increase their average productivity by trying to get ahead individually, they offer more low-hanging fruit to their masters of new money. The money supply is increased at will to offset any gain in wealth for whatever net result the central bankers may wish to impose on workers collectively. These taskmasters simply raise the speed of the treadmill to compensate for any speed increase in the productive strides of workers. How far forward or backward the middle class runs is fully controlled. The carrot is always dangling to the fore; the edge of insolvency, threatening from behind.'"

"I'm sorry, Dr. Hammond, but I can't see that your description is even plausible."

"Madam President, money and wealth have an exchange ratio determined by market forces. The transmission of market forces depends on the sociopolitical structure of the economy, but the actuating force behind it is simply scarcity. It's the law of conservation, supply and demand, as interpreted by the eye or stomach or body of the beholder, the market participant. Please, look at this figure." He found the page and handed her the opened book, orientated for her convenience.

"The money of an economy exchanges with the wealth of an economy. The money's purchasing power scales to fit. When that exchange rate is disturbed we have inflation or deflation. In the first state, the economy has only old money in balance with stable wealth. We can imagine that if consumption and production perfectly offset for enough time this referential state will prevail.

"In the second state, the wealth of the economy has grown. The old money has scaled to fit. The exchange ratio indicated by those lines show that the money stock buys more. Prices go down because each individual dollar buys more stuff. Growth in the economy is deflationary in real terms, meaning living standards are improved by it.

"In the third state, not only has the wealth grown, but the supply of money has grow by an equal percentage. The exchange lines show how much wealth the new and old monies cover. The purchasing power of the old money has not changed because the increase of wealth was exactly offset by the increase of money stock in nominal or

numeric terms.

"In the fourth state, not only has the wealth grown as before, but the money supply has grow by a greater percentage. The exchange lines show how much wealth the new and old monies cover. The purchasing power of the old money has decreased because the increase of wealth was more than offset by money stock increase."

The university president focused her attention on the illustration with a look of concentration. After a moment she said, "It seems

Figure 9 Price Inflation Correlated to a Confiscation Rate of Established Wealth

inaccurate to me that you can assume money and wealth correspond like that in the economy. Once you spend money for wealth, you loose the money. It's one or the other."

"Yes, Madam President, but the economy is large and has sociopolitical structure. The economy seeks dynamic equilibrium, like a well-stirred pot on the stove. The distribution of water and other ingredients finds proportional balance throughout the volume though the contents are in flux. Money and wealth will find equilibrium within an economy because money has velocity, not in spite of it. Not only does money buy wealth, but wealth buys money. Market participants are buyers and sellers, creating income and wealth streams. The pot is stirring, and the results on the macroeconomic scale average out to fit some overall social order. If we water down the economy with money,
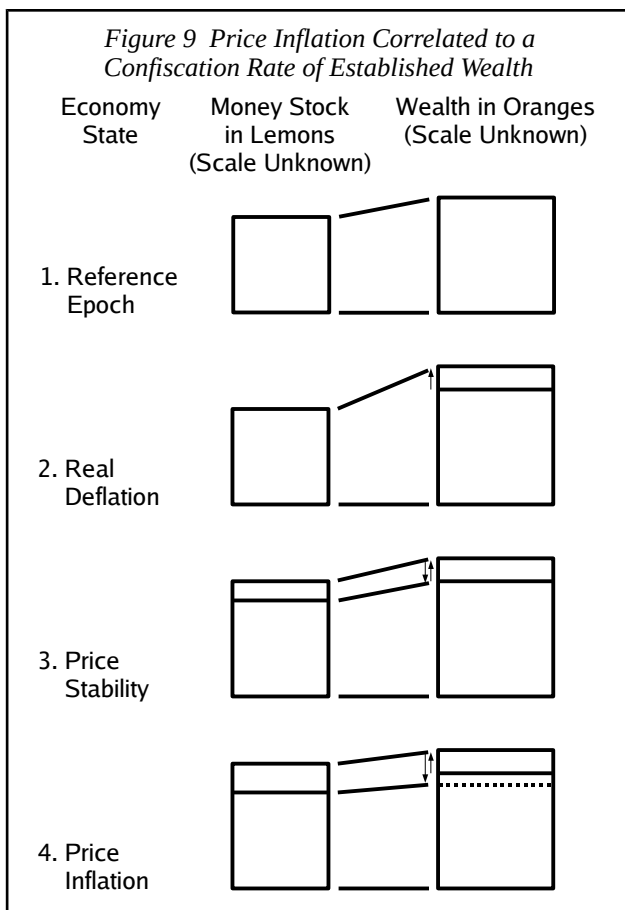
each constant volume share is watered down too, less calories."

"Normally, I would say 'you're the expert', Dr. Hammond, but that's why I called you here. We have a preponderance of experts who disagree with you. Just from this student newspaper alone, not looking beyond this university, we have a total of two quotes from well-respected economic scholars. Professor van Akeem-Wong called it, quote, 'an amateurish attempt to characterize economic forces of a rich diversity and interplay with simplistic premises and mathematics.' Professor Moreau said, 'Professor Hammond's book is the king of cheese if by king of cheese you mean the bastard child of rank Limburger and retrogressive American, or else it is an alarmist tract of Stone Age traditionalism couched in scholarship and outmoded by modern progress. To call it the Waterloo of economic positions would be an insult to Napoleon's legacy in the culinary arts.'" The president couldn't help but chuckle. Then she got serious again. The portrait of J.D. kept from blinking so he wouldn't miss anything.

