The Theory and Practice of

Sustainable Economics

A GUIDE FOR 21ST CENTURY GOVERNMENT

Standards of LIFE

www.standardsoflife.org

The Path has to lead to a future that we want to live in. The future we aim for must be much better if we are collectively going to make the effort required to get there. This future must not only be sustainable, it must be much more fun, with more freedom and ample opportunities for joy for all.

- The Path to a Future, 2009

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Short Summary

The goal of broad sustainability, both ecological and social, is not just a desirable goal, it is in the end, the only option available.

Our industrial capitalist economic model has demonstrated its inability to deliver sustainability, and now we are faced with the necessity of transitioning to more sustainable model, either voluntarily or by default. The endeavour to develop that new, sustainable model is at the heart of the project for the Standards of LIFE; and in this paper we analyze the failings of the current economic model and propose a new model that provides a concrete and practical path to a future of sustainable prosperity.

We are convinced that the transition to sustainability is both more accessible and less difficult than we imagine. What convinces us of this is that the flaws in the current model of industrial capitalism are so basic and fundamental that once revealed, they provide a readily adoptable alternative. That alternative is simple to understand, easy to implement, affordable and self-propagating, because it acts at the most basic and fundamental level of our societies and economies.

The basic truth at the root of our alternative is one that we all already know: not everything has a monetary value. This truth is not overtly recognized in the industrial capitalist model, and the failure to incorporate this basic fact of life leads to a cascade of failings that disrupt our economies, our societies and our relationship with Nature.

Incorporating the truth of distinct social and monetary values into our policy framework enables a broad enlightenment of the road to sustainable prosperity. As we show in this paper, the formal recognition of social value as distinct from monetary value cascades through our economic and social structures, liberating the development of security and freedom, while maintaining the opportunity for prosperity.

Simple changes to the structure of our social security programs are at the heart of this sustainable model, which delivers the same rewards that human societies are striving to achieve today. The goals of a sustainable society are no different than the goals of any society today: to increase the security, prosperity and freedom of the people that make up that society. That we have been attempting to deliver on those goals by focussing exclusively on developing a material, industrial economy is the fundamental flaw in our approach. The goals that we seek are largely social in nature and when we take responsibility for meeting social needs with social resources, we liberate the material economy to operate within its natural boundaries.

The end is nigh, and it's going to be fun!

This paper is specifically focussed on the fundamental issue of explaining sustainable economics and how we can transition to such a model. Details for much of the implementation processes are available at www.standardsoflife.org and we encourage you to visit the site for more information after reading this paper. Thank you.

The Transition Challenge

The challenge we face now is how to transition to a sustainable state, in time and without massive disruption. A state of material sustainability is not a mystery, we already know how to achieve zero carbon by 2030[1], we just need to find a way to get there from here. The biggest challenges we face for the transition are the motivation to engage in it, and finding the investment to do it.

There are well recognized foundations for any plan to achieve a sustainable state:

1. We have to move to a steady state economy[2], meaning a steady *resource* state, not necessarily zero growth.
2. We need to transition to an energy infrastructure from renewable sources, and that will require investments of $2,000,000 a minute for the next 20 years[3].

These are very significant challenges, mostly because they appear to threaten our ability to secure our standard of living. When we think of a "steady state" we tend to think of a reduction in our access to "stuff", and stuff is what we use to define so much of who we are and what we have accomplished. And we already know that our governments are bankrupt, that we are personally in debt and that we don't have enough money to do what we already want to do; and so how we're going to find another trillion dollars a year for infrastructure investment looks like an absolute mystery to us.

But there are answers that address these challenges head on.

The key to finding the motivation is in the problem we are trying to correct. What are we trying to achieve today when we consume material stuff? We want to increase our security, our freedom and our fun. If we can find a better way to achieve the same results with a steady state society, that will unlock the door to our motivation.

Our current economic model is already broken, and doesn't work in a demographically balanced world because the social "costs" outweigh any reasonable tax on wealth. So we need to fix our economics anyway, and if we can do that with a economic model that lowers the investment hurdle, then we can afford to transform our energy infrastructure. We will demonstrate that a sustainable economic model can deliver broad prosperity, continue to foster innovation, maintain efficient resource allocation, lower monetary costs and provide better social security.

This paper explores the flaws in the industrial economic model, lays out the construct of a sustainable economy and describes the changes that will motivate us to transition to a sustainable state.

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[1] UN IPCC Report, 2011. Zero Carbon Britain project report, 2010

[2] A steady state economy requires adherence to four basic rules or system principles: (1) Maintain the health of ecosystems and the life-support services they provide. (2) Extract renewable resources like fish and timber at a rate no faster than they can be regenerated. (3) Consume non-renewable resources like fossil fuels and minerals at a rate no faster than they can be replaced by the discovery of renewable substitutes. (4) Deposit wastes in the environment at a rate no faster than they can be safely assimilated.

[3] UN IPCC Report, 2011 proposes $12.7Tn by 2030. Approximately two-thirds of what we currently spend on armaments and war.

What's an economy for?

A society is not sustainable if it is only in balance with the Nature that hosts it. A society can only be truly sustainable if it also meets the needs and aspirations of the people who inhabit it, and who will have to work to preserve and protect its fabric and provide for its future. A sustainable society must nurture an economy that enables the development of prosperity[4], if it is to fit the nature of its citizens as well as the Nature of its environment.

An *economy* is the collection of activity involving the exchange of value between different people or groups. An *economic model* is the sum of the mechanisms that enable that trade in goods and services, the purpose of which is to meet the needs of the people as satisfactorily as possible using available resources in conjunction with the talents, skills and efforts of the population.

A sustainable economy must operate within a model that provides all of the following:

- mechanisms to allow needs to be satisfied as accurately and efficiently as possible
- mechanisms that allow people to receive reward for their talents, skills and efforts; limited only by the demand for those talents, skills and efforts
- mechanisms that ensure that the truest cost it is possible to calculate are integrated into all materials, energies and other resource inputs, as well as the cost of mitigating the waste that results from the consumption of the outputs
- a supporting role for the freedom, democracy and rule of law that provide the framework for the economy

In all of these areas the industrial economy of today is failing, and it is failing because we are using v1.0 of a capital economy model. The dawn of the capital model, with fiat currencies and fractional banking, so blinded us with its ability to recognize value and represent it as wealth, that we fell into the trap of believing that it was *the* model for *all* economic activity. In fact the capital model only works for activity that creates wealth, which means surplus value left over after the transaction, that is then represented as "capital". The capital model does not work for activity that generates value that is consumed on the spot. The industrial capital model erroneously assumes that all activity can be represented by capital, when in fact only the remaining value can be properly recognized as capital. In this paper we refer to this erroneous view of life as TEA, for "Total Economic Awareness".

An economy is a function of the society that hosts it, it is continuously dependent on its host society for the rules, mechanisms and frameworks that support and enable it. Societies benefit from the successful operation of their economies, but it is important to remember which is cart and which is horse. Societies can exist without economies, but economies cannot exist without societies.

Not everything in a society can or should be valued in currency, and that truth is the key to the sustainable economy.

[4] *Prosperity* is a state of flourishing, thriving, success, or good fortune. Prosperity often encompasses wealth but also includes other factors which are independent of wealth to varying degrees, such as happiness and health. - wikipedia definition

