# <u>Prosperity without Growth – Economics for a Finite</u> <u>Planet</u> - Prof Tim Jackson

The question at the heart of this book is one of social justice. We need to challenge the assumption that the continued consumption growth without greater attention to equity and sustainability can really deliver prosperity for all.

What does prosperity mean in a world of 9 billion people, within decades, living under the threat of climate change and resource scarcity? Our global ecological footprint is now 30% higher than the earth's biological capacity to produce for our needs. Mankind seems to have disconnected itself from the natural world, economically, spiritually and mentally.

Human society needs to change - its economics, its accounts, its implicit biases against natural capital (versus man made capital), against public wealth (versus private wealth) and against logic and less consumption (versus manic and more). Above all human society needs to change its relationship with nature to one of harmony and co-existence.

# What is growing?

- **GDP** = the annual marketed flow of final goods and services. More simply it is the measure of "economic activity" in a nation or region.
- Continued growth in GDP is not sustainable because;

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 Throughput = the metabolic flow of useful matter and energy from environmental, through the economic system and back to environmental sinks as waste. This is outgrowing the ecosystems that sustain it so past its peak

#### <u>Chapter 1 – Prosperity Lost</u>

A basic human concern is that we want things to go well. This includes a notion of continuity and the fact that my "prosperity" is intertwined with those around me. In a global sense this means we all prosper if the poorest do. This reassures us that we have meaningful lives and a better society for our children. Prosperity is therefore a shared vision.

But we are failing in this task. Our technologies, our economy and our social aspirations are all mis-aligned with any meaningful expression of prosperity. We need to somehow reconcile our aspirations for the good life with the constraints of a

finite planet. We need a credible vision of what it means for human society to flourish in the context of ecological limits.

# Prosperity as growth

Now the conventional measurement of prosperity has been material / economic i.e. **GDP/capita.** It has been used as a proxy for what people value. The logic being that the markets determine this. This is however a relatively modern economic construct

But there are "islands of prosperity" and "oceans of poverty." The poorest 1/5<sup>th</sup> of the earth's population lives on 2% of the income (one billion on less than 1 dollar per day) while the top 20% have 74% of the wealth. This leads to social tensions regarding fairness, happiness and limits.

#### The question of limits

- In the 18<sup>th</sup> century Malthus predicted that population growth outstrips the ability to feed and shelter it. Technological advances have helped mitigate this but only to a point.
- In 1970 the Club of Rome *Limits to growth report* showed that economic growth is exponential while ecosystems follow a bell shaped curve.
- Peak Oil has been predicted for a while and in July 2008 we had a taste of this as commodity prices rose suddenly due to perceived scarcity. It is predicted the new peak may be as soon as 2020, when the scarcity may be real. There may also be resource scarcity of food, minerals, land, resources and water.
- We are running short of sinks/waste disposal areas for a lot of the by-products of materialism -→ climate change. In 1990 the the Kyoto agreement required a reduction in Co2 of 5% by 2010, globally it has risen by 40%. Since then the science has refined the target down from 550→450 ppm Co2 emissions.

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#### **Beyond Limits**

The default position is that – financial crises aside – growth will continue indefinitely. Modern economies are structurally reliant on growth. But this is leading to deforestation, biodiversity loss, collapse of fish stocks, water scarcity and pollution of soil and water supplies. How can continued growth fit a finite ecological system? Decoupling of growth from throughput has been suggested but will not work. **There is no alternative but to question growth itself.** 

At the end of the days prosperity goes beyond material pleasures. It transcends material concerns. It resides in the quality of our lives and in the health and happiness of our families. It is present in the strength of our relationships and our trust in our community. It is evidence by our satisfaction at work and our sense of shared meaning and purpose. It hangs on our potential to contribute fully in the life of society. Prosperity consists in our ability to flourish as human beings — within the ecological limits of a finite planet. The challenge for our society is to create the conditions under which this is possible.

#### <u>Chapter 2 – The Age or Irresponsibility</u>

Is it possible to have prosperity without growth? The formula for prosperity has been growth, but is this a legitimate goal for rich countries. The 2008 banking crisis shook the economic model to its foundations and was only resolved with public input, redefining for ever the boundaries between the market and the state. We have been unable to manage financial sustainability let alone environmental and social. This has resulted in reduced trust and at least a decade of public sector debt.

