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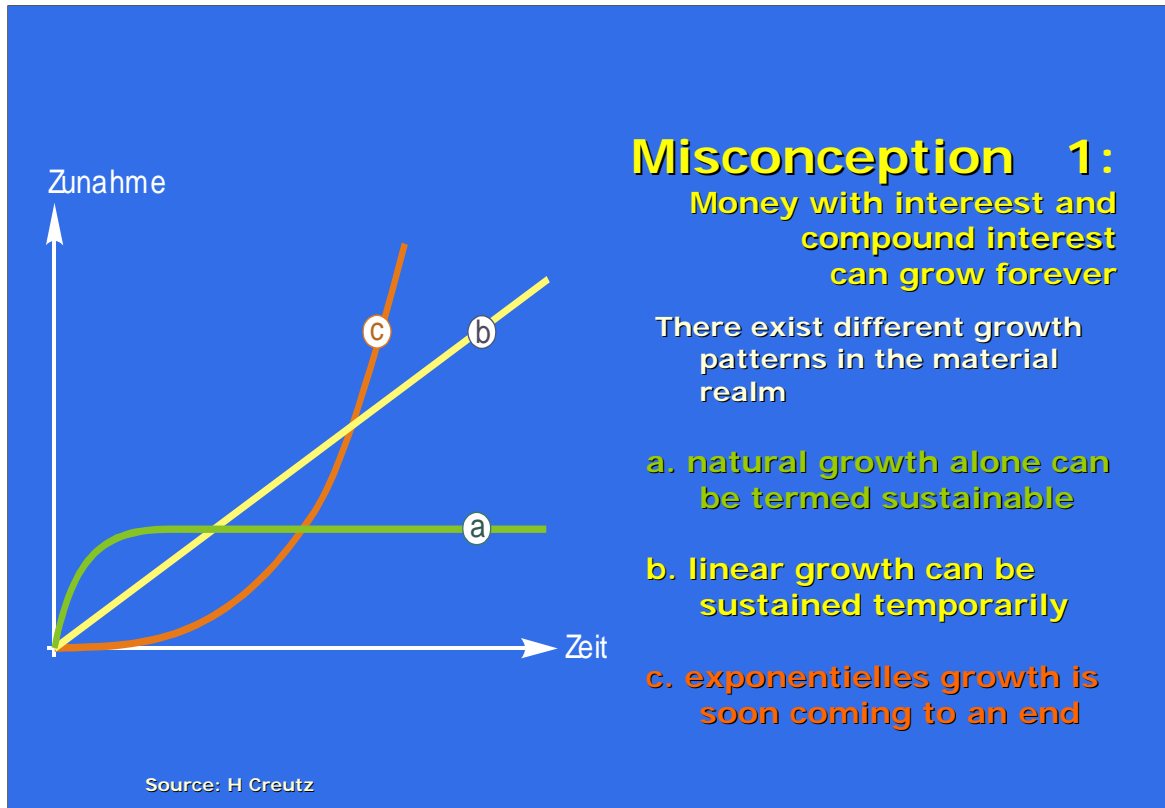
Complementary Currencies

and the Chiemgauer project

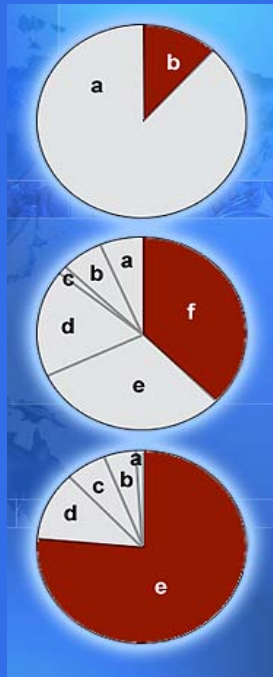
In this lecture I will pursue the question: "Why do we need monetary innovation?" Firstly, I will describe three misconceptions most people hold about money; secondly I will explain three results of these misconceptions, and thirdly offer three possible solutions in terms of monetary innovations.

What is money? Let's take the good news first. Money is one of the most ingenious inventions of humankind. It helps the exchange of goods and services and overcomes the limitations of barter, thereby creating the possibility of specialization, which is the basis of civilization. Why then do we have a money problem?

