

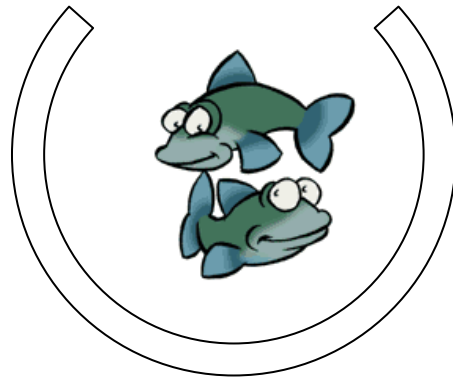


**Bernard A. Lietaer**  
blietaer@earthlink.net

# The Future of Money

The last beings to comprehend  
the nature of water, are fish

***So are humans about money...***



How about becoming “flying fishes”?

# Key Ideas

1. Everybody knows that electronic currencies is changing the *form* of our conventional national currencies (smartcards, e-purses, etc).
  - More important: it also is creating *new kinds* of currencies.
2. Four Mega-trends will provoke growing crises over the next twenty years that will oblige us to review our agreements about money
  - Not theory: over 5000 complementary monetary experiments are already under way around the world...
3. Complementary Currencies do not *replace*, but *complement* the functions of conventional currencies.
  - They create *new possibilities* for resolving socio-economic issues.

# Plan

The Time Compacting Machine

The Money Opportunity

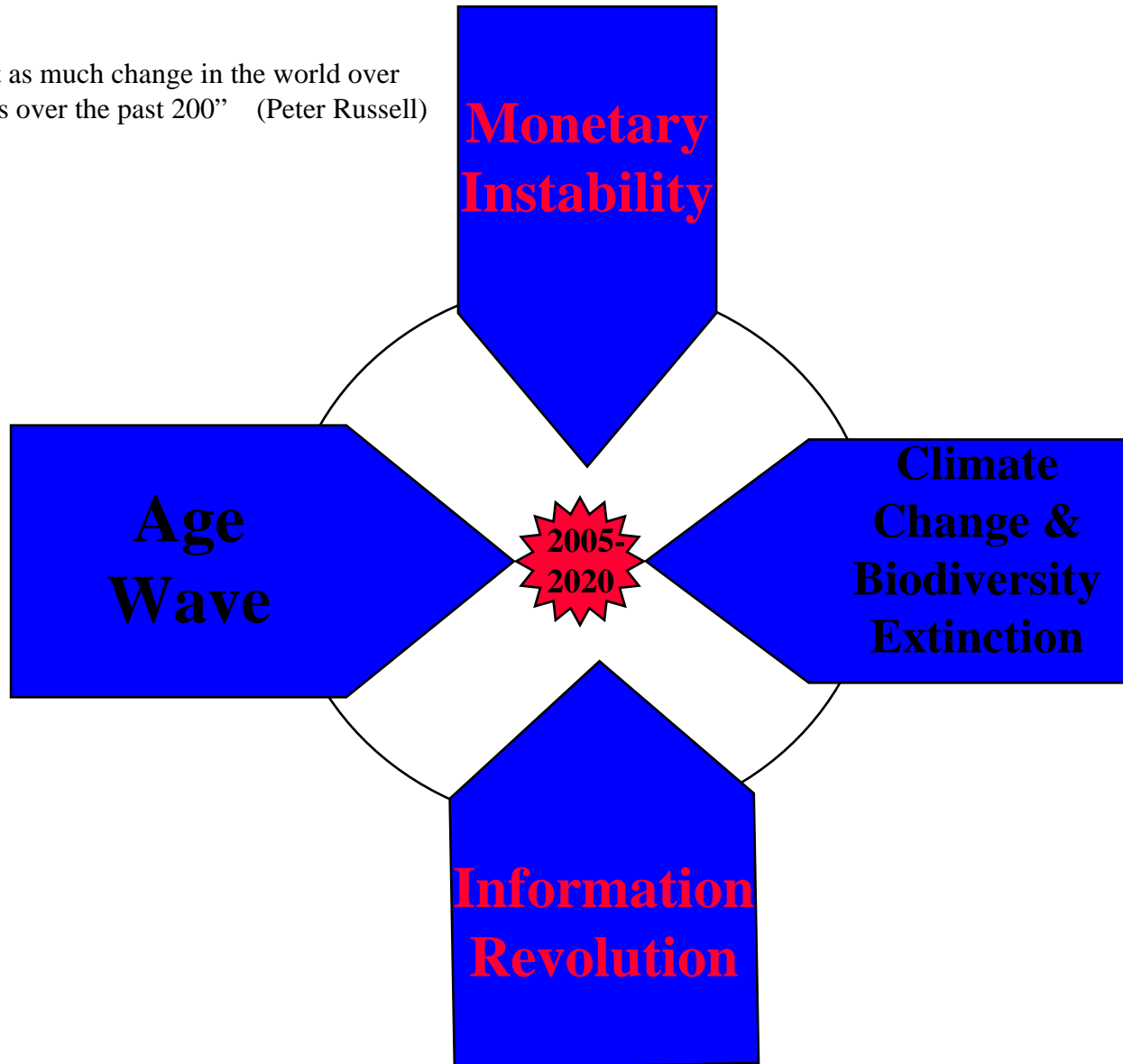
Conclusions

# The Time Compacting Machine

Four powerful human-created mega-trends converge over next 15-20 years

Each will be synthesized in a “*money question*” which will *need* to be resolved before this deadline.

“We should expect as much change in the world over the next 20 years as over the past 200” (Peter Russell)



# Monetary Instability

**\$1.3 trillion traded in foreign exchange markets every day**

- 100 times more than the trading volume of all the stockmarkets of the world combined
- Only 3% of these foreign exchange transactions relate to real goods and services
- 97% is purely speculative

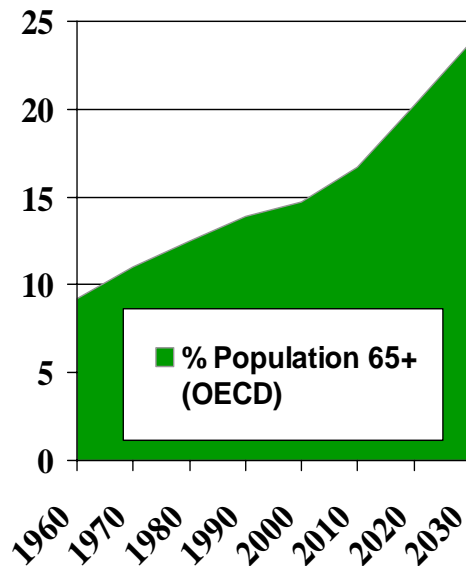
**=> 87 major currency crises over past 20 years (World Bank)**

**Foreign exchange crises in Mexico in 1995, Asia in 1997, Russia in 1998, Argentina in 2001 are only the media tip of iceberg**

**=> Who is next?**



# The Age Wave



- 2/3 of all human beings who **ever** reached the age of 65 are alive today
- Unfunded pensions liabilities now **\$3.5 Trillion** in the OECD countries alone
  - three times the GDP of the USA
  - add healthcare and double that number
  - Even before acceleration in percentages of elderly ...



