

Financial stability policy options

Paper at <http://ssrn.com/abstract=2518020> Power points revised to include revisions in book chapter "Sustainable Value Money: Why it's needed, how to get it?" (Forthcoming) in: Boubaker, S. and Nguyen, D. (eds.), *Ethics, ESG and Sustainable Prosperity*, World Scientific Publishing, Singapore

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Research Question:

How might supplementary digital terminating currencies provide a superior fall back position to Bitcoin in a financial crisis and/or provide a basis for rehabilitating distressed or stagnant economies without austerity?

Research Finding:

Terminating digital non-debt backed helicopter money issued by governments, not their central banks, provide a superior alternative to Bitcoin in a financial crisis or without one to stimulate stagnant economies without austerity

Terminating money has many other names

1. Stamp Scrip – promoted by Gesell 1919
2. **“Speed money” as used in this presentation**
3. Negative interest rate money
4. Demurrage money
5. Depreciating money
6. Rusting money
7. Self-liquidating money
8. Evaporating money
9. Cost carrying money
10. Non-use fee money
11. Use it or loose it money – **“Ecological money”**
12. **\$Z when value indexed to Sustainable Energy (SED)**

Problems of Central Banking

- “Of all the many ways of organising banking, the worst is the one we have today” (King 2010: 18).
- “Will future historians look back on central banks as a phenomenon largely of the twentieth century?” (King 1999:47).
- Confirmed by BoE staff: Ali, Barrdear, Claws, & Southgate (2014) when explaining the Bitcoin technology (2014). Bitcoin is based on a distributed ledger that denies centralised control
- Central Banking is but a specialised form of Central Planning requiring one size to fit all.

Monopoly money misallocates resources

Consider a mind experiment with the assumption that the demand for Foreign Exchange (FX) is in proportion to the population.

Western Australia possess 10% of the Australian population and earns 70% of Australia's FX..

WA citizens earn seven times the FX then they need.

Eastern citizens only earn 30% of the FX they consume.

If each region possessed its own currency then the value of the \$West would be much higher than the \$East.

Manufacturing and the export of educational and tourist services would be invigorated in the East. Local solar cell production would become competitive.

Conclusion: Monopoly money can misallocates resources much more than tariffs or taxes especially in resources based economies like Australia

Why fiat money is not fit for purpose-1

1. Value not specified by any one or more goods or services to create false price signals & market failure, e.g Stern Report
2. Volume determined by fractional banking, derivatives and QE with real economic activity being only of minor value;
3. Because it can be used as a store of value it biases resource allocation to financial assets as rather than ones that *sustains* prosperity but depreciate and/or wear out. i.e. Creates “Financialisation”.
4. Competes with (a) procreative assets that uniquely *increase prosperity* without increasing human exertion or working hours or (b) assets that increase human and environmental well-being with less consumption of non-renewables.

Why fiat money is not fit for purpose-2

5. Increases inequality from earning interest income;
6. Nations cannot control the value of their own currency creating misallocation of resources (Australian car industry terminated);
7. Volume of money not determined by real economic activity but to support banking system;
8. Value of money changeable and volatile inhibiting investment;
9. No environmental feedback to allocate people or other resources sustainably on the planet.

What is speed money?

In the Great Depression privately issued notes were issued that required a stamp, sold by the issuer, to be attached each week. Such “Stamp Scrip” accepted in Europe and in the US required stamps of 2% of the face value to be affixed on its back side each week.

The issuer obtained income of $52 \times 2\% = 104\%$ over the year that was used to redeem the note at least at a 4% profit!

History of speed money

- 1920 introduced by hundreds of stores in Germany to promote sales like modern fly-buy points systems;
- 1931 Issued by coal mine in Bavarian village of Schwanenkirchen to restart operations;
- 1932 Wörgl Council issue to revitalise Town
- 1933 Hundreds of other towns in Europe and the US introduced Stamp Script;
- 1934 Swiss WIR with usage fee - removed 1948;
- 2003 Regional -2%pq speed money re-introduced in Chiemagauer area of Southern Germany.
- 2006 German Regio Speed Money Association formed
- 2011 UK Sustainable Money Working Group formed

Technology introduces monetary options

Digital technology has introduced new options for designing, using and regulating money besides the 3T policy concerns of Timing, Transmission and Traction.

Swipe card and cell phones make it practical to introduce money with a new 3T architecture of:

1. Tagged to allow integrity of use to be traced;
2. Terminating to remove price distortions, inequality, financialization & control volume.
3. Tethered to sustainable, non-volatile, objective units of value like Kwhrs of electricity generated from benign renewable source any where in the world at different relative values to allocate humans and resources in perpetuity.