#### In Search of villains

There are many different opinions of where this started but basically it was the "age of Irresponsibility" No single thing caused it the whole financial system was geared to head towards this self destruction. The solution, a short term one of increasing public debt to bail out the financial sector is flawed. It leads to business as usual and the protection of economic growth. Allegiance to growth is the problem. The overriding aim of all markets was to increase economic growth. The very policies put in place to stimulate growth in the economy led eventually to its downfall. Monetarist / Keynesian theory encouraged;

increased credit  $\rightarrow$  increase de regulation  $\rightarrow$  increased growth  $\rightarrow$  downfall

The irresponsibility has been systematic, sanctioned from the top, and with one clear aim in mind: continuation and protection of economic growth.

#### Labyrinth of debt

Capitalist economies run on debt, whether they be;

• Liberal market economies eg USA / UK

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- Controlled market economies eg Belgium , Germany, Japan
- But need savers eg China, India (until recently)

The debts are primarily of three sorts;

- **Consumer debt** this has been the engine of the growth for the last 20 years as personal spending was freed from wage income.
- **Public / National debt**. Where the public sector borrows from the private.
- External debt. The total debt held outside the country. This is more volatile as subject to exchange rates

**Debt and the money supply.** Governments/central banks try to control how much money is created using;

- o base rates
- o and reserve requirements

Citizens having some financial interest in the public sector (Northern Rock) has some clear advantages; creating a social contract between citizen and state.

#### **Ecological debts**

The resource and environmental consequences of growth are huge and led to the commodity bubble of 2008 – this is a precursor of what is to come.

# **Chapter 3 - Redefining Prosperity**

What is prosperity without growth? It is when humans flourish, achieve greater social cohesion and find higher levels of wellbeing while reducing their material impact on the environment. It has the following components;

- economic
- psychological
- social
- moral
- ethical

To flourish is in part about the ability to give and receive love, to enjoy and respect your peers, to contribute to useful work and to have a sense of belonging and trust in a community. In short it is the ability to participate freely in society. My prosperity hangs on the prosperity of those around me as theirs does mine.

## Prosperity as opulence

More is not necessarily better and above an average per capita income of 15,000 dollars per year there is little increase in happiness in those societies. There is a diminishing return or diminishing marginal utility.

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#### **Prosperity as Utility**

Satisfaction comes from having commodities but it is more than just their monetary value. Again there is an upper limit

#### Prosperity as capabilities to flourish

People should have the right, in a liberal society, whether or not to chose a healthy lifestyle, participate in society, work in paid employment and a reasonable life expectancy. It is the capability to flourish that is important.

#### **Bounded Capabilities**

These capabilities are bounded by;

- the finite nature of the ecological resources and the regenerative power of ecosystems
- the global population and the inter and intra generational dimensions
- social conditions

#### **Chapter 4 - The Dilemma of Growth**

Traditionally growth is required for prosperity and without it our ability to flourish is diminished.

#### Material opulence as a condition for flourishing

We imbue material things with social and psychological meaning. It is a symbolic language in which we communicate. Matter matters in materialistic society. What matters more than absolute income is having more or less than those around us (it conveys status, authority, power and class). Being near the top of the pile matters in terms of health, happiness and subjective wellbeing. Material growth in any particular society may be a zero sum game as wealth improves but relative positions do not change. So we need to devise ways of contributing in less materialistic ways.

#### **Income and Basic Entitlement**

Life expectancy, health and education are income dependent but only to a point and some countries do better than others with the same income. There is therefore a somewhat ambivalent relationship between these entitlements and income/growth. Clearly increased growth does not guarantee any of them

#### Income growth and economic stability

It appears that growth is functional in maintaining economic and social stability? But capitalist economies want ever greater efficiency which → reduced jobs → greater instability. If the economy is growing that is fine but if faltering it causes real problems as governments have to borrow more ( as in 2008 which may not be paid back until 2030) In a growth based economy growth is functional for stability. The capitalist model has no easy route to a steady state position. Its natural dynamics push it towards one of two states: expansion or collapse. Put in its simplest terms the "dilemma of growth" can be stated in two propostions;

• growth is unsustainable – at least in its current form.

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 "de growth" ( planned reductions in economic output ) is unstable under present conditions → reduced consumer demand, rising unemployment and recession.

#### Chapter 5 – The Myth of decoupling

This is the response to the dilemma of growth. As growing economies become more efficient, so that productivity is decoupled from throughput (by redesigning and reconfiguring processes) this allows the decoupling of emissions from growth.