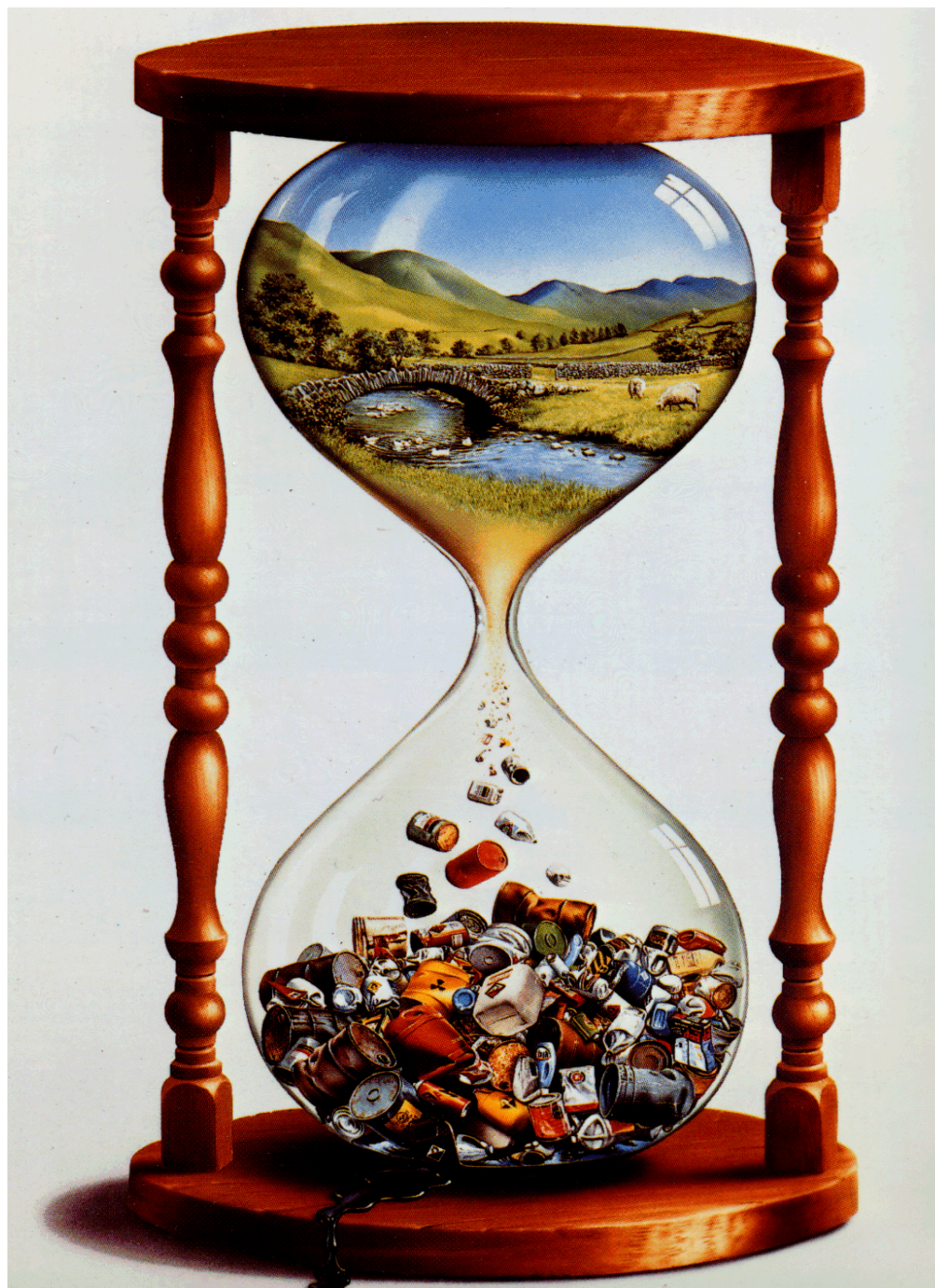


# Bio Diversity and Climate Change

- **85% of all insurance payments worldwide compensate natural disasters**
- **4 times more people die in natural disasters than in all war and civil disturbances combined**
- **1998 survey: 69% of professional biologists say we're in 'sixth extinction'**
  - we are in the process of losing 30%-70% of the planet's biodiversity by 2030 due to the actions of humanity!

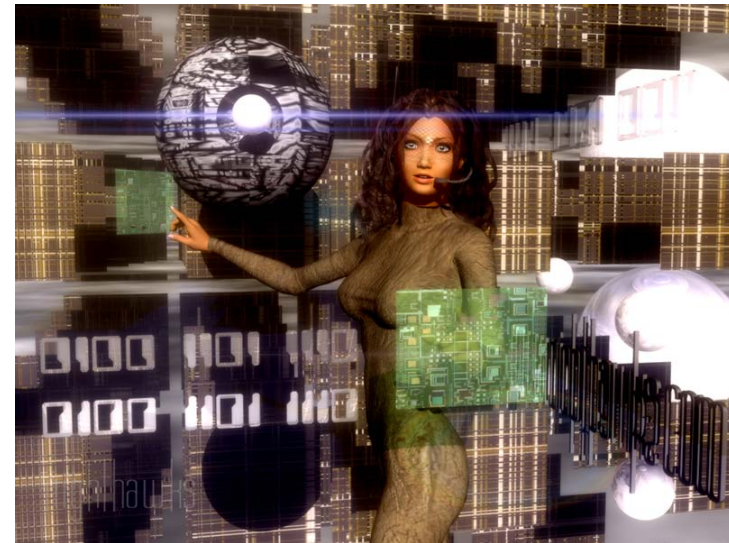






# Information Revolution

- Computing Power
  - 1940's, Thomas Watson predicted world market for 'maybe five computers'.
  - 1975, 50,000 were operating
  - 1997, >140 million
  - 2002, >800 million
- **Since 1980, the World 500 increased production and sales 700% whilst reducing total workforce**
- **Problem: jobless growth** => today 700 million to 1 billion chronically unemployed worldwide => global job scramble
  - “Today's scramble for jobs will in 20 years look like a fight for deckchairs on the Titanic” William Bridges









## Monetary Instability

How can we prepare for the possibility of monetary crisis?



## The Age Wave



How will society provide the elderly with the money to match their longevity?

## Climate Change



Where do we find the money for ecological restoration?

2005  
to  
2020



## Information Revolution

How can we provide a living to additional billions of people when technology creates jobless growth?