"Dr. Hammond, the currency of a professor is research papers and books. You don't have a whole lot of currency here. You don't have tenure, and I don't plan to give it to you. Before this university is embarrassed anymore, I'd like you to resign."

Figure 10 Socioeconomic Structural Changes with Price Inflation
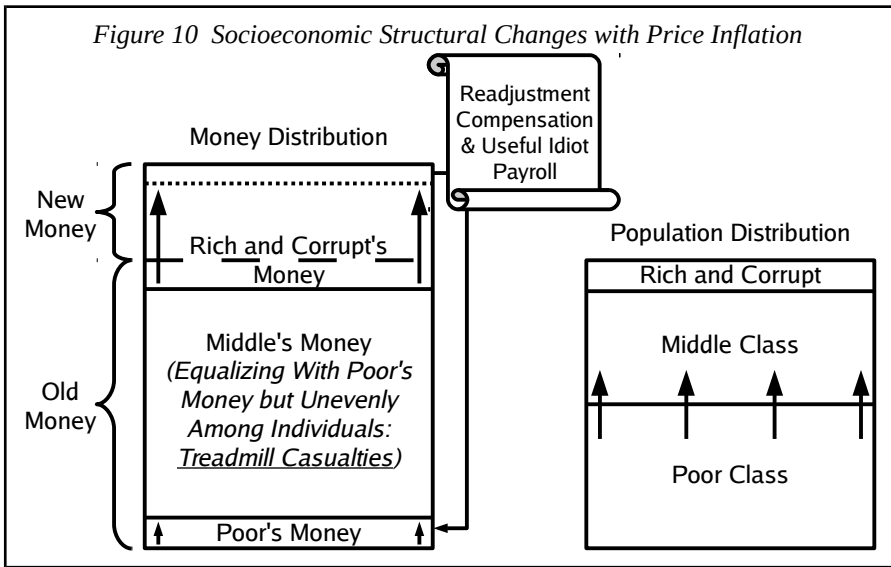
Hammond's fear turned to anger, on the inside. *Utopian socialism,* he brooded, *in this Land of Lincoln. I like the original motto better.*

Chapter 7

Board of Motivation

Cigar smoke wafted upward and formed a layer nearing the 23-foot-high ceiling. The smoke accented the gaudy, monumental chandelier, all half a ton of it. Up so high, the lighting fixture struck a modest balance with the wall treatment and the oblongish 27-foot Honduran mahogany table with inlaid granite center. Several men and one woman relaxed around its perimeter. They wore business suits and sat in comfortable leather chairs. None were as young as thirty. A gray-haired gentleman was finishing his anecdote.

"He said, 'Every man for himself, and the devil take the hindmost.' I said, 'What's a goy like you doing in a place like this?' His answer? 'We're all German financial engineers. My grandmother was a Rockefeller.'" A roar of laughter filled the room. The gilded eagle above the marble fireplace hardly cracked a smile. It was a bond paper eagle, introduced in 1914 and responsible for the extinction of the Saint-Gaudens eagle in 1933. Some blamed it on Gresham's law, but everyone present knew it was part of an esoteric assault formerly touted as social Darwinism.

"Great story, Ben," declared the man at the end of the table. "Joshua, congratulations on the marriage." A round of congratulations were made, but the storyteller was waiting with comedic timing. "You're in trouble," Ben admonished. More laughter was shared.

"Let's get down to business," said the man in the lead seat. "As you all know, we have been in a bit of a quandary for roughly a decade. Money supply has ceased to be a reliable control of economic activity. Our use of interest rates has been clumsy. The behavioral response of market participants has not been adequately addressed—until now."

The chair placed the fingertips of each hand against each other with his elbows resting on the table. It was the gesticulation of wisdom beyond reproach. "As we emerge from this recession, we enter the bold new field of behavioral macroeconomics. At the start of this year, BEA uses GDP in lieu of GNP. The focus is on the production of

domestic resources as it should be, not on the welfare of Americans, who won't benefit from an increase in foreign ownership of the U.S. economy. As we proceed with the measured liquidation of middle class affluence, we must fortify and optimize the willingness of the worker to work into prostration. The inflation tax is only as good as the wealth it buys without political repercussions." The chairman grinned and others followed suit. The chair gave an affirmative glance to his right-hand man and said, "Jack."

   Jack divided the stack of booklets laying before him and passed them to his right and directly across. He and the chair already knew the material. "This is highly confidential," right-hand Joe began. "Let the professional academics come up with their own formulations." The other members each situated a saddle-stitched booklet of folded white paper on the table to face themselves. The covers simply read 'Goldilocks'. Let's turn to the table of contents." The sound of pages turning was momentarily audible.

   "Section 1, 'Inflation Reclamation' is familiar. It's the basic math that got us here. The upshot is that pleb wealth can be taken at will if the money supply inflation tax is not resisted. The problem is that it is resisted at high rates of return on established wealth.