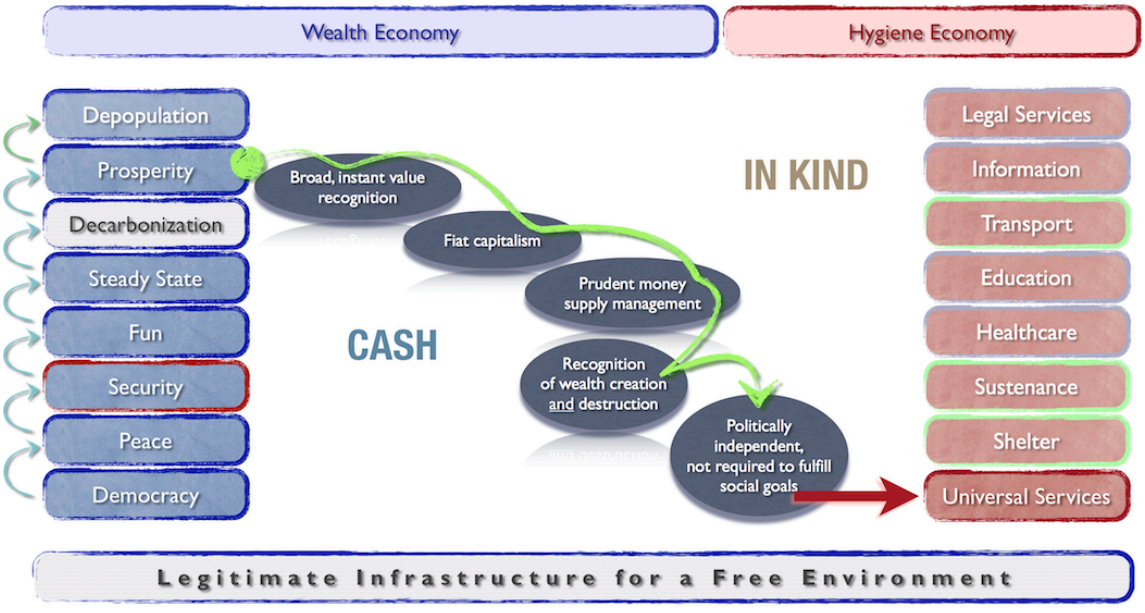
The Sustainable Economy

Sustainability is not, and never has been, confined to the achievement of environmental balance. Sustainability is a broad objective encompassing the total society including its economy, and until the solutions and processes that we propose will lead to the full achievement of sustainability for the whole society, the environmental component will remain a tangible but unreachable goal.

We have concluded that broad sustainability requires a restructuring of the way that we provide for our social security, to enable the isolation of our wealth economy from our hygiene economy. By replacing social security payments with in-kind services, the hygiene portion of activity is removed from the wealth economy. This isolation of wealth activity from hygiene activity invigorates and strengthens commercial enterprise, at the same time as it brings broad sustainability to our societies.

The conversion of social security from a monetary benefit into a “universal service” transforms our social and economic landscape with a stroke. The result is a *Hygiene Economy* that is concerned with the provision of the basic services that support the citizens’ basic needs without the exchange of monetary payment, and a *Wealth Economy* that is exclusively concerned with the commercial trade of goods and services. The Hygiene economy is liberated to focus on the sustainable delivery of real social security, and the Wealth economy takes its place as a client of the greater society, not its master. The roles are reversed compared to an industrial economy, and a steady state economy becomes possible because the Hygiene economy defines the basic infrastructure.

An isolated Wealth economy is dramatically healthier than the current industrial model, which is contorted by its attempts to fill commercial and social needs simultaneously. In a sustainable economy no one is “too big to fail”, wealth destruction can be recognized without endangering social security, and the commercial imperative to manipulate the political process is diminished.



Overview

The sustainable economic model that we propose is an evolution of the capitalist model, beyond industrial capitalism, in which commercial and social activities are auto-naturally isolated. In the commercial realm, known as the *Wealth Economy*, all transactions are made with currency; whereas in the social realm, known as the *Hygiene Economy*, none of the transactions involve currency.

The separation between Wealth and Hygiene economic activity is not dictated by legislation, but instead by providing all citizens with the basic necessities for life, free of charge at the point of need. (What constitutes those basic necessities varies by society, depending on the needs and capacity of the society, but at a minimum they are sufficient to sustain life and limb, and are provided without condition and at no monetary cost.) Through the establishment of these "universal services" as a lifelong right of every citizen, the society effectively removes the cost of social provisioning from the portion of the economy that is concerned with the creation of wealth. In practical terms this removes the *need* for a minimum wage and for financial social security accounting.

To be sure, there remain costs in the delivery of the universal services that require resources provided by the Wealth Economy, but these can more easily be afforded from a reasonable tax on the Wealth Economy, because the taxes do not have to bear the portion of labour cost that is absorbed by the Hygiene Economy. The universal services are substantially self-funding through the in-kind exchange of labour in return for the mutual provision of security.

By separating the activity of the Hygiene Economy from the Wealth Economy, the capital economy is empowered to manage its money supply properly in line with real wealth creation and destruction, and to maintain capital credibility because wealth is not used as a store for social security. Numerous other benefits accrue to the Wealth Economy as a result of its isolation, such as: reduced cost, increased flexibility, and the ability to recognize much smaller units of wealth creation than is feasible in an industrial economy.

Society's assumption of its responsibility for its own social security has the dual benefits of freeing commercial enterprise from an unnatural responsibility for social security, and promoting the ascendency of democratic power as the cradle within which the commercial economy rests. This results in the ability of the democracy to ensure that true cost[5] is incorporated into all activities, enabling the rational use of limited resources such as those provided by Nature.

The basic infrastructure of the society becomes primarily the domain of the Hygiene economy because housing, transport and energy standards are set by the universal service provisioning. And because the Hygiene economy is a democratically controlled realm, in which maximum efficiency and minimum long term cost are ascendant, it is empowered to pursue the most sustainable options available. Public housing, mass transport and basic utility infrastructure all benefit from the resulting lower investment costs, longer term planning and greater public interest. Private service provision is not precluded, but because it has to compete with Hygiene services that leverage in-kind compensation, a foundation of sustainable services is established that makes private initiatives compete to enhance the basic services, not replace them.

[5] including 'externalities' that need to be manually added in to address known but unaccounted costs, such as environmental impacts.

The Advantages of Isolation

Once universal services are in place there are advantages that accrue to both the social/hygiene economy and the commercial/wealth economy.

Wealth Advantages

- Commercial agility due to workforce flexibility
  - Because businesses can hire and fire without being responsible for the social fabric of their community they are freed to make commercial decisions according to the needs of their businesses and the demands of their markets.
    - Labour is available in much more granular and flexible units
  - Employees are not dependent on a specific employer for pensions, healthcare or other basic necessities so they can move between employers, re-train or re-skill and adopt flexible work schedules more easily
  - Workers are freed to offer their effort, skills and talents at whatever rate and in whatever manner they can successfully do so
- Reduced labour cost
  - Businesses need not provide pensions, healthcare and other benefits if the labour they seek to attract is available without those benefits
  - The nominal cost of labour is reduced by the equivalent that represents the cost of the universal services by effectively socializing the portion of the labour cost that the universal services cover.
    - Typically this reduction will be equivalent to about half the legislated minimum wage in an industrial economy.
    - The formula that determines the net amount of cash cost in the economy as a whole that is replaced with in-kind cost is:
      - Reduction in market labour rate - Cost of delivering the universal services
        - The reduction in labour costs also affects the cost of universal service provision, the majority of which requires only basic labour
          - If average wages in an industrial economy are twice the minimum wage, and the basic labour percentage of universal services is 50%, then average nominal labour costs are reduced by half and the net cost reduction to the wealth economy is half of that, so universal services convert 25% of average labour costs from monetary costs into in-kind exchanges.
  - Increased flexibility in the labour market will also contribute significantly to greater labour efficiency and reduce costs in that way too.
- Increased innovation & creativity
  - The flexibility of labour allows passionate innovators to pursue their ideas and creative impulses without requiring immediate commercial return.

- More high labour content services
  - Increased availability and lowered cost of labour, caused by the removal of minimum wage restrictions, makes high labour content services such as repairing and caring more viable.
- Increased need satisfaction (market efficacy)
  - The freer availability of labour in micro increments increases the possibility that micro needs can be viably satisfied.
- Reduced infrastructure cost
  - The reduction in labour costs, along with a more flexible labour force, reduces the overall price for infrastructure.
  - The net result is the in-kind contribution of basic labour replaces a portion of the monetary investment that would otherwise have to be raised as a tax on the wealth sector in an industrial economy.

Hygiene Advantages

- Stronger social fabric
  - Because there is increased personal security in the society there will be greater cohesion and this will increase resilience in the face of disasters, natural and otherwise.
  - The cost of basic policing is reduced allowing for higher staffing levels and deeper social integration.
- Greater self sufficiency
  - The localization needed to provide universal services will strengthen local communities and increase local capacity in each service included in the universal service.
- Higher service content
  - Increased availability of labour caused by the removal of minimum wage restrictions allows fuller utilization of all labour resources and makes high labour content services such as repairing and caring more available.
- Greater efficiency and sustainability
  - Universal service provision emphasizes lowest longterm cost solutions with the broadest application, encouraging efficient housing and transport.
  - High labour content services such as repairing become more viable, increasing lifetimes for products and reducing the waste flow.
- Richer cultural life
  - The increased flexibility of labour allows passionate creators to pursue their ideas and creative impulses without requiring immediate commercial return.
  - Freer and more flexible labour market allows for more time to be more easily allocated to social and communal activities.

