The Sun Paradigm

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Abstract

While directly addressing major environmental issues including:-

- global warming
- the conservation of resources
- the need to resolve the apparent contradiction of 'sustainable growth'

the *Sun Paradigm* (in contrast to the old *Dark Paradigm)* also enables:-

- a balanced, efficient and just economy implementing *economic democracy* i.e., widespread property ownership and individual *everyday* income
- the gentle reversal of the greed of *homo economicus* so that it becomes *homo co-operans*
- the voluntary reduction of population levels
- the introduction of innovative, efficient and regenerative solar technology
- involvement of public, national and international financial institutions

NB. The *Sun Paradigm* is the democratic alternative to the elitist *Great Reset.*

JEL classification – P0, P1, P4 – Political Economy

Keywords

Global warming; resource conservation; sustainable growth; economic democracy; paradigm shift; population moderation; *homo* co-operans; solar technology; basic income; public banking; Sun Money; Sun Fuel

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This paper contains large-scale research into the factors contributing to a major change of paradigm and so the possibility of considerable benefit for society. The research, costing millions of dollars, was done at the behest of the American government and carried out by Professor Rogers Hollingsworth and colleagues.

The research is not widely known and its precise location is uncertain because *it may have been suppressed*. Be that as it may, it is recorded here that all credit goes to Rogers Hollingsworth and colleagues.

Special acknowledgement is made of the initiatives and perseverance of Richard Nelson and colleagues whose solar inventions combine vision with everyday practicality.

Meaning of 'paradigm'

A 'paradigm' is a mindset with underlying, interconnected assumptions and underpinnings which are, in effect, axioms or self-evident truths. It is thus both a set of connections forming an intellectual edifice and, in particular, *an understanding of reality*.

NB. *Paradigms decide what does, or does not, happen.*

The Sun Paradigm

1. Time for a change

It's time for a change – and a big one, too.

For twenty years or more, economists have realised that something is amiss with the basic principles of their study but only now – and belatedly – are they waking up to the need for 'sustainable', rather than exploitative, growth.[1]

Environmentalists, however, have been awake for *sixty* years[2] and are today pointing to the need for sustainable *retreat* e.g., by evacuating millions of people from low-lying areas such as Bangladesh and New Orleans.

Indeed, James Lovelock (of *Gaia* fame) sees civilization itself as endangered because environmental disaster will result in George Orwell's *1984* satanic warlords or, even more likely, the ghoulish technocrats of Aldous Huxley's *Brave New World.*

Yet, while there is much commendable protest (especially from the young), things stay the same. It is as though a monolith is crushing ideas and resisting all substantial change. The result is a deep intellectual and spiritual inertia.

But why – when danger threatens – is there inertia? Why is the Green movement struggling to succeed? Why do 'alternative' schools of thought fail to get their proposals implemented?

2. The cause of the inertia – fifty eight false assumptions about reality

The answer is that all proposals, Green or otherwise, have to be implemented in today's economies which are based upon (at least) *fifty eight* false, *interconnected* assumptions about reality. These assumptions constitute the prevailing paradigm and *paradigms decide what is, or is not, implemented*.

The proposals, therefore, whilst admirable in themselves, inevitably come up against diehard political and academic opponents determined to deny any change (even if that means extinguishing the human race).

Chief among these opponents are the pontificators who assume that only they know what is practical. Showing no sense of history and devoid of empathy, they are ensconced in government and university departments where they promote outdated policies bringing death to millions now – and more in the future.

2.1 True meaning of the *Great Reset*

It won't be death for everybody, of course, because a tiny elite will survive. Thinking only selfishly, it is building doomsday bunkers and ensuring it owns and controls everything.

And let nobody have any illusions – *a tiny elite owning and controlling everything (particularly humans)* is the true meaning of the *Great Reset* now being canvassed at the highest levels and in the media. It will be a fascist police state manipulating everybody (by their 'social credit' score) via digital bank accounts.

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[1] Rather than 'growth', a solution focussing on human well-being is necessary.

[2] Carson, R. (1962). *Silent Spring.*

3. The problem of the fifty eight false assumptions

The basic problem is that the fifty eight false assumptions underpin an intellectual edifice (i.e., a paradigm) supporting economies, institutions and societies.

Worse, the assumptions are *interconnected* so that, in practice, one thing cannot be changed without changing others (hence the inertia).

However – and this will shock the pontificators – the *interconnection* of the assumptions also means that it only needs two or three of the assumptions to be revealed as false before *the whole intellectual edifice starts to crack and soon comes tumbling down*.

That is astonishing – and provides hope for the Green movement which is acutely aware that something is profoundly wrong.

4. Reversal of false assumptions creates the *Sun Paradigm!*

Yet even more astonishing is what happens when each individual false assumption is fairly examined whereupon it is realised that ***its reversal*** (or near-reversal*)* ***is true*** (or, at the very least, truer) and so a fresh component assumption (for the new paradigm) becomes available.

Indeed, after only two or three reversals (with consequent recognition of potentially available fresh components), intriguing possibilities will be glimpsed.

Further reversals and so more fresh components then allow a fuller view, whereon, after more reversals and more components, there appears the vivid panorama of the *Sun Paradigm*. In the panorama unusual animals and plants are seen i.e., new policies for solving the world's economic and environmental problems.

4.1 Practical implementation of the *Sun Paradigm*

The fifty eight false assumptions (and their brief reversals) are set out in the Appendix.