*"A bad time to be an ostrich"*  
*The Economist, Jan. 1, 1999*

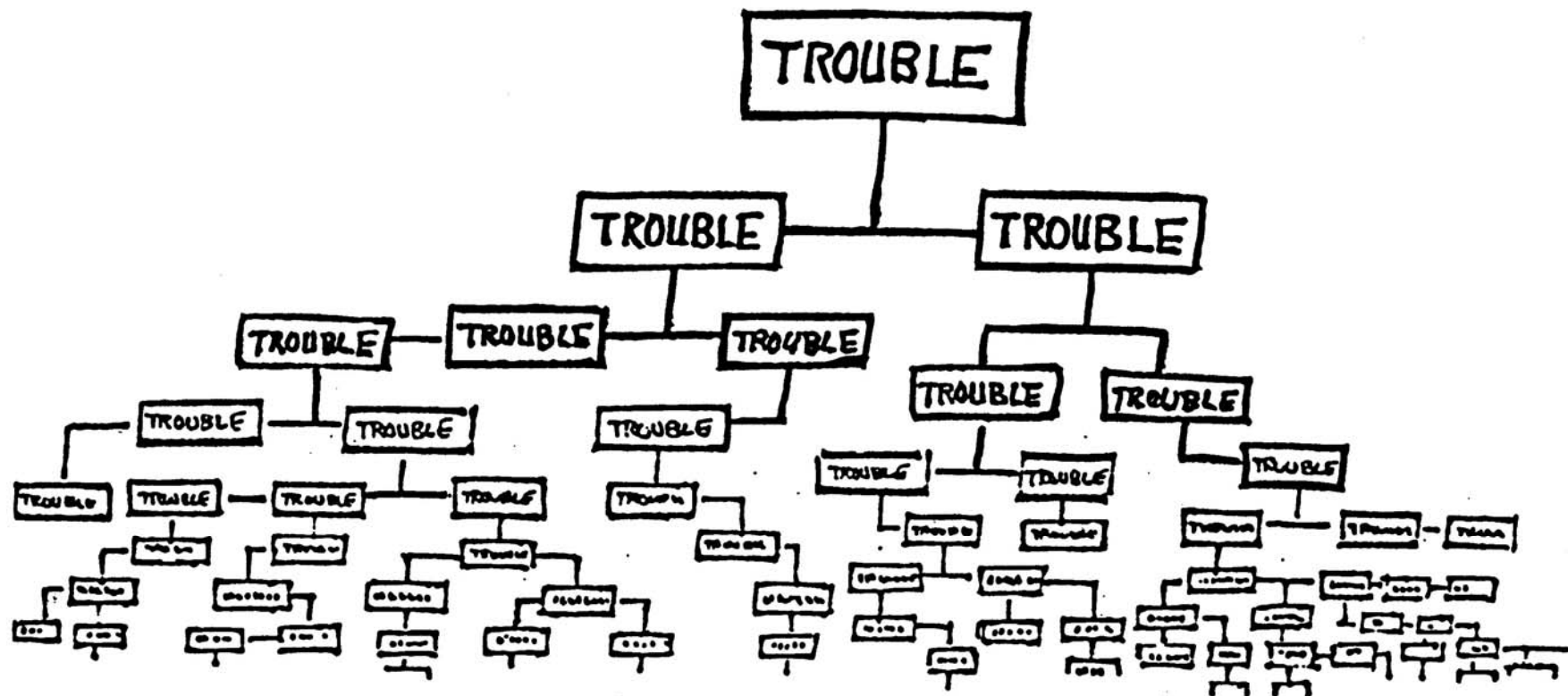




*The Money Wall*

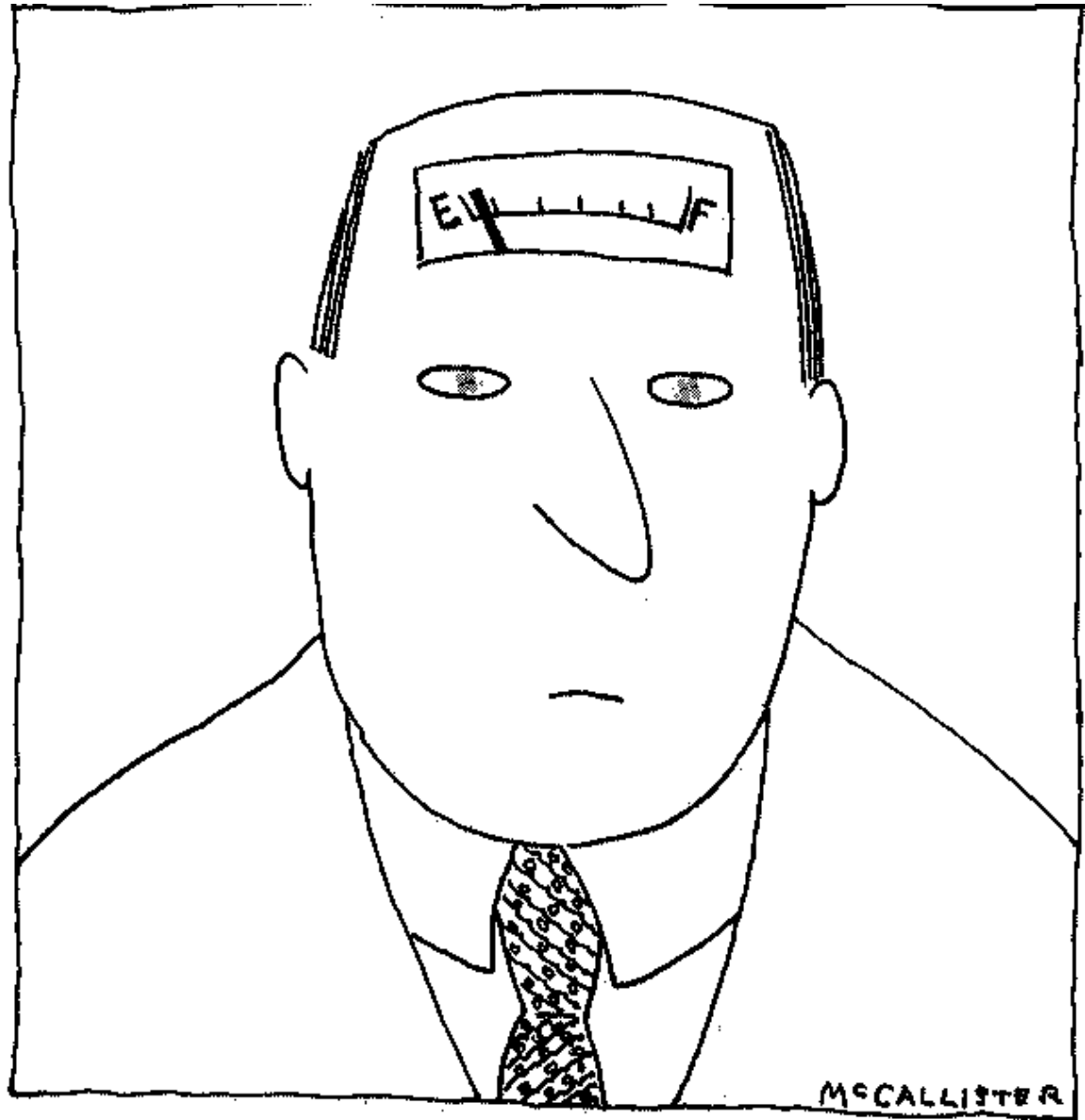


In short, with monopoly of conventional money we are in...





**While effective  
conventional  
solutions are on...**



# Plan

- The Time Compacting Machine
- The Money Opportunity
  - Some Definitions
  - Emergence of Social Complementary Currencies
  - Re-aligning Financial Interests with Long-Term Sustainability
  - Overall Implications
- Conclusions



**“Never, ever, think outside the box.”**

# Some Definitions

## What *is* Money?

- Economic Textbooks define money by what it *does*, not by what it *is*
  - e.g. Functions of Standard of Value, Medium of Exchange, Store of Value, etc....
- Money is an **Agreement**, within a **Community**, to use something as a **Medium of Exchange**
- **“Complementary” Currency**: a currency - different from national currency - that operates in parallel with national currency
  - Links unmet needs with unused resources (e.g. frequent flyer miles)
  - *“I foresee new private currency markets in the 21st century.”* Alan Greenspan

# Today's Context:

## Global Structural Shift

- This situation is going to accentuate over time because we are in the middle of a major *structural* shift of the world economy
- *Emergence of Information Age = End of Industrial Age*
  - Same scale and impact as shift from Agrarian Age to Industrial Revolution, except faster
  - *Structural* => no business cycle improvements will solve them => no return to 1990s likely...
- Japan was first economy to hit that wall with its Crash of 1990
  - Japan tried all the classical solutions (e.g. tax cuts, public works) to re-launch their economy, to no avail...
  - Since 1995 started complementary currency strategy
- Germany and Europe is now going the same way
  - Stubborn unemployment, no recovery in sight
- US is currently in denial but will be third in the same sequence...

# Emergence of Complementary Currencies

Crises => **Win/Win opportunities to resolve all four “money questions”** with specialized monetary innovations.

- Complementary currencies do not challenge legal tender status of national currencies
- Win/Win strategy for all key parties

1. Japan addresses **elderly** care crisis with 380 Elderly Care currency systems since 1995. China started the same last Summer...
2. Over 2000 complementary currency systems create local **work** in over a dozen countries (Time Dollars, LETS, Ithaca HOURS ).
3. **Terra** project realigns financial interests with long-term thinking
4. Together these **complementary currencies** can provide **safety net** under conventional monetary system.