Why should money carry a cost?

- To avoid money becoming an asset class competing with real goods and assets
- The cost can be considered as a service fee for the convenience of obtaining an acceptable medium of exchange
- The fee allows the public good provided by money to be paid for by its users.
- It substantially reduces the cost of the financial system that becomes more resilient and self-regulating.

How can speed money be less costly?

Consider a business with \$200K sales per week and so revenues of $\$200k \times 52 = \$10.4M$ p.a.

The cost of accepting credit cards charging 2% commission would be \$208K.

With speed money banked say only once a week the average cash held would be half of $\$200K = \$100K$ costing 2% per week = \$2K being a cost p.a. of $52 \times \$2K = \underline{\$104K}$ p.a.

Speed money requires digital infrastructure now established in Australia

Welfare legislation amended to allow benefits to be paid using government issued debit cards.

Government “myGov” internet accounts allows all citizens to store funds in their Centrelink, Tax, Medicare and other accounts.

Government has created cell phone app for citizens to allocate funds in myGov accounts to approved third parties.

Opportunity for government, not RBA to:

- (a) directly issue helicopter money and/or
- (b) replace bank deposit guarantees with gov. deposits;
- (c) pay interest on government accounts to fund debt.

Keynes view on Speed money?

Gesell had proposed that a stamp of 0.1% of the face value of the notes be affixed every quarter to create a negative interest rate of 5.4% a year.

Keynes (1936: Chapter 23, part VI) supported the idea and referred to Gesell as “unduly neglected prophet”. Keynes thought the rate “would be too high in existing conditions, but the correct figure, which would have to be changed from time to time, could only be reached by trial and error”.

Contemporary views on Speed money

Buiter, W. H., 2010. Negative Nominal Interest Rates: Three Ways to Overcome the Zero Lower Bound, *North American Journal of Economics and Finance*, (Vol. 20), pp. 213-238.

Haldane, A. G., 2015. How Low Can You Go? *Bank of England*, September, (five months after my UK essay: Why should the UK adopt a digital money?)

Goodfriend, M. 2016, Designing Resilient Monetary Policy Frameworks for the Future, Jackson Hole Economic Policy Symposium, Wyoming.

Who could issue speed money?

1. Anyone because it is self-financing
2. Local chambers of commerce
3. Other community associations
4. Local governments
5. Regional governments
6. National governments, even those who are in the Euro Zone
7. European Commission or ECB

Changing role of central banks and their governments

- ❖ Bank of England chartered in 1694 by Sovereign to finance the Sovereign and given local monopoly to issue paper money many times the value of their commodity backing
- ❖ Federal Reserve created by private bankers in 1913 to provide them with lender of last resort facility when they did not possess a monopoly right to create paper money many times in excess of commodity/"reserve" backing.
- ❖ To maintain the purpose for the Fed's existence in the Great Depression of 1932 Congressman Steagal introduce a law to de-commodify money by allowing government bonds to become "reserves".
- ❖ In 1933 Federal reserve banks began failing because of insufficient governments bonds available to become "Reserves". In 2008 with money no longer tied to gold the Fed failed again with the US government supporting 56 financial institutions.

US proposal of February 17, 1933

Pettengill-Bankhead Bill for US Gov:

- To issue \$1 billion of Stamp Scrip
- Post office to sell 2% stamps
- Stamp Scrip distributed to each US State in proportion to population for:
 - a. Welfare & unemployment income;
 - b. Building infrastructure to create jobs and increase productivity.
- Post office makes \$40 million profit!
- *No government debt, new taxes or QE*

What happened two weeks later?

March 4: President Roosevelt inaugurated,
48 States had closed their banks;

March 6: Roosevelt closes all banks

March 9: Roosevelt convenes joint sitting of
both US houses of Congress and:

- (a) Congressman Steagall reads out first New Deal Bill as no time to print it!
- (b) Bill increases powers of privately owned Federal Reserve to create money and increase government debt
- (c) Bill signed into law same day!

Why not use Bitcoins?

1. Bitcoins must be purchased, they cannot be given away to pensioners, unemployed, SMEs or used to finance infrastructure;
2. Bitcoins are not tethered to any thing real;
3. Bitcoins have volatile value;
4. Validating transactions takes ten minutes as majority of Bitcoin holders must confirm all transfers;
5. Validation is costly in computer time and energy consumption.

Traceable speed money?