   "Section 2, 'Optimizing Worker Economy' is the new understanding. It's quite simply really. If you'll turn to page 13—" The flutter of pages was momentarily audible. "You see in the figure the flow of investment monies to government and to the private sector. By controlling the federal funds rate we can control the proportional division of that investment. In absolute terms, we care about the investment in the private sector because the private job market depends upon it. Should the government smoothly come to dominate the job market...well, that's a good thing. Georgia Guidestones."

   "In the meantime, we can manipulate the availability of jobs. We want the maximal free labor we can stimulate. If we have too few jobs available, we deprive ourselves of the full strength of the labor pool. If we have too many jobs, we deprive ourselves of the discount on working labor that gives us our profit margin. We want laborers to produce more of what they don't recover in wages, our share. The economy is porridge, workers are Goldilocks, and the interest rates of central banking are the temperature control. We anticipate a mildly inflationary environment, not more than 3 percent." Jack smiled at the

elegance of it. The light of understanding shined happily in the faces of the initiates to this new plan.

Figure 11 Money Pump Throttling of the Job Market
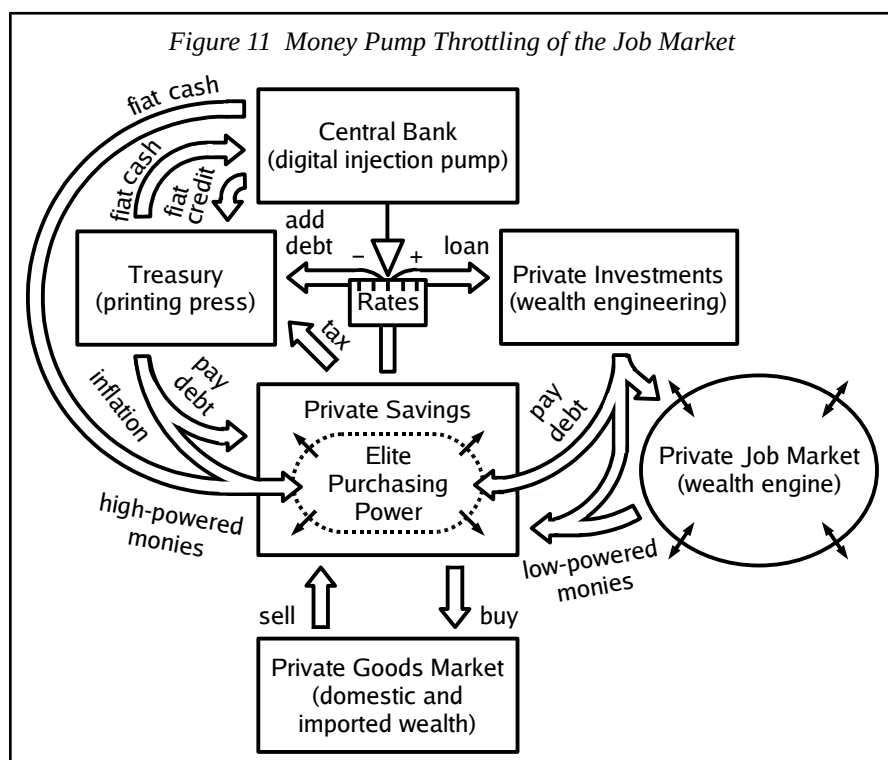
"Ha, ha, ha," Ben blurted out, his face reddened. "Oh, my God. Ha, ha, ha. Do you see the destination in sight? Selective breeding works on man as much as cattle and dogs. The fiat habit is so well ingrained. The standard 'loose' interpretation of the Constitution, the forgotten gold money confiscation from 1933 to 1974: what conditioning! There is no explicit legal prohibition against using specie, only that income tax and debt be reckoned in Federal Reserve notes. Nature or nurture? —who cares! They converge because nature abhors a vacuum. Give domestication a few hundred years and workers will eat biscuits right out of your hand. Ha, ha, ha."

Chapter 8
Goldilocks, Section 1

Section 1: Inflation Reclamation

Subsection 1.1: Modeling of Exchange Rates

Barter and purchase are the exchange of one thing for another. Commodities are things of interchangeable utility. The price of one commodity is the same as another to the degree it is interchangeable and in the same market. The market determines an Exchange Rate (ER) between types of commodities to include commodity-like money types. In a transaction, the Exchange Quantity (EQ) of type N is traded for an EQ of type D.

Definition of Exchange Rate (ER):

Equation (1) $\qquad ER(\dfrac{N}{D}) \ = \ \dfrac{EQ_N}{EQ_D}$

   The Supply (S) of a commodity including money stocks determines the physical availabilities of those commodities. The complex of SRs between every commodity pair is monumental to the determination of prices due to market forces and ultimately the law of conservation.

Definition of Supply Ratio (SR):

Equation (2) $\qquad SR(\dfrac{N}{D}) \ = \ \dfrac{S_N}{S_D}$

   The supplies of commodities determines the physical availabilities of those commodities. It is useful for mathematical modeling to assume the SR of two commodities is proportionally related to the ER, or that SR is the only fluctuating determinant of prices in a dynamic but otherwise structurally static economy.