**Relative decoupling** - Is the decline in economic intensity/unit of economic output. Impacts are still increasing but at a slower rate than the rise in GDP. Simply put it is doing more with less. It is Increasing activity while reducing damage by greater efficiency. It is happening but not quickly enough. We need;

**Absolute decoupling** – Resource impacts actually decline. This is essential if economic activity is to remain in ecological limits.

Decoupling is vital with or without growth but it's a myth that it will achieve the ecological goals. There is little evidence its happening worldwide, especially with the emerging economies. It would require a huge shift in technology, policy, patterns of consumer demand and technological transfer to bring this about. It is very necessary but how do we achieve it when consumption drives growth just as growth and technology drive consumption?

The Arithmetic of growth - Erlich equation = I = P x A x T

Impact (I) = Population size (P) x Level of affluence (A) x Technology factor
(T)

If you reduce T you get relative decoupling but to get absolute you need to reduce I. This can only happen if T is reducing more than PxA is increasing (this is constantly rising at present) By 2100 we will need to be taking carbon out of the atmosphere. What sort of economy does this look like?

#### **Stark Choices**

Are we committed to eradicating poverty? Are we serious about carbon emissions? Do we genuinely care about resource scarcity, deforestation, biodiversity loss? Do we wait for some massive technological break through or do we act where we can with energy efficiency, renewable energy and carbon capture / storage? Relative decoupling must be increased +++ with huge ecological investment in the following ways carbon reduction, resource efficiency, infrastructure changes, ecosystem protection and ecological enhancement.

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The speed and rate at which carbon emissions have to be reduced becomes crucially important to the argument about its impact on GDP. There is a window of opportunity. Too fast or too slow will lead to problems for rich countries and at the same time we need to consider global income parity.

The truth is that there is as yet no credible, socially just, ecologically sustainable scenario of continually growing incomes for a world of 9 billion people. Resource efficiency, renewable energy and reductions in material throughput all have a vital role to play but we will only be successful if we confront the structure of market economies.

#### <u>Chapter 6 – The Iron cage of Consumerism</u>

In 2008 the Financial system became paralysed by fear as banks stopped lending, consumers stopped buying and Governments did not know what to do. There are two features of the economic life that are central to the growth dynamic.

- A continual process of innovation and "creative destruction" which is crucial to competition. Capitlaism proceeds through creative destruction
- Expanding consumer demand is driven by a complex social logic.

#### **Structures of Capitalism**

Capitalism is built on private ownership. The government response to 2008 has blurred this further. It can be regarded as

- 1. Liberal market economy
- 2. Coordinated market economy

An alternative classification for capitalism is

- 1. State guided capitalism
- 2. Oligarchic capitalism
- 3. Big firm capitalism
- 4. Entrepreneurial capitalism

In a nutshell the "circular flow" of the economy on which capitalist growth depends is as follows. Firms employ labour (people) and capital (buildings and machinery) to produce goods and services that households want and need. Households (people) offer up their labour and capital (savings) to firms in exchange for incomes. Revenue from the sale of goods and services is what allows firms to provide people with incomes. People spend some of this income on more consumer goods, but some of it they save. These savings are invested (directly or indirectly) back into firms. Missing from this oversimplified picture of the economy are what is called the public sector (government) the foreign sector (overseas firms, households and governments) and the financial sector- which mediates the financial flows of the circular economy.

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Profit is the key to the system for creditors, share holders and capital to reinvest. This is the driver for ever more efficiency and this drives growth. Cost minimisation reduces labour use and doing this indefinitely is not an option. Labour productivity growth rate is very important and in recent years has reduced in the EU while increasing in the USA. The dynamic between working hours, labour productivity and economic growth are important.

#### **Social logic**

Goods have a powerful "language" in our society. Cathexis is a psychological process of attachment that leads us to think of material possessions as part of our "extended self" We pay for this social distinction and from this comes emulation or comparison. So in modern society material goods are deeply ingrained in our psychological and social make up. The consumer culture perpetuates itself precisely because it succeeds so well at failing to meet our greater needs.

#### **Novelty and Anxiety**

The extended self is driven by the angst of the empty self. Individuals are at the mercy of social comparison. The economy is dependent on consumption for its very survival. A continual consumption of novelty is important. We are thus locked in to an iron cage of consumerism. The system remains economically

viable as long as liquidity is preserved and consumption increased. We need both a new economic structure but we also need to identify opportunities for change in our society in terms of values, lifestyle and social structure.

