Hi, folks,

Here's a quick and dirty summary of my views on value, wealth, income, capital, interest, profit, production, consumption, unemployment, inflation, deflation, markets, and more. I consider them a coherent alternative to current orthodoxy shared by left and right.

I define value as what I want. By this I mean what I actually want. I distinguish actual want from stated, conscious, subconscious, unconscious, and functional (as evidenced by behavior) want. I perceive that ideas about want are mappings or representations, and that I am barred by the very nature of representation from ever fully and accurately representing (i.e., knowing) what I actually want. I also perceive that I can alter ideas about want to more nearly conform them to actual want, and that by this evolution I can live and die better.

Observing living things from microbes to people, I see convincing evidence that we want to live, to reproduce, and to die. (Yes, we want to die. To want otherwise when all of us die is to be doomed to dissatisfaction.) Looking more narrowly at humans, I see evidence around the world today and in the past that we want to imbue our living, dying, and reproducing with meaning and purpose. I also see evidence that we, like other living things, are constrained in living, dying, and reproducing, and that we benefit by recognizing and accepting this. Finally, I see evidence that we often carry information about what we want and how to get it which we discover to be inaccurate.

I define wealth as satisfaction and means to realize it, as fulfillment of want and means to fulfill it. From an ecological and evolutionary perspective I conclude that an environment well-suited to human existence, and information, both genetic and experiential well-matched to the environment are important kinds of wealth. I also conclude that means to filter lessons of experience to make them a more reliable basis for predicting outcomes (i.e., science) is a particularly important and valuable kind of wealth.

When I look at wealth I perceive it to have both instantaneous and enduring qualities. I appreciate a sunset in the moment, and I cherish its memory. I use a fork to eat now, and I can continue to use it in the future. I term the instantaneous component of wealth "income," and the future component "capital."

The word "capital" is derived from "capita" or "head," which has long been used in counting livestock. For millennia, humans accumulated wealth primarily in the form of livestock. To our ancestors' way of understanding, livestock had the remarkable ability to generate wealth on an ongoing basis. Long before we domesticated plants, we laid claim to animals that bore offspring year after year and milk day after day. The herd was a self-replenishing, self-expanding source of income. The labor and other human inputs required to make it so were only a fraction of total inputs, as the animals existed largely on gifts of nature. Thus did

we come to think of capital as capable of generating an ever-larger stream of income.

As people accumulated more and more artifact in the form of buildings, roads, waterworks, tools, and household furnishings we saw in these things a distinctive quality of livestock, the ability to provide a continuous stream of benefits far greater than the human labor required to maintain them. Hence we began to refer to them as "capital." However, artifact "capital" lacks the self-renewing quality of natural capital. Cattle make more cattle. Buildings fall down. Rivers flow year after year. Tools become worn and broken.

Somehow we've failed to see or to acknowledge that the input to natural capital by which order and quality are sustained is sunlight, and that we're without any analogous "free" input to artifact capital. In the absence of human labor natural capital increased for billions of years. Earth went from lifeless rock to teeming biosphere. In the absence of human labor, artifact capital deteriorates in relatively short order. Few buildings endure a hundred years. Tools and household goods may last only a few. We recognize the latter phenomenon, at least to some degree, in the accounting convention we call "depreciation," by which we treat the value of artifact capital as something expended over a few years or decades.

When we think of capital as the future component of wealth, we can see the flaws in the old "land, labor, capital" model. Land has future value, and we can invest in land by fertilizing, terracing, or fencing to increase that value. People have future value and we can invest in people with education or health care to increase that value. Natural capital dwarfs artifact capital in value, and extends far beyond "land." We can invest to preserve and enhance that value by protecting the integrity of ecosystems, or we can deplete that value by disrupting and degrading them.

Many people find the idea of rent appealing and reasonable. After all, if I have use of your property, and you forgo that use, I get benefit, you forfeit it, and you have cause to lay claim to something of mine. From rent we need take only a small step to arrive at interest. Here, however, the property being rented is money, and the underlying matterenergy remains unspecified.