Transitioning to Sustainability

Evidently the threatening consequences of the failing industrial capitalist economic model are not sufficient, in and of themselves, to motivate the change to a more sustainable model. There has to be a concrete option available; one that preserves as many of the benefits of the current system as possible, while meeting the most important needs of people more effectively than the current model.

We will transition to a different model for our economies and our societies when that alternative offers us better options in all of these areas:

1. Provides better social security.
2. Enables prosperity and reward for effort, skill and talent; in conformance with the nature of humanity.
3. Enhances the typical life experience, with greater freedom and more opportunity for fun and joy.

Every advance builds on what is already in existence, and we must recognize the value that the concept of modern capitalism has brought to our world, and integrate it into our future. To flail against the ineptitudes and weaknesses that we perceive in the operation of industrial capitalism as a justification for jettisoning it lock, stock and barrel, is to entertain a delusion as vast as TEA.

A sustainable economic model will retain the benefits of the capitalist model and correct the deficiencies of the industrial model. Elements we should seek to retain include:

- The ability to recognize value independent of material representation (fiat currency).
- Competitive markets to assist with efficient resource allocation.
- The stimulation of innovation and effort derived from risk and reward.

To those elements we must add:

- True cost allocation.
- Greater flexibility for labour and commerce.
- Real social security and a higher standard of life.

Creating the environment that encourages a voluntary transition to the sustainable economic model proposed requires that we:

- Establish real social security through the provision of universal services
- Enhance freedom by deregulating personal space
- Enhance democracy by placing the seat of power at the lowest level of our democratic structures.

See www.standardsoflife.org for the practical implementation plans for each of these requirements.

In 60 Words

The model for a sustainable economy is a capitalist system with competitive markets, and a separate social security system that absorbs the hygiene portion of total labour costs.

The transition to this sustainable economic model is achieved by providing basic social security services at no charge to everyone universally, financed by income taxes which are *only* used to provide those services.

One Decision, One Action, One Result

Through the election of a government whose primary agenda is the implementation of universal services we can initiate all the changes necessary to move our society fully onto the road to sustainability. Universal services requires strong local democracy, provides the social security that allows people to decouple the industrial economy from their standard of life, and empowers the implementation of massive public infrastructure. The simple, single commitment to implement free, universal access to the basic services of life brings with it the conditions for a fully sustainable society as a consequence of its implementation.

This genie will not go back into the bottle. The first society that demonstrates the facility with which universal services can effectively replace cash benefits, and provide better services, greater security, at a lower cost, will light a fuse for global demand for a better life and a sustainable society that will not be extinguishable. The net result of free access to basic services is inevitably a more resilient society that is better equipped to focus on the changes we will have to make and to summon the resolve to make the necessary investments for sustainability.

The Choice is Ours

If we are willing to accept a promise of service instead of a promise of cash as the basis of our social security, we can make the transition to a sustainable society.

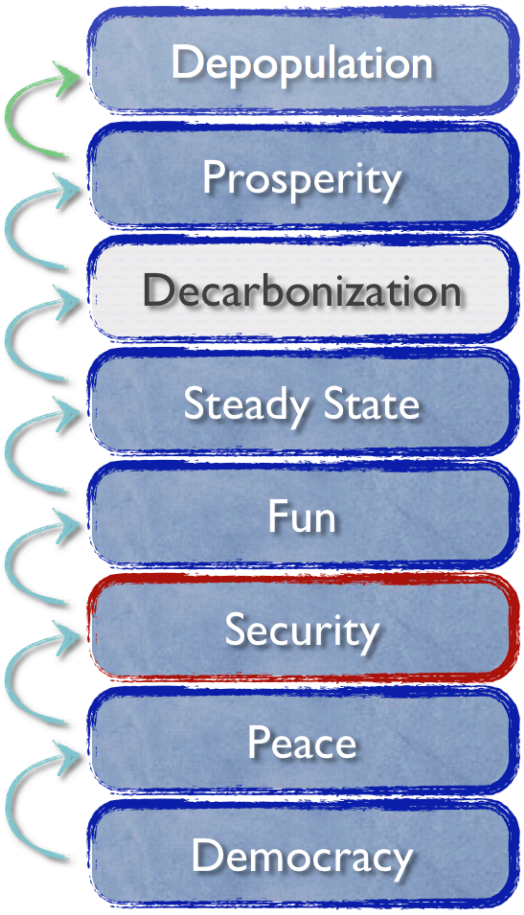
The transition to a sustainable economy does not require direct action on the commercial sector, nor does it rely on the support or voluntary participation of industrial enterprise. Instead it is achieved through direct action in the social realm by changing the way we provision social security from cash-in-hand to service-in-kind.

The benefits of the transition accrue to the commercial sector just as much as they do to the society as a whole, and this balance of benefits makes the transition to sustainability a realistically achievable goal within the timeframe available.

The Sustainability Stack

To understand what constitutes a sustainable society we started at the end result and worked back through each element's dependencies to find the root factors that create a sustainable state. We have developed the "Sustainability Stack" as a means to visualize and demonstrate the linkages between the components that make up a sustainable system. Each layer in the stack represents part of the solution and is dependent for its success on the layer below, and enables the layer above it.

Starting at the top, here are the layers of the Sustainability Stack:



Depopulation

It is widely recognized that an ever expanding human population places an unbearable burden on the resources of the planet at some point. We have not reached that point yet, but without a leveling off of population growth, the effort to achieve sustainable balance will remain illusive.

The most effective long term condition in which human population self-regulates is a level of prosperity and security at which procreation does not fulfill the desire for old age security. To wit, mature human societies that provide social security and modern healthcare have stable or declining populations.

The population challenge is best addressed by increasing prosperity and security.

Prosperity

Prosperity, in the sense of overall satisfaction, is achieved by enabling the maximum contribution from each member of society to the extent and in the manner that they feel most able to contribute. The conditions for this include a functioning economy that allows for innovational and wealth, as well as the freedom to pursue personal goals and develop skills.

In addition to a functional economic model, the long term prosperity of any society is also dependent on the mitigation of significant risks, and the most common risk that has led to the fall of civilizations over the history of humanity[6] is the risk posed by environmental change.

[6] Collapse: How Societies Choose to Fail or Succeed, 2005 ~ Jared Diamond

To ensure long term prosperity, we must develop environmentally sustainable lifestyles and economies.

Decarbonization

The most significant change we must make to come into balance with our natural environment is to stop adding anthropogenic green house gases to the Earth's atmosphere. This requires that we double efficiency and double renewable energy production within 20 years.

To achieve environmental balance in our lifestyles and economies we will have to restructure our economies to operate in a "steady state", in which material outputs and inputs are balanced.

A steady state economy will require us to find alternative satisfactions for our desires than the continuous accumulation of material goods. Those alternatives are freedom, joy, fun and personal fulfillment.

Fun, Freedom & Joy

Fun denotes a satisfaction with the moment, a relaxed ability to enjoy the company of friends and engagement in an activity of choice. The combination of circumstances that create the opportunity for fun are what we are seeking and that we are highly motivated to achieve.

The greatest intrusions on anyone's ability to have fun are the concerns and worries they may have regarding their security, or the security of those they love. The insecurities of our modern lives mean that most people today have little or no opportunity for fun, yet it is a desire that remains universal. This space is the most potent possibility for providing the motivation to transition to a sustainable world, where fun, freedom and joy are more accessible.

The most important precursor to fun is personal security from the elements, from hunger, from disease and from subjugation: personal safety.

Security

Security is a personal sense of safety in which we are freed from the worries that our most basic needs will not be met. If we are assured of always having access to at least the bare minimum of shelter, sustenance and healthcare, we have physical security; and when we have the means to make the most of our potential to contribute through access to transport, education and information, we have security in our prospects.

This kind of personal security enables us to lift our sights from the elemental instincts for survival to the aspirations for greater good, and this elevated aspiration is a vital foundation for building a sustainable society.

Personal security is also dependent on the physical security provided by peace, highlighting the political foundation on which sustainability must be built.

Peace

Peace allows us to develop the basis of civilization, to foster arts, engage in trade and develop the institutions that serve our greater good.

Without peace we are doomed to divert our attention and our resources into the waste that is conflict and never raise our sights from the lowest ground.

The door to peace is the development of communal decision making and conflict resolution as replacements for violence and intolerance. And the key to that door is the people's ultimate, communal sovereignty over the selection of their decision making representatives.