However, for space reasons, this paper only examines, and reverses, three of the assumptions but they suffice for showing how the new paradigm is created. As each reversal is made, the *Sun Paradigm* appears with increasing clarity and its practical implementation may be summarised thus:-

That, for the purposes of addressing:-

- *major environmental issues (including global warming)*
- *the conservation of natural resources and*
- *the need to resolve the apparent contradiction of 'sustainable growth'*

there are no intellectual or physical barriers to the creation by public banks, national banks or international banking institutions of a large supply of interest-free money (administered by the private sector on wide ownership principles) as long as the money is repaid and cancelled leaving behind in existence the productive or environmental asset.

Moreover, in contrast to standard economics (which continually narrows ownership), the *Sun Paradigm* creates *economic democracy* by extending ownership of the real economy (and the associated income) to *every* person in society. This effects a balanced, efficient and just economy ensuring that *daily* economic power (in addition to the periodic vote) is widely spread thereby implementing a balance of supply and demand (as required by Say's Theorem).[3]

Furthermore, the *Sun Paradigm* contains a way of:-

- gently reversing endless greed so that *homo economicus* becomes *homo co-operans*
- voluntarily reducing population levels
- implementing innovative, efficient and regenerative solar technology
- allowing interest-free student loans

In short, it is the democratic alternative to the elitist *Great Reset*.

5. A 'paradigm shift' is a revolution

At this point we should remember that a major new paradigm only arrives as the result of a *paradigm shift* which, as Thomas Kuhn observed, must be a revolution because any new paradigm is *incompatible* with the old one i.e., it completely replaces it.[4]

Without that revolution, it is impossible to overcome the huge inertia occasioned by society's outdated and inadequate comprehension of reality.

6. Environmental/ecological collapse

Environmental/ecological collapse causes economic and social collapse – and vice versa.

The financialized (making money on money) 'free market' is destroying our environment and nobody needs reminding of the pollutions and depredations which:-

- put plastics in oceans
- extinguish pollinators
- eliminate flora and fauna
- deplete resources
- promote warming.

These things happen – Alas! – because standard economics views environmental matters as extraneous and imposing unnecessary cost.

6.1 Economic and social collapse

The financialized 'free market' propagandists, moreover, deny that the world is on the verge of economic and social collapse. Indeed, they think that collapse is

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[3] JB Say's Law is usually stated as *Supply = Demand*. However, a scientific Law is something fairly deduced from the facts of reality whereas, in today's reality, supply and demand are most certainly *not* equal because ownership of what creates most, or a large part, of the output (i.e., the capital instruments) is not widely spread. So it is better to refer to Say's Theorem that *When Supply = Demand, There is a Balanced and Just Eco*nomy.

[4] Kuhn, T. (1962). *The Structure of Scientific Revolutions.*

impossible because, they claim, the 'free market' is always in balance and, if sometimes a little out of kilter, will soon return to happy equilibrium.

They further claim that the 'free market' is efficient and, with egregious self-righteousness, claim that its outcomes are always *morally* fair and just – i.e., all people get what they deserve.

Yet every sane person knows that, far from being in balance or efficient, let alone just, the 'free market' is **un**balanced, **in**efficient¸ and **un**just, e.g., it has:-

- *preposterous accumulations of wealth* (which never 'trickle down' to ordinary people)
- *a blanking of the caring work of women* (by excluding it from the formal economy)
- *half the world's population existing on less than $5.50 per day*.

Moreover:-

- *water and sewage situations* are disgraceful – globally, 10,000 people die *each day* from effects of dirty water
- *debt levels* – personal, corporate, governmental – are *higher* than those of 2008
- there is *homelessness* – yet building materials are available
- *social order is unravelling* e.g., Capitol Building trespass
- *the middle classes are being destroyed*. In America, real middle class incomes have been going *backwards* for 25 years. Exportation of jobs is one reason. However, a bigger one is that the huge benefits of technological advance are now going into *the hands of the few rather than the many*.
- there is *inability to address the great technological shift* which is massively increasing potential output while smashing out traditional jobs and replacing them with temporary, part-time, zero-hours-contract, 'gig economy' jobs which are not really jobs at all. The result is a *precariat*.

Furthermore, there is:-

- *endless money 'printing'* not related to the spreading of the real economy
- *stock market mania, housing bubbles* and *sharply rising inflation*
- *a continuing migration from global South to North*. The migration is caused by the failure of financialized capitalism to build just economies for the many rather than the few.

7. No quick solution but a Green recovery *is* possible

In sum, there is widespread failure and, after some precipitating 'black swan' event, a collapse is now likely.

Is there a solution?

No – not in the sense of a quick fix today immediately creating a hunky-dory tomorrow. The problem is that the mal-structure, deformation and deep-rooted inefficiencies of present economies have to be addressed before there can be any permanent solution.

That said, however, a Green, efficient and just recovery *is* possible IF it is first understood how *difficult* it is to effect major paradigmatic change. Indeed, without that understanding, no fundamental change is possible.

8. The difficulty of effecting paradigmatic change – the Hollingsworth research – the three factors in the creation of major paradigm-changing ideas

The difficulty becomes apparent by considering the remarkable research of Professor Rogers Hollingsworth and colleagues. Done twenty years ago at the behest of the American government, it cost millions of dollars and its purpose was to discover the factors contributing to a major change of paradigm and so the possibility of immense benefit for society.