The landlord knows that some of the rent must be used to maintain the property, or it will become useless. The lender of money, however, may see no such requirement. In this difference we can discern a fundamental distinction between rent and interest. With interest we can imagine that we've a non-depleting capital asset. With compound interest we can carry imagination a step further, to conceive of an ever-growing capital asset capable of generating an ever-growing stream of income.

We're back to cattle, but without any assurance that what we represent with

money enjoys the input of sunlight and the derivative biospheric qualities and processes sustained by it. And even in those cases where it does, herds do not expand forever and trees do not grow to the sky! Short of the biosphere itself, we're without any example of matterenergy phenomena that become more valuable without limit and generate income without limit in perpetuity. The fiction that is compound interest is sustained by particular and general (inflation) default, by failure to repay and by repayment in debauched currency, both of which provide correction to the illusion of ever-expanding wealth.

How shall we accurately measure income? We require full accounting of inputs and outputs. Otherwise we risk overstating income if we're drawing down stocks of wealth or increasing stocks of obligation to generate it. If we take oil from the ground and price it at the cost of drilling, we ignore its nonrenewable (at least on human time scale) and finite nature, and we omit all reference to the costs of pollution and other resource degradation or depletion entailed in its recovery. Such omissions we term "externalities" as they are "external" to our accounting records. Diminishing biodiversity, eroded topsoil, polluted air and water, climate catastrophe, and myriad other aspects of the human condition are huge externalities!

The phenomenon we call "profit" is a form of income. When we engage in enterprise and externalize costs, we overstate profit. I think it possible, perhaps almost certain, that externalized costs of human enterprise from pre-history to the present are orders of magnitude greater than cumulative stated profits! I think we've engaged in a massive liquidation of capital, a transfer of wealth from future to present, even as we've claimed to be generating income by our own hands, increasing capital, and enriching the future.

We've done this largely in the context of what we term "markets," though a strong case can be made that they are anything but markets in a traditional sense. Every market has rules, hence the term "free market" is but a shibboleth. Owners have disproportionate influence on the rules of the marketplace and on prices within it. The greater one's income, and particularly one's discretionary income, the greater one's power in the marketplace. Rule-makers, rule-enforcers, and rule-explainers are beholden to owners. Owners aggregate more power by appropriating a portion of the output generated by labor of others. Owners structure markets to ensure that by tax, rent, limits on wages, and manipulation to induce spending and borrowing, most people are left with little discretionary income.

The first law of thermodynamics states that the quantity of matterenergy is constant, that we neither create nor destroy it. The second states that when we convert it from one form to another, a net loss of order occurs. The first law says we cannot produce or consume. The second says we can only down-cycle, as opposed to recycle, and that we pay an energetic cost to do even this.

A century ago most Americans did not have a job. People were largely "self-employed." The rise of "jobs" came as we concentrated capital of all kinds in the hands of a few, accumulated artifact capital of unprecedented quality and quantity, and converted natural capital to income at breathtaking speed. Under these circumstances, labor leveraged by capital has become so much more capable of generating money income that self-employment of all but the heavily capitalized has become increasingly rare.

That people today beg for "jobs" is evidence for how completely successful we've been in denying access to the subsistence compromise, the peasant lifestyle in which people choose leisure over luxury or even security of existence. From the enclosure acts in England, to the confinement of pre-Columbian peoples of North America to reservations, to the closing of the American frontier, to continuing schemes to deny people living in traditional ways the ability to continue to occupy their land, we've used guns and guile to force people into the armies of military and commercial empire. This process has been coercive from the outset and remains so today.

I understand "unemployment" to mean that people who have money, credit, and property, and people who seek to sell labor to survive or sustain one or another level of comfort are refusing to reach terms on which to share wealth. Unemployment has roots in inheritance, both genetic and extra-somatic, in geographic and other circumstance, in marketplace rules, and in other factors influencing power relationships in society. In the absence of an available subsistence compromise, unemployment is means to ensure that everyone lives in fear and mistrust, competing to avoid being the person left out when all the jobs are taken. Out of such competition we bid our lives downward to ever cheaper levels. We in the elite have difficulty grasping this as we reach for the gold rings of power, wealth, and status that are within our grasp by accident of birth, but for the two-thirds of the world's people living at the edge, it is all too apparent.