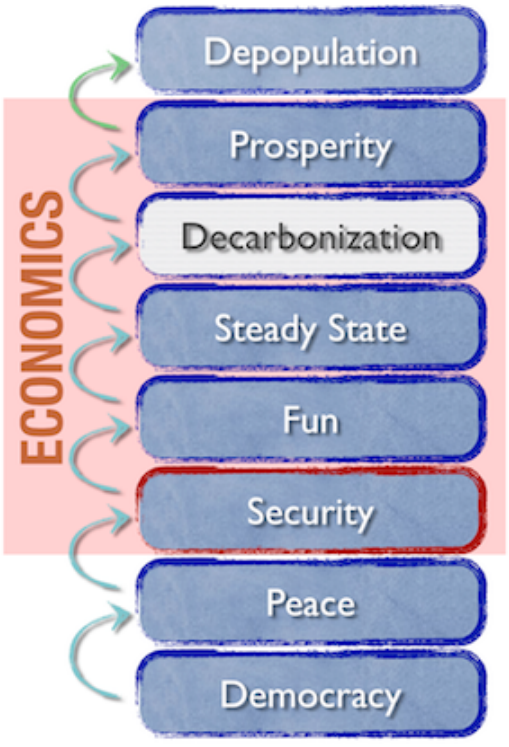
Democracy

At the base of the Sustainability Stack is democracy, because it is the enabler of peace and from there all else grows and is made possible. The more perfect the democratic practice, the stronger the foundation for peace and the better the quality of the decisions made. Those that have access to democracy today must use their privilege to start making changes in their society.

The Role of Economics in the Sustainability Stack

When we look at the Sustainability Stack we can see that it is based on political foundations, and that it results in social changes, but the intermediate layers are to do with our economies.

While we will not reach a sustainable state without the reform of our democracies, we cannot reach a sustainable state without reorganizing our economies, because it is our activities with material resources and energy that are destabilizing our physical environment.



Once we have summoned the political will to start down a path to sustainability, much of the work and many of the changes will be in the area of economic activity. We must have a coherent and valid strategy for our economic activity both to galvanize and to capitalize on the necessary political changes.

Maslow[7] described the cumulative nature of human aspiration, and that model shows us that we must attend to the hygiene factors of survival and safety, before we will reach higher for the common good. A realistic economic plan that provides for the basic necessities of life as well as enabling the natural commercial impulses of humanity to flourish is the base on which we can build a truly sustainable society.

[7] Abraham H. Maslow, A Theory of Human Motivation, Psychological Review 50(4) (1943).

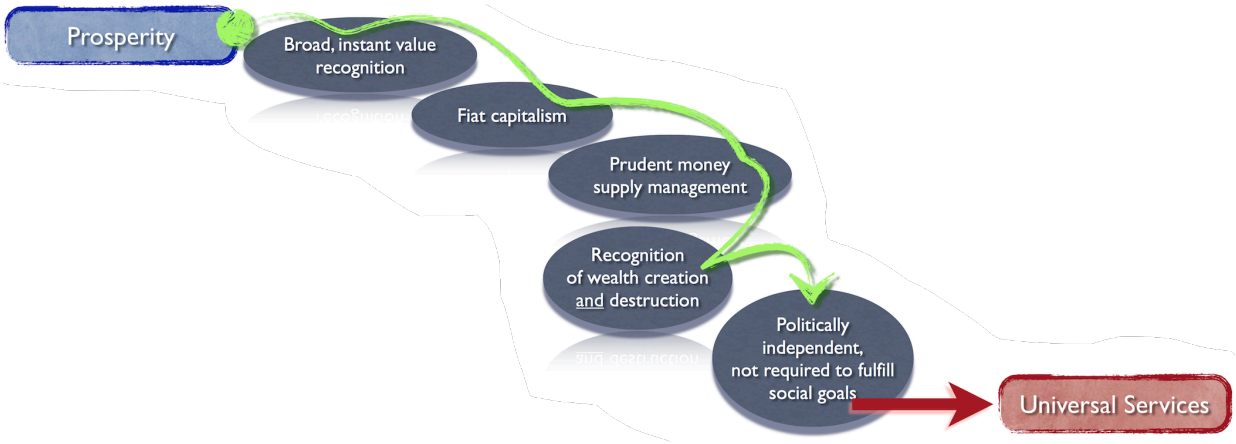
The Prosperity Pebble Path

In developing our model for sustainability we concluded that economic prosperity fulfills two very important functions:

1. The overall prosperity and security of a society is the only proven, peaceful path to a stable, sustainable population.
2. The human desire for relative advancement is undeniably present, and manifests positively in commercial competition and innovation.

Having established that the inclusion of economic prosperity is necessary to a sustainable model, we determined that functional capitalism is the most effective mechanism for enabling a wealth economy. At the same time, our analysis of the failures of industrial capitalism led to the observation of very specific weaknesses that industrial capitalism's TEA injects into a functional capital model. The combination of these conclusions and observations reveals an understanding of the relationship between a sustainable economic model and the provision of universal services.

Functional capitalism works by allowing the board, instant recognition of value because it uses a fiat currency. But a fiat currency requires prudent management of the money supply, which, in turn, requires that both the creation and the destruction of value are recognized.



The industrial capitalist economic model shows us that value destruction will only be properly recognized if the institutions charged with making those recognitions are free from political interference. And the best way to keep those institutions politically independent is for the society to dislocate social stability and security from the recognition of wealth creation and destruction. To do that, the society must provide basic life services to all its members irrespective of their wealth.

This connection between the development and health of the commercial/wealth economy and the importance of isolating it from the social security of the society is an important recognition that forms the basis of incorporating explicit and purposeful distinctions between the Wealth and Hygiene economies. This logical path of stepping stones from prosperity to sustainability, explains of the linkage between prosperity, capitalism and universal services.

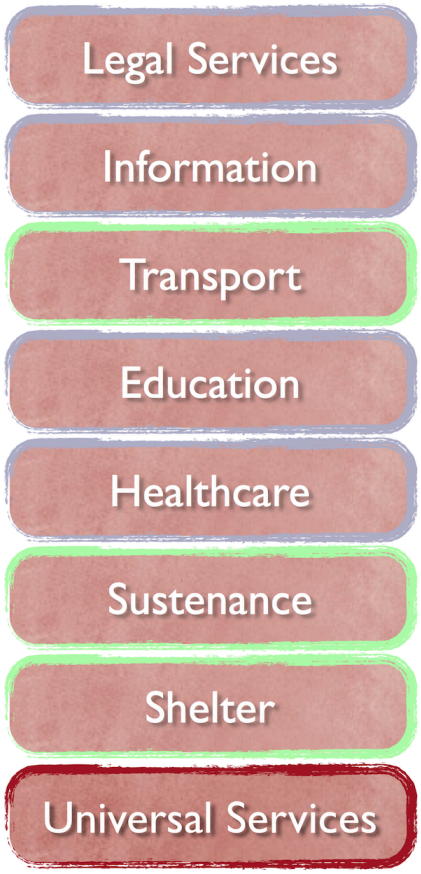
So while there are many moral reasons to consider the provision of universal services, our model demonstrates that the delivery of universal services is actually a vital foundation for a functional capitalist economy. It has been generally recognized in economic theory that a functional social security system benefits a capitalist economy by supporting demand during recessions, helping to develop a skilled middle class and controlling costs, but this may be the first time that a direct linkage between the integrity of monetary policy and social service provision has been established.

Universal Services

Reducing the Cost of Labour

In order to fulfill their role in a sustainable economy the universal services provided must meet the following criteria:

- The services must provide sufficient support that a recipient can sustain a basic life, without threat of illness or death from lack of shelter or sustenance.
- The services must be available on demand.
- The services must be reasonably accessible.
- The services must be provided without condition.
- The services must be available without payment.



These conditions allow the provision of the services to remove the hygiene cost of labour from the wealth economy, because the services that that portion of labour cost would have purchased in an industrial capitalist system are now available free of charge.

Foundation for a Sustainable Society

In order to provide the full benefit of a foundation for a sustainable society the same unconditional, free access should be provided to five additional universal services:

1. Healthcare
2. Education
3. Transport
4. Information
5. Legal Services

The extent, quality and quantity of these services that any given society can afford to provide will vary considerably across the world, but to the extent that they can be afforded they provide valuable enhancements to the benefits accrued by both the society at large and the commercial sector. The higher the service level the more they reduce commercial labour costs, and therefore the lower the cost of infrastructure projects and the lower the taxes on the wealth economy to finance those projects.