Here is the bad news. Throughout most of history, the circulation of money has been based on the payment of interest. Interest leads to compound interest. Compound interest leads to exponential growth. And exponential growth in turn is unsustainable. Therefore, in order to understand how our monetary system works as an 'invisible wrecking machine' since its inception, it is useful to understand three basic misconceptions about money which almost everybody holds.



1. To comprehend the Growth Misconception, that "Money based on interest can grow forever" we need to understand three generically different growth patterns. Curve A represents the normal physical growth pattern in nature. Just like plants or animals, we grow fairly quickly during the early stages of our lives, then begin to slow down, and usually stop growing physically at an optimal size. Curve B represents a linear growth pattern, e.g. more machines produce more goods, more coal produces more energy, etc. This growth pattern is not so important for our analysis. It should be clear, however, that on a finite planet even this pattern will eventually create problems. Curve C represents exponential growth, the most important and generally least understood growth pattern. It may be described as the exact opposite to curve A, in that it grows very slowly in the beginning, then accelerates continually faster and finally grows in an almost vertical fashion. In the physical realm, this growth pattern usually occurs where things are out of order, where there is sickness, often leading to death. Cancer, for instance, follows an exponential growth pattern, and, using this analogy, interest may be seen as the cancer on our social and economic system. Because based on interest and compound interest, our money doubles at regular intervals, it follows an exponential growth pattern: at 3% compound interest it takes 24 years; at 6% it takes 12 years; at 12% 6 years. One penny invested at 5% interest in the year 0 would be worth over 500 billion balls of gold of the weight of the earth in the year 2000, at the price of gold in this year - a practical impossibility.



Source: H Creutz

2. The Transparency Misconception Interest is paid only when we borrow money

1. Garbage Collection Fees

Cost of interest on capital 12%

2. Drinking Water Costs

Cost of interest on capital 38%

3. Rent in Public Housing

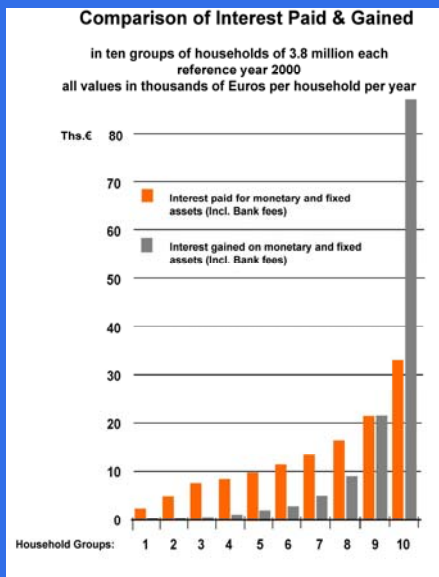
Cost of interest on capital 77%

2. The Transparency Misconception can be summarized as: 'Interest is paid only when we borrow money.'

The difficulty to fully understand the impact of the interest mechanism on our economic system is, that most people think, all they have to do is to avoid borrowing money, and they will not have to pay interest.

What they don't understand is that every price we pay includes a certain amount of interest. The exact proportion varies according to the capital versus the labor, maintenance, administrative and other costs of the goods and services we buy. This ranges from a 12 % interest component for garbage collection, (because here the share of capital costs is relatively low and the share of physical labor is particularly high) to 38% for drinking water and up to 77% in the rent for public housing (over 100 years, which is the time houses in Germany mostly last).

On the average we pay about 40% interest in all the prices of our goods and services. In medieval times people paid 'the tenth' of their income or produce to the feudal landlord. In this respect they were better off than we are nowadays, where almost one half of each dollar goes to the people who own capital as I will explain with the next misconception.



Source: H Creutz

Misconception 3: Everybody is treated equally in the system

Interest payments and Interest
gains show large disparities:

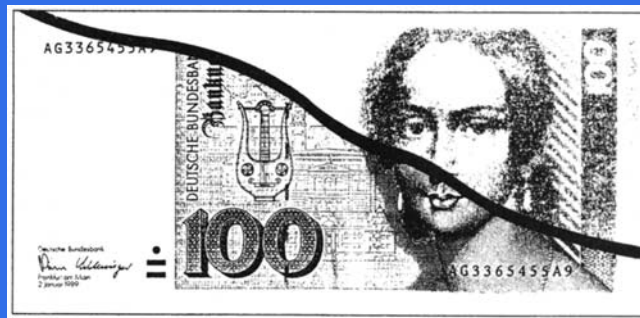
80% of the population pays
twice as much as they gain