Economists define inflation as a "general rise in prices," but they omit much in doing so. Imagine for a moment that a zero is added to every price, including every IOU or other evidence of debt, and every paycheck. Nothing of substance changes, except that to the extent that taxes or entitlements are linked to absolute rather than relative standards, people's responsibilities or privileges are affected. What people find truly disturbing, however, when prices rise more quickly than incomes, or when debt instruments remain denominated in absolute, rather than inflation-adjusted values. In these cases people become poorer in purchasing power, more affluent in repayment power, and poorer in net worth to the extent that we are creditors. Inflation is thus a means to reward debtors and punish savers. Deflation is conversely a means to reward those who save and refuse to spend, and to punish borrowers and spenders.

Money has existed in many forms. When we made the transition from commodity

money, which had intrinsic value, to fiat money, which relies for value upon people's trust, we opened a door to abuse. In most of the world today, money is evidence of indebtedness. It's a promise to pay. It's born of extension of credit, and when we use it we continue that extension of credit.

Because we create money by lending, but the amount created is equal only to the principal of the loan, rather than to both principal and interest, our monetary system is inherently competitive and reliant upon continual expansion of borrowing and lending to put in circulation sufficient new money to repay the interest on the old.

This is a classic Ponzi scheme and the inevitable consequence is collapse. The story of all fiat money, without exception, is that it becomes worth less, and ultimately worthless.

Many find "free market" like "free enterprise" an attractive ideal. We want to be able to reap the rewards of our own labor, so long as we compensate others for any costs imposed upon them. However, as humans crowd more densely onto this planet, engage in unprecedented activities, and organize on larger scale, each individual's impact becomes more difficult to discern.

In our times free enterprise has been used to justify absence of restrictions upon private ownership, and pursuit of narrowly defined self-interest in enterprises where large costs are externalized and borne by others others. I'll argue that "free enterprise" is anything but free. Rather it is free for a few and costly for many in the short term, and costly for all in the long term for all.

A welfare state is nominally one in which those who govern redistribute wealth so that all are provided at least necessities of life. People who criticize welfare states argue that in the absence of greater incentive to contribute, members of a society lose capacity to sustain each other. They threaten a race into poverty where more and more free-riders burden fewer and fewer responsible people. Homogeneous populations in relatively small countries (e.g. Scandinavia) have in modern times come close to realizing the welfare state ideal. Their success is evidence that we can allocate enterprise between public and private sectors differently from the way we do in the US.

Many who argue in favor of welfare states employ a language of "rights." Yet rights are entitlements given meaning only when people act to sustain them. What we ask of—and offer to—each other, either directly or through mediating organizations like government, constitutes a social contract. Ability to fulfill any social contract lies in part in natural laws and environmental factors beyond our control. Debate about welfare ultimately will be resolved in terms of two factors: how we share the risks and rewards of living, and constraints imposed by nature upon those risks and rewards.

I perceive that we live today in a society in which most people are ignorant of, or in denial about natural constraints. We cling to claims about economic growth allowing all to live better, even though some are much more privileged. I think limits to certain kinds of growth are evident. In these realms, redistribution is essential to betterment of the less privileged.

The two preceding sentences are heresy, perceived as threat by all who imagine loss in such a redistribution. I think it possible that providing a decent living for all by redistributing from those with surplus to those with crying need will result in gains for all. Imagine, if you can, a world in which we celebrate each other's gains because we anticipate sharing in them, and we view our own ability to contribute to others as a privilege.

The word 'service' is derived from the Latin for slave. In its core meaning it denotes laboring without ability to demand anything in exchange. Today we pretend that actions within the commercial exchange economy can be called service. Since these are undertaken with expectation of return, use of "service" to refer to them is a corruption of language.

