Angel Theory

Paradigm Shift

A More Creative Capitalism

By Nick Ray Ball

24th April to 20th October 2018

A forerunner to

Supereconomics
Books I, II & III

Angel Theory – Volume 1 – Paradigm Shift

A More Creative Capitalism

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By Nick Ray Ball 1st August 2018

Part 1. A Good Model

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Part 2. Charter Cities (Working Title)

Angel Theory – Volume 1 – Paradigm Shift

A More Creative Capitalism

Part 1. A Good Model

Chapter 1. Introduction

By Nick Ray Ball 1st August 2018

Add Introduction… Include Bill Gates

We shall come back to Hawking's 'A Good Model'- Chapter 2. But before we do, I will briefly present the evolutionary process of this 'Good Model' starting in 2012 and the first system design… The S-World 'PQS' – Predictive Quantum Software, seen below.

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An introduction to

Part 1. A Good Model

Chapter 2. "POP - A Good Model"

A model is good if it:

1. *Is elegant*

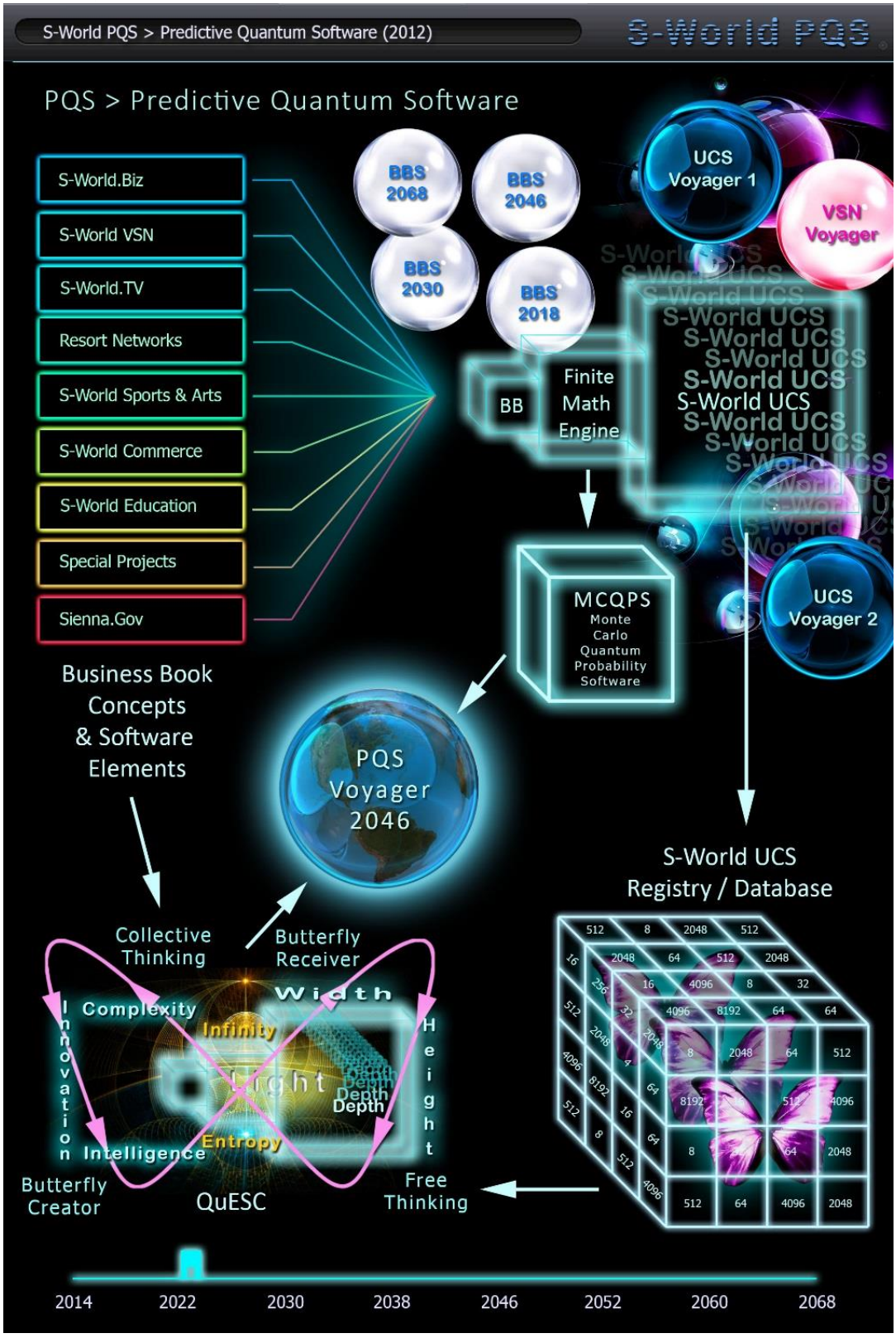
Elegance is not something easily measured, but it is highly prized amongst scientist because laws of nature are meant to economically compress a number of particular cases into one simple formula.

Elegance refers to the form of a theory, but it is closely related to a lack of adjustable elements since a theory jammed with fudge factors is not very elegant. To paraphrase Einstein, 'a theory should be as simple as possible, but not simpler.'

2. *Contains few arbitrary or adjustable elements*
3. *Agrees with and explains all existing observations*
4. *Makes detailed predictions about future observations that can disprove or falsify the model if they are not borne out.*

The quote above is from Professor Stephen Hawking and Leonard Mlodinow's book, 'The Grand Design'; and whilst this book is undoubtedly a book on physics, the quote was generic to all scientific disciplines. And whilst many would say economics is not scientific (or not scientific enough, or even too scientific), my objective is that by the end of this book, all who make it past the finishing line agree that economics can and should be based on 'a good scientific model.'

We shall come back to Hawking's 'A Good Model' in Part 2 of this chapter. But before we do, I will briefly present the evolutionary process of this 'Good Model' starting in 2012 and the first system design, The S-World 'PQS' – Predictive Quantum Software, seen below.



Top left, we have the key software and systems that empower and improve a virtual social network, film and TV, resort development, sports, culture, e-commerce, education, philanthropic and ecological projects, and government systems.

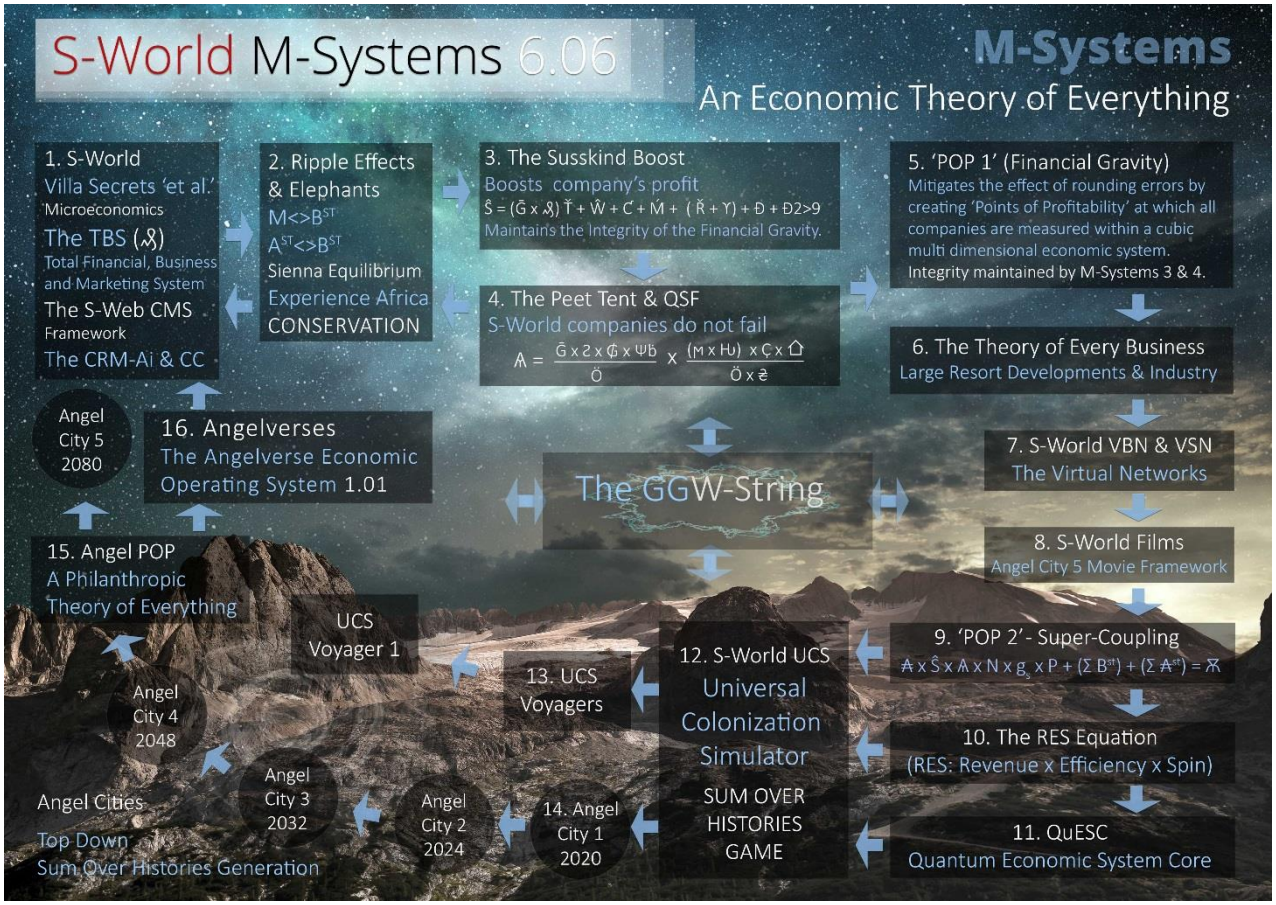
And to the right, we see the 'Finite Math Engine' which is the 'POP – Point of Profitably' principle, also known as 'financial gravity.' To its right, we see the S-World UCS™ tutorial, recruiting, future

simulation and MMO game; which, amongst other things, creates future simulations as 'UCS™ Voyagers' and future way stations, now known as Angel Cities, seen above as the bubbles.

Then below, the 'Finite Math Engine' is the Monte Carlo Quantum Probability Software (Monte Carlo N Particle Transport Code) which examines billions of possible outcomes, and that leads to the PQS™ Voyager future simulation in 2046 (now Angel City 5 in 2080).

In the bottom right, we see the POP principle in action and a database that is desired to connect to almost every database on the planet. And at the bottom left, we see an early interpretation of string theory, which turned out to be much closer to chaos theory in the end and is now M-System 11. QuESC - the Quantum Economic System Core; which is in a perpetual state of learning and improvement with both S-World software and personnel on the one side, and S-World companies, UCS simulation users, MMO gamers, and any other public or business use of the S-World systems on the other, continually learning from each other and improving the S-World Network.

M-Systems



Four years later, I recreated the PQS system design and renamed it 'M-Systems.'
M-Systems are presented in Book 1. 'M-Systems.'
See the following links:
www.angeltheory.org/book/1-2/from-m-theory-to-m-systems for systems 1 to 8
www.angeltheory.org/book/1-3/the-s-world-ucs-m-systems for systems 9 to 14
www.angeltheory.org/book1-4/an-ecological-and-philanthropic-theory-everything-plus-space for the ecological, philanthropic special projects plus space.

www.angeltheory.org/book/2-3/the-network-on-a-string#Angel-POP-2012-to-2017 for M-System 15. Angel POP tells us Grand Networks in Locations of Abject Poverty are Special Projects.

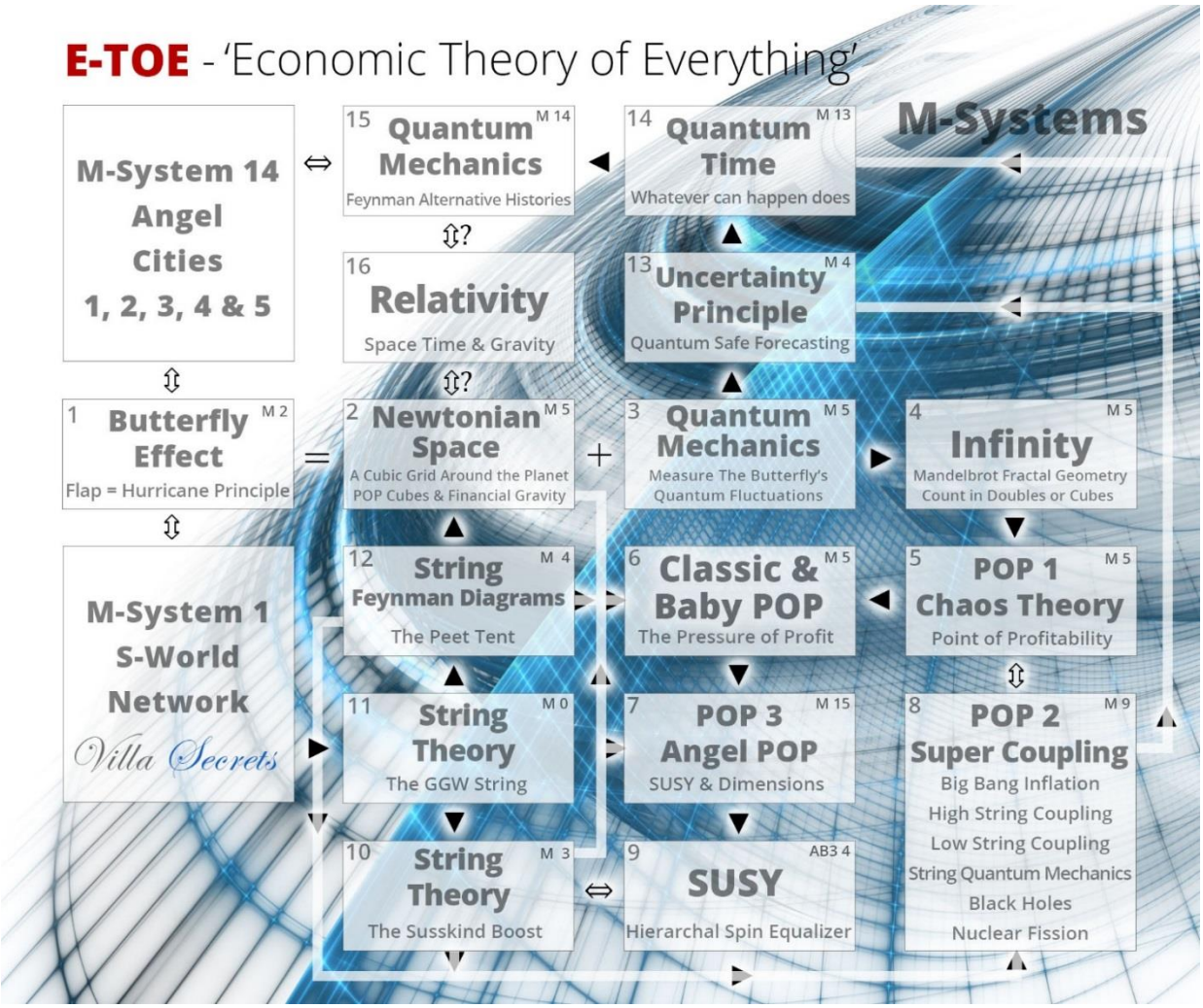
Then, in 2017, I created an adaptation that focused on theoretical physics and wrote a book about it. This book is now Book 2. The Economic Theory of Everything - Part 1. 'Out of Chaos.'

The Economic Theory of Everything - Part 1

The E-TOE – "Out of Chaos"

www.angeltheory.org/book2-summary/the-e-toe-an-economic-theory-of-everything

Video 1: https://youtu.be/SlbhdhqdY3c - *3.01 minutes*



Below, we see the 7 chapters that describe the system design you see above.

Chapter 1. M-Theory and the E-TOE	Introduction
Chapter 2. The Flap of a Butterfly's Wings	Chaos Theory
Chapter 3. The Network on a String	String Theory Simulations
Chapter 4. Super Coupling	String & M-Theory Simulations
Chapter 5. Quantum Time	Quantum Mechanics

M-Theory, an Economic Science?

The slogan seen above is literally everywhere in the first part of this book and seen in all Angel Theory – Paradigm Shift books.

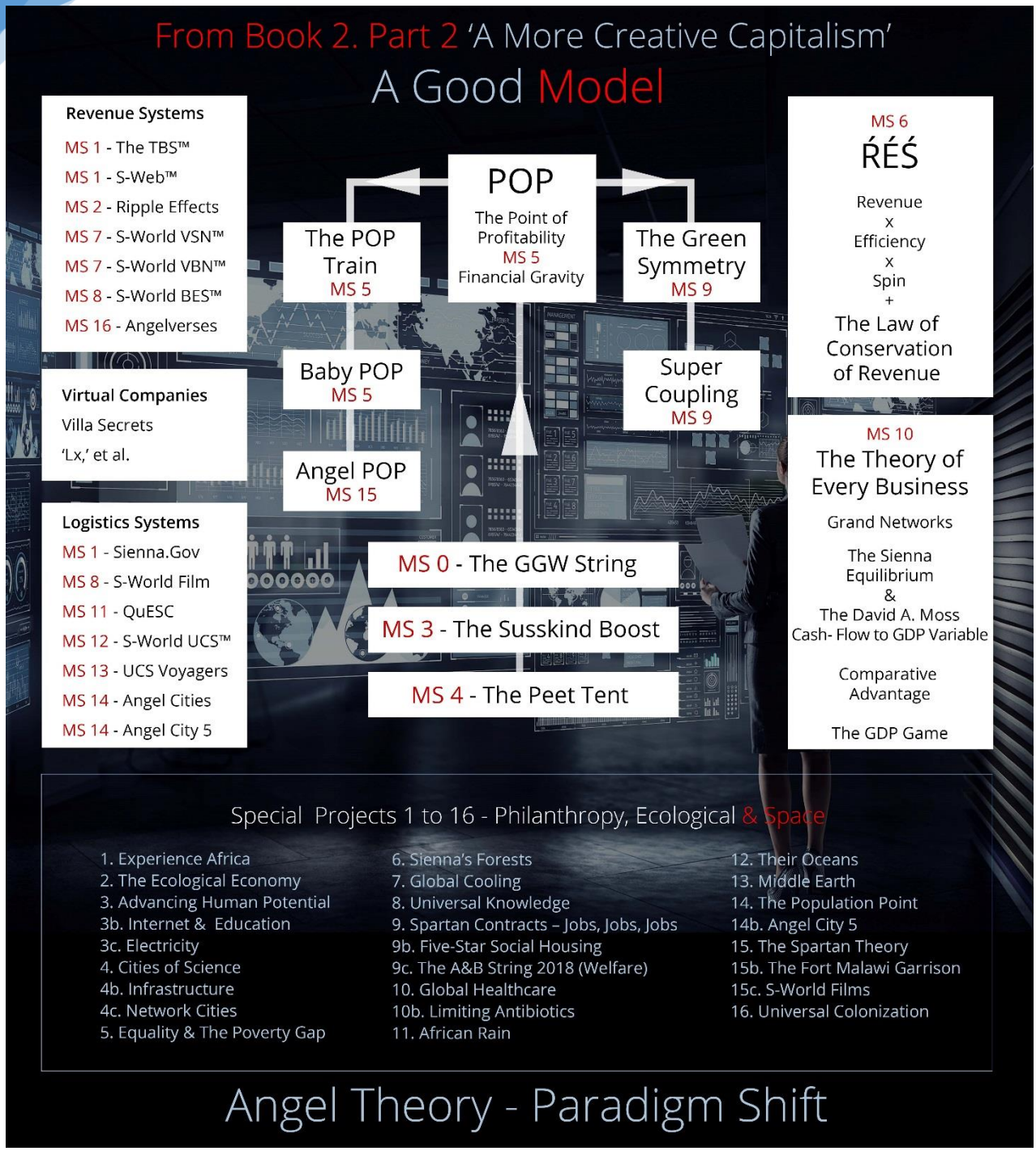
I must admit that at the time of writing the book specific to this question, Book 2. Part 1. 'Out of Chaos,' I did not exactly know what made M-theory a contender for economic science. All I knew was that by following the discipline, S-World was better. It was only when it came time to start preparing correspondence for the world's leading string and M-theorists that I realised that a more specific question was necessary and, in many ways, this chapter is the development of that question.

Fortunately, 'that question' was simple enough to formulate, albeit it is now in two parts.

1. *Is POP a 'Good Model' per Hawking's Prescription?*
2. *Have the M-theory systems added to and improved the model?*

Where question two is specific to M-theory, and question one is specific to the idea of a scientific model that could be applied to many disciplines. This led to a graphic that encompasses all the important features of Angel Theory – Volume 1 - Paradigm Shift.

Before looking at the specifics of the 'Good Model' per Hawking's prescription, I shall present the graphic and briefly describe the system. The graphic is the latest version of the graphics I showed earlier; but that is not to take anything away from the earlier graphics, it's just a different view of the same system.



On the left-hand side, we see many of the 'M-Systems' from Book 1.

Starting top left, we see the software and systems that are primarily 'revenue systems,' where they either make money directly like MS (M-System) 7 – S-World VSN™ (Virtual Social Network), or more often assist S-World companies to make money like MS 1 – The TBS™ (Total Business Software) or the MS 8 – S-World BES™ (Behavioural Economic Systems).

However, most revenue systems are also logistical systems and vice versa. And in fact, S-World UCS™ (seen under logistics) is likely to be the joint highest-earning individual system. But as its logistics are paramount to the entire project, it has been placed in the logistics category.

Note that also in the middle left, we see Villa Secrets and 'Lx.' which are company types and note

that this field will see massive growth as we add every company type, we can imagine and all sub-niches.

Moving to the middle of the graphic, we see 'POP – The Point of Profitability' (financial gravity) with its one simple rule that at a particular point of profitability, all additional profit will be reinvested in making new companies. To its left and right, we see additions to the POP Model. On the left, we see 'the POP Train' which leads to 'Baby POP' and 'Angel POP.' Whereas to the right, we see 'The Green Symmetry' leading to 'Super Coupling.' And below, we see the String Theory Systems that maintain the structural integrity of the financial gravity.

Importantly, in terms of Hawking's prescription (point 2), on desiring only a few adjustable elements; it is these central systems and ŘÉŠ (if/when validated) that apply to the prescription. These laws are very simple and for the most part, the basic laws are all that is required. However, stemming from the basic laws, via the various software systems and Super Coupling, are a great many options (like mother nature has made many wonderful plants and animals); **but the options can never break the laws.**

On the right, we see the 'Grand Network' systems: ŘÉŠ and the 'Law of Conservation of Revenue,' which are the 'to be verified' systems and the subject of Chapter 3 and others. Below ŘÉŠ, we have other economic systems that apply to Grand Networks, from Lake Malawi to MARS Resort 1.

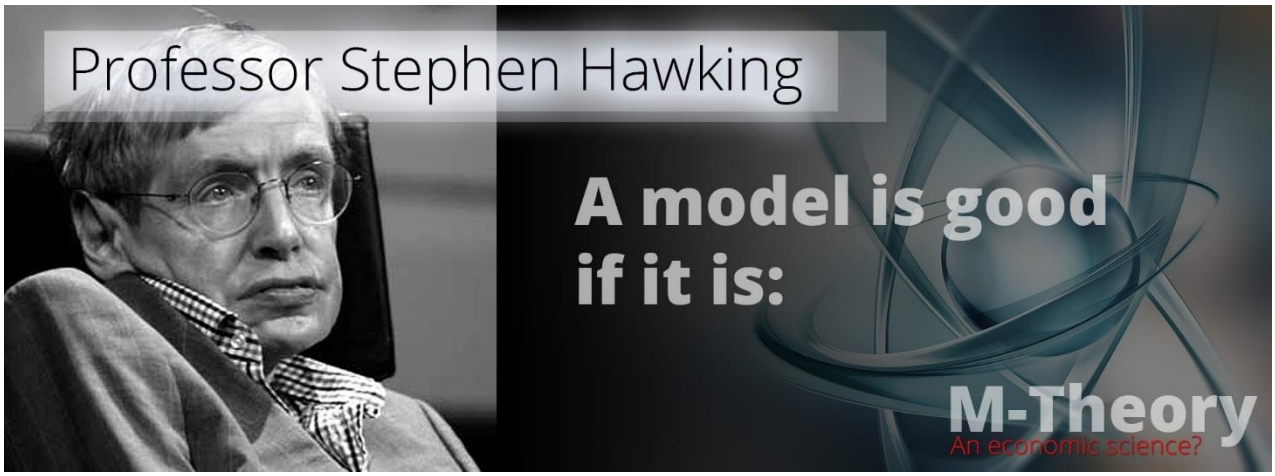
And the reason for doing all this is found at the bottom of the graphic, 'Special Projects 1 to 16 – Philanthropy, Ecology, and Space'; all of which get created by targeted ripple effects stemming from the creation of the Grand Networks in locations of abject poverty in the first place, best seen here: www.angeltheory.org/book3-14/ripple-effects-and-elephants-for-paul-g-allen.

Angel Theory – Volume 1 – Paradigm Shift

A More Creative Capitalism

Part 2. Charter Cities

Chapter 2. A Good Model – Financial Gravity



Like Albert Einstein, Usain Bolt and many others; Hawking enjoyed his peak before his 40th Birthday. But this is not to take away his later efforts to teach the discipline of theoretical physics to the masses, in his book 'A Brief History of Time, and what may as well have been its updated re-release The Grand Design co-authored by Leonard Mlodinow in 2010. What both Hawking and Mlodinow did not realise at the time, was that their work would teach me economics, or at least a new form of digital economics that we will for now simply call S-World Economics or Supereconomics. Which like the super in super string theory is a reference to super-symmetry not just being super like Superman? For example, in chapter 4 we discuss the RES Equation, a far more elegant economic weapon, for a more civilized age. This can be used far more effectively than current methods to increase the money supply, when needed, which granted in the early days is most of the time, but in a couple of decades could grow to become the great economic symmetry of the modern age.

(We need to find the equivalent of quantum mechanics for economics, we need a quantum theory of economics, which in this hypothesis, where all global output/GDP is the equivalent to Einstein's theory of how large objects move in the universe ergo general relativity. A quantum there then must be the individual people which and every single cent they spend. Which we can assess via RES.)

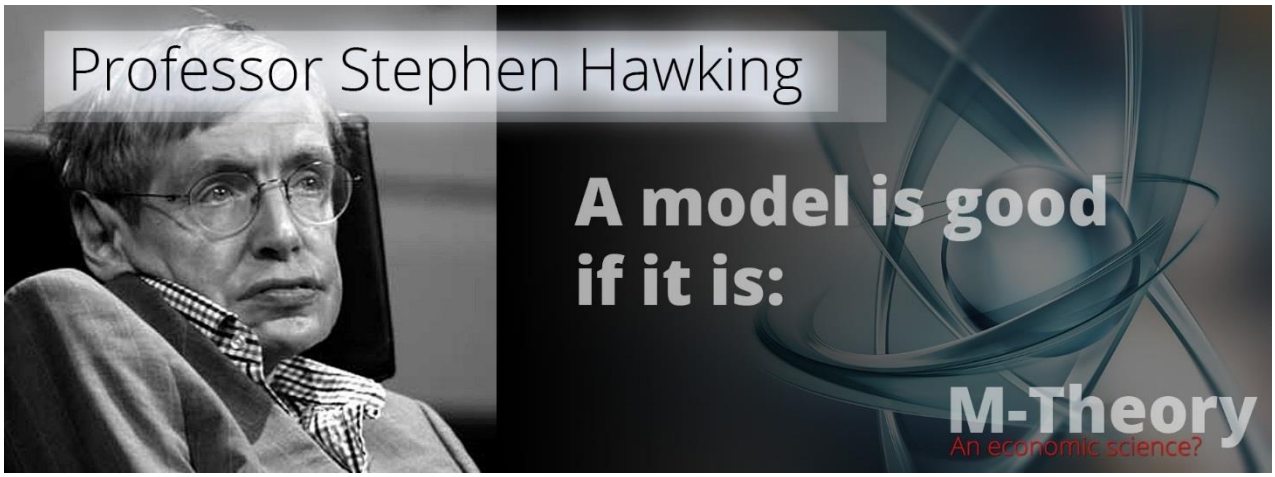
In this chapter, we shall see how many new economic notions, based on some old ideas are being proposed by mostly Nobel winning economists, and how Hawking's description of what *[check this, I may be meaning a link to Hawking's begging of A Grand Design currently waiting for Krissy to type up]* makes for a good model in physics, can also be surprisingly accurate in analogizing the current rift between New-Keynesian saltwater economics, and Efficient Market Hypotheses

freshwater economists about and the question of depression economics and recessions. If we went back to the 1950's we would hear a similar argument about black holes in Einstein's Theory of Gravity – General Relativity, between Einstein and opponents, with Einstein on the side of No Black Holes, and opponents who would eventually be proved correct, including Professor Hawking. And indeed, when asked Hawking says his best work was on black holes.

This is not to discredit Einstein, at the expense of Hawking and others, all others would love to be the farther of special (E=MC2) relativity and (Gravity) general relativity. Rather it is to show that great systems can lead to outcomes that one at first does not predict, such as depressions and recessions in the economics of the Efficient Market Hypotheses. And as elegant models by themselves are not a sign of correctness or at least completeness, even if this is against some of my own work in creating a set of elegant laws for S-World economics.

In this chapter and the next, we look at these (ideas for) laws, and trace them back to this or that physics analogy, before breaking into more conventional economics and the RES equation in chapter 3. This really is the stand out presentation, that I suggest all read, or at least watch the videos before reading the book chronologically.

But first, let's look at the basics, and the exert that gives part one of this book its name, 'A Good Model' by Professor Hawking.



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Einstein, 'a theory should be as simple as possible, but not simpler.'

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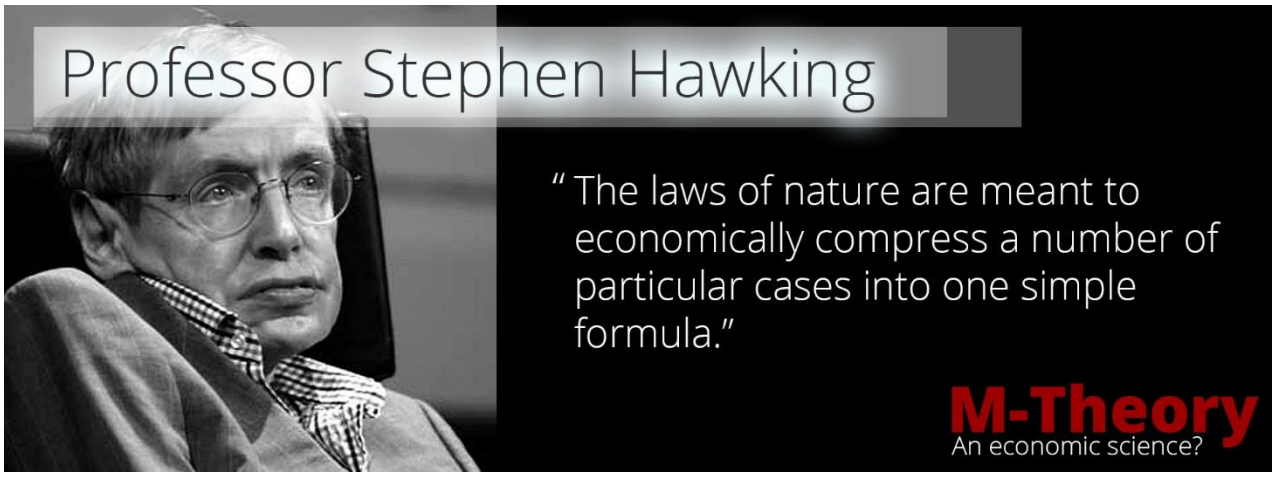

From 'The Grand Design'
Professors Stephen Hawking, Leonard Mlodinow

Also found in 'The Grand Design,' Hawking and Mlodinow tell that the laws of nature are fine-tuned due to billions of years of effort.

So, maybe, by mimicking, simulating, and following the laws of nature at every turn, the end result for an economic system based on analogies and simulations from mother nature would be for it to also be economically compressed and inspired by billions of years of evolution.

This has both immediate advantages in economic efficiency; plus, it also gives us a map of sorts where we can choose future actions based on the best analogy, simulation or metaphor, from theoretical physics related math and (in particular) chaos or M-theory

M-theory is the evolution of string theory, supersymmetry that by theoretically unifying Einstein's Theory of Gravity 'General Relativity' and the science that makes everything digital work, Quantum Mechanics, creating a 'Theory of Everything' ~~described in Chapter~~

~~2).~~

Add this collaboration with classic economics, macroeconomics, political economics, and behavioural sciences. Then add a few million hours of software development per the many designs, and you could really have something!

The argument goes that because the economic foundations are mostly mimicked from one or another law of nature, then the economic theory would likely be both economically compressed and elegant. "Albeit it is not for me to say my work is elegant."

In terms of Einstein's comment, 'a theory should be as simple as possible, but not simpler,' Einstein's theories required a lot of detail; thus, a lot of detail is obviously permissible, even if the essential points are in themselves simple enough.

INSERT

Since writing this chapter on Hawking's prescription for a good model point 1- 'Elegance,' I have come across an economic situation where an elegant model is not good, or at least is incomplete. This model is the Efficient Markets Hypothesis by 2013 Nobel Laureate Eugene Fama, which was brought to my attention by 2008 Nobel Laureate Paul Krugman in his book 'End This Depression Now!' which ironically was published the year before Fama won his Nobel.

We will expand upon Fama and hear more from Paul Krugman later in this book. For now, I will simply copy and paste the insert from Krugman's book.

End This Depression Now!
CHAPTER SIX - DARK AGE ECONOMICS

Notably Rare Exceptions

In the 1930s, financial markets, for obvious reasons, didn't get much respect. Keynes compared them to those newspaper competitions in which the competitors have to pick out the six prettiest faces from a hundred photographs, the prize being awarded to the competitor whose choice most nearly corresponds to the average preferences of the competitors as a whole; so that each competitor has to pick, not those faces which he himself finds prettiest, but those that he thinks likeliest to catch the fancy of the other competitors.

And Keynes considered it a very bad idea to let such markets, in which speculators spent their time chasing one another's tails, dictate important business decisions: "When the capital development of a country becomes a by-product of the activities of a casino, the job is likely to be ill-done."

By 1970 or so, however, the study of financial markets seemed to have been taken over by Voltaire's Dr Pangloss, who insisted that we live in the best of all possible worlds. Discussion of investor irrationality, of bubbles, of destructive speculation, had virtually disappeared from academic discourse. The field was dominated by the "efficient-markets hypothesis," promulgated by Eugene Fama of the University of Chicago, which claims that financial markets price assets precisely at their intrinsic worth, given all publicly available information. (The price of a company's stock, for example, always accurately reflects the company's value, given the information available on the company's earnings, its business prospects, and so on.) And by the 1980s, finance economists, notably Michael Jensen of the Harvard Business School, were arguing that because financial markets always get prices right, the best thing corporate chieftains can do, not just for themselves but for the sake of the economy, is to maximize their stock prices. In other words, finance economists believed that we should put the capital development of the nation in the hands of what Keynes called a "casino."

It's hard to argue that this transformation in the profession was driven by events. True, the memory of 1929 was gradually receding, but there continued to be bull markets, with widespread tales of speculative excess, followed by bear markets. In 1973–74, for example, stocks lost 48 per cent of their value. And the 1987 stock crash, in which the Dow plunged nearly 23 per cent in a day for no clear reason, should have raised at least a few doubts about market rationality.

These events, however, which Keynes would have considered evidence of the unreliability of markets, did little to blunt the force of a beautiful idea.

The theoretical model that finance economists developed by assuming that every investor rationally balances risk against reward—the so-called Capital Asset Pricing Model, or CAPM ***is wonderfully elegant****. And if you accept its premises, it's also extremely useful.*

CAPM not only tells you how to choose your portfolio; even more important from the financial industry's point of view, it also tells you how to put a price on financial derivatives, claims on claims. **The elegance and apparent usefulness of the new theory led to a string of Nobel Prizes for its creators**, and many of the theory's adepts also received more mundane rewards: armed with their new models and formidable math skills—the more arcane **uses of CAPM require physicist-level computations**—mild-mannered business school professors could and did become Wall Street rocket scientists, earning Wall Street paychecks.

To be fair, finance theorists didn't accept the efficient-markets hypothesis merely because it was elegant, convenient, and lucrative. They also produced a great deal of statistical evidence, which at first seemed strongly supportive. But this evidence was of an oddly limited form. **Finance economists rarely asked the seemingly obvious (though not easily answered) question of whether asset prices made sense given real-world fundamentals like earnings.** Instead, they asked only whether asset prices made sense given other asset prices. Larry Summers, who was President Obama's top economic adviser for much of his first three years, once mocked finance professors with a parable about "ketchup economists" who "have shown that two-quart bottles of ketchup invariably sell for exactly twice as much as one-quart bottles of ketchup," and conclude from this that the ketchup market is perfectly efficient.

But neither this mockery nor more polite critiques from other economists had much effect. Finance theorists continued to believe that their models were essentially right, and so did many people making real-world decisions. Not least among these was Alan Greenspan, whose rejection of calls to rein in subprime lending or address the ever-inflating housing bubble rested in large part on the belief that modern financial economics had everything under control.

Now, you might imagine that the scale of the financial disaster that struck the world in 2008, and how all those supposedly sophisticated financial tools turned into instruments of disaster, must have shaken the grip of efficient-markets theory. But you would be wrong.

True, just after Lehman Brothers fell, Greenspan declared himself in a state of

"shocked disbelief," because "the whole intellectual edifice" had "collapsed." By March 2011, however, he was back to his old position, calling for a repeal of the (very modest) attempts to tighten financial regulation in the wake of the crisis. Financial markets were fine, he wrote in the Financial Times: "With notably rare exceptions (2008, for example), the global 'invisible hand' has created relatively stable exchange rates, interest rates, prices, and wage rates."

Hey, what's an occasional world economy-destroying crisis? The political scientist Henry Farrell, in a blog post, quickly responded by inviting readers to find other uses for the "notably rare exceptions" construction—for example, "With notably rare exceptions, Japanese nuclear reactors have been safe from earthquakes."

And the sad thing is that Greenspan's response has been widely shared. There has been remarkably little rethinking on the part of finance theorists. Eugene Fama, the father of the efficient-markets hypothesis, has given no ground at all; the crisis, he asserts, was caused by government intervention, especially the role of Fannie and Freddie (which is the Big Lie I talked about in chapter 4).

This reaction is understandable, though not forgivable. For either Greenspan or Fama to admit how far off the rails finance theory went would be to admit that they had spent much of their careers pursuing a blind alley. The same can be said of some leading macroeconomists, who similarly spent decades pushing a view of how the economy works that has been utterly refuted by recent events, and have similarly been unwilling to admit their misjudgement.

But that's not all: in defending their mistakes, they have also played a significant role in undermining an effective response to the depression we're in.

Nobel Laurette - Paul Krugman - End This Depression Now!

You know, I added the narrative above, after completing this chapter, which focused on my POP Model as an elegant foundation that sits at the heart system. But now if Krugman and others are to be believed, and they should be, then at least one elegant model 'the efficient market hypothesis' has been proved wrong in a given situation.

Does this mean we should abandon Hawking's prescription for a Good Model? No, but we may have to accept that there may be a time for one or another elegant model and other times for other elegant or even inelegant models. And the objective changes to find many models and work out at which time each should or should not be used.

This is such an intense objective that it deserves the grandest of names, and so I will call this software S-World Angelwing™ (Economic Software Framework). And whist it will be in part

discussed in this book, its actual home is not even in this volume – 'Angel Theory – Volume 1 – Paradigm Shift.' Instead, it will be a signature component of Volume 2, which I may call 'Angel Theory – Volume 1 – S-World Angelwing™.'

I am basing S-World Angelwing™ around the principle of dualities and the physics of M-Theory, in the next chapter 'String Theory Systems' we will hear from the farther of M-Theory Professor Edward Witten amongst other things 'The Witten Elephant.' This is essentially the same story as you are about to hear from professors Stephen Hawking and Leonard Mlodinow

>
!!! Insert from Straight Talk on Trade

Milton Friedman's magical thinking
Probably no other economist since Keynes has had as much an impact on policy makers understanding of how economies work than Milton Friedman. Friedman was one of the 20th Centuries leading economists, a Nobel Prize winner who made notable contributions to monetary policy and consumption theory. But he will be remembered primarily as the visionary who provided the intellectual fire power for free-market enthusiasts during the second half of the century, and as the eminent grease behind the dramatic shift in the economic policies that took place after 1980.

At a time when scepticism about markets ran rampant Freedman explained in clear accessible language, that private enterprise is the foundation of economic prosperity.

However,

The Friedmanite perspective greatly underestimates the institutional prerequisite of markets.
Let the government simply enforce property rights and contracts and presto markets can work their magic. In fact, the kind of markets that modern economies need are not self-creating, self-regulating, self-stabilising or self-legitimising, governments must invest in transport and communications networks, counteract asymmetric information, externalities and unequal bargaining power, moderate financial panics and recessions, and respond to popular demands for safety nets and social insurance.

Markets are the essence of market economy in the same sense that lemons are the essence of lemonade, pure lemon juice is barely drinkable, to make good lemonade you need to mix it with water and sugar. Of course, if you put too much water in the mix you ruin the lemonade, just as too much government medalling can make markets dysfunctional. The trick is not to discard the water and the sugar but to get the proportions right.

Hong Kong which Freidman held up as the exemplar of free-market society remains the exception to the mixed economy rule. And even there the government has played a large role in providing land for housing.

An Introduction to M-theory 1

From – The Grand Design - by Stephen Hawking and Leonard Mlodinow

Until the advent of modern physics, it was generally thought that all knowledge of the world could be obtained through direct observation, that things are what they seem, as perceived through our senses. But the spectacular success of modern physics, which is based upon concepts such as Feynman's that clash with everyday experience, has shown that that is not the case. The naïve view of reality, therefore, is not compatible with modern physics. To deal with such paradoxes we shall adopt an approach we call model-dependent realism. It is based on the idea that our brains interpret the input from our sensory organs by making a model of the world. When such a model is successful at explaining events, we tend to attribute to it, and to the elements and concepts that constitute it, the quality of reality or absolute truth. But there may be different ways in which one could model the same physical situation, with each employing different fundamental elements and concepts. If two such physical theories or models accurately predict the same events, one cannot be said to be more real than the other; rather, we are free to use whichever model is most convenient.

In the history of science, we have discovered a sequence of better and better theories or models, from Plato to the classical theory of Newton to modern quantum theories. It is natural to ask: Will this sequence eventually reach an end point, an ultimate theory of the universe, that will include all forces and predict every observation we can make, or will we continue forever finding better theories, but never one that cannot be improved upon? We do not yet have a definitive answer to this question, but we now have a candidate for the ultimate theory of everything, if indeed one exists, called M-theory. M-theory is the only model that has all the properties we think the final theory ought to have, and it is the theory upon which much of our later discussion is based.

M-theory is not a theory in the usual sense. It is a whole family of different theories, each of which is a good description of observations only in some range of physical situations. It is a bit like a map. As is well known, one cannot show the whole of the earth's surface on a single map.

The usual Mercator projection used for maps of the world makes areas appear larger and larger in the far north and south and doesn't cover the North and South Poles. To faithfully map the entire earth, one has to use a collection of maps, each of which covers a limited region. The maps overlap each other, and where they do, they show the same landscape. M-theory is similar. The different theories in the M-theory family may look very different, but they all can be regarded as aspects of the same underlying theory. They are versions of the theory that are applicable only in limited ranges – for example, when certain quantities such as energy are small. Like the overlapping maps in a Mercator projection, where the ranges of different versions overlap, they predict the same phenomena. But just as there is no flat map that is a good representation of the earth's entire surface, there is no single theory that is a good representation of observations in all situations.

We will describe how M-theory may offer answers to the question of creation. According to M-theory, ours is not the only universe. Instead, M-theory predicts that

a great many universes were created out of nothing. Their creation does not require the intervention of some supernatural being or god. Rather, these multiple universes arise naturally from physical law. They are a prediction of science. Each universe has many possible histories and many possible states at later times, that is, at times like the present, long after their creation. Most of these states will be quite unlike the universe we observe and quite unsuitable for the existence of any form of life. Only a very few would allow creatures like us to exist. Thus, our presence selects out from this vast array only those universes that are compatible with our existence. Although we are puny and insignificant on the scale of the cosmos, this makes us in a sense the lords of creation.

To understand the universe at the deepest level, we need to know not only *how* the universe behaves, but *why.*

Why is there something rather than nothing?

Why do we exist?

Why this particular set of laws and not some other?

An Introduction to M-theory 2

From – The Grand Design - by Stephen Hawking and Leonard Mlodinow

In our quest to find the laws that govern the universe, we have formulated a number of theories or models, such as the four-element theory, the Ptolemaic model, the Big Bang Theory and so on. With each model our concepts of reality and the fundamental consistency of the universe change. For example, consider the theory of light, Newton thought that light was made up of little particles. This would explain why light travels in straight lines.

However early in the 20th century, Einstein showed that the photo electric, (now used in television and digital cameras) could be explained by a particle or quantum of light striking an atom and knocking out an electron. Thus, light behaves as both particle and wave. The idea of particles was familiar from rocks, pebbles and sand, but this wave-particle duality, the idea that an object could be described as either a particle or a wave, is foreign to everyday experience as is the idea that you can drink a chunk of sandstone. Dualities like this, situations in which two very different theories accurately describe the same phenomenon are consistent with model-dependent realism, each theory can describe and explain certain properties and neither theory can be said to be better, or more real than the other.

> Note that an economic and neurology duality is presented in Finance and the Good Society by Nobel laureate Robert J Shiller
> The Dopamine Gating hypothesis (Audible Chapter 9 – 5.18)

Regarding the laws that govern the universe, what we can say is this, there seems to be no single mathematical model or theory that can describe every aspect of the universe. Instead as mentioned in the opening chapter, there seems to be a network

of theories called m-theory.

Each theory in the m-theory network is good at describing phenomena in a certain range, wherever their ranges overlap, the various theories in the network agree, so they can all be said to be parts of the same theory, but no single theory within the network can describe every aspect of the universe, all the forces of nature, the particles that feel those forces and the framework of space and time in which it all plays out.

Though this situation does not fulfil the traditional physicist's dream of a single unified theory it is acceptable within the framework of model-dependent realism.

We will discuss duality and m-theory further in chapter five, but before that, we turn to a fundamental principle upon which our modern view of nature is based: Quantum Theory and in particular the approach to quantum theory called 'alternative histories.' In that view the universe does not have a single existence or history, but rather every possible version of the universe exists simultaneously in what is called a 'quantum super position.' which has passed every single experimental test, which it has ever been subjected."

I have left the last two paragraphs in, as they are an introduction to the later chapter 'Makes Detailed Predictions About The Future.' But please lets now focus on the previous two paragraphs

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So, we are looking to create a network of theories, so for instance, in Economics we may consider that for some or even most of the time, that the 'efficient market hypothesis' is maybe similar to what Einstein desired from general relativity, a very smooth universe, which for reasons unknown (due to dark matter expanding) is expanding. But we also need to accept (which Einstein did not for a long time, if at all) that within this smooth vision of Einstein's there are very chaotic black holes, and within the general relativity model is no longer the best tool for the job, and so we swop to quantum mechanics.
And that in economics that is the equivalent of using derivatives of the 'efficient market hypothesis' in good growth years, then swapping for neo-Keynesian models in low growth years. And that the glue that holds them together is the Debt to GDP ratio, which will increase during the Keynesian years, and so… and this is critical that the 'efficient market hypothesis' which we would expect to be in term for about 3 or 4 times as long as the Keynesian models must have a plan to

bring the Debt to GDP ratio down to less than it was before the previous bout of stimulus spending, a job that will, of course, be easier as the Keynesian stimulus would have increased GDP.

So above we have a very simple economic model based on M-theory, but is it correct? Well maybe, but to be sure, one needs a much larger selection of variables and we need to create S-World VBN ™ and UCS ™.

We shall now return to Professor Hawking's prescription for a good model point 2.

2. *Contains few arbitrary and adjustable elements*

Since reading Hawking's work in 2016, I have refined the model around a set of simple laws including 'POP, the 'Peet Tent,' the 'Susskind Boost,' 'Give Half Back,' and 'ŘÉŠ'; which have mixed with the founding software systems the TBS™ Total Business Systems (Book 4), S-World VSN™(Virtual Social Network (Book 5), and the game simulation, tutorial and recruiting software S-World UCS™ Simulator Universal Colonization Simulator (Book 7); all of which collectively help to monitor and organise all companies around these simple laws.

"For the most part, the basic laws are all that is required. However, stemming from the basic laws, via the various software systems, are a great many options (like mother nature has made many wonderful plants and animals); but the options can never break the laws."

This line is extremely important and bears repeating…

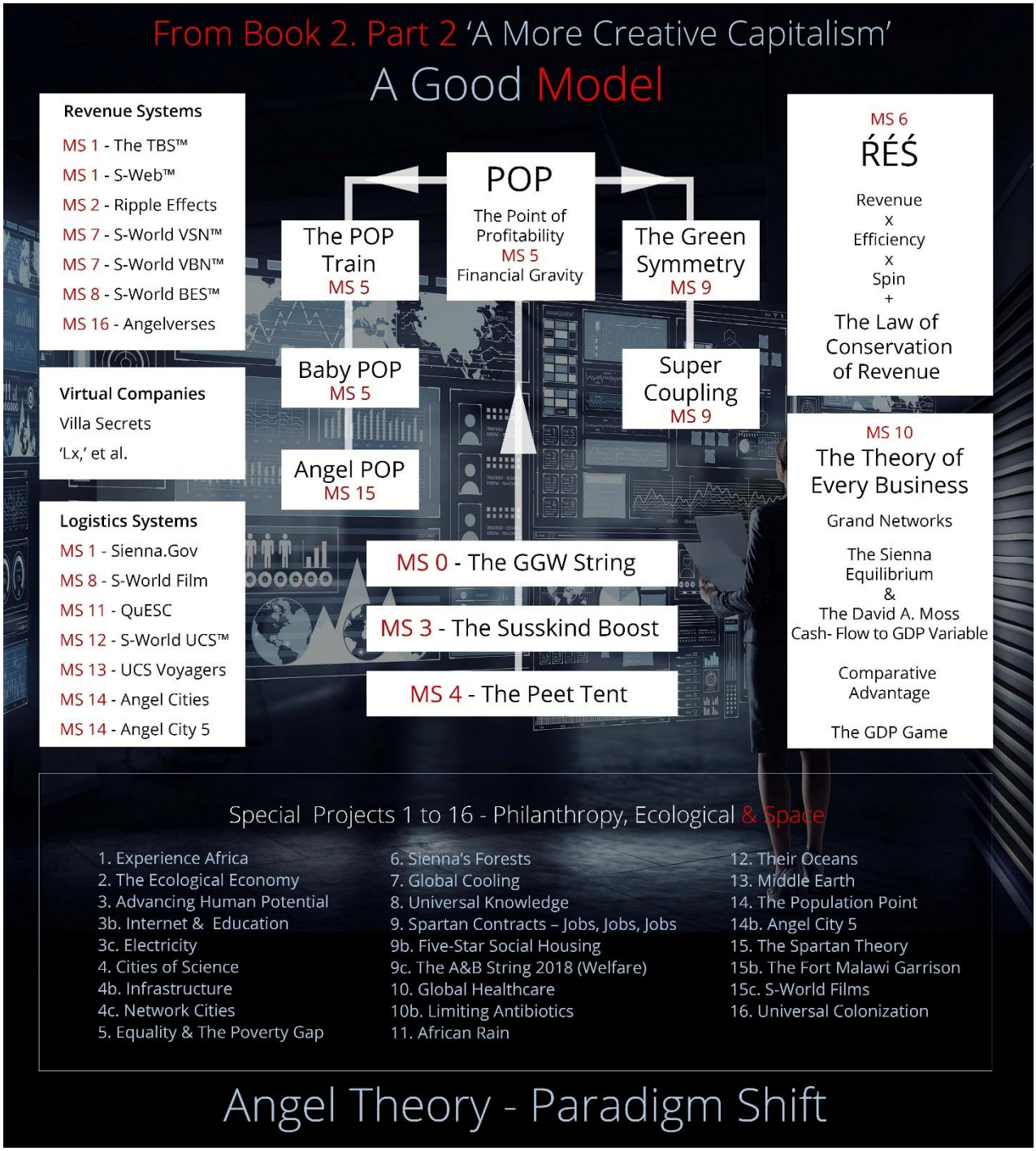
"For the most part, the basic laws are all that is required. However, stemming from the basic laws, via the various software systems, are a great many options (like mother nature has made many wonderful plants and animals); but the options can never break the laws."

POP – A Good Model

By Nick Ray Ball 1st August 2018

Now, for the more detailed answer, but this time focusing on the original unique mathematical insight POP – The Point of Profitability.

Below, we see a version of the system design that centred around POP – The Point of Profitability.



Before looking at the history and the why of POP, which after numerous attempts over the years I finally wrote out to my satisfaction just a week ago having had time to reflect on the article, I think we need to first look into the future and see what POP could look like in 2080 and introduce the

'quantum systems' M-Systems 13 and 14.

www.angeltheory.org/book/1-3/the-s-world-ucs-m-systems

In S-World time, 2080 is 'Angel City 5,' the fifth of the five M-System 14. 'Angel City' future simulations' that act as anchors and visions of the future from which we can work to and (importantly) build back from. This introduces the 4th point of Hawking's prescription of a good scientific model.

4. "Makes detailed predictions about future observations that can disprove or falsify the model if they are not borne out."

In short, we have 5 Angel Cities in 2020, 2024, 2032, 2048 and 2080. These Angel Cities may one day also be physical; but currently, they are S-World UCS™ simulations of how the world may look in the future. To give a lightning-fast introduction to the basis in physics and Richard Feynman's 'Sum Over Histories,' I will focus this section on Angel City 3 and the earth in the 2032 simulation. This is the preferred timescale for the Chan Zuckerberg Initiative.

From 2032, we can change the future going forwards; as much of what is created up to and in 2032 will impact the future of Angel Cities 4 (2048) and 5 (2080). We are used to this, this is how time flows for us, it is instinctive, and we are not surprised.

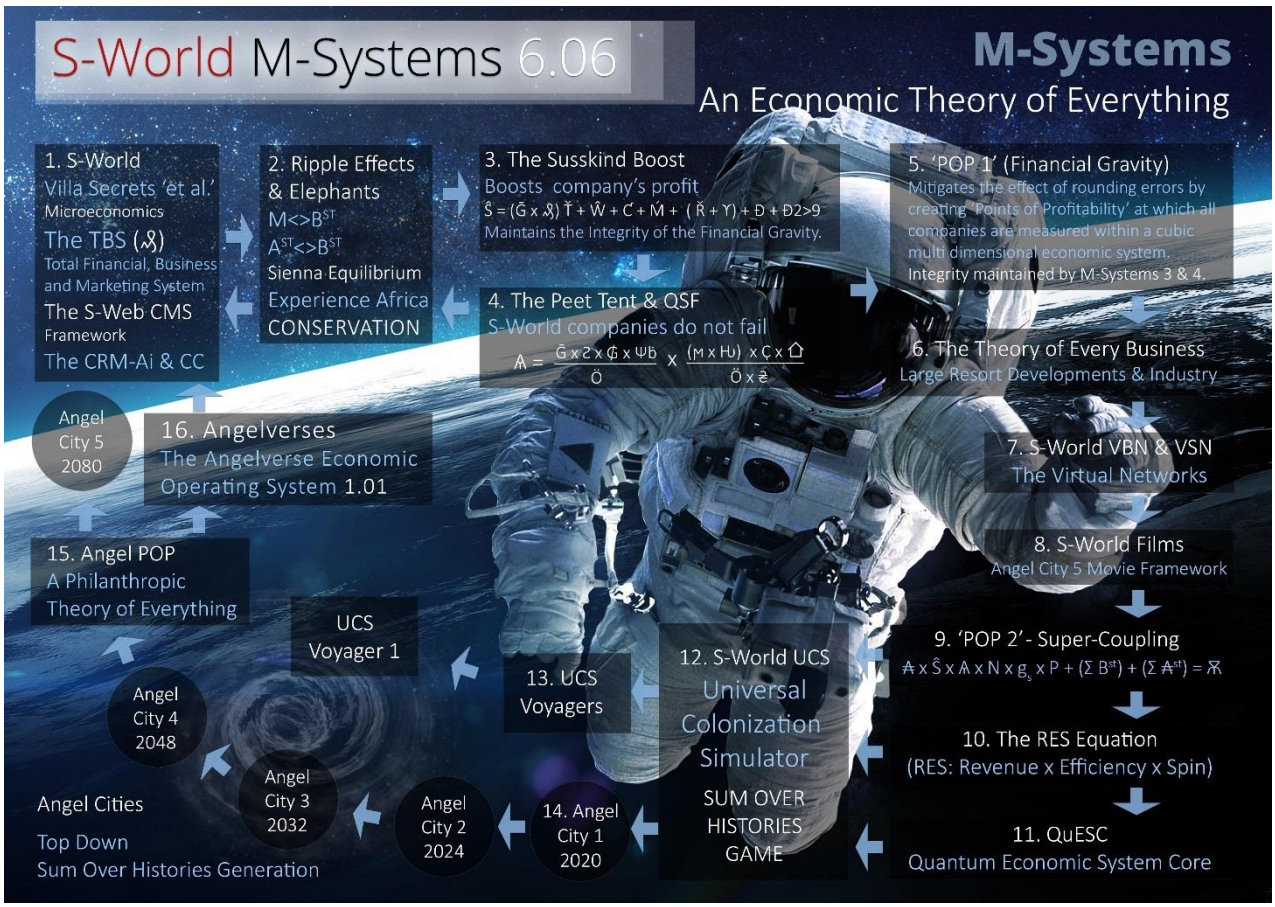
However, in Angel City 5, the personnel and systems are geared towards creating 'as perfect a future as we can imagine; with all special projects and more flourishing, with a desired global population no more than 10 billion.' In this simulation, huge decisions will be made; for example, in which countries to build the first, second, and third phases of Grand Networks that we wish to be in operation in Angel City 3 (2032). This leads to decisions that are made and action was taken in 2020 (Angel City 1) and Angel City 2 (2024). So, from the vantage point of our 2032 simulation, actions that take place in future simulations affect great change in the past.

And because of this, we see that from the perspective of 2032, both the future and the past are very changeable; and because of the changes, the Angel City – 2032 simulation will itself change. And that's quantum mechanics 'Feynman Sum Over Histories', both the future and the past are

changeable.

When I first heard of this in Hawking and Mlodinow's book 'The Grand Design,' it was difficult to comprehend, and there did not seem to be a value in simulating it. Feynman himself was noted to say, **'I think I can safely say that nobody understands quantum mechanics.'** But considered as above, it's simple.

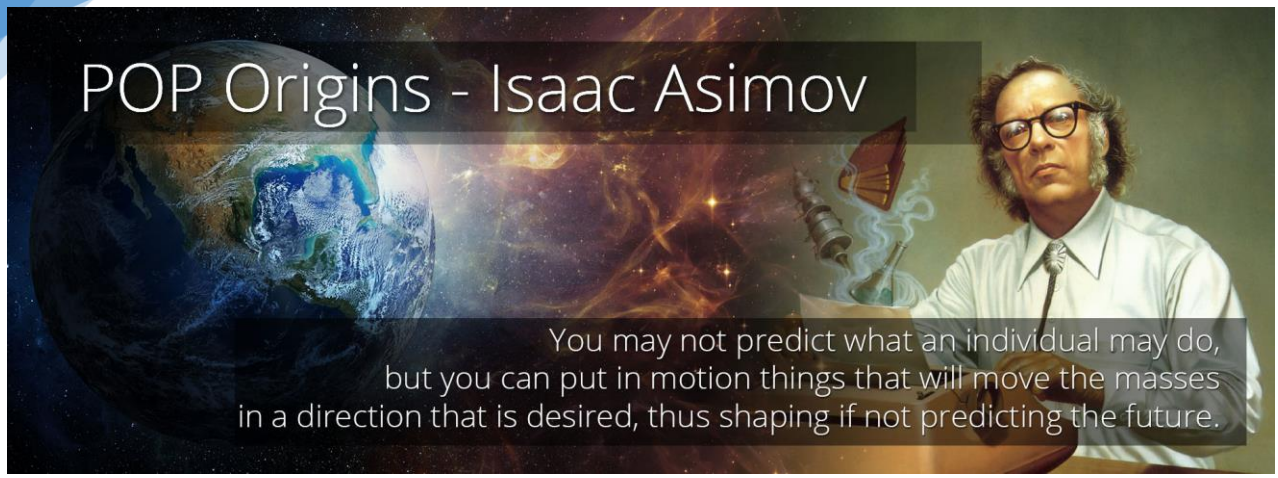
You can see the Angel Cities within the M-Systems design below as M-System 14, an extension of S-World UCS™ and the UCS™ Voyagers, which I will explain in more detail at the end of the chapter.



Now that I have explained the idea behind the Angel Cities, before discussing POP, a quick word on 'The Why.'

In 2011, one single conversation introduced me to both 'string theory' and the following quote by Isaac Asimov.

"You may not predict what an individual may do, but you can put in motion things that will move the masses in a direction that is desired, thus shaping if not predicting the future."



This quote became and still is the S-World mantra and is found regularly in the chapters. In behavioural economic terms, it's the Daddy of all Nudges, especially when accompanied by films that send the same message but are a little more creative about it.

Sure, the words 'move the masses' are a little Orwellian, but the motive 'to create a more desirable future' is simple and clear. So, instead of 'move the masses' systems, we have five Angel Cities and a movie plot 'Angel City 5' to better present the same basic message written exactly one year ago today.

www.angeltheory.org/angel-city-5- -1st-aug-2017

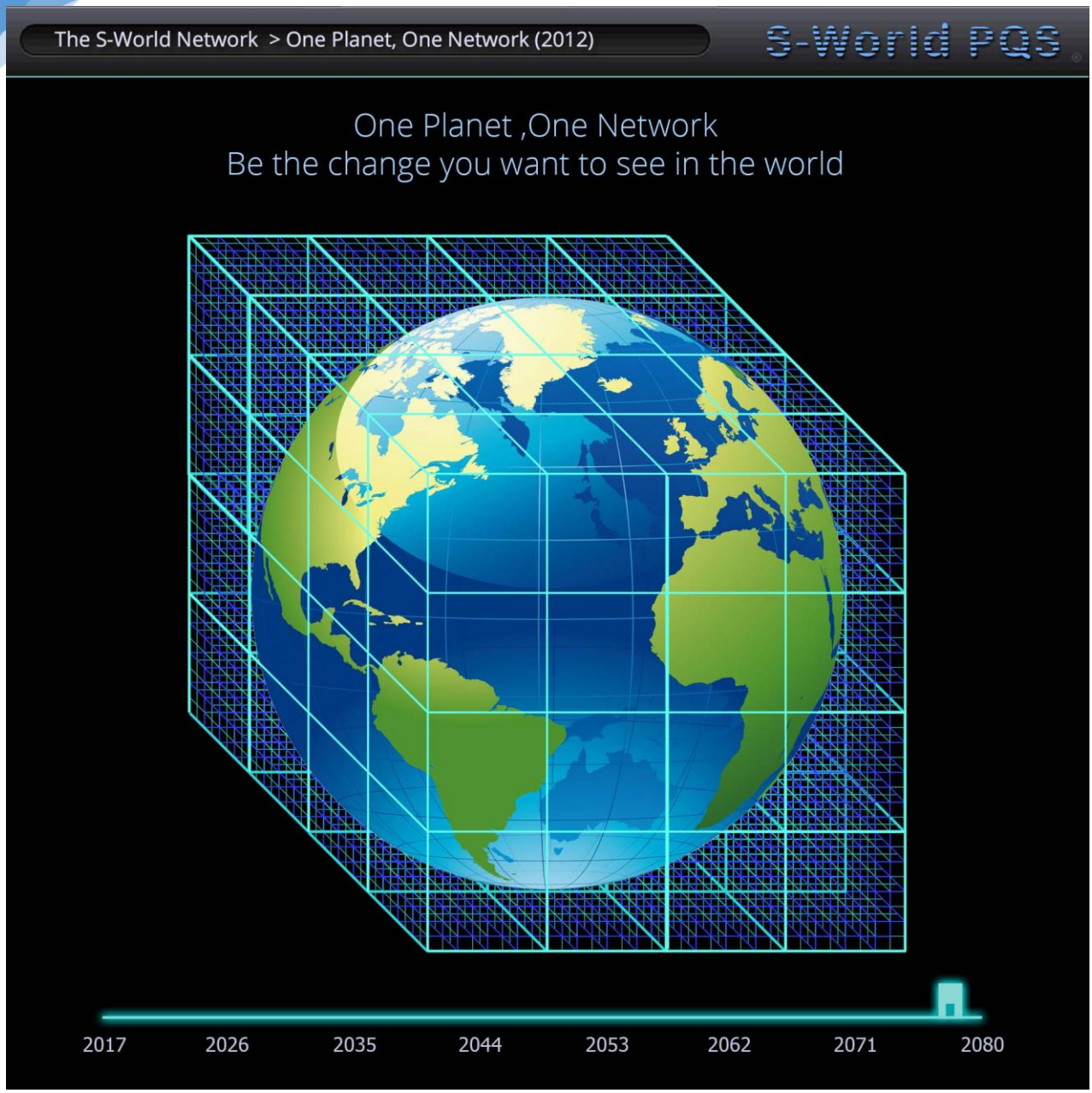
This 'M-Systems Movie Framework' article was the very first chapter of 'Angel Theory – Volume 1 – Paradigm Shift' to go live after six years of preparation, so no small point.