## Monetary Choice



Complementary Currency  
Safety Net



## The Age Wave



Earning care points

## Planetary Restoration



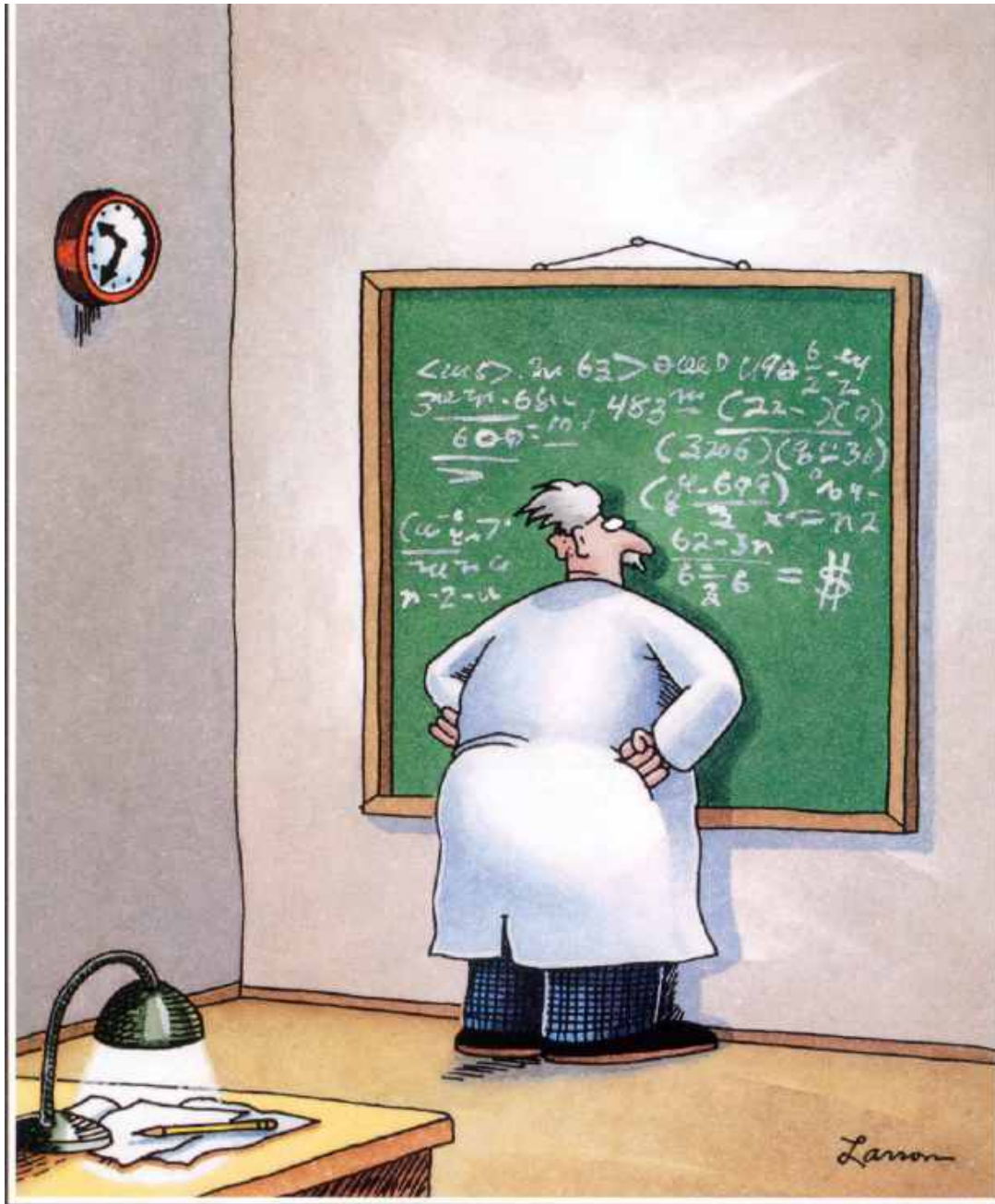
Incentivised planetary  
restoration

## Knowledge Abundance



Creating community knowledge





Einstein discovers that time is actually money

# Fureai Kippu

(Japanese 'Caring Relationship Tickets')



# Low-Tech Examples in Japan

Egg in Kagoshima



Yufu in Yufuin

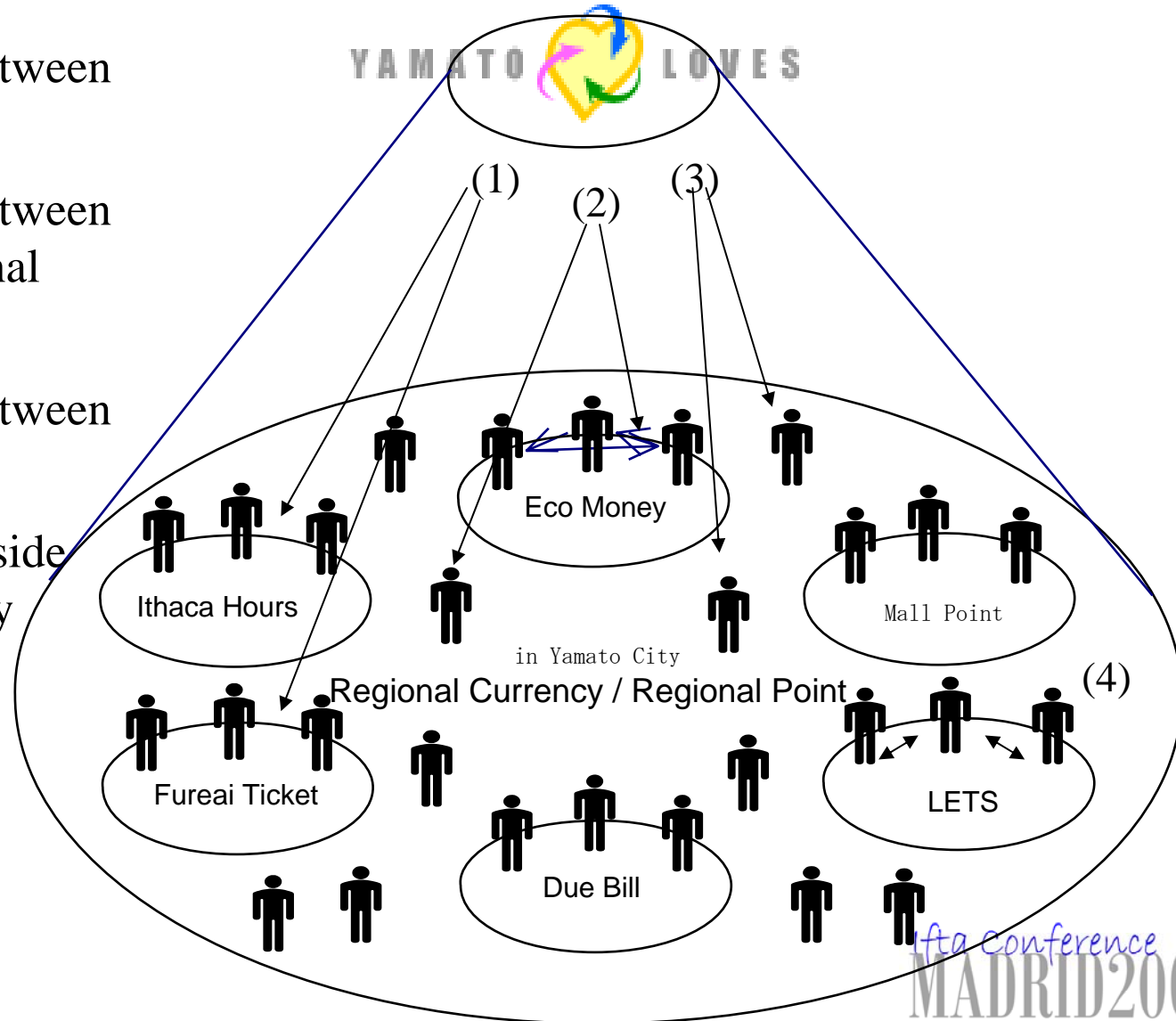


いつ	誰から	誰へ	助け合い・交換の内容
4/27	357c	073-073	バイク便
6/17	4811	357c	ごきょうけいまです
7/2	357c	0730	そば
8/29	4811	357c	紅茶
8/31	357c	山下	栗
8/31	山下	松村	お昼ごはん

このyufu券は裏面の発行者に合った特長で無効となります。破損が足りなくなったら、適当な紙を貼り付けて続けて下さい。

# Yamato “Love” (Local Value Exchange) currency

- 1) Interchanges between local currencies
- 2) Interchanges between citizens and regional currency
- 3) Interchanges between citizens
- 4) Interchanges inside a regional currency