We also speak liberally about public service, to the point where many consider government employment to lie entirely within it, and where executives of nominally charitable organizations draw salaries comparable to those of their counterparts in business. By such looseness have we all-but-erased distinctions between self- and public service.

Transaction costs may be defined as costs which result from actions aimed at achieving a particular distribution of satisfaction, rather than at increasing satisfaction. Transaction costs are life devoted to deciding who eats which part of the cake, as distinguished from life devoted to baking or growing wheat or grinding flour.

If we are interested primarily in furthering common purposes, we may organize in a manner which mostly reflects environmental quality and available technology. As we place greater emphasis upon particular individual purposes distinct from common purposes, we organize more to ensure privilege, and we incur rising transaction costs. In our individualistic, acquisitive society, transaction costs abound. We devote steadily more resource to protecting a certain allocation of satisfaction, and steadily less—at least relatively—to satisfying basic needs.

Though "-ism's" are nominally ideologies in support of their roots (e.g. individualism as celebration of individuals) capitalism is a congeries of ideas about ownership and entitlement which have little to do with capital as we defined that word earlier. In fact, those who proudly wear the label capitalist in our era may now be engaged in the most rampant degradation and liquidation of capital ever undertaken by our species. Rather than conserving and

enhancing capital qualities of wealth available to us, today's capitalists are engaged in wholesale waste of irreplaceable natural capital.

In few places can we demonstrate the application of the Whorfian hypothesis as neatly as we can with the word communism. By defining this word in a manner thoroughly inconsistent with its "natural" meaning—one you might write if given a dictionary with a blank space following the word "communism," and all other words on the page defined as they are now—we have impeded ourselves and each other in even thinking about that meaning.

Imagining that communism means we can't own our own toothbrushes, and that the secret police will be banging on our door in the middle of the night, we are less able to talk about a concept of placing common interest ahead of particular. Lacking a word, we lose a thought. As our futures merge with those of people around the world, persistence in focusing on individual interests beyond our common interest may leave us less able to adapt successfully.

I think that communism and capitalism in the sense that I define them here are compatible, inseparable, and increasingly necessary. To effectively pursue common interest we necessarily protect future value. To effectively protect future value we necessarily address its largest component, the biosphere, which is common wealth. As we become more humans using more novel technologies to wield larger, more rapid impacts, we live and die better by becoming more adept communists and capitalists.

I perceive economics to be a set of explanations by which a powerful minority aim to confuse a dominated majority about the nature of value and the paths to satisfaction. Talk about scarce resources begs the question of the degree to which scarcity is a creation or outgrowth of human consciousness. References to production and consumption, as noted earlier, are fundamentally and irremediably flawed because of their conflicts with the laws of thermodynamics.

Absence of penetrating inquiry into the nature of value implies assumed answers to critically important questions. Human ecology, the scientific study of the interactions between humans and the environment—including for any person all others—is a sound foundation for economics, and will likely supplant it within decades.

Today, economic ideas are promulgated and applied primarily by people seeking control over others and nature. Using mass media, we have elevated many economic dogmas to the status of near-universal beliefs. To the degree that these ideas are inconsistent with ecology, we have undermined our ability to adapt successfully.

Our ideas about material progress and economic growth were considered utter nonsense a few hundred years ago. Cleverness in discovering certain aspects of how we may interact with the environment and in applying our discoveries to expand our numbers and funnel wealth from the many to the few has enabled us to sustain illusions about overall impacts of our actions. As we transgress limits to environmental capacity to support our numbers and actions, we are shedding these illusions.

Anthropologists have repeatedly found that so-called primitive peoples—hunter-gatherers, nomadic herdspeople, slash-and-burn agriculturalists—devote less life to satisfying material desires than we in the US do. I invite you to join me in considering whether our pattern reflects a wise choice to protect against future uncertainty, or a foolish one, by which we labor for diminishing returns.

These pages are draft—one, two, or many steps removed from most of what we distribute in this course. We ask your tolerance and invite your comments. One of the benefits we reap by working with you is your assistance in refining and improving our teaching materials so that they will be more valuable for those who follow.