The research is not widely known. Indeed, it may have been **suppressed** because it implies that American society is NOT the End of History[5] i.e., at some future time, American global power and influence will decline.

The researchers found that *three* factors contribute to the creation of major paradigm-changing ideas:-

8.1 First factor – widespread, conservative knowledge of the main subject

The first factor is widespread, conservative knowledge of the main subject with its underlying assumptions about reality.

An example is the old Ptolemaic geocentric system which put the Earth at the centre of the universe and therefore all rulers are appointed by God. It logically follows that democrats, for example, are attempting to overthrow Divinely-appointed rulers and so must be killed....

8.2 Second factor – rising tension between conservatives in the centre of the subject and progressive thinkers on the edge

The second factor is rising tension between conservatives *in the centre* of the subject and progressives *on the edge*. This tension is essentially a life-or-death struggle between conservatives upholding an outdated structure and progressives who want to change it. Thus the conservative upholders of the geocentric system were determined to crush Copernicus and Galileo (whose observations of planetary movement revealed that the Earth is *not* the centre of the universe and so the rulers were *not* appointed by God).

Furthermore, the conservatives propounded the '*epicycle*' theory saying that the planets revolve in tiny circles while also going around the Earth. This theory was totally false but *the falsity kept the Earth at the centre of the universe* and so served the purpose of defending the autocratic rulers.

Thus *falsity was the weapon used to maintain autocracy* thereby demonstrating a salutary lesson – power structures will do anything (e.g., maintaining false beliefs about reality) to stop a new paradigm coming into existence.

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[5] Fukuyama, F. (1992). *The End of History*.

8.3 Third factor – some force or opposition, powerfully present, coming from outside

So what is the third factor?

It is **some force or opposition, powerfully present, *coming from outside* which interacts with progressive thinking *on the edge* of the subject to create the new paradigm.**

But what force? What opposition? And how can it come 'from outside'? After all, ideas arise inside people's heads!

The way to understand this force or opposition is to remember that, in the Ptolemaic system, God had put the world at the centre of the universe and thus had appointed the world's rulers. Therefore any re-thinking of geocentric theory was certain to be of revolutionary consequence and so anybody doing that re-thinking would be *tortured and killed*. Copernicus and Galileo were up against the thumbscrew and axe of the Inquisition.[6]

8.4 Radical willingness to challenge. Is the game worth the candle?

Thus the 'force or opposition, powerfully present, coming from outside' can only be a *deep-seated, radical willingness to challenge the prevailing power structure of society even though torture and death is the penalty*.

So it was a combination of radical cast of mind, intellectual courage and immense physical bravery which was the third factor contributing to the Copernican Revolution. The Revolution led to modern rocketry as well as the overthrow of the power of kings and autocrats without which there would be no political democracy today.

And the bravery tells of the difficulty in ever achieving major change because, unless people proposing and explaining the change are prepared to put their careers, even their lives, at risk, *nothing positive will happen*.

Indeed, time and time again, history demonstrates that conservative forces always attempt to strangle big, new ideas at birth so that their originators despair of ever being understood within their own lifetimes.[7]

Moreover, it took 144 years (from Copernicus, 1543, to Newton, 1687) before the Copernican Revolution was accepted at the highest levels.[8]

Thus those attempting to introduce a new paradigm might well be forgiven for thinking that the game is not worth the candle....!

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[6] When receiving the printer's proofs of *On the Revolutions of the Celestial Spheres* (1543), Copernicus was dying. Galileo was forced to recant and was to be killed but, after the intervention of the Pope (who probably knew the truth), was sentenced for life to house imprisonment.

[7] Examples of thinkers who faced vicious, diehard opposition are:- Louis Pasteur (invisible germs); Charles Darwin (evolution); Barbara McClintock ('jumping' genes), Alfred Wegener (tectonic plates) and James Lovelock (Gaia).

[8] But we do not have 144 years – 14 is more likely!

9. The telling question for activists

The telling question therefore arises – Are today's activists prepared to think anew? Or do they prefer to continue with the falsities of the past?

Let us hope they wish to:-

- question their own assumptions about reality
- recognise that untruths are maintained by ruthless power structures
- be courageous remembering that when the time has come to throw out the old, *personal advantage arises from being among the first to welcome the new*.

10. The first false assumption about reality – that human labour creates all, or most, of the productive output

Since the fifty eight false assumptions are interconnected, discussion of one leads to discussion of others.

That said, however, three of the assumptions are particularly pernicious and the most pernicious is the assumption that human labour creates all, or most, of the productive output while the **capital instruments** – everything ***non***-human e.g., machinery, technology, mines, buildings, land, animals, plants, even seeds![9] – create little or none.

10.1 Adam Smith

The false assumption stems from Adam Smith who, doing his thinking *before* the Industrial Revolution had started, said that labour (particularly when specialized) creates all productive output.[10]

And so, nowadays, standard *productivity* is calculated as *total output ÷ human labour input* which not only says that labour does it all but also *ignores the contribution to production of the capital instruments*.

10.2 A thought experiment – standard productivity collapses to nought!

A thought experiment is helpful. Consider the production coming from a fully automated factory. The designers have been paid. The engineers and builders who constructed the factory have been paid. And the maintenance team (on standby to ensure continuous output) is just that – the maintenance team. It is like your doctor who, it's hoped, does a good job maintaining your health but who is most certainly ***not*** part of your production.