Useful modeling assumption regarding SR:

               Consider liquidity levels such as not-on-the-market, on-the-market-looking, and exchanging-on-the-

market. For two commodities throughout an economy of static structure, their relative availabilities at or at least at any two liquidity levels maintain a constant proportion, like concentric squares on a rubber sheet of uniform elasticity.

Proportional relationship between SRs of distinct liquidity levels or thresholds:

Let 1 and 2 be any liquidity domains, and let C be a known constant of perhaps unknown value.

Equation (3)
$$SR_1\left(\tfrac{N}{D}\right) = \frac{S_{1,N}}{S_{1,D}} = C_{1,2/N,D} \cdot \frac{S_{2,N}}{S_{2,D}} = C_{1,2/N,D} \cdot SR_2\left(\tfrac{N}{D}\right)$$

An exchange ratio is the supply ratio at the exchanging-on-the-market liquidity level.

Equation (4)
$$ER\left(\tfrac{N}{D}\right) = SR_{Exchanging}\left(\tfrac{N}{D}\right)$$

Definition of Decimal Percent Change (.%Δ):

Equation (5)
$$.\%\Delta X = (X_{New} - X_{Old})/X_{Old}$$

Equivalently, the definition of Decimal Percentage Change (.%Δ) may be solved for the new value.

Equation (6)
$$X_{New} = (1 + .\%\Delta X) \cdot X_{Old}$$

The equation definitions of .%ΔER and .%ΔSR may be rewritten by substituting ratio variables with the fractions of new and old values of EQ or S per the definition of those ratios, then replacing new EQ or S values in terms of old EQ or S values and .%ΔEQ or .%ΔS, and then simplifying.

Mathematical substitution techniques for .%ΔER or .%ΔSR:

Equation (7)
$$.\%\Delta ER\left(\tfrac{N}{D}\right) = \frac{ER_{New}\left(\tfrac{N}{D}\right) - ER_{Old}\left(\tfrac{N}{D}\right)}{ER_{Old}\left(\tfrac{N}{D}\right)}$$

$$= \frac{\dfrac{EQ_{N_{New}}}{EQ_{D_{New}}} - \dfrac{EQ_{N_{Old}}}{EQ_{D_{Old}}}}{\dfrac{EQ_{N_{Old}}}{EQ_{D_{Old}}}}$$

$$= \frac{\dfrac{(1+.\%\Delta EQ_N)\cdot EQ_{N_{Old}}}{(1+.\%\Delta EQ_N)\cdot EQ_{D_{Old}}} - \dfrac{EQ_{N_{Old}}}{EQ_{D_{Old}}}}{\dfrac{EQ_{N_{Old}}}{EQ_{D_{Old}}}}$$

$$= \left(\frac{\dfrac{(1+.\%\Delta EQ_N)}{(1+.\%\Delta EQ_N)} - 1}{1} \right) \cdot \frac{\left(\dfrac{EQ_{N_{Old}}}{EQ_{D_{Old}}}\right)}{\left(\dfrac{EQ_{N_{Old}}}{EQ_{D_{Old}}}\right)}$$

Relationship between commodity-identical .%ΔSRs of differing liquidity domains:

Equation (8) $.\%\Delta ER(\frac{N}{D}) = .\%\Delta SR_1(\frac{N}{D}) = .\%\Delta SR_2(\frac{N}{D})$

$$= \frac{1+.\%\Delta EQ_N}{1+.\%\Delta EQ_D} - 1 = \frac{1+.\%\Delta S_{1,N}}{1+.\%\Delta S_{1,D}} - 1$$

$$= \frac{1+.\%\Delta S_{2,N}}{1+.\%\Delta S_{2,D}} - 1$$

By definition the SR of type A per type B, meaning SR(A/B), is the inverse of SR(B/A). The proportion constant relating SR(A/B) at liquidity domain 1 per SR(A/B) at liquidity domain 2 is the inverse of the constant resulting from only changing to SRs of type B per type A, meaning SR(B/A), or from switching the liquidity domains, but not both.

Mathematical substitution techniques for constants relating commodity- or liquidity-inverted SRs:

$$\text{Equation (9)} \qquad C_{1,2/A,B} = \frac{SR_1(\frac{A}{B})}{SR_2(\frac{A}{B})} = \frac{1}{\left(\dfrac{SR_2(\frac{A}{B})}{SR_1(\frac{A}{B})}\right)} = \frac{1}{C_{2,1/A,B}}$$

$$= \frac{SR_1(\frac{A}{B})}{SR_2(\frac{A}{B})} = \frac{\left(\dfrac{S_{1,A}}{S_{1,B}}\right)}{\left(\dfrac{S_{2,A}}{S_{2,B}}\right)} = \frac{1/\left(\dfrac{S_{1,B}}{S_{1,A}}\right)}{1/\left(\dfrac{S_{2,B}}{S_{2,A}}\right)} = \frac{1/SR_1(\frac{B}{A})}{1/SR_2(\frac{B}{A})}$$

$$= \frac{SR_2(\frac{B}{A})}{SR_1(\frac{B}{A})} = C_{2,1/B,A}$$

$$= \frac{1}{\left(\dfrac{SR_1(\frac{B}{A})}{SR_2(\frac{B}{A})}\right)} = \frac{1}{C_{1,2/B,A}}$$