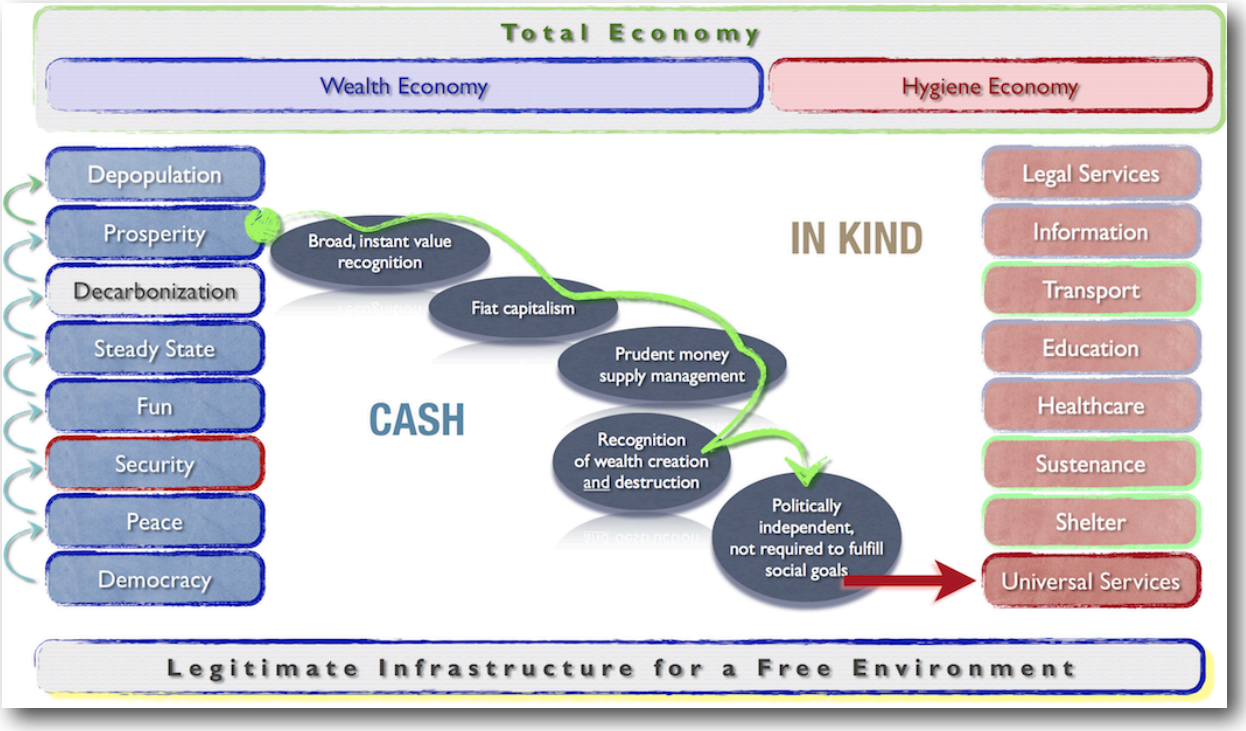
A full and detailed exploration of the content and practical delivery of universal services can be found at www.standardsoflife.org/base along with a cogent analysis of the benefits of a tax regime linked directly to the cost of universal service provisioning.

Legitimate Infrastructure for a Free Environment

At the base of the Sustainability Stack is *Democracy*, a fundamentally non-economic principle. The understanding that the basis for a sustainable economy is a structure for sustainable society, and that a sustainable society is in turn dependent on an infrastructure for democracy and freedom, is a key finding of our research. While this expands what may have started as an environmental objective into a whole society project that must reach to the deepest foundations on which our civilization rests, it also clears away the confusion[8] and despondency[9] apparent in much of the discussion regarding our options for attaining sustainability.

It is clear to us that the environmental agenda is dependent on progress on the justice agenda. The focus of all those concerned with the environment must be turned to the promotion of the social justice agenda if we are to make progress at all. Those of us living in democratic societies must take it upon ourselves to use our democracy to make the changes to the organization and priorities of our governments through the ballot box. The provision of universal services is a politically powerful initiative because it can dramatically improve the lives of millions of voters who are not thinking about the environment today because they are so concerned with protecting their basic security.

We must also be prepared to improve the quality of the democracy that our political systems provide. The delivery of universal services, moving to a steady state economy and actually getting to sustainability will require everyone to work together and will need to allow contributions from everyone. Most of our democratic systems will require upgrades to deliver on these requirements.



[8] None of the current options work - Monbiot, May 2011, http://www.monbiot.com/2011/05/02/the-lost-world/

[9] Scientists agree warming will exceed 2C - Guardian UK, April 2009; Climate on the brink - Guardian UK, May 2011.

Industrial Capitalism

A BROKEN MODEL

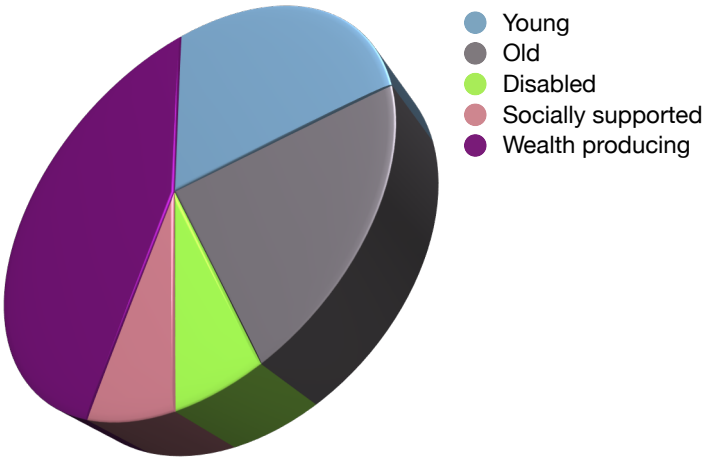
The Flaws in Industrial Capitalism

Every significant society in the world today is using an industrial capitalist model for their economy. Industrial capitalism is a flawed version of the capitalist[10] economic model that only maintains its validity under certain, specific conditions:

1. A swollen productive demographic
2. The availability of exploitable resources

Demographic Balance

Until now all of the societies that have hosted capitalist economic systems have done so with pre-prosperous demographics; in such a society the proportion of the population that is a net producer of wealth (neither too young, too old nor disabled) is a majority. Once a society has introduced modern medicine and achieved a level of prosperity, two changes to the demographics cause an important change to the proportion of net wealth producers to net wealth consumers: extended life expectancy and increased educational requirements. The increase in average life expectancy has the most impact, changing the percentage of the elderly and disabled from single digits up to around 25%. The increased educational requirements to be a functional member of a prosperous society push the first productive years of the average adult up from the mid-teens into the mid-twenties, with a commensurate increase in the percentage of not-yet-wealth-producing youth.



The percentage of net wealth producers in a successful and peaceful society with a prosperous economy falls below 50%. This change in demography occurs naturally and unavoidably.

[10] See Appendix for definition of functional capitalism

Exploitation

The availability of human and material resources that can be exploited at below their real cost can allow a society with an industrial capitalist economy to continue deluding itself into believing that a tax on the wealth economy will be sufficient to meet the social needs to the society, so long as those resources remain exploitable. If materials can be extracted and used without their external costs being paid, or if labour can be utilized without proper compensation, the industrial model allows those "ghost costs" to be converted into "wealth" in the form of profit. But those profits are illusory and will be absorbed when the true costs return and require recognition. Taxes on that ghost wealth are used to pay for services to the population[11], making it look like the books are being balanced in the exploiting society.

All of the developed, industrial societies today have been built on the exploitation of resources, and this has led to a host of contortions and corruptions in both economic and foreign policy in the name of appropriate self-interest. The rapidly arriving demographic pressures in industrial capitalist economies has increased domestic justification for exploitation while increasing the competition for access to exploitable resources, a process that is shortening the longevity of all exploitation.

The eventual arrival of the true costs for any resource use mitigates the length of time that exploitable resources remain available. The costs in these situations are real, and they do have to be borne at some point in time. For instance, it is possible to create toxic waste at the point of production without paying for it, but the cost of cleaning up does have to be carried eventually. Similarly, it is possible to exploit human labour at below true cost for a while, but those costs are only avoided and will have to be borne eventually, unless the population is oppressed or enslaved.