In short, a fully automated factory itself does 100% of the input (thereby creating the output) and so, *because there is 0% human labour input*, standard productivity *collapses to nought*![11]

10.3 The truth is a near-opposite

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[9] And the sun is a 'capital instrument' – but one which cannot be owned!

[10] *Wealth of Nations*, 1776.

[11] Ashford, R. and Shakespeare, R. (1999). *Binary Economics − the new paradigm*.

Thus standard productivity is wrong and the truth is a near-opposite i.e., in a task, human labour:-

- *sometimes* creates all the production
- *sometimes* creates a percentage, ranging from large to small; and
- ***sometimes creates none*** with all production being done by the capital instruments.

  Nowadays, with computers and automation, the latter is increasingly the case.

10.4 A gigantic connivance

Therefore standard productivity hides the true contribution to production made by capital instruments and so is part of a gigantic connivance which:-

- asserts that it doesn't matter who owns the capital instruments
- says that, even if it does matter, there's no need to worry because wealth 'trickles down' (untrue!)
- ensures that the ownership of the capital instruments is narrowly held and not widely spread (as is essential for achieving a balance of supply and demand).

11. The second false assumption about reality – that commercial banks lend existing money

The second false assumption is that commercial banks lend existing money.

However, the truth is the near-opposite – they do *not* lend existing money. The lent money is *created out of nothing* by pressing computer buttons! Nobody's private money — not yours, not even the bank's — is being lent. New money is created.[12] The Bank of England says:-

> *'In the modern economy, most money takes the form of bank deposits. But how those bank deposits are created is often misunderstood:* ***the principal way is through commercial banks making loans****. Whenever a bank makes a loan, it simultaneously creates a matching deposit in the borrower's bank account, thereby creating new money.*
>
> *The reality of how money is created today differs from the description found in some economics textbooks — Rather than banks receiving deposits when households save and then lending them out, bank lending creates deposits.'*[13]

Nothing could be clearer – by pressing computer buttons the banks *create* the money that they lend and the economics textbooks tell untruths.

Furthermore, the famous American economist J.K. Galbraith wrote:-

> *'The process by which banks create money is so simple that the mind is repelled…. It is, moreover, one that is almost breathtaking in its audacity*.'[14]

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[12] Depositors' and bank capital money act as a reserve and the newly-created money is many times the reserve amount.

[13] McLeay, M. *et al*. (2014). *Money Creation in the Modern Economy*, Bank of England, Quarterly Bulletin, Q.1.

[14] Galbraith, J.K. (1975). *Money: Whence It Came, Where It Went*.

This quotation is significant because J.K. Galbraith, perhaps the world's greatest economist, was never awarded a Nobel Prize. That was because he blazoned the truth (*'....so simple that the mind is repelled....breathtaking in its audacity....'*) and consequently the Western power structures never forgave him.

11.1 Getting away with counterfeiting

So how come that the banks are able to do what is essentially criminal counterfeiting?

Firstly, simply, the public is not aware that the banks create money out of nothing.

Secondly, propaganda *claims* that the economy's purposes are being properly served because the lent money is being directed at productive capacity (it *claims*) in an efficient and just way which creates growth from which all fairly benefit.

That is the *claim*. Thus, according to the propaganda, bank money (created out of nothing *with interest added* for the benefit of its creator) is the magic element in the (*claimed)* successful operation of the 'free market' because the new money is directed at, and serving, the needs of the real economy and of justice.

11.2 Bank loan money does NOT serve the needs of the real economy nor of justice

But bank money does ***not*** serve the needs of the real economy, nor of justice. The *claim* of efficiently allocating resources is untrue – only 2% of the money supply goes into new productive capacity.[15]

Indeed, today's banking system instead allocates money to:-

- the gargantuan casino of derivatives and the speculative trading of currencies now dominating the world's money exchanges[16]
- the bidding up of existing assets (e.g., stocks, shares and houses)
- the *narrowing* of ownership
- consumer credit (which *lessens* the capacity of borrowers to consume)
- putting individuals, companies and societies into un-repayable debt
- anything ***except*** *the productive economy and the spreading of the real economy to every individual*.

And remember – *unless productive power is widely spread, there can never be a true balance of supply and demand.* When there is no spreading the rich get richer and the rich-poor gap increases.

12. The third false assumption about reality – that interest is necessary

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[15] Lietaer, B. (2001). *The Future of Money.* Korten,D. (2001). *When Corporations Rule the World.*

[16] Meera, K.M. and Larbini, M. (2004). *Seignorage of Fiat Money and the Maqasid al-Shariah* in *Harmonising Development and Financial Instruments by Shariah Rules for Ummatic Integration*.

The third false assumption is that interest is necessary. However, while genuine administration cost (which is small) is necessary as are collateral and business plan, *interest* (imposed *on top* of administration cost) is ***NOT*** necessary.

Interest is a gigantic hoovering mechanism which sucks up wealth from the poor and transfers it to the rich. Generally, interest causes 80% of the people to pay out more than they receive; 10% are in balance; and the last 10% receive much more than they pay out.

In Aachen, Germany, interest is 12% of the cost of rubbish collection; 38% of drinking water; 47% of sewage; and 77% of public housing.

Moreover, over the period 1950-1989 German GDP increased twenty two times, but interest on the National Debt increased <u>*seventy five*</u> times!

It is also estimated that 50% of the price of *all* goods and services relates to borrowing costs.[17]

12.1 Compound interest – the Humber Bridge

Compound interest:-

- puts the world into ever-increasing debt
- prevents clean water
- stifles green electricity
- trebles or more the cost of a capital project.