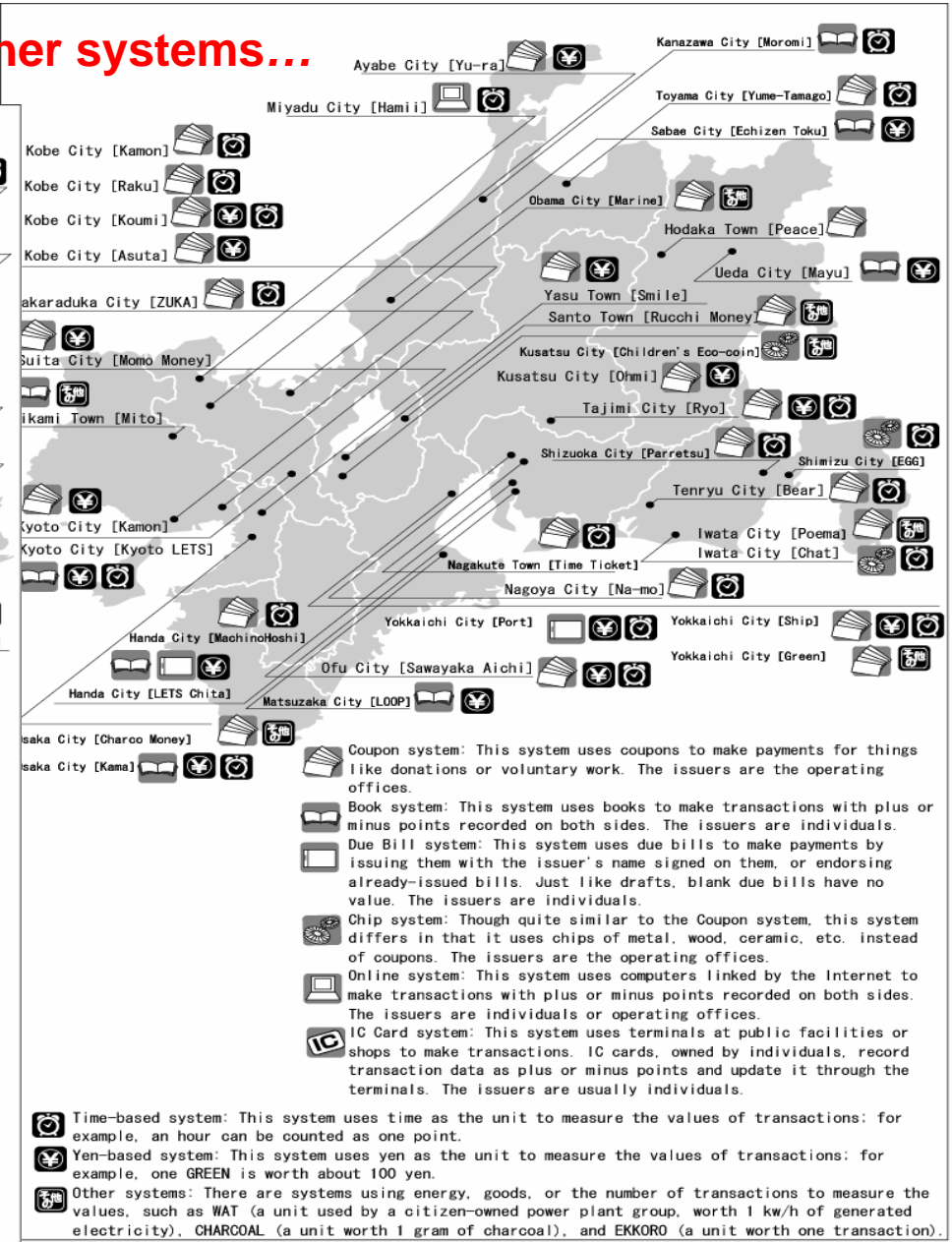
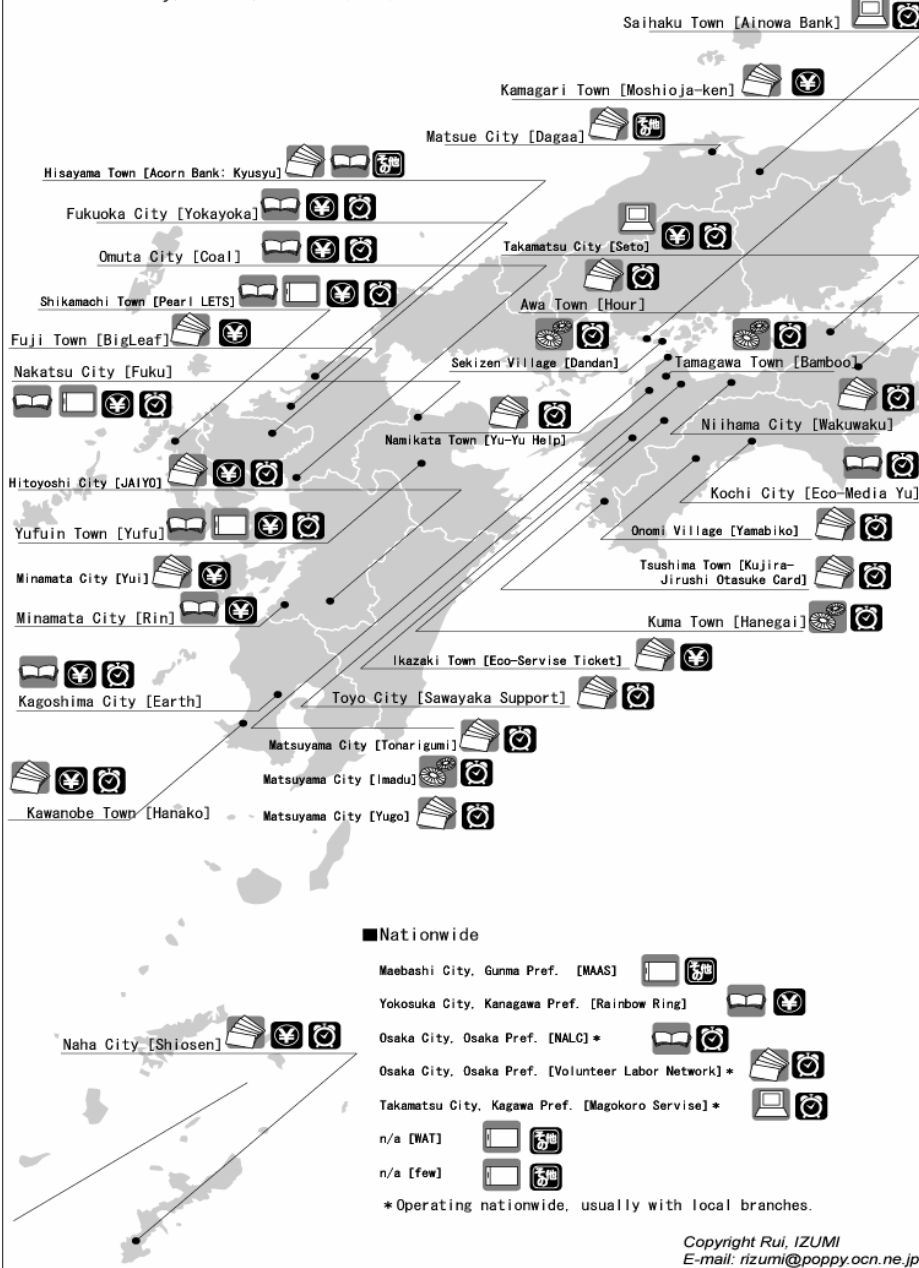