Rounding Errors

POP is a thought experiment based on the chaos theory conundrum of rounding errors. By assigning each company a POP point, a Point of Profitability which is equivalent to strong and healthy profit; where on average, the chances of this company dropping from the point of profitability back to making no profit at all is less than 1%.

Next, we need to create a cubic structure; so that at the very end of the journey (in this case 2080), we desire to have created a Global Cube comprised of millions of companies, all of which follow the POP model and most of which are what I call 'In POP,' this is that they are making a greater profit than their POP Point. Where after, analysing the economy is as simple as counting the cubes within that are 'IN POP'.

Let's have a look at the 'One Planet, One Network' Global Cube graphic from my American Butterfly series in 2012, first seen in Angel POP.



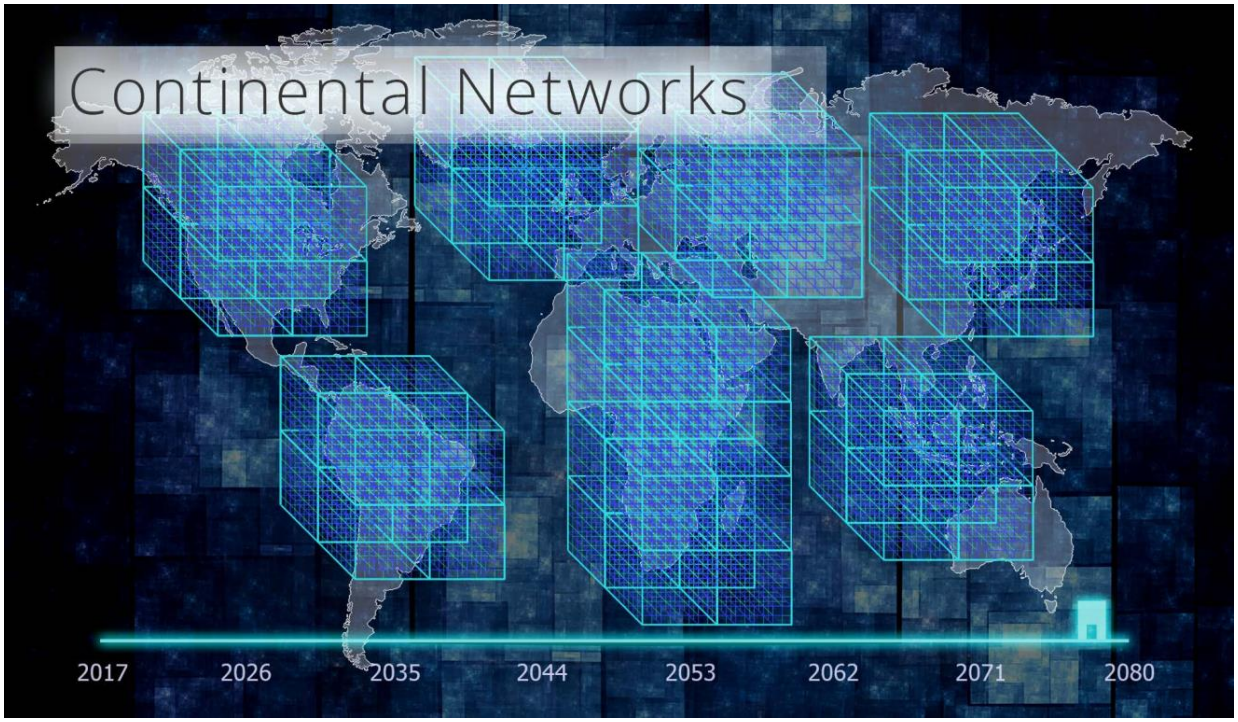
In the graphic above, we see 32,768 individual cubes. And to simplify, we can call each cube a Regional Network which contains 2048 companies that (on average) have a POP point of $167,772.16 (as used in the Green Symmetry). This equals about 14% of GDP, which is about correct as POP counts profit not turnover/revenue.

And this is a very important point, in terms of a 'rounding errors' solution, each company within the network can have completely different turnover and trading figures. Only when profit is equal to the company's designated POP point does it register, and then it registers as 1. Then each 1 is placed within one of the Regional Networks within the Global Cube. Then, over the years, more and more cubes appear within the Regional Networks. And as the Regional Networks themselves become stable (all 2048 companies within are in POP), then we start to see the cubes in the Global Network Cube appear.

Rounding errors cannot affect this model, not in the same way they could for classic economic modelling. Of course, given all the chaos in the world today, solving the 'riddle of rounding errors' is not on the top of anyone's list. However, I believe that the Global Cube

POP system is a much simpler way of looking at the Global Economy. And for the physicists amongst us, surely... this has all the hallmarks of a simulation of 'financial gravity.'

In the graphic below, we look at the same Global Cube, but it is split into eight 'Continental Networks' which (in turn) would house 4096 Regional Networks.



This is the current state of the Angel City 5 – 2080 simulation, which has seen two majorly significant change since 2012; one is that the USA, which had 2 cubes, now has 1; and Africa that had 1, now has 2. This is in part due to French economist Thomas Piketty's book 'Capital in The Twenty-First Century,' which makes the point that there is already a lot going on economically in the USA, so there is less reason to build; whereas Africa has space for significant 'ecologically sound' industry and urban development, and the same can be said for many parts of Asia.

The second change that we do not see above that is still in the debate stage is that Europe will have only one cube; with the UK dislodged becoming part of a satellite network with other countries such as India, Canada, Australia, New Zealand, maybe Hong Kong, maybe Russia, maybe even North Korea... who knows, it's early days.

Before reading Piketty's work came M-System 15. Angel POP, which can now be summarised in just one sentence: **'Grand Networks in Locations of Abject Poverty are Special Projects';** which, in turn, inspired the breakthrough chapter 'Ripple Effects and Elephants'; which shows how clever usage of ripple effects can enact all the 26 philanthropic and ecological projects seen on the 'A Good Model' graphic shown earlier.

How POP (Financial Gravity) Works

The POP model was first imagined in the summer of 2011. Let us consider that a company or network of companies makes $1,342,177.28 in profit, which is currently being paid out as owner's bonus and profit share between the personnel. This is a great position to be in for your average small business, and a good position for an SME in non-Western locations. Financially, everyone is happy; plus, the company (or network of companies) can afford to have a serious downturn and still stay in business, just so long as they did not lose more than the $1,342,177.28 for a sustained period.

Note that specifically, we are looking for the expected failure rate to be less than 1% per year; and note that the string theory systems, M-Systems 3. The Susskind Boost and M-System 4. The Peet Tent, are allocated 3.125% of cash flow from all companies, which is used to either protect the 1% of failing companies or boost companies that are vulnerable to failure; in a process that can be described technically as **'the string theory systems maintaining the structural integrity of the financial gravity,' where financial gravity is POP.**

Note that the figure $1,342,177.28 is what I have called 'the 5th cubic dimension'; abbreviated to 'D5' which is simply one cent (UDS $0.01) multiplied by 8 to make a cube of 8 cents ($0.08), then multiplied by 8 again ($0.64), and again ($5.12), then ($40.96), and then $327.68 becomes 'D1,' the first financial dimension which is close to the minimum that small rural businesses in Malawi might make.

Then, we continue, D2: $2,621.44 – D3: $20,971.52 – D4: $167,772.16 – D5: $1,342,177.28 – D6: $10,737,418.24 – D7: $85,899,345.92 – D8: 87,194,767.36 – D9: $5,497,558,138.88 – D10: $43,980,465,111.04 – D11: $351,843,720,888.32, and so on.

We do not have to make each company's POP point an exact dimension, one can break up a dimension. 'D5' - $1,342,177.28 can be halved to $671,088.64 or halved again to $335,544.32; so long as the network of companies' POP points collectively equals a POP dimension, we can build up larger cubes in 'Lego' fashion, just so long as it creates a cube.

The prementioned $1,342,177.28 in profit becomes the company's (or network of companies) POP point (POP = The Point of Profitability), a nice healthy position; a benchmark from which given the continuous improvements and upgrades to the software and the further growth of the network, creates a 'safe economic zone,' making the odds of such a network failing less than 1%. Far less than the 3.125% provision made by the Susskind Boost and Peet Tent, tasked with protecting the weakest companies. (And note, this provision can rise to 50% in extreme circumstances.)

A note on inflation…

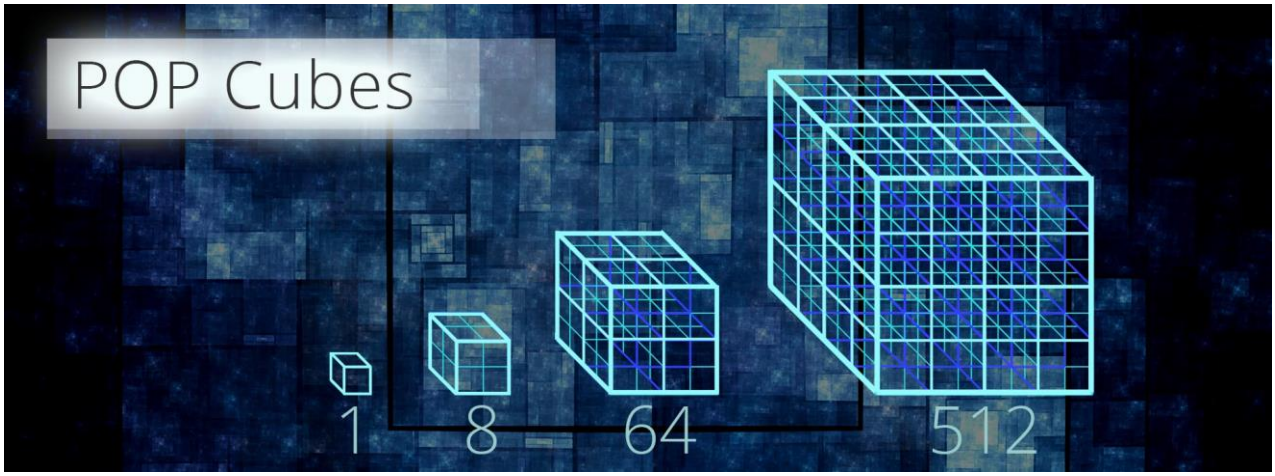
Inflation is the hardest part of this model. It is, of course, possible to increase each POP point each

year, so long as the increase was a cubic fraction of a dimension. However, this is far from an elegant solution. And so, I am looking for alternative options, such as seeking for the network to have no inflation, but its own currency that reflects this low inflation, seeing the currency appreciate relative to the US dollar each year. I like this idea, but there is a problem with creating a currency (besides the practice being illegal in the USA). A good argument for why ŔÉŚ can work is that it does not have its own currency, and whilst this is mostly to assist the perception, perception is a critical economic factor. So, for now, this question of inflation is an open question. I like to think a solution will be found via a general relativity simulation, but it could equally come from one or another branch of economics or pure math.

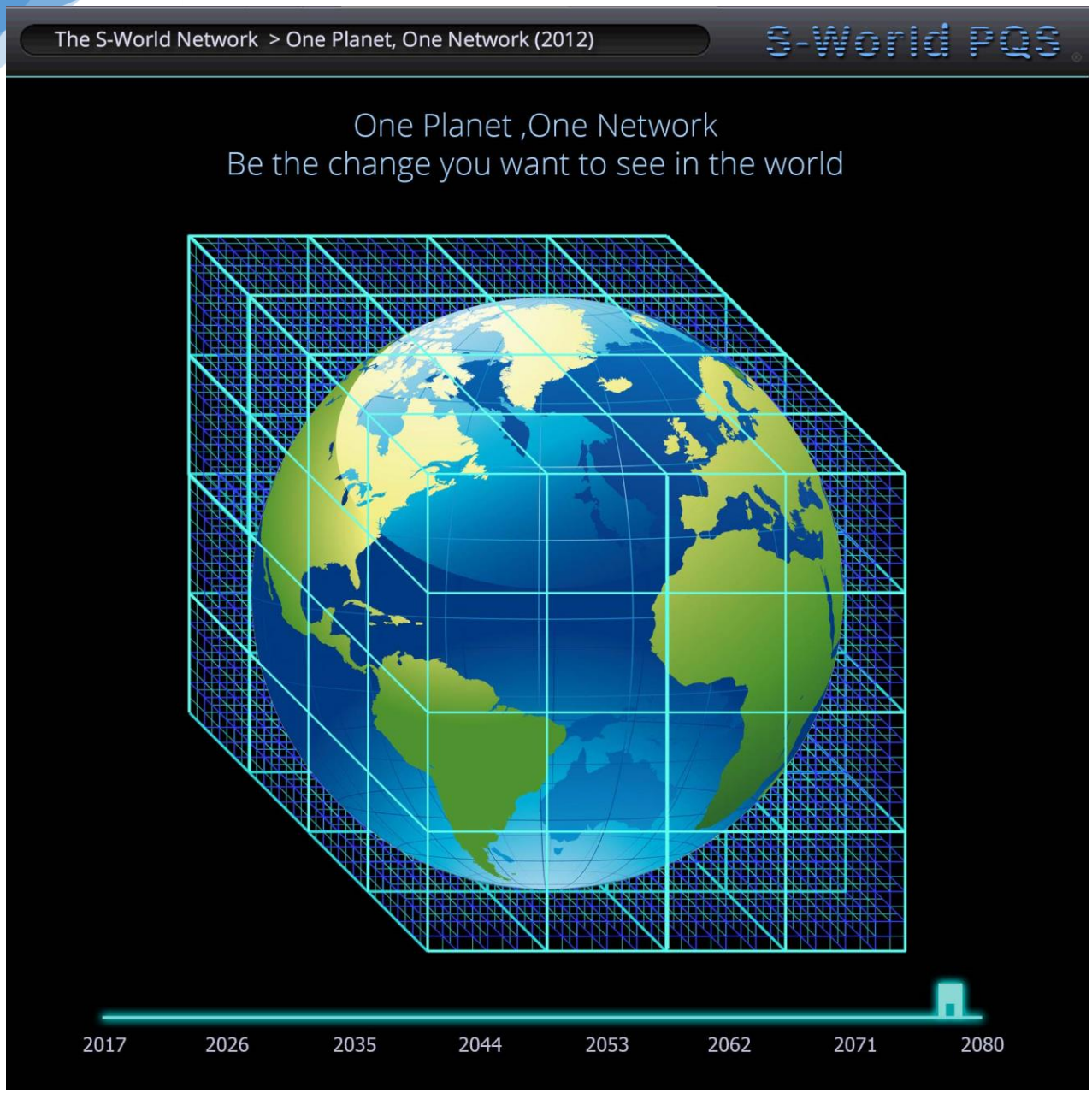
Inflation aside…

Once a POP point is set, we then lock this company into this POP point, and all additional profits generated above the POP point are invested into creating new companies (or buying assets or other). But for now, we will just say the money is invested into creating more companies; which, in many cases, will be half-owned by the original company.

We then describe the original company as stable, as it is generating a fixed amount of profit per year. And we class the new company being created as unstable. And in short, we only count the stable companies in pure POP accounting.



Then, we group different companies into cubes of 8, then 64, then 512 stable blocks; and as long as none of the companies fall back (so that they no longer create POP investment), we can now package the economy up in neat and even blocks that can be navigated on a global scale within a hologram, sooner in Virtual Reality, and sooner still as a desktop and mobile platform.



Above, we see the original 2012 American Butterfly Global Network graphic, in which there are 32,768 'Regional Cubes'; and within each regional cube, there are 2048 individual small companies; that based on today's GDP, each has a POP point of $167,772.16; which collectively equals about 14% of global GDP, with the other 86% being operational costs.

And to follow Nobel prize-winning behavioural economist 'Richard H. Thaler's' mantra, 'Make it Easy,' this is exactly what this Global Cube does. One can look at the whole cube and see trouble spots, which can be made as little red cubes; and the high points as Green Cubes. Or one can have a more traditional view and see only the cubes that are in POP. And of course, one can click on a cube and see the 2048 individual companies within in the same fashion. This assesses the S-World economy, even if it completely engulfed 20th-century economics, child's play. And one serious objective for this tool and all S-World software is for it to be 'for age 7 and above.' Including running the economy, we figure that if we make it for 7-year-olds, then even the politicians will be able to understand it.

And given this structure, many other growth methods can be viewed in the same way, for example:

1. One could see how many cubes are created by various S-World Villa Secrets companies.
2. One could see all the companies in a specific industry and see where there is room for more (or fewer) players in the market.
3. One can see the growth of individual Grand Networks like Lake Malawi.
4. One could see power supplies, internet coverage, and all sorts of other items.
5. And of course, one can have all sorts of different views for the different companies created, such as our real-world prototype company 'Villa Secrets, which we shall return to shortly.

S-World Angelwing™

Economic Framework

Insert by Nick Ray Ball 16th October

We are now moving from the very first mathematical system to the most recent; and S-World Angelwing. This system is only an infant, but its scale is unprecedented, we are now in; S-World – Volume One – Paradigm Shift. Book 2 of 8.

S-World Angelwing is volume 2, which will also contain 8 books.
The main reason for this scale is that Angelwing requires many features from the different volume books to be created first, as it relies upon their data.

I have just now imagined the first use for Angelwing, and for it, we need to reintroduce chaos theory, as I wish one simple view of the global economic picture (not the S-World Network economy the global economy), seen similar to a weather picture, with high pressure strong economic areas, which could be an indicator of a great place to start businesses, or it could indicate a bubble.

It is the job of Angelwing to estimate using all available data to estimate if an area of high pressure is booming or overheating, and this would be done by a Fox like a myriad of different economic models that provide many different probabilities.

So, let's take a location, say somewhere in Asia, where there is a network, maybe India, in this case, we can use the cubic POP cube data, to look for impending future trends. If we see that there is a strong collection of companies, making and exceeding their POP point, we could use the probabilities created by Angelwing to see if their good performance within influenced by a bubble or more specifically a housing bubble? If Angelwing shows high probabilities for being in a bubble, the development can slow down some, not increase property prices and impose a minimum that can be sold, of say one per day.

This safety net can be sold to the public as a service, a derivative that seeks to make sure no (or at last a lot fewer than average) S-World Villa will be sold if it's expected to be worth less in the future.

This is good PR, but it also makes sense for the development that is in a bubble as its business will not get caught up in it, will not increase expenses due to the bubble and are well insulated when/if the bubble hits.

Villa Secrets

In late 2013, disappointed that Cambridge DAMPT did not respond to my presentation of American Butterfly (even after 5 bouquets of flowers), I returned to developing the website and software that is now www.VillaSecrets.com. And, for quite some time, I saw American Butterfly and Villa Secrets as completely different projects, until they weren't. In August 2015, I realised that the Villa Secrets Network was the exact opposite of the S-World Network described in American Butterfly.

Where S-World American Butterfly focuses on the macro and the idea that there would need to be 32,768 regional networks each containing an average of 2048 different companies with POP points of averaging $167,772.16 to gain world GDP domination. Villa Secrets was, on the other hand, a prototype small business network that started as just one of the 2048 different companies within a regional network; and, via a combination of several initiatives, grew into many different companies (some local and some fragmented across many different regional networks in many different countries).

We can see this described on the August 2018 homepage of Angel Theory that I have saved on this link.

Here is the key text:

"The current strategy is to find a leading top-end real estate agency and create them 8 websites that all connect to the TBS™ (Total Business Systems) and will be updated each

time a new TBS™ component is completed. Eight companies are created, and the estate agent gifts 50% of the equity in each company to deserving personnel they wish to keep, or new staff they wish to recruit; creating a minimum of 4 and a maximum of 16 equity incentivised personnel, who would mostly create their own salaries.

Starting soon after, we seek to create a further 54 companies in 25 different related niches (from property managers to film location scouts) to join the local network. Again, companies are 50% or more owned by their personnel.

And whilst this is a very brief description, the book it comes from: 'The Villas Secrets' Secret,' is the most detailed book so far, with the first 10 of the 25 chapters available online.
www.villasecrets.com
http://network.villasecrets.com
http://network.villasecrets.com/the-secret/ch2/s-world-villa-secrets-network

From one company in one location, we desire to create 64 companies, and if these companies were in California, then the POP point of $167,772.16 per company may be an achievable target. However, in Cape Town, I would expect to group the companies together to create 8 networks (of 8 companies each) that collectively (given the software, systems, and network advantages) could easily achieve the POP point.

And from that position, either in Cape Town or California, as the software is recreated (which is mostly a case of changing the defaults and continued good choice architecture), more companies can join and follow the same path, eventually creating the first 'Regional Network' of 2048 companies making POP.

At one end, we have S-World and its lofty global cube Supereconomics mission; and on the other, we have companies like Villa Secrets populating the regional cubes. And this will happen long before the first Grand Network is created.

Grand Networks

Villa Secrets is a virtual company, this is not 'Virtual' like S-World VSN™ Virtual Social Network, but virtual as in 'not attached to a physical network.' This book is about such physical networks that are called Grand Networks. For now, it's enough to know that Grand Networks are 'theories of every business,' companies, infrastructure, industry, power farming, water, power, real estate, and so on.

Grand Networks are a lot more structured with companies consisting of mostly workers, with management left to informal managers within each unit, and the future direction of the company in the hands of whoever wants to play the S-World UCS™ future simulations, QuESC and the Angel Cities.

Grand Networks are planned especially to fit into Regional Networks, and if we can use

ŔÉŚ or adapt it to increase the money supply, these networks will grow at an accelerated and exponential rate. Grand Networks are primarily a collection of companies that have the Susskind Boost quality 'Tenders,' and because we can model with pinpoint accuracy (major acts of God aside), as the companies are not prone to the will of the markets, they can sell more than their Tender and should do (but they don't need to), their future is secure just on Tender income.

Virtual companies have more freedom, albeit still guided by the TBS™ which eliminates stupid or reckless choices, such as spending all the company money on a new car, wife, husband et al.

Collectively, Grand Networks and Virtual Networks (like Villa Secrets) fill the global cube.

POP and Rounding Errors

The POP system (financial gravity) may have been based on a highly abstract piece of mathematics, **'the desire to create a financial system that is not affected by rounding errors.'** But it has produced or desires to produce a far simpler and easier way to view macroeconomics and business networking.

By setting and organizing companies around a POP point at a figure that can neatly fit within a global cube and then sticking to it, we avoid all the fuss of credits and debits; which even for a small company will see the rounding of numbers by the bank and some recurring numbers that continue to infinity. By making the way we count a business's success a specific number **'that can neatly fit within a global cube,'** there are no numbers to round; there is only one number, 1 for companies in POP and a zero for companies who have not got there yet or have fallen backwards. Where after, the 1s are grouped in cubes; where after, if one only counts complete cubes, one cannot create a rounding error.

Of course, when you have thousands of different companies in POP, it will become more chaotic. But in time, as the cubes become full, the model takes on more order and the system grow in an elegant fashion; where cubes create new cubes, and new cubes are created from scratch; all of which can be seen within the Global, Continental, Regional, or Smaller cubic interphases.

It is a very simple idea that was just a thought experiment until it wasn't.

For the original article 'EEE - The Economy for the Next 14 Billion Years' from 2011, follow this link: www.s-world.biz/TST/EEE-14Billion_Years.htm. (But note, other than ideas, the rest of this website [from design to grammar] is just awful.)

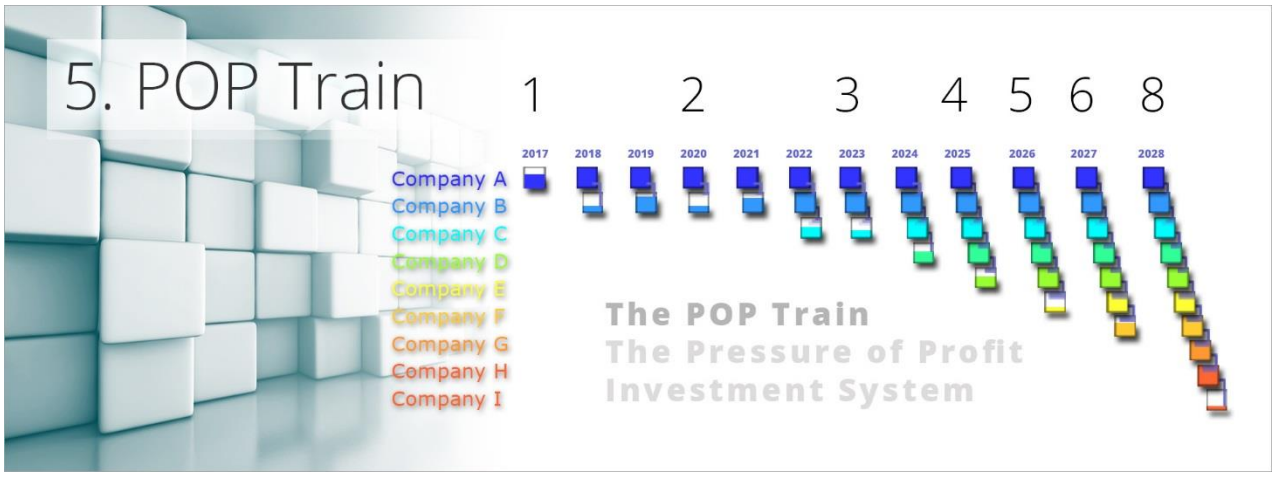
String Theory Systems

For the companies that do slip back, that's what the string theory systems, the Susskind Boost and the Peet Tent, are for… to maintain the structural integrity of the cubic economy. This point is presented in full in the next chapter.

POP System 2. The Pressure of Profit – The POP Train

For investments into new companies, currently, there are two mechanisms - The POP Train and Super Coupling.

The POP Train, seen below, was created just a few days after the original POP idea; it was at first considered for large 'Grand Networks'; and as best I remember, each block's POP point was $4 billion.



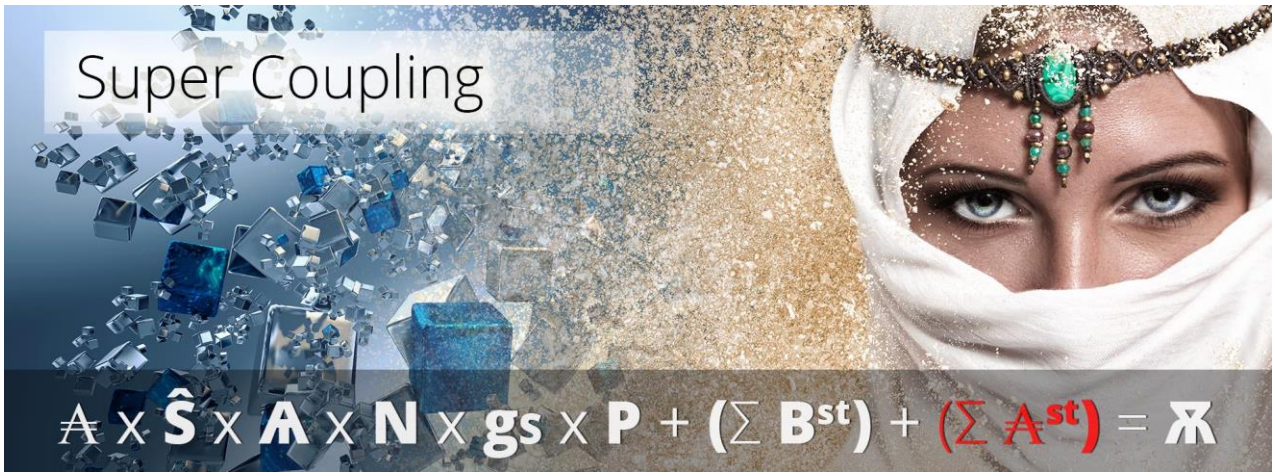
The POP Train was the 1st rule (not law) of POP; which said that after a company reaches POP, all its additional profit would pour into the next Grand Network's 'bucket' until the new company was also creating $4 billion. And then, the profit from both Grand Networks 1 and 2 collectively pour into a 3rd network and so on. And, as we can see above, after the 6th Grand Network, the growth of new Grand Networks started to increase exponentially. This creates the term 'POP – The Pressure of Profit'; as the more Grand Networks there are in the train, the greater the pressure of profit and the faster new Grand Networks are created.

For the initial Grand Network, this created an extremely safe environment; as each other Grand Network was like a layer of bark, one would need to peel off all the layers before the actual tree was in danger.

Skipping briefly to 2016 and a variation on POP that I call Super Coupling (which took a long time to complete and is, in many ways, still a work in progress), Super Coupling is POP without the train.

Super Coupling is told via the following equation:

$$\cancel{A} \times \hat{S} \times \cancel{A} \times N \times g_S \times P + (\Sigma\, B^{st}) + (\Sigma\, \cancel{A}^{st}) = \cancel{A}$$



This story is told in the following chapter and was told in the previous book: www.angeltheory.org/book/2-4/super-coupling.

Note the characters in red, these are the difference between keeping a closed system, like Apple IOS; or creating an open system like Google's Android. This point is presented in 'How Google Works.' And in general, Google prefers open source, but not exclusively.

Sometimes with my equations, I worry that it's just math for the sake of math. However, as I hope to be having conversations with Google and others in the future, I am very grateful that I spent time on the super coupling equation; as it has opened my eyes to how an open system could see much faster growth. And whilst I was initially scared of this growth, as it is Google's preferred mechanism, then maybe it makes sense. If not for this equation, if put on the spot a couple of years ago, I would have probably defended the 'closed system' approach; whereas now, I'm happy to model it and let the best data-based analysis win.

As for the equation, if we use an open system, it tells us…

"There are 1 billion possible ways for S-World to create a company."

And it is noted that…

"Any single company can, via the Green Symmetry, engulf the economy."

Note that the second half of the statement of the 'Green Symmetry' was first explained in Book 2.

Chapter 4 Super Coupling chapter and is expanded upon in the following 'string theory systems chapter. In the 'Green Symmetry,' we see one hypothetical scenario where a single company and the companies created from its POP investments could, by 2075, be producing the majority of all global GDP.

See https://youtu.be/1LatJRuiZSg (4.35 minutes) for a demonstration of this quality.

A Good Model

POP can be considered the original 'Good Model' as it has one simple law; that after the POP Point, company profits are invested in creating new companies. Where after, over the 7 years since, additions such as the POP Train, the Peet Tent, the Susskind Boost, Super Coupling and most recently ŔÉŚ, have added laws to the system.

Add the following:

Straight Talk on Trade - Dani Rodrik

Audible Chapter 21 – 5.01

It is certainly cause for celebration, that inflammatory policies have been banished and governance has by in large improved throughout much of the developing world. But by in large there are things that enhance an economy resilience to shocks and prevent economic collapse.

Igniting and sustaining high growth requires something on top, production-oriented policies that stimulate ongoing structural change and foster employment in new economic activity, manufacturing industries in particular.

Growth that relies on capital inflows or commodity booms tends to be short-lived, real growth requires devising the system of carrots and sticks that coax the private sector to invest in new industry, that they would not have otherwise and doing so with minimal corruption and adequate competence.

This Is POP

Angel Theory – Volume 1 – Paradigm Shift

A More Creative Capitalism

Part 1. A Good Model

Chapter 3 - String Theory Systems

By Nick Ray Ball 5th August 2018

~~Before we begin this chapter, a postscript notes to say that I am but a keen observer of theoretical physics. I am not the band. I can't sing. I can't play keyboards, guitar, bass or even the drums. But when the music plays, boy, can I dance!~~

What is String Theory?

In simple terms, String Theory is the branch of theoretical physics that unifies the jittery and uncertain discipline of quantum mechanics with the predictable and smooth General Relativity (Einstein's Theory of Gravity).

What is 'The Theory of Everything?'

In terms of physics, 'The Theory of Everything' is the branch of theoretical physics that unifies the jittery and uncertain quantum mechanics with the predictable and smooth General Relativity (Einstein's Theory of Gravity).

So, (in essence) they're the same thing.

The Theory of Everything is 'what' will unite quantum mechanics and general relativity, and string theory is the 'how.'

When working in string theory, one is effectively working in both quantum mechanics and general relativity. As such, this chapter will include some general relativity and quantum mechanics, but primarily it is a tale of String Theory. In this chapter, we find qualities in string theory and simulate them into a design for a more equal and extremely powerful economic design, based on principles from the laws of nature, as described by string and M-theory.

How does String Theory unify quantum mechanics and general relativity?

The Peet Tent

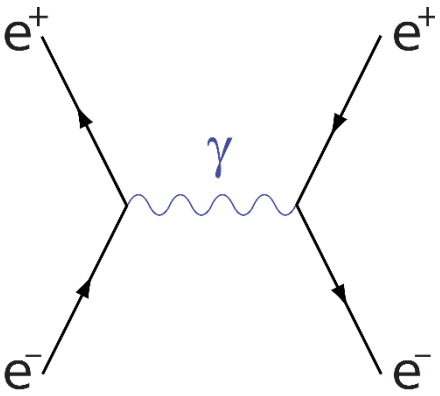
In 2012, the Peet Tent originated from Professor A.W. Peet's lecture: 'String Theory for the Scientifically Curious. At the time, I had just completed the book/paper I was writing about the economics of a Grand Network in 'American Butterfly Book 1. 'The Theory of Every Business.'

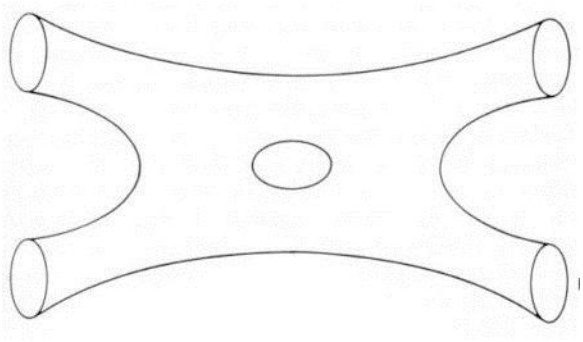
Then, in Chapter 8, I had the series of eureka moments, which led to more theoretical work and two more books/papers in the American Butterfly series: Book 2. 'Spiritually Inspired Software' and Book 3. 'The Network on A String, and specific to the development of the 'Peet Tent' see Book 3. 'The Network on A String' - Analogy 2 - String Theory.

Skip 4 years, mostly spent on the web and software development, to the spring of 2016 when I watched A.W's second public lecture, 'String Theory Legos for Black Holes,' which helped develop 'Analogy 2' into the Peet Tent, which gave me a better understanding of the phenomenon in physics.

Let's hear from Professor A.W. Peet.

The Peet Tent in Physics





String Theory Legos for Black Holes

By Professor A.W. Peet

https://www.youtube.com/watch?v=MlDd2HtFfPU

We are jumping in at 35.50 minutes

"So, what is the problem if you just try to use Einstein's theory (General Relativity) to do Black Hole Physics? Well, the problem is that the fundamental ingredients: Einstein's general relativity and quantum mechanics turn out to be allergic to each other, like warring marriage partners that can't stand to be under the same roof.

And how does this arise? Well, general relativity, which was born about a century ago, is a very well tested theoretical description of heavy things; things like planets, stars, galaxies, and even the whole cosmos. Whereas quantum mechanics, born slightly later, is an exquisitely well tested theoretical description of very small things; things like molecules, atoms, and quarks.

Now, both general relativity and quantum mechanics have nearly a century's worth of data backing them up. But unfortunately, they are fundamentally incompatible. The real reason is that general relativity is all about the smooth fabric of space-time, so it's a kind of chill concept, whereas quantum mechanics has a random jumpiness built into it.

And this is not just a minor problem, it's a fairly major theoretical emergency; a little bit like the situation of having roads that were governed by incompatible traffic rules. So, it's a bit like general relativity says keep left, and quantum mechanics says keep right, and then the question is do we ever have situations where these overlaps; in which case, we would have carnage and dead bodies everywhere.

So, can we just sweep this problem under the rug? Can we just say, well… general relativity - you can stick to governing heavy things, and quantum mechanics you can stick to governing small things, and we'll pretend that those Venn diagrams of heavy things and small things never overlap? Can't we just sweep it under the rug?

And the answer is no because there might be physical systems that are both heavy and small, in which case, we would have to apply the rules of gravity and quantum mechanics at the same time. So, we need to have a theory of quantum gravity to be able to explain those very extreme physical systems.

And there are two places where this happens; one is in a black hole, and the second one is at the big bang when the universe itself was super tiny and there was a lot of stuff in it. So, that's why we need a theory of quantum gravity.

So, why is string theory the superior tool to use in this context? Well, that's because it manages just by positing the Legos of the universe are strings and not particles; it manages to fix this war between quantum mechanics and general relativity.

It's like String Theory's a bigger tent that says, 'Hey, you can both come under my tent. It's ok we can have both quantum mechanics and general relativity; but because my tent is bigger, we will manage to let you work together under the same roof. "

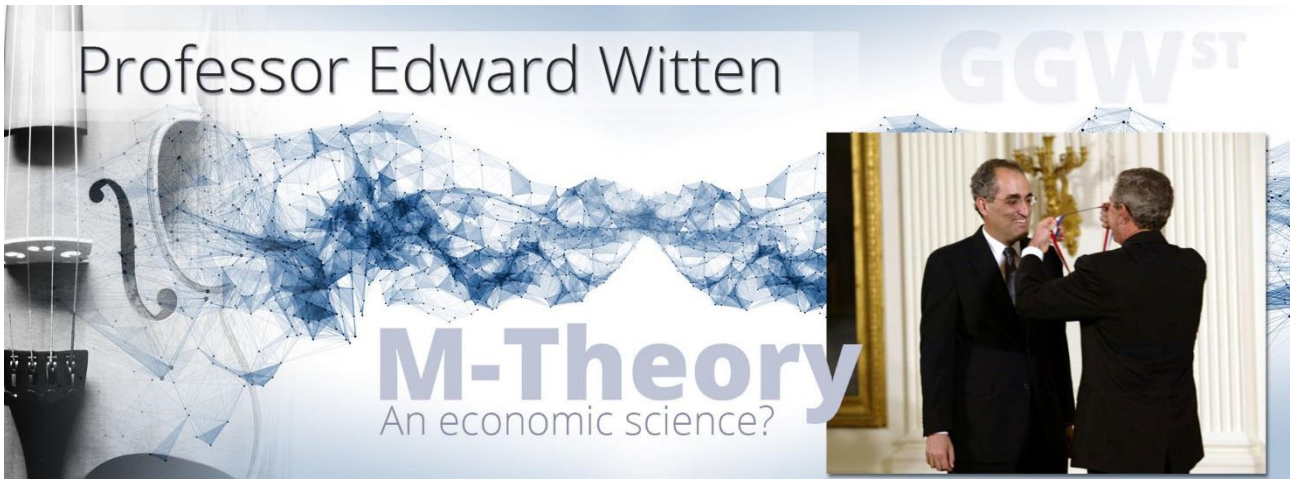
Thank you, Professor A.W. Peet.

In my interpretation of this, string theory has a very elastic framework that can manage both the jittery quantum theory and the predictable general relativity. And the way this is done is by including 'time' into the equation, which I will come back to soon.

Professor Edward Witten

"If Einstein had never discovered relativity, it may have been discovered as a by-product of string theory".

"General relativity, in some sense, is for free."



Professor Edward Witten

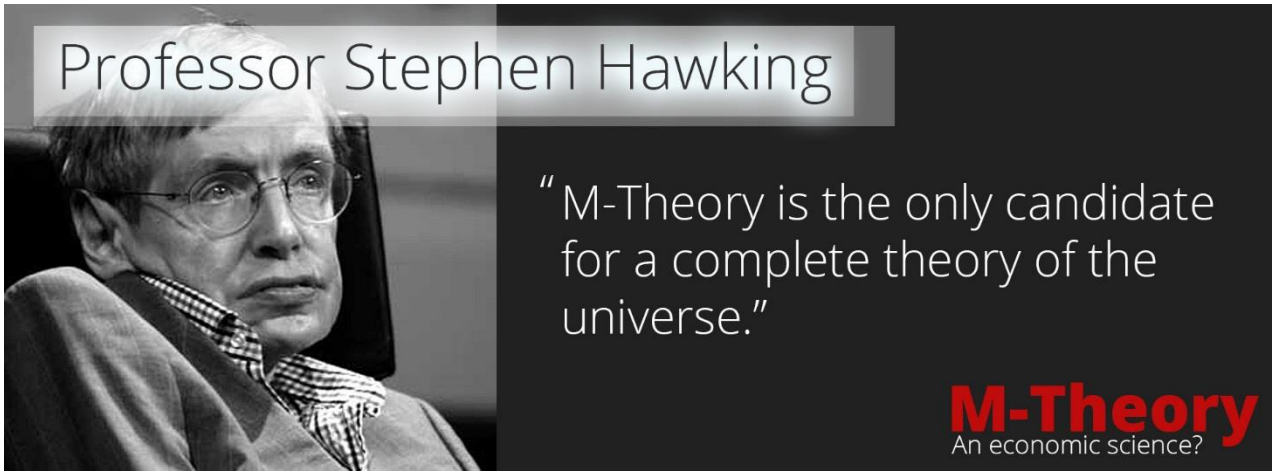
Winner of the Fields Medal

Charles Simonyi Professor at Princeton University

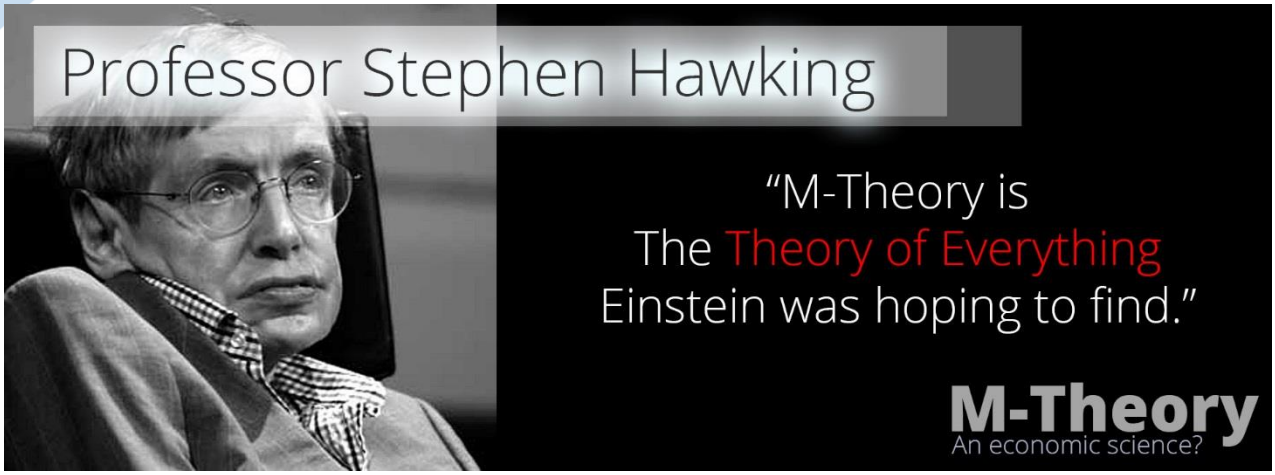
Professor Edward Witten is widely accepted as the father of M-theory and a leading expert on M-theory's founding discipline, 'string theory.'

For those who do not fully appreciate M-theory (which is many as it's not that widely known), let's hear from Professor Stephen Hawking who I am very sad to have missed.'

About M-Theory - The Theory of Everything



"M-Theory is the only candidate for a complete theory of the Universe." And…



"M-Theory is The Theory of Everything Einstein was hoping to find."

For a quick introduction to M-theory, see Ed Witten - Mystery Theory ('Big Ideas' Interview). And for a more in-depth discussion, see Edward Witten's lecture, On the Shoulders of Giants.

Here are some useful extracts from the 'On the Shoulders of Giants' lecture which are in the same family as the Peet Tent.

"This is the conundrum in physics… The two best theories of the age are quantum theory and general relativity, and there has to be some way to make them work together. Because for example, we apply general relativity to stars, but the stars are ultimately made out of atoms and subatomic particles.

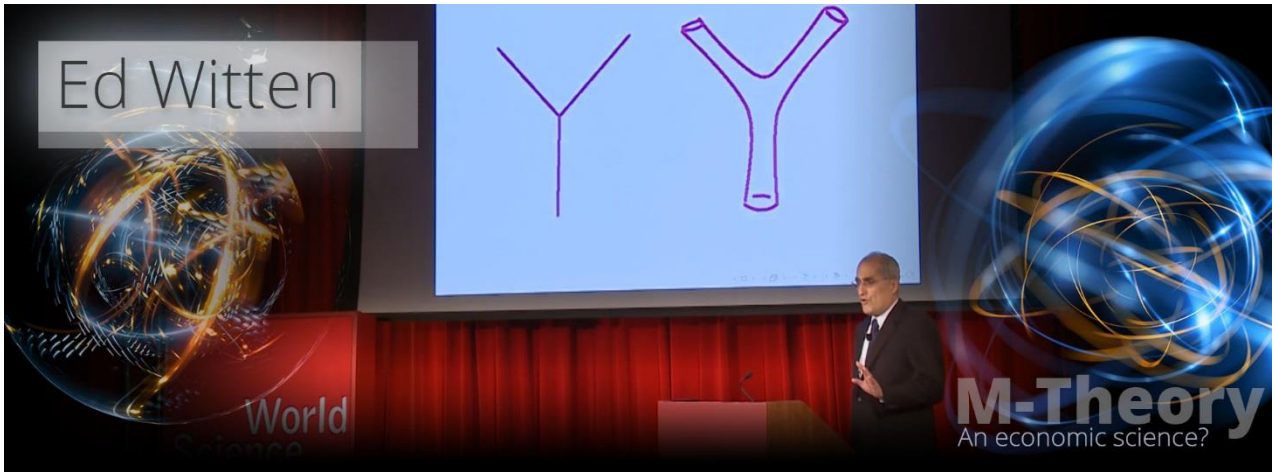
We know that quantum mechanics works for the subatomic particles. It does not make sense to have one theory for the individual atoms making up a star and a completely different theory for the star. There has to be some way of combining the two theories to make them work together, but along conventional lines that does not work.

It turns out that one of the states of a vibrating string turns out to be a graviton, 'a basic quantum unit of the gravitational field; analogous to the photon which is a basic quantum unit of light.'

To say this differently, 'when we unify the elementary particles and their forces using string theory, we get general relativity for free as part of the bargain."

So, it appears one does not need to unify quantum mechanics with general relativity (Einstein's Theory of Gravity - 1915), one only needs to unify quantum mechanics with special relativity (Einstein's theory of space and time [Spacetime - 1905]); as by matching quantum mechanics with special relativity via the 'Peet Tent' and String Feynman diagrams (see below), one gets general relativity for free. So, in fact, 'The Theory of Everything' in the physics of string and M-theory can be simplified to what will unify quantum mechanics and special relativity.

(Non-Physics readers… Don't panic, this should all make a lot more sense when we start to describe the metaphors and analogies in financial terms, coming soon.)



Above, we see two Feynman diagrams; a standard 'Y' on the left, and a 'baggy/elastic' String Feynman 'Y' diagram on the right. Per Dr Peet's lecture, the string version is so baggy and flexible that it can accommodate both the predictable smooth results from general relativity with the uncertain and erratic results of quantum mechanics under one big tent, hence the 'Peet Tent.'

One big difference is 'time.' At the point where the 'Y' splits on the left is a particle reaction at a precise time, versus the String Feynman diagram on the right which is more flexible. The same event could happen at different times. And that's how string theory manages to unify Einstein's special relativity, being space and time (spacetime) and quantum mechanics, which leads to a unification of quantum mechanics and general relativity because as Witten says, 'We get general relativity for free.'

"If we do discover a complete theory, it should in time be understandable in broad principle by everyone, not just a few scientists. And when that happens, all of us will be able to discuss the why rather than the how."

Professor Stephen Hawking (paraphrased)

The Peet Tent in Economics

Fortunately, (I hope) by associating the interactions of the Peet Tent in physics with everyday objects and events, we not only start to create a powerful economic framework based on billions of years of natural fine-tuning. As a ripple effect, we also create a way to teach the basics of the physics of string theory to economists and others, and vice versa.

Our common frame of reference is money, specifically the financial results of each S-World company. Below, we see a simulation of the Peet Tent in economics, where in place of general relativity, we have winning businesses; and in place of quantum mechanics, we have losing businesses; which all fit under S-World's own Peet Tent. So long as there is enough money in the network, all companies are safe. The Peet Tent can unify all losing and winning results into a safe financial framework.

It's that simple…

The Peet Tent is a shape of the S-World string that protects companies from failure within the network. In the end, the simulation in economics was simple enough (albeit it would take years to work out in my mind), one must make provision for companies in trouble.

If applying the Susskind Boost (which we shall look at shortly) did not work by adjusting opportunities, one must apply the Peet Tent which provides direct income to the Susskind Boost, so boosting troubled companies back to health and then fitness.

This works equally for companies on their way to POP (presented soon or see Book 2. Chapter 2. 'The Flap of a Butterfly's Wings,') and for companies that have achieved POP but have since fallen backwards.

So long as there was enough income for the Peet Tent, all companies are safe, permanently.

This book has been written around the S-World UCS™ Lake Malawi Network. In this scenario, and when setting POP points, we seek for the maximum probability of any company failing at 1%

where as 3.125% of every trade is destined to the 'Susskind Boost' and 'Peet Tent,' which is mostly spent boosting the profits of the weaker companies. However, when needed, with an almost unconstitutional power, the Peet Tent can rake in as much as 50% of all cash flow throughout the network; hundreds, then thousands, then millions of business and individuals contributing.

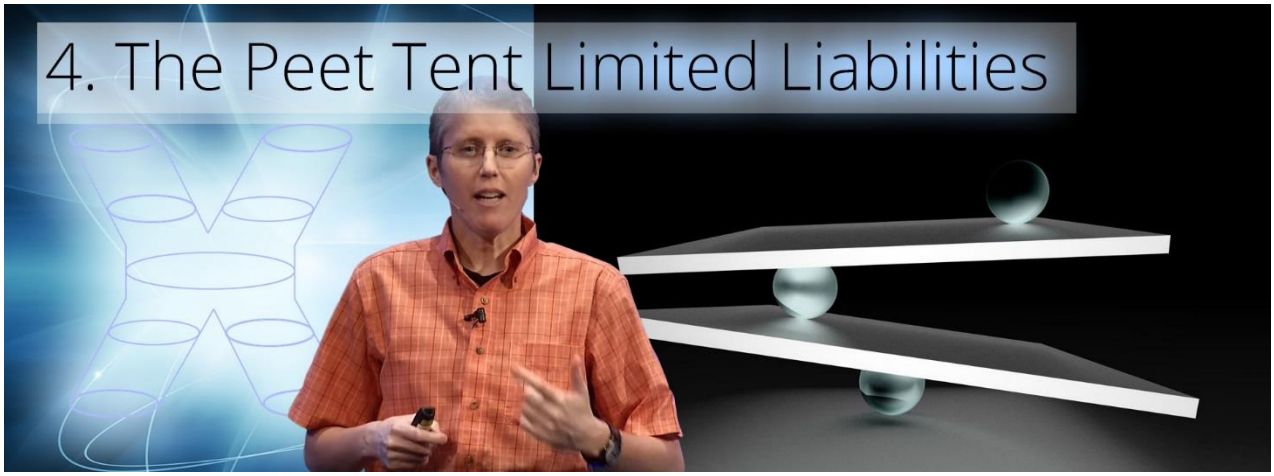
It is these businesses and the cash flow they can command that could restore good economic conditions in the face of a financial meltdown in currently rich countries. And we look at this in more detail in the penultimate chapter.

However, It's important to know that the Peet Tent can only live up to its ideals when the S-World Network is massive.

Currently, however, the Peet Tent is here to protect companies from failure (not unlike an organization such as ATOL that guarantees customers their money back if their travel company or airline went into liquidation), but instead of reacting after the event, the Peet Tent reacts before (prevention is better than cure), in multiple phases, starting with the Susskind Boost (the stable mate of the Peet Tent).

The Peet Tent Liabilities

In addition, the Peet Tent also assess the liabilities of each company before they are founded in the first instance.



The Peet Tent & Quantum-Safe Forecasting

www.angeltheory.org/the-peet-tent-2016-2017

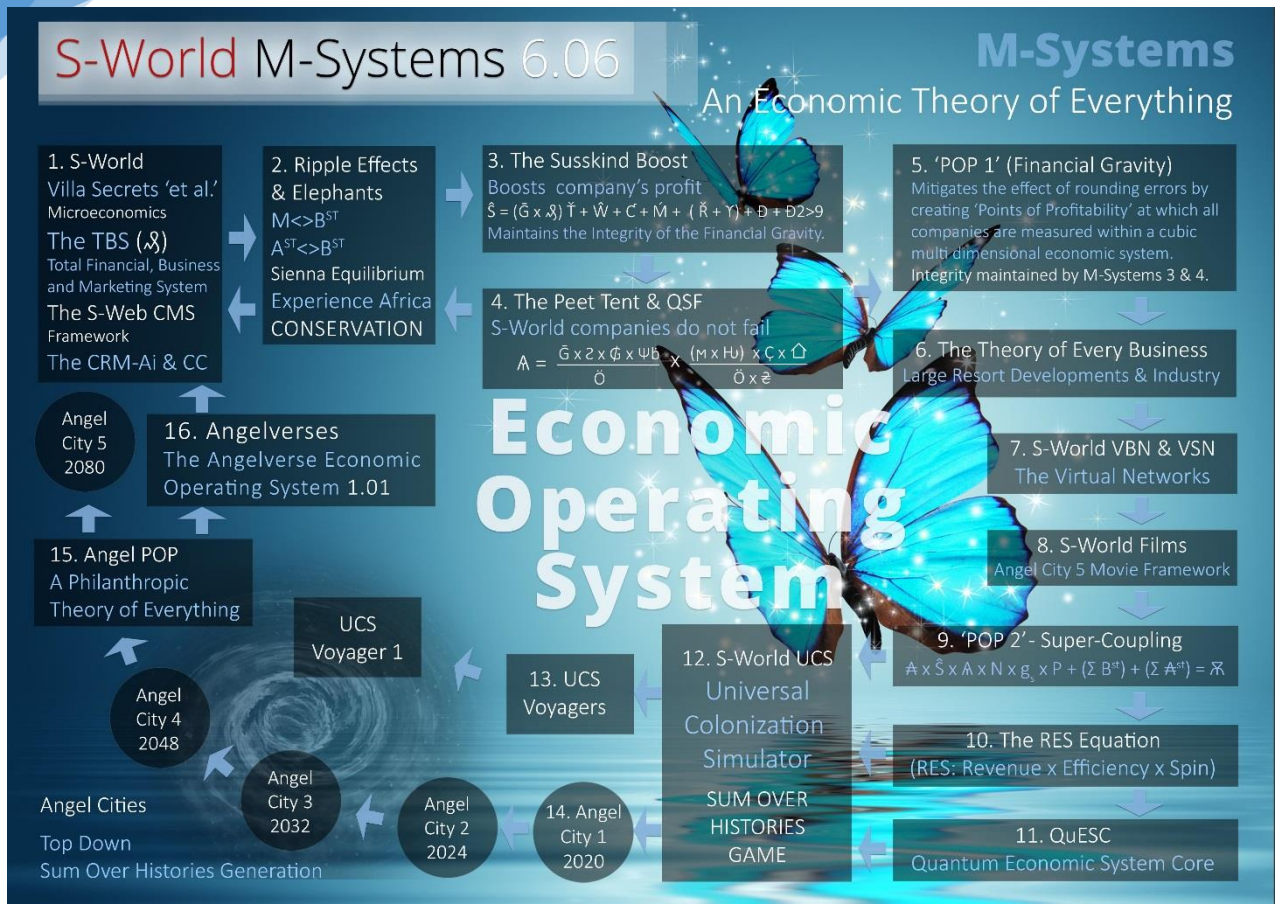
Then QSF or 'Quantum-Safe Forecasting,' borrows from the Heisenberg uncertainty principle, making safer forecasts.

I shall not go into the algebraic math here; other than to say that in the top equation, the first 3 characters are different limiting variables based on the Heisenberg uncertainty principle, where simply by adding limiting variables, we increase the probability of matching or exceeding our POP targets. And that in the second equation, we primarily look at the advantages and disadvantages of different locations.

This set of equations still needs work, but the principle is that it looks for laws of diminishing returns and uncertainties, and only when few are found does it allow an S-World company to be created.

The Peet Tent and 'Quantum-Safe Forecasting' create a worst-case scenario, and adjusts for different locations, different sized marketplaces, and different base costs as seen in the graphic below.

Companies start at M-System 1, get enhanced by M-System 2 and 3, before getting to M-System 4. The Peet Tent; once all the limiting variables are added, a company will either pass the test and move forwards to M-System 5 and beyond, or move back to M-Systems 3, 2, and 1 to try again with a different or amended strategy.



For more on the Peet Tent and Quantum-Safe forecasting including the particulars of the QSF equation, read www.angeltheory.org/the-peet-tent-2016-2017. In addition, the Peet Tent is also described in Book 2. Part 1. Chapters 3. The Network on a String and 4. Super Coupling.

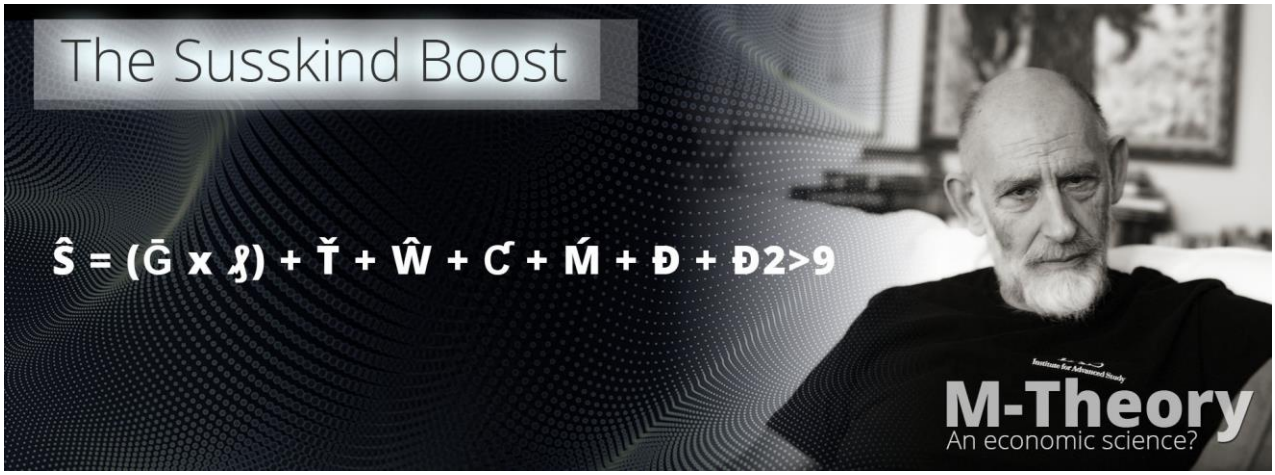
There is also an older 'work in progress' from 2016/17 that considers various M-Systems and was a significant factor in M-System 15. Angel POP: www.angeltheory.org/m-systems/for-dr-amanda-peet.

The Susskind Boost (M-System 3)

Let's look at the Susskind Boost and, at the same time, have another look at how S-World economics is often created from simulations of the laws of nature as described by 'M-theory.'

The Susskind Boost - M-System 3 (Fundamental Component)

$\hat{S} = (\bar{G} \times \mathcal{S}) + \check{T} + \hat{W} + \acute{C} + \acute{M} + (\check{R} + \Upsilon) + Đ + Đ2{>}9$



Where $\bar{G}$ = Gross Profit and the (electric s) $\mathcal{S}$ = the S-World TBS™ (Total Business Systems), which so far for Villa Secrets creates 81 different ways to make money, save money, or avoid landmines; many of which are unique, all are significant, and when used in combination become disruptive. (Business using the software will disrupt their current marketplaces.)

Where after, we add different boosting opportunities: $\check{T}$ = Tenders or agency contracts (as are featured prominently in this book and Book 3. 'The GDP Game'), $\hat{W}$ = Additional websites and companies, $\acute{C}$ = Contracts &/or Mandates, $\acute{M}$ = The Marketing Multiplier; plus, there are newer factors to add such as $\check{R}$ = higher ROI advertising opportunities, and (a kind of palm tree Y symbol) Υ = which accounts for network credits being pushed a company's way (a very significant boost).

Then, from M-System 2. Ripple Effects and Elephants, we add the dimension 'Đ' and the $A^{st} \Leftrightarrow B^{st}$ which calculates the ripple effects from other businesses in the local network; and after, in Đ2 to Đ9 and beyond, we calculate the effects from other strings and ripples in the greater network.

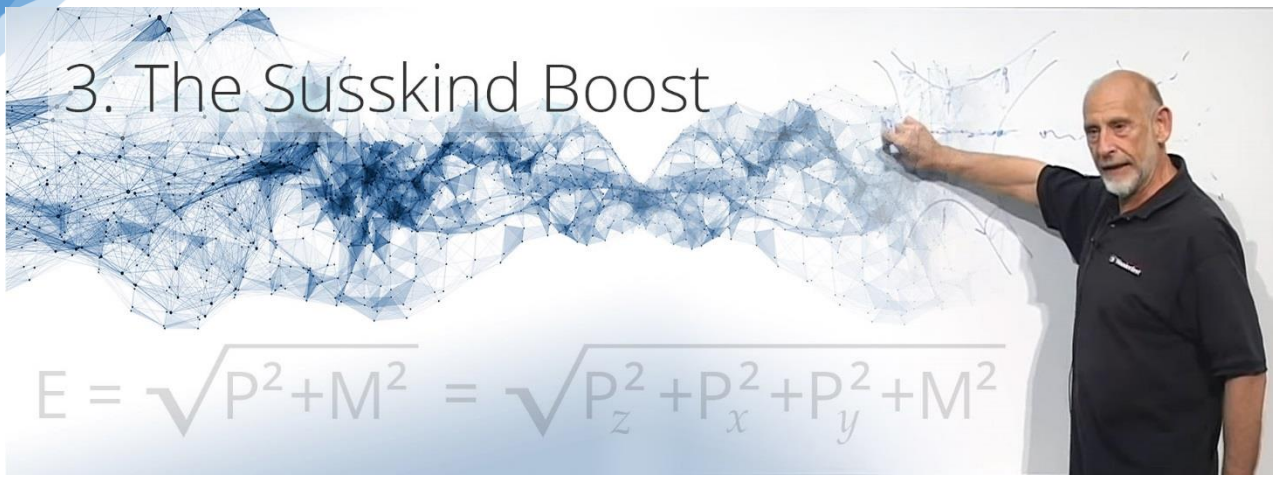
Stanford University

Lecture 1 | String Theory and M-Theory

Professor Leonard Susskind

www.youtube.com/watch?v=25haxRuZQUk

(Note that Professor Susskind's hand is drawing a string Feynman Diagram.)



'We boost the hell out of the system along the Z-axis (gross profit) until every single particle (company) has a huge momentum.

If there is any particle (company) that is going backwards along the Z-axis (gross profit), you just have not boosted it enough.

Just boost it some more until it's going forward with a large momentum.'

To apply this to the network, as you can see, I changed 'a particle' for 'a company,' and 'the Z-axis'' to 'gross profit.' And in general, we always boost the weakest companies in the network until they are going forward and are creating a healthy POP investment.

Until recently, the full equation was Ŝ = (Ḡ x 𝒻) Ť + Ŵ + Ć + Ḿ + (Ř + Ɏ) + Đ + Đ2>9.

However, in writing Book 3. 'The GDP Game' and now making a second part to Book 2 on same, the equation now has another significant component, 'M-System 10. 'The ŔÉŚ Equation.'

Ŝ = ((Ḡ x 𝒻) Ť + Ŵ + Ć + Ḿ + (Ř + Y) + Đ + Đ2>9) x Ⱥ = Ŕ x (É x Ś)

The Susskind Boost & the ŔÉŚ Equation

Below, we see the basic Susskind Boost equation/algorithm.

Ŝ = (Ḡ x 𝒻) Ť + Ŵ + Ć + Ḿ + (Ř + Y) + Đ + Đ2>9

If we then factor the Peet Tent as a percentage, we multiply it by the Susskind Boost to reach a future forecast.

Ŝ = ((Ḡ x 𝒻) Ť + Ŵ + Ć + Ḿ + (Ř + Y) + Đ + Đ2>9) x Ⱥ

This is now telling us the predicted profit.

However, I believe it would also be correct to add the ŔÉŚ Equation (presented in the next chapter and chapter and the later chapter 'ŔÉŚ and The Sienna Equilibrium') so…

$$\hat{S} = ((\bar{G} \times \not{g}) \check{T} + \hat{W} + \acute{C} + \acute{M} + (\check{R} + Y) + Đ + Đ2{>}9) \times \not{A} = \acute{R} \times (\acute{E} \times \acute{S})$$

But in this case, Ť becomes the most important factor in the Susskind Boost, and we shall see this in action later in this chapter. Ť is for Ťenders, guaranteed orders, so even if the company did not make a single sale to the public, but deliver all Ťender orders, it will have a successful year, on many fronts.

The Susskind Boost and ŔÉŚ are different ways of boosting the profit and output of one company or another or its workforce. Often, the boost will not be a financial input, by increasing Ťenders for example or allocating Network Credits spending to different business, restaurants, car dealers, realtors et al.