# Chapter 7 - Keynesianism and the "Green New Deal"

The crisis of 2008 → a global consensus of a need to reinvigorate economic growth. When spending slows unemployment rises and short term growth must be restored. Those who questioned the logic were denounced. But the real solution is to link the investment with the wish for a low carbon society. A green stimulus will secure jobs and economic recovery in the short term, provide enough security and technological innovation in the medium term and a sustainable future long term.

# Option for kick-starting growth

- 1. Do nothing
- 2. Stimulate demand through monetary expansion
- 3. Increase personal income by cutting taxes and increasing benefits
- 4. A Keynesian public spending programme,. Increase the amount spent on public sector projects eg Roosevelt in the 1930s

#### **Green New Deal**

If going to use option 4 above it makes sense to invest in new technologies. By 2009 a strong consensus favoured a green stimulus targeting public sector investment towards

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- Energy security
- Low carbon infrastructure
- Ecological protection

#### Strategies for job creation

- 1. Direct creation of public sector jobs
- 2. Financial support to boost employment in specific sectors
- 3. Indirect support through measures that increase demand

In 2008 a mixture of strategies were used. But each of the above could contain a green stimulus. High investment is needed with funding allocated to 4 main areas

- Conservation clean energy, recycling
- Quality of life green housing
- Environmental protection flood defences
- Infrastructure IT and green transport networks

There is a case to suggest that the green investments should be the biggest single element in an economic recovery. S Korea led the market in this with 80% of its stimulus money invested in this way

#### **Funding recovery**

Some returns from these investments would accrue to Governments, some to business and some to households. The broad assumption in Keynesianism is that the fiscal stimulus is funded by increasing the national debt, which is paid off by increasing tax in the future. Other options include;

- Green bonds
- Fiscal tightening by increasing taxes.
- Government takes an equity stake in energy related assets (cf to public ownership of the banks)

# **Beyond recovery**

A green stimulus has many strengths. Investment in the transition to a sustainable economy is vital. Targeting stimulus spending towards that makes sense as does supporting the least well off. We need to move away from stimulating consumption growth (as in 2009) which is the default assumption of Keynesianism but what is the new economic structure?

#### <u>Chapter 8 – Ecological macroeconomics</u>

The dilemma of growth is how we maintain economic stability and remain within ecological limits. We need a new economic structure and social logic. The new macroeconomics needs to have as its guiding principle for design our ability to flourish within ecological limits and the key criterion for success.

We need a robust ecologically literate macroeconomics. GDP is the measurement of how busy the economy is and there are three types of measurement;

1. Government spend

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- 2. Peoples earnings
- 3. how much firms value produce

E=C+G+I+X

# Expenditure = consumer + government + investment in fixed capital + net exports

We need to either make growth sustainable or de-growth stable

#### Changing the engine of growth

A new engine is needed based on non polluting energy sources and selling new material services. We need to reduce the requirement for personal ownership. Low carbon economic activities that employ people in ways that contribute meaningfully to human flourishing have to be the basis for it. The seeds already exist in local or community based enterprises, community energy projects, local farmers markets,

etc. This is presently thought of as something of a Cinderella economy as it can not produce ever increasing economic output.

#### Sharing the work

We probably need to share the available work more evenly across the population by reducing working hours, a shorter working week and increased leisure time

#### **Ecological investments**

These tend to give lower returns and over much longer time frames but need to be the investments of the future. They need to invest in

- enhanced resource efficiency
- substitute conventional technologies with clean ones
- in ecosystem enhancements

Investment in long term infrastructure and public goods will have to be judged against different criteria. This may mean rethinking the ownership of assets and the distribution of surpluses from them.

#### **Foundation for an ecological Macro economics**

This will be based on relaxing the presumption of perpetual growth and will need to be resilient to resist exogenous shocks such as that of 2008. It will need to provide security of peoples livelihoods, ensure distributional equity, impose sustainable levels of resource throughput and protect critical natural capital. The fundamentals of macro-economic variables will still pertain

- people to spend and save
- enterprise to produce goods
- governments to raise revenues
- private and public sectors to invest in physical, human and social assets

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An ecological macro economics will require new ecological investments. This will mean revisiting the concepts of profitability and productivity, and putting them to better service in the pursuit of long term social goals. We will need to abandon the infatuation with labour productivity. It will above all need to be socially and ecologically literate, ending the folly of separating the economy from society and the environment.

#### **Chapter 9 - Flourishing - within limits**

Fixing the economy is only part of the problem. Addressing the social logic of consumerism is also vital. This is difficult as material goods are so deeply implicated in the fabric of our lives. Prosperity has to do with the ability to flourish

- Physically
- Psychologically
- Socially ...... and to participate meaningfully in the life of society.