# YAMATO LOVES

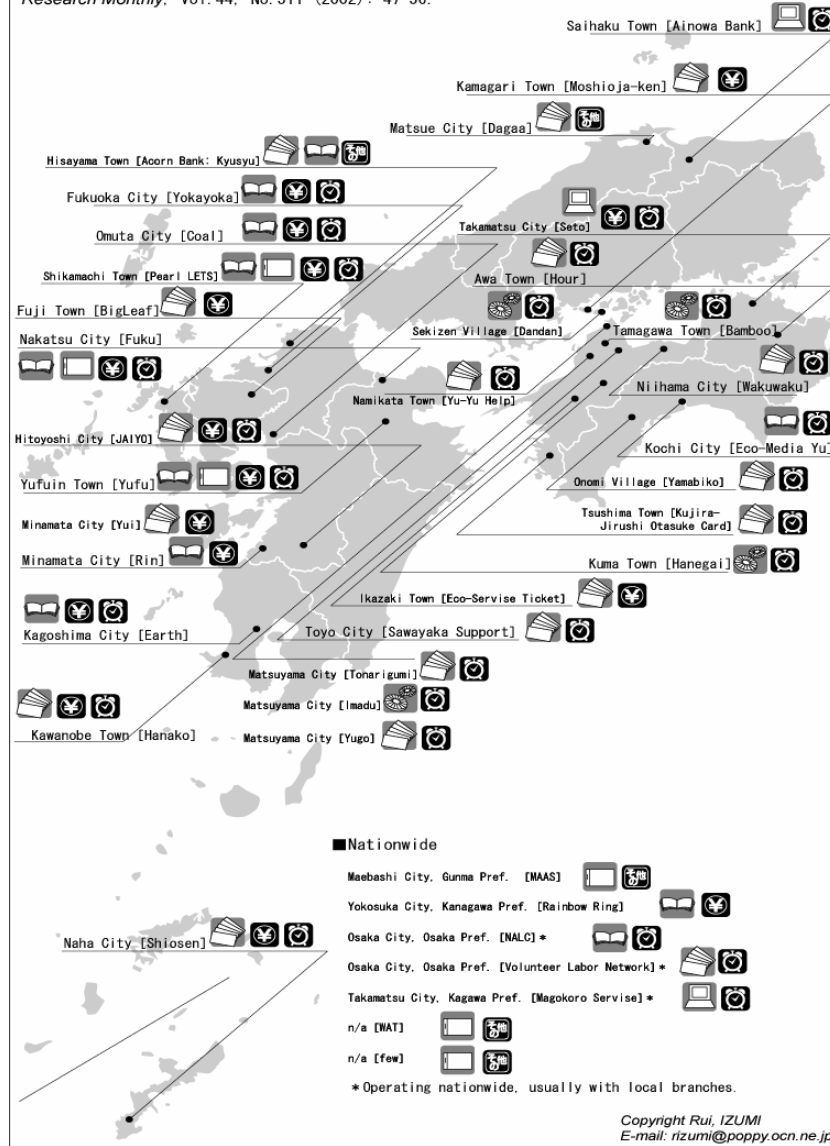


# In addition to Fureai Kippu... 300 other systems...

Rui, IZUMI "Trends in Community Currencies in Japan", *Self-Government Research Monthly*, Vol. 44, No. 511 (2002): 47-56.



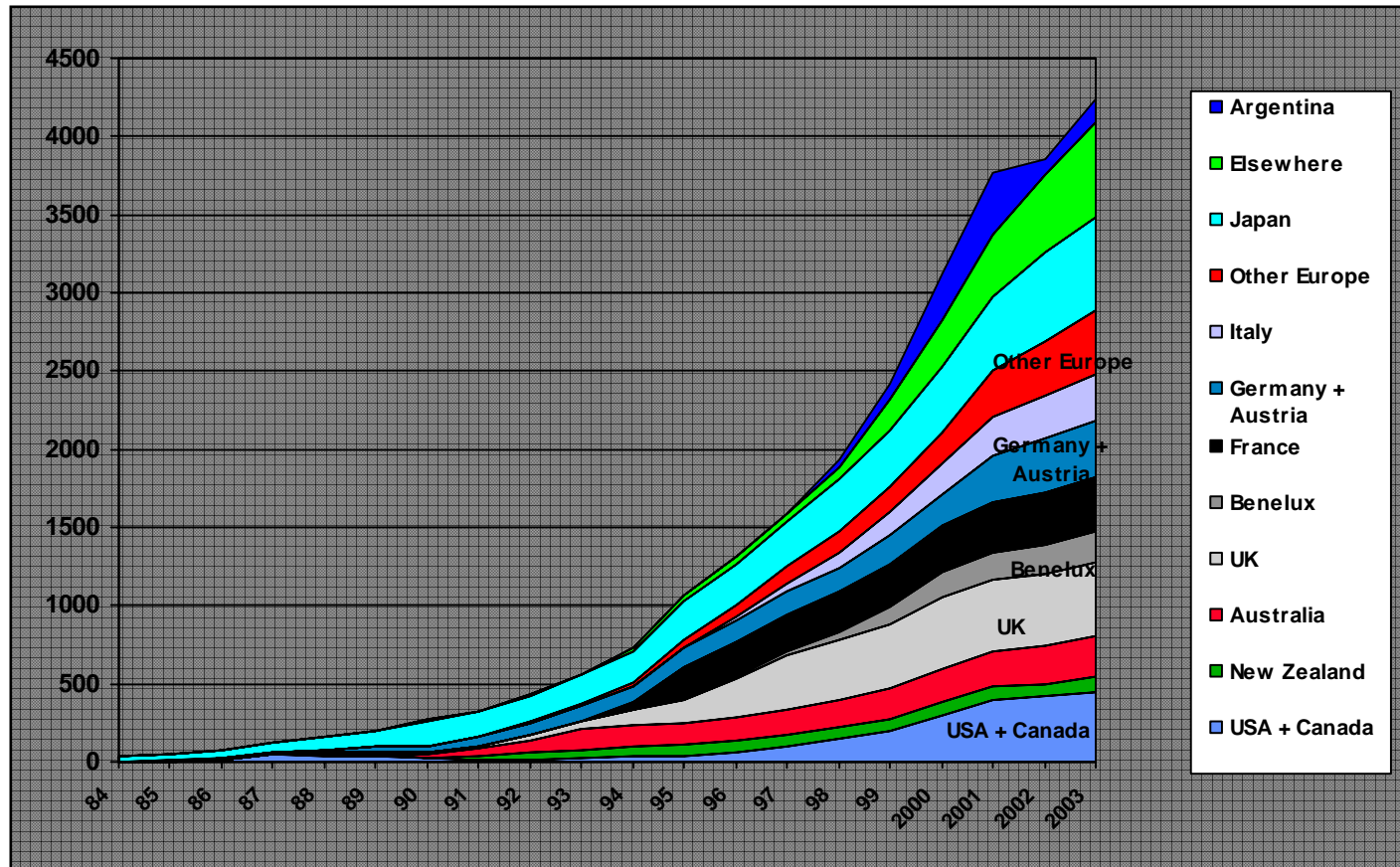
Rui, IZUMI "Trends in Community Currencies in Japan", *Self-Government Research Monthly*, Vol. 44, No. 511 (2002): 47-56.





# Today's Situation

Number of Complementary Currency Systems Operational in 12 countries  
(1984-2003)





## Welcome to Time Dollars!

*A new kind of money for rebuilding the Core Economy of family,  
neighborhood and community*

### Getting Started

[An Intro: What Are Time Dollars?](#)

How do they work? Who uses them?

[Stories From Time Dollars](#)

### Time Dollars in Community

[Time Dollars In Community](#)

The soul of Time Dollars is here!

[ID's Across the Nation & Overseas](#)

Time Dollar's "extended family"

### Values, Theory and Justice

[The Values at the Heart of Time Dollars](#)

[Theoretical Framework](#)

[Time Dollars as a Force for Social Justice](#)

### Catch Time Dollars in The News!

[Time Dollar News & Views](#) [Bi-weekly](#)

[ABC News -- TimeBanking in China](#)

[NPR Jan 17, 2001, on TimeDollars](#)

[The Time Dollar Newsletter](#)

[TimeBanks-UK Newsletter](#)

[Articles from Magazines, Journals, Newspapers](#)

### Create Your Own...

[How To Begin/Run a Time Dollar Program](#)

[Join the Time Dollar E-group](#)

[Time Dollar Materials Order Form](#)

### Contacts and Links

[Time Dollar White Pages](#)

[Links to Other Sites](#)

[Contact Us](#)