Special relationship of SR constants with inverse commodity or liquidity relations:

$$\text{Equation (10)} \qquad C_{1,2/A,B} = \frac{1}{C_{2,1/A,B}} = C_{2,1/B,A} = \frac{1}{C_{1,2/B,A}}$$

Special case of commodity-inverted SRs:

$$\text{Equation (11)} \qquad SR_1(\frac{A}{B}) = \frac{1}{SR_1(\frac{B}{A})} = \frac{1}{C_{1,2/B,A}\cdot SR_2(\frac{B}{A})}$$

$$= C_{1,2/A,B}\cdot\frac{1}{SR_2(\frac{B}{A})} = C_{2,1/B,A}\cdot\frac{1}{SR_2(\frac{B}{A})}$$

By definition, $1+.\%\Delta SR(A/B)$ is equal to the new $SR(A/B)$ divided by the old $SR(A/B)$. The new and old SRs of a given liquidity domain may each be substituted by a specific constant C times the new or old SR of another liquidity domain, respectively. The new and old SRs may be substituted by the fraction of the supplies. The supplies may then be regrouped to form commodity-inverted SRs.

Mathematical substitution techniques for new and old SRs:

Equation (12) $1 + .\% \Delta SR_1(\frac{A}{B}) = \dfrac{SR_1(\frac{A}{B})_{New}}{SR_1(\frac{A}{B})_{Old}} = \dfrac{C_{1,2} \cdot SR_2(\frac{A}{B})_{New}}{C_{1,2} \cdot SR_2(\frac{A}{B})_{Old}}$

$$= \dfrac{\left(\dfrac{S_{A_{New,2}}}{S_{B_{New,2}}}\right)}{\left(\dfrac{S_{A_{Old,2}}}{S_{B_{Old,2}}}\right)} = \dfrac{1/\left(\dfrac{S_{B_{New,2}}}{S_{A_{New,2}}}\right)}{1/\left(\dfrac{S_{B_{Old,2}}}{S_{A_{Old,2}}}\right)} = \dfrac{\dfrac{1}{SR_2(\frac{B}{A})_{New}}}{\dfrac{1}{SR_2(\frac{B}{A})_{Old}}}$$

$$= \dfrac{1}{\left(SR_2(\frac{B}{A})_{New} / SR_2(\frac{B}{A})_{Old}\right)} = \dfrac{1}{\left(1 + .\% \Delta SR_2(\frac{B}{A})\right)}$$

Special case of commodity-inverted .%ΔSR:

Equation (13) $.\% \Delta SR_1(\frac{A}{B}) = \dfrac{1}{1 + .\% \Delta SR_1(\frac{B}{A})} - 1$

$$= \dfrac{1}{1 + .\% \Delta SR_2(\frac{B}{A})} - 1$$

Subsection 1.2: Purchasing Power and Pricing Level

Purchasing Power (PP) is the amount of wealth exchangeable for a certain amount of money. The PP of all the money in an economy is all the wealth within that same economy, but that is axiomatic and of no immediate statistical value. The axiomatic SR of wealth to money offers the framework of statistical value in the measure of the real value of a nominal money unit. A nominal money unit is unadjusted for inflation. Wealth is real.

The all-purpose invariable wealth unit does not practically exist, so neither does the all-purpose invariable money unit. Gold simply offers the best approximation known to man. The plausible existence of a fixed wealth unit is nevertheless invaluable in economics. At any point in time an assessment of all wealth in the universe of discourse could be assessed fair market values in some all-purpose unit consistent with the physical realities of the supplies, the law of conservation, market

structure, individual necessities, etc. and the psychological realities of the individual desires and values. Within the universe of discourse consistency of valuation is relative consistency. There is no absolute wealth unit even in theory.

In practice then, PP is understood to be the amount of wealth exchangeable for one unit of money. The unit of PP is wealth units per money unit. Such a unit dependent on an unknown wealth unit is itself unknown. In practice a wealth unit may be approximated by a basket of goods, but by fixing the wealth value of the basket it is the exchangeable amount of money units that changes. In practice money units measure wealth not vice versa. The market prices commodity wealth per money unit since money is the medium of exchange.

The natural way for market participants to equate the exchange rate of wealth and money is the inverse of PP. Pricing Level (PL) is the amount of money exchangeable for a certain amount of wealth. Axiomatically, it is all the money in an economy divided by all the wealth within that same economy. PL is understood to be the amount of money exchangeable for wealth generally. It is a term of the masses. PP is a term of economic elites. Seigniorage is the PP of money over the cost to create it. Inflation is the ultimate tax. Taxation is the hallmark of government. Money sovereignty is power over every economic transaction is, in time, the sovereignty.

Because money and wealth units are arbitrary choices, the utility of PL and PP is their relative change over time. PP is the superior concept because the greater issue is the value of the working money unit. Modern money is fiat money, that is money by virtue of fiat or command. The potential supply and devaluation of fiat money is nearly limitless. The simplifying assumption of proportionality of exchange rates at differing levels or thresholds of liquidity is useful for the mathematical modeling of .%ΔPP and .%ΔPL. Here is the genesis of the assumption.