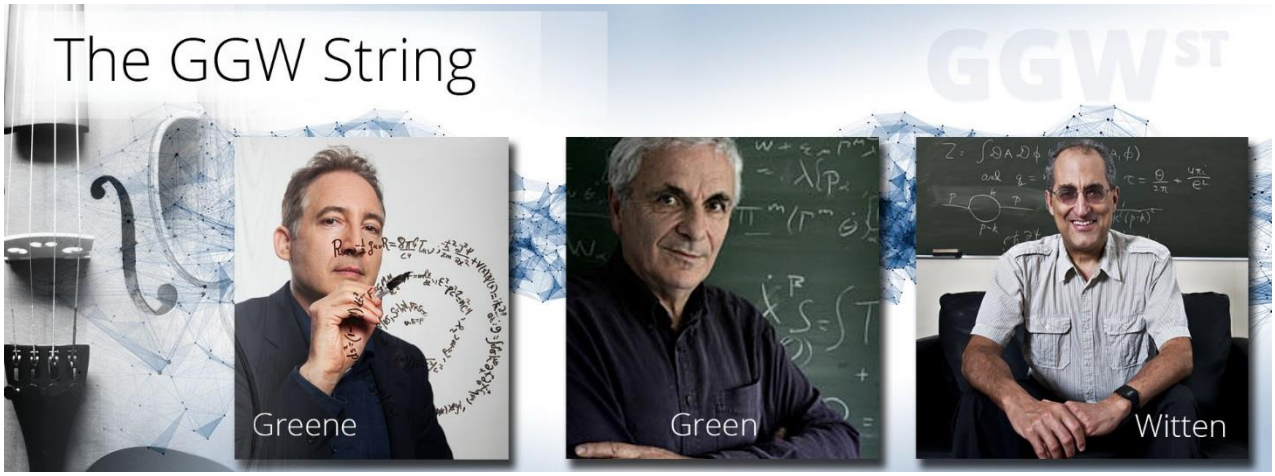
This aside, 3.125% of all S-World income from all networks is created and used to boost the profits of the weakest companies; even if the weakest companies are (in fact) already making a healthy profit, and the only reason they are at the bottom is other network members are making a very, very healthy profit, the worst winner scenario.

We shall return to M-System 10. The ŔÉŚ Equation in the following chapter.

Once the Susskind Boost and the Peet Tent were created, an additional system was added as M-System Zero. The GGW String.

M-System 0. The GGW String

The GGW String gets its name from 3 physicists whose pubic lectures and TV documentaries taught me to appreciate string theory: Professors 'Brian Greene,' 'Michael Green,' and 'Edward Witten.'



The GGW String considers: If the Susskind Boost and the Peet Tent were string theory systems, then in economics… *"What is the string?"*

Back in 2012, I created the M<>Bst equation which I first presented to my mother as my 'beautiful equation.' The equation is called the Mother & Baby String; where 'M' is mother, who (in her early years) is the provider to her Baby 'B.' But, in later years, this scenario may completely reverse; and that symbiotic relationship is described as iteration between the mother and baby '<>.' And lastly, the 'st' is the extended family also helping out.

This relationship also describes the Baby POP investment system from American Butterfly circa 2012.

Then, in 2015, whilst developing the prototype business 'Villa Secrets,' the M<>Bst evolved into the Ast<>Bst (pronounced A string, B string) based on ripple effects of different companies within a micro-network, now found as a part of M-System 2, albeit this M-System is currently overshadowed by the special projects created by ripple effects.

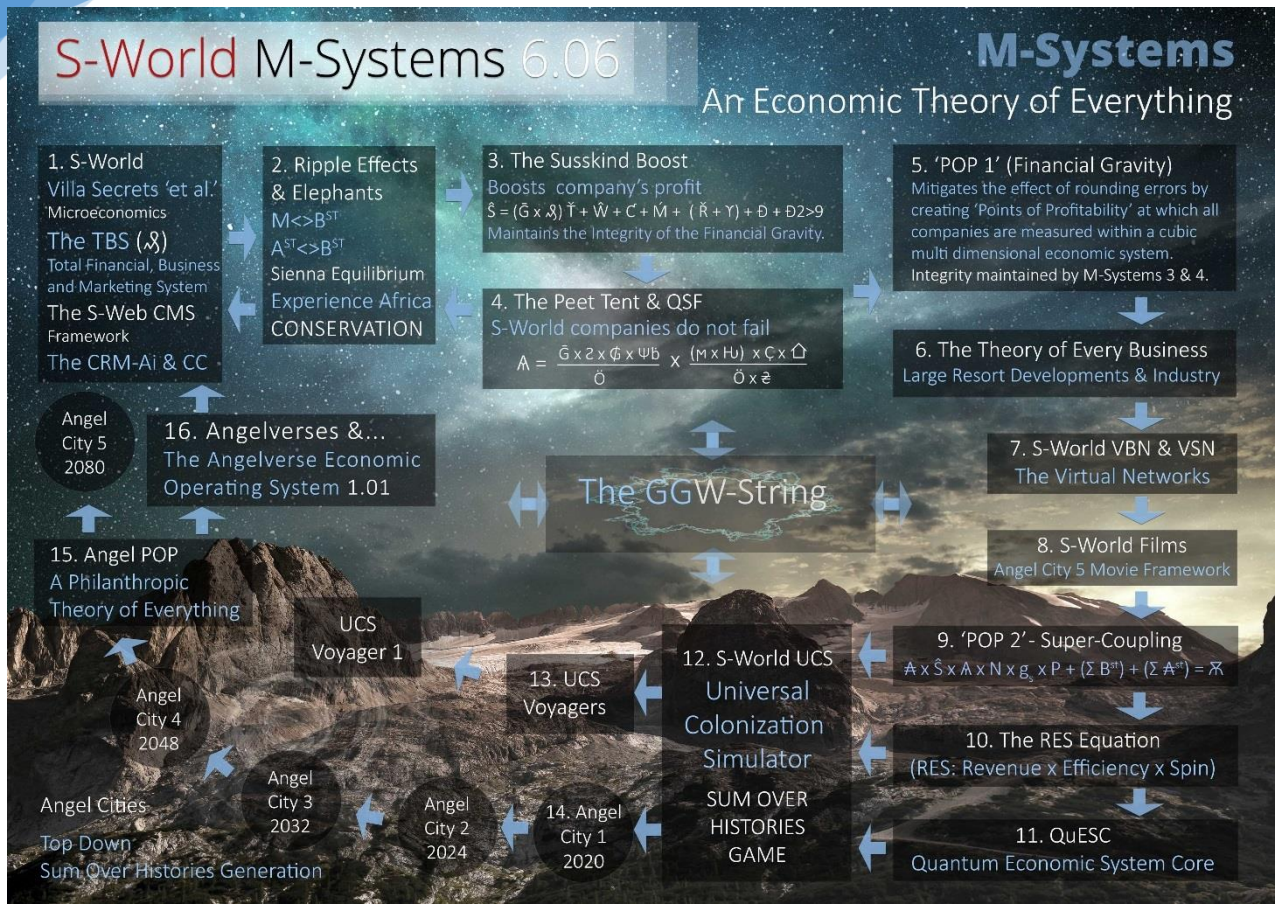
However, in the spring of 2016, I had a thought, one of those spine-tingling thoughts that was so simple it had to be good.

When simulating from string theory to economic theory, the string is simply money!

The simple idea is that, in economics and business science, money is the primary string with ripple effects caused by the spending of the money being a secondary string.

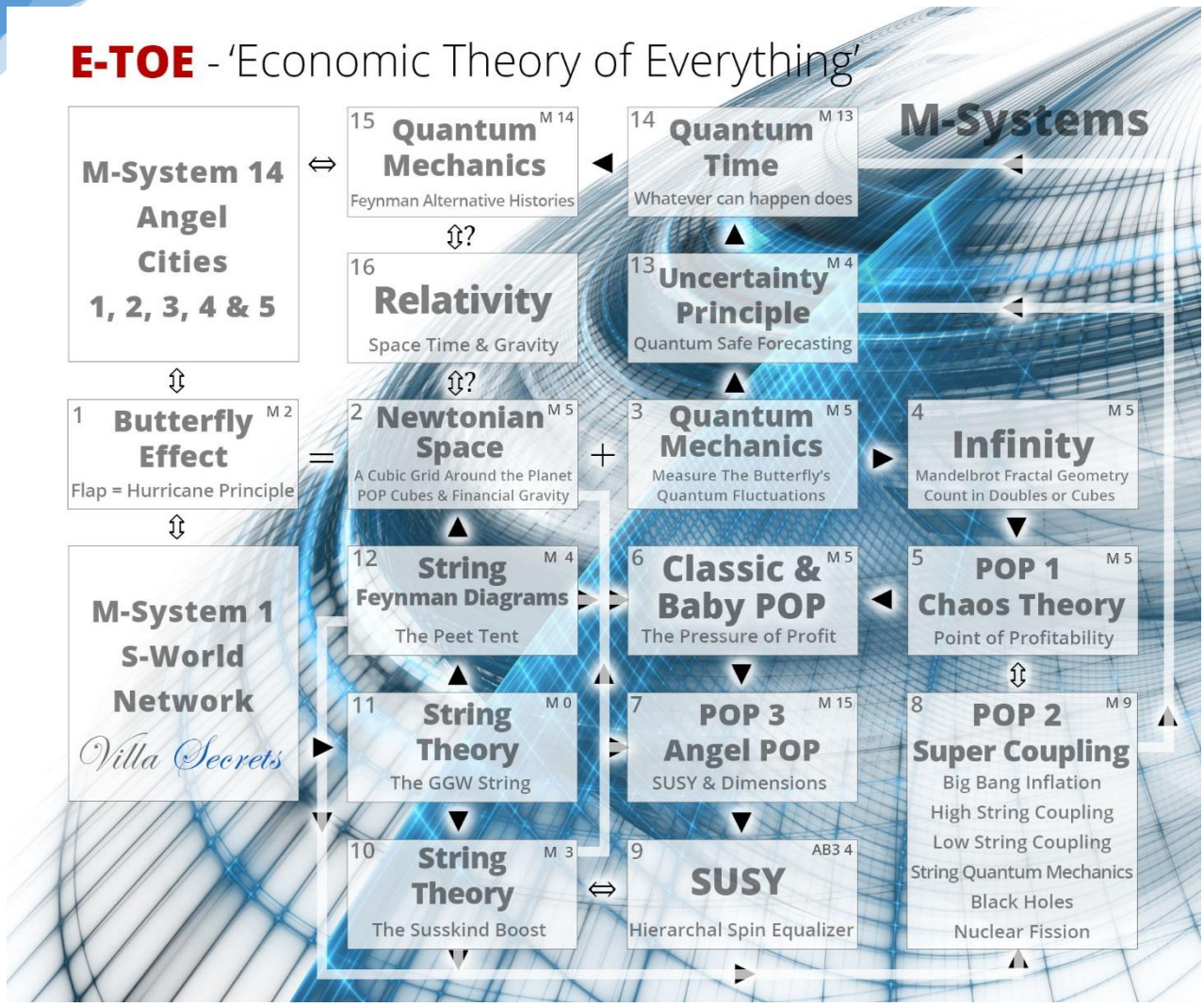
In string theory, a string changes its shape or oscillation to create different particles, and the universe is a cosmic symphony. In S-World, the GGW string changes its shape to create different allocations of money. One such shape is the Susskind Boost, another is the 'Peet Tent.'

I had already created the 2016 system architecture and I did not want to apply the GGW string as a subset to M-Systems, so I added it in the middle as M-System Zero, common to all M-Systems.



And while we are looking at the system's design, as I have not presented it yet and it is important, here is a 2017 system design specific to the physics; which does not feature the GGW String, as if the GGW string is money, it is a fundamental property and not a system.

This graphic is best explained in Book 2. 'The Economic Theory of Everything' Part 1. Out of Chaos.



Once the primary string was considered as money (or money made by S-World companies), soon after came the 'Green Symmetry,' crafted from the Horizon Documentary 'How Small is The Universe?'; in which Professor Michal Green theoretically described how one tiny string, billions of times smaller than an atom, could become the entire universe; and my simulation in economics, how one tiny company that has not even started trading in 2017, could account for most of global GDP by 2075.

The Green Symmetry

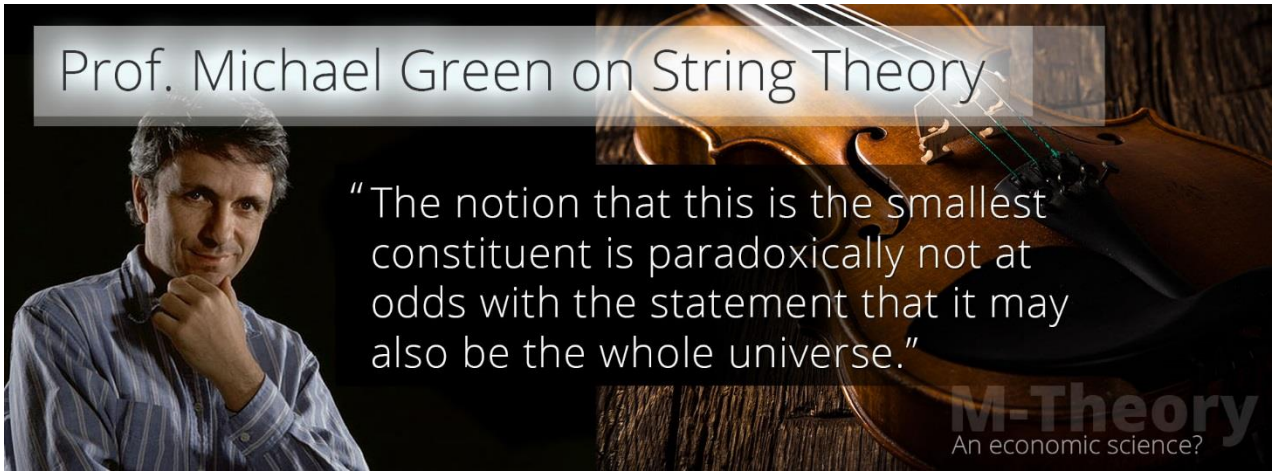
The Green Symmetry may be best presented as one of a series of quickly made videos leading up to the final workings on the ŘÉŠ Equation per the Lake Malawi Simulation. For the sake of continuity, I will offer all 4 videos in the series. However, we are specifically looking at Video 2- M System 9. 'Super Coupling' - The Green Symmetry (4.35 minutes).

Videos from Book 3. The GDP Game. 'Playing to Win' Spreadsheet 1.15

Angel Theory Spreadsheet - VIDEO SET 1 - THE GDP GAME - RES & FINANCIAL EQUIVALENCE - 1.15 (27th Feb 2018)

1. An Economic Theory of Everything — Book 2. Part 1. 'Out of Chaos' (3.02 minutes)
2. M-System 9. 'Super Coupling' — The Green Symmetry (4.35 minutes)
3. An Accounting Theory of Everything — The S World UCS™ MZ-Network (11.06 minutes)
4. The GDP Game. 'Playing to Win' — ŘÉŠ & Financial Equivalence (33.53 minutes)

Note that in case one has watched Video 4 - The GDP Game. 'Playing to Win,' macroeconomic due diligence has now shown GDP must be multiplied by the 'David A. Moss Cash Flow to GDP Variable,' which is worked out on the Angel Theory Spreadsheets (#32 onwards) on the tab 'The Sienna Equilibrium,' which currently suggests 66.163% of cash flow ends up as output from one S-World company or another, which in turn is equal to GDP (Gross Domestic Profit).



So, to the Green Symmetry, this was quite a find; and, in terms of personal satisfaction, is all the more significant due to the obscurity of the point in the string theory presented:

"The notion that a string is the smallest constituent is paradoxically not at odds with the statement that it may also be the whole universe."

Now, that's a tongue twister all right, but this idea now has a whole and significant chapter in Book 2. Part 1. 'Out of Chaos': Chapter 4. Super Coupling.

To set the scene, we need to go back to my book from early 2017 called 'The Villa Secrets' Secrets,' which is about the virtual (microeconomic) network Villa Secrets.com, the prototype S-World small company.' We shall come back to Villa Secrets in Book 4. The S-World TBS™ (Total Business Systems) - Part 2. S-World Villa Secrets.

For now, it is enough to know that a new local network of Villa Secrets companies (a Primary Network) should, by their 3rd year, generate enough profit ($167,772.16) to cofound 2 more Villa Secrets companies in other locations (or other industries in the same location).

Where after, the first company creates 2 more companies each year; and importantly, the new companies follow suit. In their 3rd year, they also cofound 2 new companies per year, and so on.

Each new set of companies cofounding 2 more companies per year from their 3rd year.

If this could be sustained (which it obviously can't with just one company type), by 2075, the network of companies created would own more GDP than the rest of the world combined.

From two simple rules, we can see how one company could 'in theory' overtake and eventually become the entire economy, which is a pretty neat way of explaining Professor Green's quote…

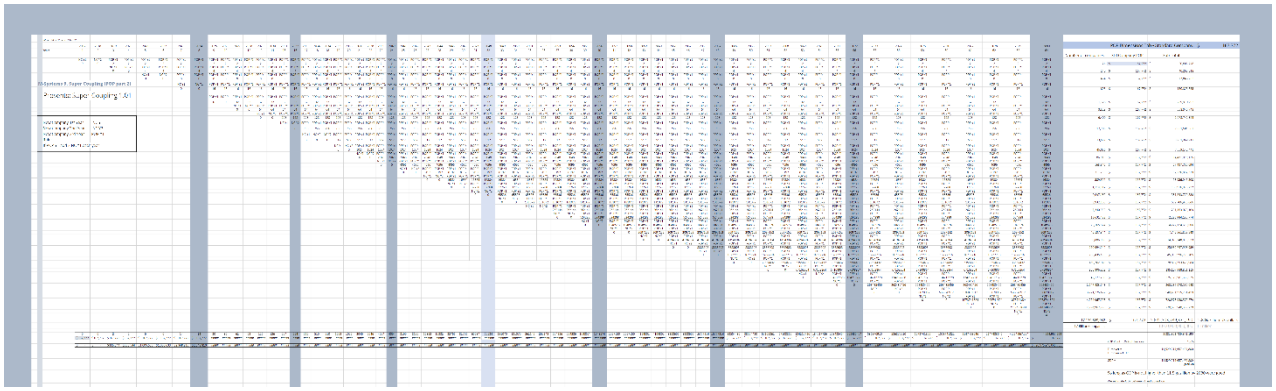
"The notion that this is the smallest constituent is paradoxically not at odds with the statement that it may also be the whole universe."

But in place of the universe, one inserts '*the entire economy*.'

"The notion that this is the smallest constituent is paradoxically not at odds with the statement that it may also be the entire economy."

This is not exactly what Green meant, but it's a pretty close metaphor and it helps to understand Green's statement, or at least it helped me to understand it.

Here is the spreadsheet:
Angel Theory Spreadsheet - VIDEO SET 1 - THE GDP GAME - RES & FINANCIAL EQUIVALENCE - 1.15 (27th Feb 2018)



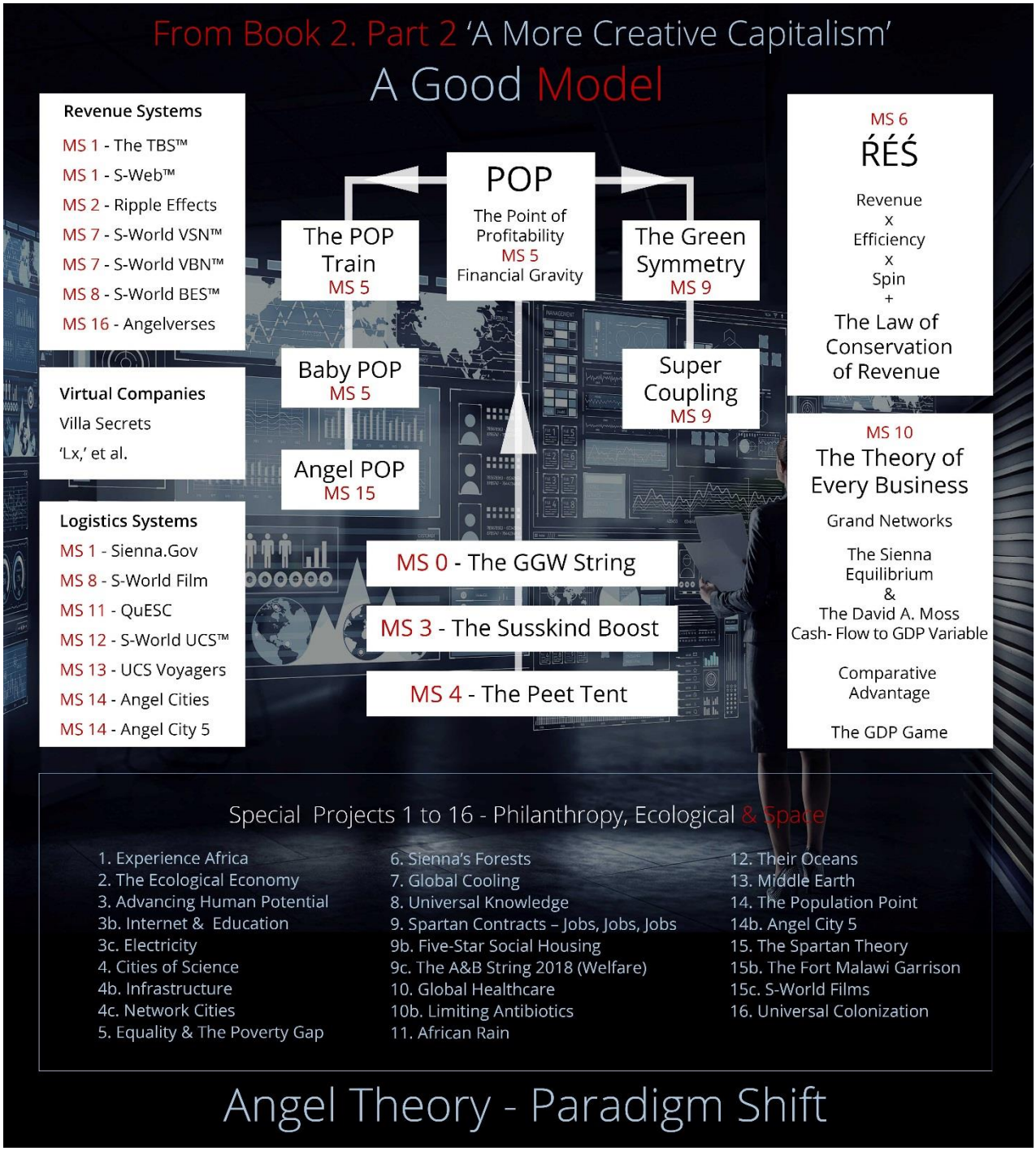
And this is the video:
M-System 9. 'Super Coupling' - The Green Symmetry (4.35 minutes)

Of course, there are a million reasons why it would not work out. However, if you set your assessment point at 2032 and in place of 988 Villa Secrets primary networks (which is quite possible), you add over a million companies in a thousand different industry niches, one is on the right track.

By reworking the Green Equation, starting with the 1 million or so companies created by the ŘÉŠ affect Grand Networks in Malawi and other locations, then add the other macrosystems, all with

exclusive use of the S-World software including The TBS™, S-World VNS™, S-World UCS™ and the latest edition to the software family S-World BES™ (Behavioural Economic Systems), then a model that sees most of GDP in the hands of S-World, by 2075, is mathematically sound.

And to get a better idea of the various 'other' systems mentioned above, here is the 2018 POP System Design, featured in Chapter 1. A Good Model.



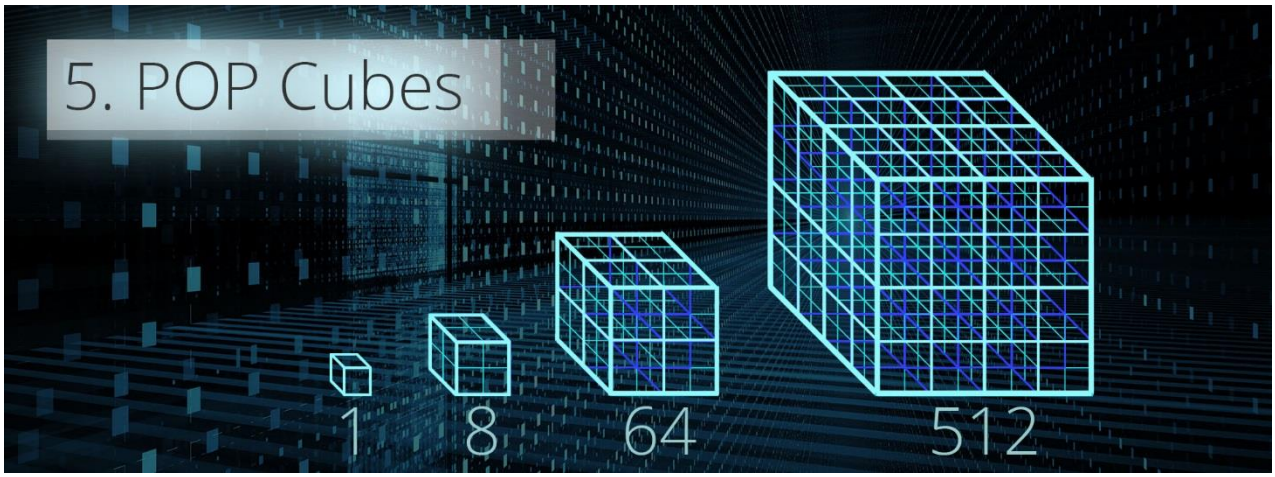
Given I get the development teams to assist me to create the system seen above, we can make partners of strategic patent holders working under the idea that we can either use ŔÉŚ as presented or adapt it to increase the money supply differently, then S-World could make a serious bid for dominance in GDP by 2080. Which is, of course, a good thing as with it comes tonnes more funding for projects of philanthropic, scientific, or economic betterment as seen above and as

described in the breakthrough chapter: Ripple Effects and Elephants for Paul G Allen.

POP - The Point of Profitability

As I have introduced the 'POP – A Good Model' graphic, and we need to get to Super Coupling despite it being presented in detail in Chapter 1, we will look once again at POP.

Born out of the desire to rid the systems of rounding errors, the first scientific system 'POP - The Point of Profitability' now is often referred to as Financial Gravity.



POP is founded upon an idea about rounding errors in the discipline Chaos Theory, which inspired a cubic framework not dissimilar to how I have heard Newtonian gravity and sometimes general relativity described.

POP is an important system, but I will only give just a brief summary. Please follow the links below for a more detailed presentation:

www.angeltheory.org/book/2-2/the-flap-of-a-butterflys-wings (2017)
www.angeltheory.org/book/2-3/the-network-on-a-string (2017)
www.angeltheory.org/book/2-4/super-coupling (2017)
www.americanbutterfly.org/pt3/the-network-on-a-string/prequal-cfm-and-pop (2012)

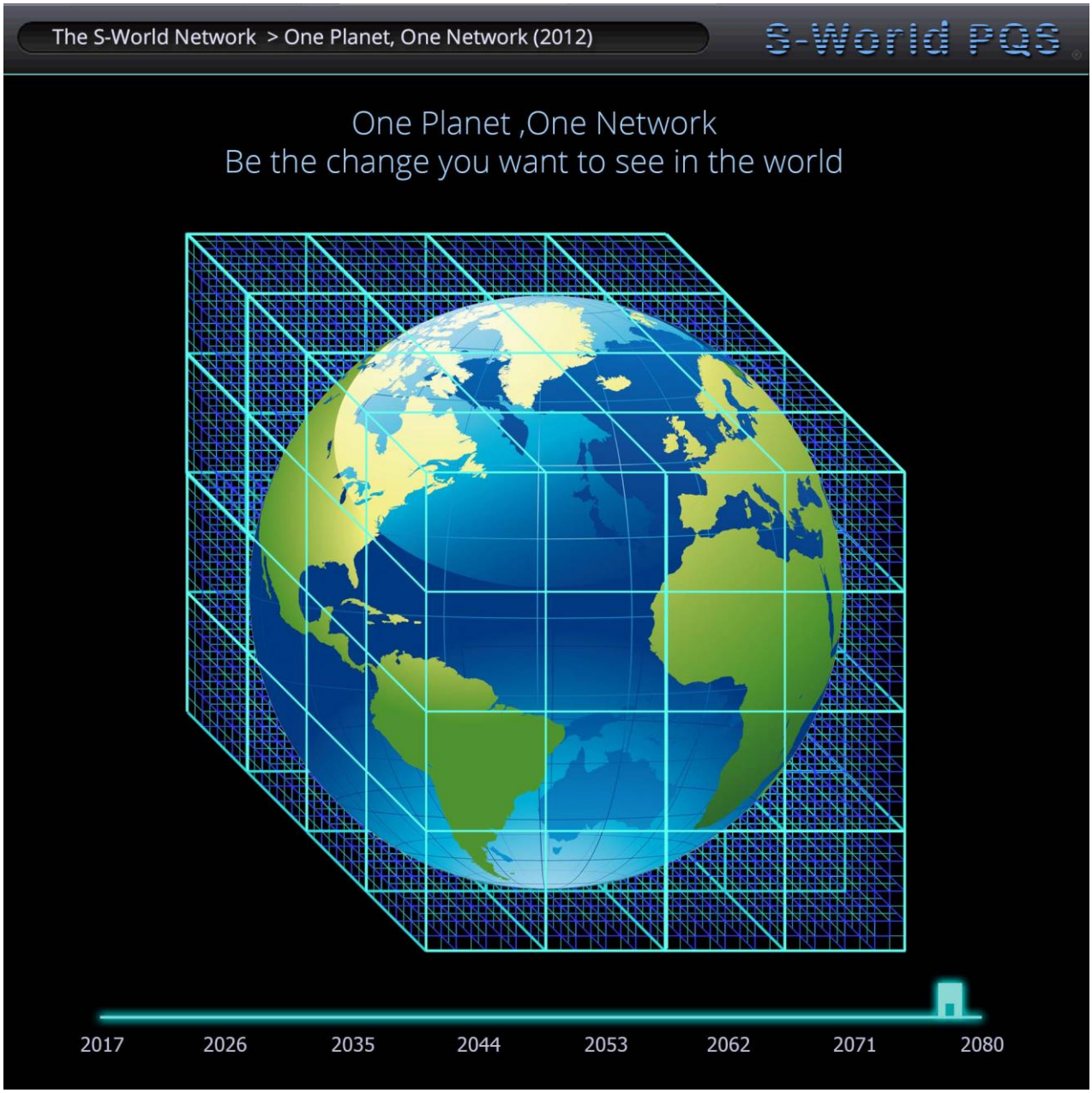
POP in Brief

In a few sentences as possible, POP is a thought experiment based on the chaos theory conundrum of rounding errors. By assigning each company a POP point, a Point of Profitability which is equivalent to strong and healthy profit; where on average, the chances of this company dropping from the point of profitability back to making no profit at all is less than 1%.

Next, we need to create a cubic structure; so that at the very end of the journey (in this case

2080), we desire to have created a Global Cube comprised of millions of companies, all of which follow the POP model and most of which are what I call 'In POP,' this is that they are making a greater profit than their POP Point. Where after, analysing the economy is as simple as counting the cubes within that are 'IN POP' and those that are not.

Let's have a look at the 'One Planet, One Network' Global Cube graphic from my American Butterfly series in 2012, first seen in Angel POP.



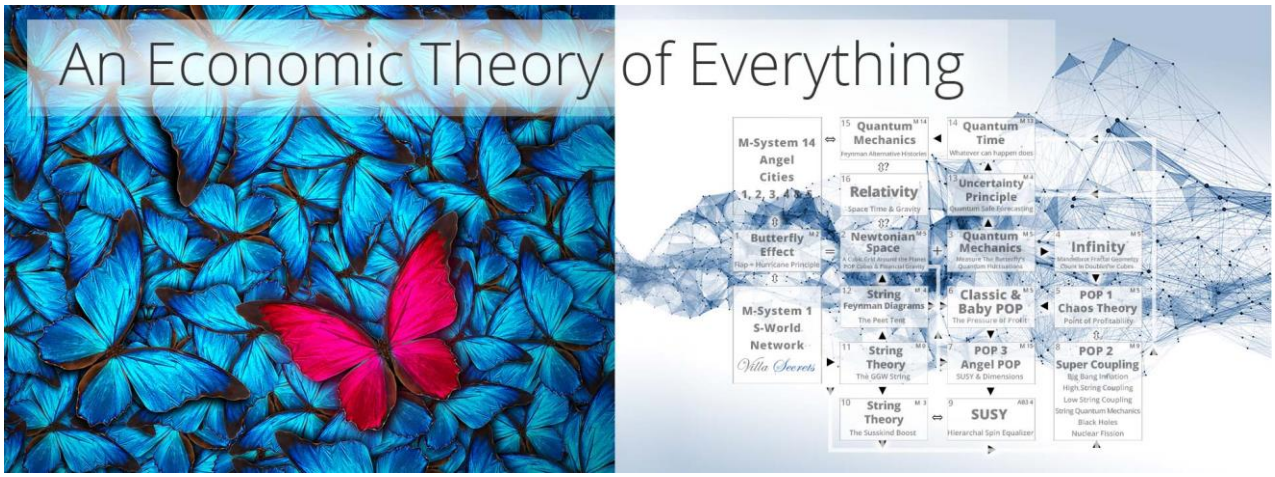
In the graphic above, we see 32,768 individual cubes. And to simplify, we can call each cube a Regional Network which contains 2048 companies that (on average) have a POP point of $167,772.16 (as used in the Green Symmetry). This equals about 14% of GDP, which is about correct as POP counts profit not turnover/revenue.

And this is a very important point, in terms of a 'rounding errors' solution, each company within the network can have completely different turnover and trading figures. Only when profit is equal

to the company's designated POP point does it register, and then it registers as 1. Then each one is placed within one of the Regional Networks within the Global Cube. Then, over the years, more and more cubes appear within the Regional Networks. And as the Regional Networks themselves become stable (all 2048 companies within are in POP), we start to see the cubes in the Global Network appear.

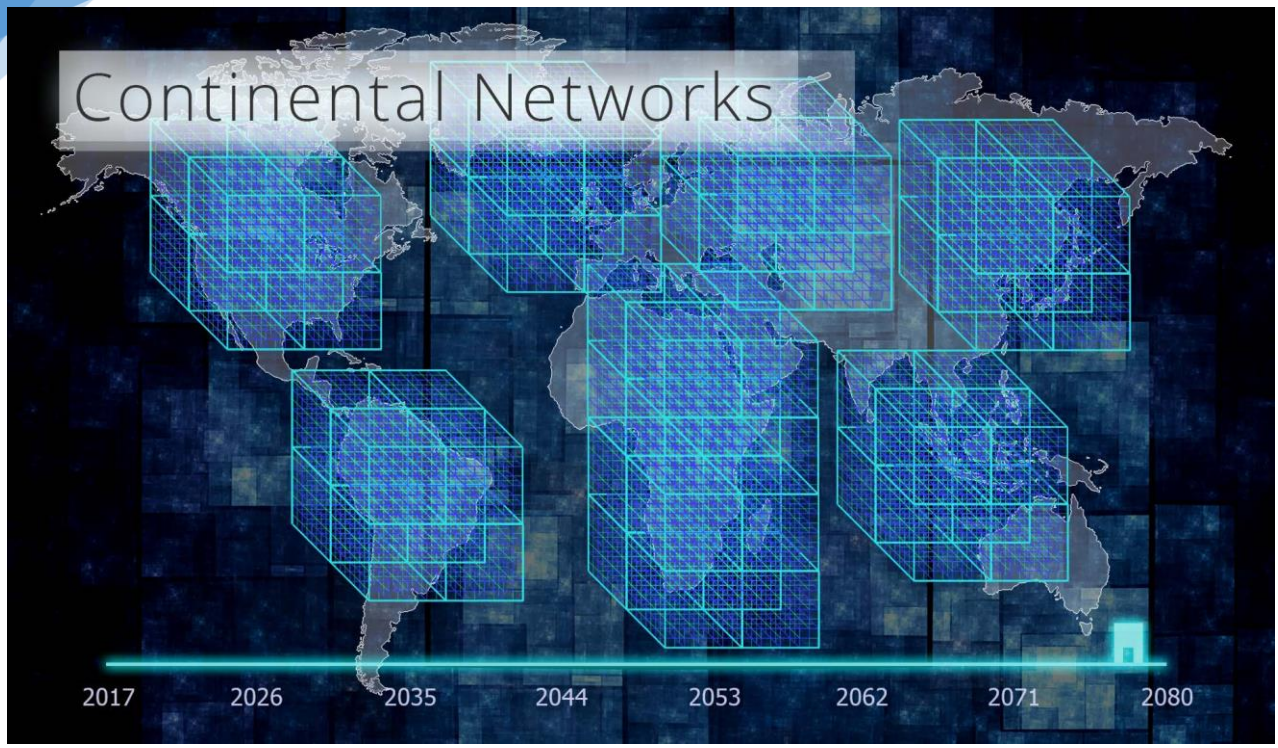
Rounding errors cannot affect this model, not in the same way they could for classic economic modelling. Of course, given all the chaos in the world today, solving the 'riddle of rounding errors' is not on the top of anyone's list. However, I believe that the Global Cube POP system is a much simpler way of looking at the Global Economy. And for the physicists amongst us, surely... this is a good simulation of 'financial gravity.'

And then continuing with the physics… Six years later and the model has developed to include string theory systems that maintain the structural integrity of each cube, where the Peet Tent and Susskind Boost are charged with getting all companies in a cube to better their POP Point; and after, boosting any company that had made it but has since slipped back. In essence, the string theory system helps to maintain the financial integrity of the cube.



Note that I am still looking for the best solution for inflation. I have some ideas, but there are political-economic factors that I need advice on.

From the 32,768 Regional Cubes within the Global Network, I have broken the Network into 8 'Continental Networks.'



Why does Africa have 2 cubes to North America's 1?

This is the current state of the 2080 Simulation which has seen one major change since 2012; and this is that the USA, which had 2 cubes, now has 1; and Africa now has 2. This is because there is already a lot going on economically in the USA, so there is less reason to build; whereas Africa has space for significant ecologically sound industry and urban development. And the same can be said for many parts of Asia.

Why has the USA dropped to 1 cube and Europe still has 2? Well, things are quite fluid at the moment, and the most recent update to this plan is for Europe to have just one cube. If the UK, post-Brexit, has a licence to make its own trade deals, it may become part of a 'Satellite Network' including India, Canada, Australia, New Zealand, maybe Hong Kong, Russia, and others.

However, the main reason for Africa gaining more market share in the future S-World economic network landscape is due to convergence; which was recently brought to my attention by French political economist Thomas Piketty and his book, 'Capital in the Twenty-First Century.'

If we look at the graphic above, we can clearly see that Africa and (mostly) Asia have been catching up with the USA and Europe for more than 30 years; and as the diffusion of knowledge and trade deals increase, these emerging markets will eventually catch up with the West. So, it makes sense for a new economic network to divide its expectations, not on current GDP but where future GDP is likely to occur.

Note, however, that when we study the economics of the poorest countries' economies from books including Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty by Abhijit V. Banerjee and Esther Duflo, Why Nations Fail: The Origins of Power, Prosperity, and Poverty by Daron Acemoglu & James Robinson, The Bottom Billion: Why the Poorest Countries are Failing and What Can Be Done About It by Paul Collier, and The Plundered Planet: Why We Must - and How We Can - Manage Nature for Global Prosperity also by Paul Collier; then we see that convergence is not a given, not by a long way, no one is expecting convergence for the poorest billion global citizens any time soon.

However, in A More Creative Capitalism and other works, I described a very scientific type of economics; software-driven, that can bring convergence, and quickly enough to avert the looming humanitarian disaster that doubling, and even tripling Africa's population will bring. And unlike previous disasters that were heart-breaking but mostly localised, a doubling or tripling of Africa's population will wreak chaos and havoc on the entire planet, and in no small way the global economy.

>>

A MESSAGE FROM BILL AND MELINDA GATES

Goalkeepers Report – 19th September 2018

One of the obstacles the continent faces is rapid population growth. Africa as a whole is projected to nearly double in size by 2050

These 10 Countries: Nigeria, the Democratic Republic of the Congo, Madagascar, Somalia, Burundi, Malawi, Zambia, South Sudan, Central African Republic, Guinea-Bissau
are Projected to:

- Be the poorest in the world
- More than double in population
- Be where 65%of people in extreme poverty live

Malawi – 18 million to 35 million (12 million in extreme poverty to 17 million)

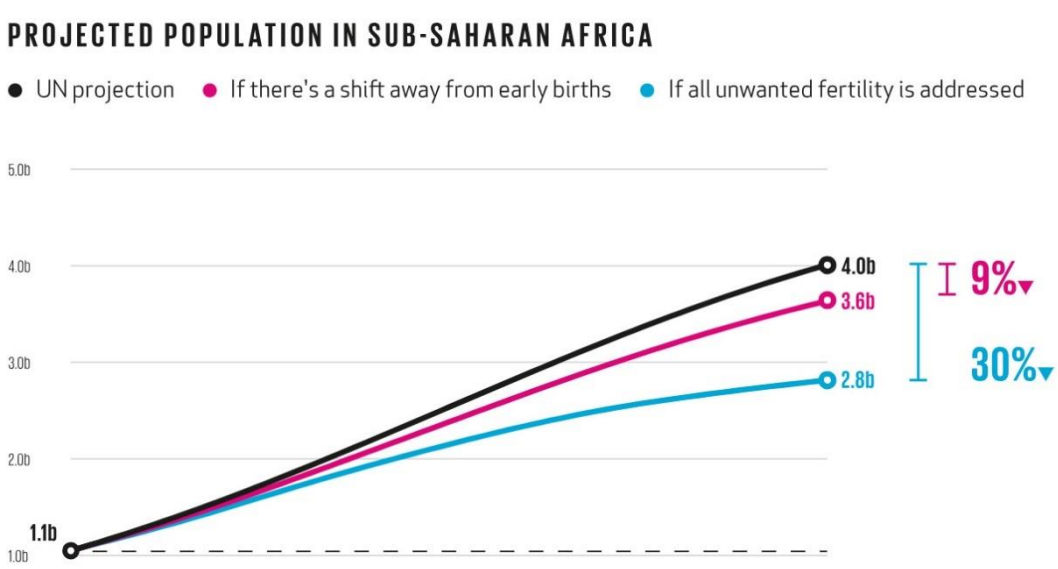
FAMILY PLANNING

There's an elephant in the room. Population issues are so difficult to talk about that the development community has been ignoring them for years.

https://www.gatesfoundation.org/goalkeepers/report/case-studies/putting-her-in-charge

GOALKEEPERS

Goalkeepers Report About the event What is Goalkeepers?



Millions more Africans have been able to answer yes to these questions in recent years. But there's an elephant in the room. One of the keys to keeping this progress going is slowing down the rapid rates of population growth in parts of the continent. But population issues are so difficult to talk about that the development community has been ignoring them for years.

Population growth is a controversial topic because, in the not-too-distant past, some countries tried to control population growth with abusive, coercive policies, including forced sterilization. Now, human rights are again at the center of the discussion about family planning, where they belong. But as part of repairing the wounds created by this history, population was removed from the development vocabulary altogether.

For the sake of Africa's future, we should bring it back. Based on current trends, Africa as a whole is projected to double in size by 2050. Between 2050 and 2100, according to the United Nations, it could almost double again. In that case, the continent would have to quadruple its efforts just to maintain the current level of investment in health and education, which is too low already. If the rate of population growth slows down, however, there will be more resources to invest in each African's health, education, and opportunity—in other words, in a good life.

To be very clear: The goal of family planning programs is not to hit population targets; on the contrary, it is to empower women so that they can exercise their fundamental right to choose the number of children they will have, when, and with whom. Fortunately, empowering couples to make decisions about their lives also improves Africa's future by changing the population growth scenario across the continent.

Angel POP

M-System 15. Angel POP was originally described here http://americanbutterfly.org/pt3/the-network-on-a-string/angel-pop-global-benefits and was most recently described here www.angeltheory.org/book/2-3/the-network-on-a-string#Angel-POP-2012-to-2017.

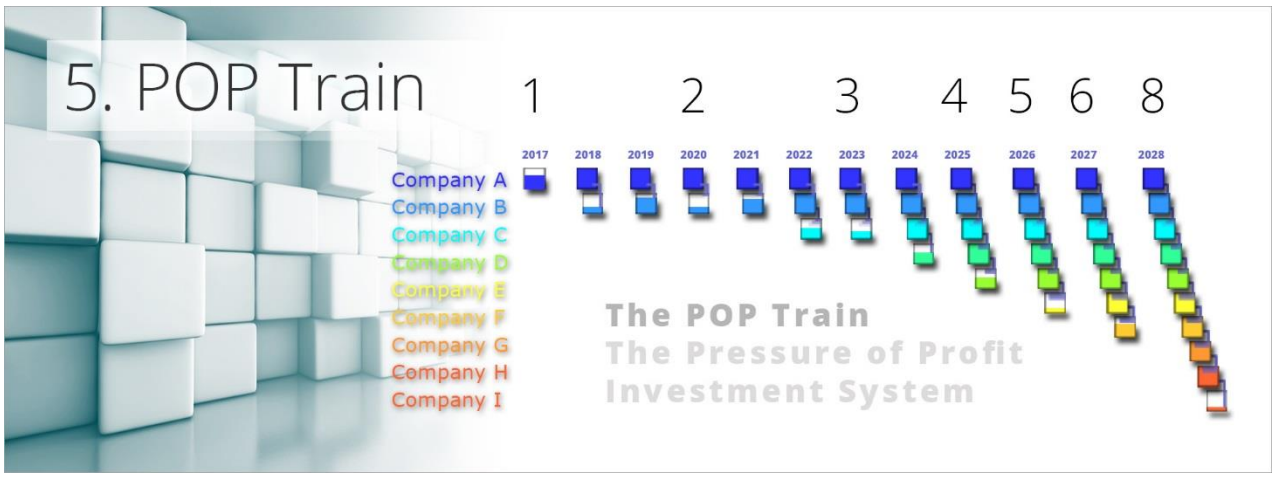
I will not get into this here as you have the links, other than to say the M-System 15. Angel POP mantra…

(ADD SECTION AN ANGEL POP FROM www.angeltheory.org/book/2-3/the-network-on-a-string#Angel-POP-2012-to-2017. Note that ANGEL POP Is the principle from physics that affected the change to countries in extreme poverty, and explain more of the original principle from American Butterfly)

"Grand Networks in areas of Abject Poverty are Special Projects."

By swopping from the 2012 plan of creating many Grand Networks in the USA to creating the same in Africa and Asia, our same development plan becomes a source of philanthropy and ecology, which was later detailed in Book 3. 'The GDP Game,' 'Ripple Effects and Elephants.' www.angeltheory.org/book3-14/ripple-effects-and-elephants-for-paul-g-allen

The POP Train



For many years after discovering POP – The Point of Profit, I put the global network cubic plan aside and instead the work focused on what I called POP 2 - 'The Pressure of Profit,' which was created just a few days after the original Point of Profit.

POP – The Pressure of Profit was initially considered as a macrosystem, where each of the 'POP buckets' that you see above represents a Grand Network, which was at least the size of a regional network, thus 2048 companies or more.

The Pressure of Profit investment method is now more often described as the POP Train; first, a network of companies makes enough profit to start another, then the network of companies 1 and 2 work together to create a third. Then, we see all networks of companies collectively investing in a fourth, then a fifth in a train like mechanism. And as we see in the graphic above, after the 6th Grand Network, the speed of creating networks increases to 2 a year; where after, we see exponential growth, making new Grand Networks faster and faster. Hence the name 'The Pressure of Profit,' as the pressure from networks one to seven combine into a powerful investment flow.

However, when it comes to small companies, individually, in about 2015, the idea started to materialise for POP without the train; which seemed more suited to the micro network 'Villa Secrets.' Then, in 2016, this manifested itself with help from the Green Symmetry into M-System 9. POP Super Coupling - POP without the Train.

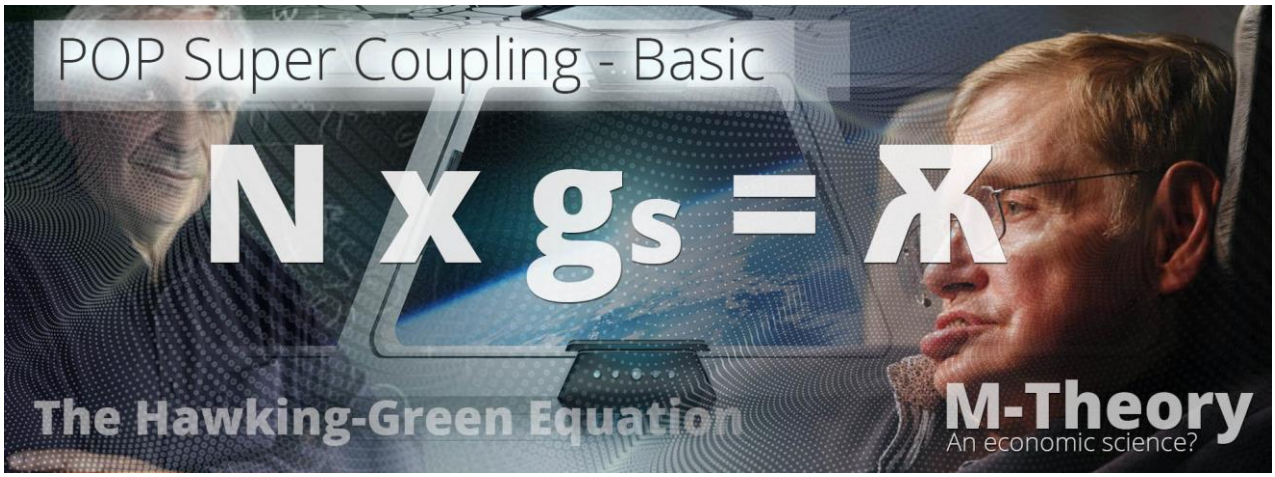
M-System 9. POP Super Coupling

www.angeltheory.org/book/2-4/super-coupling

Super Coupling is a variation on POP that breaks the train, which follows the Green Symmetry shown earlier. This system started with A.W. Peet's lecture (A.W. Peet Public Lecture: String Theory Legos for Black Holes), but was equally influenced by Professors Green and Hawking; as whilst on a nice summer's walk (which is where 99% of new ideas arrive), I was one day listening to Hawking's 'A Brief History of Time' whilst thinking about Green's:

"The notion that this is the smallest constituent is paradoxically not at odds with the statement that it may also be the whole universe."

And I had the simple idea to create a spreadsheet that could map the growth of one company within the network per the Green Symmetry; which, if we remember, saw how one company could go on to own the majority stake in global GDP by 2075.



I thought to make an equation and looked to find other comparable elements from theoretical physics.

As the model was so explosive, I initially thought of a simulation of inflation, per Hawking's description in both 'The Grand Design' and 'A Brief History of Time.'

However, it was not that explosive, physics inflation is extraordinarily fast. But then, I saw string coupling presented by Dr A.W. Peet in the lecture 'String Theory Legos for Black Holes' and I liked it.

In string coupling, 'N' is for branes, which in essence are the number of universes in the multiverse (which is pretty cool), and 'gs' is the coupling strength; and in short, the result is the speed that strings interact, combine, or reproduce. However, in M-theory using a high 'gs' creates unusable results. So, to make accurate models of black holes, Dr Peet (and professors Cumrun Vafa & Andrew Strominger who created the theory) used low 'gs' and a high number of branes.

In my 'super coupling' simulation, we change branes for S-World companies, which is pretty straightforward, but the gs simulation required more thought. And as I looked at the variables within the Susskind Boost, I found one that was a perfect fix. So 'gs' became 'the amount of equity and profit share motivated personnel vs. unincentivized personnel,' where a high amount of unincentivized personnel equals a high 'gs' and a chaotic result; but a high amount of motivated staff (given the software and other systems) allowed for the network to expand indefinitely.

So, we have the amount of companies 'N' x the percentage of equity and profit share motivated personnel 'gs,' equals POP Profit/ Investment (or you could say 'growth'), which I gave a funky

character to '₳'.

$$N \times g_S = ₳$$

Next, I added the Peet Tent and the balance of the Susskind Boost to make:

$$\hat{S} \times A_X \times N \times g_S = ₳$$

This was followed by the 'Sum Over B-Strings,' the sum of POP profit created by all the new companies created by the POP process.

$$\hat{S} \times A \times N \times g_S + (\Sigma B^{st}) = ₳$$

The Susskind Boost x the Peet Tent x the number of companies x the number of incentivised personnel + the sum of the output of all companies created by the POP process = Network POP Profit.

Next, we need to include 'P' for momentum, being the effects of PR, branding, brand associations, S-World Films, the Famous Concierge, and other exercises that increase demand for S-World products due to the public's love of the brand.

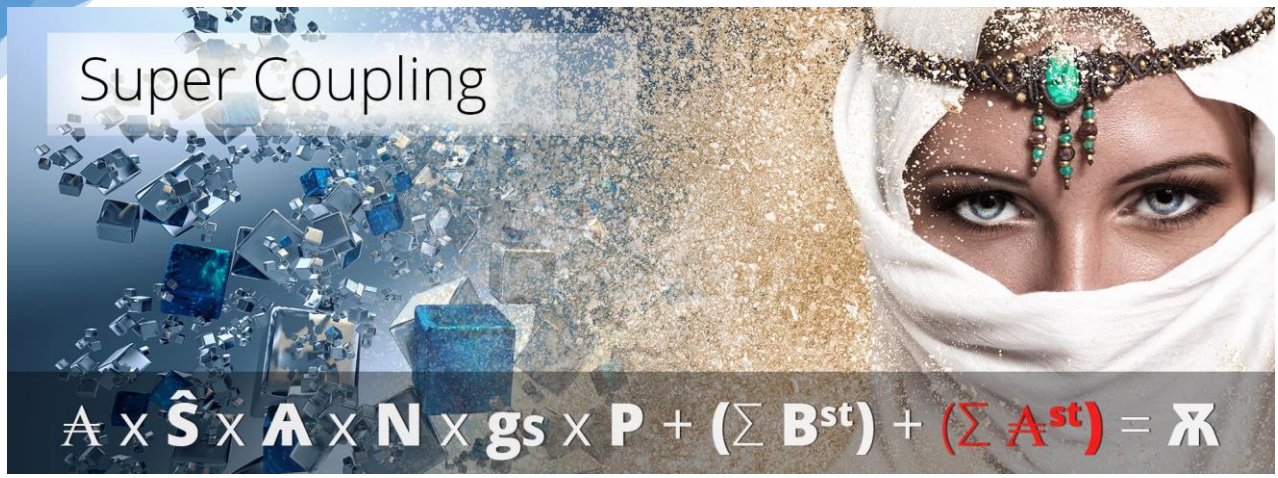
$$\hat{S} \times A \times N \times g_S \times P + (\Sigma B^{st}) = ₳$$

Next, the character '₴' is if S-World provides Angelverse Operating System licences for big companies & foundations to recruit their members &/or clients to S-World's Systems.

$$₴ \times \hat{S} \times A \times N \times g_S \times P + (\Sigma B^{st}) = ₳$$

And lastly (for now), from M-System 16, we add Angelverses '$(\Sigma ₴^{st})$' which are medium and big companies wishing to join the S-World companies; and in particular, the Super Projects: S-World TBS™ (Total Business Systems), S-World VSN™ (Virtual Social Network) & VBN™ (Virtual Business Network), and the tutorial, recruiting, and economic simulation software S-World UCS™ (Universal Colonization Simulator); and most recently, S-World BES™ (Behavioural Economic Systems).

$$₴ \times \hat{S} \times A \times N \times g_S \times P + (\Sigma B^{st}) + (\Sigma ₴^{st}) = ₳$$



As we have seen in the Green Symmetry, with just one standard S-World company and two basic rules, one company has the potential to grow and become all S-World companies, engulfing the economy before '2080.'

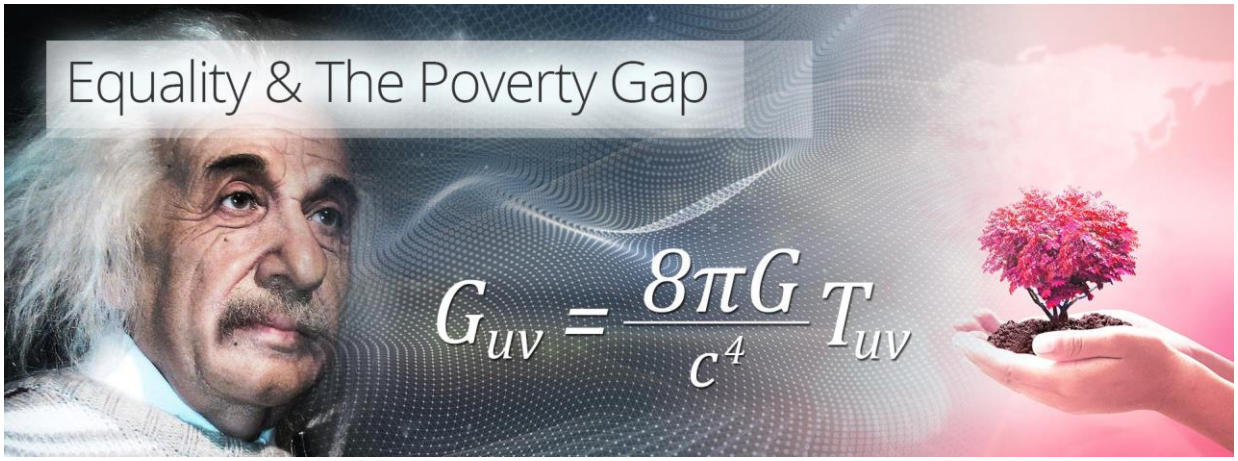
But, as noted, this scenario was not possible if all companies created were in the same industry. Whilst there is room for a Villa Secrets company in every town that sells real estate for over $1 million, there is a law of diminishing returns.

By 2032, the Green Symmetry showed 988 companies created. And whilst this is well within Villa Secret's reach (indeed it would be disappointingly low); when we follow the S-World UCS™ Lake Malawi Simulation, we see that by 2024, we have more than 10,000 companies. And by 2032, this is expanded to millions, as 'The GDP Game' leverages expectations to create a further 31 Grand Networks in locations of abject poverty. This is no small point and is the principal subject of Book 3. 'The GDP Game.'

By 2032, in addition to the Grand Networks in locations (previously) in abject poverty, I would like to see a financially comparable set of companies in rich locations, mostly virtual networks but some Grand Networks within the mix. Indeed, if the chapter 'String Theory for Extreme Macroeconomic Conditions' is to work, there must be a considerable S-World footprint able to ramp up production when needed in richer countries (countries with high GDP per Capita).

If we add over a million companies to the 988 seen at 2032 in the Green Symmetry (all with as much potential), the chances of the companies following the example to 2080 and becoming the major contributor to GDP now becomes a task that is within sight.

Relative Equality



The original paper, 'Relative Equality,' is found here: www.angeltheory.org/book/2-6/relative-equality. In this review, I give a quick description, some background, and an invitation to the theoretical physics community to contribute to the model.

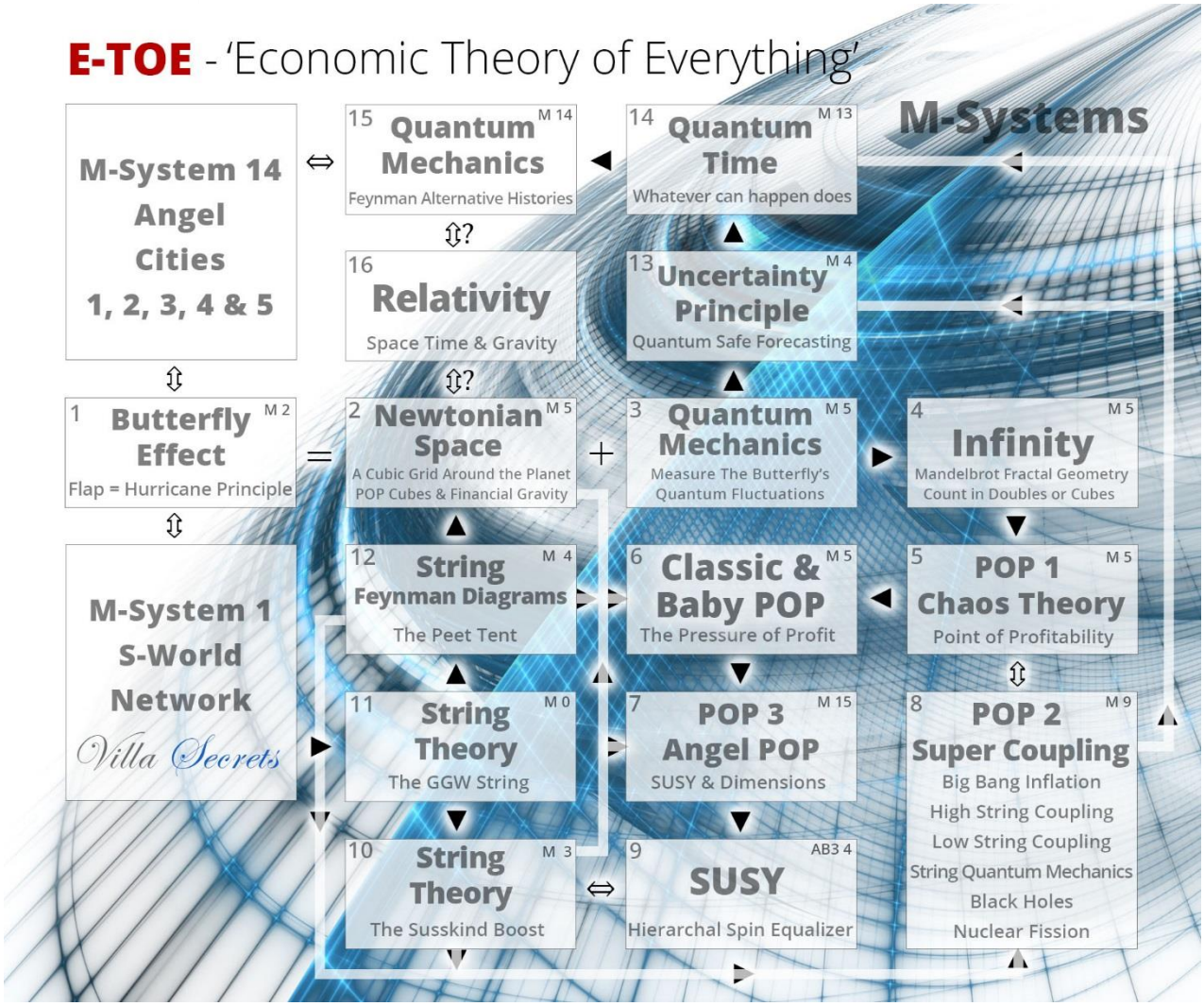
In 'Relative Equality,' I used a different and more deliberate method for seeking simulations, analogies, and metaphors. Until 2017, I had mostly worked the fun and inquisitive way, learning this and that, and finding solutions when they presented themselves.

Back in mid-2011, when I was first introduced to string theory as 'a leading contender for the theory of everything,' I had become fascinated with it for two reasons.

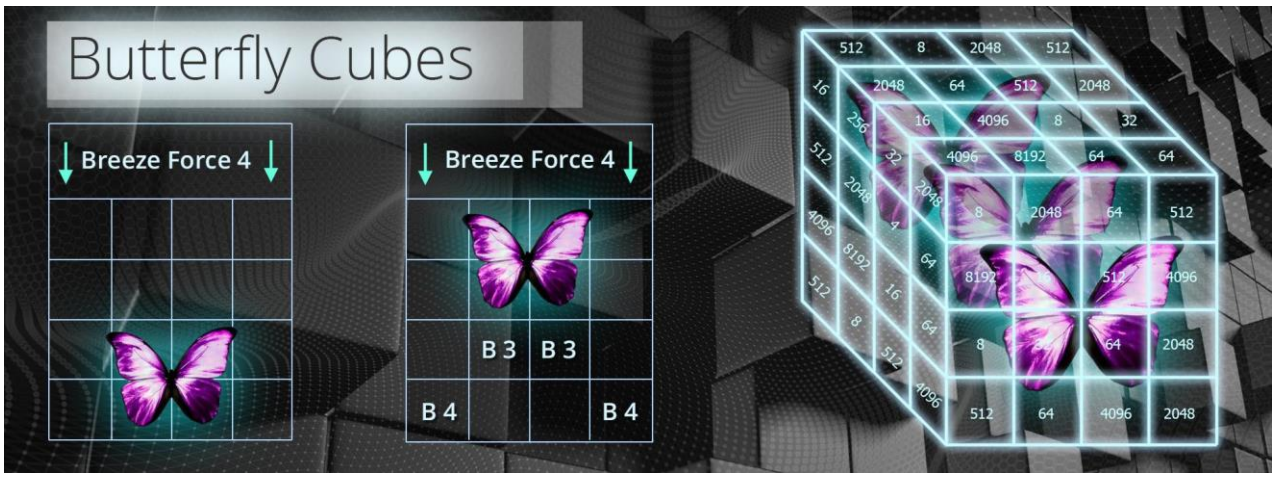
Firstly, the words 'a theory of everything' was the best way to describe the grand networking ideas rattling around in my head. And secondly, its name presented a thread of spirituality, something I really needed at the time, which would give me immense dedication and work rate.

So, when I first heard about string theory, I just launched straight into it. But before I came up with anything worth committing to paper, or (in fact) began to understand a single part of it, I came up with the 'chaos theory' rounding errors cubic POP solution; which I found out later had all of quantum mechanics, special and general relativity qualities, which made it a TOE simulation

all to itself, seen in Parts 1, 2, and 3 below.



In the picture below, we see the inspiration for the POP idea, as the butterfly is measured via the energy fluctuation that happens around it within a cube (something we obviously can't do, but if we could, it would need to be a quantum mechanics application). Where after, we picture that the cubes are everywhere (like general relativity), and so we would be able to measure the 'flap of a butterfly's wings' and know for sure if it did or did not set off a hurricane in Brazil or Texas.



For more on this thread, click this link: www.angeltheory.org/book/2-2/the-flap-of-a-butterflys-wings

From 2012 to 2017, I made reasonable headway with string theory and quantum mechanics; this metaphor and that were added to the collection which created this or that rule, law or application for the S-World Network.