<http://www.ithacahours.org/>

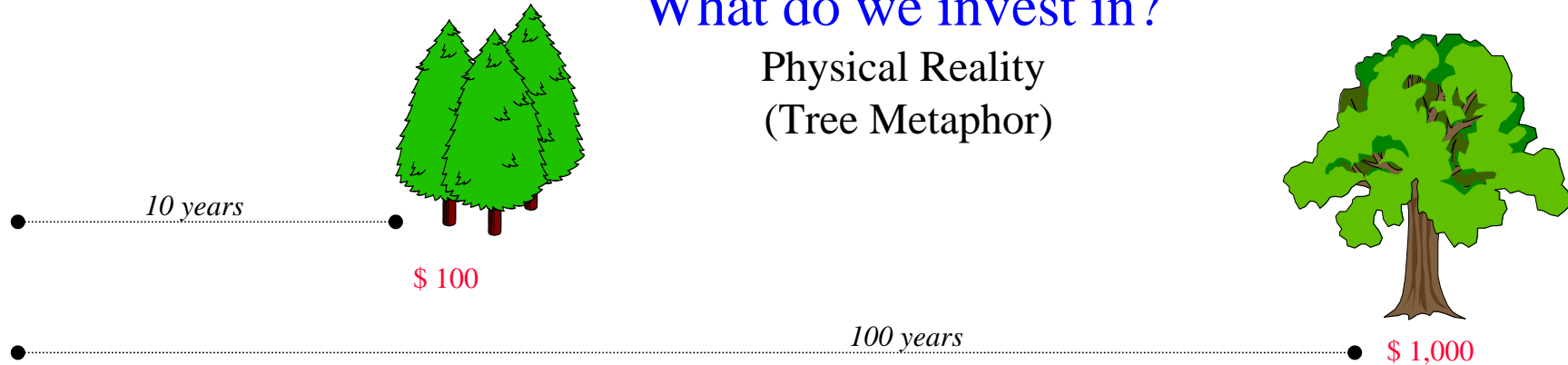


# Sustainability: the Money Connection

- As long as all major corporate decisions are made with a short-term horizon => long-term sustainability is going to be an illusion
- “Short-termism” is **programmed** by the interest feature of our conventional money

# What do we invest in?

Physical Reality  
(Tree Metaphor)



## Financial Viewpoint

Currency with Positive Interest @ 5%/year

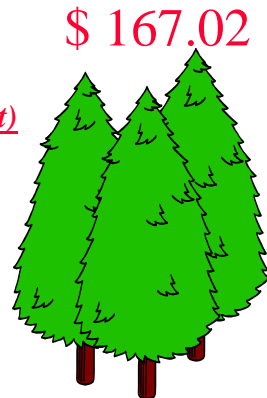
Value discounted to today:



Currency with Demurrage @ 5%/year

Demurrage = time-related charge (opposite of interest)

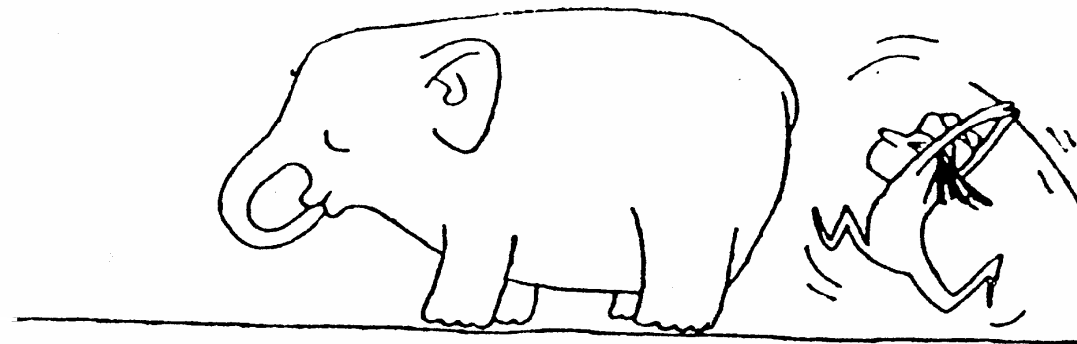
Value discounted to today:



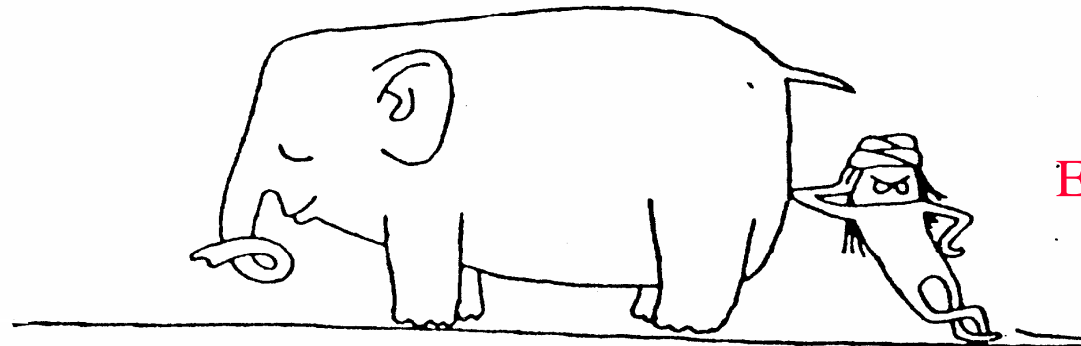
⇒ Short-term thinking is *not* intrinsic to human nature, but created by today's money system

⇒ Historical Precedents: Dynastic Egypt, "Age of Cathedrals", Chinese Ming Period

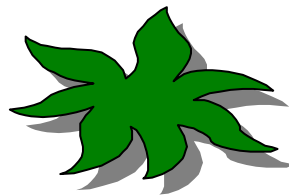
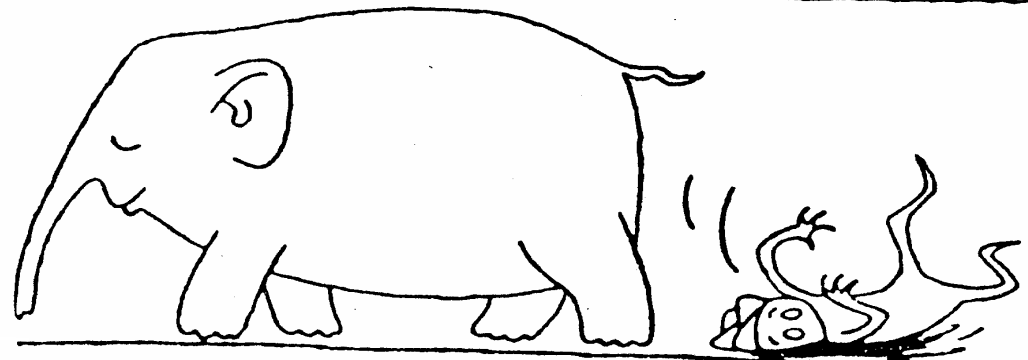
# How does one convince a corporate elephant to change?



Regulation



Education



Financial  
Incentive



# Win-win Strategy

- **Business Users**

- More stable and predictable international currency
  - No or less hedging costs
  - No or less inflation
- Countercyclical
  - Less roller-coaster of business cycle
  - Less roller-coaster in finding staff and then firing them
- Less Short-termism
  - Demurrage charge realigns financial interests with longer-term thinking
  - Leaving a better world for our grand-children...

- **Banking System**

- Today, banks don't play any role in countertrade (\$1 Trillion/year - 10-15% of global trade - and fastest growing sector)
- Standardization introduced by Terra enables financial sector to provide its traditional services similar to any foreign exchange transaction (accounts, transfers, advice)