Consider the UK Humber Bridge. Starting at £28,000,000, compound interest (with some price rises) took the cost of the Bridge to £439,000,000. That's <u>*fifteen times*</u> higher!

Yet the Bridge is profitable! Every year, its operating costs — repair, maintenance and salaries — are *less* than the fees received from travellers. In short, the Bridge is a money-maker but compound interest makes it a money-loser![18]

13. The creation of the *Sun Paradigm*

The *Sun Paradigm* is created by reversing, or near-reversing, the false assumptions. The reversals (or near-reversals*)* are seen to be true (or, at the very least, truer) and so a fresh component assumption (for the new paradigm) becomes available.

13.1 The reversals or near-reversals then interact with one another

The reversals or near-reversals then interact with one another:-

a) Thus the new understanding that, nowadays, the larger percentage of output is done *by capital instruments* (rather than by labour)

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[17] Kennedy, M. (1995). *Interest and Inflation-Free Money*.

[18] In 1981, when the Bridge opened, the original cost of £28,000.000 had risen to £98,000,000 (because of compound interest, inflation and price increases). By 1992 compound interest had taken the cost to £439,000,000 whereon the UK government removed it from the citizens of Humberside and put it onto the National Debt. https://www.humberbridge.co.uk/wp-content/uploads/2019/08/HUMBER-BRIDGE-BOARD-ACCOUNTS-FINAL-1718.pdf

interacts with

the recognition that there can only be a balanced economy ***IF*** there is a spreading of ownership of what really does create the wealth – the capital instruments.

When the spreading is done the result is that, in addition to jobs, *everybody owns something* (and has the associated income) in contrast to today's situation where most people are confined to their labour (if possible) and/or welfare benefit.

b) Furthermore, the recognition that interest is *not* necessary

interacts with

the fact that money is created out of nothing. This then enables a huge interest-free money supply – ***Sun Money*** – for spreading the real economy and addressing environmental problems in a counter-inflationary, justice-enabling way.[19]

13.2 Commercial banks will still charge interest

NB. The *Sun Paradigm* will NOT stop commercial banks charging interest. Indeed, a large pool of money for lending at interest will remain.

13.3 Gentle rise to 100% banking reserves

The *Sun Paradigm* (through a gentle rise to 100% banking reserves) only stops commercial banks from creating new money. This is the Chicago Plan long promoted by economists Simons, Fisher, Friedman and even Mervyn King (ex-Governor of the Bank of England).

However, none of them ever proposed the key *Sun Paradigm* aspects – the use of *Sun Money* for:-

- environmental purposes
- the *spreading* of productive (and associated purchasing) capacity to *every* individual.

14. The involvement of public, national and international banking institutions

The *Sun Paradigm* provides a new opportunity for public, national, and international banking institutions to address the world's economic and environmental problems.

To do so, the institutions will need to:-

- reject false assumptions
- develop a sense of urgency.

15. Uses of *Sun Money*

Uses of *Sun Money* (there are many) include:-

15.1 Micro-credit

Asian commercial banks charge an outrageous 60%/year while rural lenders charge 200% (or even 300%).

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[19] Since the real economy and justice are furthered in a counter-inflationary way, a new word is necessary. 'Doe-flation' ('doe' as in a female deer) seems appropriate.

However, the Grameen Bank averages 34%. Half is for borrowed money and half is for high administration costs which *include the cost of training the borrower*.

Grameen and similar organisations have a 98% repayment rate and so could receive *Sun Money*, lend it to their clients at 17% (thereby halving the usual cost) and then repay it to the central bank.

And at 17% there would likely be a 100% repayment rate.

15.2 Start-ups, small businesses and small farms

Small businesses are often crushed by interest-bearing debt. But interest is not necessary for small businesses. As long as they have a viable proposal with provision for collateral and administration cost, there is no reason for interest.

15.3 Medium-size businesses

Sun Money is available for medium-sized businesses ONLY *IF* the loans are associated with the widening of ownership.

15.4 Incomes for all

The *Sun Paradigm,* over time, enables ALL individuals to have an independent income (thereby diminishing the need for welfare benefit and people living off interest).[20]

If a person has a job – that's good. However, computers and incredible new technology are destroying secure well-paid jobs and replacing them, if at all, with temporary, insecure, low-paid, 'gig economy' ones. Standard economics has no way of ensuring that, in future, everybody will be directly involved in the real economy with a steady, reasonable income.

Nevertheless, the *Sun Paradigm* does have a way – ***corporations widening their ownership may have Sun Money (a huge advantage)!***

Indeed, using the practical mechanisms of Binary Economics, it is possible to achieve **wide capital ownership** in the large corporations by which *the capital pays out its full returns which would be five to eight times existing returns*. The full payout is essential for enabling *all* people to have an independent income.[21]

With a basket of full-payout shares, ALL individuals can have a steady income because they are being directly connected to the real economy.[22] A child would have a small income which would increase over time.

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[20] Moreover, charitable institutions, like individuals, can be linked to the real economy.

[21] www.binaryeconomics.net

[22] Figures contained in a 1998 study by Northeast Ohio Employee Ownership Center, Kent State University, Ohio and a 2005 study from the Center for Economic and Social Justice, Washington, D.C., indicate that, aged sixty five, an adult would have a binary income of about $26,000 and a capital accumulation of $200,000 with both figures continuing to increase after the age of sixty five. (The figures would be very much higher today.)