10% gain more than twice as
much as they pay

3. The Fairness Misconception holds that: 'Everybody is treated equally in this money system.' Since everyone has to pay interest when borrowing money and receives interest for savings, we are all equally well off within the present money system. On the contrary, there are indeed huge differences as to who profits and who pays in this system. Comparing the interest payments and income from interest in ten equal parts of 2.5 million households in Germany, this figure shows that 80% of the population pay almost twice as much as they receive, 10% receive slightly more than they pay, and the remaining 10% receive more than twice as much interest as they pay, that is the share the first 80% lose. This illustrates one of the least understood reasons why the rich get richer and the poor get poorer. In Germany, in the year 2004, this amounted to a transfer of about 1 billion € every day from those who work for their money to those can make their 'money work for them'. But have you ever seen money work? In other words, in our monetary system we allow the operation of a hidden redistribution mechanism which continually transfers money from the large majority to a small minority, creating a social polarization which over time will undermine any democracy and lead to social revolution.

Result 1: Continual Inflation

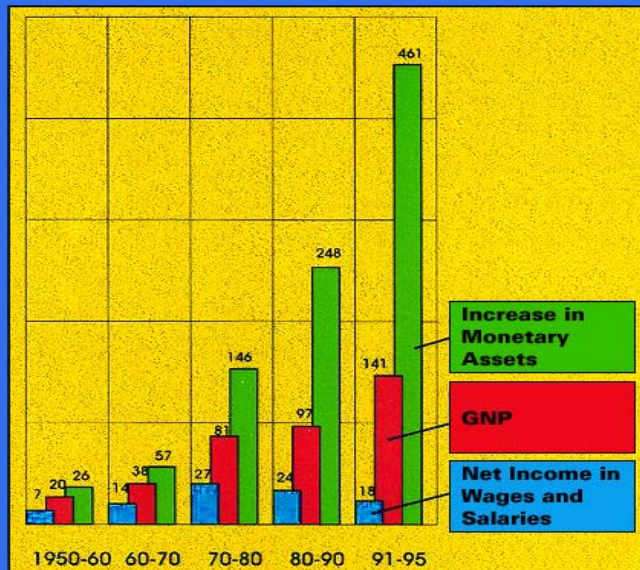
Because of inflation, in the year 2001, every DM was worth only 20 Pfennigs...



and this was the **most stable currency** in the world!

Source: H Creutz

As one result of this defect in our monetary system between 1950 and 2001 every Deutschmark lost 80% of its value i.e. is worth exactly 20 Pfennig, and this was the most stable currency in the world. For most people, inflation seems like an integral part of any money system, almost 'natural' since there is no country in the world without inflation. Because inflation is perceived as a given, economists and most people believe interest is needed to counteract inflation, while in fact interest is the major cause of inflation. About two years after every rise of interest follows a rise in inflation. Therefore, if we could abolish interest we could also abolish inflation. In the present money system we are faced with a dire choice: either economic or ecological collapse. Only as long as public and private debts increase, following the pathological growth of the money system, can the economy function,. This means, we need economic growth at about any cost, thus preparing an ecological collapse of unprecedented proportions.



Source: H Creutz

Result 2:

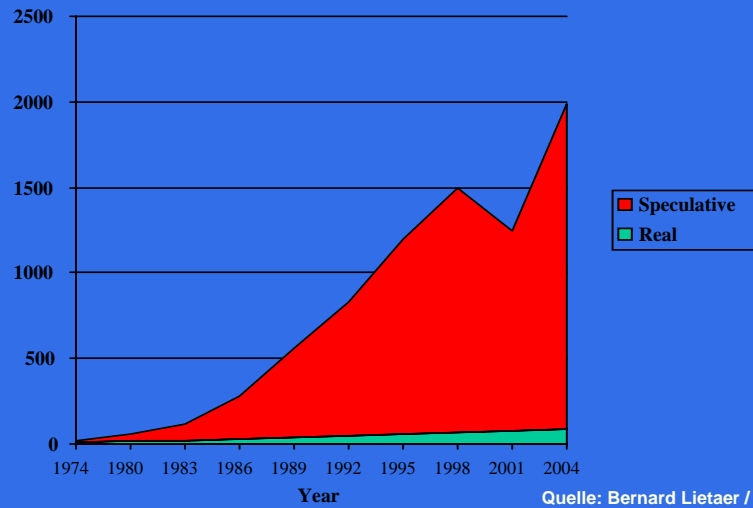
Widening Gap in Economic Indicators

Yearly average in billion DM from 1950 - 1995
[All figures are inflation adjusted]