In the case of human resources, the barest increase in the prosperity of a population dramatically increases awareness, and this rapidly creates demand for full compensation. The only way to suppress the true cost of human resources in the medium term is to oppress them, and even that strategy has a finite longevity in our modern connected world. Recent experience in developing societies in Asia suggests that human exploitation has a 20 to 30 year maximum span before changes in the society force rises in compensation.

In the case of natural and material resource exploitation the return of true costs can be extended for longer, in the region of 100 years; but eventually these costs do manifest, as we are seeing with climate instability.

Exploitation has been a feature of most human civilizations to date, which lends it a certain justification for those inclined to find such; but as the world gets 'smaller' and the effects of exploitation anywhere impact the lives of everyone everywhere, it is increasingly impractical as a basis for economic prosperity in any single society.

In any case, the exploitation of any resource is, by definition, not sustainable; and in developing a model for our future prosperity we must assume that exploitation is not available as an option.

[11] e.g. Sweden: iron ore. Denmark: oil & gas.

Total Economic Awareness

The industrial capitalist model assumes that *all* activity is economic in nature (Total Economic Awareness (TEA)), and that any social needs will be paid for by a tax on the wealth of the economy. In other words, that we all live in an *economy* first and foremost, and that portion of activity that is not engaged in commercial production (social need) is a necessary but minority adjunct to the wealth producing economy. In this frame, the social service requirements of the population are to be incorporated as far as possible into the commercial economy ("privatization"), and where that is not possible the costs can be borne as a burden on the economy in the form of taxes that are then used to pay for the social services. The job of politicians, in this model, is to arbitrate just how much of a drag on the economy we wish to tolerate in order to provide social services.

The fallacy of industrial capitalism's TEA framework is exposed as the society matures to a naturally balanced demographic, with less than 50% of the people producing more wealth than they are consuming. At this point the fact that commercial, wealth-creating activity is actually a subset of all activity, and that most activity is actually social in nature, becomes inescapably evident. This is where most of the advanced industrial economies of the world are today, and it is becoming obvious that a reasonable tax on commercial activity cannot generate sufficient money to "pay for" the social needs of the population. The reality that industrial capitalism has been blind to, comes home to roost; and it faces either bankrupting its wealth economy with unsustainable taxes to meet its social needs, or ignoring its social needs and destroying the fabric of the society that supports it. There is no way out of this: the economy is a client of, and a subset of the total activity of, the society that hosts it.

The Consequences of Industrial Capitalism

As a result of continued adherence to an industrial concept of the role of an economy, brought about by subscription to TEA and supported by unbalanced demographics and the availability of exploitable resources, there are consequences currently arriving at the doors of today's industrialized societies:

- Fiscal imbalance (budget deficits) caused by rising social costs.
    - The rising costs of healthcare, pensions, elder care and education are exceeding the revenues available from a reasonable tax on the wealth economy, so societies across the world, through their governments, are borrowing to fund the cost of the needed social services.
- Infrastructure depreciation due to lack of investment, at exactly the time when massive infrastructure investments are required to meet the challenges of climate instability and the transition to renewable energy sources.
    - Initial shortfalls in the tax revenues required to meet the social needs of advanced industrial capitalist societies was absorbed by reducing investment in and maintenance of infrastructure. Various attempts to move these infrastructure costs to the wealth economy through the "privatization" of public assets has failed to yield increased investment because core infrastructure projects are so large that they dwarf the ability of any private commercial entity to fund or manage them, and the return on the investment is over such a long term that private equity cannot meet the need.
- Inflated nominal costs that are distorting labor markets and inflating the nominal costs of the infrastructure projects necessary to mitigate climate instability and provision renewable energy sources.
    - The TEA manifest in industrial capitalism leads to the creation of minimum monetary compensation regulations in an attempt to meet the social needs of its participants. This distorts the labour market and increases nominal costs for business which have to use wealth to satisfy social needs; leading to massive under utilization of available labour, decreased flexibility for businesses and workers, and stifled innovation.
    - Attempting to use wealth to satisfy the social component of labour costs inflates the nominal cost of labour making large scale projects, such as infrastructure, seem even more expensive than they are. This discourages undertaking the projects in the first place.
- Paralysis of monetary management caused by the use of monetary instruments to provide social security, threatening the stability of the global capital structure.

The massive sums stored in pension and other social security purposed financial instruments has made it politically untenable to allow wealth destruction that affects those instruments, blocking the functioning of a key mechanism for the health of a functional capitalist system. Instead of recognizing the destruction of capital (such as with the collapse of asset bubbles) corporations, bankers and politicians collude in the maintenance of money supply at above the level of real wealth.

- Governments are required to raise huge sums on the capital markets to finance their budget deficits, much of this borrowing is from the money set aside as savings for social security (pensions). The incestual nature of this financial arrangement encourages governments to engage in financial accounting manipulation as well as risk deferment and concealment.

    - Central Bankers, who should be an importantly independent institution in a functional capitalist system charged with maintaining the value of the currency, are trying to keep the house of cards from imploding by using ever more complex accounting mechanisms designed to establish the future credibility of increasingly massive current debts. Precluded from providing honest appraisal of the total wealth in the economy, they cannot make effective use of money supply controls, thereby risking the mutual consent on which the entire system rests.

- Corruption of corporate governance, caused by massive flows of capital into investment instruments used as a store for future social security, leading to runaway executive compensation untied to performance.

    - Huge investment funds managed by small groups of disengaged professionals dominate the shareholdings of major corporations. The fund managers are only concerned with return on capital and can move their investments at will from one corporation or asset to another. The fund managers do not contribute to the running of the businesses because they are disengaged and have only a passing interest in the workings of the business, so they rely on executive managers to generate the maximum return from the businesses in the short term. This elevates the role of the executives who can maximize short term profits and creates a culture that rewards financial accounting manipulation as well as risk deferment and concealment.

    - The prerogative of the investment funds to maintain their value, because that value represents the social security of the society, adds to the pressure on the entire system (the corporations, their executives, the bankers and the politicians) not to recognize wealth destruction.

- Economic instability brought on by the imminent return of the previously unrecognized costs of exploitation .

    - Deferred and concealed costs (“ghost costs”), that are known but as yet unrecognized, lurk in the wings awaiting recognition and threatening return as the result of some unforeseen event. These ghost costs cause instability in markets as players bet on their arrival or further deferral. Examples of these “ghost costs” include social unrest in oppressed and exploited populations, climate events caused by climate instability and swings in the costs of raw materials due to changes in the political leadership of origin nations.

    - The most significant deferred costs at this time are the costs associated with mitigation for climate instability and the transition to renewable energy sources.

- Fraying of the social fabric caused by massive income and wealth inequality resulting from an overweight investment industry.

    - As an advancing industrial capitalist society builds up ever greater reserves of capital assets in the form of savings to meet future social costs, the inertia behind corruption of money supply rectitude and corporate governance, as well as the continuous deferment of ghost costs, builds up; resulting in ever greater income disparities between those charged with the maintenance of the delusion (very important jobs that are valued highly by the current holders of wealth) and those experiencing the reality of the delusion (due to the failure to actually provide social security).

- Corruption of the political system stimulated by inappropriate cost structures and labour provisions foisted on the commercial economy, in an attempt to try and deliver social security inside the framework of an industrial capitalist economy.
    - Because a democratic industrial capitalist economy is forced through the democratic process to meet some social needs, it does so within the TEA frame by imposing conditions on the labour market, such as minimum wages and required benefits packages. These legislative manipulations of the labour market encourage businesses to act politically to defuse the impact on their particular operations, and they do so by using their wealth to restrain the political process from interfering in their business interests.

All of these consequences are appearing, and many are fully maturing now. They threaten the integrity of the industrial capitalist economic model and, given their natural and inexorable arrival, it is incumbent on us to review what is failing, determine the reality of the situation and develop alternatives that conform to the nature of the planet and its populations.

We have both the need and the opportunity to replace our industrial economic model with a sustainable economic model in the very short term. Conformance with the natural shape of our populations, the natural resources available on our planet and the nature of our human character are all vital foundations for any model that lays a claim to sustainability. Using these guiding lights and a keen analysis of what is working, and what is not working, in today's economies we have fashioned a sustainable economic model that is accessible, practical and achievable.

Appendix

Functional Capitalism

Capitalism per se is a set of constructs for the operation of economic activity. Modern capitalism includes the operation of competitive markets and the principle of risk and reward, however what sets it apart from previous economic practices is the use of a fiat currency to denote value. As an economic model, modern capitalism has much to recommend it, and when practiced in its proper context it has demonstrated an important ability to facilitate the development of human civilization and improve the lot of many.