However, when it came to 'relativity,' I still did not have a good idea of it in my mind that could supply any useful metaphors.

And whilst Witten's observation that in M-theory 'general relativity is for free,' meant I could theoretically create a theory of everything simulation just by using quantum mechanics and string theory, this was not a very satisfying answer.

So, on the 22nd and 23rd of August 2017, I downloaded the books 'Why Does E=mc2? (And Why Should We Care?)' by Brian Cox and Jeff Forshaw, mostly on special relativity; and 'The Ascent of Gravity: The Quest to Understand the Force That Explains Everything,' mostly on general relativity by Marcus Chown.

I did not make a whole load of headway, but one line from 'Why Does E=mc2? (and why should we care?)' put a picture in my mind. I don't have the chapter reference to refer to, but the basic idea was that of peaks and troughs in a landscape; to which I created the following graphic, but you need to imagine that there are a lot of steep valleys there as well.

The basic idea was that Einstein's relativity seeks to fill the valleys and smooth them mountains.

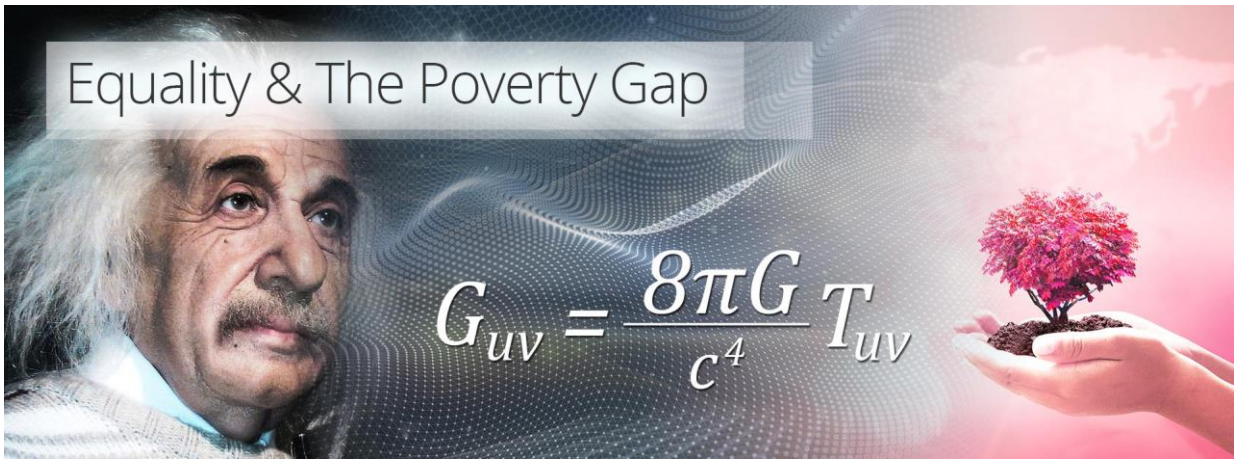
So, I took from Einstein that the smoothing out process should be 'simulated into economics'; as the poorest and most rich of people and countries should have their fortunes smoothed out, preferably by lifting the poor out of the valleys, and only smooth a little of the mountains; a rich stay rich, poor get richer, strategy.

As M-theory metaphors go, it's not rocket science, and maybe I am contouring the model to fit my desires, which is usually not a good ingredient says Hawking; but it was in keeping with what I

wanted from the network, so it stuck.

Einstein's contribution to the simulated economic theory of everything was to be equality, which I feel is fitting for such a great mind.

However, we are yet to see where POP and Financial Gravity will take us. Maybe, if I can explain it correctly, an instinctive general relativity expert can use it to solve the inflation problem, find more money multipliers, or something new entirely.



It was not a long time after writing the 'Relative Equality' chapter that the ideas for Lake Malawi Grand Network started to gain momentum. And I wonder, had I not written 'Relative Equality,' would the simulation have got so far? I doubt it.

We have now arrived at the end of the original chapter, but since completed in august 2018 I have some more incites relevant to Relativity, which in turn came full circle back to string theory and in particular an analogy for a quantum theory of gravity, which is a description of string theory.

These incite's are now retold near the begging of the second chapter. What follows is the same story, but this time instead of being written around Professors Stephen Hawking and Leonard Mlodinow's book The Grand Design, the article is structured around quotes from Dani Rodrik the Ford Foundation Professor of International Political Economy at Harvard University, Paul Krugman 2008 winner of the Nobel Prize in Economics, Giovanni Amelino-Camelia of the University of Rome La Sapienza who works on quantum gravity, Edward Witten the Charles Simonyi Professor of mathematical physics at the Institute for Advanced Study in Princeton who works on M-theory.

Part 2. A Quantum Theory of Macroeconomics

By Nick Ray Ball 11th October 2018

It has now been about a year since I wrote the original chapter on Einstein and Relativity, www.angeltheory.org/book/2-6/relative-equality. Which as explained above, was mostly a

playground for others to contribute to. However, recently, whilst looking at the seemingly unrelated problem of 2013 Nobel prize winner Eugene Fama's elegant 'efficient market hypotheses' that works most of the time, but when it fails it does so dramatically, most recently the 2007 - 2017 depression. Versus the 'saltwater New-Keynesian,' hypothesis, described by the 2008 Nobel prize winner Paul Krugman which advocates increasing demand during recessions, and if necessary, by government spending when interest rates are near zero. All wrapped up within the microeconomic field of behavioural economics as described by 2017 Nobel prize winner Richard H. Thaler.

To introduce Fama's work I present 'Nobel Confusion,' from 'Straight Talk on Trade,' by Dani Rodrik the Ford Foundation Professor of International Political Economy at the John F. Kennedy School of Government at Harvard University. Who will I expect to win his own Nobel at some later juncture?

Nobel Confusion.

When the 2013 Nobel Prize in economics, was awarded to Eugene Fama and Robert Shiller along with Lars Peter Hansen, many were puzzled by this section. Fama and Shiller are both distinguished and highly regarded scholars, so it was not their qualifications that raised eyebrows, what seemed odd was that the committee had picked them together.
The two economists seemed to hold diametrically opposed views on how financial markets work. Fama the University of Chicago economist is the father of 'the efficient market hypothesis,' the theory that asset prices reflect all publicly available information with the implication that it is impossible to consistently beat the market. Shiller the Yale economist meanwhile spent much of his career demonstrating that financial markets work poorly, they overshoot, are subject to bubbles, sustained rises in asset prices that cannot be explained by fundamentals and are often driven by behavioural rather than rational forces.

Could both be right? Was the Nobel committee simply hedging its bets? We can't read the jury's mind, but its selection highlighted a central feature of economics and a key difference between it and the natural sciences. Economics deals with human behaviour which depends on social and institutional context, that content, in turn, is the creation of human behaviour, purposeful or not. This implies that propositions in economics are typically context-specific rather than universal.
The best and most useful economic theories are those that draw clear causal links from a specific set of contextual assumptions to predicted outcomes. So financial markets behave sometimes like Fama's theory and sometimes like Shiller's.
The value of their respective theories is that they discipline our understanding of what type of financial market behaviour to expect under specific conditions. Ideally, they also help us choose which model/theory we should apply in a particular conjuncture, although this happens rarely.

Aptly the third Nobel laureate Lars Peter Hansen was given his prize for devising statistical techniques to test whether markets behaved in a fully rational fashion.

Nick Ray Ball:
So, on one side we have Eugene Fama and his efficient market hypothesis and its protogenos, and on the other side Robert Shiller and others refuting the hypothesis, and the Nobel committee seeing that they are two different pillars of the same economic framework, and suggesting that the statistical techniques developed by Lars Peter Hansen may somehow unify the two.

Forwarding to 'Straight Talk on Trade,'
Chapter 6. The Perils of Economic Consensus
(Condensed)

Dani Rodrik:
Economists understand well the theoretical and empirical predictions of say; Fama's or Shiller's models, but they lack systematic tools to determine conclusively whether it is one or the other that best characterizes Wall Street today, or mortgage markets in 2007 for example. When they engage the real world this leads them to ~~render universal judgement rather than conditionally~~ pick~~ing~~ one model over the other instead of navigating among them as the circumstances require.
The profession places a large premium on developing new models that shed light on an as yet unexplained phenomenon, but there seems little incentive for research that informs how appropriate models and remedies can be selected in specific contexts.

My colleagues and I have brought such ideas to bear on problems of growth policy in developing countries, but clearly, this ought to be part of a much more general research agenda. This is particularly true in macroeconomics where the time series data are open to diverse interpretation. Those with strong priors in favour of financial market efficiency such as Eugene Fama for example can continue to absolve financial markets from culpability for the crisis, laying the blame elsewhere. ~~Keynesians and classical economists can continue to disagree on the interpretation of high unemployment.~~

~~Continued…~~

It should be no surprise therefore that economics has never been short of critics. Its practitioners have been accused of a variety of sins. The charges including hubris, neglect of social goals beyond incomes, excessive attention to formal techniques and failure to predict major economic development such as financial crisis, have usually come from outsiders, or from a heterodox fringe. But lately, it seems that even the fields leaders are unhappy.

Paul Krugman a Nobel laureate who also writes a newspaper column for the New your Times has made a habit of slamming the latest generation of models in macroeconomics for neglecting old-fashioned Keynesian truth. Paul Romer, who has recently won the 2018 Nobel Prize for Economics, one of the originators of new growth theory has accused some leading names including the Nobel laureate Robert

Lucas of what he calls mathiness, using math to obfuscate rather than clarify. Richard H. Thaler who won the 2017 Nobel Prize for Economics, a distinguished behavioural economist at the University of Chicago has taken the profession to task for ignoring real-world behaviour in favour of models that assume people are rational optimizers.

Nick Ray Ball:
Note that each of the above Nobel winning economists, Krugman, Romer, and Thaler each have a specific chapter attributed to them. Chapter 4. The ŔÉŚ Equation for Paul Krugman, Chapter 5. Charter Cities for Paul Romer, and Chapter 6. S-World BES™ – Behavioral Economic Systems, Richard H. Thaler.
(Note chapter number may change)

This kind of critical examination by the disciplines big names is healthy and welcome especially in a field that is often lacked much self-reflection. But there is a disconcerting undertone to this new round of criticism that needs to be made explicit and rejected. Economics is not the kind of science in which there could ever be one true model that works best in all contexts (See Ed Witten Elephant story shortly).

The point is not to reach a consensus about which model is right, but to figure out which model applies best in a given setting and doing that will always remain a craft or art in Keynes terms, not a science especially when the choice must be made in real-time.

If capitalism is to survive it must be redesigned to address the multiple challenges of globalization inequality, both national and global, rapid technological change, climate change, and democratic accountability under which it (reals) at present.

Before we move back to the physics of things, I wish to present an extract from 2008 Nobel prize winner Paul Kruger book 'End This Depression Now!' which lets us see that the disagreement about the efficient market hypothesis is way uglier than the 'God does not play dice with the universe,' (Einstein) and the 'stop telling God what to do,' (Bohr) spat between Albert Einstein and Niels Bohr re the correctness of quantum mechanics.

End This Depression Now!

By Paul Krugman

CHAPTER SIX - DARK AGE ECONOMICS

Whispers and Giggles

In 1965 Time magazine quoted none other than Milton Friedman as declaring that "we are all Keynesians now." Friedman tried to walk the quotation back a bit, but it was true: although Friedman was the champion of a doctrine known as monetarism that was sold as an alternative to Keynes, it wasn't really all that different in its

conceptual foundations. Indeed, when Friedman published a paper in 1970 titled "A Theoretical Framework for Monetary Analysis," many economists were shocked by just how similar it looked to textbook Keynesian theory. The truth is that in the 1960s macroeconomists shared a common view about what recessions were, and while they differed on the appropriate policies, these reflected practical disagreements, not a deep philosophical divide.

Since then, however, macroeconomics has divided into two great factions: "saltwater" economists (mainly in coastal U.S. universities), who have a more or less Keynesian vision of what recessions are all about; and "freshwater" economists (mainly at inland schools), who consider that vision nonsense.

Freshwater economists are, essentially, laissez-faire purists. They believe that all worthwhile economic analysis starts from the premises that people are rational and that markets work, premises that exclude by assumption the possibility of an economy laid low by a simple lack of sufficient demand.

But don't recessions look like periods in which there just isn't enough demand to employ everyone willing to work? Appearances can be deceiving, say the freshwater theorists. Sound economics, in their view, says that overall failures of demand can't happen—and that means that they don't.

Yet recessions do happen. Why? In the 1970s the leading freshwater macroeconomist, the Nobel laureate Robert Lucas, argued that recessions were caused by temporary confusion: workers and companies had trouble distinguishing overall changes in the level of prices because of inflation from changes in their own particular business situation. And Lucas warned that any attempt to fight the business cycle would be counterproductive: activist policies, he held, would just add to the confusion.

I was a graduate student at the time this work was being done, and I remember how exciting it seemed—and how attractive its mathematical rigour, in particular, was to many young economists. Yet the "Lucas project," as it was widely called, went quickly off the rails.

What went wrong? The economists trying to provide macroeconomics with micro-foundations soon got carried away, bringing to their project a sort of messianic zeal that would not take no for an answer. In particular, they triumphantly announced the death of Keynesian economics without having actually managed to provide a workable alternative. Robert Lucas, famously, declared in 1980—approvingly!—that participants in seminars would start to "whisper and giggle" whenever anyone presented Keynesian ideas. Keynes, and anyone who invoked Keynes, was banned from many classrooms and professional journals.

Yet even as the anti-Keynesians were declaring victory, their own project was failing. Their new models could not, it turned out, explain the basic facts of recessions. Yet

they had in effect burned their bridges; after all the whispering and giggling, they couldn't turn around and admit the plain fact that Keynesian economics was actually looking pretty reasonable, after all.

So, they plunged in deeper, moving further and further away from any realistic approach to recessions and how they happen. Much of the academic side of macroeconomics is now dominated by "real business cycle" theory, which says that recessions are the rational, indeed efficient, response to adverse technological shocks, which are themselves left unexplained—and that the reduction in employment that takes place during a recession is a voluntary decision by workers to take time off until conditions improve.

If this sounds absurd, that's because it is. But it's a theory that lends itself to fancy mathematical modelling, which made real business cycle papers a good route to promotion and tenure. And the real business cycle theorists eventually had enough clout that to this day it's very difficult for young economists propounding a different view to get jobs at many major universities. (I told you that we're suffering from runaway academic sociology.)

Now, the freshwater economists didn't manage to have it all their way. Some economists responded to the evident failure of the Lucas project by giving Keynesian ideas a second look and a makeover. "New Keynesian" theory found a home in schools like MIT, Harvard, and Princeton—yes, near salt water—and also in policymaking institutions like the Fed and the International Monetary Fund. The New Keynesians were willing to deviate from the assumption of perfect markets or perfect rationality, or both, adding enough imperfections to accommodate a more or less Keynesian view of recessions. And in the saltwater view, active policy to fight recessions remained desirable.

That said, saltwater economists weren't immune to the seductive lure of rational individuals and perfect markets. They tried to keep their deviations from classical orthodoxy as limited as possible. This meant that there was no room in the prevailing models for such things as bubbles and banking-system collapse, despite the fact that such things continued to happen in the real world. Still, economic crisis didn't undermine the New Keynesians' fundamental worldview; even though they hadn't thought much about crises for the past few decades, their models didn't preclude the possibility of crises. As a result, such New Keynesians as Christy Romer or, for that matter, Ben Bernanke were able to offer useful responses to the crisis, notably big increases in lending by the Fed and temporary spending hikes by the federal government. Unfortunately, the same can't be said of the freshwater types.

At a truly basic level, saltwater–freshwater is about pragmatism versus quasi-religious certainty that has only grown stronger as the evidence has challenged the One True Faith.

And the result was that instead of being helpful when crisis struck, all too many economists waged religious war instead.

Ok, so that's some colourful language alright, which reminded me of Einstein's later years and his quest to find the theory of everything, which was doomed to failure as he would not accept quantum mechanics. It also sounds like Einstein's initial refusal to accept black holes as a part of

general relativity, his own theory. The similarity between not accepting black holes in physics and not accepting recensions in economics is glaring, well to me at least.

But what can I learn from this?

Well, one thing is that there are often two sides to each story. And in general, one should try and allow for both sides. I have not heard Paul Krugman say the efficient market hypothesis should be dismantled, his interpretation is that it should be used when suitable; but when not suitable, such as when in a recession or predicting for a recession, we swap to an opposing model.

Without a doubt that is what Harvard Professor Dani Rodrik is saying:

> *The point is not to reach a consensus about which model is right but to figure out which model applies best in a given setting*

Now that some of the relevant economics has been shared, we shall journey into physics, and a quote from Professor Giovanni Amelino-Camelia, the first proposer of doubly special relativity.

Spacetime

By Professor Giovanni Amelino-Camelia

When you're stuck chasing a certain answer, you often discover that all it took to find the answer was to look at the same problem from a different angle.

Let me start with one of my favourite theoretical physics stories, by the Jose Mourinho of physics - Giovanni Amelino-Camelia, and the Horizon documentary How Small is The Universe. Which I have paraphrased. And note that when Giovanni says as an ordinary person, this is relative to the audience of the documentary, who are assumed to have some basic knowledge about Einstein's concept of spacetime.

> Giovanni:
> Ask an ordinary person what is spacetime? And he has no answer!
> He will say spacetime is… err… (pause)
>
> So do you understand what I am trying to say? The challenge is that I don't have anything to work with, because the person who listens to me, thinks he knows spacetime very well, but then if I asked, 'what is spacetime?' He would have no answer!
>
> Spacetime they think they know very well what it is, for God sake, spacetime… 'you know.' But 'you know' is all they can say! (chuckle).

So, your audience, is the worst because they think they know a lot about this subject, but they know nothing, completely nothing, (chuckle) you see what I'm trying to say? It's very tricky.

Narrator:
If we have any notion of spacetime it is that it is smooth, we can move smoothly, from one place to another, can be reasonably sure how long a journey will take.

But maybe not, if you get small enough. The ultimate small destination is known as the Planck length, it is the theoretical limit of how small anything can possibly be.

Giovanni:
Some speculate that this could be the ultimate level, that this could be where the laws of nature are fundamentally written.

Narrator:
But to get to the Planck length you have to look a hundred-million-billion times smaller than a quark *(which is in itself, a very small particle to begin with)*. At this tiniest of scales, we may find answers not just about the smallest lump of stuff but about the very nature of space and time in which all the stuff sits.

Giovanni:
What could be conceptually more fascinating than learning about the structure of spacetime? But our current theories with all their limitations suggest that at this Planck scale that we are talking about, we should expect spacetime to be not smooth as we presently imagine but more like the foam of a cappuccino.

Narrator:
The Planck length is where the rules of the large and the small collide in a heady brew called quantum gravity. It's a sieving tempest of space and time know as space-time foam, where the very fabric of space and time, twist and turn in every direction.

It is where the two great pillars of modern physics general relativity and quantum mechanics may finally be reconciled.

If we could understand what is happening down here we could end up with a theory of everything.

Giovanni:
We are really far, far away from this realm, and yet some of the most conceptually striking questions about how is the universe made, what are its basic rules, appear to reside in this distant scale, so on one side we have this feeling of not having any access to it, and yet it appears to be the place where most of the answers we are seeking are somehow hidden.

But…

Giovanni:
When you're stuck chasing a certain answer, you often discover that all it took to find the answer was to look at the same problem from a different angle.

Giovanni Amelino-Camelia, BBC Horizon documentary: How Small is The Universe.

So, what can we take from this?

First let's consider preconception's, and Giovanni's hilarious sentence:

So, your audience, (BBC Horizon) is the worst because they think they know a lot about this subject, but they know nothing, completely nothing, (chuckle) you see what I'm trying to say? It's very tricky.

From a behavioural economics perspective, there is an analogy here, as Richard H. Thaler informs us that a problem with economics is that traditional economists assume that that the public at large are experts, when they are not, and in fact when it comes to things like the efficient markets hypothesis and austerity, according to Paul Krugman most people, and definitely myself back in 2011 knew nothing, completely nothing. See the section 'It's not what you don't know that kills you, it's what you know for sure that ain't true.' In chapter 4. The ŔÉŚ Equation for more on this thread. For now, I will present a quick segment from Richard H. Thaler on 'traditional economists assuming that the public at large are experts when they are not.

"Economics is supposed to be a theory of everyone, not only experts. For example, an expert billiard player might play as if he knows all the relevant geometry and physics, but the typical ball player usually aims at the ball closest to a pocket and shoots, often missing.

If we are to have useful theories about how people shop, save for retirement, search for a job or cook dinner, those theories better not assume that people behave as they were experts.
We don't play chess like a grand master, invest like Warren Buffet or cook like an iron chef, not even 'as if!'
It's more likely that we cook like Warren Buffet."

Misbehaving: The Making of Behavioral Economics
Richard H. Thaler

Einstein's Relativity and the Fama Efficient Market Hypothesis.

Now, before I continue, I need to note that Einstein's genius is not in doubt, special relativity and general relativity still hold today as one of the two pillars of modern-day physics, alongside quantum mechanics. However, like many, from Srinivasa Ramanujan to Pelé, to Usain Bolt they did their best work before the age of 40. No one would expect a 60-year-old Pelé could still play for Brazil and no one should expect arguably the words greatest mind Albert Einstein to keep making eureka discoveries.

So, with this said, I wish to describe an analogy between Einstein's general relativity and Eugene Fama's efficient market hypothesis. In that, both are good models that are both smooth and elegant. Or more to the point when created, and for the first few decades Einstein, Fama and the mass of physics and economists who championed the theories believed them to be both smooth and elegant, ~~and because they were so, they, like Einstein felt they were on their way to a theory of everything.~~

Fortunately, the research into general relativity is substantially greater than the efficient market hypothesis, so we may use what we learned from the evolution of general relativity since 1916 to assist us with the efficient market hypothesis?

I think we can, let's consider the efficient market hypothesis as similar to general relativity, in that they are both pillars of their respective fields. And in fact with no current quantum mechanics argument for the efficient market hypothesis, one may say that the efficient market hypothesis is considered not one of two pillars, but instead just a single pillar, or at least this was the case for most economists up to 2008.

So let's talk about 2008, what happened that year, and the 10 years that followed which say Paul Krugman and others were tragic, unnecessary and avoidable. From a mathematical perspective, there is now strong evidence to suggest that something was missing from the efficient market hypothesis. In much the same was that something was missing from general relativity when Einstein first presented it.

We know now that the item missing was quantum mechanics, and we have heard earlier in the

very first paragraph in this chapter: "String Theory is the branch of theoretical physics that unifies the jittery and uncertain discipline of quantum mechanics with the predictable and smooth General Relativity (Einstein's Theory of Gravity)."

We are looking at general relativity and quantum mechanics and seeking to make an analogy, or better a set of variables for a simulation of the efficient market hypothesis in which we can apply new Keynesian economics, behavioural economics and other variations to a larger economic framework, which I call S-World Angelwing.

On this point one brief quote from Dani Rodrik

> So, we have 'one economics – many recipes' as the title of one of my books puts it. Unlike the natural sciences, economics advances not by newer models superseding old ones, but through a richer set of models that sheds ever brighter light on the variety of social experience.
>
> or
>
> Economics unlike the natural sciences rarely yields cut and dried results, economics is really a tool kit with multiple models each a different stylised representation of some aspect of reality. The contextual nature of its reasoning means that there are as many conclusions as potential real-world circumstances. All economics propositions are 'if then' statements, one's skill as an economic analyst depends on the ability to pick and choose the right model for the situation. Accordingly figuring out which remedy works best in a particular setting is a craft rather than a science.
> 'Straight Talk on Trade' by Harvard Professor Dani Rodrik

I AM HERE:

Black Holes

1. Black Holes
    a. Einstein says no
        i. Others say yes, and were right, including Hawking
    b. Some say Einstein's theory is incomplete, I say it was not fully developed
        i. As Einstein did not include quantum mechanics
    c. We can analogise this to Farmers efficient market hypothesis being equally undeveloped
2. Professor Edward Witten's M-Theory Elephant analogy

~~Economics unlike the natural sciences rarely yields cut and dried results, economics is really a tool kit with multiple models each a different stylised representation of~~

~~some aspect of reality. The contextual nature of its reasoning means that there are as many conclusions as potential real-world circumstances. All economics propositions are 'if then' statements, one's skill as an economic analyst depends on the ability to pick and choose the right model for the situation. Accordingly figuring out which remedy works best in a particular setting is a craft rather than a science.~~
~~'Straight Talk on Trade' by Harvard Professor Dani Rodrik~~

Professor Edward Witten's M-Theory Elephant analogy

i. Similar to Hawking's Mercator projection map theory from chapter 2

b. Let's say the tusk is the efficient market hypothesis, which is both elegant and powerful, but has a destructive characteristic that in certain circumstances can destroy the elephant, as it is hunted and killed for its ivory by bad people.
    i. And for the Krugman saltwater Neo-Keynesian 'theory of increasing demand' I will assign the elephants trunk because it can satisfy demand by grabbing a bunch of leaves, so long that is that there are leaves to grab.
    ii. And in the middle, I will assign the elephants-face to behavioural economics.
        1. The other two areas will be assigned later to this theory or that and indeed there will be thousands upon thousands of ideas that are relevant in particular circumstances that need to be entangled into the model
c. For now, we will just focus on the tusk, trunk and face.
    i. The area that is common to all is the face, the behavioural economics.
        1. In the case of the efficient market hypothesis, no one is now denying that behavioural economics should be applied in the correct situation,
        2. In the case of 'theory of increasing demand' behavioural economics also star as the risk of bond vagilities and other such variables are a significant factor.

d. Dani Rodrik

The Hedgehog and the Fox.

Unfortunately, economists and other social scientists get virtually no training in how to choose among alternative models, neither is such an aptitude professionally rewarded. Developing new theory and empirical tests is regarded as science while the exercise of good judgement is clearly a craft.

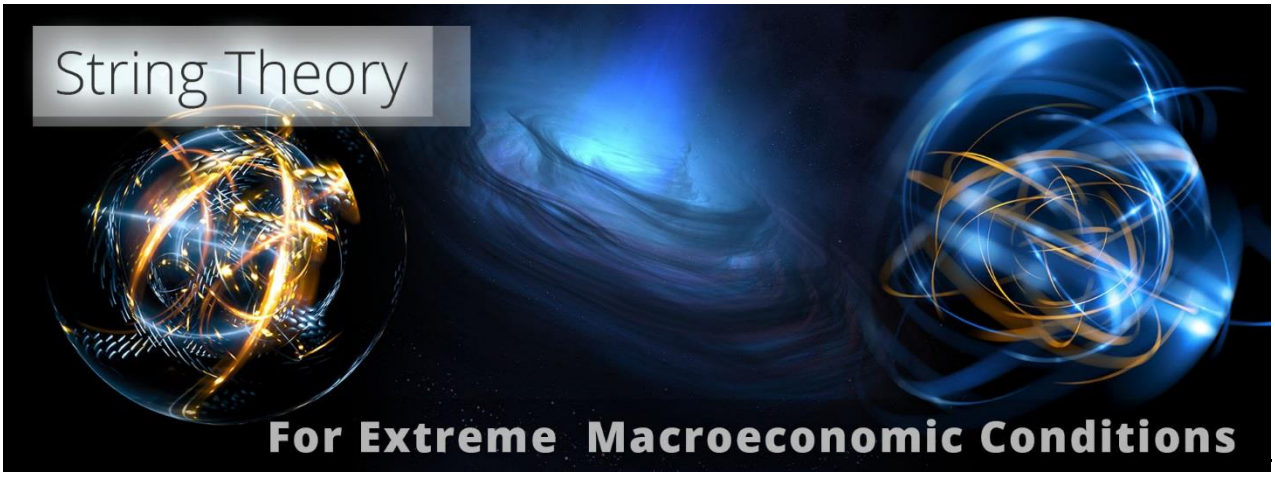
The philosopher Isaiah Berlin famously distinguished between two styles of thinking which he identified with the hedgehog and the fox. The hedgehog is captivated by a single big idea which he applies unremittingly, the fox by contrast lacks a grand vision and holds many different views about the world, some of them even contradictory. We can always anticipate the hedgehogs take on a problem, just as we can predict that market fundamentalists will always prescribe a freer market regardless of the nature of the economic

problem. Foxes carry competing, possibly incompatible theories in their heads, they are not attached to a particular ideology and find it easier to think contextually. In the terminology of Daniel Drezner foxes are thought leaders while hedgehogs are the true public intellectuals. Scholars who are able to navigate from one explanatory framework to another as circumstances require are more likely to point us in the right direction. The world needs fewer hedgehogs and more foxes.

3. Money
    a. So, with behavioural economic the obvious common denominator, we consider it further, and we consider that as people we are unpredictable.
        i. But as we are simulation to economics, the focus should be on how people spend their money, and how companies they work for or own spend their money.
        ii. So, in fact, we are talking about how money is spent
        iii. Which of course comes back to the M-System 0 The GGW (Green, Greene, Witten) string, which says that in S-World money is the string (in string theory) which as we saw at the begging of this chapter is the theorised connection that can unify general relativity and quantum mechanics in The Peet Tent example.
4. A Quantum Theory of Macroeconomics.
    a. So, since 2012, and American Butterfly I have been finding ways to trach the money within a network, an exercise I called 'quantum economics.'
        i. But only recently has it all come together
    b. In perfect quantum economics one must be able to record all money transactions, who spent what on what, when and why, (albeit the why is not essential just useful). Which of course sounds like the type of society that many would not want, and if they did it would be a long way in the future.
    c. Not if you create a new economy from scratch, and that's really what S-World is a new economy.
    d. The RES Equation
    e. It's all about demand
    f. Sienna Equilibrium
    g. Half money is spent by companies spend on materials and parts to make more complex manufacturing items, build houses and make cars. Which are then bought by the consumers who have the other half of the money
        i. Consumers are
            1. The Government
            2. The Inventors
            3. The Personnel
            4. Tell the story
    h. Law of conservation of revenue Spin

i. Let's see Spin 8 95% and Spin 100 E:100% for some numbers that make the exercise economic if starting with a cash injection equal to a countries GDP was not already macroeconomic

5. Stimulus
    a. RES is a much better stimulus relative to current fiscal policy, we could run a country on Spin:25 E:100% indefinitely, but that is irresponsible, instead, a moderate level will be set, but don't get me wrong-a moderate level of Spin and E in a quantum economic country is still far stronger that the strongest ever performance (17% in Japan around 1965) from non-quantum economics.
        i. And we can use spin and higher E when there is a need for demand and scale back in the times of plenty.
6. So, creating an economic theory of everything, or at the least a theory of more than we know now! Inspired by String and M-theory systems.



Add to:

- Business spending per the TBS
- S-World Angelwing
    - VSN + UCS makes for a lot of data
    - VBN business spending outside the network
    - Add all economic models
    - Government spending and tax recites
    - UK Start as its systems suck so bad
    - Any Government Stimulus, using current fiscal and monetary policy, needs to trigger an automatic system that sees the pre-stimulus debt to GDP ratio resorted, or improved upon. But of course, this is not so easy, as same or new governments can repeal any such automated actions, for wars or other emergencies and sometimes they might do so just to gain or stay in power. This is the big problem I have with stimulus spending in the prescription laid out by Krugman and other saltwater types.
      The same problem of recessions and stimulus is however a very different affair in super-macroeconomics, as one only needs to increase the E and S in the RES Equation, losing some R, but this is not a problem in 1 to 3-year bursts.

7.

Rodrik Quotes

Perhaps today's developing countries can still get there, even though they will necessarily take a different road.

Let me draw an analogy with economic reform, it was Alexander Gerschenkron's enduring incite that latecomers in the economic development game would have to rely on institutions quite a bit different from those that worked well in early industrializers. This incite has been vindicated time and again in the developing world. Economic growth miracles happen not where policy makers slavishly copied policies and intuitional arrangements from the West but where they crafted new arrangements more appropriate to their conditions.

>

Economics is not a set of pre-determined conclusions or policy prescriptions, but a highly context-specific discipline that provides only contingent answers. There is virtually no question in economics to which 'It depends,' is not an appropriate answer. Of course, the strength of economics is that we can usually tell 'what it depends on.'

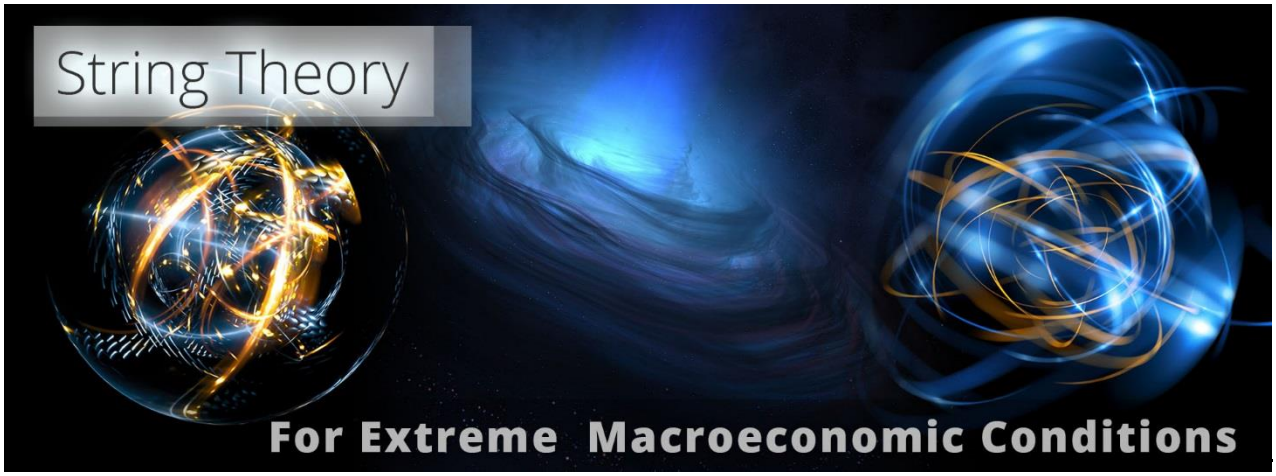
>

Audible Chapter 12 – 45.18 – The Bricks

Skill and capital-intensive technologies are the leading culprits behind the rise in inequality since the late 1970s. By all indications this trend is likely to continue, it will produce levels of inequality that are historically unprecedented threatening severe social and political conflict.

It doesn't have to be this way!

With some creative thinking and institutional engineering, we can save capitalism from itself, once again. The key is to recognize that disruptive new technologies produce large social gains and private losses simulations. These gains and losses can be repackaged in a manner that benefits everyone. Just as with the earlier reinvention in capitalism there is a large role for the state here.



Angel Theory – Volume 1 – Paradigm Shift

A More Creative Capitalism

Part 1. A Good Model

Chapter 4. The ŔÉŚ Equation

By Nick Ray Ball 11th August 2018

Is ŔÉŚ A Good Model?

The Law of Conservation of Revenue

In this chapter, we mostly look at the original RES presentation, created before Chapter 5; which presents the model in more detail and via a simpler spreadsheet that focuses on comparative advantage and the principle by 2008 Nobel winning economist Paul Krugman, **'my spending is your income and your spending is my income.'**

In this later model found on the spreadsheet, 'ŔÉŚ and The Sienna Equilibrium,' I have satisfied to my own satisfaction that we can use the 'Law of Conservation of Revenue' by creating an economy in which close to half are consumers of the goods of others in the economic network, and half are creators of goods who sell to the economic network.

So that if the economy started with $5 billion and 95% of spending was to another company or individual in the network, where generous credits are given to labour and government who in turn spend 95% of their credits on one or another network company or individual; then at the end of

the year, the network of individuals, government, and companies would retain 95% of the $5 billion in cold hard cash.

So in year 2, the economy starts with $5 billion x 95% = $4.75 billion, and so only needs to create an additional income of $250 million.

Which may sound like a lot. However, the Charter City model presented in Chapters 4 and 5 shows potential earnings in AOGA surplus trade, aid, Real Estate, Network Cities, and sales outside the network in the country. The network is in the tens of billions, and we could realistically expect maybe 20% of this potential realised, which is closer to the initial $5 billion, not the $430 million needed to replenish the 5% of spillage from the first year's operations.

Now, let's see what ŔÉŚ is in the above scenario.

Ŕ is for Initial Ŕevenue, which in 2024 is the $5 billion investment, or in 2025 is the conserved balance of the 2024 Initial Ŕevenue of $4.75 billion, plus the earnings from AGOA, Aid, Real Estate, Network Cities, and Malawi.

É is for Efficiency which is the amount of Initial Ŕevenue that gets spent via 'network credits' on other network companies, personnel, and government. In the case above, É was 95%.

Ś is for Śpin. In the scenario above, Ś equals 1 (or it may be 0 but I will say 1 for now). The 1 represents the transfer of 95% of Initial Ŕevenue via 'my spending is your income and your spending is my income,' via companies, personnel, and government once within a year, from one to the other.

Critical to Spin is the 'Sienna Equilibrium (or is sometimes called Symmetry)' which creates the right balance so that after each Spin, the 'my spending is your income and your spending is my income' can continue.

On this, I present a useful quote from Paul Collier's 'The Plundered Planet.'

In the simplest economies, everything is sustainable, the economy remains exactly the same from one year to the next. This is not a world we should necessarily aspire to if everything stays the same that includes the desperate poverty of the bottom billion. Nor is it now feasible, those non-renewable assets are gradually running out, but in such an economy the natural world reproduces itself year in year out and keeps precisely the same value.

The quote, 'in such an economy the natural world reproduces itself year in year out and keeps precisely the same value,' basically describes an E of 100%, and no additional earning. I like it because it reinforces the idea that in developed economies, R stays much the same. The USA makes close to the same each year plus a little growth, so do nearly all economies. This is because of national borders and most spending is spent locally; and whatever trade there is, rightly balances. What the network and RES try to do is replicate standard western economies, but for a network of companies + individuals and government, not the whole country.

This (of course) raises antitrust arguments, and I have a long list of rebuttals. But none so simple as that the network (over time) will spread country wide; and even before that, it just does so much good that the antitrust argument is catastrophic to the people of the country. Also, the network is mostly owned by those that work for it. So, if it is a monopoly, it is owned mostly by the people, and its only desire is to grow so it can help more.

If, however, the moral and human argument does not satisfy, and one desires legal precedent, then think SpaceX, Virgin Orbit, and likely thousands of other big companies that have an effective E of 90% or more. SpaceX makes over 90% of the components that make their rockets and have internal services and other concerns, and no one is saying they are a monopoly for doing so. So, consider S-World Malawi, not as thousands of medium and small companies, but just one company, that instead of being public (not that SpaceX is) and owning profits and ownership to global citizens, companies, and hedge funds; sees a private company with ownership mostly within. That just like SpaceX and others, makes over 90% of the items it eventually sells. To say the S-World plan at an E of 90% would be a monopoly, would be to say that SpaceX and other clever businesses that use the same model are also monopolies, and no one is saying that.

And let's remember, NASA used 3 million different components in some of their rockets; whereas now, SpaceX can make just the same rocket, in fact, better, with fewer parts. And instead of NASA being a well-funded government program, with more rocket assemblers, soaring from over 10,000 different companies. Now, SpaceX can make the rocket a whole lot cheaper and create 90% of the parts in-house. So, SpaceX is not only a relevant model in terms of 'is S-World Malawi' a monopoly due to 'E, but' SpaceX also shows that this model, from a profit perspective, is a very good one.

I hope that 'antitrust' aside, the **'my spending is your income and your spending is my income'** model is correct. As this alone, given the additional potential in 2025, is far more massive compared to the R lost to the 5% spillage of E.

Good, ok. Let's now, for the sake of argument, say that we gain an additional $5 billion in IR from AGOA, Aid, Malawi and Real Estate, Network Cities' What happens in 2026 if E remains at 95%?

Ok, so the original R spun over from 2024 to 2025 is $4.75 billion; this we now must multiply by 95% again so about $4.51 billion spins over to 2026. But we also have to add the 2025 AGOA trade, above Ťender priced sales (two price system), Aid, sales to non-network Malawi and sales of Real Estate and Network Cities' etc. Revenue which could easily make another $5 billion in Initial Ŕevenue which at 95% would be another $4.75 billion, which we add to the $4.51 billion making $9.26 billion. And this would happen each year, adding the Ŕ from the previous year to new Income x 95% equals the next year, and we see a sharp and steady increase year on year.

Pretty cool, hey!

But what if instead of spinning just once a year, one span 4 times, or 8 or 16 or…?

I will continue this article in Chapter 12 'ŔÉŚ and The Sienna Equilibrium.' For now, I am circling back to two previous articles on ŔÉŚ that tell the multiple spin story.

Note that whilst I am certain that we can use ŔÉŚ and the law of Conservation of revenue, as proposed so far in this chapter; where as I am only almost certain that we can use RES with a Spin greater than one, as is presented in the rest of this chapter and continued in Chapter 12.

By Nick Ray Ball 11th August 2018

The ŔÉŚ Equation

Ŕevenue x Éfficiency x Śpin

To make the letters RES stand out when seen individually in a sentence, I have added accents to them, making ŔÉŚ:

'Ŕ' is the initial Ŕevenue
Investment, revenue from trade, revenue from selling real estate from single properties to Network Cities to persons, companies, organizations, funds, and governments outside of the network.

'É' is the Éfficiency of a company within the network (I)
The amount of leakage from one company to the rest of the network. For example, if company 'A' paid all its liabilities and 90% of that spending was to other S-World companies or personnel, É would be 90% plus taxes.

or

'É' is the Éfficiency of a company within the network (II)
The amount of leakage from one company to the rest of the network. For example, if company 'A' paid all its liabilities including government tax contribution via Network Credits and 90% of that spending was to other S-World companies or personnel, É would be 90%.

'Ś' is ŚPIN
'The amount of money that is spent and re-spent within the network economy within a year (similar in effect to the Keynes income multiplier, but on all revenue, not just deficit spending).

Used in combination per the Super Grand Network - Malawi Simulation, ŔÉŚ can increase the money supply by as much as 24 times or more if ŚPIN is higher than 24. So that $1 billion Revenue

creates $24 billion in cash flow. And further, that the 'Law of Conservation of Ŕevenue,' when Éfficiency is 100%, sees that whatever Ŕevenue one has at the beginning of one year, is added to the total Ŕevenue of the next!

I know, it seems utterly ludicrous. But for the life of me, I can't see an error. Can you?

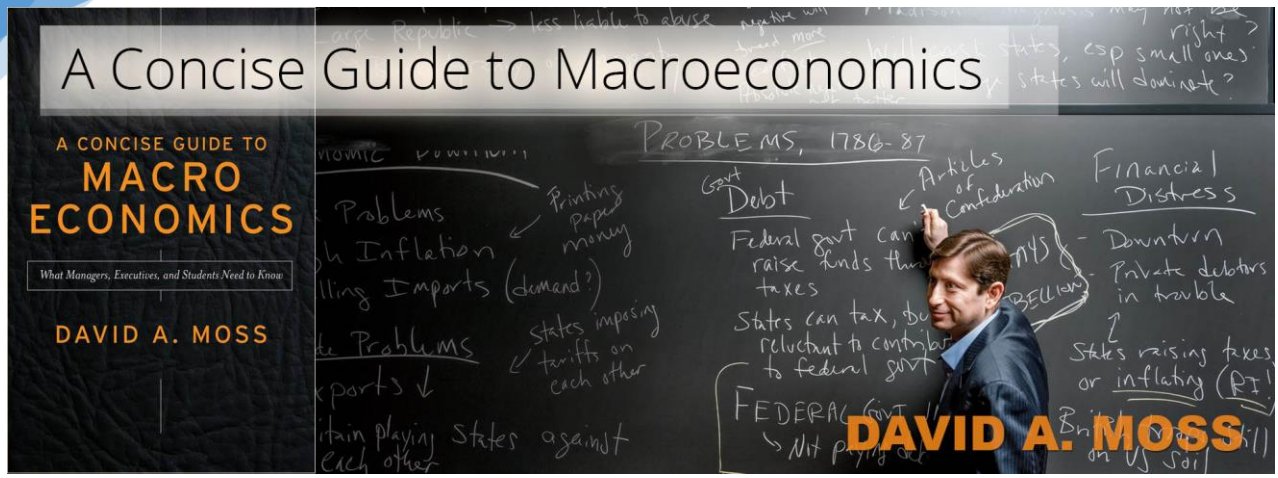
By mid-June 2018, I was facing up to the idea that ŔÉŚ must be wrong. Despite its 6 years of evolution and despite myself not finding any problems with the math, I thought it was wrong because there are said to be 'no free lunches' in economics. Over history, this and that economist has claimed to find a loophole in the system and a 'free lunch.' But at first glance, for every incidence, there is a well-reasoned rebuke.

So, with not one but two free lunches, the ŔÉŚ equation must be wrong, indeed, doubly wrong. Just like 'special relativity' says one cannot go faster than the speed of light.

But what about 'wormholes'? They are an integral part of Einstein's second theory 'general relativity'; travel through one of those and survive and one is suggested to be able to travel to distant galaxies in an instant, which is way faster than it would take a particle of light to get there.

History tells us many theories that say one cannot do this or that, only for other theories to come along and prove the first theory wrong.

The penny that dropped was to think of the Keynes income multiplier and, the more powerful, discount rate money multiplier (where banks keep only 10% of deposits in the vault and lend out the rest, again and again); plus, Comparative Advantage, as presented by HBS's David A. Moss in 'A Concise Guide to Macroeconomics,' all as 'free lunches.'



And so, it would seem that in macroeconomics, one is allowed 'free lunches' if they are about increasing the money supply or are about clever trade practices.

And there are likely more examples that I do not know of.

The ŔÉŚ equation is about increasing the money supply, in a way not dissimilar to a combination of the 'Keynes's income multiplier'; which can be written as RLS - Revenue x leakage x Spin, where spin is how many times the Revenue will be re-spent within a year. But in ŔÉŚ, leakage is replaced with Éfficiency, and can only be used to full effect in a location that can relax antitrust laws for the good of the people.

In addition, we are talking about a giant leap forward in logistical, business, social, simulation, and behavioural economic software to make ŔÉŚ work.

So, the initial target is to make the software, not to start developing resort-styled cities in locations like Malawi. Only after the S-World UCS™ simulation software (as specified in this book) and an early version of S-World VSN™ (Virtual Social Network) and the TBS™ (Total Business Systems) is created, and the Super Grand Network simulations are shown to be a clear success do we start in that direction. But before we move to the description of ŔÉŚ (which one can forward to here) or the specifications for the S-World UCS™ Simulation Software or the S-World BES™ Behavioural Economic Software, it helps to know a little history.

The History of ŔÉŚ

1. ŔÉŚ Physics Origins

ŔÉŚ has three physics origins and became a part of my attempts to understand how string theory could unify quantum mechanics and general relativity, at a time when I did not have any real understanding of the subject. This is an interesting link, in this regard from American Butterfly (circa 2012) Book 3.' The Network on A String.' Chapter 3. Quantum Force Theory, Spin & the RES ⇔ Equation.

The first idea was simply that businesses and, in particular, new small businesses were uncertain. Whereas Global GDP (for the most part) produces a smooth curve, and this mirrored the uncertainty of quantum mechanics and the certainty of general relativity.

Next was the simple spin quality of particles, which were on my mind, and so became a part of my economic considerations.

2. A Network GDP Problem

ŔÉŚ came into effect in 2012 when it answered a GDP problem within the early workings of the network. Unlike a country's economy that can expect to see similar GDP figures year on year, where the initial revenue in one year would mostly stay within the country/economy to be spent again the following year, a network economy lost its initial revenue quickly.

The problem I had was that, in a network economy, the initial revenue that the network had would dissipate to almost nothing in just a few years.

I started to develop this idea in American Butterfly Book 1. Chapter 8. 'S-World UCS' by developing the following spreadsheet. To go specifically to the section of the chapter that presents this graphic, follow this link S-World UCS QE Scores (2012).

	The Window Factory	2012		Staff			Total Profits
a	Company Revenue	7,938,477	l	Bonuses	330,034	x	**4,675,526**
b	Profit	**2,441,125**	m	Salaries	445,550		(b+f+j+r+v)
c	Profit vs. Revenue (b/a)	**30.75%**	n	Sub Total	775,584		Total QE Efficiency
	Suppliers		o	Payroll + Income Tax	193,896	y	**58.90%**
d	Spent	3,175,391	p	Income After Tax	581,688		(x/a)
e	QE **E**fficiency	54%	q	QE **E**fficiency	29%		Total Tax
f	Profit from Suppliers	**1,714,711**	r	Profit from Staff (p*q)	**168,690**	z	**25%**
g	Profit vs. Revenue (f/a)	**21.60%**	s	Profit vs. Revenue (r/a)	**2.12%**		(estimated)
	Media			Miscellaneous			Total QE Tracking
h	Spent	300,000	t	Spent	350000	aa	**83.90%**
i	QE **E**fficiency	54%	u	QE **E**fficiency	54%		(y+z)
j	Profit from Media	**162,000**	v	Profit from Miscellaneous	**189,000**		Economic Black Hole
k	Profit vs. Revenue (j/a)	**2.04%**	w	Profit vs Revenue (v/a)	**2.38%**	ab	**16.10%**

Above, we see a company within a network; which 'critically' spends as much money as it can with other companies in the same network, attempting to keep the cash within the network. In this example, for a fictional aluminium window manufacturer called TWF 'The Window Factory,' the company has a 58.9% QE (Quantum Economic) Efficiency, which is now the É in the ŔÉŚ equation. Tax is 25% and we have an economic black hole of 16.1%, where money was not spent in one or another S-World business or the government.

My problem was that even with a high QE score, the following year, the network will only have 58.9% of the initial revenue; and even with an É of 58.9%, in just a few short years, all that initial revenue will be gone, mostly to tax.

My solution to this was to add spin as the number of times the money (the Initial Ŕevenue) was spent and re-spent within a year. Below, we see the process, where after 10 spins, the cash flow of the network after 10 re-spends is greater than the Initial Ŕevenue.

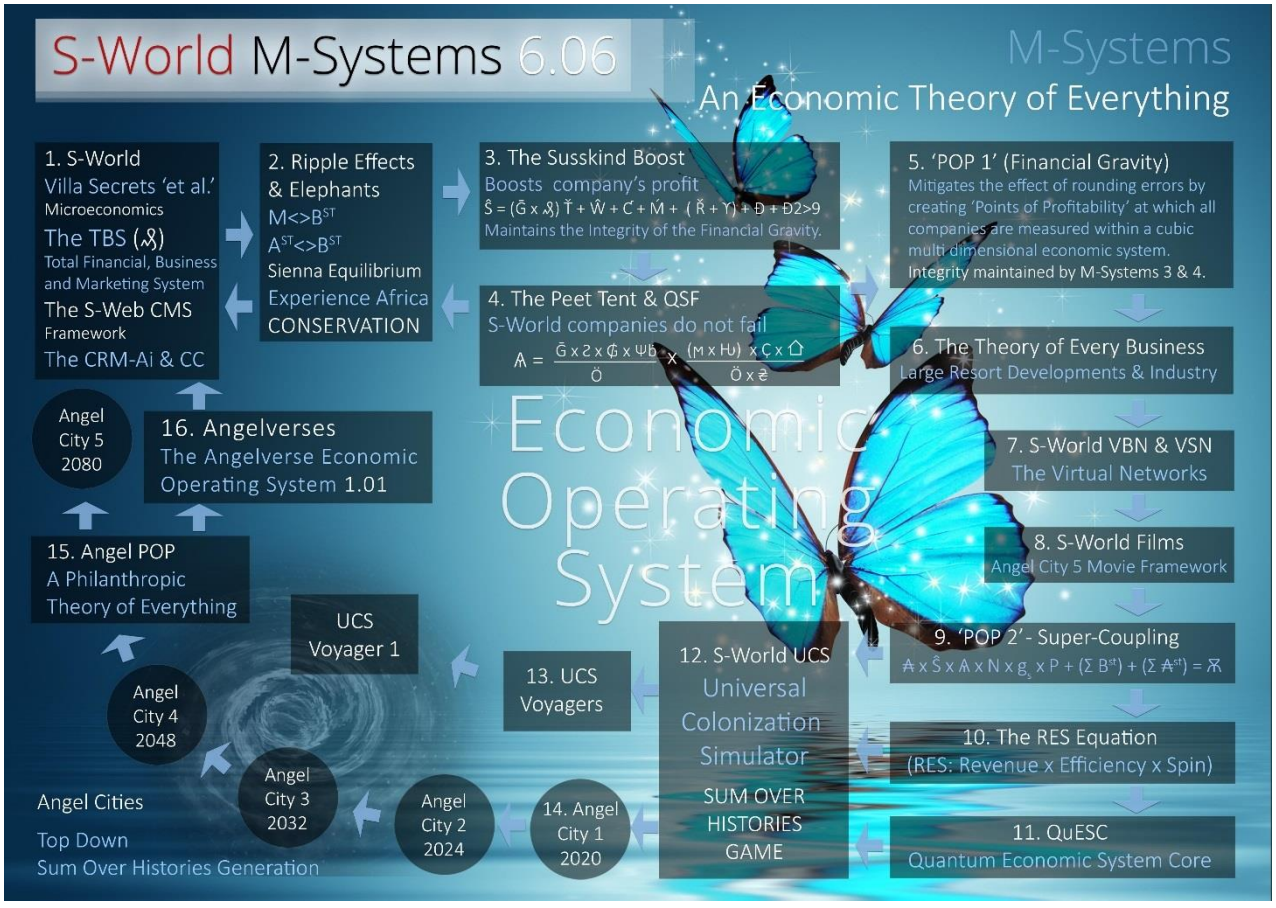
1	2	3	4	5	
$ 1,000,000.00	$ 588,970.13	$ 346,885.81	$ 204,305.38	$ 120,329.77	
58.9%	58.9%	58.9%	58.9%	58.9%	
$ 588,970.13	$ 346,885.81	$ 204,305.38	$ 120,329.77	$ 70,870.64	$ 1,331,361.74

6	7	8	9	10	
$ 70,870.64	$ 41,740.69	$ 24,584.02	$ 14,479.25	$ 8,527.85	
58.9%	58.9%	58.9%	58.9%	58.9%	
$ 41,740.69	$ 24,584.02	$ 14,479.25	$ 8,527.85	$ 5,022.65	$ 94,354.46

$ 1,425,716.19

In a way, this solved the problem of one losing every year, but the 142% return was in no way fantastic, especially as getting all the companies to a 58.9% efficiency in the first place was no mean feat, not back in 2012.

So, for the best part, from 2013 to 2017, the ŔÉŚ equation just sat there in the background. Albeit it was made into its own M-System in the 2016 new system architecture design as M-System 10. The ŔÉŚ Equation.



3. ŘÉŚ & MARS Resort 1

On the 23rd September 2017, after cramming Brian Cox & Jeff Forshaw's 'Why Does E=mc2? (And Why Should We Care?)' and Marcus Chown's 'The Ascent of Gravity,' in a semi-successful attempt to better understand relativity, I took a breather from the physics and downloaded the audiobook 'Elon Musk: Tesla, SpaceX, and the Quest for a Fantastic Future' by Ashlee Vance.

I had just completed what is now 'Out of Chaos' - 'The Economic Theory of Everything - Part 1' and my mind was moving from theory to application. I admired Musk for working in the spirit of S-World, he was a successful businessman, and his businesses were growing and making a lot of money. But ultimately, Musk's business efforts were for the good of us all, electronic cars, solar energy, and now space; which, in my book, is the ultimate 'special project' needed to protect our very humanity should a stray asteroid or another ELE comes Earth's way.

Space suited me fine, after all, the full name of the most talked-about software 'S-World UCS™ is 'S-World - Universal Colonization Simulator.'

Truth be known, it was Musk's project, 'Tesla,' that had attracted me to read the book, and only upon reading it did I find out about his true passion, 'SpaceX.'

Without going into detail, Elon Musk's SpaceX is a truly special company, which effectively had a ŘÉŚ Éfficiency of 90% before tax. Whereas traditional space projects are more space craft assemblers, with thousands of different parts from thousands of different companies. Musk and SpaceX make 90% of their parts and software themselves; and do so, not in China or Taiwan, not even in Pittsburgh, the USA where skilled labour and factory space is abundant, they set up offices in LA and made it work.

When I heard this 90% figure, it immediately focused me on the possibilities of a ŘÉŚ model with an Éfficiency of 90%. If we do the same exercise as before and differ tax, we can see the difference.

1	2	3	4	5	
$ 1,000,000.00	$ 900,000.00	$ 810,000.00	$ 729,000.00	$ 656,100.00	
90.0%	90.0%	90.0%	90.0%	90.0%	
$ 900,000.00	$ 810,000.00	$ 729,000.00	$ 656,100.00	$ 590,490.00	$ 3,685,590.00

6	7	8	9	10	
$ 590,490.00	$ 531,441.00	$ 478,296.90	$ 430,467.21	$ 387,420.49	
90.0%	90.0%	90.0%	90.0%	90.0%	
$ 531,441.00	$ 478,296.90	$ 430,467.21	$ 387,420.49	$ 348,678.44	$ 2,176,304.04

$ 5,861,894.04

Now that one million dollars were creating nearly six million dollars in cash flow for one or another network in the business.

We still had the problem with tax. However, during the first US political TV debate, I had written 'The Trump Equation' based on Trump's ideas for lowering corporation tax. Something I have been a firm believer in since my Kobayashi Maru GDP Game and American Butterfly (2012), as corporation tax seemed to only generate 4% of overall tax receipts; and it's likely that if there were no corporation tax, there would be a more than 4% increase in VAT, payroll, and income tax receipts created by the additional profit business would make if they did not need to pay or avoid this tax.

The Trump Equation was a simple addition that suggested that one should base corporation tax on how much a company is contributing; in VAT, payroll, and income taxes, plus social, scientific, ecological, and philanthropic factors would also be factored into the equation.

However, even if President Trump were willing to consider such a measure, successive presidents may reverse the decision, and the technology needed to make the rating for each company would take many years to create and introduce. This said, I have, more by coincidence than design, started some plans for a more efficient tax collection system in the UK, see the following:

- 4 Barriers to Entry - A Software, Systems, and Behavioral Science Critique of the UK Corporate Tax & VAT Systems

- The TBS™ Total Business Systems - S-World UCS™ Hawthorne
  Now S-World UCS™ Observer, a critical component in Super Grand Network design.

With no way to be sure about corporation tax, I again mentally shelved ŘÉŚ. But as the book on Elon Musk continued and I saw Elon talk about his great desire to create a transport system to get a million people to Mars, I thought, 'If Elon is dead set on creating the transport, but wants little involvement in the actual colonization itself, then this is a great opportunity to create a Grand Network on MARS.'

If nothing else for the next 20 years, while SpaceX is getting their rockets ready, it would be a great conclusion to the gaming side of S-World UCS - Universal Colonization Simulator, where the

gameplay for the S-World UCS™ MMO game was to learn S-World systems, concur industry, make a fortune, implement the new economy, and fly off to the stars. Now, with SpaceX believing they can seriously make the transport system, the idea of colonising MARS is very real.

Also, it was a fun project to work on.

So, I started to create some ideas about a Grand Network on Mars and named it 'MARS Resort 1.' The early designs were just for fun as I focused on how hard it would be to create a golf course up there. The general idea with all Grand Networks is that they are luxurious, as almost everyone from the poorest to the richest like their luxuries.

But then, I had the idea, a eureka quality insight which sent shivers up my spine!!!

As MARS Resort 1 would be its own venture, we can set our own tax. And because of the various POP and 'Give Half Back' initiatives, we could set TAX to zero; and not only corporation tax, all taxes. POP and Give Half Back, which are progressive taxes, would take care of money for government type operations.

Now, I looked at MARS Resort 1 no longer as a great ending to an epic game, and maybe a way to ingratiate myself with Elon Musk and the SpaceX team. I saw MARS Resort 1 as a place where ŔÉŚ can be real.

And further, with an Efficiency of 100%, this model followed the 'Financial Equivalence' theory I had based on Hawking's explanation of the conservation of energy, now known as the 'Law of Conservation of Ŕevenue.'

Things really started to move after this realization. I made some models for MARS Resort 1, but there was so much that I did not know, and I did not wish to be wrong about anything.

4. Then it hit me, BANG!!!

We can use ŔÉŚ in locations on earth where GDP was low. If you think about it, the current MARS economy in terms of GDP is the worst there is, as it is zero GDP. However, at just 5.5 billion

dollars; economically, Malawi may as well be on the Moon.

So, plans that would work on MARS could also work in other locations in extreme poverty. And by using the ŔÉŚ equation, one could create a far higher tax yield for the government so long as they received their new extra income in network credits.

This idea gelled perfectly with the latest version of M-System 15. Angel POP which can be summarised in one sentence.

"Grand Networks in areas of Abject Poverty are Special Projects."

Which is likened to the latest version of M-System 2. Ripple Effects and Elephants for Paul G Allen, from the first version of Book 3. 'The GDP Game,' which showed how the 16 'special projects' from M-System 14. Angel Cities were created as a consequence of creating a Grand Network.

Now that we have been introduced to the 'ŔÉŚ Equation,' it's time to present the academic challenge, to 'make or break' the ŔÉŚ Equation, in the 'Ś in The ŔÉŚ Equation.'

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http://www.angeltheory.org/book-2-part-2/the-s-in-the-res-equation

The Ś in the ŔÉŚ Equation

By Nick Ray Ball 19th June 2018

1. Introduction

Welcome to The ŔÉŚ Equation (Ŕevenue x Éfficiency x Śpin)

(Note that I have placed accents over the Ŕ, É, and Ś so that when they are written, they stand out.)

For those new to Angel Theory – Paradigm Shift, I suggest starting with this short video that quickly summarises the 8 books that make up the series:
Paradigm Shift (2.27 minutes)
And see the website at www.AngelTheory.org.

Next, I have prepared a video for each of the four pages which navigates the spreadsheet. I suggest watching all videos before reading on.

Introduction (2.17 minutes)
The Ś in the ŔÉŚ Equation (6.20 minutes)
Macroeconomic Due Diligence (3.16 minutes)
Hawking Inspired 'Infinite Accumulation' (4.35 minutes)

In a nutshell, the objective is to prove that (under the conditions set out) we can, by 2024, turn one unit of capital into five units of capital. And by 2039, turn one unit of capital into 25 units of capital.

Consider this 'thought experiment' - Imagine that within your country, in 2024, most businesses were part of a global network, where business is entangled with many principles of ecology, philanthropy & science, with antitrust laws relaxed due to the many benefits the network would bring (see Ripple Effects and Elephants).

Now, consider the following two rules:
1. Businesses and their staff can only spend money at other businesses within the network.
2. That one was paid evenly every 2 weeks, and money received must be spent within a month.

In this oversimplified example, with a Śpin of 24, if the network received investment or generated income from outside the network of $1 million, then by re-spending that $1 million every 2 weeks, it will have created $24 million in cash flow; of which about 66% (according to the DMCV) would equate to $15.84 million in real GDP.

Any country in abject poverty that can turn $1 million in investment into $15.84 million in real GDP is heading in the right direction, fast.

However, there is an additional free lunch, as when Éfficiency is close to 100%, almost all the initial Ŕevenue from one year will carry from one year to then next; I call this 'Infinite Accumulation.'

2. The Ś in the ŔÉŚ Equation

There are 8 books of supporting detail that has taken 7 years to prepare. However, for now, we are just looking at the Ś in the ŔÉŚ Equation. For simplicity, I have decreased the figures from the accompanying spreadsheet (1.32c) from billions to thousands.

From the first tab on the spreadsheet, start at Column 'E'- Row '5,' this is half of the Initial Ŕevenue, $2,748 (which can be from investment, income from trade, or other).

This is allocated to 'G5' as initial spending. And in 'H5,' we see an Éfficiency of 90%. Then in 'J5,' we see a 5% tax deduction. However, tax is now handled differently, so effectively we have an Éfficiency very close to 85%, making $2,350 paid to other companies or personnel in the network. This is Śpin 1. The money supply (the cash flow within the network) has now increased by $2,350 to $5,098.

It's important to know that there is a sophisticated system for personnel, where for the most part, they are paid in 'Network Credits.' And in fact, all payments to network companies are made in 'Network Credits.' One Network Credit can be considered as one USD but with two conditions: Firstly, it must be spent on one or another good or service (from real estate to a bottle of wine) produced by the network. Secondly, it must be spent within a time allocation. This creates the Śpin.

I have found it simplest to consider this in terms of cold hard cash changing hands. So, in January 2024, Company A received $2,748 in cash in USD. Then, before March, it used the money to buy goods and/or services from Company B and paid in cash, with 15% of the original money being spent on other things we do not know about.

Company B has been paid $2,350 before March for the goods it provided, then, in turn, it pays $2,009 to Company C before mid-April, again in cash, buying more goods and services.

Now, the cash flow within the network is $5098 + $2,009 = $7107, from the original $2,748.

It's important to know that the above is a very simplified version. I have a spreadsheet the size of the moon about how the actual cash flow is spent including staff and 32 different industry sectors. We are not concerned with this today; we are just interested in the Śpin.

Moving along the spreadsheet, we see 8 Śpins in total equals $14,937 in cash flow, made from the initial $2,748 investment, an increase of 544%.

Or if we look at 'Tab 2 - 2039 - ŔÉŚ 16,' we see an increase in Éfficiency to 100% and an increase in Śpin to 24, which creates an increase in cash flow of 2400% or 2500%, seen in column 'DB4.'

Is 24 a lot of Śpins? At first, it seemed so to me, but when we consider the average £20 note passes hands 247 times each year, it now seems like a very manageable figure.

3. ŔÉŚ problems already solved

Macroeconomic Due Diligence

Error 1

In GDP accounting, 'Total Sales' are not equal to GDP, as one only counts the final goods, services, and products produced; not the parts used to produce them.