NB. *In a world of increasing automation, spreading capital ownership is the only way of ensuring that all people have income from real production so that, in society as a whole, there is a true balance of supply and demand.*

15.5 Housing

Homes and villages can incorporate production – see Section 16.1.

With *Sun Money* **public housing** can halve its cost.

And so can **private housing.** Loans would be:-

- 80% of valuation (with criminal penalties for deliberate false valuations and declarations of income)
- sensibly related to income.

15.6 Public capital projects

These projects include roads, bridges, sewage works, railways etc.

Financing is simple – the national bank (or other institution) lends *Sun Money* to the government. As today, money for repayment is collected out of fees and taxes but the amount required would be *half, or less*, of the usual amount.

Guernsey (which has minimal debt) has used the loans and so has Malaysia.

Over the prosperous period 1939-1974, Canada used the loans and, today, many Canadian municipalities are demanding their use to upgrade infrastructure.

After 1935, New Zealand used the loans – for hydropower schemes, railways, state housing etc. – and had a prosperous period.

In the late 1940s Taiwan used the loans to spread ownership of farm land without harming the rich.

15.7 Student loans

Student loans can be interest-free. The taxation system collects repayment and so acts as collateral.

16. Clean electricity and greenery

Sun Money is important for the generation of clean electricity e.g., from **geothermal power, hydroelectric schemes, windmills, underwater turbines, wave machines** and **tidal lagoons.** Tides rise and ebb twice a day and tidal lagoons use old technology – concrete and slow-moving turbines. Lagoons are easily constructed but, *because it takes a long time to do so, compound interest stops them being built.*

Most countries are suitable for **solar electricity** and coming along are extraordinary **new technologies** such as **bio-oil from algae** and **SolaRoof technology** – see Section 16.1. These are important for the *local* generation of energy and they end our losing battle with nature and, instead, enable us to turn to life-science for critical solutions.

Sun Money should be available for all forms of green technology and can be used for **mangrove-crested sea barrages.** Annually, millions of tons of valuable soil are lost because of erosion.

S.O.S. – Save Our Soils!
There must be **multi-species tree-planting**.

16.1 Solar structures – *Sun Fuel* does the work!

However, the most immediate aspect of the *Sun Paradigm* will be the safe, transparent and translucent structures seen, for example, at https://youtu.be/awBJzEfM7wM and http://www.podnet.is demonstrating a **SolaRoof village** and **ecological living.**

The POD Enterprise Network explains that the structures enable _the sun_ to do the work of providing _local_ organic food, fresh water and energy thereby enabling clean, healthy and responsible living. Richard Nelson describes how:-

> *'....the architecture of every home, receiving natural sunlight, makes every household a wealth-producer with the capital (money) easily repaid while the benefit of ongoing regenerative operations continues adding to the health and wealth of the family and the community into the future.'*

The structures are low cost, zero-carbon and so efficient in growing food that land can be 're-wilded'. Crucially, they provide ***Sun Fuel*** **–** natural gas and liquid fuel – which is ***local,*** not centrally-supplied, energy.

Unlike the *Great Reset*, the structures (individually or co-operatively owned) spread productive power directly to consumers (i.e., the buildings' occupiers).

Indeed, the structures elegantly ensure that *widespread production matches widespread consumption* – which is an accurate implementation of **Say's Theorem!**

17. On the voluntary stabilisation, even decline, of population levels

Nevertheless, *more* than Greenery and solar structures is necessary if environmental problems are to be solved.

To that end it can be observed that when any society has:-

- a reasonable standard of living
- good health, education, water and sewage systems
- provision for old age

population levels tend to stabilise, even decline.

This happens because, in the above circumstances, people do not need many children to ensure that at least some survive: nor are children needed to provide for the senior generation.

Thus the tendency of the *Sun Paradigm* is to allow societies *voluntarily* to have smaller numbers of people with benefits for the planet as a whole.

Of course, *Dark Paradigm* thinking will claim that many people are necessary to produce wealth. However, this is nonsense – the future world will not need many people in order to achieve adequate output because a huge proportion of production will be made by technologies which have an independent, or near-independent, existence.

The *Sun Paradigm* therefore gives hope that the world's population (at present increasing) will trend towards levels more in harmony with resources, fauna and flora.

17.1 Viruses, EMP attack and atomic war

NB. Many people fear that the *Great Reset* elite intend a violent reduction of population e.g., by laboratory-created viruses, electro-magnetic pulse attack or atomic war.

In contrast, the *Sun Paradigm* influences population levels in a gentle way.

18. An end to greed (as expressed by *homo economicus)*

At the centre of standard economics is the concept of *homo economicus* which claims to describe human psychology accurately by viewing all humans as 'rational' i.e., selfish and greedy. The concept says humans have a limitless desire for material possessions.

Thus a text book may open by saying that economics is about scarcity. This means that, while some people are able to get most (but not all) of the things they want, the rest of humanity does not, cannot, and never will, get what it wants.

The text book is essentially saying that nobody is ever satisfied (not even the very rich!) and, as for the poor, well, it's too bad – *they will always be poor*....

Therefore, according to standard economics, greed is everywhere – which means that strife and war are inevitable as also is the depredation of resources and the environment resulting in the extinction of human, and other, life.