Capital Integrity

Capitalism is a mechanism that allows the value generated by any person or process to be recognized by the mutual consent of others. By using a currency (money) to denote value, without having any actual material backing for that value, all of the participants in a capitalist system are afforded the benefit of instant recognition of the value they add, using an instrument that they can then use to trade for anything that they value. Effectively all of the participants of a capitalist system are bound into mutual recognition of each other's value system, with the proviso that value can be *un*recognized as easily as it is *re*cognized. This creation and destruction of value is at the heart of the capitalist system, and both sides of the equation are equally as important.

The technical challenge for a capitalist system is to maintain a supply of currency that reflects the total of all the recognized value at any point in time. There has to be sufficient new currency available to recognize new value and there has to be a mechanism to withdraw currency from the system when there is a destruction of value. This is a complicated and difficult task, and success in this endeavour defines whether or not the system will retain the mutual consent of the participants, which is unambiguously necessary for its very existence. Failure to manage this "money supply" in line with total value results in inflation or deflation and, eventually, collapse of mutual consent.

Inherent to the validity, functionality and construction of a capitalist system is the recognition of both the creation and the destruction of value. Given that the value of anything is not dependent on the quantity of effort or material included in it, the capital value is a consensus attribution of value that is relative to other things that are also available. Anything that cannot be valued by consensus and anything with a transient value cannot be included in a capitalist system because it would intolerably destabilize the relationship between money and value, and thus invalidate the currency. This requirement of the capital system means that it cannot include anything of intrinsic value, nor can it include services that are invaluable at the point of consumption and unvaluable afterwards.

Two examples of things that cannot be included in a capitalist system are: (i) people, because every person attributes to themselves an unlimited value, and (ii) qualities of life, such as freedom and security, that are mutually recognized as being beyond the capacity of capital to value. It is not possible to destroy the value of freedom, nor does any

individual recognize the destruction of their own value; so these attributes of society cannot be included in a capitalist system because they do not obey the rules of value recognition - they have “intrinsic value”.

In addition to the intrinsic qualities of life that cannot be contained with the capitalist model, there are activities that generate value that is immediately consumed, and which leave no residual value. These activities are most evident in the form of social services, which are of enormous value at the point of delivery but which leave no residual value that can be traded for something else. In a capitalist system, activity which generates no persistent value cannot be measured in currency, otherwise the money supply will become grossly inflated.

Capital can only symbolize wealth

It would make management of the money supply neigh impossible if it was to attempt to include either intrinsic values or social activity. So a capitalist system must restrict itself to the representation of recognized value that can be traded, we call this portion of total value “wealth”. Wealth is the residual value after a transaction has been completed, and which persists sufficiently to be re-used in another transaction. Wealth can be stored using the currency of the capitalist system, as is most wealth today. Wealth stored as currency is obviously, necessarily and completely dependent on the prudent management of the money supply for the maintenance of its value. It is through this imperative to maintain the value of currency, in order to protect existing wealth, that the capitalist system creates its own self-reinforcing imperative to manage the money supply in line with the creation and destruction of total *persistent* value in the economy.

Competitive Markets

The efficient allocation of resources through the mechanism of competitive markets is a vital component of any economic system, as it harnesses the collective intelligence of the population in a way that central direction never could. Competitive markets are also very natural formations that occur without deliberate intention and form even in the presence of their prohibition.

Reward, Risk & Innovation

The recognition of anyone’s efforts to contribute must be present in any system that adheres to a principle of natural conformation. Any functional economic system must allow reward for the contributions of its participants, to the extent that those contributions are valued by others, and whether those contributions are the result of effort, skill or talent. A reward system that incentivizes innovation has been, and remains, a pillar supporting the development of human civilization.

Governance

A functional capitalist system is dependent on the effective presence and enforcement of the rule of law and corporate governance. From the protection of the integrity of the official currency to the availability of accurate information about commercial activities, the importance of good governance is a fundamental foundation for a capitalist system. The corruption of key institutions, the dishonesty of participants and the misrepresentation of information all invalidate the vital structures of a capitalist economy.

The Internal Inconsistencies of Industrial Economics

Recognizing Destruction

Industrial economics leverages the ability of fiat currency to allow the recognition of wealth at the point of its creation, and so enable the rapid creation and dissemination of wealth. However a fiat currency is dependent on effective management of the money supply to avoid the perils of inflation, and effective management of money supply requires that both the creation and the destruction of wealth are recognized. Our industrial economies have failed to understand the crucial distinction between the monetary economy and the hygiene economy, so we have tried to store social security in monetary instruments, and that has led to restrictions in the ability to recognize wealth destruction. Because the basic well-being of an industrial society is dependent on the preservation of wealth, for instance the value of pensions, it becomes politically and socially impractical to recognize large destructions of wealth - a symptom that has come to be called “too big to fail”, referring to wealth institutions operating in the wealth economy but whose destruction would cause irreparable harm to the social fabric of the society within which they operate.

Recognizing Wealth

The other fundamental internal inconsistency of the industrial economy is the improper recognition of wealth, again a symptom of the basic failure to recognize the difference between the wealth of hygiene economies. In fact it is a precept of the industrial economy that everything can and should be valued in monetary terms. This false premise leads to an attempt to value non-wealth generating activity with wealth-significant currency. In reality there is much normal and valuable activity in a society that is not wealth generating, such activities simply satisfy the hygiene needs of the society. The industrial economy's total economic awareness (TEA) fixation results in the attempt to use wealth-significant currency as compensation for non-wealth creating activity, and so pollutes the wealth significance of the currency. This inconsistency has two negative impacts that make the industrial economy unsustainable:

- the elevation of nominal costs
- the contamination of money supply management that is so vital to a fiat currency economy.

Nominal Cost Inflation

Elevation of nominal costs expressed in monetary (i.e. wealth significant) terms results from the inclusion of hygiene (non-wealth significant) costs in the price of goods and services. The most important de-sustaining impact of this inconsistency is to inflate the nominal cost of infrastructure investments, making investments that are necessary to transition to a renewable energy system seem even larger than they are. This cost inflation gets more pronounced the more deeply entrenched the industrial economic model is in the society, because a higher portion of hygiene costs get converted into monetary costs.

The Demographic Dependency of Industrial Economics

While industrial economics incorporates some awareness of the need for social fabric, it does so solely as an adjunct to total economic awareness and attempts to incorporate social costs within the framework of the wealth economy. This fundamental flaw in the long-term sustainability of industrial economics does not become apparent until the natural demographic balance, that results from increased prosperity, manifests.

While an industrial economy has a swollen productive demographic the cost of social fabric maintenance at a level that avoids social dissolution appears to be containable within a reasonable tax on the activity of the wealth economy. But as the effects of the prosperity generated filter into the society, in the form of extended life expectancy and more extensive educational requirements, the proportion of the population engaged in wealth-generating activity falls from a peak of 80% to less than 50%, and this places an unbearable burden on the wealthy economy that cannot be met with a reasonable tax. Inevitably an industrial economy finds itself faced with a choice of wealth diversion or social breakdown, either path being ultimately self-destructive.

In an intermediate stage, as found in the most announced industrial economies of this time, vast amounts of wealth are sequestrated into monetary reserves in an attempt to preserve a store of wealth to meet known and future social costs, these are commonly known as Social Security accounts and pension funds. Ironically the storage of wealth in these monetary silos corrupts the basic tenants of the monetary system because they make the recognition of wealth destruction socially unacceptable, and they stimulate commercial investment activity with disengaged participants who rely on the self-interest of management to guide the decision-making strategy for the commercial entities they invest in. The purposeful construction of corporate governance, that is designed to ensure that shareholder interest in the long-term, sustainable success of the corporation is prioritized above the short-term interests of individuals, is dissipated and corroded. The accumulation of communal wealth in concentrations managed by small groups promotes disengagement, corruption and betrays the sophisticated attention on which real wealth creation in a competitive, innovation intensive, market economy is dependent. So the natural demographic balance that is the result of a successful economy both bankrupts and corrupts an industrial economy because it does not recognize the distinction between the wealth and hygiene spheres of activity.

The Industrial Economic Model's Exploitative Dependency

Exploitation not an inherent feature of a capitalist market economy, rather it is a characteristic of industrial economics. Industrial economics is simply the maladjusted implementation of what is a perfectly natural mechanism manifested in a competitive market economies. The exploitative nature of industrial economics stems from the failure to accurately attribute costs, often arising from a failure to recognize true costs, and sometimes from a deliberate practice of avoiding the recognition of true costs.