This is solved by the David A. Moss Cash Flow to GDP Variable (DMCV), which is found at AI:211 on the 3rd or 4th tab on both spreadsheets, 'The Sienna Equilibrium 1.06.'

Error 2

Usually, if a country with its own currency - like Malawi - were to increase output (GDP) by say 500%, then its currency would decrease by the same amount.

Solved by working in US Dollars, not local currency.

Error 3

The high Éfficiency score (from 85% to 100%) would see the Monopolies Commission investigate and antitrust laws enacted (as to have an Éfficiency of 100% is to create a 100% monopoly).

This can be solved, potentially by working in countries like Malawi with low GDP and no plan to improve. Given the forecast shows an increase in GDP by a factor of 5 by 2024 and tax spending about the same, increasing to a factor of 106 come 2039. Given that most Malawians live in abject poverty, earning less than $500 a year (yes, I said a year), and most do not have access to electricity, education, or basic health care; it's well worth some exceptions be made to antitrust laws (that let's face it, most people have never heard of), if in return the entire country benefits financially, philanthropically, and ecologically. (See M-System 2. 'Ripple Effects and Elephants.')

4. Plan B. The Money Multiplier

If for whatever unforeseen reason we can't use ŔÉŚ as presented, then the next best thing to use is the 'Money Multiplier' presented in David A. Moss's 'A Concise Guide to Macroeconomics.'

The money multiplier is when one has some M1 money (cash or checking accounts) which is deposited as savings in a bank. The bank, in turn, keeps about 10% in reserve and can lend out the rest. Moss suggests that if all the money lent out was (in turn) deposited again, that the increase in the money supply would be tenfold. Albeit he immediately interjects to say that, in most cases, the multiplier is much less.

If we can't use ŔÉŚ as presented above; then if Éfficiency is 100%, we should be able to create a

money multiplier of 10. Or in the early years, if Éfficiency is 85%, we could create a money multiplier of about 8.

However, ŔÉŚ is preferred due to what I have named Hawking's 'Infinite Accumulation,' after inspiration from Professor Hawking led to a simulation of the 'Conservation of Energy.'

ŔÉŚ, Hawking, and the Conservation of Energy

5. The Law of Conservation of Ŕevenue

Inspired by Professor Stephen Hawking

If we were to say that each Śpin is an hors d'oeuvre and that 24 hors d'oeuvres is plenty; hold on because the real free lunch is coming up right now.

This is the third part of ŔÉŚ gained by making analogies from particle physics. We started with the most basic analogy of applying Śpin to the economics, and that seems to be working out nicely. And whilst the concept of conservation of energy is not as simple as applying Śpin, its results are easy to see. The basic point is energy cannot be destroyed, and when Éfficiency equals 100%, nor can Ŕevenue; as when we get to the 25th Śpin, this is effectively a handover of all Ŕevenue from the year before to the next. So that before we add any new Ŕevenue from sales to the rest of the world, trading or via investment, the new year starts with the previous years' Ŕevenue.

Now, that's a tongue twister, so I will show it to you on the spreadsheet, which makes it easier to visualise. To start, we need to change spreadsheets to the 'Standard' version, as the 'Cautious' spreadsheet allows for 5% leakage for buying raw materials from neighbouring countries, albeit a good comparative advantage strategy would likely mitigate this need, and so it's saved for other potential needs, such as restricting É to 95% if that's the best deal we can get against monopoly concerns.

So, on the standard spreadsheet 1.32c, go to the second of the tabs that you'll find at the bottom of the page, 'Tab 2a. 2038 - ŔÉŚ 15.'

First, we see the Ŕevenue of $102,947,066,421.09 in E:8. This splits in two and ends as $98,747,513,256.13 in DF:29.

Why is this figure less than Ŕevenue? Well, if we look at DC:27, we see that we don't actually have an Éfficiency of 100% as there was a small leakage to 'land and assets' bought from outside the network.

Next, we move to a new tab of the spreadsheet, 'Tab 2b - 2039 - ŔÉŚ 16'; and please find the column and row CZ:46, in which the $98,747,513,256.13 of Śpin 24 from 2038 passes to the beginning of the following year.

Now, you see why I need to create the S-World software and in particular, the UCS™ Simulator; as

the first job of this software will be to micro simulate this to check for where there could be an error. As in economics, there is no free lunch, but here we seem to have two.

Or maybe the model is correct and there is a lot to be said about following and simulating the laws of nature described by M-theory, and we can answer positively to the question: 'M-theory, an Economic Science?'

What is M-theory? See Books 1. M-Systems and 2. The Economic Theory of Everything on the www.AngelTheory.org website.

Angel Theory – Volume 1 – Paradigm Shift

A More Creative Capitalism

Part 1. A Good Model

Chapter 5

Agrees with and Explains all Existing Observations

By Nick Ray Ball 17th September 2018

Professor Hawking's prescription for 'A Good Model' Part 3 of 4

Agrees with and Explains all Existing Observations

For this point, I am breaking with the physics originated models we have seen in the previous chapters. And as the prequel book to this is called 'The Economic Theory of Everything,' it seems the correct way to answer this point is to focus on all economic disciplines, and see if both the plans for Grand Networks (modern-day Charter Cities not unlike Hong Kong's evolution) in locations of abject poverty, and the plans for the supporting Virtual Networks (software-driven and marketed business networks like Villa Secrets, but extending in many industries sharing a common infrastructure); and if it also agreed with the physics originated models we have seen in the previous chapters then that would be a bonus.

Hawking's 'Agrees with and Explains all Existing Observations' point has recently achieved an elevated level of enthusiasm and my time. In May 2018, I wrote my first article for S-World BES™ - Behavioral Economic Systems as I renamed the CRM AI to The CRM Nudge AI, followed in June with S-World UCS Hawthorne, now S-World BES Observer. At this time, I had just two software objectives, albeit very good ones. Soon after, I decided that a whole new software division and brand was necessary. I wrote my first article called S-World BES™ - Behavioral Economic Systems and started to go back through my work starting Feb 2011 to identify how many other systems within the portfolio were behavioural-economic in nature. In just the work from 2011, I found 33 distinct systems based on behavioural insights, and I concluded if I were to go through 2012 to 2018, I would find at least 100 examples, which I thought was good enough to send to the

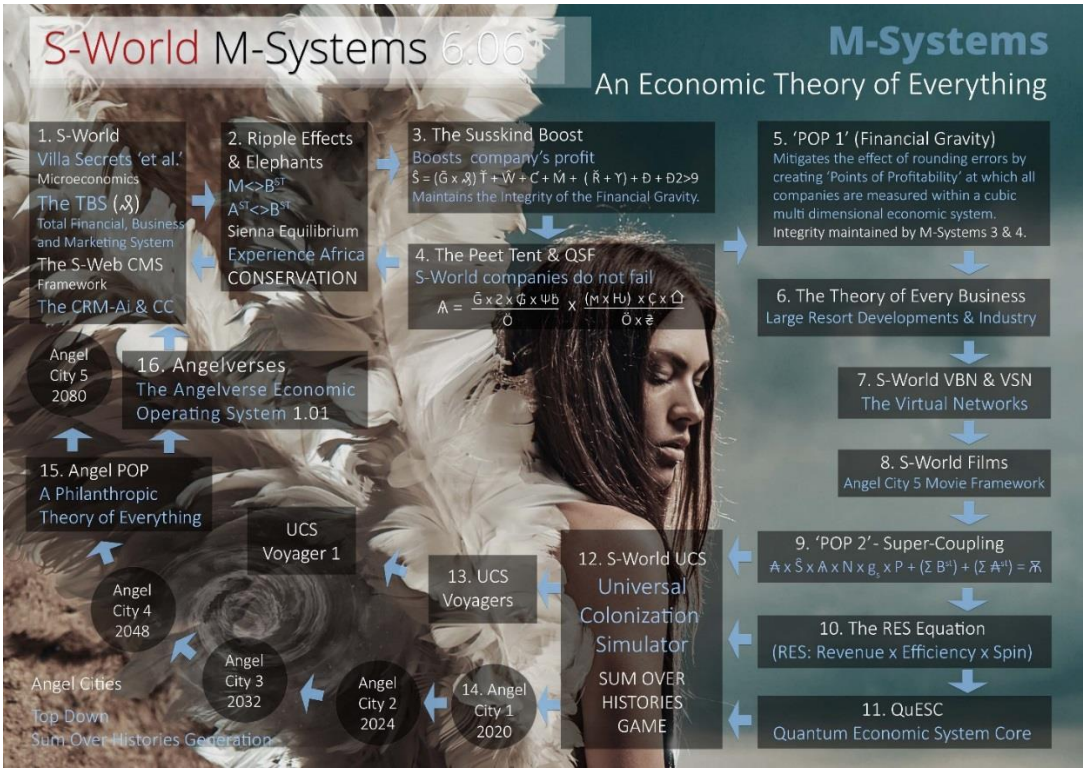
http://nudges.org website. And then on to 2017 and current Nobel champion Richard H. Thaler, whose books Misbehaving, and Nudge has alerted me to the science and craft of behavioural economics. However, as I was unsure of ŔÉŚ, I thought to first settle this question, and the book that you are reading now is an extension of that objective.

We will look at S-World BES later in this chapter and throughout much of this book. However, I am now very pleased to come to the decision that another related but very different software item is necessary. This has been coming for quite a while and there have been occasional mentions of S-World ES (Economic Systems) and more recently S-World AE (Aid Efficiency). But because of Straight Talk on Trade by Harvard's Dani Rodrik and End This Depression Now! by Nobel Laureate Paul Krugman, I now see the need for a much more passionate title and role; and so, in this chapter, we shall discuss the new economics system.

The S-World Angelwing Economic Software Framework

But first, credit to author Cosimo Yap's series 'The Gam3'; who, in my opinion, after Ernest Cline is the best LitRPG author out there. After hearing the name Angelwing software, I just had to add it to Angel Theory. Thanks… (Note that it takes more than economics and physics to create S-World, by far the biggest and the initial idea back in 2000 was the Virtual Network, and of course reading books about other ideas for same are both necessary, and if it's your thing, fun.)

Ok, so the Angelwing Economic Software Framework is very new and, in a few months' time, I will have a much better handle on it. But basically, at its heart, it is a rebranding of M-System 11. QuESC, which until now has been presented is in the S-World UCS™ family, see below…



Economic Unification
Agrees with and Explains all Existing Observations

This is a hard factor to simulate if we are focusing on economics, which we are. But not impossible if we are designing a system/Ai that we wish to achieve this goal by experiments over time.

I'll admit, at first, with limited economic reading, it seemed simple. However, looking at more advanced economic theory and models, unlike physics where laws govern that cannot be broken, economics and economic models have many contradictory proposals that are dependent on individual circumstances. So one needs to build every model into the software that runs the economy and learn how to switch and chose the best model in every case; in a controlled manner so the AI can learn from and adapt after each deployment of one or another path set forth by the AI, guided by the human technical assistance from QuESC.

If 10% of the businesses are underperforming, they will need a different model to the overperforming business, and so on.

Economics is not a set of predetermined conclusions or policy prescriptions, but a highly context-specific discipline that provides only contingent answers. There is virtually no question in economics to which 'It depends' is not an appropriate answer. Of course, the strength of economics is that we can usually tell 'what it depends on.'

1. *Agrees with and explains all existing observations*

An Introduction to Economics

Now, we return to Professor Stephen Hawking's prescription for a good scientific model and point 3:

Agrees with and explains all existing observations

In 'How Google Works' by Eric Schmidt & Jonathan Rosenberg, the authors inform us that **"When Larry and Sergey founded Google in 1998, they had no formal business training or experience. They considered this an advantage, not a liability."**

In S-World, I have (maybe more by accident than design) followed a similar path. But where Larry and Sergey were able to break the mould by inventing an instinctive way to do business that would have been hindered by traditional MBA structures, I have attempted to do much the same (albeit in theory and simulation) for the economics behind S-World.

It all started one day in 2011 after I wrote the film script 'The Sienna Project' in which my darling Sienna communicated a new economic plan from across the spiritual plane' (before saving the universe from the evil 'Eye'). However, at this time, other than running a business, I had no economic experience at all.

Undeterred and under a kind of spiritual karma cloud, I decided to give economics a try. But I did not go out and buy a load of books on economics, instead, I just kept on expanding the global network idea; and a few months later, ran into chaos theory and theoretical physics, which over seven years I analogized and simulated into a global plan, our 'Good Model.' Had I studied traditional economics, I doubt I would have come up with the solution I did, as my mind would not have been an empty canvas at the beginning stage of the development.

Only in December 2017 did I seriously start studying 'economics.' This could have yielded wildly diverging results that were not compatible with each other. But instead and to my delight, so far, I have not found a single point in economics that is not consistent with the S-World model/platform.

With now 8 books on economics studied, thousands of notes, and about 50 different articles, and two more books on the way; not only have I found no incompatibility, but I have also found places where wildly different economic positions can be unified; which is pretty much what we are looking for in 'an economic theory of everything.'

Here are the books that have provided the economic research, all of which have so far confirmed and contributed to the model/theory...

2018 Mostly Books on Economics

a. **Thomas Piketty:**
   Capital in the Twenty-First Century
b. **David A. Moss:**

A Concise Guide to Macroeconomics: What Managers, Executives, and Students Need to Know

c. **Michael Lewis:**
The Big Short: Inside the Doomsday Machine

d. **Richard Thaler:**
Misbehaving: The Making of Behavioral Economics

e. **Richard Thaler and Cass Sunstein:**
Nudge: Improving Decisions About Health, Wealth, and Happiness

f. **Abhijit V. Banerjee and Esther Duflo:**
Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty

g. **Daron Acemoglu & James Robinson**
Why Nations Fail: The Origins of Power, Prosperity, and Poverty

h. **Paul Collier**
The Bottom Billion: Why the Poorest Countries are Failing and What Can Be Done About It (only just started reading at the time of writing)

i. **Paul Collier**
The Plundered Planet: Why We Must - and How We Can - Manage Nature for Global Prosperity

j. **Paul Krugman**
End This Depression Now!

And I am currently reading…

k. **Dani Rodrik**
Straight Talk on Trade: Ideas for a Sane World Economy

l. **Ian Dunt**
Brexit: What the Hell Happens Now?

m. **Michael Pettis**
The Great Rebalancing: Trade, Conflict, and the Perilous Road Ahead for the World Economy

n. **Amrita Narlikar**
The World Trade Organization: A Very Short Introduction

o. **Jean Tirole, Steven Rendell**
Economics for the Common Good

p. **Joseph E. Stiglitz**
Creating a Learning Society: A New Approach to Growth, Development, and Social Progress

q. **Robert J Shiller**
Finance and the Good Society

r. **Joseph E. Stiglitz**
The Euro: And Its Threat to the Future of Europe

So far, there is very little contradiction in the model I am presenting. As S-World has so many situations that almost everything in economic doctrine agrees and explains all existing observations. Even the most polarized of opinions, for instance, liberalism and mercantilism, would seem to work at the same time. A more liberal approach would likely be best for Virtual Networks in the USA and Europe, and a more mercantilism approach seems to better describe the plan for Charter Cities in Africa and the 'Malawi Network.'

Further, I have found several areas where the S-World platform unifies different (and, in fact, contrasting) economic opinions: Traditional vs. Behavioural Economics, and the question of Aid.

Staring with Traditional and Behavioural Economics

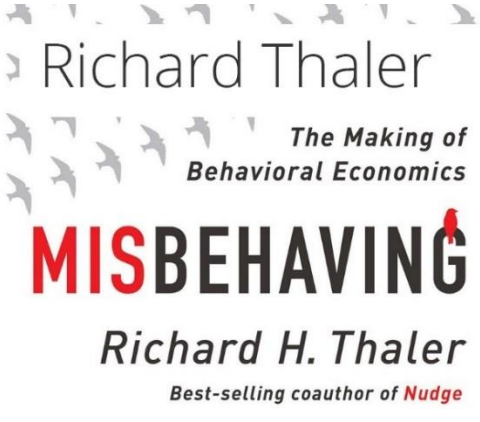
2. Economics Unification

First, we shall hear from Paul Krugman who won the Nobel Prize in Economics in 2008 for 'New Trade Theory' and the 'New Economic Geography.'

Economists, the old line goes, know the price of everything and the value of nothing. And you know what? There's a lot of truth to that accusation: since economists mainly study the circulation of money and the production and consumption of stuff, they have an inherent bias toward assuming that money and stuff are what matter.

In the same year that Paul Krugman won his Nobel award, this sentiment was more concretely defined by Richard H. Thaler who won the 2017 Nobel Prize in economics for his work on Behavioural vs. Traditional Economics.

~~Economic Unification Point 1~~

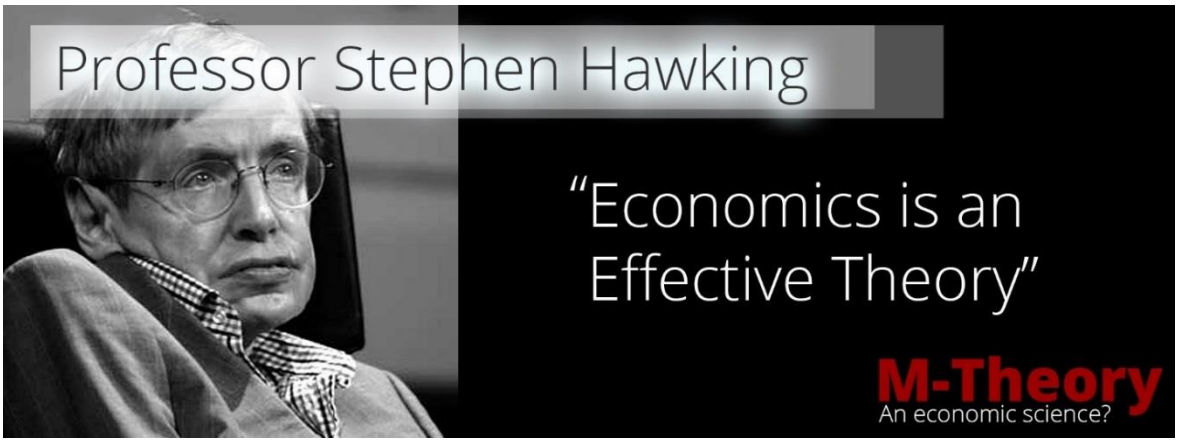


In the book 'Misbehaving: The Making of Behavioral Economics,' Thaler compares what a "**Human**" does when faced with real-world choices with what an "**Econ**" does with choices based on theoretical principles. Where an "Econ" is someone with Economics training who, from a financial and many other perspectives, is an expert at everything they do; from choosing retirement plans to how much to spend on their daughter's 21st birthday.

Thaler and others successfully argue that when traditional economists do their economics, they do so assuming that the world is full of "**Econs.**" Whereas behavioural economics rightly suggests that as "**humans**," we are not experts at everything and we make mistakes or can work from incorrect data or advice (for instance, a subprime mortgage salesperson, or a negligent financial manager).

Traditional economics is floored because it does not recognize the '**we-are-human-factor.**'

This idea came to be first from Professors Hawking and Mlodinow in 'The Grand Design,' about 18 months before I read Thaler's insight.



"In the case of people, since we cannot solve the equations that determine our behaviour, we use the 'effective theory' that people have free will. The study of our will, and of the behaviour that arises from it, is the science of psychology.

Economics is also an effective theory, based on the notion of free will plus the assumption that people evaluate their possible alternative courses of actions and choose the best.

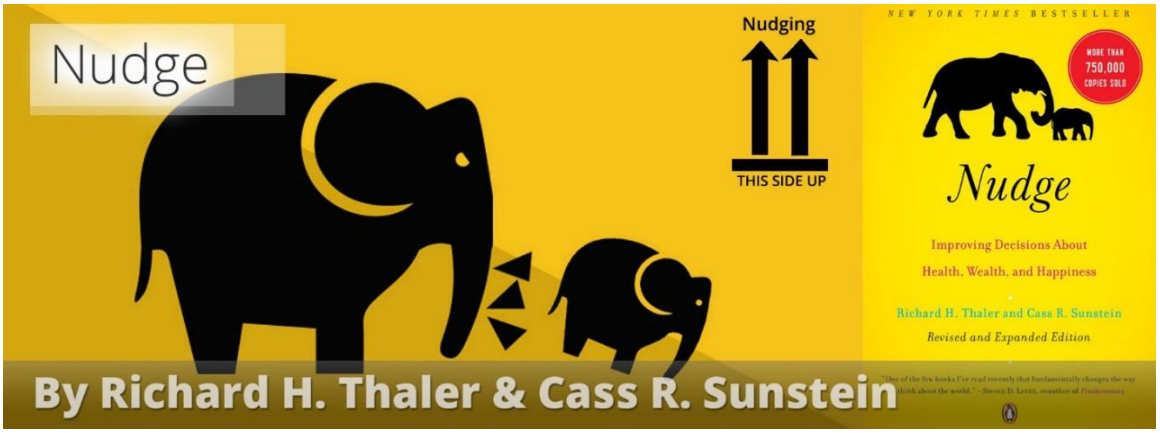
That effective theory is only moderately successful in predicting behaviour because, as we all know, decisions are often not rational or are based on a defective analysis of the consequences of the choice."

"That is why the world is in such a mess."

From The Grand Design
Professors Stephen Hawking, Leonard Mlodinow

Thaler and his 2008 writing partner Cass Sunstein's solution to the problem is to introduce 'Nudges,' which are actions that are designed to 'Nudge' humans to make better choices.' For example, changing the default options for pension enrolment from opt-out to opt-in. Or changing the default for organ donation from opt-out to opt-in (and I note that as I wrote this sentence, I felt obliged to change my default no to a yes, and now am an organ donor. And I advise readers to do the same, it only took 1 minute).

There are, in fact, hundreds of Nudges mentioned in both 'Misbehaving' and 'Nudge.' And nudges can be fun… for example, the fly etched in a urinal at Amsterdam's Schiphol Airport which reduced 'spillage' by 80%; which (in turn) saved the time of lavatory attendants, so is economic.



S-World BES™ Observer in Sales

a. Villa Secrets

The simplest software to demonstrate is the S-World BES™ Observer. This software was originally considered as the perfect software to motivate, maximize productivity, and create a fun and efficient workplace for Villa Secrets Companies.

Originally labelled S-World UCS™ Hawthorne, as it was a game which is the territory of S-World UCS™ Simulator; and Hawthorne due to the 'Hawthorne Effect' that tells us that the act of observation is a big improvement motivator; and in the case presented by David Hoffeld in 'The Science of Selling,' was a bigger motivator than many financial incentives.

So, piggybacking on top of the S-World CC (Company Controller) and the TFS (Total Financial System) and the CRM-Nudge-Ai, we can create a scoreboard for all personnel. And each day, the tasks and bookings made generate points; and each day is a day to win up to 5 times one's salary.

This system is seen as an app, online, and as a big TV in the office, would do wonders for motivation; and combined with the S-World CRM CC, can double performance in non-sales role positions.

It's the same as having a few whiteboards displaying an ever bigger total and a bell ringing per each new sale.

NEXT

Economics Unification Point 2 – Aid

We have heard that the advisory council at QuESC gives good advice to businesses that are regulated via the TBS, so that poor economic or (in general) unbeneficial actions cannot be offered as objective choices to companies; in which we include many nudges in the right direction, creating a system that allows the network to only make good designs, as the first unification of traditional economics vs. behavioural economics.

The new unification relates to aid and the now famously opposing views of Jeffery Sachs and William Easterly. Whilst I can't say to have read their work and need to reserve my poor overused eyes for computer use (so audiobooks only), having read and importantly enjoyed 'The Bottom Billion,' 'Why Nations Fail,' and 'Poor Economics'; all of which reference Sachs and Easterly, I have

a good idea what the opposing arguments are.

In his 2005 book, The End of Poverty, Jeffrey Sachs advocated a multitrillion-dollar 20-year aid program; where as in 2006, William Easterly authored 'The White Man's Burden,' which suggest that aid is the problem and that the poorest nations are best left to their own devices.

And whilst Easterly's very book sounds far-right and downright racist, his point of view is not completely wrong.

Coming to the books I have read, in 2008, The Bottom Billion by Paul Collier seeks to create charters and a roadmap of sorts; which is best echoed in Paradigm Shift Book 7. S-World UCS. And whilst the book is a tad controversial as it discusses the need or not for military action when you focus on what Professor Collier is saying… that aid can increase the chances of a military coup, and that countries that have recently adopted democracy or other good political instructions, at this point, join; their development is critical and if not handled correctly, the new hope could cause military coups, and such coups have in the past lead to genocide, that effective peacekeeper troops are not a bad idea in some circumstances, which I think is a reasonable argument.

In answer to this book, I would present the entire S-World collective as one 'good economic institution' that can, by the GDP Game (Book 3), nudge over time poor countries and poor political institutions in the right direction. With 54 or so countries in abject poverty and a plan that ends in 2080, one would of course start with the safest options within the 54; and hope that over the years, with electorate and positions in countries in poverty miss out of S-World systems, then that's a big enough carrot to enable change.

Next, in 2011, is 'Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty' by MIT professors Abhijit V. Banerjee and Esther Duflo. A lot is made of microeconomics and nudges, and it was this book that inspired the idea of S-World BES Observer being deployed as a way to improve aid being delivered, as the arena, a great many examples of how corruption or negligence leads to but a small percentage of aid reaching its intended target, only to see that when the aid was observed, most of it arrived at where it was supposed to.

Add BES Observer graphic and write a paragraph on it.

Last to publish, in 2012, was 'Why Nations Fail: The Origins of Power, Prosperity, and Poverty' by Daron Acemoglu and James Robinson; and this book focused on the history of poverty, and makes the well-presented point that the core blame for why one nation is poorer than another is squarely down to its political and economic institutions, placing extractive institutions as the principal wrong.

Getting back to economic unification, I would make two arguments to Easterly in favour of aid.

1. Is simply that it's not something anyone can turn off, and even less now that we are in a more

connected world. And so, with this fact in play, one's attention should change to how to best spend the aid, as the no aid argument will not work. There will always be Aid, and just saying it's not good for the poor will not change this.

2. Is that even if one could stop all aid tomorrow, that would not stop Africa from increasing its population from 1 to 2 or 3 billion by 2080, which is well before the 'leave them to their own devices' logic could apply.

And that in place of 1 million Africans trying to emigrate for economic reasons, one had one billion, it would impact everything, and the chaos would likely kill us all.

And so, if one agrees with the above two points (which are hard not to even for the most right-wing), then the right-wing position should not be; no aid, but rather more effective aid, and the right could focus on creating self-sustaining solutions. Thus, eliminating the need for aid in the long term, whilst accepting they can't stop it now, not when there are people who want to give.

So the unification is that the S-World initiative gives more bang for one's buck for those contributing aid, and also lays out a very clear strategy that will wean countries of aid, one Super Grand Network at a time; which, I hope, will be the best realistic alternative to the no aid camp.

And as for the pro aid camp, which I am obviously for as S-World is itself a progressive charity, comes the power of celebrity; from George Bush wishing to share the stage with Bono to actors and musicians wishing to help in the best way they can, in front of the camera.

Aid and S-World Films

Several celebrities have made very positive influences on aid. Jeffry Sachs has been assisted by Angelia Jolie, Leonardo DiCaprio is a staunch supporter of the environment, Madonna has not only adopted Malawian children, but she has also moved to Portugal so that her son can attend a soccer academy (the relevance of which will be presented later in this chapter).

And there are many more celebrities who do good things, and this creates a good recruiting ground for actors and musicians in S-World Films.

Founding Pixar and being around celebrities did Steve Jobs no harm and was likely a reason for Apple wanting Steve back after firing him in 1985

As we have heard, in the Bush and Bono argument (but also Elvis and Nixon), celebrities also carry huge favour with heads of state, celebrities can affect the political will.

Add the royals and philanthropists

NEXT

A solution to anti-economist Steve Keen's 'Macroeconomics does not include money in its equations problem.'

Economic Unification Point 3

Note that this spreadsheet, like the string theory systems of the previous chapter, sees money as the main/fundamental character of the math. Before I read the books that I now have, I saw on RT economist Steve Keen say, that the problem with macroeconomics was that macroeconomist do not factor money into their equations. I am still confused by this, as the second chapter in David A. Moss's book 'A Concise Guide to Macroeconomics' was about money.

I still don't know what Keen is referring to, but I don't need to. I believe all I need to do is show him this macroeconomic model and he would agree that money is a factor in S-World macroeconomics (or as I sometimes say 'Supereconomics').

NEXT

The Following is from Harvard University Professor Dani Rodrik's book Straight Talk on Trade

Audible Chapter 6 – about 2.42

Nobel Confusion.
When the 2013 Nobel Prize in economics was awarded to Eugene Fama and Robert Shiller along with Lars Peter Hansen, many were puzzled by this section. Fama and Shiller are both distinguished and highly regarded scholars, so it was not their qualifications that raised eyebrows, what seemed odd was that the committee had picked them together.

The two economists seemed to hold diametrically opposed views on how financial markets work. Fama the University of Chicago economist is the father of 'the efficient market hypothesis,' the theory that asset prices reflect all publicly available information with the implication that it is impossible to consistently beat the market. Shiller the Yale economist meanwhile spent much of his career demonstrating that financial markets work poorly, they overshoot, are subject to bubbles, sustained rises in asset prices that cannot be explained by fundamentals and are often driven by behavioural rather than rational forces.

Could both be right? Was the Nobel committee simply hedging its bets? We can't read the jury's mind, but its selection highlighted a central feature of economics and a key difference between it and the natural sciences. Economics deals with human behaviour which depends on social and institutional context, that content, in turn, is the creation of human behaviour, purposeful or not. This implies that propositions in economics are typically context-specific rather than universal.

The best and most useful economic theories are those that draw clear causal links from a specific set of contextual assumptions to predicted outcomes. So financial markets behave sometimes like Fama's theory and sometimes like Shiller's.

The value of their respective theories is that they discipline our understanding of what type of financial market behaviour to expect under specific conditions. Ideally, they also help us choose which model/theory we should apply in a particular conjuncture, although this happens rarely.

Aptly the third Nobel laureate Lars Peter Hansen was given his prize for devising statistical techniques to test whether markets behaved in a fully rational fashion.

Audible Chapter 6 – about 31.47

Milton Friedman's magical thinking
Probably no other economist since Keynes has had as much an impact on policy makers understanding of how economies work than Milton Friedman. Friedman was one of the 20th Centuries leading economists, a Nobel Prize winner who made notable contributions to monetary policy and consumption theory. But he will be remembered primarily as the visionary who provided the intellectual fire power for free-market enthusiasts during the second half of the century, and as the eminent grease behind the dramatic shift in the economic policies that took place after 1980.

At a time when scepticism about markets ran rampant Freedman explained in clear accessible language, that private enterprise is the foundation of economic prosperity.

Audible Chapter 6 – about 34.28

The Friedmanite perspective greatly underestimates the institutional prerequisite of markets.

Let the government simply enforce property rights and contracts and presto markets can work their magic. In fact, the kind of markets that modern economies need are not self-creating, self-regulating, self-stabilising or self-legitimising, governments must invest in transport and communications networks, counteract asymmetric information, externalities and unequal bargaining power, moderate financial panics and recessions, and respond to popular demands for safety nets and social insurance.

Markets are the essence of market economy in the same sense that lemons are the essence of lemonade, pure lemon juice is barely drinkable, to make good lemonade you need to mix it with water and sugar. Of course, if you put too much water in the mix you ruin the lemonade, just as too much government medalling can make markets dysfunctional. The trick is not to discard the water and the sugar but to get the proportions right.

Hong Kong which Freidman held up as the exemplar of free-market society remains the exception to the mixed economy rule. And even there the government has played a large role in providing land for housing.
35.32

Audible Chapter 6 – about 38.08

The Mercantilist Challenge

The history of economics is largely a struggle between two opposing schools of thought, liberalism and mercantilism. Economic liberalism with its emphasis on private entrepreneurship and free markets remains today's dominant doctrine. But its intellectual victory has blinded us to the great appeal and frequent success of mercantilist practices. In fact, mercantilism remains alive and well, and its continuing conflict with liberalism is likely to be a major force shaping the future of the global economy.

Today mercantilism is typically dismissed as an archaic and blatantly erroneous set of ideas about economic policy, and in their heyday, mercantilists certainly did defend some very odd notions, chief among which was the view that national policy ought to be guided by the accumulation of precious metals, gold and silver.

Adam Smith's 1776 Theaetetus 'The Wealth of Nations' masterfully demolished many of these ideas. Smith showed in particular that money should not be confused for wealth, as he put it, 'the wealth of a country consists not in its gold and silver only, but in its lands, houses and consumable goods of all different kinds.'

But it is more accurate to think of Mercantilism as a different was to organise the different ways to organise the relationship between the state and the economy. A vision that holds no less relevance today than it did in the 18th Century. Mercantilist theorists such as Thomas Mun were, in fact, strong proponents of capitalism, they just propounded a different model than liberalism.

The liberal model views the state as necessarily predatory and the private sector as inherently rent-seeking, so it advocates a strict separation between the state and private business. Mercantilism by contrast offers a corporatist vision in which the state and private business are allies and cooperate in the pursuit of private objectives, such as domestic economic growth or national power.

The mercantilist model can be derided as state capitalism or cronyism but when it works as it has so often in Asia, the model's government business collaboration or pro-business state quickly garners heavy praise.

Lagging economies have not failed to notice that mercantilism can be their friend, even in Britain classic liberalism arrived only after the mid-18th century that is after the country had become the world's dominant industrial power.

A second difference between the two models lies in whether consumer or producer interests are privileged. For liberals' consumers are king, the ultimate objective of economic policy is to increase household consumption potential, which requires giving unhindered access to the cheapest possible goods and services.

Mercantilists by contrast emphasise the productive side of the economy, for them, a sound economy requires a sound production structure, and consumption needs to be underpinned by high employment at adequate wages.

These different models have predictable implications for international economic policies. The logic of the approach is that the economic benefits of trade arise from imports, the cheaper the imports the better, even if the result is a trade deficit. Mercantilists however view trade as a means of supporting domestic production and employment and prefer to spur exports rather than imports.

Today's China is the leading bearer of the Mercantilist torch…

NEXT

These days (the book was published in April 2012), conservatives have moved far to the right even of Milton Freedman, who at least conceded that monitory policy could be an effective tool for stabilizing the economy. Views that were on the political fringe 40 years ago are now part of the received doctrine of one of our two major political parties.

(USE this with Danni Roderic, saying we need craft not …)

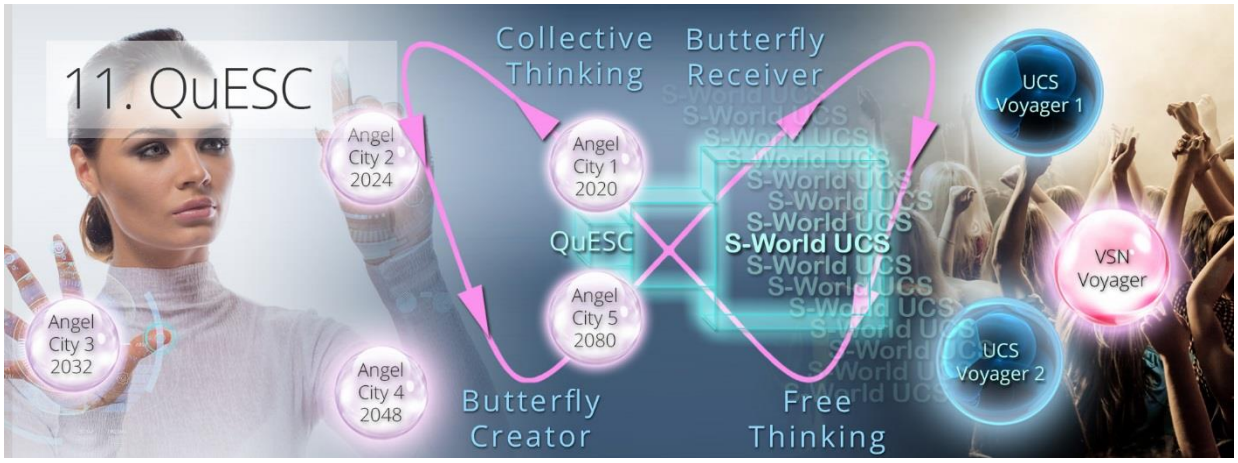
S-World BES™ – Behavioural Economic Systems

I have recently started to catalogue all the instances of systems that either is or should be assisted by this new software. I have only done 2011 and, so far, have 33 instances; starting with the 'Guest Gifts' CRM function from the initial business plan in March 2011.

However, in terms of 'A Good Model,' the first BES™ system was the grandly named QuESC – The Quantum Economic System Core'; originally illustrated in American Butterfly in 2012, then recreated in 2016 as M-System 11 in Book 1. Chapter 3. The S-World UCS M-Systems.

M-System 11 – QuESC (The Quantum Economic System Core) (2012 - 2018)

The heart of the M-System's design is founded on the notion by Hawking that 'People are like Atoms.' QuESC entangles us 'the people' with powerful predictive and logistic software within a circular butterfly effect, continually experimenting and improving upon all S-World systems.



The quantum idea behind QuESC was that the billions of humans on this planet, all following their own free will and rarely making the best economic choices, become the uncertainty and the free-will thinking within the S-World software and systems.

Fashioned like a butterfly's wings, the ultimately circular path of software and S-World UCS™ personnel create options; to be received and acted upon by the public/users who apply free-thinking; where after, the results are received and processed by the software and S-World UCS™ personnel again, before sending out new opportunities that have benefited from both the 'free thinking' and 'collective thinking,' and round and round it goes…

So, we see that there has been a significant behavioural science idea at the heart of the model for a long time.

Angel Theory – Volume 1 – Paradigm Shift

A More Creative Capitalism

Part 1. A Good Model

Chapter 6

Makes Detailed Predictions about the Future

By Nick Ray Ball 24th November 2017

Hawking's Good Model Prescription part 4:

'Makes detailed predictions about future observations that can disprove or falsify the model if they are not borne out.'

>>

An Introduction to M-theory 2

From – The Grand Design - by Stephen Hawking and Leonard Mlodinow

> In our quest to find the laws that govern the universe, we have formulated a number of theories or models, such as the four-element theory, the Ptolemaic model, the Big Bang Theory and so on. With each model our concepts of reality and of the fundamental consistency of the universe change. For example, consider the theory of light, Newton thought that light was made up of little particles. This would explain why light travels in straight lines.
>
> However early in the 20th century, Einstein showed that the photo electric, (now used in television and digital cameras) could be explained by a particle or quantum of light striking an atom and knocking out an electron. Thus, light behaves as both particle and wave. The idea of particles was familiar from rocks, pebbles and sand, but this wave-particle duality, the idea that an object could be described as either a particle or a wave, is as foreign to everyday experience as is the idea that you can drink a chunk

of sandstone. Dualities like this, situations in which two very different theories accurately describe the same phenomenon are consistent with model-dependent realism, each theory can describe and explain certain properties and neither theory can be said to be better, or more real than the other.

> Note that an economic and neurology duality is presented in Finance and the Good Society by Nobel laureate Robert J Shiller
> The Dopamine Gating hypothesis (Audible Chapter 9 – 5.18)

Regarding the laws that govern the universe, what we can say is this, there seems to be no single mathematical model or theory that can describe every aspect of the universe. Instead as mentioned in the opening chapter, there seems to be a network of theories called m-theory.

Each theory in the m-theory network is good at describing phenomena in a certain range, wherever their ranges overlap, the various theories in the network agree, so they can all be said to be parts of the same theory, but no single theory within the network can describe every aspect of the universe, all the forces of nature, the particles that feel those forces and the framework of space and time in which it all plays out.

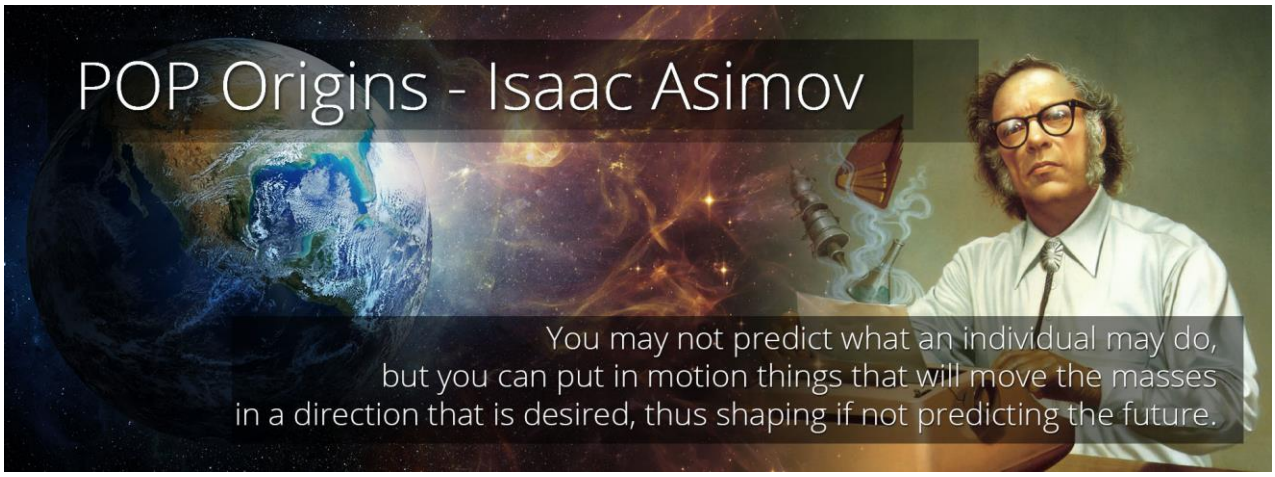
Though this situation does not fulfil the traditional physicist's dream of a single unified theory it is acceptable within the framework of model-dependent realism.

We will discuss duality and m-theory further in chapter five, but before that, we turn to a fundamental principle upon which our modern view of nature is based: Quantum Theory and in particular the approach to quantum theory called 'alternative histories.' In that view the universe does not have a single existence or history, but rather every possible version of the universe exists simultaneously in what is called a 'quantum super position.' which has passed every single experimental test, which it has ever been subjected."

>>

S-World was scientifically founded upon a line by Professor Isaac Asimov:

"You may not predict what an individual may do, but you can put in motion things that will move the masses in a direction that is desired, thus shaping if not predicting the future."



Five years later, this evolved into M-System 13 and 14. 'The Quantum Systems.'

From Book 1. M-Systems

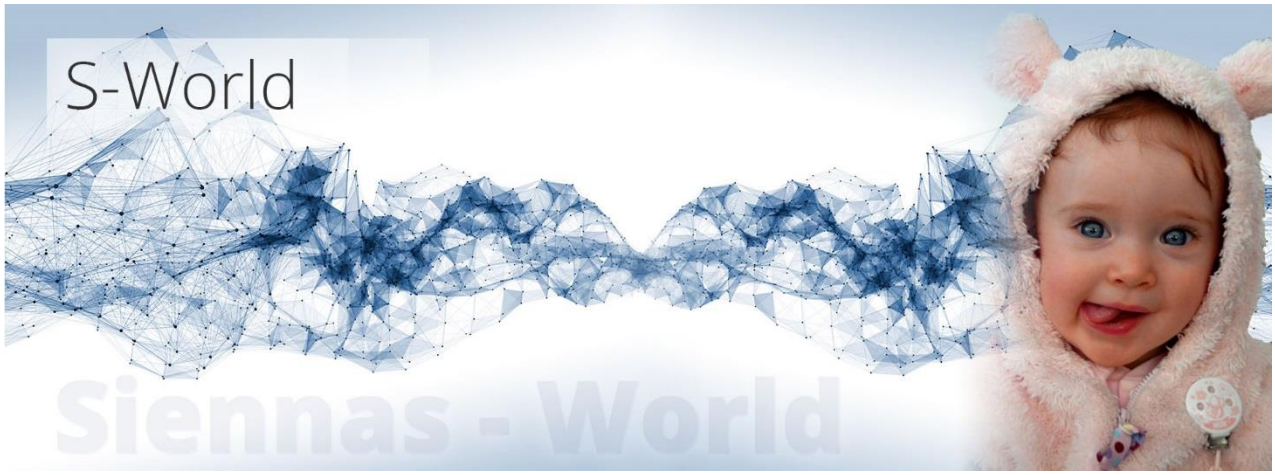
Chapter 3. 'The S-World UCS™ M-Systems'...

Beginning of Extract

www.angeltheory.org/book/1-3/the-s-world-ucs-m-systems

M-Systems 13 & 14 - The Quantum Systems

Now, we arrive at arguably the main event; the S-World UCS quantum systems that create (first) an economic time machine, and then logistical anchors into the future; from which we desire to shape the world in a direction that is desired, via simulation and then implementation, to create a better future for our children and children's children.



In the system design below, we can (at the bottom of the graphic) see the quantum systems flying out of M-System 12. S-World UCS™, scooping up Angel POP and the Angelverses on the way, delivering them full circle back to M-System 1. And as before, the circular rodeo starts again, but this time with greater momentum.

M-System 13 – Eureka!!! - S-World UCS Voyagers (September 2012)

The eureka moment arrived courtesy of Garrett Lisi's 'A Theory of Everything.' In which Lisi presents his quantum coral analogy where **"each individual was in many other locations experiencing them as separate individuals"** and the quantum mechanics mantra:

"Everything That Can Happen Does."

This revelation arrived in the middle of writing the final American Butterfly 'Theory of Every Business' chapter 'S-World UCS,' soon after writing the S-World VSN™ (Virtual & Business Network) chapter, in which the S-World UCS™ tutorial game sat within the virtual framework and had become entangled and indistinguishable from the conceptualised business network.

This consideration becoming the tipping point where a simulated game and business software became a form of economic time travel.

The consideration was that we would create a copy of the S-World UCS™ Network called 'UCS Voyager' and send it forwards in time at a speed twice our own. So that in 6 months of our time, the simulation would be a year ahead. And within, business owners, managers, staff, and gamers alike could conduct their own business simulations. Then, from all the possible outcomes, choose which actions from the simulations to follow back in real-time.

Businesses follow the wins, avoid the losses, and replay opportunities that showed potential in Voyagers 2, 3, 4…

What if you could look to the future and see millions of eventualities?
What if you could use this information to assist you today?

Welcome to S-World UCS

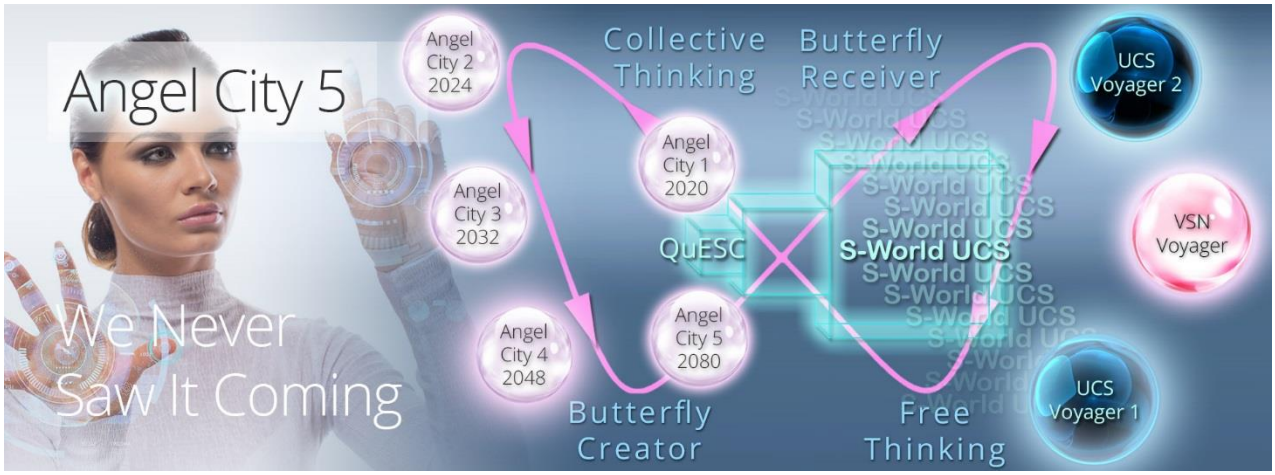
Welcome to your future

M-System 14 – Eureka² - S-World UCS Angel Cities (2012 - 2017)

Angel Cities are 5 future simulations of the network from 2020 to 2080; first created as logistical support for UCS Voyagers, but have since become a key ingredient, subject of the movie framework, and the '**why**' behind the entire project. In terms of M-theory and its component quantum mechanics, we respect Professor Richard Feynman's alternative histories (sum over histories) which tells us that no unobserved system has a definite past or future.

"Quantum physics tells us that no matter how thorough our observations of the present, the (unobserved) past, like the future, is indefinite and exists only as a spectrum of possibilities."

From 'The Grand Design' by Professors Stephen Hawking & Leonard Mlodinow



Shaping the Future

Set in the years 2048 and 2080, Angel Cities 4 and 5 are the nerve centre for the S-World network's long-term ambitions, described as a set of 'super projects.' In this simulation, we work within the M-Systems framework to plan the best earth we can logistically create. And once the

blueprint is set, we create paths back through Angel Cities 3, 2 and 1 so that each company, development, wonder, and 'special project' that we wish to exist in 2048 and later 2080 has a definite history back from the future to our time.

By planning our future in intricate detail and working in waves of probability, ripple & butterfly effects back through the future Angel Cities, we can control our destiny.

Angel City 5 (2080)

Angel City 5 is the last of the founding S-World Angel Cities set in 2080. Above, we see my darling daughter Sienna as herself and as an angel guiding us towards a better future, in keeping with the S-World mantra by Professor Isaac Asimov...

"You may not predict what an individual may do, but you can put in motion things that will move the masses in a direction that is desired, thus shaping if not predicting the future."

This future <> past relationship is in a constant superflux; but one thing is constant, our ambition, the set of 'super projects' that are to be achieved.

In game theory and military strategy, they call it 'Commander's Intent' (but instead of 'take that hill, it's 'make them projects'), as commanders know that the best-laid plans can quickly fall apart in battle. We must allow for every eventuality when creating the strings and manage the ripple effects that lead to the creation of our 'special projects.'

However, once enough strings and ripples have congregated, it gets easier. For example, the first of the 16 Special Projects: 'Experience Africa' is underway and has become entangled as Angel City 1. Lake Malawi.

End of Extract

www.angeltheory.org/book/1-3/the-s-world-ucs-m-systems

Part 2.

Charter Cities

Angel Theory – Volume 1 – Paradigm Shift

A More Creative Capitalism

Part 2. Charter Cities

Chapter 9. Angel POP and Aid

Grand Networks in locations of Abject Poverty are Special Projects

By Nick Ray Ball 25th August 2018

S-World AÉ - Aid Éfficiency

S-World AE – Aid Efficiency is the collaboration of eight different systems, most of which we cover in this chapter.

a. S-World TBS™ - Total Business Systems > Subset TFS™ Total Financial System records every transaction of every company in the network and creates simple audits and monitoring displays.
b. M-System 1- QuESC presents a range of options companies can spend discretionary funds on, that are both in the economic interest of the organization, but also the network as a whole, including special project (philanthropic, ecological, scientific or space) ripple effects.
c. S-World AE is a reverse engineer of RES, which sets an efficiency point (currently 95%) so that companies or organizations that receive aid must spend their money with another company that (at least) uses the S-World TFS audit system.
d. The Sienna Equilibrium is used to create the critical mass of companies and organizations needed to make or trade 95% of the goods and services with other companies that use the TFS audit system.

e. The S-World BES (Behavioral Economics Systems) software, the BES Observer, is used to monitor all persons within the network or receiving aid, via apps, desktop applications, and critically on large TV monitors in high traffic area or companies' offices. The BES Observer then lets the nation and (in fact) the United Nations know who an AE Champion is and who is a thief.

f. The S-World UCS Simulator will, by 2020 (given a 2018 start), have a very good idea about how the Super Grand Network will look. And over the 4 years that follow will, in tandem with another system, create a projection of how all Tender income will be spent in the first 8 years. So, not only are we monitoring, we know exactly when the model should look like from the start?

g. S-World VSN (Virtual Social Network) is a design to create the entire urban development plan and create it within a virtual world; where after realised as an MMO game, so millions of users can help build their perfect Super Grand Networks, or just single houses or businesses within, opening up pay days for plans used and training and recruitment virtual systems.

h. Lastly, the home of S-World BES – S-World Films (which currently sees a larger income than any other project) makes films and TV series and performs PR and social network marketing to better promote S-World initiatives, from the Super Grand Network to the individual special projects. For instance, the first film in the queue is to be a film that brings more attention to ivory poachers; and the second film shows of S-World UCS as an economic time machine that changes between two 2080 futures, one per S-World ambition, and one without.

Using the above systems, the opportunity for corruption is almost zero. One still needs to police to avoid theft and add the rule that anyone offering or accepting a bribe will be separated from all S-World opportunities for 'x' months/years.

But with those precautions, good behavioural insights and correct attention to the teachings of Jeffery Sachs, Paul Collier, Daron Acemoglu, James Robinson, Abhijit V. Banerjee, Esther Duflo, Thomas Piketty and others; a much better aid delivery and efficacy system can be created. Even if the question of becoming an aid recipient has only recently been included in S-World. The systems designed to remove corruption and inefficiency for business in the network are just as useful for increasing Aid Efficiency.

Receiving Aid is a recent idea

Since 2011, Aid has hardly featured in the S-World Network, that was not the plan at all. I had thought that it would make sense for organizations like the Gates Foundation to use the 256 'Power Point' to better aid their projects, but no income was ever added to S-World as a result.

However, on reading The Bottom Billion by Paul Collier, Why Nations Fail by Daron Acemoglu and James Robinson, and Poor Economics by Abhijit V. Banerjee and Esther Duflo, and Oh MY GOD!!!

I have a load of stats. Here are just a few (accurate between 2005 and 2012):
Only 1% of aid to Chad ends up going where it is supposed to. Forty-two per cent of aid to Africa pays for African countries' military. And aid can be the incentive that creates a military coup, and aid to countries can be harmful to export diversification.

This quote from 'Why Nations Fail' sums up the situation:

"But if out of every dollar given to aid, ten cents makes it to the poorest people in the world, that is ten cents more than they had before to alleviate the most abject poverty, and it might still be better than nothing."

We shall return to this later, but seeing as how bad the aid disruption system is and that the S-World business software design has been created to elevate such inefficacies, S-World is now open to aid.

Many different systems would assist. First, I wish to focus on a system that seeks to deliver a minimum of 95% of aid to its intended targets. This system is an adaptation of ŘÉŚ, 'S-World AÉ' (Aid Éfficiency); including accounting and auditing software that will track all S-World companies; and in the process, make fraud incredibly hard to do; and at the same time, taking the monitoring of each individual in the process to a totally new level with the S-World BES™ Observer.

Do not be under any illusion that this is not an extremely complex software project, made all the more complex by the rule that all applications must be so simple to use, that a 7-year-old could work with it.

S-World started as a networking and software project in March 2011. The S-World AÉ software is a combination of all software to date and a reverse engineering of the ŘÉŚ Equation. Since 2011, I have written 15 different (semi-complete) books on the software and what we wish to achieve off the back of it. And still, in 15 books, the actual design on paper is just a fraction of what it will grow to be.

However, with this said, it would take no more than 18 months, given superb technical assistance to create a working version of the software, including working software for Virtual Networks and UCS™ Simulations of Malawi.

After the economics is verified, the direction is Silicon Valley, and the focus is to create the first generation of the S-World software.

i. A Tale of Two Charter Cities – City 1

With the size of the software development task not underestimated, the specifics of S-

World AÉ are simple enough. S-World desires to create a set of Charter Cities and Towns; and within, an industry and trade network that (in its implementation) greatly advantages the Malawi citizens in many key areas.

As this network is created mostly from scratch, starting with a blank canvas, it can adapt its model to suit organizations such as the USA free trade to AGOA (African Growth and Opportunity Act); and maybe the less simple Euro version the EBA (Everything But Arms). In both cases, Malawi and every country Malawi borders are eligible for the arrangement, which is important, as in manufacturing such schemes add as a rule that raw materials used to create products must be (to a degree) from other countries that are members of the program.

S-World AÉ (Aid Éfficiency) is the simple idea to create a network of companies and organizations that use the software, and those companies will purchase 95% of their goods and service from other S-World AÉ companies or organisations or deploy reciprocal trade with S-World neighbouring countries for raw materials and resources.

Labour will be paid well, but mostly in Network Credits, which can only be redeemed at S-World companies; think of this as one gets paid the market rate in local currency but gets a big bonus in Network Credits.

The result is that aid can be channelled far more effectively, within the network, albeit one really needs to know more about the software to be able to judge at this juncture in the chapter. The important thing is simply that S-World AÉ is a rule, that we desire to see 95% transparency of the initial aid being delivered. And if that aid was delivered as a school to be built and staffed, we want to see that at least 95% of the money was spent on construction, teachers, and systems that (after) can monitor the effectiveness of the school and the quality of its construction.

Lastly, note that this does not apply to aid already coming to Malawi. This is all new aid bargained for and achieved. And in an ideal world, we would desire to seek 2% (or more) of global aid from 2024 for 6 years, with 4 years of technical assistance leading up to 2024.

~~This is the story of Charter City 1, a tale without ŔÉŚ, as is mostly described throughout this chapter. One may see this chapter as a backup in case ŔÉŚ cannot be used. However, this is not to say that it is not a good plan, this is the 2nd best plan there is, as it is the only plan there is. The only other plan is ŔÉŚ inclusive. And hence a Tale of Two Charter Cities; one featuring ŔÉŚ, and one not using ŔÉŚ.~~

j. The RES Equation

The RES Equation (since 2012) has been a money multiplier within the money supply. If we take the 95% efficiency presented as AÉ Aid x Éfficiency and change A for R (Aid for All Revenue including Aid), we have ŔÉ (Ŕevenue x Éfficiency).

Then we add Spin so that R x E (being 95% of R) is multiplied by 8 Spins within a year, which increases the cash flow by 695%.

However, as this has yet to be verified, it will feature minimally in this chapter but will be fully described in Part 2. ŔÉŚ (from Chapter 5).

Lastly, note that I do not have any doubt about ŔÉŚ, other than it just seems too good to be true. And whilst there are several examples in economics of free lunches when it comes to increasing the money supply from the Keynes income multiplier to quantitative easing, to the discount rate on bank deposits until ŔÉŚ is validated. I will work on making 'plan b' as good as it can be.

This is, in any case, a good idea; as if one can increase the money supply via ŔÉŚ, then the better the initial concept, the greater ŔÉŚ can improve it.

Angel Theory – Volume 1 – Paradigm Shift

A More Creative Capitalism

Part 2. Charter Cities

Chapter 7. Virtual Education and the Learning Society

By Nick Ray Ball 7th August 2018

Angel Theory – Volume 1 – Paradigm Shift

A More Creative Capitalism

Part 2. Charter Cities

Chapter 7. S-World VSN™ and UCS™ Simulator

By Nick Ray Ball 7th August 2018

This short chapter is included to stress the point that the first phase in operations is not to seek investment into the Charter Cites proposed in the next chapter. Instead, the first objective is to create the software and systems that will simulate the project.

The tool we use to do this is the S-World UCS™ software, which we saw evolve into an economic time machine in the last chapter.

S-World UCS™ is at its heart a game; in that, we are creating software to allow different people to change the allocations/variables and create their own versions of how the network will behave and grow in as simple and a fun way as possible, albeit a lot of the technical stuff needed to create such a game may seem complex.

S-World UCS™ Academic Simulation & MMO Game

S-World UCS™ was first described in the breakthrough final chapter of American Butterfly – The Theory of Every Business (circa 2012) http://americanbutterfly.org/pt1/the-theory-of-every-business/ch8-s-world-universal-colonization-simulator, which is recommended reading for all. As we have read, UCS™ stands for 'Universal Colonization Simulator' as that is the ultimate objective of the game with MARS Resort 1 in 2048 and the rest of space beyond. However, to get there, we need a much more organised and productive economy and political stability. So, these become part of the game, and we start with nothing and build up to these lofty objectives, adding a

truckload of ecological and philanthropic special projects along the way.

Book 7. S-World UCS™ will describe the games in greater detail, for now, I will summarise them.

For the gamers amongst us, think Sid Meier's 'Civilization,' which I personally loved and was popular with both Elon Musk and Mark Zuckerberg back in the day. We copy the growth cycle and research trees but exclude all the FIAT (by force) elements from the academic simulation. The academic simulation is the application we use to create the initial Super Grand Network design. (a Super Grand Network is a network that can expand to any part of a country). The first academic exercise is to break or make the ŘÉŚ Equation, but there are thousands of other academic, financial and logistical exercises that will be 'gamed out' along the way.

Then, we turn this simulation into many fun games, some of which will re-add the conquest and battles within the simulation to make it more fun.

The academic simulation becomes the base of the UCS™ MMO game (MMO is when an online game is played online by many people). And should one wish to specialise in the MMO game, one can play a different version of the game.

A great many games will be added to create the full simulation; such as games like Railway Tycoon that focus on the creation of infrastructure, and Football Manager that ranks all the players in the 256 Football Clubs that are currently suggested to be created before anything else in the Super Grand Network, which expands out to become the recruiting platform for the networks.

Continuing with Football, the 'FIFA Manager' games had a very good financial interface that pretty much told you all you needed to know. This function is now the S-World TBS™ (Book 4), of which several items of the 'super simple but super effective' business software are seen on http://network.villasecrets.com; which has been created under the premise that it must be simple enough to be added to UCS™ Games. And if we look at the plans for the CRM-Nudge-Ai http://network.villasecrets.com/the-secret/ch6/crm-nudge-ai, we see that not only is the software very simple, it can also be used very simply on mobile, thus UCS™ Games can be made for console, desktop, TV, and mobile platforms.

Villa Secrets itself will become a game. Indeed, the first idea for this was in 2003, albeit the game's name back then was 'Villa Mogul' and it was to be (and still can be) the first game to be created that creates real new business opportunities for exceptional players and teaches the personnel of that venture everything they needed to know and more.

Everything that gets created for business or academic use will be featured in S-World UCS™ Games. And we desire to massively popularize the playing of S-World UCS™ Games because making the simulations is one thing; a very useful tool which would see the academics, business leaders, and their teams attempt to make the best strategy, a strategy that works so well that it changes the act of looking for investors in the firsts Super Grand Network, to a case of having to decide who gets the opportunity from thousands of qualified applicants.

This then allows us to create some choice architecture and defaults for MMO gamers, who can then play the game, again and again, seeking to create an improved strategy, which I am sure they will. This then brings us back to the 2003 Villa Mogul idea that the game can pay. So, if a player created an improved strategy adopted by the Super Grand Network which made an effect, they would be paid quite a lot (in USD); hundreds for small effects, thousands for significant effects, and millions of US dollars for a design that was a 'game-changer.'

Continuing UCS™ MMO gaming (which will be expanded upon greatly in Book 7. S-World UCS™) we add S-World VSN™ Virtual Social Network (Book 5); which is also a tenant of American Butterfly – The Theory of Every Business (circa 2012), this time the penultimate chapter that came before S-World UCS™ - Chapter 7. S-World: http://americanbutterfly.org/pt1/the-theory-of-every-business/ch7-s-world.

The simplest application of S-World VSN™ is to use the SIM City urban development engine; in combination with the SIMS, both with a number of new build-and-design additions, such as a range of architectural features by my favourite architect Stefan Antoni www.saota.com. See www.saota.com/all-projects/single-residential for Villas and homes, www.saota.com/all-projects/master-planning for resorts, www.saota.com/all-projects/commercial for commercial, and www.arrcc.com for interiors.

Once these and other design additions are rendered, gamers can build individual properties, resorts or even Network Cities; which is currently the biggest single revenue stream of the Super Grand Network simulation. Gamers can also build the new 256 'subnetworks' starting with very basic beginnings in real locations. And over the years, as the network grows, these 'subnetworks will grow; some very quickly and some slowly, depending on what businesses have sprouted.

Again, having a mass of players with different renditions; and some players would likely be collaborations of professionals in real estate, architecture, urban and rural development, will likely lead to a better design. And again, this creates the opportunity for great reward; from tens of thousands of dollars for a Luxury Villa design that was chosen by a buyer to tens of millions of dollars for the design for a Network City.

Lastly for now, once the simulation software is created, we can start to move from the betterment of a single country (and in this example, I have chosen Malawi) to the betterment of many, so developing into a worldwide simulation; which becomes entangled with the POP Global, Continental, Regional and Local cubic structure described in Chapter 2. And here we see why it is so essential to make the visual overview of the global economy so very simple so that it can easily be added as the global economic engine behind all simulations and could be understood by users very quickly.

>>

Or put another way, this time by Nobel laureate Paul Krugman in End This Depression Now!:

One will need to take this point on faith for now, as it is to be presented in great detail in the second part of his book. However, via the 'Sienna Equilibrium,' empowered by all the other software, ~~that needs at least 5 books to describe in full,~~ international trade aside, the demand is prewritten into the script, and the script is then played out millions of times in S-World UCS, to fine-tune and perfect.

Demand is accelerated via the RES process which, ~~as we heard earlier, is now also AE 'Aid Efficiency~~. In the safe RES Spin 1 model with its efficiency at 95%, at the least, we know where 95% of the money goes. And note that personnel are paid the bulk of remuneration in Network Credits which are dollars (not kwacha), and are effectively time-sensitive gift vouchers, that are then split into different sectors: food, housing, transport, luxuries, electronics, and so on. And in some cases, Network Credits are specifically for one store or even one product in a store. The usual cost of low-cost labour as a percentage of the price of goods is 16% in the bottom billion, and we can make this work. However, currently in 2024, I am targeting 25% of cash flow to Labour. And of this is distributed as welfare to the personnel's village (or another village if that village is already getting a lot), and 25% would pay for the staff's home (an adaptation of the original Spartan Contact idea).