The definition of PP and PL:

> Let Money Supply (MS) be the money supply of an entire economy, and let the supply of money at some liquidity level or threshold be represented as '$$$'.

Equation (14) $\quad PP \;=\; ER(\frac{Wealth}{\$\$\$}), \; SR_{Liquidity}(\frac{Wealth}{\$\$\$}), \text{ or } \dfrac{Wealth}{MS}$

Equation (15) $\quad PL \;=\; \dfrac{1}{PP}$

   The simplifying assumption of proportionality causes the .%ΔPP of one commodity with respect to another to be equivalent at every liquidity domain. The modeling permits the equating of the definitions of .%ΔPP at the exchanging-on-the-market liquidity with the axiomatic definition of the entire economy and the macroeconomic measures of total wealth and total money supply. The concern of commodities not exchanging on the market at all times for definition of the former liquidity domain can be overcome. The market has a lowest ask price and highest sell price. If the ask price is less than or equal to the bid price, the exchange price is likely to be the median of the two prices. If the ask price is higher than bid price, the projected exchange price is still the median of the two prices. Either way, market forces set the exchange rate at the median of the lowest ask price and the highest bid price. It is noted that the asks and bids specify both price and volume of a transaction.

The equivalence of the definitions of .%ΔPP over exchanging-on-the-market and economy-wide liquidities:

Equation (16) $\quad .\%\Delta PP \;=\; .\%\Delta ER\left(\frac{Wealth}{\$\$\$}\right)$

$$\;=\; .\%\Delta SR_{Economy}\left(\frac{Wealth}{\$\$\$}\right) \;=\; \frac{1+.\%\Delta Wealth}{1+.\%\Delta MS} \;-\; 1$$

The commodity-inverse relationship of .%ΔPP and .%ΔPL:

Equation (17) $\quad .\%\Delta PP \;=\; \dfrac{1}{1+.\%\Delta PL} \;-\; 1$

Subsection 1.3: Money is Sovereignty

Since money has velocity, so does wealth. Wealth moves in the opposite direction. Individuals wish to maximize their affluence by exchanging wealth and money. Market forces drive a velocity of wealth and money and seek an optimization of economy according to a democracy of sorts. Market forces seek a balance in the individual holdings of wealth and money through market participants seeking their best individual results.   The affluence of a large segment of the

population of an economy will tend to be a mix of wealth and money in proportion to the total wealth and money in the economy overall.

We may divide the population of an economy into those who receive new money and those who do not. Beneficiaries of government subsidy receive monies or the equivalent of monies that could flexibly be attributed to tax revenue or to money creation. Let us categorize government benefits by ranking the portions of those benefits received by individual from highest to lowest amounts. Let us assign as tax revenue benefits the smallest portions until the assignable tax revenue has been assigned. Let the remainder of government benefits be attributed to new money.

Such is an arbitrary but definitive way to divide the recipients of new money from those who only receive old money. It is an all the more natural way if we consider wealth confiscation. New money taking new wealth first is the least obtrusive path of wealth confiscation. The most powerful confiscators will reserve the most powerful means first for themselves. The least powerful confiscators are useful idiots, a curious infection of barbarism and fecklessness.

New money becomes old money as it initially moves through the economy and its potential to push prices upward is realized and exhausted. For simplicity it is assumed that the recipients of new money receive all the inflationary benefits of it. Whatever amount of benefit gained by purchases using secondhand and partially new money before the inflation of prices inherent in its existence is entirely realized in connection with its usage is tiny compared to the total purchasing power the new dollars had entirely for free by initial users. Furthermore, it is not really a benefit to buy something at a once stable price about to be raised. It is only the avoidance of a loss, but the inflation tax will be paid in full. A delay of purchases will tend to create greater inflationary loss because of the ongoing expansion of the money supply.

The ongoing nature of market participation, of velocity, means that individuals working strictly in old money are subsidizing those that receive uncirculated new money. Ultimately, individuals working strictly in old money will collectively lose by some amount, the inflation tax. They are the plebs. Their individual gains and losses must average to the total loss, irrespective of what they do. For modeling purposes herein, they are limited to the honest accounting of

old money and whatever spoils direct taxation may provide. Plebs are defined by the use old money.

New money crowds out old money to buy wealth, but a period of consideration is required to determine what money is newly added. We may divide the wealth of an economy in the same proportions as that of new money to old. New money commands an exchange with, or a proportion of, wealth as does the old money, as all the money has exchange and proportion with all the wealth.

The total amount of wealth may also grow over time. We may regard the original amount as established wealth and the additional amount as new wealth. In reality, some wealth is consumed and replaced. Let us assign as much of the wealth gain, if any, to the new money as possible. Again the reasoning is that new money taking new wealth first is the least obtrusive path of wealth confiscation. The proportional division of wealth into the same spheres of new money and old money means that new wealth may be partially or entirely gained by the beneficiaries of new money, and partially or entirely lost by the plebs.

If $.\%\Delta MS > 0$, then:

Equation (18) $\quad .\%\Delta Wealth_{Economy} \;\geqslant\; .\%\Delta PP_{Old\,Money}\cdot \dfrac{Old}{Money}$, and

Equation (19)

$$Infla\text{-}tion\,Recla\text{-}mation \;=\; .\%\Delta Wealth_{Economy} - \left(\dfrac{Old}{Money} \cdot .\%\Delta PP_{Old\,Money} \right)$$

Note that $.\%\Delta PP$ is negative if $.\%\Delta PL$ is positive, meaning old money goes backward in real terms if there is price inflation. The increase of money stock is money stock inflation.