At present material goods provide the language that allows us to communicate what matters; family, identity, friendship, community, purpose in life. In Europe the greatest sense of trust and belonging is in Scandinavia while the least is in the UK. A lot of Western society appears to be in "social recession"

#### A life without shame

The material requirements for psychological flourishing tend to be similar in in different societies but the material requirements associated with social / psychological capabilities can vary. The main driver for individuals is the avoidance of shame in their society. This leads us to try and get as high up the pile as we can.

#### Alternative hedonism

Change is essential but is needed on a grand scale. We are at a critical point where materialism is detracting from human wellbeing. We need to move from materialistic values to intrinsic values like self acceptance, affiliation, a sense of belonging in the community. These individuals tend to be happier and show greater environmental responsibility. Ghandi encouraged people to;

#### "Live simply so that others can simply live"

To do this we need individuals to carry on living the simple life, communities that have evolved to continue to do the same and the state to take a lead.

#### The role of structural change

Government regulatory frameworks need to alter to facilitate the new lifestyles so that people living sustainably will not be in conflict with the social world around them. We need to

- Dismantle perverse incentives for status competition
- Establish new structures for capabilities to flourish

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We need an economy designed explicitly around the capability to flourish and to create a more equal society, which is a happier one. We need better recognition of people involved in say childcare, care of the elderly or disabled and volunteers. We need increased investment in public goods and social infrastructure.

In summary the rewards are likely to be worth it. A less materialistic society will be a happier one. A more equal society will be a less anxious one. Greater attention to community will reduce loneliness. Enhanced investment in the public goods will provide lasting returns to the nation's prosperity.

#### **Chapter 10 - Governance of Prosperity**

"The current financial crisis has also become a political crisis that is reconfiguring the role of government in the economy and the conventional

wisdom about the appropriate relationship between the public and the private sector." Peter Hall Oct 2008

The main components of this change are

- 1. A new ecologically literate macroeconomics
- 2. shifting the social logic of consumerism

The debate about the nature of government in this is interesting and changing. In 2008 part nationalisation of the financial sector institutions was the only option. We now need to move from a laissez – faire approach to consumption to attention to key economic variables. Signals sent out by the government on education, public sector, planning procurement etc. are important. Policy in these areas shapes and co creates the social world. The philosophical basis is provided by the concept of a "social contract" between individuals and society that curbs individualism and supports social behaviour.

To prevent ourselves from trading away our long term well being for the sake of short term pleasures society has developed a set of commitment devices that moderate the balance of choice towards the future.

#### Selfishness and altruism

There are tensions in our psychological make up that lead us to selfishness but each society strikes the balance towards altruism. Do the institutions that characterize modern society

- promote competition or cooperation?
- reward self serving behaviour over sacrifice for others' gain?
- what signals do government, schools, media, religious and community institutions send out?
- Which behaviours are supported by public investment?

Government plays a crucial role here because it bears responsibility for the macro economic stability so influences all the messages.

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#### Varieties of capitalism

Countries with Liberal markets tend to result in more unequal societies and appear to be less resilient than those with coordinated markets.

#### The conflicted state

Its principal role is to ensure the long term public goods are not undermined by short term private interests. So why have they left consumerism unbounded? Because growth ensures macro economic stability.

We need changes in the underlying structures that strengthen the commitment to and encourage social behaviour. These changes require governments to act and ensure growth does not trump all other policy goals.

The state is society's commitment device and the principal agent in protecting our shared prosperity. A new vision of governance that embraces this role is critical.

This will require a re invigoration of the social contract and a democratic mandate. This political change will have to come from leadership and popular mobilisation. It will need to shift the balance away from materialistic individualism to real opportunities for people to pursue intrinsic goals of family, friendship and community. Freeing the macro economy from the structural requirement for consumption growth will simultaneously free government to play its proper role in delivering social and environmental goods and protecting long term interests.

#### <u>Chapter 11 – The transition to a sustainable economy</u>

Impossibility theorems confront us everywhere;

- 1. Economies only survive if they grow
- 2. People will not relinquish materialism
- 3. The state is powerless to intervene

But another world is possible it is just that the scale of the required transformation is massive. Broadly speaking there are 12 recommendations under 3 headings;

- Establishing the limits
- Fixing the economic model
- Changing the social logic

#### 12 Steps To a Sustainable Economy

#### A ) Establishing the Ecological Limits

The material profligacy of consumer society is depleting natural resources and placing unsustainable burdens on the planet's ecosystems. There is an urgent need to establish clear resource and environmental limits on economic activity and develop policies to achieve them. Three policy suggestions contribute to that task.

