On the Need for an Earth Standard Currency

Julian Cribb FRSA ATSE

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In an age of existential emergency, when the future of human civilization depends on how successfully we manage to overcome the ten global threats which are of our own making and which now confront all of us, it is important for humanity to share a common currency for dealing with them. That is, not simply a common understanding, but also a common means of exchange which enables us to rebuild, repair and regenerate our damaged world.

The reason is simple: money is a figment of the human imagination. It exists only in the human mind, not the real world. Yet it is used to develop, produce, exploit, damage and destroy things that are real.

Money is also infinite in supply, in that banks and central banks can, as a rule, create as much of it as they choose, mostly out of thin air.

However, the Planet on which we live is finite. Its oceans, atmosphere, landmass, forests, soils, fresh water, minerals and biota are all limited in extent and in terms of what they can yield for the survival of humans and other life on Earth. Science has long understood this.[1]

If you use an infinite commodity, money, to exploit a finite Planet, you will run out of planet long before you run out of money.

[1] See for example the work of the Global Footprint Network. https://www.footprintnetwork.org/

That is the great flaw in the present global monetary system. It looks only to the present need for wealth and makes no investment in the long-term need for human survival. In economic terms, it treats life itself as 'an externality'.

In other words, modern humanity currently prizes 'wealth' above its own survival.

That is a worry.

It needs to be addressed with the utmost urgency.

To do so necessitates the creation of a medium of exchange which is based upon things which exist in the actual world – not on things conjured from the gambling instincts of trading banks and central bankers, or the fevered speculations of money market traders and brokers.

We need a real currency with a trustworthy, reliable value, which people can use in their daily lives and businesses and which reflects the real Planet and its many real assets which underpin the value of this currency.

This is the proposed Earth Standard Currency (ESC)[2] – the Earth Dollar or Gaia for short.

Why do we need an ESC?

The basic argument for why we need an ESC is outlined above. Money is infinite in a finite world and this is leading to the wholesale destruction and/or overexploitation of the systems needed to maintain life on our Planet – forests, fish stocks, arable soils, fresh water, the climate and atmosphere, the oceans, wildlife etc.

The volume of present currencies in circulation is determined by trading banks, central banks and governments, not by anything real. It is set according to their judgement of 'what the market will bear'.

Past famous examples where excessive speculation drove the theoretical value of commodities or stocks too high, resulting in a collapse of public confidence, include the Tulip Crash (1634), the South Sea Bubble (1711), the Florida Real Estate Craze (1926), the Wall Street Crash and Great Depression (1929), the Wool Boom (1950s), the Asian Crash (1997), the Dotcom Boom (2000) and the Global Financial Crisis (2008).[3]

The latter, most people will remember, was caused by money plucked by banks out of thin air, then lent to unreliable ('sub-prime') borrowers. When the failure of these bad loans became inevitable they were then bundled and on-sold as 'derivatives' to people who did not understand the dodgy nature of what they were buying. When confidence in these derivatives finally collapsed, the world financial system fell into chaos and several major banks failed. The situation was eventually stabilised by central banks plucking a further $3.5

[2] The Earth Standard Currency was first proposed in Cribb JHJ, *Surviving the 21st Century*, Springer, 2016, p180.
[3] See Beattie A, 2017, The Greatest Market Crashes. https://www.investopedia.com/features/crashes/

trillion out of thin air to pay for the bad debt created by the banks' bad loans. Thus, imaginary money was used by central banks to pay off the imaginary debt created by banks, lenders and speculators out of nothing in the first place. This pecuniary prestidigitation was dressed up in a fancy term, 'quantitative easing'. In other words, a speculative oversupply of money had led to a public loss of confidence in its value. It follows, from this experience that it is desirable for money to have a value that is based in the real world, which is not the plaything of gamblers and speculators, and which cannot be created at whim by irresponsible lenders.

An Earth Standard Currency whose value is based on the actual assets, physical and ecological, for sustaining life on Earth would meet such a need.

Is there a precedent?

There is no precent for a currency whose value is based on the real value of the entire Planet. However, there are useful examples.

Gold has been used to underpin rates of exchange for over 2700 years. Prior to the 1930s, governments based the value of their currencies – such as Sterling and the US dollar – on the 'gold standard'. This was based on a fixed value for gold, set by government, and involved the holding of large, unwieldy gold stocks like those held in the vaults of the Bank of England or Fort Knox. This meant countries could settle their debts by large physical gold transfers between them.

In the '30s gold was replaced with 'fiat money' in which the value of the currency was allowed to float at will against other currencies, underpinned by a guarantee from the Government. This system prevails today. Its chief shortcoming is that it leads to the creation of 'imaginary money' and fevered speculation by money marketeers.

However, money is so useful a concept for exchanging goods, ideas and services that we cannot do without it, at least for the time being.

The alternative is to create a universal currency whose value depends on the combined value of the systems and physical resources used to support life. This is the Earth Standard Currency.

A second precedent is the European Euro, which is the official currency in 19 of Europe's 28 member states and the world's second largest reserve currency after the US dollar. Introduced in 1992 it is now consistently worth more than the US$ and its volume in circulation exceeds the US$. The value of the Euro is set by the European Central Bank based on a fixed conversion rate for each national currency of member countries. However, its flaw is that these currencies are subject to the same volatility as the US$ and vulnerable to overproduction or economic mismanagement.

However, the successful introduction of the Euro demonstrates it is possible to create a new currency which serves more than a single country and, in a globalised world it represents a sound precedent for introducing an Earth Standard Currency.