- All Bitcoins are tagged to avoid them being duplicated - like numbering notes
- Tagged speed money would inhibit it being used in the “black economy” for tax avoidance, money laundering, bribes, fraud or funding terrorists;
- Greek black economy was estimated at 28% of GDP by World Bank from 1999-2007.
- Likely acceptance as tagged money if gifted to voters such as welfare recipients

Macro stability from parallel money

- The contribution of privately organised parallel exchange systems to macro economic stability was reported by Stodder (2005) in both the US and in Switzerland.
- His US data was based on the International Reciprocal Trade Association (IRTA) founded in the early 1970's and the Swiss data on the WIR with turnover of 2 billion Euros.
- The Swiss WIR illustrates a private credit system independent of government! Greece could follow?

Market forces limit

excessive issue of speed money

Acceptance of speed money as a supplementary currency could rapidly decline as its use as a medium of exchange becomes saturated.

Excessive issue of Speed Money would result in it being discounted to inhibit its excessive issue.

A private issuer of a supplementary speed money would obtain an incentive to reduce the negative interest rate. Wörgl's conversion fee was little used.

A government issuer of a supplementary speed currency would also have the option of imposing a tax on deposits of competing "slow" official money.

Parallel Greek low cost speed Euros?

- Private sector could unilaterally introduce speed money in some jurisdictions as it has in Europe;
- And/or local or national governments;
- Use paper notes in emergency while adopting cell phone applications and/or existing government issued debit cards rechargeable and from internet that would also collect negative interest payments;
- If adopted nationally then follow proposal by Russia and PRC to replace coins with swipe cards/cell phones as suggested by Haldane 2015

Why IMF, ECB & EC should help

- Avoid Eurozone members exiting;
- Introduce monetary sovereignty to Eurozone nations while improving Euro resiliency;
- Increase growth & taxes by including black economy;
- Use Greece to learn how to create a more efficient, equitable, stable, and sustainable monetary system as outlined in paper;
- Bank of England suggested it could adopt a digital currency and the UK Treasury has a £10 M budget to research opportunities.

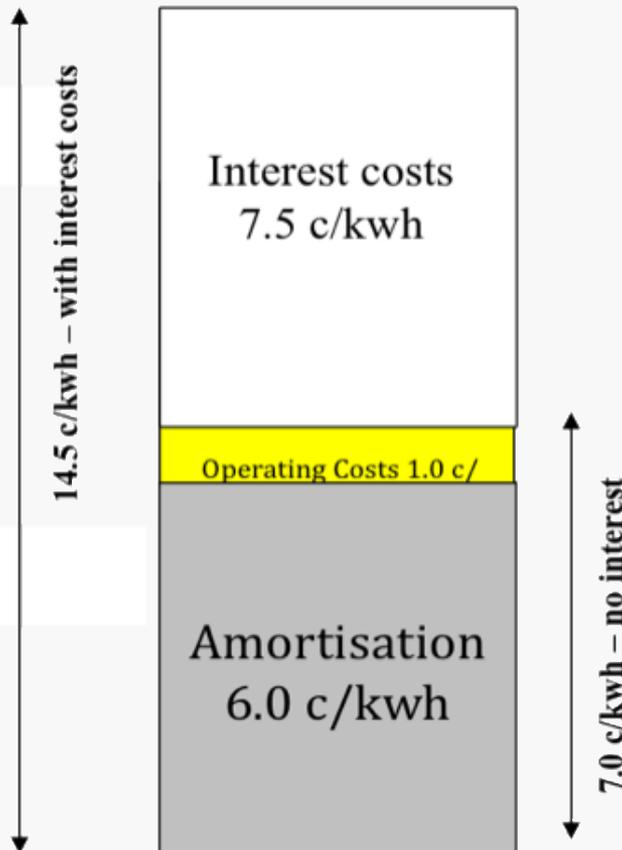
How changing the nature of money changes the nature of resource allocation

Money without interest costs makes sustainable electricity cheaper:

Because renewable energy investment is around three times higher for similar output

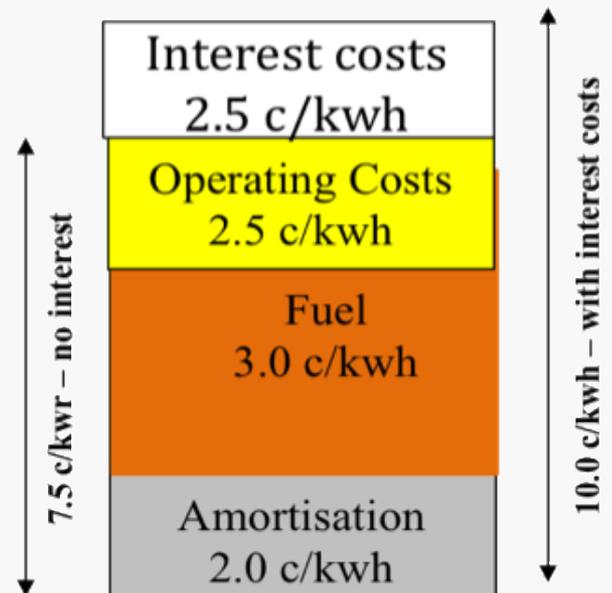
**Indicative figures used to illustrate cost relationships
over 25 year operating life of investments**