18.1 The cause of greed is insecurity

Furthermore, at present, *the standard view is reasonable* because greed is essentially caused by a mixture of:-

- actual insecurity
- fear of potential insecurity
- aspiration to the condition of those who undoubtedly do have security.

Thus, when there is a lot of insecurity in the world (as today), there is certain to be a lot of greed.

18.2 But what happens when everybody's basic needs are met?

But what happens when everybody has their basic needs – for comfort, food and shelter – being consistently and securely met and so they need never fear penury?

In that situation, people will begin to question if selfishness and greed really are unalterable human qualities or whether, in new positive circumstances, they can reasonably be expected to change.

18.3 *Homo economicus* to be replaced by *homo co-operans*

After considering the question, people might then perceive the activities of the very rich (who think it clever to flaunt their wealth) as grossly immature and selfish.

Indeed, whereas greed is worshipped today, in future (when *every* person has security), greed could suddenly become ***un***fashionable and so sensible living (i.e., living without excess) could become the fashionable norm for those wishing to lead responsible lives.

In those circumstances, ***homo co-operans*** will prevail and changing attitudes towards consumption will combine with more responsible attitudes towards irreplaceable natural resources and the glories of fauna and flora.

19. Economic democracy

It is rarely understood that Western 'democracy' is ***not*** true democracy because it permits but a weak power – the political vote – which:-

- is only exercised periodically
- seldom changes anything substantially
- may result in deterioration of your situation
- has narrow ownership of productive property.

In contrast, people need *economic democracy* which is a **strong, everyday power to control their own lives i.e., widespread property ownership and an independent income sufficient for requirements**. Only then will people be able to free themselves from bullying and control by others.

20. Finally....

Readers might reflect that the *Sun Paradigm* is:-

A justice which creates the efficiency and an efficiency which creates the justice.

Furthermore, they might also reflect that, with the *Sun Paradigm*, the impossible becomes possible and the intractable becomes tractable.

Thus they may begin to have hope.....

Appendix

Fifty Eight False Assumptions Underlying Standard Economics

Below are fifty eight assumptions about reality underlying standard economics. They are *interconnected* and accepted as true (or taken for granted as inevitable or sensible) but which, in fact, are *false*.

The interconnection is of importance because if only *one* assumption is false (or, at most, two or three are false) then *the whole edifice of standard economics starts to crumble.*

However, the *Sun Paradigm* becomes easily understood if the fifty eight false assumptions are one by one, and simply, *reversed* or near-reversed (as briefly seen in the italicised text).

Indeed, after only two or three reversals, a new panorama begins to appear.

NB. Many people say they "don't understand economics". This is NOT because they are stupid. It is because standard economics contains

contradictions and falsities which make understanding impossible. However, when the reversals are made, people suddenly begin to realize that they do understand....

The false assumptions are:-

1. Human labour creates all, or most, of the output while the capital instruments create little or none. *(This is the most pernicious false assumption. Labour sometimes creates all the output; sometimes creates a percentage, ranging from large to small; and sometimes creates nothing with everything being done by the capital instruments.)*
2. Banks lend existing money. *(No. The money is created out of nothing.)*
3. Interest is necessary. *(No. Administration cost, collateral and a business plan are necessary, but interest is not.)*
4. Scarcity is inevitable. *(No. Not with homo co-operans.)*
5. High taxation is necessary. *(No. High taxation results from the need to redistribute money to those without earning power.)*
6. The 'free market' is free. *(It is un-free. Most people are blocked from entering the markets for productive capital.)*
7. The 'free market' consists of states of equilibrium: when there is disequilibrium there will always be a return to equilibrium. *(Nonsense!)*
8. The 'free market' allocates resources efficiently. *(It allocates inefficiently. Rich-poor division is hugely increasing.)*
9. The outcomes of the 'free market' are always just. *(They are unjust.)*
10. *Homo economicus* is an accurate description of human psychology. *(It is outdated. Homo co-operans will be better.)*
11. Standard economics is an all-encompassing science of objective process and universal value and further improvement is impossible. *(False – further improvement is possible.)*
12. It is a matter of small importance that the banking system creates money out of nothing sufficient for the repayment of a loan's principal but not for the interest. *(It is of huge importance because it causes an endless need for more money creation as interest-bearing debt.)*
13. There Is No Such Thing As a Free Lunch (i.e., any improvement for the poor inevitably involves a detriment to the rich). *(False – the Sun Paradigm is not a zero sum game. Technological advance massively increases potential output.)*
14. The 'free market' upholds private property for all. *(Wrong.)*
15. It doesn't matter who owns the capital, particularly productive capital. *(It matters hugely because productive capital creates the wealth.)*
16. The 'free market' implements JB Say's market Theorem that producers and consumers should be the same people. *(It does not implement the Theorem.)*
17. Somebody who voluntarily looks after a sick person 24/7 does no work in the economic sense. *(Outrageously untrue!)*
18. Ethics/morality is not part of economics. *(This is madness!)*