And so, if we can get salaries to 25%; where half is welfare and can be categorized as either Aid, Government Spending or S-World.org Spending, we know that 6.25% (being 25% of 25%) is allocated to construction and the building of four-star affordable housing.

The Sienna Equilibrium is based on this kind of reasoning but extended to every transaction and, as has been presented, 95% of which will go from one S-World company to another. And all this spending will be mostly (over 80%) be already programmed into the S-World UCS Simulation; with the 20% being guided to one or another S-World non-Tender company, which as suggested can be diverted to where we want it. This, in terms of 'Demand,' we already know where 95% of the money will be spent in Malawi 2024. (including export swops)

The only mystery is how much extra money will be made from trade, aid, and Network Cities.

Lastly, of course, is that with 95% of money transferring from one S-World company to another, in the following cycle (and let's call it a year), that money is still in the S-World economy. Albeit this is now firmly going down the RES road, which is simple to spend that money within the network a number (8 to 24) of times within a year to greatly increase cash flow, of which just over half would turn to GDP.

Alternate Version:

M-System 12. S-World UCS Simulator

http://www.angeltheory.org/book/1-3/the-s-world-ucs-m-systems (2017)
http://americanbutterfly.org/pt1/the-theory-of-every-business/ch8-s-world-universal-colonization-simulator (2012)

S-World UCS stands for 'Universal Colonization Simulator,' which was named after the flagship special project (ecological, scientific, or philanthropic) from American Butterfly – The Theory of Every Business – Final Chapter: S-World UCS™ (2012). Project 'Mission Gliese,' the final special project aimed at saving our complexity by reaching for the stars hence the name 'Universal Colonization Simulator.'

S-World UCS™ was, in essence, the design for an MMO (Massive Multiplayer Online) game, an evolution of the gaming idea 'Villa Mogul,' a management game based on a real business, where winners can win franchises, from 2003; which was featured as the 1st step in the Facebook Travel plan circa 2011, albeit with a less flamboyant title: 'The Facebook Travel - Tutorial Game.'

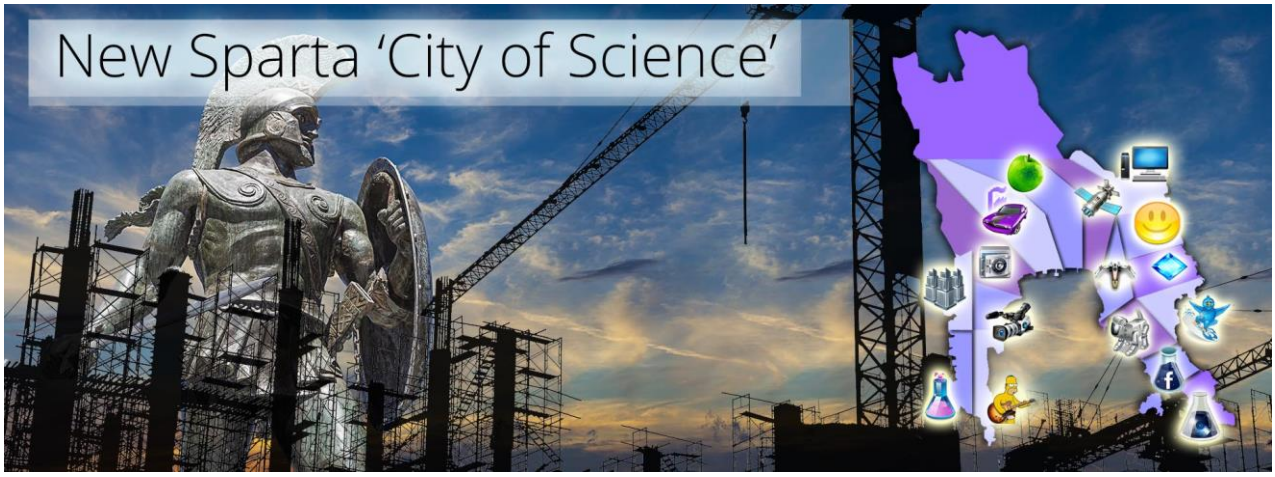
A year later, this plan had grown to become the final chapter in my first attempt at writing a book and inspired two further follow up book attempts: 'Spiritually Inspired Software' and 'The Network on A String,' circa 2012.

Six years later and S-World UCS™ is everywhere, it is the way to simulate future actions, and as such, everything that we are going to hear in this chapter and indeed the rest of this book is not

an actual suggestion. No one is not saying… Hey, Norway SWF, how about buying a Charter City (a Grand Network)?

Instead, we look to Mark Zuckerberg, Bill Gates, Elon Musk, Paul G Allen, and maybe Jeff Bezos and say we need technical assistance to create the Super Grand Network (a country with 16 Grand Networks) as a near as unbreakable simulation as one can make; that when perfected, will give Norway SWF, Harvard MC, and many others a desire to invest. Indeed, we desire all investments in Charter Cities~~; or as they are known, when sold to a single country, organization, company or individual 'Network Cities,~~' to be heavily oversubscribed, indeed this is a founding principle.

Below, we see the first serious plan for such a set of developments in Laconia in Southern Greece and the New Sparta City of Science from 2011.



For more on New Sparta, follow EEE - The Economy for the Next 14 Billion Years (where EEE is Ecological Experience Economy), also from 2011.

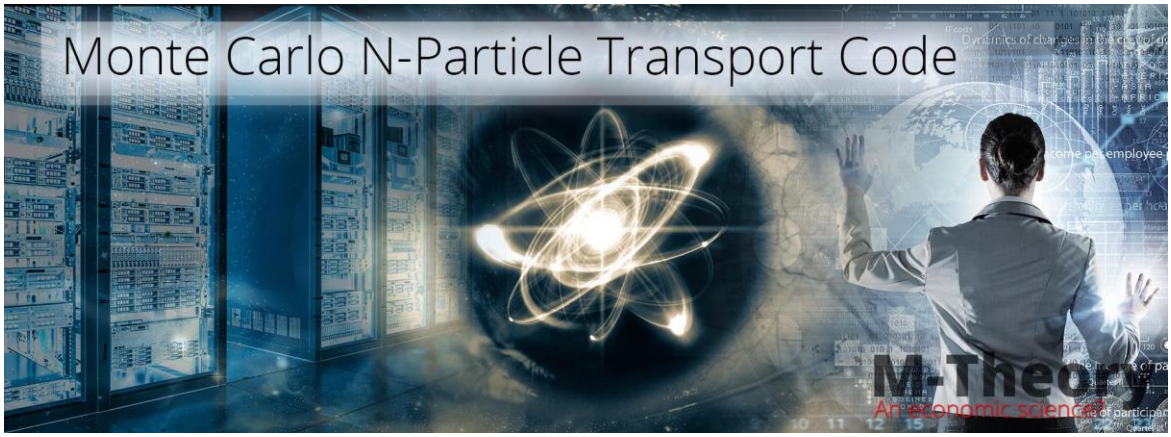
That's the job of S-World UCS™, to as perfectly as is possible predict the future of a Super Grand Network, to make investment opportunities heavily oversubscribed, and at the same time make the case for aid.

I would like to think I have already done a first-rate job and that the simulation you will read will be exactly how events roll out. However, if that were the case, we would not need S-World UCS™. So, maybe, 25% of ideas may actually happen, and our designated country of Malawi may change. And 75% of what happens in the future is yet to be imagined. That is the purpose of UCS™, and more…

Technically, UCS™ is a combination of Ai and human experimentation. For the Ai, I desire a system called the 'MCQPS' (Monte Carlo Effect Probability Software) which is similar to the 'Monte Carlo N-Particle Transport Code' used to make nuclear reactions as powerful as possible. But instead of quantum mechanics and estimating every possible nuclear fission reaction, so the nuclear reaction can be as strong as possible but is still certain to go bang, the MCQPS tests every possible action within a UCS™ simulation; really drilling down to the nuts and bolts of each company and development within, seeking the most profitable solutions, but then applying a tonne of ripple

effects to see how to make the network as a whole as profitable as possible; whilst at the same time, seeking to complete as many special projects as possible per M-System 2. Ripple Effects and Elephants, a pivotal chapter and well worth looking at (www.angeltheory.org/book3-14/ripple-effects-and-elephants-for-paul-g-allen).

This can create millions of millions of different ways to set the variables that lead to the most profitable and beneficial variable set/default setting.



Then, one adds the human operator, and he/she has immensely powerful predictive systems, and many AI + Human simulations will be made with trained S-World personnel and assisting academics. And then, there are teams from S-World working with the AI, and there are many individuals who have no training who just play with the system and try and find a better way. And it is probably from these individuals where many of the best micro strategies will emerge.

Ideally, we would ~~not~~ have a large quota of such individual, millions and maybe even billions; which would (of course) be ridiculously expensive, unless one turns the simulation into a popular MMO game that people play for fun; which later turns into a recruiting platform and pays millions and millions to those that find a better way; basically, to those that win the game, or one of the thousands of component games within the overall framework.

S-World VSN™ - Virtual Social Network

When it comes to Charter Cities, Grand Networks, and Networks Cities; S-World needs to develop the visual framework for the simulations, and this is S-World VSN™ Virtual Social Network.

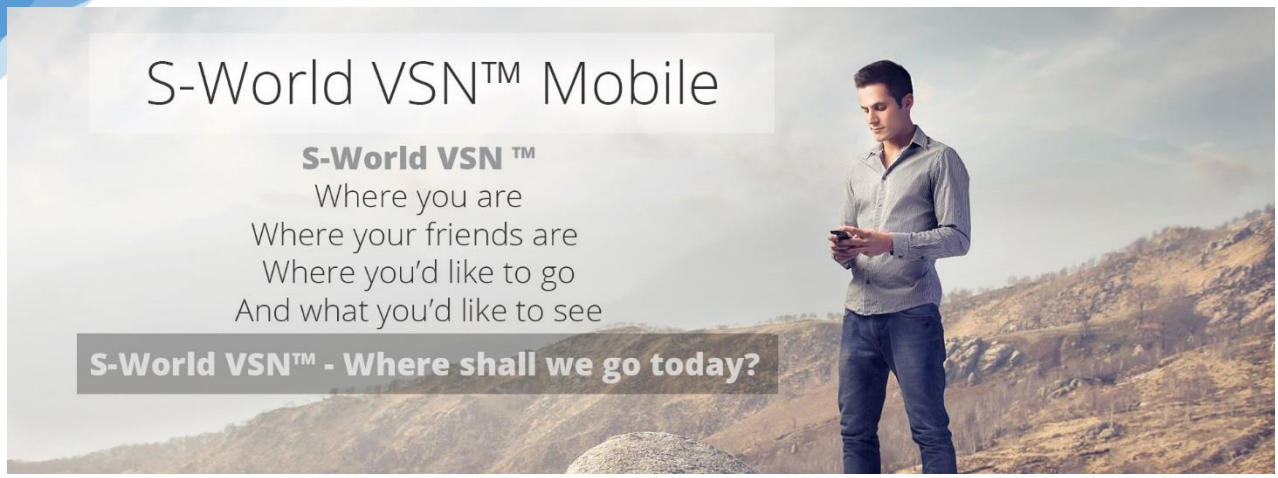
Put to scale, the S-World VSN™ is a multi-universal map spanning the estimated 10^{500} universes in the multiverse, which extends down to strings. However, the first step is to create a map of our universe ~~and keep working on it forever~~. My desired universal map maker is President Obama's science advisor Professor James Gates who has found a computer browser code within his equations of supersymmetry, and this code will become part of the VSN™ framework. If this code is to be at all useful, it would be so on a browser-based platform, which VSN is. See the hilarious exchange as Gates informs Neil deGrasse Tyson of this in the '2011 Isaac Asimov Memorial Debate: The Theory of Everything' www.youtube.com/watch?v=Eb8_3BUHcuw.

Creating such a map allows us to creditably change the laws of physics, as this is how the 10^{500} universes are explained to be. They have their own laws of physics. So, as a game, one may play in another universe where magic exists (and at the moment I am writing out this quality as a set of different virtual worlds), some like the OASIS in Ready Player 1, some like the Land, some like The Game, and many others besides.

Coming down to earth, the S-World VSN model 1 is a copy of our planet, in which users can teleport to other users' locations and virtually see all that they can see. That can be rendered first by triangulated starlight data and then by people just photographing with cameras set to VSN render. Of course, this is a very expensive exercise and is not the first version of S-World VSN model 1. Before the global model is made, S-World VSN will be used to map Super Grand Networks.

Let's consider a Charter City for the Norwegian Sovereign Wealth Fund. Once land is found, the game begins. The desired and quickest way would simply be to use a combination of SIM City and The SIMS but add some cutting-edge architectural design options and designer interiors, such as my firm favourite Stefan Antoni

Using this technology, we can immediately open up the simulations to online players and Facebook users and adapt to other platforms. And at first, a few thousand gamers will start designing, from the entire city to single houses, and a competition will be held to make an awesome city. And the winners will win a big prize which comes from the S-World Films PR budget, let's say $1 million. As the word goes out that someone won a million dollars by playing a game and press releases saying that that's just the tip of the iceberg… and how presto! a million users, then…



The game, however, is in two parts: on the one side, we have the PR and a great way for clients to view the off-plan development; and on the other side, we have the logistics. In the first game, we can be only halfway correct, but as the game develops, the price for building such a house using the materials as specified in a specific location gets more and more accurate. And once houses start getting sold and then built, more accurate still, and this can be said for every business and essentially everything in the simulation.

However, currently (and this may change), the objective is to see the game so popular and orders of real estate (commercial, industrial, municipally, wonders, and residential) so that it becomes a tempting opportunity for large wealth funds, companies, and countries who buy whole cities. Also, at first, we're talking about medium-sized towns with maybe 50,000 people.

So, in essence in this instance, VSN is a marketing PR and logistics system.

Now, that we have a very basic idea of what S-World UCS and VSN do, we shall return to Professor Hawking's 'A Good Model' and point number 3.

Angel Theory – Volume 1 – Paradigm Shift

A More Creative Capitalism

Part 2. Charter Cities

Chapter 8. A Tale of 2 Charter Cities

By Nick Ray Ball 25th August 2018

When I first gave this chapter its title, the reference to 'two' charter cities was to be one plan that used ŘÉŚ and one that did not, in case there is a problem with ŘÉŚ, and this chapter was the entire second part of the book.

One month later and I am almost positive we can at least use ŘÉŚ with one spin, so for now the meaning of 'A Tale of two Charter Cities' will be the difference between ŘÉŚ Śpin 1 and ŘÉŚ Śpin more than 1.

Also, the chapter title is relevant to whether to create one or two charter cities in the Malawi 2024 Simulation, where one city focused on AGOA and trade with the USA and one with EBA and trade with the EU, or just one Charter City?

Lastly, we could also consider this chapter title relative to the question of which country to create the first charter city in? With Malawi as the current favourite and Zimbabwe as the second favourite.

But what is a charter city?

A charter city is a large city-sized property development, which has been the business model to complement the software since 2011. I call such developments 'Grand Networks,' but in 'Poor

Economics' by MIT professors Abhijit V. Banerjee and Esther Duflo, the same idea was touched upon and in this example, the development was called a 'charter city.'

POOR ECONOMICS
by MIT professors Abhijit V. Banerjee and Esther Duflo

"One possible way to break the vicious cycle of bad institutions is to import change from the outside. Paul Romer, known for his pioneering work on economic growth a couple of decades ago, came up with what seems like a brilliant solution: If you cannot run your country, subcontract it to someone who can. Still, running an entire country may be difficult. So, he proposes starting with cities, small enough to be manageable but large enough to make a difference. Inspired by the example of Hong Kong, developed with great success by the British and then handed back to China, he developed the concept of "charter cities." Countries would hand over an empty strip of territory to a foreign power, who would then take the responsibility for developing a new city with good institutions. Starting from scratch, it is possible to establish a set of good ground rules (his examples range from traffic congestion charges to marginal cost pricing for electricity, and of course include legal protection of property rights). Because no one was forced to move there, and all new arrivals are voluntary—the strip was empty to start with—people would not have any reason to complain about the new rules."

One minor drawback with this scheme is that it is unclear that leaders in poorly run countries would willingly enter into an agreement of this sort. Moreover, even if they did, it is not clear they could find a buyer: Committing not to take over the strip of land once it is actually successful would be quite difficult.

RE Paul Romer's comment **'Moreover, even if the Politian's did agree, it is not clear they could find a buyer: Committing not to take over the strip of land once it is actually successful would be quite difficult.'** As for the worry that later governments may seek to take back the new 'City/Cities,' we have the 'Comparative Advantage' strategy, in which and single Charter City will focus on construction, and a few key products, which are traded for goods that are needed to run the economy and please the public, so that a Network Credit can buy 99% of whatever the public wants to buy, at the same or lower prices.

If a government were to take over, all this 'Comparative Advantage' trade would stop, the City could continue to produce for a while, but all international S-World buyers for the goods would be barred from buying their goods, this would happen instantly as a TBS function. And as you can't eat, ware or have fun with high tech battery's and solar panels, which may be the 'few key products' the economy which can't sell its goods and cant import what was previously being imported would stagnate and of course any such government action would immediately see all investment into real estate dry up and within a short time the economy would flatline.

In addition, I can see not one big City, but many towns and a great many small towns spread all over the county. And in each location due to the economic benefits, electricity, education, health care et al. The local people will object to government control.

>>

Charter Cities

A Charter City, as described by Paul Romer, the Chief Economist and Senior Vice President of the World Bank until January 24, 2018, is described as similar to Hong Kong; a country invites another country or organization to create a 'Charter City' within their country. Since Angel POP in early 2017, the location of this development has been a country in Africa in abject poverty; which is a full circle from the initial concept in 2011 and Zimbabwe to the current concept in Malawi. However, there was a very wide scope of influence between the two.

b. **Zimbabwe** – March 2011
   The simple idea that the software development need was so large that it would take a Googleplex-style city inside a country. And that if that country was Zimbabwe, then the potential for growth could have a noticeable effect on the economy, and S-World would be seen as an economic multiplier.

c. **Libya** – April 2011
   Having been advised the political situation in Zimbabwe was not stable; for a brief time, a spiritual influence drew the hypothesis to Libya and the idea (albeit premature) that such a development could assist peace initiatives.

d. **New Sparta – City of Science - Greece** – September 2011
   The first Charter City to be given detail, New Sparta, entangled many software initiatives; the POP Principle and an ecological Resort Development. Where the software development and the land become part of the same package, with the desire to hedge the technology investment with a physical asset (the residential, commercial, and industrial land in New Sparta).
   www.s-world.biz/TST/EEE-14Billion_Years.htm

e. **The Orlando Network - USA** – January 2012
   The next Charter City saw more detail in construction, based on a real-world 9.5 square mile mixed residential and commercial development opportunity, about 10 miles from Orlando, containing a nature reserve and lake for offers of $100 million; where after at first on S-World.biz and in May 2012 American Butterfly – The Theory of Every Business, went into significant detail on the construction costs of such a city. It also championed the start of integrating the special projects.
   http://americanbutterfly.org/pt1/the-theory-of-every-business/index

f. **A Break from Charter Cities** – 2013 > 2016
   From 2013 to 2016, the focus changed to creating the systems and networking strategy necessary for successful implementation of a Charter City and Virtual Networks (which are any operation in a country that does not have a Charter City/Grand Network).

g. **African Butterfly** – 2016 > 2017

In 2016, the idea for a Charter City in Africa started to see some investigation, and then in early 2017, with the development of M-System 15. Angel POP, the focus of Charter Cities was refocused on countries in abject poverty with Malawi and Zimbabwe at the front of the queue.

Then…

h. **MARS Resort 1** – October 2017 > 2048

On reading Elon Musk by Ashlee Vance and hearing of his and SpaceX's intention to create a mass transport system to MARS; for fun, as a suitable objective for S-World UCS™ (Universal Colonization Simulator) and to present to Musk and other Space Barons, I started to work on a series of Charter Cities on MARS in 2048.

This exercise demonstrated the power of the ŔÉŚ equation and expanded the idea of Network Cities, which was to create a small town that could grow into a city specifically for different clients, such as Apple, Google, the USA et al.

i. **African Butterfly - Ecological Rules** – 2017 > 2018

Since New Sparta, all Charter Cities have been given the rule 'must be an ecological improvement.' We can see 10 ecological projects featured on the breakthrough chapter that inspired this book www.angeltheory.org/book3-14/ripple-effects-and-elephants-for-paul-g-allen.

One such rule is the idea that each square mile, where a Charter Town or City is created, must be an ecological improvement. And for this objective to work, we need to start with a country with a lot of poorly used farmland. And from the looks of Google Earth, that country is Malawi, but could easily be Zimbabwe.

One simple rule adds a lot of money to real estate and helps to eliminate slum type low-cost housing neighbourhoods, it improves the amount of oxygen created, plus has conservation benefits. This rule is that is for each square mile of poorly kept farmland we zone for Charter Cities, 50% of the square mile must be designated as bush and forest and will be returned to the type of rainforest vegetation we see in neighbouring Mozambique, which was likely similar to Malawi's vegetation before it was all chopped down. So this is a reversal of mankind's sins on the earth.

With half the land reforested and in fenced parts are Elephants, Rhinos, Cheetahs and Wild Dogs and other animals; all of the animals can be reintroduced to the land, which will kick out probably more than 10 times the oxygen (so directly fighting carbon) and conservation wins as well.

And because of this, Malawi has been chosen as the first African Butterfly Super Grand Network.

A Super Grand Network is a countrywide initiative including more than 16 Charter or internally built S-World Cities. An initiative to feed, house, educate, care for, and eventually employ or pay to have education or be involved in sports for all Malawian citizens by 2080, with over half assisted by 2048.

j. **The Malawi Super Grand Network** – January 2018 > Present

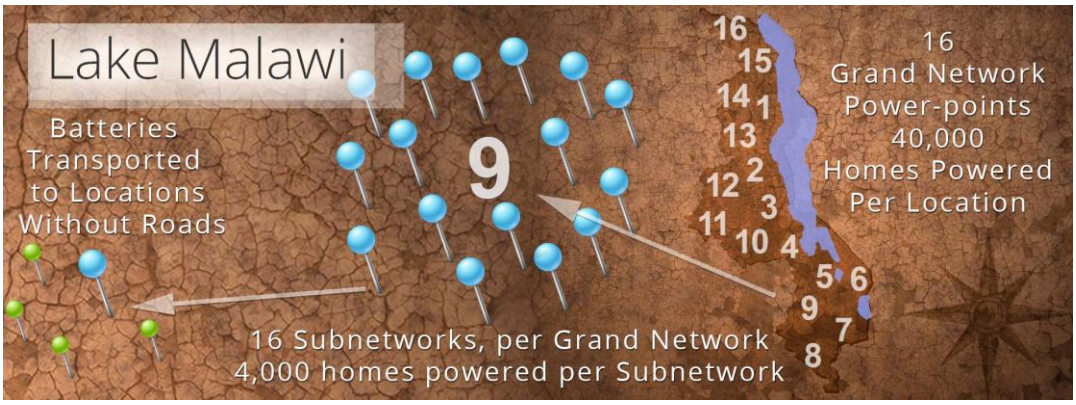
The Malawi Charter City initiative had been thought about before 2018, but only a little. It was after seeing what ŘÉŚ could do on the MARS Resort 1 hypothesis, that opened the door to the safest country with the lowest GDP. As the MARS Resort 1 model started with nothing and worked because it started from nothing.

In 2016, Malawi was the world's 6th poorest nation in GDP per Capita (average citizens income) and is one of the safer countries in Africa. And so, I started to write a book called 'The GDP Game,' in which the first plans for the Malawi Network were created; and a ŘÉŚ 2020 to 2039 UCS Simulation, which even when cautious, raised Malawi to about 25th in the country by country GDP World Bank 2016 GDP category, with potential and indeed momentum to rise higher still.

The tool to forecast this huge rise in fortune was a ŘÉŚ UCS™ Simulation.

The development footprint has changed significantly from the first idea of one big Charter City near Lake Malawi, in part as the land is mostly forested and we can't break the ecological laws.

Now, we see 16 Charter Cities and 256 S-World Towns spread out from each city, and from each town a set of neighbouring villages.



One big priority is education, which is technically achieved by S-World VSN™ Virtual Education and other initiatives, but is logistically disadvantaged because there is no power in most of rural Malawi. So, to provide education, we need first to supply the power. More on this and the idea that we first create local league soccer clubs (a behavioural insight, if ever there was one) later in this chapter.

I am now working from memory, so my percentages may be a little off.

In either 'Poor Economics' by Abhijit V. Banerjee and Esther Duflo or 'Why Nations Fail' by Daron Acemoglu and James Robinson, I was surprised to hear that all taxes collectively in sub-Saharan Africa is averaged at about 16%. Whereas in the USA, it is close to 36%; and in Europe, 45%. It is also said, and I agree, that it is good institutions that account for the difference, which sounds reasonable.

In 'The Plundered Planet,' Paul Collier and team make the point that in resource-rich African democracies, the tax is so low because the leaders of the country are plundering the natural resources and keep a low tax so that the citizens do not ask questions about where their tax dollars are being spent; which is very cynical but probably also very accurate.

So, Malawi, with better governance than most, may have an all tax's income of 25% of its GDP of $5.44 billion, thus $1.36 billion in taxes.

~~I do not wish to sound like a broken record, but~~ if RES Spin 8 holds, then in 2024 with an E (Efficiency) of 95% with R (initial revenue) at $5,497,558,138.88, is on spreadsheet 1.32d projecting $13,416,862,712.86 in Network Credits; which is nearly ten times their current taxable income.

And in general, the idea is simply that Malawi follows China's example per 'Straight Talk on Trade' by Dani Rodrik:

"China established special economic zones in which export-orientated firms were allowed to operate under different rules than those applied by state enterprises, and to others focused on the internal market."

And to define the concession, RES or not, S-World will provide Malawi with a greater figure in Network Credits, that can be spent on almost anything, in place of tax.

~~Again, this is a RES strategy that I hope we would be able to make work, even if we don't use RES. And remembering now that we are seeking to get new aid (on top of what is already coming) which if we can secure 2% of current aid would increase the effective 'yield to the people of Malawi by about $3 billion. This, even without RES Malawi, would more than likely double their spending if they agree to substitute tax dollars (that would not be available without the initiative) for at least twice as much in Network Credits.~~

~~Without RES, it's not essential. But it really helps the economics if the many good things S-World wishes to do were essentially swopped for speculative tax dollars.~~

Another consideration from Paul Collier's 'The Plundered Planet' is to consider the initial investment as similar to prospecting.

> *"Let's keep things simple and suppose that it decides to stack it all onto a single upfront payment. It promises a tax-free environment and hopes to get all the 300 million dollars at the point of signature, which is called a 'signature bonus.'"*

This is interesting as it's a precedent of sorts for tax-free environments linked to a 'signature payment,' so such a significant payment should be expected, but in return be taxed per Network Credits.

>>

Antitrust

From a certain (even popular) point of view, the higher the 'E' efficiency (each company orders for another, and personnel spend most of their money at one or another S-World company), the closer one is to a monopoly.

However, SpaceX and Virgin Orbit, both operate with an effective E of 90%, as they have created many internal divisions and subdivisions to make the many components that go into making rockets. And no one is claiming they are in breach of antitrust, and the entire S-World Network could be legally created in a similar way. And from this perspective, there should only be antitrust implications when either the network becomes macroeconomically significant (which is massive) or E rises closer to 100%.

The big question therefore is are there any antitrust implications for AGOA or the EBA?

Second, antitrust was created to protect the consumer mostly from high prices when there is no competition. Antitrust laws serve the public good. And so, if the public good is best served by the type of monopoly described, then such laws should be made in favour of the action.

When is a Monopoly a Good Model?... When such a monopoly is clearly for the public good.

>>

Different Company types

This is a subject for the Sienna Equilibrium within an S-World UCS Simulation and is critical to RES. However, as a real simple starter, we need to create the companies necessary for the prementioned big brands to agglomerate with; and as a road map, I would look at the SpaceX (and

Virgin Orbit) approach to this problem. Both are space flight companies, but unlike other space flight companies who have been assemblers of parts from 10,000 different companies, SpaceX instead set up shop in LA and created 90% of the components they use in-house. This can be the same for our Foxconn Malawi Simulation, albeit in place of just SpaceX as a single diverse giant company, there would be a network of companies, all coordinated by S-World, so (in fact) it's almost the same. And if this can be done in LA paying US wages, it can work in S-World Malawi, so long as the basic infrastructure and technical assistance is provided, and in place of building spaceships, other goods were created. Add that to the technical assistance personnel, and one has the base to compete for the major brands to head up their African operations.

If we say that half of the investment went to creating the above, then after, about 35% of companies would be in construction, and maybe the final 15% were all luxury brands, then we get a very basic picture. But again, I point out that the actual eventual outcome would have been gamed out within the Sienna Equilibrium and S-World UCS Simulator.

Why luxury goods? Well, for one, they are cheap to transport. And secondly, it is the complete opposite of what India, China, and the rest of the developing economies are focusing on. Luxury brand companies also have a lot to gain from the PR; and luxury goods, at a village level, can be distributed to individuals who can trade them for essentials. Next is the trade opportunities to Asia and the Middle East, even with import duty luxury goods are still very profitable. Lastly, luxury goods are synonymous with high real estate prices, and with 35% of the budget dedicated to real estate and infrastructure, the higher the price sold, the better it is. Lastly and kind of the same point, is luxury is also often associated with safety and will have tourism benefits.

One thing I need to demonstrate and will only do so in Part 2 of this book, is how (for the most part) the fortunes of the S-World companies are preordained, in that the product and cash flow from tender companies are guaranteed to be a success, so long as they fulfil their tender orders. Sure, there is an opportunity for all tender companies to do better by more trade to markets, but if all it does is fulfil the preordained strategy, that will still be plenty. To quote Paul Collier quoting Paul Samuelson, 'Of that which we cannot speak, we must perforce be silent (or did someone else say that?).'

>>

The Initial Investment

One idea, the one I am currently using, sees the pre-2024 investment at $5,497,558,138.88; which is used to create the infrastructure, real estate from which companies work, and develop the companies and workforce. For their initial investment, the companies would own 50% of the new companies and industry. Where after, the same companies would invest $5,497,558,138.88 into stock and operations in 2024 and receive 12.5% in Network Credits each year. Rising to 25% after reaching a financial target.

Note that the other 50% would not be owned by S-World, but instead, the personnel, which makes for a much more empowered and enthusiastic workforce, and of course decreases inequality. 25% of the company would be distributed as equity to the initial personnel up to 2025, and the other 25% would be distributed to additional personnel over the next 16 to 32 years. Then either when the Gross Profit of the company in a year is the same as the initial investment, or after 16 to 32 years, the company would split in two, so original inverters now own 25%, personnel own 25%, and there is now room to include future personnel up to 2080 and beyond.

The key here is that all companies that invest create a company, and this company is based in Malawi, and (at first) pays for its Real Estate (buildings, offices). Then in the following years, uses the 12.5% in Network Credits to pay its labour and buy goods or parts. The bonus for investors come from a doubling of this allocation of 12.5% to 25% after S-World Malawi reaches a specific output (GDP). Say $43,980,465,111.04, at which point the extra 12.5% in Network Credits on the original $5,497,558,138.88 being $687,194,767.36 or 1.5625% of the economy is well within the margin; and for each additional growth year, this percentage lowers. (Note that the actual liability would be 3.125%, as my sums above are only for the escalation in fees.) However, as you will see, as we can pay in Network Credits, then the money becomes part of ŔÉŚ and the Sienna Equilibrium.

The 4 Different Major Income Streams

1. Network Cities	>	Norwegian Wealth Fund	>	$1,374,389,534.72
2. Aid	>	Various Gov's and NGOs	>	$1,374,389,534.72
3. International Trade	>	All Trade after the Swops	>	$1,374,389,534.72
4. Malawi	>	Not Networked Companies	>	$1,374,389,534.72

The above are all reasonable and add up to the exact same as the 2024 investment: $5,497,558,138.88

I am moving to the original spreadsheet 'Paradigm Shift - Lake Malawi ŔÉŚ 2024 to 2039 – Cautious Estimate – 1.32d (12th August 2018)' and Tab: Tab 2024 - ŔÉŚ 1.02 É95 Tax NC…

In which we spin 8 times at an É of 95% (and remove a little Ŕevenue to buy land). This creates a money multiplier (turns Ŕevenue into more Cash Flow) of 695%, making $38,235,268,098.19 in cash flow, and $3,345,620,786.93 is conserved and added as Initial Ŕevenue in 2025.

This is from the Initial Investment, but if we also achieve the sales from the '4 Different Major Income Streams,' then this would more than double (more than, as not all payments will be made in month 1, and so would lose less to É due to less Śpin) to above $6,691,241,573.86.

And on the way, if cash flow is split with half creating parts for goods and construction and the other half creates goods and construction that can be sold, then GDP would be in the region of $38,235,268,098.19 when we include cash flow made from the initial investment and the 4 Different Major Income Streams.

Profit - Network Cities & Other Additional Income

A Tale of 2 Charter Cities – City 1

Earlier in this chapter, 'A Tale of 2 Charter Cities,' presented two models; one that used ŔÉŚ with Śpin 1 and one that used ŔÉŚ Śpin more than 1

I feel confident after Paul Collier's point that: **"In the simplest economies everything is sustainable, the economy remains exactly the same from one year to the next,"** and other similar points that 'The Law of Conservation of Ŕevenue' must be. If there are no spins and we have an E of 90%, at the end of the year, 90% of the Initial Ŕevenue is in the hands of one or another S-World company.

And if Ŕ = $5,497,558,138.88 and 90% is conserved to be used the following year, then Ŕ the following year would be $4,947,802,324.99; which means to be as successful as the previous year, one needs to only seek trade, investment, or aid of $549,755,813.89.

Earlier in this chapter, I briefly introduced the 4 different major income streams. Here they are again:

The 4 Different Major Income Streams

1. Network Cities	>	Norwegian Wealth Fund	>	$1,374,389,534.72
2. Aid	>	Various Gov's and NGOs	>	$1,374,389,534.72
3. International Trade	>	All Trade after the Swops	>	$1,374,389,534.72
4. Malawi	>	Not Networked Companies	>	$1,374,389,534.72

The above adds up to the exact same as the 2024 investment: $5,497,558,138.88

Let's take these points one by one.

1. **Network Cities**
   Network Cities have been around since New Sparta in 2011, see www.s-world.biz/TST/EEE-14Billion_Years.htm. The original idea was to add to a city in which one square mile was given to every country on earth, building their own embassy and small Charter Town, which added to the Super Grand Network.

   Network Cities were not included in the following Orlando Network from American Butterfly in 2012 but then resurfaced and metamorphized in the 2017 MARS Resort 1

Simulation. The metamorphosis was that instead of seeking to sell real estate plot by plot, that MARS Resort 1 focused on creating Charter Cities with 1 square KM each, that would sell to the likes of Apple and Google, or (in fact) anyone who could afford one, in an auction; which might expect to raise $50 billion, most of which would be used to develop their own city. This was a growth - not a profit strategy.

Of course, $50 billion is a lot to pay for an untested product, so the idea evolved to create a prototype, also in a location that mostly needed to start from scratch, in which RES economics could be implemented. And Malawi was chosen as the first MARS Resort 1 prototype, including the Network City concept. Where after, when reading Poor Economics by Abhijit V. Banerjee and Esther Duflo, I was introduced to the Charter City idea, which was a good economic precedent for the Lake Malawi Super Grand Network.

If we remember, there are 16 different sites for 16 different Grand Networks, and most or even all but one would likely be Charter Cities sold to responsible funds, organizations, countries, or companies over a minimum 8-year period.

The appropriate POP Dimension may be D8x2 which is $1,374,389,534.72, this would be the price per year, and most investment would equate to infrastructure and real estate that the investors would own. Plus, an allocation of Ťender companies (Companies that had Ťenders, such as to provide all the aluminium windows for one, more or all Network Charter Cities). A peppering of supporting service companies, and their own Special Project Experience Africa Nature Reserve, a home and breeding ground for Elephants, Rhino, Cheetah, Wild Dog and other animals, that would take up half the size of the City.

As the Malawi Super Grand Network grows its GDP each year, then the value of the Network Charter Cities will increase in kind, and all Ťender and many other S-World businesses will wish to buy the real estate from the Network Charter City owners and reside in the city. (In fact for Ťender companies this is a must, Ťender companies cannot have rent as an expense, and wherever possible this applies to all companies and is a reason why they are more competitive)

(Add that surrounding the city is Malawian 4-star suburbs)

And as the cities are in part designed to recreate the service offering from Foxconn City, many other businesses will wish to reside and do business in the city.

I have chosen the Norwegian Wealth Fund after Thomas Piketty told me that one of their key focuses is real estate in emerging markets. And of course, it did not hurt that they have over $ 1 trillion already invested. However, there are hundreds of other options.

I can see a scenario where we start a new Network Charter City every year, and the price would likely rise. Creating tens of billions in new Initial Ŕevenue each yarer, which at the least would follow the Law of Conservation of Ŕevenue, so increasing the economy year on year; and at the most, we could Śpin this investment as well as create hundreds of billions

of dollars of cash flow.

For now, however, the target is one Network Charter City in 2025 that will invest $1,374,389,534.72 in the building of their own Charter City.

This alone is more than what would be lost from the loss of the 10% of Initial Revenue suggested at the beginning of this point.

Lastly, on this point, I refer to the American Butterfly chapter 'The Locations Butterfly' (Circa 2012) for 15 more location enhancing points http://americanbutterfly.org/pt1/the-theory-of-every-business/ch4-the-locations-butterfly. And add to these points is the idea (if it's possible) that the plot for the Network Charter Cities will be terraformed to include lakes and hills. And also, that, if an 'all countries' Network City is created, Network Charter City owners would get the first choice of plots. And if it so happens that the 'all countries' Network City was the one that stretched out into Lake Malawi creating a large island, that the choice of plots on such an island would be a serious advantage.

2. Aid and Technical Assistance

In 'The Bottom Billion' and 'The Plundered Planet' by Paul Collier, 'Poor Economics' by Abhijit V. Banerjee and Esther Duflo, and 'Why Nations Fail' by Daron Acemoglu and James Robinson, there are many an aid horror story.

I could and should give many examples, but the bottom line is aid is often less than 25% effective and (in some cases) is less than 1%, and in general, about 40% of aid to Africa is spent on their military.

In addition, aid agencies are under pressure to deliver results, and also under pressure to help the most tragic cases, which often leads to the most money being lost to corruption. The software described in the last chapter and within Paradigm Shift Books 4. The TBS, 5. S-World VSN, 6. S-World Films including S-World BES and 7. S-World UCS combine to make losses to corruption (not theft) less than 5%, and if done correctly 0%.

This is done in four different ways, one is that the TBS records every single cent spent by every S-World company, then we use the RES derivative AE (Aid Efficiency) and make sure that of all TBS spending, 95% is to one or another TBS (S-World company). All individuals in S-World employ and some in other positions are tracked by the BES Observer, reporting individual's behaviour. And last but not least is the S-World UCS Simulator, which will have simulated 2024 operations, as exactly as it can. We can't necessary simulate the trade between countries, but we can simulate using the Peet Tent as a balance of all spending in the Charter Cities, down to the individual brick, nail, or fibre optic cable.

With all four methods deployed at the same time, we can be a whole lot more effective at managing aid than can any other county. And because of this, aid agencies will be more likely to give aid. And as the Malawi Super Grand Network is to be repeated in as many

AGAO countries as possible, the virtuous circle is increased by a multiple of 43 as if the model works, per the best S-World UCS simulation, we could create up to 2024 aid agencies. And global citizens and governments alike will see the Malawi initiative as a genuine first step to solving the financial problems of all countries who are willing to adopt the charters like https://resourcegovernance.org/approach/natural-resource-charter and others.

In 2016, the OECD estimated all aid at 142.6 billion dollars, given the stakes, the business plans, the software and if we have received more than $11 billion in private funding, it would not be unreasonable to suggest that 5% of this shared Aid pot be used to increase the chances of successes of 2024 ventures.

Jeffrey Sachs, adviser to the United Nations and economist of choice for celebrities, suggest in his book 'The End of Poverty that "If the rich world had committed $195 billion in foreign aid per year between 2005 and 2025, poverty could have been entirely eliminated by the end of this period. That's a lot of money, $3.9 trillion. Plus of course inflation, so really, it's more like $10 trillion, in 2018 to 2038 terms. Whereas the Malawi Super Grand Network plan is for $11.5 Billion, once-off from private companies, in a plan that is scalable to all bottom billion economies, so long as they have the political will. And of course, if 10 countries have the political will and 34 don't, it will be the 10 countries with the political will that will benefit first. And over the decades, it's more than likely that the citizens of the countries who are missing out will find better democracy, and so be eligible for the same treatment. Albeit we are now firmly in the realm of Book 3. The GDP Game.

Is it worth the aid agencies diverting more aid and technical assistance to the Malawi Super Grand Network as a buffer against black swan and other unanticipated events? Given the potential upside to the entire planet… Sure, it is.

I have spoken on this subject long enough, but I do need to raise the point of technical assistance, which is when aid agencies and governments provide skilled workers in place of physical aid. I had thought that this would be a major objective in all the years building up to 2024, and after aid should flow, as this was compatible with Paul Collier's suggestion. However, the more I think about it, technical assistance and as much of it as possible will be needed in the first few years of operations: 2024, 2025, and 2026, and particularly in construction.

To conclude, I just wish to reiterate my point from the previous section on aid, aid was never a part of the S-World plan, the plan has always been private capital. But as we have seen how much aid is wasted, then it's better spent in Malawi at 95% effectiveness than in other countries for 25%, 10% or even just 1% effectiveness. However, now that this information is in play and aid is a reality, it makes sense to pursue it just as keenly as we peruse private capital.

There is another point and that is that if (and there seems to be no reason why we can't) we apply Spin, then working on a Spin of 8 and an E of 95% with a little seepage for land, then if an aid agency were to give $100 million, they would be able to show the world that that $100 million was increased by 695%, so delivering $695 million in effective-aid (I know, it sounds just crazy, which is the reason for the caution and why the first question I am asking is about the S in the RES Equation). However, let's, for now, say that we can use RES as prescribed, and an aid agency can report that from say $200 million collected, half was admin, advertising and other and the other half was the aid; then the said agency can tell all its donors that in terms of bang for one's buck, it raised $200 million and effected $695 million in improvements. Plus, due to the law of conservation of revenue, the aid helped the general economy in the following year. This type of efficiency would likely make global citizens more likely to donate aid in the first place.

3. International Trade

International Trade, without seeking profit, just an exchange of goods at a comparative advantage to both countries has become a significant component of the Malawi Network, as it means we don't need to create every component, every product, every item of food and all other items that S-World personnel would like to buy; which is essential if paying via Network Credits (which are USD that must be spent within the network within a specific time limit, relative to Spin).

Trade and comparative advantage complete the American Butterfly – The Theory of Every Business (Circa 2012) model; allowing the host country to specialise in just a few key exports and thereafter trade for everything else.

Due to AGOA and potentially the EBA, so long as Malawi is mostly supplied from other countries recognised (in this case, all their neighbours and most of their neighbour's neighbours), then Malawi can trade tariff-free with the USA and Europe. To put this into perspective, think about the royal mess that is Brexit. The UK wants to trade deals with countries such as the USA but can't do so without relinquishing free trade with Europe. And yet, due to AGOA and the EBA of Malawi, can make something worth trading. It can trade it without tariff to the USA or the EU. This is a gigantic advantage.

So, the question changed to 'can Malawi make items that would trade well?' And there lies the answer to who do we allow to invest in the first place. We have seen some ideas, but these are only started ideas, which include as many luxury brands as possible and, in particular, fashion. Also, we have seen the idea for an Elon Musk Gigafactory, and if this can work, it may be worth putting 25% of all investment into this one venture or doing a deal with Musk and Tesla for them investing directly.

Coming into any market as a follower cuts risks, and building brand new factories from scratch, in a Foxconn like environment, will lead to a capacity to create many products.

The one thing I would say about all products is that they should always be the best possible. I can't talk to other countries but in the UK, half of everything you buy does not work properly, and there is no comeback. Retailers change stock frequently, so they don't get enough complaints. And for example, on Amazon, getting a refund is a real pain; and when I get something from Amazon, I just hope it works. I bought some headphones, and, after a few weeks, the bass stopped working (things like that).

What S-World can do is really plan what goods are going to be made by selecting goods that are already made well. Do a deal with the company that makes; then and after, never ship an untested product. And over the years, S-World will stand for products that are not crap. Another example would be the type of windows made by TWF (The Window Factory). I've looked into windows and you get a range, with the most expensive boasting of special glass. So, we find a way to make the best windows possible. But as we have orders for whole cities, we can make them as such a low cost to be able to cut the price in half. And hey! Presto, buy S-World windows and you're getting the best quality for the least money. I could go on…

My point is that it is critical to the idea of a Theory of Every Business that we trade for goods, the goods that S-World specialises in, for everything else it needs. And if we can achieve this, then there is every chance we will be able to export more and more of the same, but this time not exchanging for other goods, just good old USD.

Lastly, on this critical point, come the trade hubs and Virtual Networks. Next on my addenda is the creation of the first companies in the Virtual Network, in Cape Town and California; starting with vacation rentals, but over the following years diverging into all travel and real estate.

This will in turn create tens, then hundreds, then thousands, and then tens of thousands of international locations where S-World is operating, as that is the business model for high-end real estate and travel, global.

Add New Section on Trade Hubs if not already added

~~From this global support infrastructure, the trade hubs will emerge; some just by themselves in reaction to the software and company type becoming an option to entrepreneurs, but others will be created specifically to assist the first Super Grand network. So anywhere in the USA, as we can trade there for free, so the trade hubs (or you could just say wholesalers) do deals, and maybe a good deal to do would be Walmart. But in general, the hubs and maybe even extended retail outfits are created to work out what products would sell, and then to pass that information to the S-World planners, via the UCS software. So that we are not just picking a product that we hope would sell, instead we are doing a lot of research on each product, until we are sure there is a viable export market in the first place, which is likely to still be around for the years to come.~~

To sum up, given the size of the US and EU GDP is over $35 trillion, free access and the

right products could make a lot of money. Like aid, this additional income stream has the potential to hit double-digit billions.

Malawi – Not Networked Business

Services

First followers and Foxconn City

First followers include the top universities alongside the top countries

Think fashion companies, companies with patents that are essential to manufacturing, and companies that are themselves brand that most people would like to work for, think Facebook, Google, Microsoft, Tesla, Virgin, and others.

And lastly, we now need to add to this list Foxconn City agglomeration companies. A Charter City that has enough companies and personnel to attract the likes of Apple, basically a Network City, with many top companies in one place.

I am reminded of 'How Google Works' and the one drunk dancer on top of a hill at a concert, and how all that was needed was the first follower who joined him, and soon after the hill was rocking. Fortunately (I say with hope in my heart), I/we will be able to convince the 8 primary target companies' founders to be those first followers and guide one to Book 8. Audacious Ideas and 'The Butterfly,' that I must now add Oxford and MIT to but otherwise stays much the same.

Specifically, I hope to strike a handshake deal that if all this works out in the S-World UCS Simulation, then Facebook, Tesla, SpaceX, Google, Microsoft and Virgin become first followers, albeit for a much larger piece of the pie, with up to a billion options if it makes sense.

A series of Charter Cities within a country that can expand onto a countrywide Super Grand Network is probably the best arena for Google to launch its driverless cars, why they look so odd, I can't say. But I can say if they looked like Tesla's, they would fetch a far higher price. So, I propose the S-World GT (not Gran Turismo, Google Tesla). Albeit the cars would only be able to be sold in Malawi or other countries that had adopted the technology and legalised the cars, so not much of an export opportunity. However, since 2012, the idea for all real estate development has been to add 6.25% to all real estate as a budget for an electronic car. And with real estate being at least 25% of S-World Output, it's a good market; indeed if we can use RES, then it's a colossal market, hundreds of billions of dollars over the next 25 years.

Of course, to create a **regional agglomeration effect for such a venture would likely require hundreds of companies in comparable industries, or maybe Elon Musk can do a 'SpaceX' type.**

>>

Conclude this chapter with an explanation of the Ťender process. In which most 2024 business will follow the previously created S-World UCS Simulation. In which all business receive Ťender income (pre-planned spending) and that if they do not make a single additional sale then the company is safe.

Charter City company profit

In the year 2024, the network is designed to make zero profit, our objective is in the creation of infrastructure real estate and a Foxconn like services and manufacturing base. And profit made from Ťender operations will increase profit share between personnel, and any profit made from making sales in addition to the Ťenders would lead to POP investment (see chapter 2) which is, in essence, creating new companies or ventures.

Part 2. Charter Cities

Chapter 10. S-Web, S-World, AI et al.

Spiritually Inspired Software

By Nick Ray Ball 25th August 2018

The TBS™ - Total Business Systems

To correctly present S-World BES™ (Behavioural Economic Systems), we need to start with the fundamentals, which are currently packaged as the TBS™ (Total Business Systems); which are currently best presented as a part of Villa Secrets, see http://network.villasecrets.com chapters.

1. Our Solution
2. Virtual Networking
4. S-Web CDS (Content Delivery System)
5. The Villas Cloud

And critically…

6. The S-World CRM Nudge Ai
7. The TFS™ – Total Financial System
9. The Company Controller
10 S-World UCS™ Hawthorne

However, the why is equally important. And for the why, we need to go back to 2011 and the first business plan. The idea was to create a network of travel professionals that would have superior software and web products that covered all aspects of running a business.

ADD Quote from????

Having 10 years of running a business and knowing what I wanted from software was essential, and it needed to be customised to specific niches; and at first, this was luxury vacation rentals in Cape Town and www.CapeVillas.com.

To avoid fraud and to better inform managers, the financial system needed to be simple; and it needed to seek out cheaters, be they S-World company owners not reporting all bookings, or individual staff within the business starting deals via Cape Villas but closing via separate companies (both of which happen a lot more than one would think).

The TFS™ (Total Financial System) would record all bookings automatically, or in a way that cannot be easily cheated. And the reporting via the CRM (Customer Relationship Management) software would give stats on all potential bookings that each agent or the entire agency gets. If a company or individual is recording under the predicted return, a flag is waved, either the company or individual is stealing, or they are really not that good (both of which are worrying). Where after an FAA (Fraudulent Activity Algorithm) will be automatically applied and an investigation would take place.

However, as we see in a short while, the act of observation and the fear of audit is a very strong motivator for stopping fraudulent action before anyone gets the idea in the first place.

So, in essence, the TBS™ keeps a 100% record of every transaction and makes it very hard to steal from.

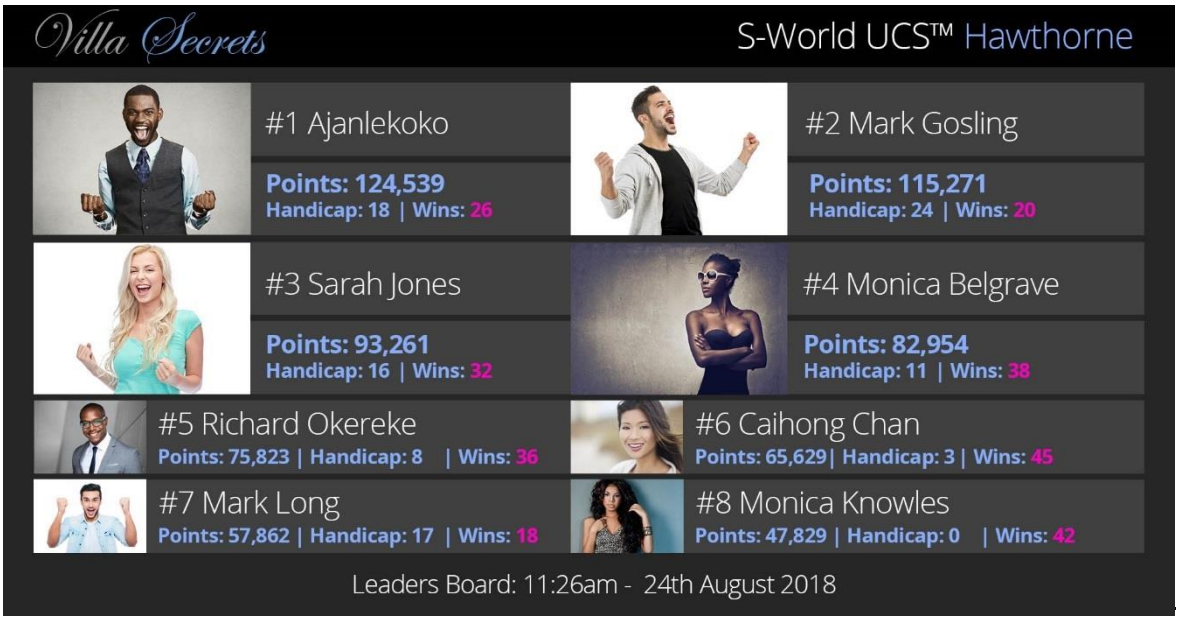
This is then mixed with the basic concept that every member of personnel within the network (working for any company) will have the opportunity to create their own S-World company in the future and that this opportunity is well paid. So, for the ambitious (which is pretty much a given for most salespeople), the best way to future success and owning one's own company is via advancement, not theft.

Economic BES™ goes further and adds restrictions to the spending, so that if it does not make sense to invest 20% of gross profit in a complimentary industry company (such as a pan African private islands and safari company), then such an option will not be available as an option. However, this is precisely the type of opportunity that POP spending would present as one of many options. And this is the key point, it will only offer such an opportunity if it made economic sense. Actions that have high risks or promise minimal reward are not options within the network. This function unifies behavioural and traditional economics. The BES™ System gives choices that humans would like but does not offer choices that do not make economic sense, and so unifying both the behavioural desire to choose with an economic array of choices; choices that are constantly being created and improved upon as the network grows.

~~1.~~ ~~S-World BES™ Observer in Sales~~

~~a. Villa Secrets~~

~~The simplest software to demonstrate is the S-World BES™ Observer. This software was originally considered as the perfect software to motivate, maximize productivity, and create a fun and efficient workplace for Villa Secrets Companies.~~



~~Originally labelled S-World UCS™ Hawthorne, as it was a game which is the territory of S-World UCS™ Simulator; and Hawthorne due to the 'Hawthorne Effect' that tells us that the act of observation is a big improvement motivator; and in the case presented by David Hoffeld in 'The Science of Selling,' was a bigger motivator than a financial incentive.~~

~~So, piggybacking on top of the S-World CC (Company Controller) and the TFS (Total Financial System) and the CRM-Nudge-Ai, we can create a scoreboard for all personnel. And each day, the tasks and bookings made generate points; and each day is a day to win up to 5 times one's salary.~~

~~This system is seen as an app, online, and as a big TV in the office, would do wonders for motivation; and combined with the S-World CRM-CC, can double performance in non-sales role positions.~~

~~It's the same as having a few whiteboards displaying an even bigger total and a bell ringing per each new sale in a stockbroker, just digital and inclusive of all personnel.~~

BES™ Observer at HMRC and Companies House

However, the same system is very adaptable. For about half a year now, I have been considering adaptations and have created one for the UK tax office; which, one would think, was a mile from a high sales environment. However, if one adjusts to track how much tax is paid by persons who at one point spoke or otherwise contacted the office, then one can put a price on each interaction, one can create a score. Plus, as any potential

conversation is to help a multimillion tax return, the figures (over a year or a season) are big.

Above, we see the same system applied to HMRC and Companies House, and these are real people, from the most effective Mr Joy who is seen to be winning the daily battle (points today in blue) and who is also winning the yearly battle with $252,903,201 in tax revenue receipts from all persons he helped. Maybe that's an over-exaggeration of the year receipts and of course, it should be in pounds. But the simple question 'Do you think the Chief Executives would more likely advance those at the top or the bottom?' And, of course, it's a rhetorical question.

And for the real people at the bottom, and especially Mrs Dawn Richards who has lost the country money (as her advice was basically to close down my company and move abroad, rather than complete the tax return), the question is 'Do you think they will try harder if they are being observed? And in most cases, we would say yes; and in the cases that don't improve, would need to be let go.

Whilst HRMC and Companies House may seem distant to Malawi, they both have one thing in common and that is in terms of technology, both are stuck in the dark ages. Indeed, whatever technology Malawi currently has is likely to be an improvement of the technology of HMRC, as the technology at HMRC is badly broken and decrepit, and needs to be made anew; and doubly so if there are plans to link it to customs software that tracks imports in the post-Brexit world.

Bidding to replace the technology in the UK would be a mark of prestige and would open the door to implicating a similar system in Malawi and other countries. However, as things stand, it is far from a priority.

a serious discussion is had with HMRC Chief Executive Jon Thompson or his proxy before a

presentation is made to Silicon Valley philanthropists, as the mere mention of such a discussion would be a part of the pitch.

2. S-World BES™ Behavioral Economic Systems

S-World UCS Observer and the Hawthorne effect is but one of many behavioural insights that have recently been given their own system name, 'S-World BES™.'

However, whilst this is one of the newest systems, at just a few month's maturity, it is also one of the oldest systems. If we once again go back to 2011 and the initial business plan, we find the concept 'Guest Gifts' which saved a few per cent from big bookings, to be used to send quality gifts to clients; in the hope, they will return and tell others, which is a behavioural insight.

So, I started to go through the work and list the behavioural insights, expecting to find about 20. But I only got through the work in 2011 and had already 33, and I ran out of time. I would, however, estimate that in all the work from 2011 to date, there are more than 100 quality behavioural insights that need to (in one way or another) be created as software or become good PR.

And this, of course without any deliberate (not written) input from behavioural economists such as Thaler, Hoffeld, and others; I wish to create a dedicated international team of behavioural economists with Thaler and his team starting by owning 50% equity in this organization; which they can later trade for equity in the super projects: S-World TBS™, S-World VSN™, S-World Films, and S-World UCS™, and/or for Virtual Companies such as Villa Secrets or 'Lx.' (the luxury goods and services network).

If ŘÉŚ holds, this would make Thaler and team hundreds of millions of dollars. And if we must work without ŘÉŚ and the Silicon Valley philanthropists give technical, philanthropic, and ecological support; then it will still be a very lucrative board to be on.

In terms of the current Angel Theory – Volume One – Paradigm Shift, order of 8 books, S-World BES™ has slipped as the software foundation to Book 6. S-World Films, which is highly convenient as I did not have a software foundation for that system. And far from contorting the S-World Films model, it fits in perfectly; as if S-World Films was the objective, and S-World BES™ is 'the why.'

3. S-World Films (Book 6)

Currently, with three different income streams for three different network types or sizes (Virtual Networks, Charter Cities, and Super Projects), S-World Films stands to be the project that receives a lot of money.

But what is S-World Films and how does S-World BES™ fit as its foundation?

S-World Films and Book 6 are best defined at the PR department, and the name S-World Films was the best name I could think of. I have a personal affiliation to this book, in the film scripts I would like to see as films, but that has not overshadowed the importance of the department, which of course included news.

S-World Films will spread the concepts and values that S-World champions to a wider audience as possible, in as many languages as possible, from big-budget (or even exceeding big budget) movies to local soap operas, reality shows and documentary, village to village in Africa. Films also assist to teach English, if filmed or dubbed in local languages; and in our case, in Malawi, 'Chewa.'

Where I now see S-World BES fitting in is at the foundation level. If a production is to be created, be it a small regional soap opera in Malawi in 'Chewa' to a blockbuster movie featuring A-list Hollywood stars, it needs to convey some message, and it becomes the job of S-World BES to create that message, from the initial intention. So, if I wanted to make a film and TV series about the ivory trade that created more international condemnation but was actually aimed at helping China to make ivory sales illegal, I would take that message to S-World BES and a scriptwriter and ask that they write the movie or series around that objective.

This can be equally true for all other PR, News advertisements, magazine features et al.; all will be coordinated around a message that will help bring a better future for our children and children's children.

S-World Films also already has a subdivision in Villa Secrets and potentially every Virtual Company. Since American Butterfly, we have had the idea to create a local film area called 'Little Hollywood' in all Charter Cities (it's even a good reason why the property values will rise). And more recently, the 3.125% of each trade dedicated to super projects has seen a quarter of that revenue destined for S-World Films. If we go forward 22 years and RES holds, then by 2040, the revenue for S-World Films would completely dwarf other productions; and for each film made by non-S-World Films companies, there would be 10 production by S-World Films. At which point, we would all be looking at a much better 2080 (Angel City 5) which is by no coincidence the subject of my most developed movie plot so far.

There is a very original starting production, but that is a closely guarded secret that has not been written down.

4. S-Web

Jumping from the least developed software to the most developed, S-Web is a system for creating and updating websites. Importantly, however, S-Web websites are the home to many other items of software, and I will cover this in the next section.

S-Web was first created in 2009, due to a split of previous web developers and me having taken a two-year break in website operations. I decided I would start from scratch with a new brand, Experience Africa. I made the design and hired a new development team to create the website. And after half a year, the site was looking good. So much so that in a conversation with Sotheby's Cape Town, it was agreed that I would create them a duplicate of the websites, under a different domain name, for a share of the commission. And this was the start of what is now a 9-year experiment in making this kind of opportunity for thousands and even millions of end-users.

You can see the two prototypes at www.CapeVillas.com, and www.VillaSecrets.com. Of course, had I just focused on this project, we would see more websites, and we will likely see a few created in 2019. (16 were made in 2020)

The differences between these S-Web framework websites and other websites follow:

a. Look great and (over time) as new fashions in web design or testing shows one design is more productive than another, the sites can be updated at the touch of a button.
b. A new site can be customised quickly; unlike WordPress (which is an unsuitable medium for any complex website,) where most users have to hire a designer or spend time mastering the system. S-Web websites are not created as a bunch of widgets (sections of the website), they are created as complete websites where one just adds the text and photos that are unique to the company.

c. S-World CDS (Content Delivery System) enables personnel to create 'magazine' type articles and newsletters in just a few minutes.

d. S-World CRM-Nudge-Ai My List / My Webpage allows agents (or other) to simply use the 'Add to List' function to create a page (that would take hours to make in WordPress) to send to clients in less than a minute, that has the client's name in the URL, for example, www.villasecrets.com/PrivateIslands/ClientsName.

There are, in fact, an awful lot more points. Indeed, I could and probably will write a full book on the spec at some point in the future.

For now, I wish to quickly discuss the future of S-Web, and the first point is that our framework will likely need to be recreated using the current framework as a guide.

The key objective is to be able to create a new website at the touch of a button, and it must be fully integrated into the software. One should not see there is a website and software, instead, there is a web and software framework.

My vision for S-Web goes well beyond the one industry. For a start, the professors of the universities and authors of books almost always have very poor websites. So, we make the best site we can make and the simplest for them; which can be on their own URL or a part of their university's website (if the universities agree), a website within a website but benefitting from the power of the university's URL. One may consider this a very good and completely honest SEO.

Another target is to create hundreds of different designs and monitor them against each other. For example, www.CapeVillas.com looks great but it may well turn out that it looks too good, and a site more like www.CapeTownVillas.net attracts more enquiries. I can't tell

you until we make different websites, but as we do make more, we will be able to learn a lot, and generally create the most financially efficient web designs.

In due course, we will hear about The Theory of Every Business; and this is reflected in the S-Web ambitions, as the plan is to adapt websites to all industries, along with the API connections to inventory, so websites are practical as well as good looking and efficient.

My choice of Silicone Valley philanthropists for S-Web is Mark Zuckerberg and Facebook. But practically, as Google and Microsoft have their own search engines, and S-Web would be a conflict of interest. This said, Paul G Allen is now so far removed from Microsoft, he is a good choice.

In an ideal world, both Facebook and LinkedIn would offer S-Web websites to their members. And a free version of S-Web becomes available in general. This said, it is odd that they are not already doing this, and there is probably a well thought out reason why. So, don't hold your breath. This is but an idea that, if validated, will become part of the grand design.

Virtual Networks

For Virtual Networks, which are countries or states that have no Charter City - Super Grand Network plans as yet, which is every country except Malawi, Zimbabwe, Laconia in Greece, and Kerala in India; S-Web will be the first line of attack. In Cape Town, for example, the plan is to create 64 different Villa Secrets related websites, each its own company, in 32 different niches connected to real estate and travel. Many built from scratch, but some like www.CapeVillas.com built upon previous websites. By adding 64 new companies and websites, where the least capable of the 64 websites are more capable than the best of the current 20 or so websites and using the TMS (Total Marketing Systems), in not so long, S-Web Villa Secrets websites and companies will disrupt and dominate the market.

The next location after Cape Town is of course California. And in California, we would do the same exercise but target 512 different companies and websites; and thereafter, there are over 300 prime locations for at least 64 companies, 1000's of locations where a network of 8 would be beneficial, and tens of thousands of locations where at least a single company and websites would be beneficial. This story is partly told on the following link: http://network.villasecrets.com/the-secret/ch2/s-world-villa-secrets-network.

Of course, using the initial infrastructure created, the idea is to diverge into just about every industry on the planet whose website is important to their income; eventually creating hundreds of thousands, then millions then ???? companies. And of course, companies can resell other companies' products.

One key element of this plan is Experience Africa. But in place of a small share of the commission, Experience Africa wished to create 1000, maybe 10,000 local and global

websites for safari experiences. And in this case, 50% of all gross profit must be dedicated to conservation. And further, that we would create a superior system for safari owners, and from this take an agreed percentage over the pre-S-Web and S-World estimates of gross profit. So, in 'x' safaris expected (and would be happy) to make $10 million a year. And by using S-Web and all the other software, it made $15 million. They would be required to donate 2.5 million to conservation which, in any case, is good marketing and long-term planning. As in the long term, if there are no animals left, they would go out of business. (Free Rider Problem)

This initiative is now the beginning of M-System 2. Ripple Effects and Elephants and can be seen along with other ripple effects (a ripple effect as in making the S-Web and S-World for Villa Secrets, once developed, we can make the Experience Africa network for free) on the breakthrough chapter.

http://www.angeltheory.org/book3-14/ripple-effects-and-elephants-for-paul-g-allen

By my calculations, within 3 years,' Experience Africa could be making more money for conservation and that all other aid combined.