# Plan

The Time Compacting Machine

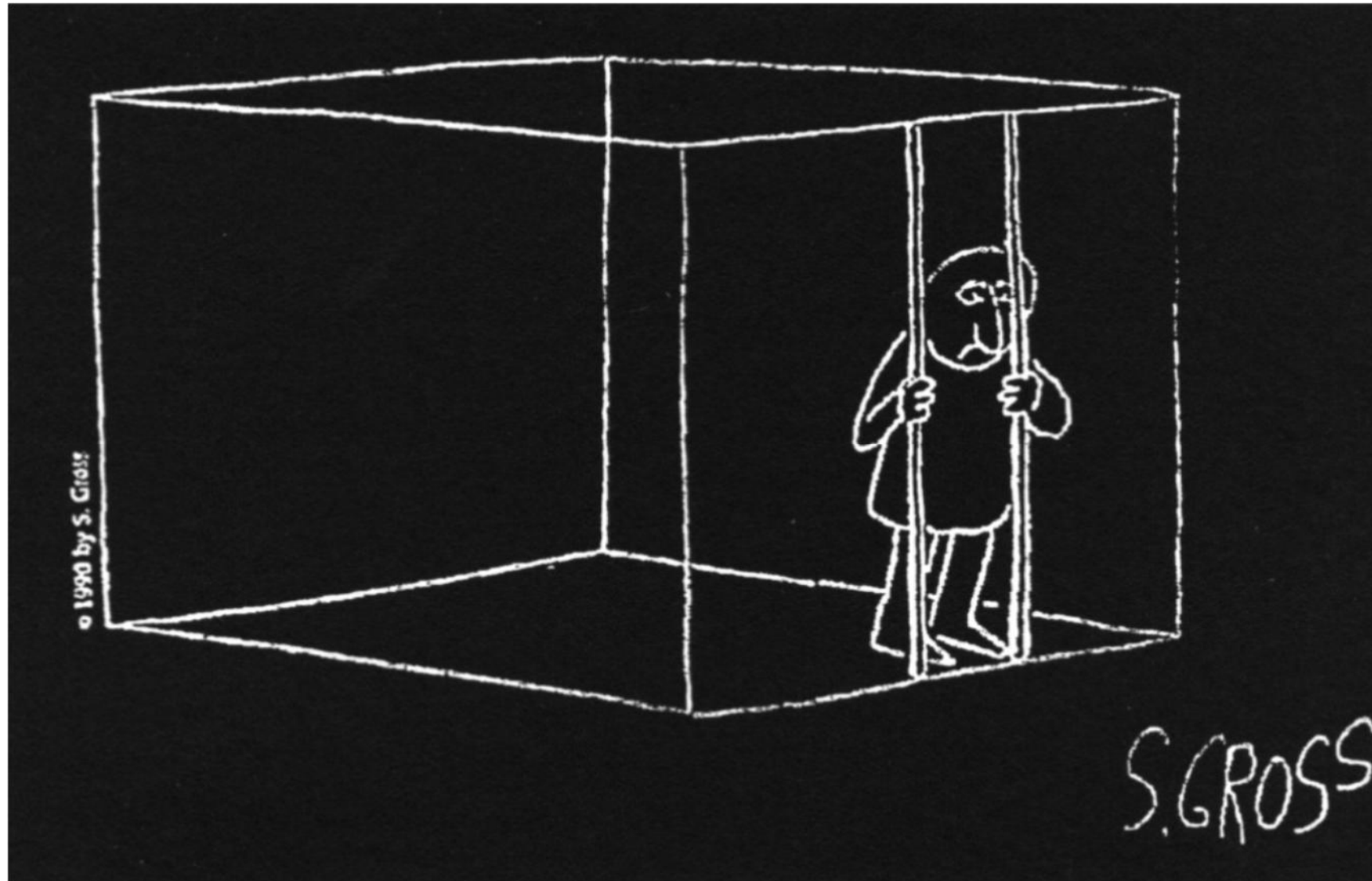
The Money Opportunity

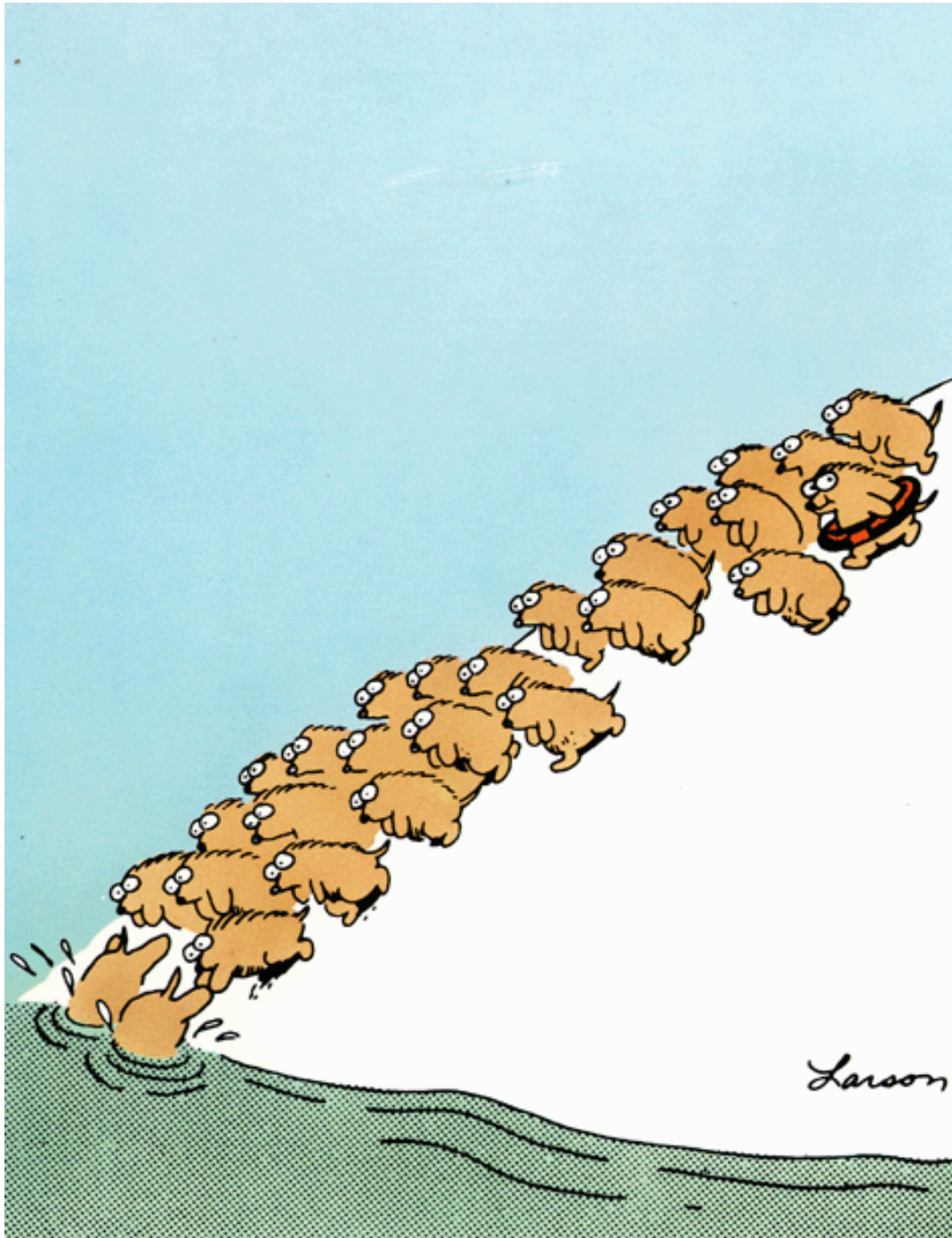
Conclusions

# Conclusion

- The four Megatrends will *force us* to rethink our money over next twenty years.  
⇒ Who has better solutions?
- “Gentler World” and more sustainable world is possible with available technologies, monetary and other...

Solutions are *not* to be found within the conventional money box





***A better way?***



# Conclusions (2)

- Complementary Currencies operate in countercycle with boom/bust cycle:  
*=> less instability in jobs, politics, business and banking portfolios*
- These new Currencies are **Complementary**:
  - Do **not** displace any services existing today in conventional currencies (savings, financing, etc.)
  - But create opportunities for **additional** work, wealth.

# Three Practical Findings

1. In the field of complementary currencies, practice is ahead of theory
2. Contrary to key economic theory hypothesis assumed by Adam Smith, money is *not* value neutral
  - Different types of money encourage different types of transactions, and different relationships between people
3. Complementary Currencies solve social problems without taxation or governmental bureaucracies
  - Dampens shocks to social/political system from economic/monetary instabilities
  - Creates a more stable, predictable and “gentler” world

# Follow-up

- “*Of Human Wealth: Beyond Greed and Scarcity*”  
(Galley edition available here)
- “*The Future of Money*” ([www.amazon.co.uk](http://www.amazon.co.uk)) now published in 17 languages
- Internet:
  - Website: [www.accessfoundation.org](http://www.accessfoundation.org)
  - Email: [bernard@accessfoundation.org](mailto:bernard@accessfoundation.org)