Undoubtedly an ESC would succeed for the same reasons as the Euro, by providing greater stability and certainty for users and investors in a world where most individual currencies are set by lenders and speculators as well as by the financial management, good or bad, of participating countries. Since the governments of most countries are either self-appointed or else the product of corrupt political processes, it follows that the value of the world's currencies lies in the hands of the power-hungry and greedy and has little relationship to the needs of either people or the planet.

How would an ESC work?

The Earth Standard Currency is, in essence, an index compiled by scientific measurement of all the main ecological systems and physical resources that sustain life on earth, including human life.

This index would involve an algorithm compounded from relevant objective measurements of these Planetary assets such as volume of fresh water available, state of the atmosphere for a stable climate, extent of forest cover, rate of global soil loss, extend of pollution and poisoning of the biosphere, number and volume of living species and so on. These measurements will constitute a realistic appraisal of the ability of the Earth to sustain life – and whether that ability is improving or deteriorating.

In other words an ESC is an 'index of indices', balanced against one another to reflect the realistic state of the Earth's resources and life support systems.

Achieving such a balance is no trivial undertaking, scientifically, but there are numerous examples of concepts which can help in its development. These include:

- The Global Footprint Network, mentioned above
- The Global Boundaries concept propounded by Rockstrom, Steffen et al [4]
- The Global Prosperity Index being developed by numerous scholars as a better way than GDP to measure national wellbeing
- The Gross National Happiness Index of Bhutan, which comprises sub-indices of living standards, education, health, environment, community vitality, time-use, psychological well-being and good governance.

The key points of an ESC are:

1. It is based on real, tangible assets of Earth systems monitored and recorded by science, and is thus not subject to speculation, selfish manipulation or

[4] Steffen et al, 2015. Planetary boundaries: Guiding human development on a changing planet. Science 13 Feb 2015.

mismanagement by governments, banks or money traders. People will trust it. Its relative stability and consistency will be attractive to investors and users alike.

2. Its value will fall over time, as Earth systems deteriorate, and rise as they improve or are regenerated by human action. This means the value of your house or pay will rise and fall along with the value of the ESC, providing a real incentive for all humans to work harder to improve the viability of Planet Earth.
3. It will encourage the development of a global 'ideas economy' based on non-material goods and services, thus providing economic growth without ecological penalty.

How would an ESC be denoted?

As the term 'Earth Standard Currency' may be confusing to the average person, it is desirable that the currency have a name that everyone can easily use and relate to.

The currency could, for example, be known as the Earth Dollar, reflecting the popularity of the US dollar as a trading currency the world over. However, this may meet with objections from major players in the world economy now emerging, such as China, India, Russia and Brazil.

The name most likely to appeal to the most people, and thus encourage its adoption, will be short, memorable and reflective of the role of the ESC.

The name Gaia is proposed, based on the Ancient Greek word for our home Planet. A Terra is the Latin option but sounds too much like other words with unfortunate associations. 'A gaia' would thus be a single unit of an Earth Standard Currency.

Clearly an ESC will need a central authority to manage and administer it and oversee the scientific integrity of its indices. This body could be created as a special institution under the United Nations, combined with the World Bank and International Monetary Fund.

What are the objections?

There will doubtless be many objections to the creation of an ESC, chiefly from the economics profession and from the sectors with most to lose from the stabilizing of world currencies around a scientific, rather than a market, metric. These will have to be overcome, but the Euro is evidence that a more stable currency with a known and predictable value will catch on rapidly with most people.

The ecologist David Attenborough asserts "Anyone who thinks you can have infinite growth on a planet with finite resources is either a madman or an economist" – and the economics profession as a whole has yet to address this basic truth. An ESC offers economists a chance to participate in and lead in the creation of a currency that will restore the planet's

resources for life instead of consuming, wasting and destroying them. It is economists, working with scientists, who can design workable indices and the correct balance between them to create a universal currency.

However, an ESC can both stabilise human use of Earth's resources and at the same time continue to foster economic growth, through the development of the 'ideas economy' in which wealth is based on non-material goods and services such as software, the arts, sport, entertainment, science etc. The 'ideas economy' provides jobs, growth and profit but does not draw down the Earth's finite resources in the same way as an economy based on steel, cement, oil, coal, agriculture, forestry, fishing, wasted water etc.

Market traders need not fear an ESC as they could continue to trade in the many other national currencies which will remain as media for exchange. However, they would have no power to influence the value of an ESC for selfish purposes.

There is at present a fierce debate in academia and public about whether 'capitalism' is to blame for the destruction of the planet and should be discontinued in favour of some other socioeconomic system. It is likely that neither side in this debate will win the argument completely, just as the last 200 years have settled nothing politically. The creation of an ESC sidesteps this argument completely, offering a medium of exchange which encourages the regeneration of the Earth along with continued economic growth.

Conclusion and recommendation:

The United Nations, academia, national governments and central banks should consider as a matter of urgency the scope for introducing a universal Earth Standard Currency on the principles outlined above.

Julian Cribb FRSA FTSE is an Australian author and science communicator. A former newspaper editor, his published work includes over 9000 articles, 3000 science media releases and eleven books, the latest four on the existential emergency facing humanity and potential solutions to it. He has received over 30 awards for journalism. Julian Cribb's latest book, Food or War, ties the existential threats faced by humanity to the food choices each of us makes every day. It will be released this summer by Cambridge University Press.

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