And in a decade or two, S-Web overtakes WordPress and all other competitors.

Charter Cities – Super Grand Networks

This section could easily fit into the Comparative Advantage section. However, in this section, depending on RES, we are looking at between 400 and 2000 companies in Malawi phase 2024; each company supporting about 80 workers, and 8 times as many students. Each student and member of personnel can (in combination with S-World UCS Simulator) open a website for the company they are affiliated to. And each website can, if they follow the tutorials and play the game well, create more sales which they will be paid for.

The Malawi Super Grand Network would have hundreds of thousands of websites located all over the world. In many cases, reselling Malawi goods globally.

Lastly, do not confuse S-Web Networking with attempts to saturate the market for SEO purposes. It was a popular SEO tactic last decade to make networks purely for SEO purposes, this is far from the case. In this case, every website will be owned by different people seeking to reach their potential. And critically, all goods and services are well vetted.

CMS

5. Integrated Software

Following on from S-Web, Integrated Software is the working idea that all software should be integrated into the website without hops. A hop is when software 'x' connects to software 'y' via an API or other connection, and the accessibility of one item of software's data from another is limited to the options found within the API. Even just a few items of software and a website creates a large degree of diminishing returns. And in almost every case, the software is connected to websites via APIs, making even the simplest of functions (for instance, the data on an online enquiry, entering into a CRM) need specialist programming unless one uses the website provided by the software developer. And so far, this always leads to a very cheap website. Not at all in the league of what my vision of S-Web already is.

Since I wrote 'The Villa Secrets' Secret, in early 2017, the TBS alone had 81 different functions, 81 ways to either make money, save money or avoid landmines. To create such a system by combining many leading software products is almost impossible in an API-led environment. So, all S-World software and S-Web websites are being built as one piece of integrated software where we build every component from scratch within a single framework; where every single function of every single element can easily be connected to another, directly without any API hops. This is not to say we would not use APIs as booking systems, online eCommerce systems and other inventory systems present their work via API. And for instance, if one wished to incorporate Google Analytics, that too is from their API. This information will be accessed by APIs but will be able to channel into any S-Web or S-World software system with just one hop. It is the 81 functions of the TBS (which are now closer to 150) that will be created as one spectacular system.

Why has no one already done this? Well, to a degree, many already have, but they have not added the website component. And in all cases I know, there is not a complete package, not comparted to the TBS.

Another reason is that making such software for every business would make it so complex that the user would be swamped. Instead, the system must be greatly simplified and customised in a specific industry, by customising the defaults and choice architecture. Then created for a complimentary industry by changing the defaults and choice architecture. Then created for other industries by first adding any industry-specific functionality, and then again changing the defaults and choice architecture to make it specific to an industry niche.

There is some more information on Integrated Software at this link:
http://network.villasecrets.com/the-secret/ch1/s-web-cms-framework-step-6-our-solution

6. Software Summary

We have seen the TBS and have been told and given links to 8 important components. In early 2017, when writing 'The Villa Secrets' Secret,' there were 81 different ways to make

money, save money or avoid landlines.

I would estimate if we were to rewrite the TBS including BES Observer, we would be at 150 different components (that can all be run in tandem)

Then, if we add all concepts from S-World BES, even in its early development, we would add another 50 concepts, with room for this to multiply into hundreds of functions if the likes of Thaler and others were to 'jump on board.'

All of this can be achieved with minimal investment, apart from the software engineers and other technical assistance who it is hoped will be provided by the first phase of companies as an investment into the 3 of the 'super projects' The TBS, S-World VSN and S-World UCS.

Which in turn along with S-World Film recover 3.125% of all grand network income and probably half that from virtual networks. Plus, there are a good number of additional revenue streams.

Of which, S-World UCS is an immeasurably large and vast system that would boast hundreds of useful applications. And S-World VSN would sit on top raking in the dough needed to pay the programmers after the initial round of technical support from Silicon Valley philanthropist is over.

Next, we have the most recent system, S-World AE Aid Efficiency, that will take all the spectacular work of the prementioned authors and mould that into a system that works for the poorest countries.

Lastly is whatever can be made from the chaos and M-theory simulations, and The Good Model that gives this part of the book its name.

It may be hard for laymen to appreciate how completely awesome this software design is. If it's so simple that one man can imagine it, why are Microsoft and others like Google not making this already? That I cannot say, other than I soon hope they are helping to build this. What I can say is there is no system like this, nowhere near. In total, we must already have 400 different individual components that all make money, save money, or avoid landmines. That can all be used for most businesses, creating 500 different nudges in the right direction. And whilst software, like Salesforce, has over 500 different ways it can be customised and maybe 500 different functions that could improve a business, it's a very different concept; as they are not all designed to work as for each business, less than a tenth of the S-World design.

Lastly, we should remember the QuESC business advice.

My primary talent is software design, the rest is built on top of the design. I have learned much but compared to a specialist in Poor Economics or string theory, I know only enough

to (at least) be able to discuss matters (and often only in basics). I trust you to be good at your fields, allow me to excel and be the leader in the design for the software.

Angel Theory – Volume 1 – Paradigm Shift

A More Creative Capitalism

Part 2. Charter Cities

Chapter 11. Trading Places

AGOA, Comparative Advantage, Regional Agglomeration and Virtual Network Trade Hubs.

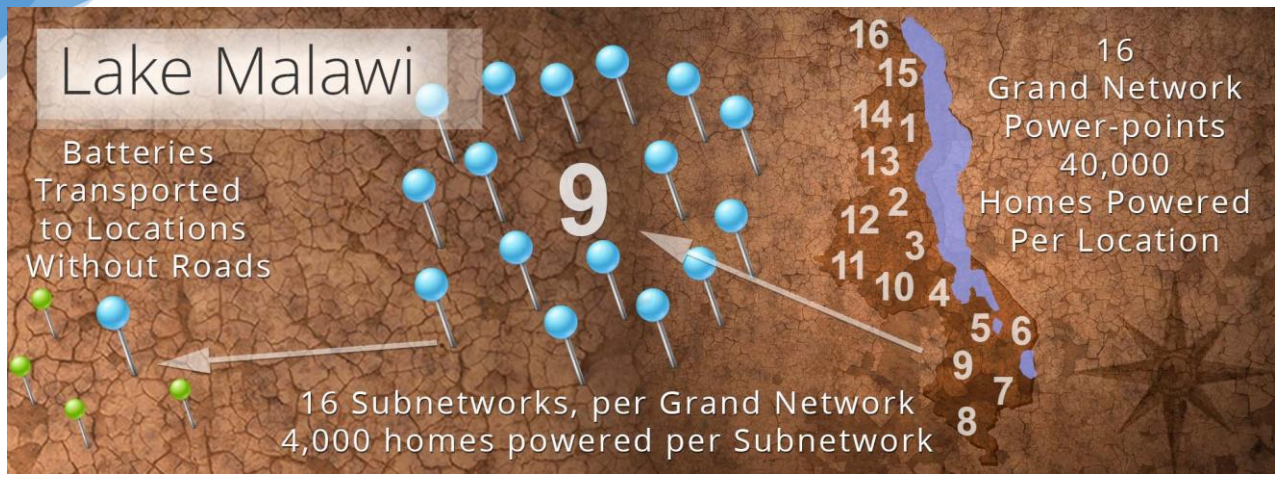
By Nick Ray Ball 11th September 2018

Competitive Advantage & Regional Agglomeration

I will start with an excerpt from 'The Bottom Billion' by Paul Collier.

Even former U.S. president Bill Clinton, that great communicator, said that the hardest idea he ever had to get across to the American electorate was the notion of comparative advantage—that every country can produce something that can be exported to mutual advantage, which is the foundation concept in international trade.

We shall return to Comparative Advantage shortly. To begin, let's look at the big picture:



Whilst the above is actually a solar electricity map, it has also come to demonstrate the Super Grand Network. Starting on the right, we see Malawi and 16 evenly distributed Grand Network / Charter Cities. Then each Charter City chooses 16 locations as future Charter Towns. And on the left, we see the idea is for the 'Spartan Contract' soccer and other sports division, will run, bike, or drive high power batteries to remote rural locations, so that everyone who wishes to power a laptop, phone, or VR goggles can; and that the education policy is virtual, and hopes that a lot can be done in 5 years and a lot more still in 10 years until we start to see convergence with the West after year 15 years.

Electricity and education aside, the current investment is priced a little over $11 billion (a figure that will be made more exact in the S-World UCS Simulations). About half of the $11 billion would be spent before 2024; creating the companies and basic infrastructure, and half would be spent in 2024 on operations, labour, raw materials, and stock, to enable the first year's trading.

We may need to focus the majority of resources in one Foxconn City like Charter City that focuses on the USA. But I would prefer to found 2 Foxconn City like Charter Cities; one for the USA and AGOA, the other for the EU and the less simple EBA. These two Charter Cities would be the current S-World Capital 'Angel City 1' and 'Fort Malawi,' which is covered later in this chapter. And each would have maybe $2.5 billion comprising of 100 S-World standard companies at an average of 20 million investment each, and about 500 small companies at about $1 million each. And for the standard companies, half or even all would be Tender companies, so their performance is predetermined at the lowest level (all tender sales, no other sales), where the lowest level of performance was still enough to be doing very well. Albeit we are now in the territory of the Sienna Equilibrium, a component of RES, but can be used independently to make sure we have the perfect balance of support companies so that a Super Project Partner (Facebook, Google, Tesla, SpaceX, Virgin, Microsoft or other) will see that all that is needed in terms of Regional Agglomeration is for them to mount a serious project in the Charter City that would be a separate investment to the initial $11 billion.

These two Charter Cities would then account for half the investment, and then we want to see about a billion for the solar arrays; which will of course either be made in Malawi or be traded for something else that is, a billion for infrastructure, and the rest would (if this is logistically possible) be split between the other 14 future Charter Cities and the 256 subnetworks, with a target (which may be unrealistic) of having one company in each of the 256 subnetworks.

I am almost certain that the best S-World UCS Simulation would be to devote most of the resources to a Charter City, but the philanthropic and social benefits to a more even spread are surely clear. And practically, if aid is a factor, a large spread is preferred. And we need to remember the desired 'first followers' are all from the philanthropic or ecological camps being Mark Zuckerberg, Paul G Allen, Elon Musk, Bill Gates, Larry Page, Sergey Brin, and Richard Branson.

Now, we have a very basic outline of the mapping of the Malawi Super Grand Network, let's return to President Clinton and comparative advantage.

> "Even former U.S. president Bill Clinton, that great communicator, said that the hardest idea he ever had to get across to the American electorate was the notion of comparative advantage—that every country can produce something that can be exported to mutual advantage, which is the foundation concept in international trade."

In the full chapter on Comparative Advantage, I shall include a longer extract from David A. Moss's 'A Concise Guide to Macroeconomics.' But for now, I will jump into 3 different ways we might use Comparative Advantage before leading into the advantageous trade tool Malawi can deploy.

The USA is chosen in this example because of the said trade agreement. However, there are other opportunities.

3 types of Comparative Advantage plus free trade

1. Straight Swop
   A mixed bag of US goods that would sell in the USA for $1billion but would sell in Malawi for $1.2 billion, and vice versa; goods that would sell in Malawi for $1 billion that sell in the USA for $1.2 billion.
   By simply swapping the US goods for the Malawi goods, the output (real GDP) of both countries increases by $200 million, and yet their trade balance stays neutral.

2. Ingratiating Swop
   Consider the same example but the US export was steel and other goods that are made by President Trump's core supporters. In this case, as US steel may be $200 million more expensive, and the net result is the USA is $200 better off and grateful for the trade, and Malawi stays the same, which is within the parameters some of the time.

   This idea, however, needs to be bipartisan. The idea is to make US trade with Malawi an exercise that is in general good for all of the USA, so future presidents see no value in reversing the action.

3. Branding Swop
   A Branding Swop would see the same example as above, but specifically for the current US

administration. The exercise here is to create a longer S-World UCS Simulation that shows spectacular benefit to President Trump's core supporters in the years to come, presented via many S-World Films and S-World BES actions.

The objective is the Paris Agreement, https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement.

In this scenario, Trump supporters cool their objection to Paris, allowing Trump to re-sign the agreement on climate change without losing support. Trump is a businessman, if the economics are such that it is the best business for the USA to swap S-World rights for Paris, he would likely make the change. Unlike some politicians that seem paralysed by previous statements, enchanted by Margert Thatcher 'The Lady is not for turning,' to his credit, President Trump changes his mind often when the right evidence is presented.

And if he does and S-World is cited as the reason, then that would be a massive branding exercise and announce S-World on the world stage.

4. Free Trade

Lastly, comes Free Trade, and whilst the EU has a system called 'Everything but Arms' that whilst described as ineffective due to the many details and condition, could potentially work for S-World; as S-World is starting from scratch and so has a clean canvas on which to create an infrastructure that adheres to all the rules.

However, from what I have heard from Paul Collier and seen online, the African Growth and Opportunity Act (AGOA) has a charter until 2025 to allow tariff-free trade under the right conditions, such as 'goods exported are mostly or entirely made from components and raw materials made by other countries that are also members,' seen here: https://agoa.info/profiles.html.

I cannot say for certain, but it is logical for Malawi to be able to include components made in the USA and exported to Malawi. What AGOA and EBA won't accept is say China has a 25% trade tariff to the USA, and it ships all its parts to Malawi who assembles at a cost of say 10%; who then exports to the USA basically saving China 15%. However, if parts originally came from the USA, there is no loss to the USA if the parts are used as part of an export to the USA, as those parts did not have to pay any excise duty as they were from the USA.

Lastly ~~and fortunately, this point is not critical early on. It's that~~ one must prepare for Malawi and other S-World Super Grand Networks to reach the level of economic success where they are removed from the 42 countries on the AGOA list. This is the desired result after all.

And in Book 3. The GDP Game, which is about the other 43 countries following the S-World Malawi model after leveraging the expectations of other countries and after seeing RES in action, can be replaced if RES does not hold; with economic targets such as making it out

of the bottom billion, especially if Malawi continues to grow.

This said the eventual rise of Malawi out of the bottom billion will bring an end of its right to AGOA, EBA and other such agreements. And from the word go, this needs to be planned for; and ideally, an agreement that continued the tariff-free trade after achieving non-bottom billion status, which is not at all impossible.

Fortunately, Malawi's GDP per capita is so low, that it would take at least a quadrupling (and possibly an increase by a factor of 10 or even 20) of its 5.5 billion GDP before being classed as not in the bottom billion.

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S-World Network Trade Hubs

"Economics is not a set of pre-determined conclusions or policy prescriptions, but a highly context-specific discipline that provides only contingent answers. There is virtually no question in economics to which 'It depends,' is not an appropriate answer. Of course, the strength of economics is that we can usually tell 'what it depends on."

Straight Talk on Trade – Dani Rodrik – Harvard University

To me, at this time, the biggest 'It Depends,' question in the S-World Malawi plan is on trade. We have seen that in the most recent ŔÉŚ spreadsheet 'ŔÉŚ and The Sienna Equilibrium 2.05' I often use trade to (via a master comparative advantage strategy) to swop manufactured goods, for raw materials, construction materials and parts that are needed to make more complex goods.

Is this a good model? Well, it depends, it depends on whether we can sell the goods abroad. The USA AGOA trade pact allows to import goods that have component parts made in the other 43 AGOA countries and I would expect but cannot be sure from the USA as well, with no tariffs, making S-World Malawi more competitive than most of its Asian counterparts.

But getting the USA citizens, and the citizens of Malawi's 5 neighbours to then buy the goods, is another matter.

This is where S-World trade hubs come in, I will use an example of Batteries made at Elon Musk and Tesla's Gigafactory, as in Leonardo DiCaprio's documentary 'Before the Flood,' Muck informs us that if there were another 99 Gigafactory's then there would be enough batteries to power all land vehicles, which alongside the other two C's 'Cows and Coal, are the three biggest single factors in global warming; 'Cars, Cows and Coal, the 3 C's of global warming.

Of course, S-World is ecological, that's the primary law, but in this case, the reason for specialising in building a Gigafactory seems to make a lot of sense, as currently only 1% of potential capacity is being created.

I can't say I have the first idea about the price of batteries or the cost of building a Gigafactory in Malawi, but if it can be done for $2.5 billion, then it's a real possibility. A quick look at Google gives us https://electrek.co/2018/06/09/tesla-battery-energy-density-cost-breakthroughs which prices batteries in the power delivery and Tesla look soon be able to deliver $100 per kWh. Which is more competitive than Gas, and less than LG and Audi at $145per kWh and $114 per kWh respectively.

So let's now create a battery wholesaler in the USA as an S-World Trade hub, that makes a deal with Tesla to sell its batteries sauced from California, which due to a great many software and system advantages, and some advantages created by the S-World network and story, plus the Virtual Network that we shall circle back too soon.

And the trading hub managed to carve out a niche in selling Tesla Batteries, at say $110 per kWh battery. And over time this business grew and reached its target.

Then when the S-World Tesla Malawi Gigafactory, which like the Nevada one would be mostly robotic, it also made Batteries at $100 per kWh, or maybe as it is newer the Malawi Gigafactory could produce Batteries at $90 per kWh.

Then we add transport and shipping, which on small high-value items only adds 5% or so to the cost. And when the batteries are produced the S-World Trading Hub in the USA swops supply to Malawi and as long as the end purchasers were ok with the swop, then the 'It depends' argument that would say, 'if we can find a buyer' is satisfied.

Of course, this needs extraordinarily goodwill with Elon Musk, the Tesla board and stakeholders, but there are several significant carrots, however maybe this is not the best example, it's just the simplest example.

One thing that I read recently that seems relevant to this conversation is as follows:

"One study identified gravity effects on the internet. Americans are more likely to visit websites from nearby countries, even controlling for language, income, immigrant stock etc. For digital products related to music, game a 10% increase in physical distance reduces the probability that an American will visit the website by 33% (This however could be due to Google search prioritising local traffic a lot, but the result is still the same.) A distance elasticity even higher in absolute value than for trade in goods. Despite the evident reduction in transportation and communication costs, the production location of globally traded products is often determined by regional agglomeration effects."

Continuing this tread, then to best sell all S-World Malawi goods to US Trade hubs (wholesalers) and individuals in as many different locations as possible. Let's put the Gigafactory aside and swap

to another favourite of mine for export at Armani. It would in this case be best if instead of one trade hub, there were many, each with their own supped-up S-Web websites and software, each competing with each other, but only allowed to sell within a given distance, say 200 miles. It would be best to have hundreds of trade hubs or considering '**a 10% increase in the physical distance reduces the probability that an American will visit the website by 33%**' we would want thousands of trade hubs. One near every rich town in the country, and a number in each city.

But of course, the logistics and the cost of creating 1000's AGOA trade hubs is very prohibitive, especially if you want driven sales teams in each.

However,

We are forgetting about the Virtual Network, right now, this very day I am co-working on starting the process that will create 512 different Villa Secrets – Real Estate and Travel companies in California. Following the same exercise in Cape Town but with just 64 companies. You think 'A More Create Capitalism' is creative, the Villa Secrets plan is equally creative, and software aside is money a networking plan.

Sure, it may well take 5 years to get to 512 companies in California, but that's fine, we are talking 2024 and beyond. And when we include the rest of the USA we might get to tens of thousands of small successful companies, made so due to S-Web, the TBS and then made super successful due to S-World VSN. And as it's the nature of the business, most companies will have strong and motivated sale people (motivated not just by the sales but because they own the company) who can diversify into any S-World trade product (or, in fact, any product that will make them profit), and as they can have as many top-of-the-line websites and we know that the closer one is to one customer the more the website will be viewed, and not just for the reasons given by Dani Rodrik but also plans simple SEO 101. Google, certainly in most services, favours local search results.

So you see, given Villa Secrets intrastate in developing a cross-nation sales force, made profitable by the software and millions of websites, we can build our trade hubs and reseller network, so answering what so far has been my current greatest '**It depends,**' If the Malawi Network relies on trade, which in turn needs to be promoted and reached, the Virtual Network branching out from travel and real estate across the USA answers that '**it depends on whether the goods can be traded**' question. Not perfectly, but well enough I think, to warrant the $10 million in investment desired to create the S-World simulation of same. And who am I looking at as the head of the S-World UCS Simulation? Elon Musk.

If we go back to the original network plan in 2011 for Virgin, we see the original idea, as if the travel network could break into trade in all goods and services it would make absurd income. And this process now identified. The Villa Secrets network lays the basic infrastructure, and as web development is free can have as many different product lines as they wish.

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Two Mexico's – productive Dualism

When Researches at the McKinsey Global Institute NGI recently dug into the details of Mexico's lagging economic performance they made a remarkable discovery, an unexpectedly large gap in productivity growth between large and small firms. From 1999 to 2009 labour productivity had risen by a respectable 5.8% per year in large firms, and with 500 or more employees, in small firms with 10 or fewer employees, by contrast, labour productivity growth had declined at an annual rate of 6.5%

James C. Scott notes that a very high percentage of industrial workers in the United States would rather open a shop, restaurant, or work on a farm. The unifying theme of these dreams is the freedom from close supervision and autonomy of the working day, which in their mind more than compensates for the long hours and risks of such small business.

Straight Talk on Trade – Dani Rodrik – Harvard University

From the above, I will make the point that small businesses need the S-World software, network and QuESC (expert advisory board) to compete with and beat big business. Make the point that in early 2017 on http://network.villasecrets.com the TBS created 81 different ways for a small business to make money, save money, or avoid landmines and so double potential income and that now when we include all software there would be closer to 400 different ways make money, save money, or more or avoid landmines for a huge potential gain. Where after the fact that S-World small businesses are at least 50% owned by the small group of personnel that run them leads to a consensus within the businesses to make as much of the 400% potential gain into real gain. And at the very least that would counter the 6.5% + 5.5% mentioned above and lastly mention that most new jobs are created in small businesses.

Angel Theory – Volume 1 – Paradigm Shift

A More Creative Capitalism

Part 2. Charter Cities

Chapter 12. ŔÉŚ and The Sienna Equilibrium

By Nick Ray Ball 6th September 2018

A Good Story

At this point, it seems that I can't read past a few pages of an economics book without there being something relevant two write. This is of course a case of picking the right books but is equally a sign that per Hawking's prescription, Point 3. 'Agrees with and explains all existing observations,' S-World fulfils thus point, is compatible and be improved by economics.

This latest new and relevant passage comes from Paul Krugman's 'End this Depression Now' and is timeless.

"My favourite economics story: the babysitting co-op."

"The story was first told in a 1977 article in the Journal of Money, Credit and Banking, written by Joan and Richard Sweeney, who lived through the experience, and titled "Monetary Theory and the Great Capitol Hill Baby-Sitting Co-op Crisis." The Sweeney's were members of a babysitting co-op: an association of around 150 young couples, mainly congressional staffers, who saved money on babysitters by looking after each other's

children.

The relatively large size of the co-op offered a big advantage, since the odds of finding someone able to do babysitting on a night you wanted to go out were good. But there was a problem: how could the co-op's founders ensure that each couple did its fair share of babysitting?

The co-op's answer was a scrip system: couples who joined the co-op were issued twenty coupons, each corresponding to one-half hour of babysitting time. (Upon leaving the co-op, they were expected to give the same number of coupons back.) Whenever babysitting took place, the babysitters would give the babysitters the appropriate number of coupons. This ensured that over time each couple would do as much babysitting as it received because coupons surrendered in return for services would have to be replaced.

Eventually, however, the co-op got into big trouble. On average, couples would try to keep a reserve of babysitting coupons in their desk drawers, just in case they needed to go out several times in a row. But for reasons not worth getting into, there came a point at which the number of babysitting coupons in circulation was substantially less than the reserve the average couple wanted to keep on hand.

So what happened? Couples, nervous about their low reserves of babysitting coupons, were reluctant to go out until they had increased their hoards by babysitting other couples' children. But precisely because many couples were reluctant to go out, opportunities to earn coupons through babysitting became scarce. This made coupon-poor couples even more reluctant to go out, and the volume of babysitting in the co-op fell sharply.

In short, the babysitting co-op fell into a depression, which lasted until the economists in the group managed to persuade the board to increase the supply of coupons.

What do we learn from this story? If you say "nothing," because it seems too cute and trivial, shame on you. The Capitol Hill babysitting co-op was a real, if miniature, monetary economy. It lacked many of the features of the enormous system we call the world economy, but it had one feature that is crucial to understanding what has gone wrong with that world economy—a feature that seems, time and again, to be beyond the ability of politicians and policymakers to grasp.

What is that feature? It is the fact that your spending is my income, and my spending is your income."

This story makes the case for both having a high 'E' Efficiency (so 'x'% of spending to one or another S-World company or organization), and for paying in Network Credits that have a time limit on validity; say, for instance, 6 weeks.

> If 'x' = 95% and this will all be spent within 6 weeks, and we know exactly where 75% will be spent, and we know another 20% will be spent in a range of S-World goods and

services; this turns the 'your spending is my income, and my spending is your income' into a science. Indeed, this is the foundation of the Sienna Equilibrium.

In fact, this is the first economic point that should be considered a law, to add to the other mostly physics-based laws set out in Chapters 1 and 2. Now that we have a law from economics, I have a good question for the physicists and that is… Is there a similar law in physics?

>>

ŔÉŚ

Ŕevenue x Éfficiency x Śpin

The plan from the start of this chapter, 'A Tale of Two Charter Cities,' was to present a workable model that did not rely on ŔÉŚ; as at that point, I had not satisfied my due diligence. But today, after writing this chapter so far, and assisted by Paul Collier and team's 'The Plundered Planet,' I think I can make a compelling case. The proverbial penny that dropped was the idea that government spending needs a financial input, along with all the other sectors that already have financial inputs. An Paul Krugman's point from the babysitting co-op example '**your spending is my income, and my spending is your income.**

I will start by committing my new model to a spreadsheet and remember that for a quality software engineer, turning a spreadsheet into a database and application is child's play. Albeit we will need some clever math and design.

I am now reminded of Garret Lisi's E-8 mathematical model in eight dimensions, which has beautiful symmetry.
www.ted.com/talks/garrett_lisi_on_his_theory_of_everything?language=en#t-1263876

If you don't know quantum mechanics, I suggest watching the first two minutes which gives a good introduction to quantum mechanics, and indeed was the source of the 'eureka' moment recorded in American Butterfly – The Theory of Every Business – Chapter 8. S-World UCS. (circa 2012).
http://americanbutterfly.org/pt1/the-theory-of-every-business/ch8-s-world-universal-colonization-simulator#garret-lisi-and-the-theory-of-everything

And then turn the volume off, watch the rest of the video in fast mode, note how the pretty coloured particles change from one form to another and note that this effect is relative to time. So, at first, we have all the particles in one pattern, which then (over time) changes into a different pattern, but all the properties of the original pattern are persevered, in each different evolution.

And consider that in ŔÉŚ, the same happens but the quality that is preserved is the money. Or more specifically, the Ŕevenue, which is the initial revenue, and in this simple case that is revenue from the initial investment; but in all years after 2024, will be what is left of that Initial Ŕevenue, plus additional revenue from selling Network Cities, selling other real estate development prospects, selling more in trade than the basic Comparative Advantage swop model, aid, and sales to companies or individuals in Malawi that are not part of the network; which may (on paper) only be a market worth $5.5 billion dollars, but is likely much bigger as most trading is not recorded as GDP.

The Symmetry / Equilibrium & Standard Macroeconomics

Note that we are as yet not in any way following the quantum mechanics used by Lisi for this model, we are only using it as inspiration. We want our model to create a similar effect by any means necessary.

With this said, the Sienna Equilibrium / Symmetry is not seeking to do anything different to standard GDP macroeconomics, and indeed is per this chapter's theme per Professor Hawking's point 3. 'Agrees with and explains all existing observations.' ŔÉŚ and the Sienna Equilibrium were originally crafted to answer the question of…

How can one make a business network that runs like a major economy?

Think about it, according to Google, the USA made a GDP of 18.04 trillion USD in 2015, and USD 18.57 trillion in 2016. For the most part, this was just a case of the money that was in the economy at the beginning of the year; in this case, measured by GDP, would be spent and re-spent during the year and by the end of the year, most of this money is used and recorded as GDP the following year. Add a little for inflation and growth and we have standard macroeconomics.

What the ŔÉŚ equation and the Sienna Equilibrium manage to do is mirror this effect within a business and social network. So, at the end of the year, most of the money (or all if we have an É of 100%) returns to many of the same companies and individuals who had it the previous year. Just like standard macroeconomics

The Law of Conservation of Ŕevenue

One key point we are looking at in this symmetry is not additional Ŕevenue, it is the conservation and creativity of the Initial Ŕevenue. What I wish to show is how, when one has the right balance of production, if at an É of 100% (so all Initial Ŕevenue is spent on one or another network company) one can create a lossless system, that given just the one Śpin, will see all 2024 Initial Ŕevenue end up as Initial Ŕevenue in 2025; as the Initial Ŕevenue has evenly passed from one formation of a set of companies to the same but different formation of the same set of companies (+ Labour and Movement Spending). This in physics might be called a symmetry, and in economics might be called an equilibrium.

I call this symmetry/equilibrium the 'Law of Conservation of Ŕevenue,' and we can thank Professor Hawking for this line of research.

In addition to the 'Law of Conservation of Ŕevenue,' is the option to Śpin more times within a year. So far, my models have been 8 to 24 Śpins. But for this spreadsheet, I will use 3 Śpins, as it is simpler, and is all that is necessary to illustrate the point.

Also for simplicity, I have used an É of 100%. However, the actual current target for É is 95%. (Please remember that SpaceX and Virgin Orbit both operate at about 90% É without deploying a Comparative Advantage strategy. If they did, it would not be hard for them to reach an É of 95 or even 99%.) ~~Also, it's easy to calculate the compound loss of 3 spins at 95% post completion of the basic É = 100% model.~~

~~>>~~

The Spreadsheet

I have called the spreadsheet 'ŔÉŚ and The Sienna Equilibrium'
See the Video: https://youtu.be/LGVmmtew2fo

I have started by dividing the 'D9' Initial Ŕevenue of $5,497,558,138.88 into 16 even divisions; of which 3 divisions are government spending (from money that will be initially given as part of the investment as a signing bonus).

In addition, I have added 4 divisions (25%) to labour.

For each new Śpin, for both the government and labour, I will remove the costs/money from all the companies' flows, and then add the money back as government and labour's spending of Network Credits on one or another S-World company.

Then work creatively to make the flows between all the sectors at the beginning and the end up with the same value, this demonstrating the Law of Conservation of Ŕevenue.

!!! However, at this time, I will not be seeking to match the 1st spin, in terms of sectors, to the 1st spin in year 2. The reason for this is twofold:

1. I'm not sure the year 1 starting sectors need or even should balance with year 2.
2. If I do need to balance them, it will be a lot easier with hundreds of different companies and more spins.

I am working on 8 or 12 spins in 2024, depending on the E, and hundreds of companies; which makes it a lot easier to navigate a perfect symmetry, should this be the best model.

The general idea is to increase the money supply/cash flow and see as much revenue returned in year 2. So that in year 2, we only need to make a little extra revenue to maintain the equilibrium;

with the only loss from É, less than 100%.

However, with 4 different major income streams above, the Initial Ŕevenue, it is not at all an impossibility to create as much in Ŕ in year one from Additional Ŕevenue; which would then Śpin and lose whatever it loses to É, and the balance per the Law of Conservation of Ŕevenue will accrue as additional Ŕevenue in 2025.

The 4 Different Major Income Streams

1. Network Cities	>	Norwegian Wealth Fund	>	$1,374,389,534.72
2. Aid	>	Various Gov's and NGOs	>	$1,374,389,534.72
3. International Trade	>	All Trade after the Swops	>	$1,374,389,534.72
4. Malawi	>	Not Networked Companies	>	$1,374,389,534.72

The above are all reasonable and add up to the exact same as the 2024 investment: $5,497,558,138.88

I am moving to the original spreadsheet 'Paradigm Shift - Lake Malawi ŔÉŚ 2024 to 2039 – Cautious Estimate – 1.32d (12th August 2018)' and Tab: Tab 2024 - ŔÉŚ 1.02 É95 Tax NC…

In which we spin 8 times at an É of 95% (and remove a little Ŕevenue to buy land). This creates a money multiplier (turns Ŕevenue into more Cash Flow) of 695%, making $38,235,268,098.19 in cash flow, and $3,345,620,786.93 is conserved and added as Initial Ŕevenue in 2025.

This is from the Initial Investment, but if we also achieve the sales from the '4 Different Major Income Streams,' this would more than double (more than, as not all payments will be made in month 1, and so would lose less to É due to less Śpin) to above $6,691,241,573.86.

And on the way, if cash flow is split with half creating parts for goods and construction and the other half creates goods and construction that can be sold, then GDP would be in the region of $38,235,268,098.19 when we include cash flow made from the initial investment and the 4 Different Major Income Streams.

Before continuing, I have found another golden nugget of information relevant to RES from Paul Colliers 'The Plundered Planet.'

"In the simplest economies everything is sustainable, the economy remains exactly the same from one year to the next. ~~This is not a world we should necessarily aspire to if everything stays the same that includes the desperate poverty of the bottom billion. Nor is it now feasible, those non-renewable assets are gradually running out, but in such an economy the natural world reproduces itself year in year out and keeps precisely the same value."~~

I take two things from this. First is more authority to the idea that, in macroeconomics, if a country has as an É of 100%, its 'economy remains the same from one year to the next.' And because of this, if a network within a country has an É of 100% (and does not make any extra

Ŕevenue past the sum of its labour and capital from its Initial Ŕevenue), then the Law of Conservation of Ŕevenue will see the same Ŕevenue in year one in year 2.

Add more '**your spending is my income, and my spending is your income.**

>>

Dollars not the local currency

A very important point to the economics is that the entire money flow is in US dollars, not local currency, so as not to inflate the local currency, and avoid a myriad of other points that have come to light from Paul Colliers 'The Plundered Planet.'

Back to the Spreadsheet

I am not looking to create a perfect symmetry, as I am only starting with 16 sector cost centres; in the S-World UCS Simulation, there would be more; and within each sector would be many companies that would require different goods and services from different sectors.

The important points we are looking at is, in the end, all of the Ŕevenue is conserved and can be spent again the next year; and that the cash flow has increased by the 3 Spins to 3 times the Initial Ŕevenue from $5,497,558,138.88 to $16,492,674,422.64.

Not obvious on this spreadsheet, the previous spreadsheet 'Paradigm Shift - Lake Malawi ŔÉŚ 2024 to 2039 – Cautious Estimate – 1.32d (12th August 2018)' – Tabs The Sienna Equilibrium 1.06 and 1.07 presents the David A Moss Cash Flow to GDP Variable, which on 1.06 is 66.163% and on 1.07 is 47.738%, for an average of 56.95%, which we multiply by cash flow to estimate a GDP of $9,392,578,083.69.

Note that in the first phase, we have about an even amount of production and consumption; the consumption being Investment, Labour & Government. And note further that Investment only features in the first phase Spin 1, after which investment has received the promised 12.5% in Network Credits, so there is no need to include this sector in future spins; and also that because of this, the more spin, the less the paying the dividend of the investment is a percentage of total Network Credits.

Don't think of the first allocation as Ŕevenue assigned to a specific sector, think of it as money flowing through the S-World economy.

This current model is not perfect, there is still a long way to go. However, I hope that it presents RES well enough to let others agree that the basic principle works.

I have made a video, it is rough but good, just under 30 minutes… which really is essential watching.

https://youtu.be/LGVmmtew2fo

Note that this is for the 'ŔÉŚ & The Sienna Equilibrium V2.5' tab, on the 'ŔÉŚ and The Sienna Equilibrium' spreadsheet.

Here is a Summary

Starting with an Initial Ŕevenue of $5,497,558,138.88, this is split into 16 equal amounts of $343,597,383.68.

Note that each sector can contain hundreds of different companies, which makes the exact channelling of Initial Ŕevenue through the economy/network much more exact. For now, we are working with broad strokes.

We will now use ŔÉŚ with an É at 100% to channel the Initial Ŕevenue through the economy/network 3 times (a Śpin of 3), so increasing cash flow by a factor of 3, and on what would be the 4th Śpin, returning all the cash flow as $5,497,558,138.88 in Initial Ŕevenue the following year.

Note that of the 16 initial sectors, the first 6 are production, then we have 1 sector that diverts cash flow to the weakest links, followed by 9 sectors (2 Investment, 4 labour, 3 Government) of consumption.

Then on Spin 2, the model changes investment to production, making 8 sectors of production; 1 sector that diverts cash flow to the weakest links, followed by 7 sectors of consumption.

And it is this balance between about half consumption and half production that creates the balance, this is the primary 'equilibrium' in the Sienna Equilibrium. Or as Paul Krugman so elegantly put it, 'your spending is my income, and my spending is your income.'

1. **Sector 1**

   Starting with Sector 1. 'Building Materials 1,' we see a direct payment of $343,597,383.68 to 'Raw Materials 1,' in exchange for the raw materials needed to make the building materials. For example, the calcium, silicon, aluminium, iron, and other ingredients needed to make cement, or the sand, aluminium, and other ingredients in aluminium windows.

2. **Sector 2**

   Sector 2 starts as Infrastructure which needs building materials. However, in this scenario, instead of Infrastructure paying S-World Malawi 'Building Materials 1,' it pays an S-World manufacturing company 'Goods 1 (Computers & VR-G)' for goods, that are then traded with Malawi's neighbouring countries' S-World trade hubs; preferably in a way that creates a comparative advantage for both countries. But we will for now not include this, this will,

for now, act as profit for the trading hubs.

The Infrastructure company pays the manufacturer of the goods who traded their goods for 'Building Materials 2.'

3. Sector 3

Sector 3 is 'Goods 3 (Retail),' which buys smaller manufactured parts, the ingredients needed to make the more complex goods from 'Goods 6 (Parts for Goods).'

Sector 4

Sector 4 is 'Property Developer 1 (City)' which buys 'Building Materials 3 (Cement).'

Sector 5.

Sector 6 is 'Services 1,' which would range from the logistically essential companies associated with Foxconn City, retail, and entertainment.

However, in this example, like others, I have nominated one specific service… 'Goods 3. Retail,' as it simplifies the process.

One potential problem is that I have only added services in the first spin, this may need to be adjusted, or it may be the best strategy to really focus on manufacturing and construction and allow service companies to create themselves.

If we look at the economic history, the USA and the UK and probably most of the economically strong countries started with a lot of manufacturing; and on top, grew the service sector all by itself. And now, we see economically strong countries with services creating at about 70% of GDP with industry at about 25%.

Sector 6

Sector 6 is 'Raw Materials 1, 2, 3, 4'; from different S-World Malawi Network resources purchased before 2024 as part of the first round of investment. I'm particularly thinking of construction materials, but really whatever can be bought at a good price (which would be the most basic resources) that are not environmentally damaging.

A note on the Malawi resources in general, I see there's a lot of exporting of coal. And I have just read in Paul Collier's 'The Plundered Planet' chapter that coal is the biggest polluter and should be left in the ground. So, from funding created from profits (sales after Initial Ŕevenue is carried to the following year), we can assign 'Special Project 2. The Ecological Economy' to buy the coal mine and close it. The asset would officially remain in the balance sheet but could never be mined.

For more on 'Special Projects,' see the breakthrough chapter:
www.angeltheory.org/book3-14/ripple-effects-and-elephants-for-paul-g-allen

Note that in this UCS ŔÉŚ Simulation, most raw materials are traded with Malawi's neighbours, S-World trading hubs for manufactured goods.

Sector 7.

Sector 7 is set as 'Peet Tent & Susskind Boost,' from the previous chapter 'string theory systems.' In this case, 6.25% of all cash flow is used to boost the profits of all companies and particularly the weakest; in many ways, including marketing (see Susskind Boost Equation).

Note that so far, the actual Peet Tent and Susskind Boost have been 3.125%, and an additional 3.125% has been allocated to the development of the Super Projects TBS™, VSN™, UCS™ and S-World Films which included S-World BES™ (see the previous chapter or AngelTheory.org website).
But as it stands (as we are condensing everything to an initial 16 sectors), the Peet Tent and Susskind Boost are accounting for 6.25% on Śpin 1, lowering on Śpins 2 and 3 (again for simplicity).

As far as the money transfer goes, any company could be the beneficiary of the Susskind Boost and Peet Tent funding; so, if I simply remove the percentage from all companies and then add it back to all companies, that will accurately account for the sector.

Sectors 8 and 9

Sectors 8 and 9 account for the 12.5% of Network Credits promised to investors who, if we remember, need to start their company in Malawi, which pays for some or all of its operating costs from the 12% of Network Credits.

Labour is accounted for separately, so I have assigned half of the spending to Commercial or Industrial Real Estate, so their company owns its shop, office, factory, wonder or other, an essential part of increasing general efficiency/profit.

The second set of spending (Sector 9) is buying goods, but would also include raw materials.

Note that, unlike all other sectors, Sectors 8 and 9 only feature once, they are not Spun. This is because the deal is for 12.5% of investment in Network Credits, and this liability is dealt with in the first round.

Lastly, note that at a specific cash flow or GDP point, maybe GDP 55 billion; the investors 12.5% of investment in Network Credits increases to 25% a year.

Sectors 10, 11, 12, and 13

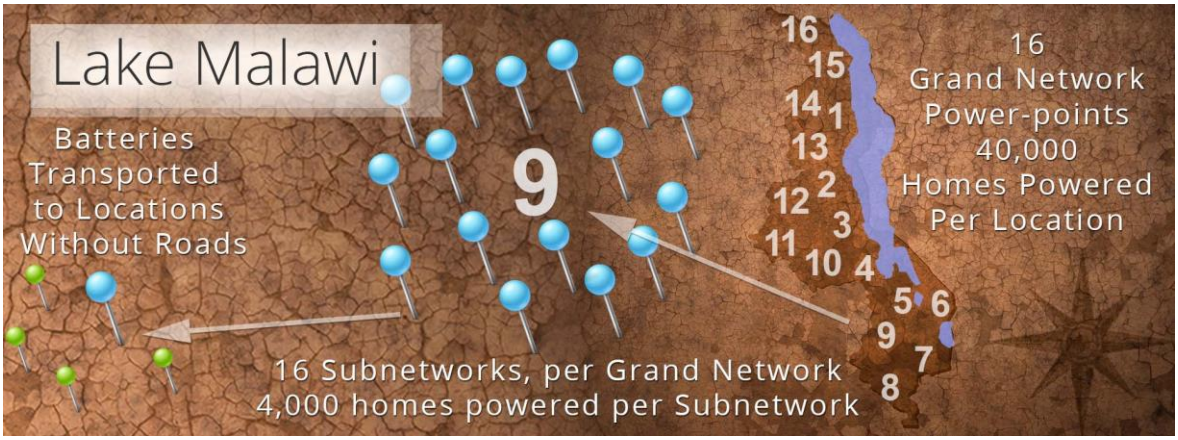
Sectors 10, 11, 12, and 13 are Labour 1, 2, 3, and 4

Note that at the time of making the video, I thought I made an error for Sector 10. But actually, there is no error.

Let me explain…

The general idea for Labour is that 25% to 50% (in this case 25%) of money from Labour is redirected to the rural villages. Let's look at the map and note this map does not account for nature reserves, which of course cannot be used, instead, we would choose from the 50% of Malawi that is poorly kept farmland.

Also, on the ecology, whilst the map says, 'Lake Malawi,' as most of the boundary of the lake is mostly nature reserve; the 'Lake Malawi' badge will come from creating man-made lakes inland if this is possible. Lastly, on Lake Malawi itself, is an idea to create man-made islands, which would be very expensive to live in; but only if by making such islands, enough money can be made to pay and to stop all modernised fishing thus preserving the fish, which in my opinion is better than disruption to the ecology of the lake in the long run.



This map was designed around creating enough solar power to power the internet and provided charging points for the tablets and VR goggles across the country. It presents an even spread of 16 future Charter Cities, orbited by 16 future locally owned Charter Towns, orbited by as many small rural villages as there are.

Working in the 16 future locally owned Charter Towns in 16 locations, we have 256 very basic solar facilities; and what I think is so far my best S-World BES (Behavioral Economic Systems) idea, the creation of small 'football clubs' attached to the basic solar facilities.

Where after, if we have one company per future locally owned Charter Town, and each company has about 70 personnel (who own half the company); and from their profit share, 25% to 50% is used to pay the 'football club,' creating between 4 and 8 full-time education and sports positions per member of personnel; so, between 280 and 560 Malawian citizens in full-time education and/ or sports, doing all sorts of activities and learning per locally owned Charter Town in 2024.

And as time goes by, more and more investment will flow into each locally-owned Charter Town, and this investment will be gamified, maybe in a few ways via BES Observer, but also the results of the football league between the various locally owned Charter Towns. With more investment going to those that win the game of soccer, and in another piece of BES, there will be either a men's and women's team; or a mostly men's and mostly women's team. But the mostly women's team would win more investment than the men's, so ushering in a much-needed incentive for villagers to property nourish and educate their girls. As in S-World, at least at the 'football club' level, villagers will make more from their girls than their boys. The women's league may get $1000 for a win; but the men's, only $500.

In either 'Poor Economics,' Abhijit V. Banerjee and Esther Duflo tell of the horror of 100 million women being missing from this world and set the blame on the economics, that men make a better return than women.

Of course, this action would not just be for football. The football club is just a popular medium that will initially bring the strongest men and women in the village into the S-World fold. The 'football league' is really a university and civic trust, it is the training ground for the personnel needed for 2025 and onwards, and the source of municipal personnel, such as the police to make sure no one tries to steal the solar arrays or the stocks of commodities, like cement and aluminium windows. Teachers for sure, however, I am hoping to see S-World VNS and UCS pioneer education via virtual reality; which can be tailored to the individual and is of course a lot more fun (read 'Ready Player One' by Ernest Cline' for the inspiration).

Lastly, on this point, it may not be practical to distribute businesses to all 256 Charter Towns in 2024. The personnel may just all work in our simulated Foxconn City location, and personnel income would be redistributed in the way mentioned, effectively their tax. Albeit there is of course a much stronger will to work, if one knew one's taxes were directly going to people from one's home village, that can be traced to every man and woman. This of course ripple effects into the villages doing what they can to encourage and get their children into future S-World companies.

Sector 11

Sector 11 is a very old idea from American Butterfly – The Theory of Every Business – Chapter 3. 'The Theory of just a little more than we know now,' Universities and Spartan Contracts.

http://americanbutterfly.org/pt1/the-theory-of-every-business/ch3-the-theory-of-just-a-little-bit-more-than-we-know-now/the-universities-and-spartan-contracts

Spartan Contracts, initially considered for the USA Orlando Network Simulation, are a 16-year contact between personnel (known as Spartans) and S-World which will see each Spartan a property owner in the Grand Network (Charter City) by the time they leave, plus

other benefits like gap years, education or following the sun, relocating in summers and winters if logistically feasible.

Spartan Contract owners would be paid well, in Network Credits, and 25% to 50% of this payment would be for the construction of their own property; which of course creates a constant flow of Network Credits to the construction process.

Translating this to Malawi, I have included a 25% deduction in Network Credits to pay for the Malawian properties either in Charter Cities or the locally owned Charter Towns.

Sector 12

In this sector, we see our Spartans buying food. However, most of this food would be for the villages as a second part of the desired 50% of salary that pays for the 'football club/schools / civil expenditure destined to the Spartans 256 locally-owned Charter Towns.

This is, of course, if we can manage 50% for that task.

Remember, this 50% in place of tax and their income is part of the RES process and so can be high, the question is whether 25% or 50% can be used to support the 256 locally-owned Charter Towns.

Sector 13

This sector will be split into a number of sectors. Currently, I have only shown cars and the S-World GT, which stands for Google Tesla.

I'm sure Google has a good reason for making funny looking cars for their driverless program, but I can't see anyone wanting to buy one. Hence, I suggest an alliance with Tesla.

Tesla makes great looking electronic cars, are creating the infrastructure for electronic cars in the USA, UK, and probably other locations.

Going back to the 2011 Greece Charter City Simulation, the idea has been for the Charter City to be completely green.

This was a problem, as almost every automobile in Greece was fuel-driven, so a compromise was needed. And over the years, the compromise was simple, it was about getting the residents of the cities to buy electric cars not fuel. However, this was not economically viable, until the idea to add about 6.25% to each property sold for the purchase of electronic vehicles. And hey, presto, most people would drive electronic cars, and one could put in place a serious proposal to ban fuel cars from Charter Cities within 'x' years.

The S-World GT is a great way to give Larry Page, Sergey Brin, Eric Schmidt, Jonathan

Rosenberg, and others at Google something they probably desire the most, the infrastructure (albeit in currently in simulation) to launch their driverless cars; as the Charter Cities and then the infrastructure that connects them will be created from scratch with that objective in mind.

~~Sure, and it's not cool, like the 'Ivory Game' initiative discussed at the end of this chapter, some people are going to die. But in this case, I expect another 9 people to still be alive after taking manned vehicles off the roads.~~

~~Both Google and Tesla feature in the second part of this book 'The First Followers,' and indeed the very name 'The First Followers' came from Eric Schmidt and Jonathan Rosenberg's 'How Google Works.'~~

Sectors 14, 15, and 16

Government / Tax

Sectors 14, 15, and 16 are governmental; at 18.75%, however due to RES, with an E of 100% and 3 Spins, the government make this amount 3 times, creating an actual tax (paid in Network Credits) of 56.25% of the Initial Revenue of $5,497,558,138.88, equalling $3,092,376,453.12 of spending on infrastructure and its people.

This is not the highest effective tax rate in the world, but it is higher than the USA, the UK, and the EU. And note that high tax distributed to the people including infrastructure is a key engine for growth of S-World Malawi, the rest of Malawi, Malawi's neighbours, and ultimately all of Southern Africa.

Of course, should one Spin 8 times with an E of 95%, this tax equivalent would more than double.

The reason we can afford such effective taxes is the amount of E and Spin and that the payments be in Network Credits, and this becomes the way we can further guide consumption, which is the clever part of the Sienna Equilibrium.

Sector 14

In Sector 14, I have assigned government spending to more social housing. Note that this housing (once built) would of course be the property of the government who may later choose to sell the properties to the tenants in the same way Margret Thatcher did.

Sector 15

In Sector 15, I have assigned government spending to infrastructure. This will be for Charter Cities and Towns across Malawi, again owned by the government but serviced and managed by the network, so it does not fall into disrepair.

Sector 16

In Sector 16, I have assigned solar arrays for the 16 Charter Cities' future sites and 256 locally-

owned Charter Towns; again, owned by the Malawi Government but serviced and managed by the network, so it does not fall into disrepair.

In general, I think the electricity created (certainly in the early days) should only need to cover the cost of service and management.

Government Continued

Now that we have an idea of the first 16 sectors and the trading, we need to move forwards in time by 4 months and Spin 2.

As we scroll to the right of the spreadsheet, we first see Tax deducted at 18.75%, and this is followed by Labour deducting 25%. These figures are then re-added and categorised at column V, row 28. If you go back a way to Q:28, we see that the same amount as was originally assigned '$343,597,383.68' is now reassigned 3 times (and 4 times for Labour).
This time Government Spending is assigned to 911-Internet (a basic form of internet, great for education originally theorised by Mark Zuckerberg). Money will be spent on servers at the 256 locally-owned Charter Towns, and the internet can be provided in one of four ways. Google is working on hot air balloons, which seems practical Facebook is working on drones. Elon Musk and SpaceX are working on satellite delivery. Richard Branson and Virgin Orbit are looking at low orbit satellite delivery.

Providing basic internet is critical to the S-World VSN and UCS Virtual Education Platform. Albeit, of course, one needs electricity to power the servers and power the devices, hence the allocation in the initial sector round.

The government also has been allocated more infrastructure and below, which may sound rather odd, is Couture (fashion). This is there in part to provide high sales to the fashion companies that will help exports, decide Malawi is right for them, as this allocation can guarantee profitability.

It is also meant to be combined with other super-luxury goods as a carrot for politicians to be honest. If by simply being a politician you are showered in luxuries from Armani to Bulgari to Tesla, then loss of this benefit would be a great loss. Or more to the point;

"If an honest politician in Malawi tomorrow stands to collect more luxuries than a corrupt politician today, then Malawi would recruit more honest politicians who do not need to be corrupt."

This initiative is, of course, created in tandem with the UCS Observer and the TBS, making corruption very hard to get away with in the first place.

Continuing to spreadsheet column AP row 61, we see the last 3 government allocations, this time I have added 2 more lots of Infrastructure (albeit one may be for Mozambique to further improve

its transport from port to Malawi and the port itself). And lastly, I have added an allocation to 'Hospitals and Medical Equipment.'

Of course, there are more items for the government. For now, we are just looking at a starter model, a model from which to create the S-World UCS Simulation and drill down to the thousands of actual companies that we will find in the actual 2024 scenario.

One other point that is, in general, a point about the viability of creating thousands of companies in 2024 comes from Christian Davenport's 'The Space Barons:: Elon Musk, Jeff Bezos, and the Quest to Colonize the Cosmos' in Chapter 10. 'Unicorns dancing in the flame duct' is that NASA's Saturn 5 spacecraft had 3 million parts. I can't say I know how many parts are in SpaceX rockets, but I can say that 90% of their parts are made in-house.

So, consider S-World Malawi as SpaceX with thousands of companies creating this and that part, and the 90% in-house to be the same as É because it is. Also, consider that these parts were not made in China or another low-wage country, but rather made in LA.

We don't need 3 million parts to be made, nowhere near, and yet SpaceX has shown it is possible to accomplish the objective.

Labour Continued

Next on the spreadsheet, we can see that just like government 'consumption' spending allocations, labour repeats as well, so creating the equilibrium of at least 43.75% being spent on consumption.

Like the government, I have assigned the spending to sectors, but like the government, these are token allocations, actual spending would be much more varied.

Trade Continued

On Spin 1, we see sectors 1 to 7 continue, and 8 to 16 turn to trade, and we see the first deduction of Government and Labour income, before getting to Spin 2. At Spin 2, we see a lot more international trade, as 12 of the 16 sectors mostly swop manufactured goods for 'Raw Materials' and 'Parts for Goods.'

This could be mostly 'Raw Materials' from neighbouring countries, however, this does require that the economies of the neighbouring countries have enough in their economy to buy the goods.

To assist this process, money will be invested into creating trade hubs in the countries which would be a part of the Virtual Network (and location that does not have a Grand Network) and significant effort will be placed into making the trading hubs as successful as possible, including retail and wholesaling ventures.

However, if there is not enough demand for S-World Malawi goods, then if we can create the

demand in the USA via the AGOA, then trade sold in the USA could effectively be swopped for USD and used to buy the 'Raw Materials' and 'Parts for Goods' from Malawi's neighbours.

Lastly, note that trade continues on the spreadsheet after the 2nd and 3rd spins for government and labour.

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Angel Theory – Volume 1 – Paradigm Shift

A More Creative Capitalism

Part 2. Charter Cities

Chapter 13. The Spartan Theory 2011 - 2018

By Nick Ray Ball 6th September 2018

The Spartan Theory

One point that I did not include is the 'Spartan Theory.'

At this point could be confused with the controversial (but sensible) suggestion by Paul Collier in 'The Bottom Billion' for the need for a rapid reaction force and peacekeepers who are prepared to fight. I will present both the history and the 'why' for 'Special Project' 15. 'The Spartan Theory' and 'The Ivory Game.'

'The Spartan Theory' was the working title of the S-World Network hypothesis from April 2011 to May 2012, at which point the Network and Theory were repackaged as my first attempt at a book in 'American Butterfly.'

Before presenting the blog that I made for the 'Spartan Theory,' a note that this blog really is very unprofessional, with extremely poor presentation, riddled with typos; and from time to time, it bursts into song lyrics from late 1980s gothic music.

On the plus side, however, it contains 42 chapters and over half a million words of research and ideas. Indeed, recently, I went back to 'The Spartan Theory' for Book 6. S-World BES (Behavioral Economic Systems) chapter and found no less than 33 different relevant points. And I was surprised just how much of this ragtag collection of ideas has

developed into the current vision of the network.

We can see this ragtag collection of ideas on the very, very unprofessional S-World.biz website: www.s-world.biz/TST/index.htm.

Nostalgia aside, 'The Spartan Theory' itself was the last point to the original basic 11 point plan that founded the economics found here www.s-world.biz/TST/The_Spartan_Theory_in_retorospect.htm.

The original 4-line theory was that instead of war we create a tournament, in which 300 unarmed warriors fight and resolve their differences, less destructively, hence the name 'The Spartan Theory. This later developed into a war game scenario, which was basically a big paint ball game. And for the next 5 years, there it stayed, much like the 'New 21st Century Football Theory' in the same chapter; not really considered an idea that would eventually turn into something useful.

Until in 2015, after 2 years away from the macroeconomics of the network, focusing on the Virtual Network and Villa Secrets et al, by chance, I saw 'The Ivory Game' on Netflix. And on further investigation, I found the document was sponsored by Microsoft co-founder Paul G Allen; whose website I read and then I found out that Allen desired to invest in ventures that were technical and caused Ripple Effects, and this, in turn, started me back on the road that eventually leads to this book. And along the way, the breakthrough chapter www.angeltheory.org/book3-14/ripple-effects-and-elephants-for-paul-g-allen was created, which linked all the Special Projects (of philanthropic, ecological and scientific intent) from 'Paradigm Shift Book 1. M-Systems' www.angeltheory.org/book1-4/an-ecological-and-philanthropic-theory-everything-plus-space to the creation of the S-World Malawi Super Grand Network, via ripple effects; or put in economic terms, 'Externalities.'

The first externality (ripple effect) was the creation of Experience Africa, which would use the software designed for Villa Secrets to create a large network of tour operators, and the creation of complete 'everything systems' for the 4000 plus safaris in Africa. But instead of following the Villa Secrets POP model for profits, Experience Africa would focus on conservation and the protection of Rhinos, Elephants, Cheetahs, and Wild Dogs; the 4 most threatened species in Africa.

And the basic idea was that all tour operators would pay 50% of gross profit, and safaris would pay a percentage of additional profits made, and that S-World Experience Africa would attempt to become the default booking system or safaris. And that if successful and we were to sign up over 2000 safaris, that income and the income from the plus one thousand tour operator websites and the safari 'everything systems' would be able to create more funds for the conservation of these 4 species, than the rest of the world combined and that this capital is sustainable, and you can see some of this idea here: www.ExperienceAfrica.com.

So, all in all, a very good externality; created for very little, above what was necessary for Villa Secrets and others in the first place.

During 2016 and 2017, this point developed further as M-System 15. Angel POP concluded that:

'Grand Networks in Locations of Abject Poverty are Special Projects.'

And the plans for the Malawi series of Charter Cities took shape; which, in turn, inspired the idea for a dedicated Charter City to assist in the conservation efforts, and the 'Fort Malawi Garrison' was named.

And at the time, I made several graphics, here is one:

The idea for the Fort Malawi Garrison was a precursor to the idea of a Network City, in which every country on earth has a square km to develop creating a true Network City. But first, the idea was to ask every country on earth to loan us some military and police for 'The Ivory Game' project, to help defend the Elephants and Rhinos from poachers from forward operating bases in Tanzania, Kenya and wherever else the need arose.

To stop this project from turning into a press and human disaster, all operations would be part of an S-World UCS Game, which records all actions and assigned points, and many points would be lost if poachers are killed. But captured poachers, those who go on to become part of the initiative, score many points. And of course, for every animal lost, one loses points. For every animal saved, one gains points, and so on. And this initiative would be cofounded alongside S-World Films, making documentaries and (in general) reporting on the operation on dedicated tv channels. So, alongside the points losses, we have the 'BES Observer' effect, as a second reason to act reasonably.

We came back to the 'Spartan Theory' and the peace initiative by creating the teams that work together from countries with differences; say USA and Russia, India and Pakistan, Saudi Arabia and Iran, and maybe even North and South Korea.

I hope that when fighting side by side for a common cause, saving the animals, winning the game, this would all lead to camaraderie. And this would be a good thing, and maybe be the precursor to an actual 'Network City,' where every country on the planet is represented; which would, in itself, be a massive injection of Initial Ŕevenue for the Malawi Super Grand Network.

In Paul Collier's The Bottom Billion, it mentions that in the past, the country that asks for and receives military support have paid $10,000 per person. But this was about 10 years ago, so maybe this figure is now double, but still very affordable if paid in Network Credits.

This would be a good incentive for troops for the other 43 AGOA countries. However, another idea would be to use this $20,000 in Network Credits as a top-up salary to highly trained troops, such as the SEALs who would otherwise be lured to the private sector, stay on in the navy, and relocate to Fort Malawi where their salary it topped up with $20,000 in Network Credits.

Of course, it is convenient that Paul Collier makes the case for an international military in plans for the poorest countries as a way to avoid military coups and poor governance, as we can kill 2 birds with one stone, and I would imagine investment and trade would be more plentiful, with such a force on the ground.

I think that Paul Collier would agree that, in fact, Malawi was one of the only AGOA countries that did not need such a force. However, what economist know to be true from years of effort can be hard to translate to businesses, so whilst no force is actually needed, investment will more plentiful if reassured by 'The Ivory Game.'

Equally important is operations after Malawi, in the other 43 AGOA countries, and beyond; which is the subject of Book 3. 'The GDP Game,' which leverages the expectations from the success of Malawi to catapult into a global strategy. If the Fort Malawi Garrison is an intrinsic part of the successful network design, other AGOA countries will be more willing to accept such an initiative as part and parcel of the initiative, and (in many cases) such a force would be critical to the operation.

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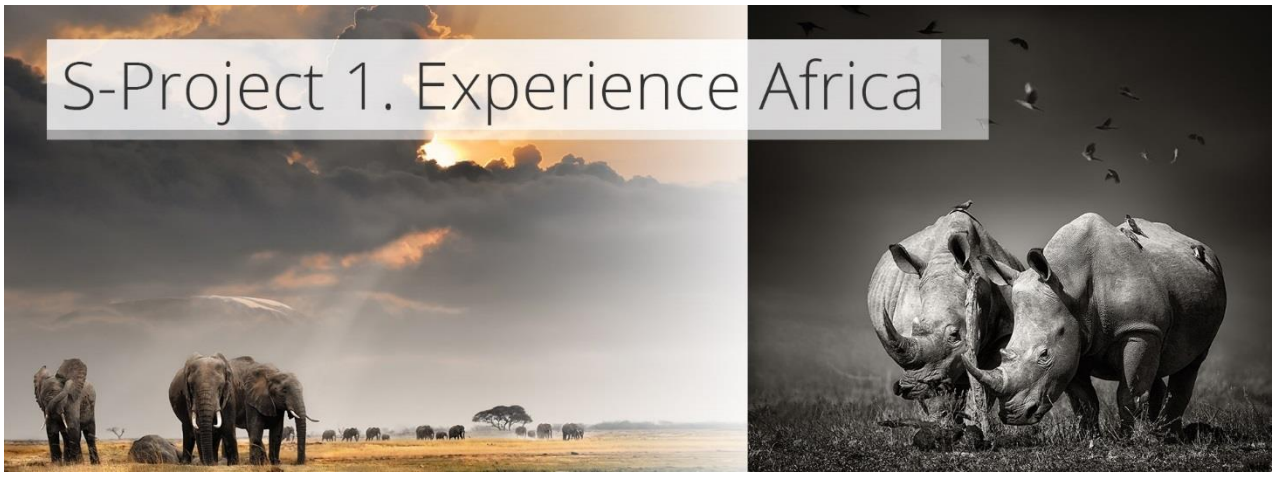
Angel Theory – Volume 1 – Paradigm Shift

A More Creative Capitalism

Part 2. Charter Cities

Chapter 14. Ripple Effects and Elephants – Part 2

Managing Externalities – Special Projects



By Nick Ray Ball 6th September 2018

1. Managing Externalities

Gold rushes happen because the information is a public good, the first strike provides useful information to others. In economics, such effects are known as Externalities, 'benefits that accrue inadvertently from the actions of one person to other people.

Whilst the Super Grand Network is currently costed at about $11 billion (a figure that could double or even treble), the effective 'prospecting costs' are very low at about $10 million dollars (albeit investors will probably invest a lot more in creating the second and third phase of the software). Prospecting is the cost of assessing the viability of the project and is the creation of the S-World UCS Malawi Simulation and supporting software.

However, in the creation of this software, a number of level one externalities occur; and note that from these externalities, a great many second-level externalities occur, see Ripple Effects and Elephants for Paul G Allen.

For now, however, we shall focus on one first-level and two second-level externalities and manage them. The first, Level 1. Externally, is that the supporting software developed to

create the S-World UCS Simulation is the TBS. And given a TBS with say $5 million in development, we would expect our prototype 'Virtual Network' company Villa Secrets to do very well and make an awful lot more than $5 million dollars. Possibly with additional development in S-World VSN and use of the SIMS and SIM CITY software, Villa Secrets could (as desired) take over the US MLS and take a 0.5% commission on almost every home sold in the USA. But even without this critical juncture, the Villa Secrets plan (which has its own 300-page operation and development book) would be making a lot more than the $10 million invested in the software.

This externality is then managed by giving maybe 50% of the equity of Villa Secrets to the collection of 8 individuals and their companies/foundations that would have invested in the S-World UCS software. Indeed, they may instead invest in the Villa Secrets software and the Lake Malawi plan then becomes the externality to the Villa Secrets development plan.