Price of hydro, solar, wind, etc. powered electricity
reduces without interest costs from **14.5 to 7.00 c/kwh**



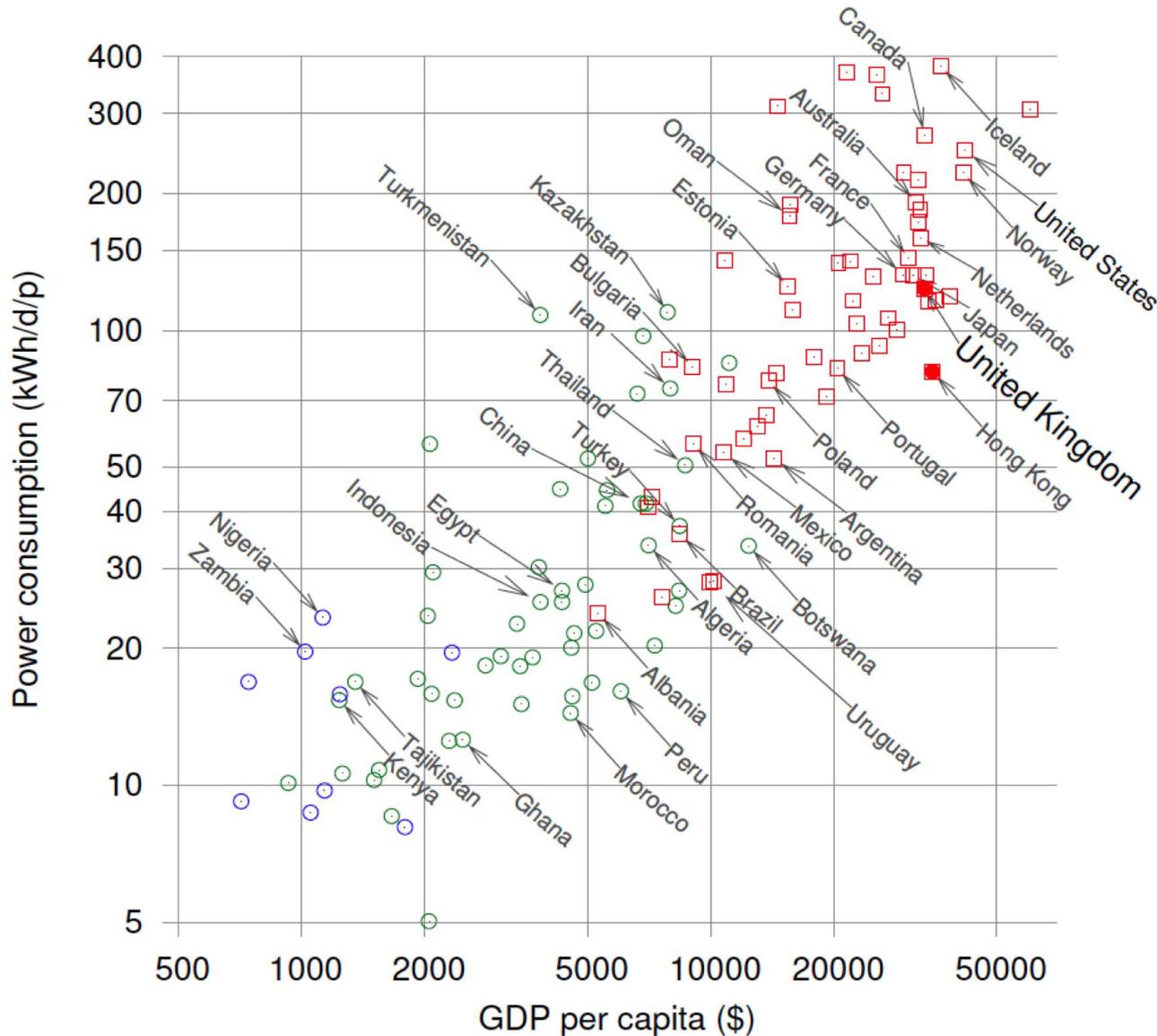
**Renewable
energy**

Price of coal, oil, etc powered electricity
reduces without interest costs from **10.0 to 7.5 c/kwh**



**Non-renewable
energy**

Power Consumption per person v's GDP per person



Goberty & Zitoli (2012),
'Deko: An electricity-backed
currency proposal'
available at:
<http://ssrn.com/abstract=1802166>

Sustainable value money tether

The retail value of Kwhrs averaged over different sources of benign renewable energy in each bio-region produced and consumed by members of a distribution entity will be described Sustainable Energy Dollars (SEDs=\$Z). Unlike LIBOR and FX price determined privately every consumer/producer could monitor and changes in price setting.