19. The poor are poor because of lack of effort and lack of skill. *(False. They are poor because of lack of productive capital, lack of access to capital credit and suffering from compound interest.)*
20. Inflation is not caused by the banking system. *(Inflation is largely a monetary phenomenon.)*
21. Financial savings are necessary before there can be investment. *(Nonsense! Nowadays, money is created out of nothing!)*
22. Physical savings are necessary before investment. *(This is generally untrue because materials, or substitutes, are available. Prices for things can rise but that only increases cost.)*
23. Labour and welfare payment always suffice. *(They do <u>not</u> suffice.)*
24. Wide ownership is not necessary. *(It **<u>is</u>** necessary to spread productive capacity and associated purchasing capacity.)*
25. It is not necessary for every person to have an independent income. *(Untrue. Without independent incomes people are controlled by others.)*
26. The level of interest rates is all that's necessary to manage an economy. *(What matters is who or what creates the output and who gets the benefit of the creation.)*
27. Student loans must bear interest. *(Why? The taxation system collects repayment and so acts as collateral.)*
28. Public capital projects should be funded by interest-bearing money. *(Sun Money <u>halves</u>, even quarters, the cost.)*
29. Micro-credit lending should bear financial interest. *(Why? Collateral and administration cost are required, but why interest?)*
30. Environmental capital projects should bear interest. *(No!)*
31. An economy requires **two** lots of financing – one for production and one for consumption. *(Only <u>one</u> lot of financing is necessary if it is <u>simulfinancing</u> as in the Sun Paradigm and Binary Economics.)*
32. There Is No Such Thing As Society. *(Oh please! Why don't these people grow up?)*
33. Personal and national debt is healthy for an economy. *(Nonsense! Because of the need to repay interest, indebted people (and nations) have <u>less</u> purchasing power than those without debt.)*
34. There is no power imbalance between actors (participants, including individuals) in an economy. *(Whoever first thought of this has never lived an ordinary life e.g., the rich have collateral and can easily borrow cheaply whilst the poor do not have collateral and so must borrow at extortionate rates.)*
35. Social and economic justice on the one hand and efficiency on the other are incompatible. *(Wrong! In the Sun Paradigm the justice and efficiency create each other and are compatible.)*
36. Economic history is irrelevant. *(This arrogantly assumes, for example, that past crashes will never happen again....)*
37. Economic theory (stemming from Adam Smith, 1776) suffices to guide modern theory and practice. *(Standard economic theory is outdated. Smith's theory was conceived **<u>before</u>** the Industrial Revolution started.)*

38. The important things in economics are anything ***<u>except</u>*** the development and spreading of productive capacity so as to make producers and consumers the same people thereby enabling a Say's Theorem balance of supply and demand and also enabling the forwarding of social and economic justice. *(This is the biggest lie of all.)*
39. Commercial banks should offer interest-bearing mortgages (as distinct from administering interest-free national bank mortgages). *(Housing finance needs to be reviewed.)*
40. Economic inequality is desirable – the greater the gap between top and bottom earnings, the better. *(Another lie – the rich do not (<u>and cannot</u>) spend all their money.)*
41. 'Trickle down' economics works. *(NO! The rich are incapable of spending their money so they accumulate it.)*
42. Rising house and stock market prices indicate genuinely increased wealth. *(No – these rises usually only reflect newly-created money being put into anything <u>except</u> the spreading of the productive economy.)*
43. Large economic cycles are inevitable. *(They are inevitable with standard economics but not in the Sun Paradigm.)*
44. Individual greed is good and institutionalised greed is even better. *(This is an expression of homo economicus. Let us have homo co-operans!)*
45. Countries should raise interest-bearing money on the international markets. *(No. Interest-bearing debt cripples them forever.)*
46. Countries should not be independent: they should be controlled by others. *(No!)*
47. A country's assets should be owned by outsiders. *(This stops a nation's people owning their own assets and getting the benefits thereof.)*
48. A country's new money supply should originate in the commercial banking system rather than the national bank. *(When it originates in the commercial banking system it is improperly applied and interest is added.)*
49. Employee shareholdings do not improve efficiency. *(Wrong!)*
50. Political democracy does not require economic democracy. *(All the talk about 'democracy' amounts to nothing unless the <u>economic</u> aspect is also considered.)*
51. There is a Time Value to borrowed money. *(NO! Since the money is created out of nothing, <u>it has no time value.</u>)*
52. Environmental matters are extraneous and impose unnecessary cost. *(Good heavens! These madmen (they are usually men) are destroying the world!)*
53. Economics is a separate academic subject which needs not take account of other subjects. *(Wrong! All subjects must take account of other subjects.)*
54. Population growth is inevitable. *(Not inevitable. Moreover, smaller populations do NOT necessarily have a diminished ability to create wealth.)*
55. An understanding of technology is irrelevant to economics. *(It is highly relevant.)*
56. Jobs can be exported. *(When exported, spending power of the jobs is removed from the domestic economy.)*
57. Domestic manufacturing does not matter. *(It matters very much.)*
58. Education and training suffice for economic needs. *(They do not and cannot suffice – wide capital ownership is also necessary.)*

The revelation of the *Sun Paradigm*

The *Sun Paradigm* begins to appear when the fifty eight false assumptions are individually reversed or near-reversed (see the *italicised* text in brackets).

It soon becomes apparent that a different picture is materializing and then, long before all the false assumptions have been reversed, it is brightly clear that a totally new landscape – the *Sun Paradigm* landscape – has emerged.

About the Author

For ten years **Rodney Shakespeare** was Visiting Professor of Binary Economics (holding the only academic post in the subject in the world) at Trisakti University, Jakarta. Binary Economics is a new paradigm economics addressing the technological shift now smashing out traditional well-paid jobs and upholding democratic economic rights as well as the usual political ones.

Rodney is a widower with two children and two grandchildren. He is a private tutor, Chair of the *Committee Against Torture in Bahrain* and, due to an accident, has impaired hearing.