So that's the first level externality.

And now, for the two second-level externality, the first is that by simply changing the defaults and the choice architecture and maybe a few new functions added, the Villa Secrets software can be used for all travel and real estate; creating a great many more companies like Villa Secrets, and a percentage of the profits made will be paid to the development teams to further development, and so the potentially escalating development costs past stage one are mitigated

Another second level externality is Experience Africa and other special projects; which do not return an income but instead serve an ecological, conservation or philanthropic addenda. And as all the companies I wish to invest in the software are founded by philanthropists or ecology barons (think Tesla), said founders will gain personal utility from the 'ecological and philanthropic' ventures started, and (in some cases) mean that their philanthropic investment can be maximised.

Indeed, the actual order of enticement may end up as 1. The Philanthropy, 2. The Virtual Networking Software, and 3. The Malawi UCS Simulation. And one could say that the Malawi UCS Simulation is a third level externality for philanthropic investors.

Also, that investors in the software receive 3.125% from Charter Cities.

Lastly is the internal software externalities algorithm $A^{st}<>B^{st}$.

Now we return to the original chapter 14. Ripple Effects and Elephants from Book 3. The GDP Game, which was created before, and provided part of the road map for this book.

Angel Theory Book 3.14

The GDP Game

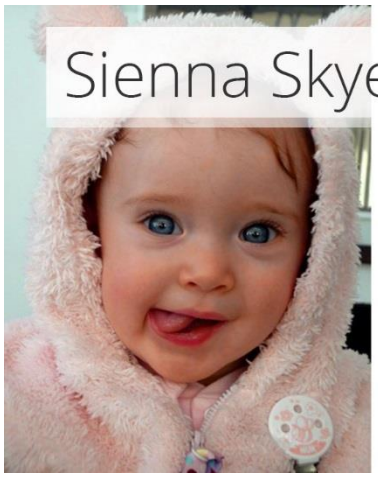
The S-World UCS™ MZ-Network

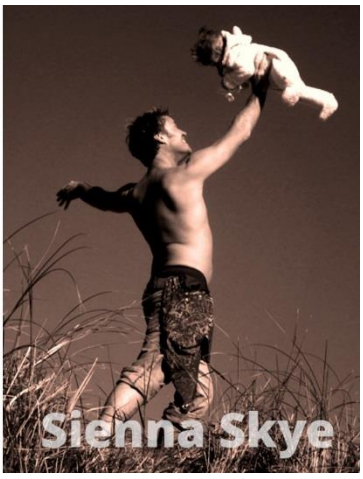
By Nick Ray Ball 30th January 2018

PRESENTING

Chapter 14: Ripple Effects, Elephants, et al.

This chapter continues from Angel Theory Book 1.4 S-World Special Projects (of philanthropic, ecological, or scientific merit), but where that chapter listed 16 projects and one answer, this article presents answers to almost everyone and adds ten more. This chapter is the current conclusion of Angel Theory.





Inspired by Sienna Skye

In 8,187 Words

Version 7.19.u6

M-System 2 – Ripple Effects & Elephants

An Ecological and Philanthropic Theory of Everything… plus Space.

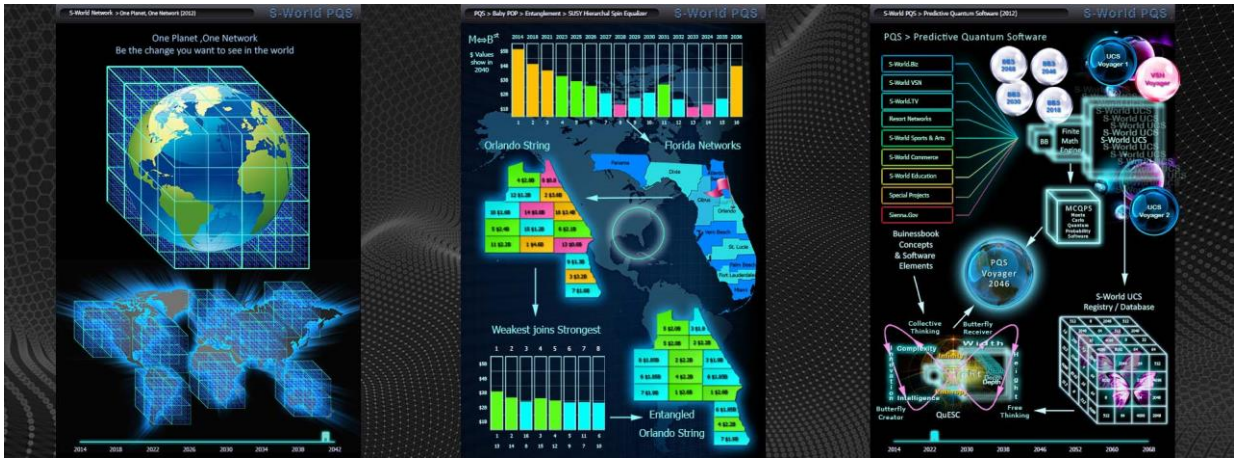
M-System 2. Ripple Effects & Elephants was originally named 'The M&B String,' seen as M<>Bst. The 'M' being Mother, the 'B' being Baby, the <> is the iteration between the two, which is nearly all Mum in early years but could completely reverse by the end of the journey, and the String (st) is the extended family.

This is the philosophy behind BabyPOP. When creating Grand Networks, the first network made is the Mother, who creates a Baby (The 2nd Grand Network), then both work together to create the 3rd Grand Network, and so on until there are 16.

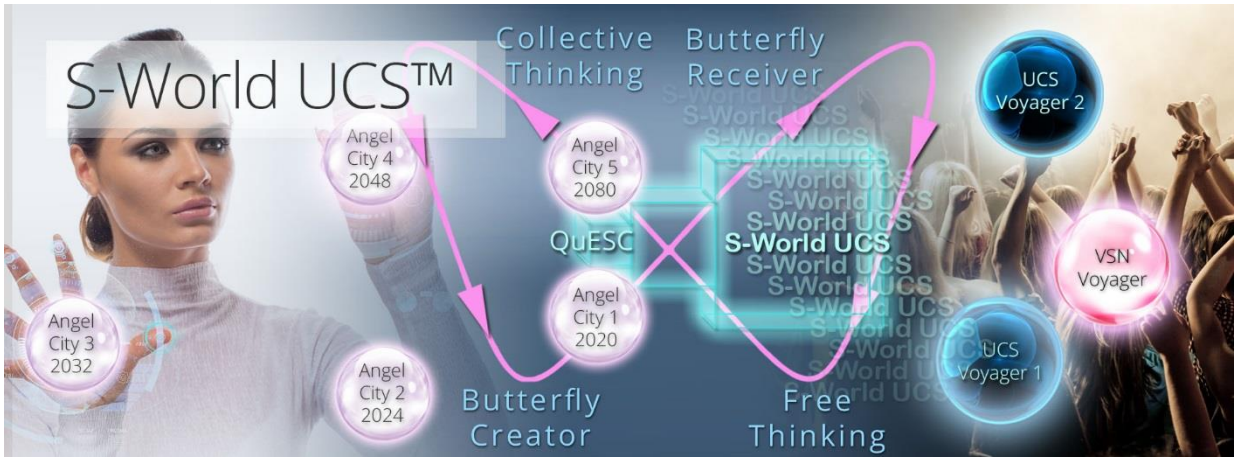
BabyPOP was first described in 2012 within the book 'American Butterfly' http://americanbutterfly.org, and is now described in Angel Theory Book 2.3 'The Network on a String.'

American Butterfly describes a design for a powerful business network in the USA, made hypercompetitive due to 'Economic Butterfly Effects,' which would eventually spread from the USA across the world.

Below, we see some of the original system designs.



A simpler way to say, 'Economic Butterfly Effects is 'Ripple Effects…'



Ripple Effects have always been at the very core of the S-World design. The graphic above helps to illustrate the point and presents M-System 13. S-World UCS™ Voyagers & M-System 14. Angel Cities, the system that seeks to create sixteen S-World Special Projects of philanthropic, ecological, social, or scientific intent.

The source who influenced M-System 2's change of name from 'The A&B String' to 'Ripple Effects and Elephants' is Microsoft co-founder Paul G Allen, whose websites I browsed in late 2015; in which Allen mentioned his fondness for technological solutions that created ripple effects and expressed his love for elephants and his desire to protect them.

As the first (and at that time only) Special Project that has a solution was 'Experience Africa' which used the M-System 1. TBS™ (Total Business Software) design & Villa Secrets network model (See Books 4 and 5) to create solutions for the safari industry, which would be non-profit; the math led to game-changing ripple effects if we reached the volume of 1,000 small agencies and 2,000 safaris using the software; which was, in any case, less than the number of companies we wished created by Villa Secrets. So, if the Villa Secrets plan worked, so would Experience

Africa, and there's the ripple effect. Experience Africa is created as a consequence of creating Villa Secrets and the TBS™ Software.

However, apart from a bunch of microeconomic ripple effects which are critical, I had little in the way of broad appeal in terms of 'big tangible ripple effects' that would catch the attention of my peers and the public, except Experience Africa.

Until I completed the first draft of Angel Theory Book 3. 'The GDP Game.'

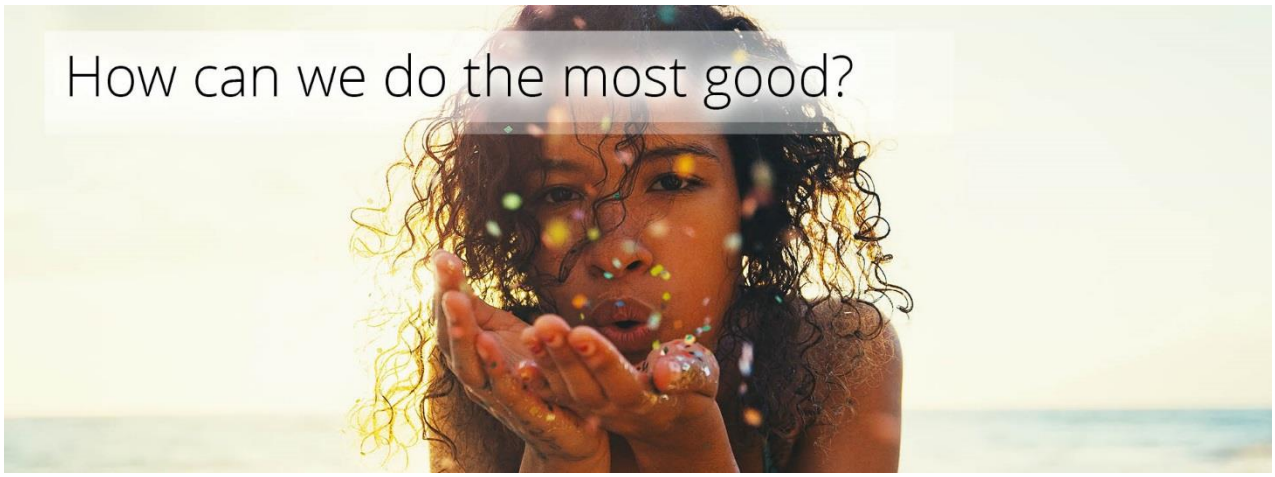
I guess, subconsciously, I wrote Book 3 around these 16 Special Projects because at the end of the first draft, I looked to see how many projects had been created as a part of this network, and it was almost every single one, plus 10 subprojects.

24 very significant ripple effects created as a consequence of creating the Malawi Grand Network, as is described throughout Angel Theory Book 3. 'The GDP Game.'

'How can we accomplish as much good as possible?'

The critical point (in terms of 'how can we accomplish as much good as possible?') is simply that once the software is created, all of the following projects presented are created from the ripple effects of investment, not donations.

And so current philanthropic funding can carry on funding what it funds, business and countries can invest in S-World bonds, see a significant return, and accomplish the most good, as a part of the process.



We do, however, need such philanthropists in the creation of the software. This said, even the software phase is an investment (and in my opinion the wisest of all S-World opportunities), as it creates the first three Super Projects: 1. S-World TBS ™ (Total Business Systems), 2. S-World VSN™ (Virtual Social Network), and 3. S-World UCS™ (Universal Colonization Simulator). All of which have a significant profit component.

That's the current objective, to create the software. And in doing, besides giving Villa Secrets and Experience Africa the opportunity to deliver, it will prove or disprove the Malawi Grand Network Hypothesis and 'The GDP Game,' which (in any case) has been written around arguably the most diligent economics on the planet; and the book 'Capital in the 21st Century' by French economist Thomas Piketty whose principle of convergence is very difficult to argue with, and is backed up by Peter Schiff, and (in fact) every economist or financial expert I have researched.

The point to convergence is that for the last 30 years or more, Asia and Africa have been gaining on Europe, Japan, and the USA. And because of this phenomena investment in Asia and Africa will tend to outperform Western investments. And that's what we are doing in 'The GDP Game,' hypothesising the best investment in the locations that have the greatest opportunity to rebound and grab greater GDP market share.

Special Project 1. Experience Africa (Angel City 1)

Special Project 1. Experience Africa is already underway, as the 20 unique and beneficial systems of Villa Secrets are set to create superior systems for the safari industry and thousands of related businesses; which by 2020 has the potential to provide game-changing funding for the protection of Elephants, Rhinos, Cheetahs, and other endangered animals.

GDP Game Solution…

Despite being a project that already had a significant ripple effect from M-System 1, the Malawi Grand Network design becomes the principle base for Experience Africa, creating many jobs and opportunities, and preserving the elephants, rhinos, & cheetahs across its borders to all of vulnerable Southern Africa.

Special Project 2. The Ecological Economy

The second of 8 ecological Special Projects, The Ecological Economy goes back to the very beginning of S-World and the movie 'The Sienna Project,' in which Sienna shows me, her father, 'The Ecological Experience Economy' (EEE). Above all else, this economy protects our planet!

GDP Game Solution…

We have a dedicated chapter on this point. Book 3 Chapter 6 'Ecological Rules' tells that Malawi and Zimbabwe were chosen because half of their land was poorly tended farmland; and how km by km we could, if rezoned, commercially develop half the land and create forest and nature reserves in the other half; which of course has the advantage of increasing the value of the land. But more importantly, it flies past the S-World 'EEE' rule that each km square of development must create more oxygen post-development than it did before development, and in general, must be an ecological improvement.

Special Project 3. Advancing Human Potential

One purpose of the software and systems: S-World VSN™, S-World VBN™, & S-World UCS™ is to advance human potential by giving everyone the systems to compete with the big guys, and then see them all flourish as equity holders in the new S-World network economy.

GDP Game Solution…

At the heart of S-World UCS™ and the Virtual Networks are training games such as S-World UCS™ 'Villa Mogul,' which will give a very real and complex simulation of what it is like to work in the vacations rentals or real agency industry, and other games will do the same for different industries.

One continues to play different tutorial games and (in general) becomes an expert at the TBS™ Systems until one has found the industry, they are most suited to; whereafter, the applicant applies for a 'Spartan Profit Share Contract' position within a new company. So, solving problems of training and recruitment, incentivising the whole workforce towards making a profit, and in general creating a more equal society.

However,

Special Project 3b. Internet, Education, & the Training of Nations

In locations of abject poverty such as Malawi and Zimbabwe, it's not enough to create training programs in S-World VSN™ (Virtual Social Network), S-World VBN™ (Virtual Business Network), and S-World UCS™. We need to first provide internet coverage.

GDP Game Solution…

In 'Capital in the 21st Century' Thomas Piketty says: **'Historical experience suggests that the principal mechanism for convergence, is when the poor catch up with the rich to the extent that they achieve the same level of technological know-how, skill, and education.'**

And, because this point is pivotal to the long-term economics of countries such as Malawi or Zimbabwe, which need to get internet access and a bouquet of basic, primary, middle, high school and degree level education games and online classes.

However,

Special Project 3c. Electricity

The problem of internet coverage has a more fundamental problem at its base. In 2014, the World Bank reported that only 11.9% of Malawi and 32.3% of Zimbabwe had access to electricity, and these percentages are not expected to increase any time soon.

GDP Game Solution…

In Chapter 7 'Electricity, Internet, Education, & Health Care,' we focus on a set of 128 solar power stations costed at US prices spread evenly across Malawi, providing power to 6,656,000 people, and enabling the powering of 16,640,000 tablets.

In 'The GDP Game' in Malawi, close to 25% of all investment ($8 Billion over 4 years 1 > 1 > 2 > 4 from 2020) is spent on the infrastructure, solar panels, and 10 million tablets (one for every 2 persons).

This statistic is a good example of why S-World output from the initial investment would not pay tax on many items, as all of the above is 'for the people,' and all suppliers and contractors who assist this process should not pay tax.

Special Project 4. Cities of Science

Another early ambition now turned special project, Super Grand Networks (large city-sized resort developments) dedicated to scientific exploration.

GDP Game Solution…

As the main base for Special Project 1. Experience Africa is entangled as Angel City 1, wherever the first BabyPOP Grand Network is created in Southern Africa, it will need to host within one of its Grand Networks a City of Science that becomes Angel City 1.

The 5 Angel Cities from M-System 14 are primarily the points in time that we create way stations (think tanks) for network progress in 2020, 2024, 2032, 2048 & 2080. However, we also desire to create physical Grand Networks for each, which will be the nerve centre of S-World technological and scientific development, creating innovation and many well-paid jobs.

Future locations for the Angel Cities are a guess at best…

Angel City 1. 2020, Malawi (Twinned with California)
Angel City 2. 2024, Greece or India
Angel City 3. 2032, Location hopefully chosen by Chan Zuckerberg Foundation as their stated speciality are projects that take 10 to 20 years.
Angel City 4. 2048, MARS Resort 1 (If practical)
Angel City 5. No Set Location

Special Project 4b. Infrastructure

Before one can build a City of Science or for that matter any kind of town or city, one must first create the infrastructure; the basic physical and organizational structures and facilities (e.g. buildings, roads, power supplies) needed for the operation of a society or enterprise.

GDP Game Solution…

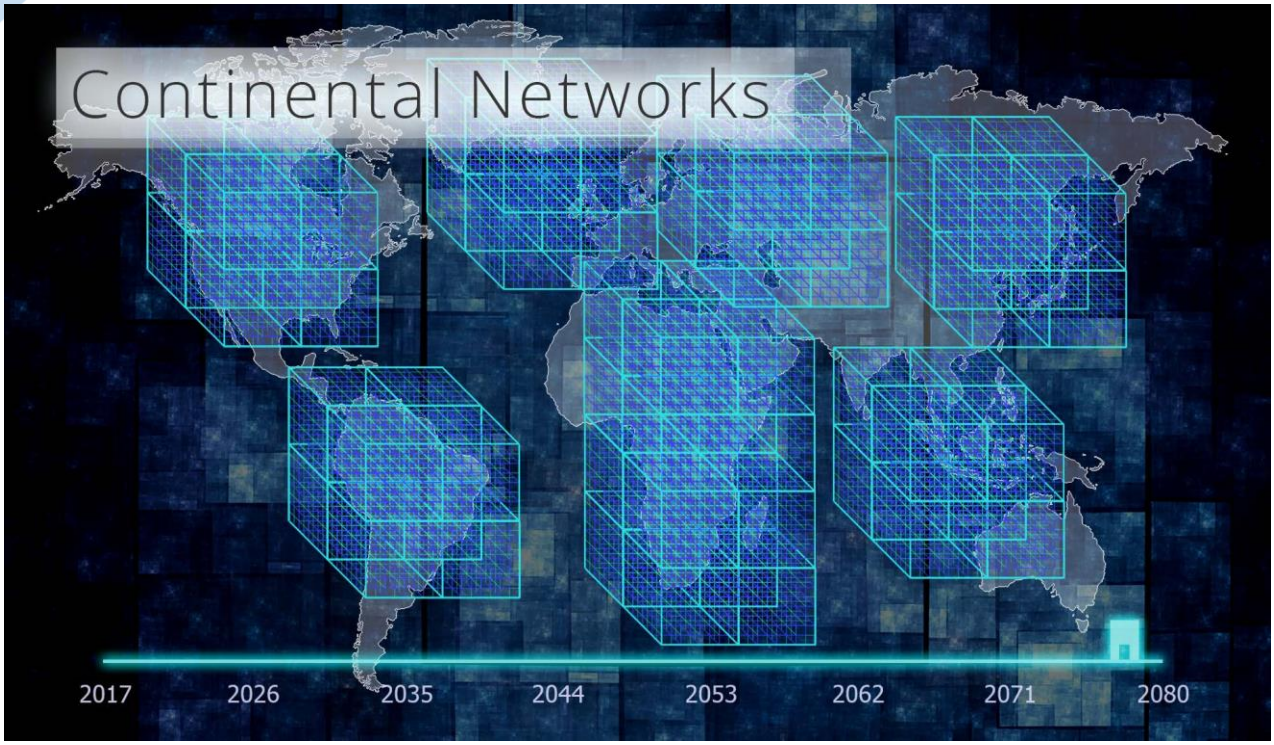
In this case, the GDP game solution is very simple; 50% of all investment (in the form of S-World bonds) is attributed to infrastructure or governmental incentives.

Special Project 4c. Network Cities

How can one greatly increase the business networking of a country and make a great profit from the very exercise? Allocate land for a Network City and allocate between 1 and ¼ km square to every country on earth, for them to build their embassy and surrounding habitat.

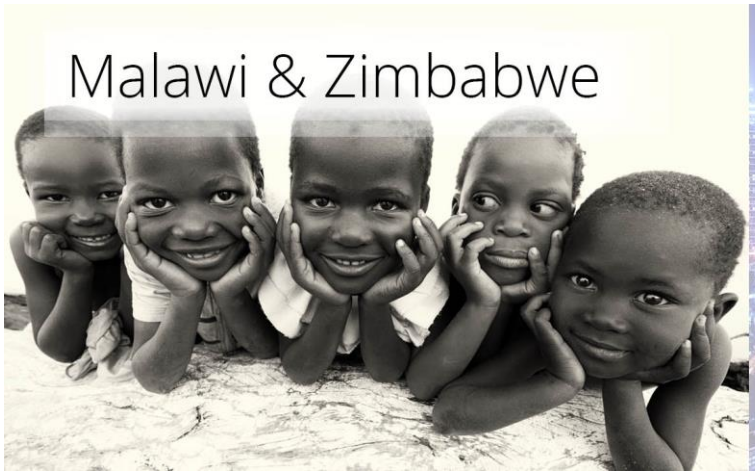
GDP Game Solution…

At this stage, one can only have one Network City per continental network cube.



If we consider two locations (Malawi and Zimbabwe), we would create one with Angel City 1 & Experience Africa and the other with a Network City.

And a note on this, Malawi has for a long time been the preferred location for the first Grand Network as it was safe. However, when Robert Mugabe was toppled from power and a seeming fair democratic process looked a reality (as it would mean a lot to the region and as Zimbabwe is a potential economic gold mine) it was put back in contention. Not wishing to abandon Malawi, which had its own unique benefits, the desired outcome was to start both at similar times. But of course, that doubles the cost.



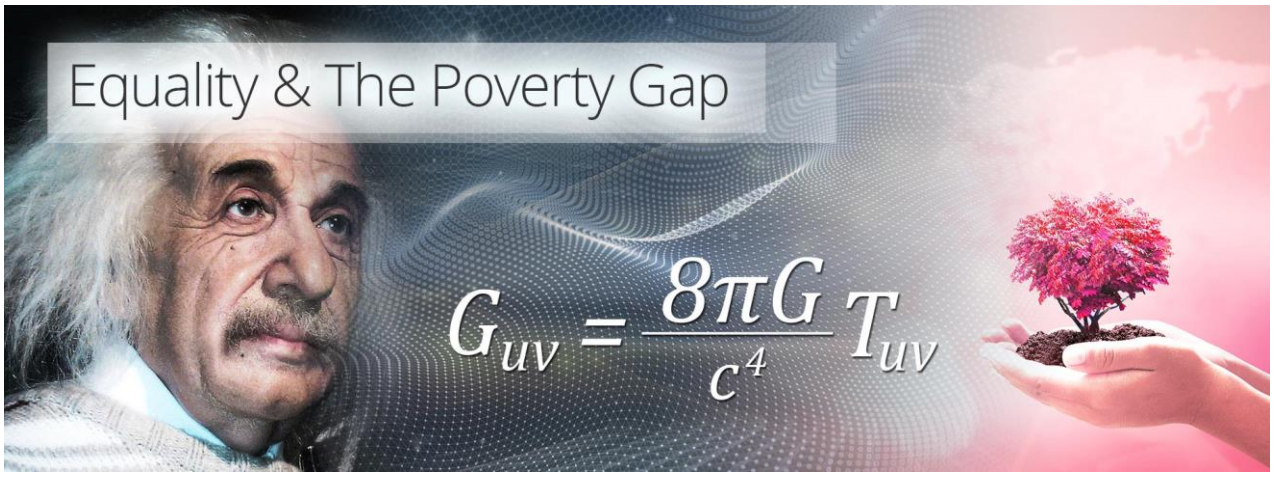
In general, with Network Cities, save imports from their home country; all development of a Network City must be from the S-World Network (which in any case makes business sense), so creating a significant source of additional 'R' revenue (the 'R' in the RES Equation).

To encourage countries to join, the location and size of available plots will be allocated on a first-come, first-served basis.

Countries, who have little money but show and express keenness to set up their embassy and small town in the Network City, may have their infrastructure subsidised by the network.

Special Project 5. Equality & The Poverty Gap

This system is very old and now very advanced. It is all of M-System 6. 'The Theory of Every Business,' 'M-System 15. Angel POP,' and it is Einstein's theory of general relativity within Book 2. 'The E-TOE' (Economic Theory of Everything).



GDP Game Solution…

M-System 15. 'Angel POP' tells us that **'Creating Grand Networks in locations of abject poverty is to create Special Projects,'** and this very chapter bears out this philosophy. The fact that we are starting in Southern Africa, not Greece or the USA, is already a considerable step towards global equality. However, specific to 'The GDP Game,' this book has a dedicated chapter: 'Equality Matters.'

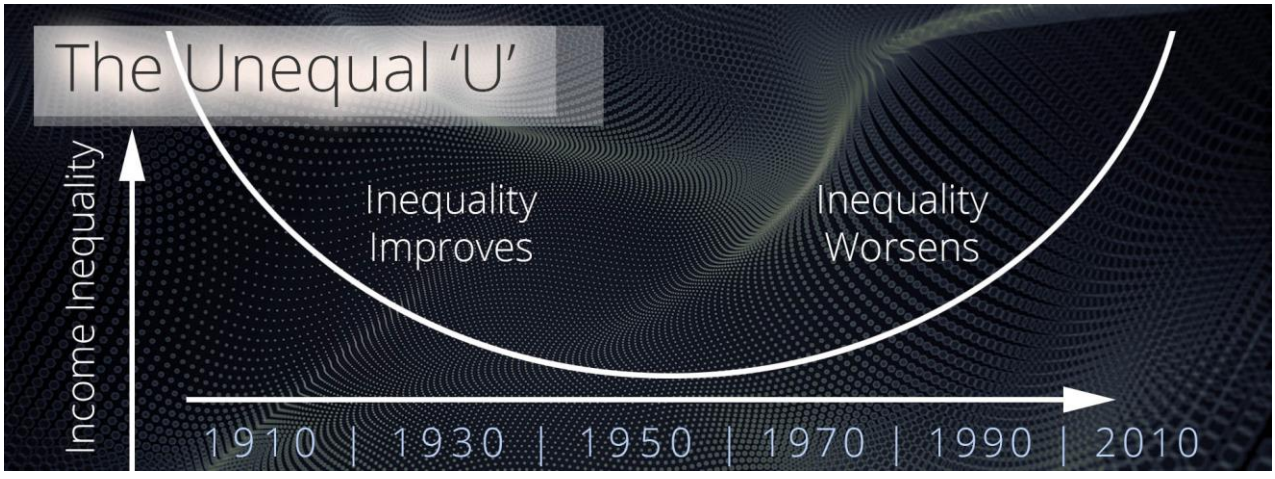
Working from Piketty's 'Capital in the 21st Century,' we have added countermeasures to limit inequality, and are open to additional suggestions.

Equality Point 1. Is to avoid S-World industry and real estate in Malawi or Zimbabwe being mostly owned via foreign investors.

This is achieved by the first 50% of investment being assigned to infrastructure that creates public assets in the host country. However, as the infrastructure more than doubles the value of assets, it's actually a give not a get for investors. This said foreign ownership of the Grand Network is half what it would be without this initiative.

Next, when S-World bonds create a company such as TWF (The Window Factory), the investment will have paid for the land and industry. But, the company created (which is the main income source of the bond) sees 50% of profits paid to the local personnel; which again makes sense for investors, as a company run by stakeholders is always going to do better than one run by unincentivized staff paid by the hour.

These 2 initiatives decrease foreign income from S-World bonds by 75% and tackles a growing problem with 2018 capitalism, where inequality, in general, has been on the rise since 1970 (see below, 'The Unequal 'U').



In addition, S-World companies are all due to POP Investment, which further decreases return on capital to investors, but does increase the value of the S-World bond's assets.

Equality Point 2. Is to avoid local inequality between the citizens of a country.

This is initially achieved by fixing the top managers and C-Suite executives' pay at a specific fraction of the lowest workers salary (no more than 4 times). Thomas Piketty's book leaves no room for doubt that the main source of inequality between a country's citizens since 1990 has been the rise of 'super managers,' who (to a degree) can choose their own salary and so they choose a big one.

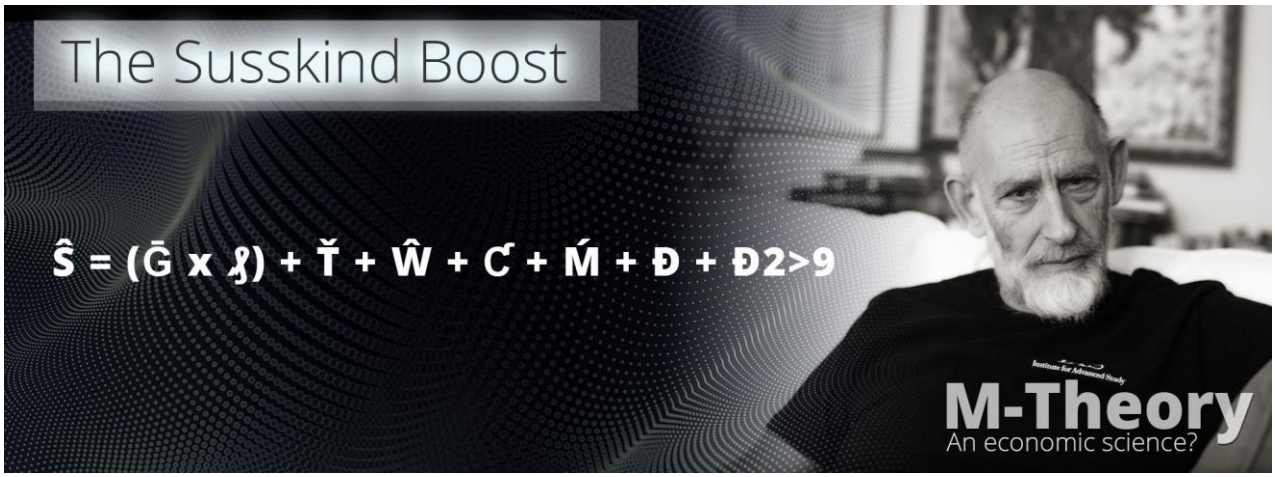
Sure, one runs the risk of top talent leaving to work for higher-paying jobs. But as the current plan for Grand Networks in Africa is for all personnel to be on 'Spartan Contracts' which see 50% of their 'profit share bonus 'income used to pay for housing that matures after 16 years, most managers will at least see out their 16 years and claim their home/real estate. Further, an S-World super manager may find themselves completely unqualified to jump from S-World business with its software systems for just about everything, to a standard company using lessor or no such technology.

Historically, slow growth rates of say 2% vs high returns from income from investment of say 5% lead to an increase in inequality, as one needs to save only 40% of one's money earned from investments to keep up with average growth.

As the GDP Game 'Malawi Grand Networks' growth rate is predicted to make

significantly larger gains than local income from investment, much historical inequality in Malawi may be wiped out. However, with this said, there is also the factor that assets are to a degree valued as a percentage of GDP. And an increase in GDP will increase the value of assets. For instance, in Malawi, land near the airport that currently costs $6,900 a hectare may rise significantly if GDP increases sharply. So, it's not all bad news for the rich; they get richer, but the poor catch up big time.

Equality Point 3. M-System 3. The Susskind Boost



Where Ḡ gross profit, ℵ is the effects of the S-World TBS™ (Total Business Systems), and Ť is companies awarded Tenders, and Đ + Đ2>9 are the effects created from other companies in the wider network.

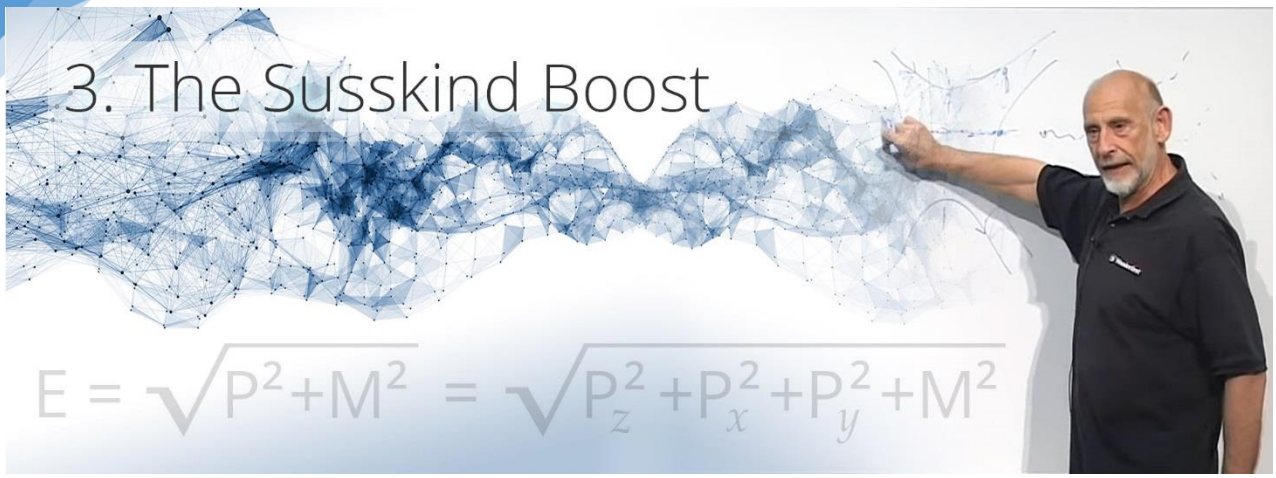
The specifics aside, the Susskind Boost 'boosts' all companies. However, a specific allocation of capital from licencing is dedicated to the boosting companies at the bottom of the table.

Let's see how we arrived at this rule. And in the process, start to understand the ideas from Book 2. 'The E-TOE.'

By Professor Leonard Susskind, Stanford University

Lecture 1: String Theory and M-Theory

https://www.youtube.com/watch?v=25haxRuZQUk



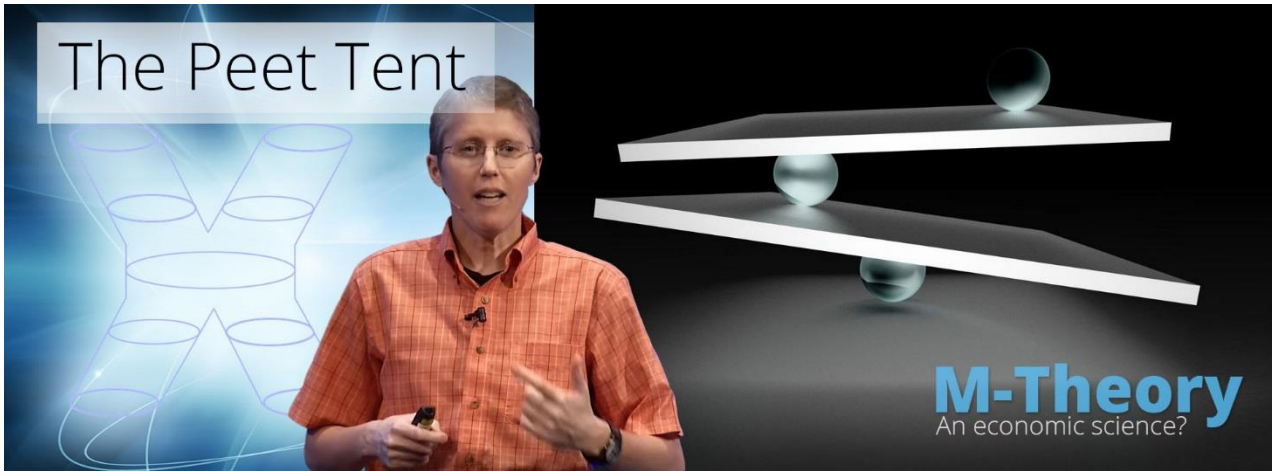
'We boost the hell out of the system along the Z-axis (gross profit) until every single particle (company) has a huge momentum.

If there is any particle (company) that is going backwards along the Z-axis (making less gross profit), you just have not boosted it enough.

Just boost it some more until it's going forward with a large momentum.'

To apply this to the network, we change 'particle' for 'company' and 'the Z axis' to 'gross profit.' And in general, we always boost the weakest companies in the network until they are going forward and are creating a healthy profit & POP investment.

Equality Point 4. M-System 4. The Peet Tent Equilibrium



The Peet Tent was the principle of physics from American Butterfly in 2012 that became the foundation for the resurgence of S-World as Angel Theory and its M-Systems in March 2016.

Now found within Chapter 3 and Chapter 4 of Angel Theory Book 2. 'The E-TOE,' it's

slightly more complex than the basic simplicity of the Susskind Boost. But, in general, it creates a fund that is used to boost companies out of trouble in the case of failure. And so, in combination with the Susskind Boost, it makes it hard for a company to fall behind, let alone fail; so, simulating a theory of everything, as all financial results are accepted within the S-World Tent.

Inspired by Doctor Amanda Peet, Toronto University

String Theory for the Scientifically Curious

https://www.youtube.com/watch?v=PpQngpaHamg

String Theory Legos for Black Holes

https://www.youtube.com/watch?v=MlDd2HtFfPU

Both the Susskind Boost and Peet Tent are equality systems within the makeup of what has come to be known as financial gravity.

See Angel Theory Book 2.2 The Flap of a Butterfly's Wings

Special Project 6. Sienna's Forests

Initially made for Grand Networks, which would need to buy rainforests to be forever preserved or create new forests so their ecological footprint balances. Now, also a general principle to commoditise rainforest so they are too expensive to log.

GDP Game Solution...

In both Malawi and Zimbabwe half the lands are poorly tended farmland that was largely forested but a few centuries ago. By adopting a policy of seeking to create Grand Networks on such farmland (rezoning permitting) and by returning half the land to forest as nature reserves, this action will be a significant environmental improvement on the current status quo.

Whilst the general principle behind Sienna's Forests was for Grand Networks that were built in woodlands to buy and protect tenfold the acreage in other forests, this rule was practical, not ideal, and certainly the first. And maybe all Grand Networks developed should be developed as clear environmental improvements.

Of course, there's nothing to stop POP Investment or Give Half Back income being used to buy and protect vulnerable forest; and indeed, do so on a macro level where Forest becomes a commodity far too valuable to log.

Special Project 7. Global Cooling

Supporting Tesla and others and creating massive solar projects.

Within Grand Networks, each property is sold with a budget (usually 6.25% of the cost of the home) for an electronic car. Only electronic cars or select top-end sports and prestige cars can drive in Grand Networks.

GDP Game Solution…

This solution has been answered in the project description. Each property, be it built for the S-World personnel or sold to the public, is marked up by 6.25% which creates a budget for at least one electronic car per property. And because every household has an electric car, we can impose toll fees for petroleum and other dirty fuel cars on S-World roads without grinding the network to a halt.

We have already discussed the massive solar initiatives in Special Project 3c. Electricity. But, to elaborate further, the general idea is that all S-World development will also be run via solar or other green energy. And in general, housing will be created inefficient, modern, environmentally inclusive designs.

Why would we allow select top-end sports and prestige cars to drive in Grand Networks?

This is due to what I call 'The Moet Effect.' Simply, a location where one sees a lot of supercars is considered more affluent; and because of that, real estate prices both residential and commercial will increase.

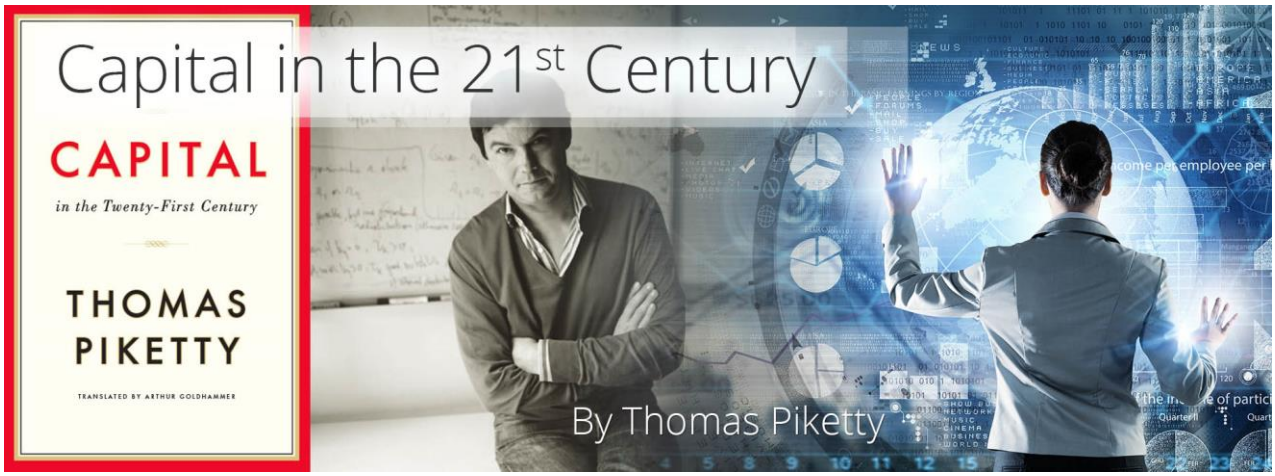
Special Project 8. Universal Knowledge

Each Grand Network development has a university that teaches subjects that develop the skills needed to get a good S-World job. Plus, S-World VSN™ and UCS™ provide open university courses.

GDP Game Solution…

Good schools and universities are one of the base multipliers and accelerators in the value of real estate anywhere in the world, and so have become a fundamental ingredient in any Grand Network

And as we have already heard from Thomas Piketty's 'Capital in the 21st Century':
'Historical experience suggests that the principal mechanism for convergence, is when the poor catch up with the rich to the extent that they achieve the same level of technological know-how, skill, and education.'



One point, however, is again that education is based around S-World opportunities

to the extent that (in many cases) it would be difficult to tell the difference between a university, a research centre, and an S-World operations centre; all are entangled as one.

Special Project 9. Spartan Contracts - Jobs, Jobs, Jobs

Nongraduate opportunities. Give us 16 years of work and you will own your own home. Take gap years, construction workers can follow the sun and move from Grand Network to network and see the world. Nurses can do the same with the opportunity to train as doctors.

GDP Game Solution…

Above, we feature the description for Spartan Contracts from the Orlando Grand Network circa 2012 as is described in American Butterfly Book 1 'The Theory of Every Business' Chapter 3. However, when creating the MARS Resort 1 game, Spartan Contracts became more of the standard way personnel work for S-World, regardless of graduate status.

Currently, in 'The GDP Game,' all local personnel (who are from the country where the network is) are on Spartan Contracts, and for the duration of their employment share in 50% of the profit share of their company.

The particular characteristic that has stuck from the 2012 model and is now a pivotal part of the economics is that 'Spartans' enter into a 16-year labour contract, and half of the remuneration (bonus profit share, not base salary) pays for their own property.

Special Project 9b. Five-Star Social Housing

Developed within Book 3 'The GDP Game,' those on Spartan Contracts (who may be everyone) pay 50% of their profit share remuneration to build their housing,

oversized plots, five-star build quality and finishes with properties designed to be extended. It is social housing for a far more equal society.

Currently, we are working on a $65,000 per home build cost, on top of the land and infrastructure, making for a home valued at about $130,000 which is set to rise significantly due to market forces as the estates where we build social housing become the new prestige suburbs of each Grand Network.

Special Project 9c. The A&B String 2018 (Welfare)

Also developed within Book 3 'The GDP Game,' those on Spartan Contracts pay 25% of their remuneration to 8 family or friends, or to farmers who are out of work due to improved farming efficiency.

Current figures put said remuneration to be about equal to the minimum wage and will be paid in network credits, to be redeemed at low-cost food and goods supermarkets situated at each of the 128 solar facilities.

In general, the idea is that those who receive this remuneration should either study to get a good S-World job, play semi-professional sports, or become artisans.

Special Project 10. Global Healthcare

Each Grand Network development is built around a 'SURH,' a Super University Resort Hospital; a five to seven-star experience with extremely expensive 'Medi-Villas' attached. One objective of the network is to create SURH's evenly around the world, so everyone is near one SURH or another.

GDP Game Solution...

Also from American Butterfly Book 1 'The Theory of Every Business' Chapter 3, access to good hospitals is a key driver of the value of the real estate. But due to the large expense involved in creating SURHs; in 'The GDP Game,' there would likely be just one or two created in the first 6-year phase.

However, we hope to achieve lots from providing foundations, and philanthropists with the infrastructure to site a small to medium medical centre in each of the 128 solar locations.

At this stage, where S-World would participate in health care is in the creation of generic pharmaceuticals to be distributed by the philanthropic medical centres.

Special Project 10b. Limiting Antibiotics

This special project seeks solutions to the problem of the overuse of antibiotics. This problem is very misunderstood, but simple enough to summarise. If we carry on as we are, there will only be resistant bacteria left and we're all going to die!

We can start by stopping to put it on crops.

GDP Game Solution…

We were farming the land for 22,900 years before antibiotics were invented. And whilst I must admit to knowing absolutely nothing about farming and the benefits of antibiotics on crops; seeing as the general idea is to modernise farming and to invest considerably in buying farmland and creating 'S-World Agriculture' as a Super Project, we would certainly have the opportunity to farm sans ' antibodies.'

Decreasing the usage of antibiotics in humans is also greatly desired. However, as I was but 2 days away from death in August 2017 and was only saved by the correct antibiotics, there is obviously a time for using antibiotics, and a time not for using antibiotics.

Special Project 11. African Rain

A mass solar desalinization project for North and East Africa, the Middle East, USA, and other locations. Creating Super Grand Networks (Over 100 sq. miles) in desert locations by adding water.

GDP Game Solution…

After 'The Spartan Theory,' 'African Rain' was the second Special Project, circa 2011. Its origin was a consideration of chaos theory and its effect on predicting the weather. It was considered that whilst one can not necessarily predict the weather, one could change it. For example, the construction of say 1,000 desalination plants flooding North Africa; with fresh water for years and the planting of more and more rain forest would, in a few decades, change the probability of rain in that location from almost zero to quite a lot.

The trouble, of course, is the cost of the desalination plants, which would each require massive solar arrays to provide power.

As both Malawi and Zimbabwe are landlocked, this exercise changes from local requirements to export, as we look into creating the industry for desalination plants, for use in other locations and in particular Cape Town which is nearly out of water, before moving to North Africa and the Middle East.

In general, we are looking to lower the cost of desalinization by 75%, at which point it becomes a tool that can be used for the terraforming of desert and arid land back to farmland and rainforests.

And note the word 'back,' in the case of North and East Africa, these lands were not always desert. Before Roman times, these were fertile lands, but too much farming and the cutting down of the trees created the vast deserts we see today.

With this said, practically for the Grand Networks at hand, African Rain turns simply into 'S-World Water' and the providing of it to citizens. Fortunately, Malawi already has a good water infrastructure. However, this may well be due to half the country being bordered on a gigantic freshwater lake.

As for Zimbabwe, it too has significant water coverage. However, both could do better in rural areas.

In general, the GDP Game Solution for improving water in both countries comes from the classification of all 'waterworks,' simply as infrastructure; and as we previously heard, 50% of investment in S-World bonds are allocated for

infrastructure.

Special Project 12. Their Oceans

An apocalyptic problem for the ocean's population today is the plastic bags, packaging, & straws that are thrown away. Every single day, over 500 million straws are thrown away in the USA alone. There are perfectly good paper straws that would do for a cost of only a tenth of a cent more.

GDP Game Solution…

One big advantage of effectively starting from the beginning, in terms of industry and business, is that one can introduce initiatives such as 'Their Oceans,' and it will (in time) affect most or even all of the population.

First, one needs to borrow, buy, or start anew the research into biodegradable alternates to plastics. As we have heard, there are perfectly good straws available. And given the will and of course the Ťender to supply every S-World business, plus considerable interest from countries like South Africa for such solutions, the biodegradable material companies will have many lifetimes of business.

Another simple solution is to ban all harmful plastics from all Network Cities.

And in continuation when making companies in the first place, to partner with existing companies that use plastics, and change the policy from within.

Looking further than Africa, we can consider making B-POP Grand Networks in China and India in which the 1st priority is to supply waste management services in areas where plastics are entering the oceans.

Another thought is that 10 rivers are carrying 90% of plastics into the oceans, so we

need to research a filtering mechanism that does not harm the marine life, which at first glance would seem to be simply to create nets across the very top of the water as because the plastics float, most of it can be filtered out relatively simply.

Special Project 13. Middle Earth

This is a very cool project that has commercial applications, building underground resort developments (in particular) in locations of poor weather. This expensive and very long-term project saves our asses in all sorts of ELE (Extinction Level Event) scenarios.

GDP Game Solution…

The 'Middle Earth' project is an expensive and long-term project that, in the first six-year phase, will only see the first stage of the project, which is to tunnel underground to create a safe place for the servers.

In truth, in the mid-term (the next 20 years), this project is only expected to be rolled out in the case of cold countries where such underground habitats could become popular and can be financed by the real estate and commercial property sales within.

Middle Earth, in general, is a long-term objective' as when the money is flowing, and one starts to wonder what to build next; then that is time for the creation of Middle Earth, created to protect our citizens in the case of an ELE (Extinction Level Event) such as an asteroid collision, a supervolcano, nuclear problems or other such disasters.

Special Project 14. The Population Point

This, the hardest of all special projects to apply without affecting free will, has a simple but radical solution. Most first-world economic countries populations are static, and so we must replicate Western economics across the globe, as quickly as possible.

GDP Game Solution…

The Zimbabwe and (in particular) Malawi network plans are specifically created to combat the extremely real problems with the expected population rises in Africa, which today has a population of 1.2 billion which is expected to rise to as much as 3 or 4 billion by the end of the century.

If this happens, it will be the end of Africa. Every single wild animal will have been eaten or killed. The trees will have been cut down, and the continent will be in utter chaos and extreme misery.

This point was the principal point in the first version of Angel Theory Book 1, seen here www.angeltheory.org/angel-city-5-_-1st-aug-2017.

Here is the extract:

> As things stand, Africa is expected to increase its population from 1.2 billion to 4 billion by 2080, and if that happens, we can say goodbye to just about every wild animal in Africa and kiss our entire way of life goodbye. If we think economic immigration is a problem now, with millions of Africans risking their lives to get to Europe, just imagine how the world will be when billions of Africans are faced with the problem: emigrate or die. Such a future would be hellish even if we did not blow ourselves up along the journey.

Bill and Melina Gates and others are fighting the good fight, but current charity & foundational thinking cannot fully solve this problem. To combat such a catastrophe without overly affecting free will, we suggest looking at the problem through the eyes of Angel Theory.

This Angel Theory solution is new. So, like all fresh theories, it has a degree of uncertainty. But the basic principle is this: As the economic conditions in the USA and Europe create an environment where the population stays steady, then maybe the best way to fix Africa in 2080 is to replicate the economic conditions of the Western economies in Africa as soon as is humanly possible.

Some of the above has now been expanded upon, but the basic principle is the same; convergence and prosperity in Africa may and probably will lower population rates to European and USA levels. However, and a big however is the timing, 50 years will be too late, the population explosion will have already happened. The time to start this challenge is now, and the maximum time to significant convergence is 20 years.

Special Project 14b. Angel City 5

Angel City 5 is the last of the five S-World UCS 2080 Simulations. It is the future we create and then work back from, deploying billions of ripple effects for people and companies in our time to grasp and follow. Its role as the last of the M-System 14. Angel City future waystations are to create a heavenly future, which includes as a fundamental constituent - systems and ripple effects created to reduce overpopulation. By giving Africans Western education and opportunities, it's likely the continent will follow the demographic growth of Western counties, which is far

slower, and in some cases, populations are declining.

Special Project 15. The Spartan Theory

The Spartan Theory is whatever will bring peace; from dictators stepping down from politics to live and have say over the new BabyPOP Grand Networks in their country, to all countries pitching into the fight against poaching and fighting side by side against a common enemy.

GDP Game Solution…

In fact, 'The Spartan Theory' developed into the theory of all concepts created in 2011, which was a lot. It was the 'spiritually inspired' theory of everything that laid the foundations for all of S-World and Angel Theory.

Initially, the idea was to attempt to trade with dictators; and in particular at that time, Robert Mugabe & Colonel Gaddafi. We would create a Grand Network which they could have some say over, naming rights etc. if they allowed democracy to follow its natural course.

Good idea, bad idea, who knows? Both are now no longer in charge.

Soon after, an idea was for countries that had problems that only a fight could solve see this fight as 300 unarmed men/women per side; and whoever wins, wins. This created the name 'The Spartan Theory.'

However, in such a fight, there were bound to be casualties, and so resentments.

Seven years later, The Spartan Theory has become an S-World UCS Game, in which

we ask all countries to freely provide game rangers, law enforcement and/or military for the fight against the ivory poachers, and the base of operations would be Special Project 1. 'Experience Africa' in Malawi or Zimbabwe.

Special Project 15b. The Fort Malawi Garrison

Where Special Project 1. Experience Africa raises money for the protection of Africa's Elephants and Rhinos from the dangers of farmers, building fences around the nature reserves and other initiatives. The Fort Malawi Garrison is a collection of the world's rangers, law enforcement, and military assisting with the problem of ivory poachers.

The first 'Spartan Theory' initiative is entangled with Special Project 1. 'Experience Africa' and Special Project 4c. 'Network Cities,' as we request that each country provide personnel to assist the war on ivory poachers. Created as an S-World UCS Game, 'The Ivory Game,' as we team up countries that have opposing political views to fight together against a common enemy.

The reason why such an action needs to be within an S-World Game is that kept

unchecked, a bunch of professional soldiers would see a lot of dead poachers very quickly and the initiative would backfire before it started.

So, to avoid such disasters, we gamify them. For instance, a newborn Elephant gets 250 points; a dead elephant is minus 500 points, a dead Rhino (whose population is much lower than elephants) minus 750 points. But a dead poacher is minus 1000 points. The general idea is that we desire to turn poachers into paid protectors.

Who better to know the mind of other poachers?

To avoid the appearance of China-bashing; China, Vietnam, and other countries that are the primary cause of ivory poaching will be the first countries to be asked to contribute personnel and equipment, and some jets would be nice.

This project has a significant economic upturn for whatever country gets to be the main base of operations, as the local economy of the base will see extra 'R' Revenue.

In addition, is it a great plot for a bunch of movies, TV series and documentaries.

Special Project 15c. S-World Films

S-World Film is no small part of S-World, it was the second half of the first Angel Theory book. But as it required one to know the Story of S-World, I moved it to the end of the Angel Theory series, which is currently Book 8 'Angel City 5 Movie Framework.'

The general idea being we make films and plenty of them about various aspects of S-World. We would seek to create many films and drama series about our fight against the poachers, along with many documenters and reality tv shows about same. Each one is a PR exercise for the cause.

Special Project 16. Universal Colonization

This is the ultimate achievement in the S-World UCS game. The ultimate special project, flying ourselves to the stars in a fleet of ships, spreading our complexity across the galaxy, ensuring our survival come what may.

GDP Game Solution…

This special project has been made much more achievable due to Elon Musk's ambitions to create a transport system to MARS. If Musk wishes to provide transportation, then S-World wishes to become the developers, oxygen and water suppliers, and the leaders in MARS industries.

The S-World UCS™ MARS Resort 1 game was the 3rd Grand Network game created near the end of 2017. And within the workings was my old friend M-System 10. 'The RES Equation.'

We shall get back to RES Equation shortly. The point I wish to make first is that initially the MARS Resort 1 game was primarily created to intrigue SpaceX founder

Elon Musk (who has a fondness for simulation and turn-based games) into seeing it worth his time to help with the creation of Super Project 3. 'S-World UCS™' and the MARS Resort 1 game, as its success was entangled with the hopes and dreams of SpaceX.

Assuming we accrued such interest, then the step before MARS Resort 1 is this book, 'The GDP Game,' and successful implementation of the Malawi Grand Network, which would be a huge step towards a very real MARS Resort 1 project.

End of Special Projects

Special Project Enabler 1. The RES Equation

First, a look back to Book 1 'Audacious Ideas' and the original M-System 10 elevator pitch.

M-System 10 — The RES Equation — Revenue x Efficiency x Spin

A powerful but simple economic equation, take the initial income of a network (R), measure a company, not from its profit alone but also the profit made from its expenses (E), optimize E, and Spin (increase the speed of all spending).

M-System 10b — The RES Equation — Financial Equivalence

S-World UCS MARS Resort 1, fact or fiction remains to be seen, but on Mars with no governments or trade deals to worry about, we can theoretically implement the RES equation with a 100% 'E' Efficiency, where after we cut tax and spin, creating a supercharged economy unmatched on earth. We call this 'Financial Equivalence.'

Our inspiration: 'The Law of Conservation of Energy.'

In short, on MARS due to POP and Give Half Back, we can operate with no taxes except on imports. And as every transaction is made via 'Network Credits,' every cent spent is income for one MARS Resort company or another. And so, we can go as far as to Spin 24 times so income is, on average, spent roughly every 2 weeks.

I estimate Western Economies operate in-between Spin 3 and 4, with tax eating up most of the 'R,' and an 'E' of only 10% or so. However, SpaceX and Virgin Orbit have shown it's possible within a network to have an 'E' of 90%.

Given it no longer relied on imports; in terms of generating cash flow and so GDP MARS Resort 1 at no tax, RES 100%, and Spin 24 will be more than 6 times as efficient as earthbound economies.

An 'R' of $1 billion would create a GDP of $24 billion and still be there to create the same the following year. This money never leaves the system; it just builds up and up, and indeed it builds up faster than we would want or need. So, in fact, one would spin less.

However, having the capacity to greatly increase or slow GDP by simply adjusting the 'S' (spin) dial is significant system-based economics.

It was only in making 'The GDP Game' simulation rules that I realised that we could, without too much burdensome and unrealistic legislation, deploy the MARS Resort 1 RES, low tax, high 'E', and Spin simulation to the Malawi Network.

Simply because, in the first stage (2018 to 2023), over 80% or more of economic output is for the people, be it rather extravagant but nonetheless social housing, electricity for the nation, infrastructure, welfare, public sector and municipal jobs, and every one of the points made in this paper.

It is only fair (and prudent) for a meeting of the minds on tax; where S-World pays tax on goods and services produced and sold at a profit but does not pay tax on goods and services produced that are 'for the people,' which equals an average of about 5% tax, which is not low enough to erode the profits from spinning in a RES spin 8 scenario.

When applied with an 'E' of 90%, tax at 5%, and Spin 8; this equates to an increase in Cash Flow/GDP of 539%. And so, if in 2023 we achieve the $4 Billion in sales of Malawi S-World bonds, this $4 Billion needs to be multiplied by 539% which creates a boost to GDP of over $25 Billion.

And here's the thing, Malawi's current GDP is only $5.5 Billion, and such an upturn would be completely unparalleled in economic history.

But when it does so, every private investor, financial institution, and country in the world is going to want to invest. And that's why this chapter is called 'The GDP Game,' as the End Game is to make S-World bonds so popular we can repeat the exercise (which is mostly internal GDP and does not rely on exports) across Africa, Asia, South and Central America; and usher in a new world where, just as expected/predicted, due to convergence Africa catches up with the West but on an accelerated time scale that avoids the population explosion, and saves the trees and animals.

Special Project Enabler 2. S-World Bonds

S-World Bonds are the financial instrument used to gain investment in land, industry, and companies.

The difference between S-World bonds and government bonds is that S-World bonds are the equivalent of Gold Standard, in that they have an intrinsic value; unlike government bonds that have only the country's 'word' as a guarantee.

The S-World bonds' intrinsic value is first, land purchased; second industry built on that land; and thirdly, the companies that are created, and of particular value are the companies that are awarded Ťenders.

The combination of the value of the land, the industry, the companies value plus POP reinvestment then becomes the value of the Bond; which even when accounting for 50% of the bond value to be spent on infrastructure and half the profit from the companies shared amongst its personnel, still increases its value significantly.

In particular due to the Ťender process, which we are careful in Chapter 10 – 'RES vs Tax & Diminishing Returns' to make sure are not reliant on fresh investment year on year, so avoiding any resemblance of a Ponzi or Pyramid scheme.

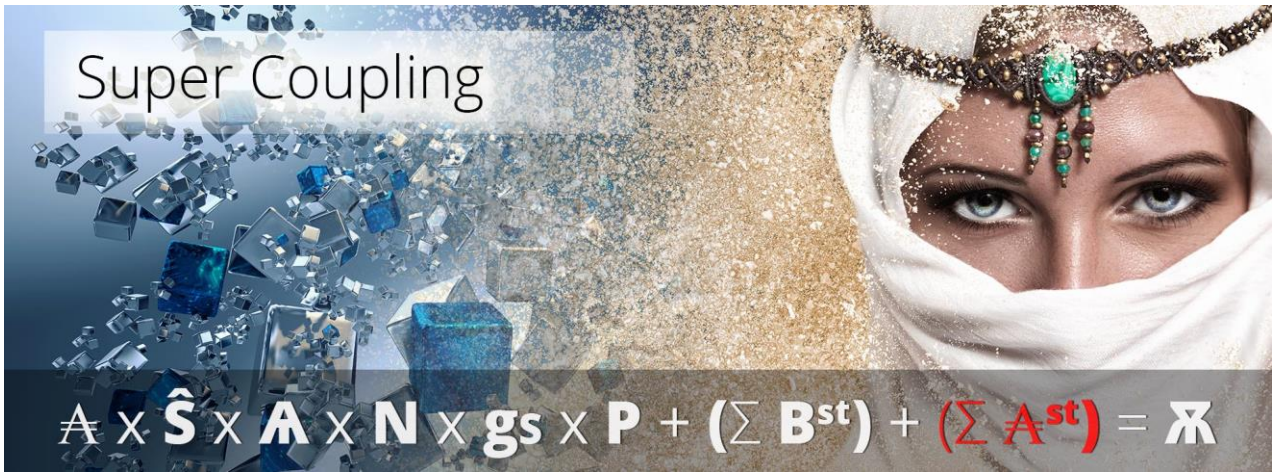
Special Project Enabler 3. POP Investment

Pop Investment is the subject of Book 2. 'The E-TOE' (The Economic Theory of Everything,) which goes back to the summer of 2011 and a thought experiment about the butterfly effect and rounding errors.

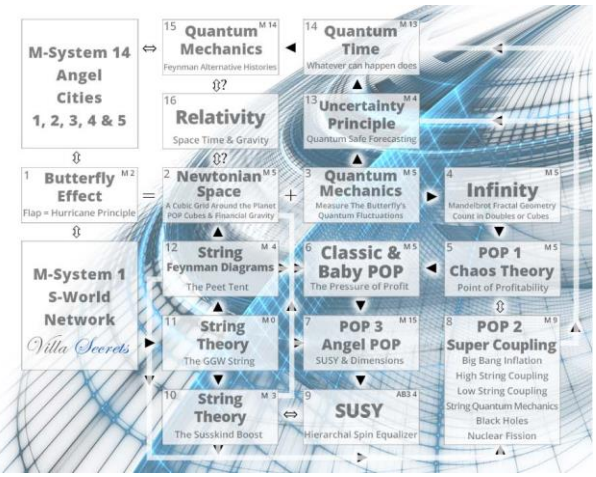
POP Investment is created from all small to medium S-World companies outside of Grand Networks, which we label Virtual Networks (any S-World company not attached to a property development is in a virtual network).

The basics are that we set a high target that any company would be pleased to receive, relative to their internet; and when bested, we invest the balance, typically as a combination of S-World Bonds and POP Super Coupling.

The more successful Virtual Networks and their companies are, the more income we create for investment into Grand Networks.



Special Project Enabler 4. Give Half Back



When it comes to M-System 16 'Angelverses,' big companies and in particular the Super Projects, S-World TBS™ (Total Business Systems), S-World VSN™ (Virtual Social Network), & S-World UCS™ (Universal Colonization Simulator); instead of POP Investment, we have 'Give Half Back' which sees 50% of profits donated to the Grand Networks in locations of abject poverty that most need funding to pay for expenses such as the salaries of those in hospitals and schools.

In some cases, POP investment has a 'Give Half Back' contingent. For instance, 25% POP Investment may be spent on S-World Bonds, 25% may be spent on the very lucrative Super Coupling form of POP, and 50% may be used for philanthropic or

ecological funding.

In addition, there are about a dozen other Give Half Back initiatives, which is a good place to end this chapter as any, as it brings us full circle back to Angel Theory Book 1. Chapter 1. ‘Give Half Back.’

Angel Theory – Volume 1 – Paradigm Shift

A More Creative Capitalism

Part 3. Charter Cities

Chapter 15. Equality & Equity