Kwhrs of energy would not become money to avoid the creation of derivatives and speculation. Money would be created by producers, traders, consumers defining the value of their contracts in \$Z and obtaining credit insurance to make the contacts acceptable as money. All or part of the insurance fee would attached to the money.

Table 2, Existing and Ecological Money

	Diff. between:	Existing money	Ecological value \$Z
1	Money created by:	Government & banks	Consumers, producers, traders and investors
2	Interest rates set by:	Central Bank	Cost of risk insurance
3	Expansion of money:	Government ratios/regulation	Value of market transactions
4	Value defined by:	Government fiat	Benign renewable energy
5	Unit of value	Not defined	Renewable kwhs (\$Z)
6	Store of value	Yes, subject to inflation	Not a store of value
7	Integrity of value	Indeterminate	Tethered to renewable energy
8	Integrity of system	Exposed to contagion	Little exposed to contagion
9	Choice of currency	Government monopoly	Determined by currency region
10	Inflation control by:	'Blunt' policy instruments	Value of renewable energy
11	Structure of money:	Unlimited accrual of interest	Carrying cost limiting life
12	Economic flaw-1	Incentive to own money	Disincentive to hold money
13	Economic flaw-2	Allocates resources to finance	Real assets more attractive

	Difference between:	Existing money	Ecological money \$Z
14	Economic flaw-3	Distorts price relativities	Prices set by renewable energy
15	Financial system cost	Ever increasing	Minimized
16	Financial assets/real	Ratio increases	Incentive to minimize
17	Economic growth	Required to pay interest costs	Accommodates de-growth
18	Social flaw-1	Compounds unearned income	No unearned income
19	Social flaw -2	Concentrates influence	Localizes influence
20	Political flaw-1	Concentrates power	Enriches local democracy
21	Political flaw-2	Low accountability	Cooperative accountability
22	Environmental flaw 1	Incentive to burn carbon	Favours renewable energy
23	Environmental flaw 2	No feedback from nature	Nature controls price signals
24	Ecological feedback	None	Local renewable energy service
25	Sustainability	Highly questionable	More likely

Thank you

Questions?

Follow up contact sturnbul@mba1963.hbs.edu

Who are members of the Sustainable Money Working Group?

First public meeting, Great Hall, ICAEW, London, February 13th, 2012



Left to right:

Dr Richard Spencer (Host) Head of sustainability, Institute of Chartered Accountants of England and Wales (ICAEW)
Martin Hockly – CEO, Street UK Foundation
Ed Mayo (Chair), Secretary-General Coops UK Limited
Steve Hughes – Economist, British Chambers of Commerce

Formation meeting, London 17 October 2011 *Terrace Café, National Portrait Gallery, London*



Maksym, Ed Mayo, Pat Conaty, Shann, Hares Youseff, Yurij

Working meeting, London, 15 February 2012



Left to right:

Maksym Putij - Economic adviser, The 40 Foundation
John Longworth - Director-General, British Chambers of Commerce
Yurij Riphayak - Secretary, The 40 Foundation
Dr Shann Turnbull - Research Fellow, The 40 Foundation
Josh Ryan-Collins - Senior Researcher, Monetary Reform - New Economics Foundation
Ed Mayo - Secretary-General, Co-ops UK Limited

Greek Musings about Bitcoin

Greek finance Minister, Yanis Varoufakis reportedly stated (as cited in paper):

- “digital Future Tax-coins (FT-coins) that “could use a Bitcoin-like algorithm in order to make the system transparent, efficient and transactions-cost-free”;
- “Greece will adopt Bitcoin if Eurogroup doesn’t give us a deal”
- Bitcoin Can Be Used in Eurozone “As Weapon Against Deflation”;
- “national supply of Euros that is perfectly legal in the context of the European Union’s Treaties”.

Who should create money, control its volume and cost?

1. Private banks & Gov. as at present?
2. Government & bureaucrats only?
3. Private entrepreneurs and giant firms?
4. Computers manipulating crypto currency “block-chains”?
5. Producers, consumers, traders & investors (i.e. market activity)?