Be advised of the distinction between the money held by plebs and the money of the type held by plebs. The former is called plebs' money and the latter is called old money. Either possibility could be construed from the terms 'pleb money' or plebeian money' without explicit care. The term is avoided herein, but plebeian wealth is used to mean wealth in the sphere of old money. All money becomes old money; hence, the motivation to continuously create new money. In doing so, the beneficiaries of new money are robbed of purchasing power of their old

money too, but the loss is more recovered if one's percentage share of the new money is far greater than one's percentage share of the old money. It pays to have standards of membership.

Keep in mind that the change in the ratio changes between wealth and money are proportionally uniform because money is fungible and market forces tend to toward equilibrium throughout the marketplace. The .%ΔPP at the liquidity domain of an entire economy is independent of the portion of the money in that economy given consideration. It is only necessary that the money be old money to have experienced the full change in purchasing power, or to have taken the older measurement of PP at least. Each unit of plebs' money is old money. Furthermore, the simplifying assumption equates the .%ΔPP for all liquidity domains. There is a corollary of PL and wealth.

The relation of changes in wealth of the total economy, of old money, and of plebs' money to the changes of certain macroeconomic measures:

Equation (20)
$$.\%\,\Delta\,PP_{\substack{Old/Plebs'/Any \\ Money}} \;=\; \frac{1}{1+.\%\,\Delta\,PL_{\substack{Old/Plebs'/Any \\ Money}}} \;-\; 1$$

$$=\; \frac{1+.\%\,\Delta\,Wealth}{1+.\%\,\Delta\,MS} \;-\; 1$$

Note that .%ΔPL is the rate of inflation. If a central bank were to have an inflation target, it is achieved by estimating .%ΔWealth, solving for .%ΔMS, and introducing that much new money into the economy. The poor have little wealth to lose from the inflation tax and may even be on government dole. Observe that the wealth of the plebs, mainly the middle class, is lost at the rate of .%ΔPP, which may be calculated from .%ΔPL. *An inflation target of 2% annually is a middle-class wealth adjustment target of ((1/1.02) - 1) or -1.96% annually.*

The .%ΔWealth in the sphere of old money is equal to the sum of the individual changes in Plebeian Wealth (PW) divided by the total wealth initially in the economy:

Equation (21)
$$.\%\,\Delta\,Wealth_{Old\ Money}$$

$$=\; \frac{\Delta\,PW_1 \;+\; \Delta\,PW_2 \;+\; \Delta\,PW_3 \;+\; \ldots}{Wealth_{Original\ \text{or of Old Money}}}$$

A target change in pleb wealth is equivalent to a future wealth target for plebs collectively. Without realizing the full fruit of their labors, the plebs can only make up the difference individually by the disproportionate sacrifice of other plebs. That is to say, the average pleb will achieve the set results of the pleb group, but individuals of the middle class may excel exclusively by the declines of other members of the middle class. Uneven results will occur because the loss of gainful jobs and marketable skills portends a precipitous decline assessed upon discreet individuals and to be consummated by liquidation of savings and valuable property. If the rate of net gainful job loss is small, the majority of working plebs will continue in bliss, contently elevated by the rising tide of an engineered economic tsunami, oblivious to their fate of inflation reclamation patiently advancing behind the other side.

The uneven assessment of middle class failure has two political benefits: (1) a substantial portion of the middle class will grow in affluence without cost to the establishment, thereby presenting a living facade of the prosperity, and (2) the poor will have circumstantial cause to blame their poverty on the affluent middle class, whom they will easily vilify as greedy rich with appropriate encouragement.

In effect, control of the fiat money supply permits the creation of an abstract treadmill upon which the middle class is made to run. The speed of the treadmill is the speed of wealth transfer, which is essentially the rate of wealth creation by the middle class minus the rate of increase in middle class wealth. A decline of middle class wealth adds to the inflation tax rate. It is anticipated that with macroeconomic data provided at the taxpayers' expense and with esoteric financial engineering the speed of the middle class treadmill may be set with some precision by controlling the rate that new money is introduced into the economy.

The middle class treadmill regulated by money supply:

Equation (22)
$$Wealth_{Orig} \cdot \% \Delta Wealth_{Old\,Money/Plebs'\,Money}$$
$$= Wealth_{Orig} \cdot \% \Delta PP_{Target}$$
$$= Wealth_{Orig} \cdot \left(\frac{1}{1 + . \% \Delta PL_{Target}} - 1 \right)$$
$$= Const._{Plebeian\,Wealth\,Adjustment\,Target}$$

$$= \ \Delta PW_1 \ + \ \Delta PW_2 \ + \ \Delta PW_3 \ + \ \dots$$

$$= \ Wealth_{Orig} \cdot \left(\frac{1 + .\% \Delta Wealth}{1 + .\% \Delta MS} \ - \ 1 \right)$$

The selection of MS increase is a function of economic performance of the plebs, the existing amount of MS, and the inflation target applied to the middle class:

Equation (23) $.\% \Delta MS$

$$= \ .\% \Delta Wealth + .\% \Delta PL + .\% \Delta Wealth \cdot .\% \Delta PL$$

$$\approx \ .\% \Delta Wealth \ + \ .\% \Delta PL$$

Equation (24) $\Delta MS \ \approx \ (.\% \Delta Wealth \ + \ .\% \Delta PL) \cdot MS$

However hard plebs may work, the fruit of their labors past, present, and future may be taken at will as far as political stability allows by the inflation tax—elegant, total control. Money is sovereignty. This section does not address how to motivate plebs for maximum production, only how to take that production once realized.