While Marx may have been prescient in recognizing the human tendency for shortsightedness as a potential, and even likely, fundamental flaw in the practice of market capitalism, it is important to distinguish between failures of implementation and the quality of the mechanism. If the mechanism is inherently natural it must be accommodated in the framework of practice, otherwise it will continue to operate external to the framework and invalidate any assumptions upon which the framework is based. The mechanism of resource allocation determined by competitive

market activity is a natural system and cannot be ignored in the construct of a sustainable economic model. As a corollary to the market system it is equally important to achieve the most accurate and comprehensive cost incorporation possible, without this prerogative the market system will naturally exploit unrecognized and unaccounted cost.

There are many exploitative relationships in the current practice of industrial economics but they can mostly be distilled into two categories: human and Nature. Human exploitation is the use of human resources that can be employed without sufficient compensation to provide for a healthy, sustainable life standard. Nature exploitation is the use of natural resources without accounting for the cost of repairing damage caused by their extraction, use or consequent waste. Because both categories of exploitation is possible, it is only through the deliberate implementation of policies that seek to ensure accurate cost accounting that these flaws can be addressed. While an inclination for justice is sufficient motive to address these exploitations, there are also vital economic reasons for doing so. The very concept of unaccounted costs contains the acknowledgement that there are real costs that are being avoided. This means that those costs will be borne at some point, and if they are not included in the activity that exploited their avoidance then they will have to be carried by another process at a different time. When the costs are incurred they will destroy wealth, so the initial wealth created by the exploiting activity is effectively creating "ghost wealth" that inaccurately inflates the money supply and corrupts the efficient operation of markets for resource allocation.

The particular problem that we face today is that the cost overhang from resource exploitation is threatening to rise to such a level that it will exceed the capacity of all human activity for repayment, and the total of the wealth destruction would effectively wipe out the entire store of wealth amassed by the history of human civilization. The fact that industrial economics has allowed this to develop is the primary article in the mandate for its termination and replacement.

So the flaws in industrial economics can be summarized as failing to understand the true nature of wealth as distinct from activity, and a failure to accurately account for known costs. We should also note what are not failures of industrial economics: competitive market allocation mechanisms, fiat currency capitalism and the promotion of innovation and technological advancement. The sustainable economic model that will serve us going forward will seek to correct the flaws and preserve the benefits of industrial economics.

The Big Breakthrough: Wealth v. Hygiene

Our analysis of the fundamental flaws in industrial economics reveals a persistent failure to distinguish between really wealth generating activity and other activity that is truly worthwhile but not intrinsically wealth generating.

Sustainable economics incorporates this revelation through the recognition of two simultaneous economies: the wealth economy and the hygiene economy. In the wealth economy all transactions are conducted in monetary currency, whereas in the hygiene economy all transactions are in-kind. This distinction is not purposely designed or constructed, it is the outcome of a change in the way social security is provisioned. By replacing social security payments with in-kind services, the hygiene portion of activity is removed from the wealth economy.

A Brief History of TEA

Total Economic Awareness (TEA) is used in this paper to describe a philosophical framework, adopted by many people today, in which *every* activity is perceived as being of monetary value. It is not entirely new, King Midas had a touch of it, but it has never been so broadly adopted as it is now that it has become a defining feature of industrial capitalism. It is worth understanding a little about the evolution and development of TEA so that we can perceive it more accurately, and determine where it has infected otherwise functional systems.

TEA is essentially a completely commercial view of the world, encompassing both living things and inanimate objects. It is the "business" view of life, a mindset that sees everything as tradable and therefore worth something that can be traded for something else. In theory there is nothing wrong with this, and it is used in the theoretical study of economics; in practice, most traditions and religions warn against its adoption as a singular focus, or its use as an exclusive lens for life.

In the pre-capitalist world there were always some who adopted a TEA mindset, and they became the bankers and traders of their time and place. But their actions were always a minority of total activity, and they existing inside a wider context of other frameworks that had greater standing in their society, like religion and culture. It has only been in the last 50 years or so that TEA became such a widely adopted world view, and that is has become the definition of culture in certain societies; so much so that people refer to themselves as living is a "capitalist society" in which economics has come to define the culture they live in. This increase has been spurred in recent decades by the adoption of fiat currencies, which have allowed so many more people to avail themselves of greater wealth. The early industrialists and oil men at the turn of the previous century adopted TEA as a brazenly deliberate approach to life, developing grand plans for their businesses in which people were simply units of resource, borrowing the dislocated condescension of the aristocracy that preceded them. They set an example of grand achievement by developing huge industrial empires and amassing great fortunes without regard to the toll extracted from the 'resources' they used. The damage caused by their activities was obscured by dramatic advances in production and technology, and by their industrial contributions to war efforts.

In the middle of the 20th Century, as fiat currencies replaced gold standards, the example set by the early industrialists was adopted more and more broadly by the populations of the industrialized countries, encouraged by the innate desire for competitive advantage and the apparent absence of consequences. The early TEA adopters never had to acknowledge the real support provided by their societies, which constrained their excesses and caught the fallout that they ignored. So long as the purely commercial world remained a minority of all activity and was constrained to its own sphere, the TEA mindset of a minority could not destabilize the society.

But the untrammeled pursuit of advantage through wealth has a limit, and that limit is defined by the size of the consequences that it ignores (i.e. the extent to which it is exploitative). If 20% of the consequences are unaccounted for, then 80% is the maximum TEA penetration that a society can tolerate; if 50% of the consequences are ignored, then 50% is the maximum. But the theoretical maximum TEA penetration into a society has to be modified by the amount of social support that is present by default, without any commercial activity, and that is, at a minimum, 20%, rising to 50% as the prosperity of a society increases[12].

[12] See section on Demographic Balance, above

The formula for determining the maximum penetration that a society can tolerate is:

Population - Default Social Need - (TEA Penetration x Exploitation Factor)

Assuming that TEA activity has a 20% exploitation factor, then the maximum penetration is 65% is an underdeveloped society with a 20% default social need

100 - 20 - (TEA Penetration x 20%) = 80-20% = 65

and 40% in a developed society with a 50% default social need

100 - 50 - (TEA Penetration x 20%) = 50-20% = 40

The absence of fiat currency in pre-industrial economies meant that TEA penetration never reached much above 10% or 20% and could easily be tolerated, even if the exploitation factor was greater than 100%. If exploitation factors reached up into the 300%-1000% range (slavery) then those activities had to be exported to remote lands (colonies) so as not to destabilize the domestic society. The domestically sanitized presentation of the wealth acquired from TEA exploitation abroad gave it a legitimacy, and allowed the domestic audience to focus more on the benefits of the greater prosperity than on the costs of the fallout from the exploitation.

The introduction of fiat currencies effectively removed most of the barriers to broad adoption of TEA and so the only limit on its growth became the tolerance capacity of the society. The concurrence of increased access to wealth resulting from fiat capitalism and the growing dependent demography, caused by increased life expectancy and greater education requirements, created a collision course between the penetration of TEA and the maximum tolerable penetration rate for TEA. It became a race for individuals to adopt TEA (commonly known as the "growth of the middle class") before the social tolerance level was reached, meaning the point at which there would be no more room on board that bus.

Constraining the exploitation factor allows TEA to penetrate society at closer to its maximum percentage, and in the beginning of broad TEA penetration this was an almost universally adopted convention - manifested in "a growing middle class with strong labour unions and safer workplaces". But, as the maximum potential TEA penetration approached, it didn't take a rocket scientist to figure out that even if exploitation was reduced to zero there still wasn't room on the bus for much more than 50% of the total population of a modern society. So some people adopted the ultimate TEA rationale, which was to *increase* the exploitation factor by exploiting those running to get on the bus. If there wasn't going to be enough wealth to give everyone comparative advantage, then you'd may as well stop playing by even the most basic social rules and adopt TEA as a total philosophy, in which those who didn't grasp the finite nature of TEA should rightly be the victims of it themselves. This final and terminal stage of TEA is where we are today, in which a small minority of TEA adherents have callously figured out that their own advantage is best acquired through the maximization of exploitation. This maximization is achieved through the deliberate obscuring of the exploitation's effects at the same time as the cynical promotion of TEA. Examples of this terminal TEA include denying climate science while promoting consumer credit to boost wasteful product consumption, and complete destruction of Appalachian communities to produce climate destroying coal.