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- 1. Imposing clearly defined resource/emissions caps
- 2. Implementing fiscal reform for sustainability
- 3. Support for ecological transition in developing countries

#### **B**) Fixing the economic model

Debt-driven materialistic consumption is deeply unsatisfactory as the basis for our macro-economy. The time is now ripe to develop a new macro-economics for sustainability that does not rely for its stability on relentless growth and expanding material throughput. Four specific policy areas are identified to achieve this:

- 4. Developing an ecological macro-economics
- 5. Investing in jobs, assets and infrastructures
- 6. Increasing financial and fiscal prudence

#### 7. Revising national accounts

#### C) Changing the social logic

The social logic that locks people into materialistic consumerism is extremely powerful, but detrimental ecologically and psychologically. A lasting prosperity can only be achieved by freeing people from this damaging dynamic and providing creative opportunities for people to flourish — within the ecological limits of the planet. Five policy areas address this challenge.

- 8. Working time policy
- 9. Tackling systemic inequality
- 10. Measuring capabilities and flourishing
- 11. Strengthening human and social capital
- 12. Dismantling the culture of consumerism

For the advanced economies of the western world, prosperity without growth is no longer a utopian dream. It is a financial and ecological necessity. A step change in political will is essential. There is now a unique opportunity for governments in advanced economies to initiate change of a wider nature. And in the process to demonstrate economic leadership and to champion international action on sustainability. The process must start by developing financial and ecological prudence at home. It must begin to redress the perverse incentives and damaging social logic that lock us into unproductive status competition.

#### Chapter 12 – A Lasting Prosperity

The dilemma; to resist growth is to risk economic and social collapse, to pursue it relentlessly is the endanger the ecosystems on which we depend for long term survival.

#### Visions of prosperity

The starting point lies in a vision of prosperity as an ability to flourish as human being within the ecological limits of a finite planet. To do well is in part

#### **Prosperity without Growth**

about the ability to give and receive love, to enjoy the respect of our peers, to contribute usefully to society, to have a sense of belonging and trust in the community, to help create the social world and find a credible place in it.

#### Cinderella at the ball

What do we want an economy to deliver? It boils down to a few obvious things;

- Capabilities for flourishing
- The means to a livelihood, perhaps through paid employment
- Participation in the life of society
- A degree of security
- A sense of belonging
- The ability to share in common endeavour and yet

• Pursue our potential as a individual human being.

We also know the nature of productive activities in such and economy. They have to satisfy 3 clear operational principles;

- A positive contribution to flourishing
- Provision of decent livelihoods
- Low material and energy throughput

Critically the sectors of the Cinderella economy will look different;

- Manufacturing will need to pay attention to durability and repairability
- Construction must prioritize refurbishment of existing buildings and new sustainable infrastructures
- Agriculture will have to pay more attention to the integrity of land and welfare of livestock
- Financial sector will depend less on monetary expansion and more on prudent long term stable investment.

Investment is vital to the new economy but the nature of it will change from its traditional role as a stimulus to productivity growth towards ecological transformation.

#### The end of capitalism?

There will be a number of downward pressures on growth. These will be internal such as the transition to labour intensive service based activity and the allocation of resources to ecological investment or external such as the imposition of ecological limits. The three macro economic interventions needed to achieve ecological and economic stability are;

- Structural transition to service based activities
- Investment in ecological assets
- Working time policy as a stabilising mechanism

Public sector investment in these assets should, as a point of principle, seek returns from their productive capabilities. So it looks like the end of capitalism

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but it is not. It is a model of distributed ownership and control that already exists to some extent.

The demands of the new economy call on us to revisit and reframe the concepts of productivity, profitability, asset ownership and control over distribution of surpluses.

#### It's about time......

The cultural drift that reinforces individualism at the expense of society, and supports innovation at the expense of tradition, is a distortion of what it means to be human. Our choice is to work for change. To transform the structures and

institutions that shape the social world. To articulate a more credible vision for a lasting prosperity

Change can be expressed through the way we live, the things we buy, how we travel, where we invest our money, how we spend our leisure time. It can be achieved through our work. It can be influenced by the way we vote and democratic pressure we exercise on our leaders. Neither ecological limits nor human nature constrain the possibilities; only our capacity to believe and work for change.