Subsection 1.4

We have been measuring wealth in constant or real units, unlike nominal or non-deflated dollars, to wit:

Equation (25) $\% \Delta Wealth \ \approx \ \% \Delta Wealth_{Real\ \$\$\$}$

$$\neq \ \% \Delta Wealth_{Nominal\ \$\$\$}$$

For real comparison between X_{New} and X_{Old} measured in units of the same currency at differing times:

Equation (26) $X_{New(in Old\ \$\$\$)} \ = \ \dfrac{X_{New(in New\ \$\$\$)}}{1 + .\% \Delta Price\ Index_{Old \to New}}$

Subsection 1.5

Gross Domestic Product (GDP) is wealth production and does not correlate with total existing wealth due to a second independent consideration:

Equation (27) $\Delta Wealth = GDP - GDC_{onsumption}$, where consumption is depreciation not merely consumer spending without depreciation.

No theoretical invariant exists between ΔWealth and ΔProduction, or between %ΔWealth and %ΔProduction, because the relationship between Wealth and Production involves a third variable Consumption. Mathematically put, we have three variables and two degrees of freedom: calculation of any one variable requires independent determination of the other two.

By definition we know:

Equation (28) $Wealth \neq GDP = \Delta Wealth + GDC_{onsumption}$

$$\gg \Delta Wealth$$

Because GDP is a measure of wealth production and not available wealth, the growth rate of GDP is a better measure of progress in collective plebeian utility to masters than of plebeian welfare. This is so because plebeian consumption may be arbitrarily restricted as low as the higher limit of popular political resistance and deference to their natural subsistence.

In the media, GDP is preferred over Gross National Product (GNP) is preferred over Wealth, Price Inflation is preferred over Purchasing Power is preferred over Money Supply Inflation, and most importantly the preferred popular rationale for economic hardships is: (1) vilification of the middle class, of those between the sovereign rich and the hapless poor, or (2) the weakness of the inanimate economy.

banking – 1. financial engineering with other people's money. 2. the most oppressive method of taxation and government.

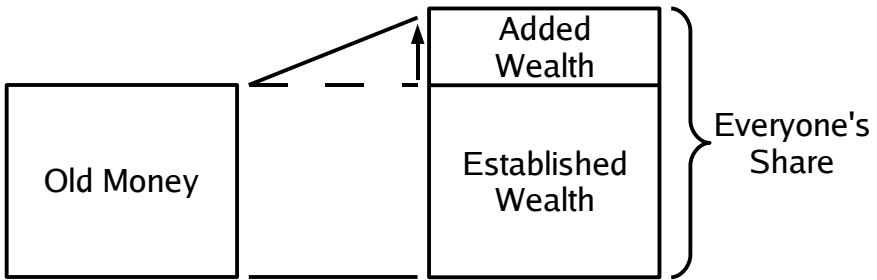**entrepreneurism** – the practice of economic liberty by the rules of civic reciprocity.

financial engineering – the practice of taking economic liberties with the rules of civic reciprocity.

Q: If (1) exponential growth of technology and the economy raises the average living standard exponentially, and (2) rising prices show a decline of average living standard for those who do not receive inflation tax revenue, then (3) who are you working for?
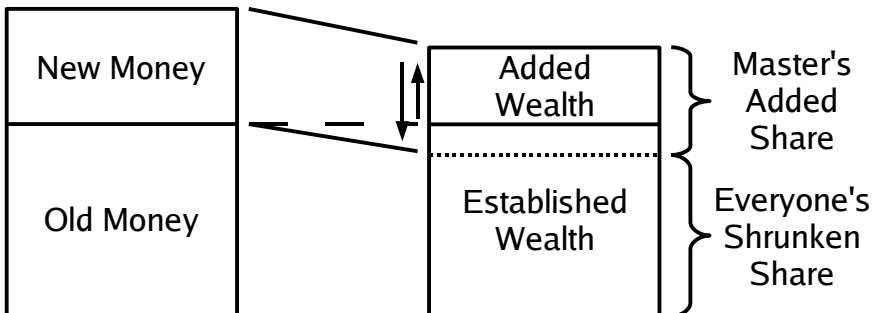
A: Bankers, plutocrats, bureaucrats, and temporarily useful idiots.

If there is economic growth and no money supply growth,…

Old Money		Added Wealth	} Everyone's Share
		Established Wealth	

…honest producers earn higher living standards.

If there is economic growth and price inflation,…

New Money		Added Wealth	} Master's Added Share
Old Money		Established Wealth	} Everyone's Shrunken Share

…honest producers surrender their living.