A second result of the interest system is that it leads to a most uneven growth of different sectors of the economy. Comparing three different indicators of growth between 1950 and 1995 in Germany we find that Monetary Assets (backed by an equivalent amount of debt) increased 461 times, the Gross National Product increased 141 times and the Net Income in Wages and Salaries (after tax) rose only 18 times, and it actually declined after 1980 to the level of the seventies.

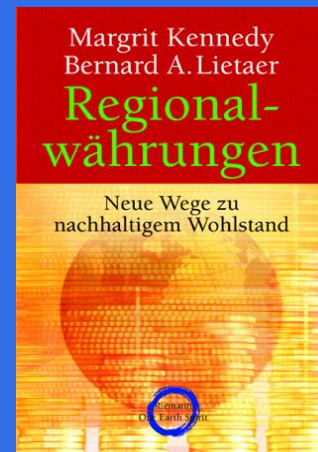
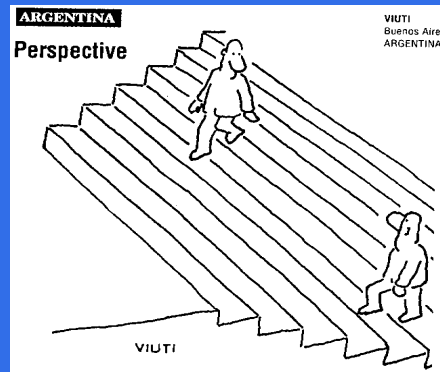
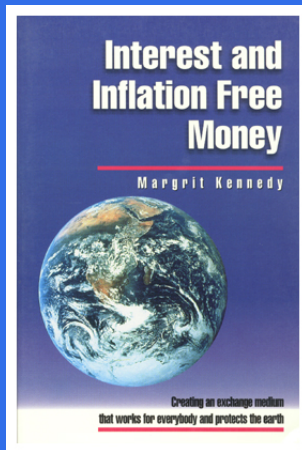
If our body would grow 18 times between some months after conception and maturity and our head grew 461 times, while our feet only grew 18 times we would call this sickness, but few people understand that these figures drifting further and further apart indicate a severe sickness in our economic system. The lack of public discussion of this problem is evidence of our widespread monetary illiteracy.

Result 3: Excessive Increase in Foreign Exchange Transactions



As a third result the exponentially growing money system based on interest creates a high degree of monetary instability. In contrast to measures like the meter or the kilogram the value of our currency varies almost daily. Cashing in on this variability, the global volume of speculative monetary transactions between 1974 and 2000 increased to 97%, with a mere 3% of the transactions being in real goods and services including tourism. In 2001 the daily volume of trading exceeded \$2,000 billion whereas in the seventies it amounted to \$20-30 billion. What makes the situation so dangerous, is that all the currency and gold reserves of all the central banks in the world amount to only the volume of transactions handled in seven to eight hours of trading - a tsunami lingering on the horizon of our global financial system, as there is practically no institution which has sufficient reserves to intervene in a crisis situation. The small downward trend since the year 2000 is the result of the introduction of the Euro which has ended the currency speculation among European countries.

a change of perspective between 1987 und 2004



Today, economists all over the world treat money as a neutral measuring stick which has no decisive role to play in economic decisions. A recent study of the Club of Rome proves that this is wrong. Money is anything but neutral. In fact it acts like vacuum cleaner constantly sucking up resources from some regions with lower returns and redistributing them to those regions with high returns - at the moment this is China - with all the devastating effects this has on the culture, ecology and society in the affected areas. What we need today is another perspective on money, to be able to finally use the full potential of one of the most ingenious inventions of mankind, to help in realizing the dream to provide everyone on this earth with the basic necessities of life. One first solution would be to replace interest - a reward for the lender - with a "demurrage" or "appropriation fee" a cost for holding on to the money, a principle we apply to most other services like the use of a railway carriage. Nobody would be paid a reward to unload it, to be put back into circulation, but people pay a small daily fee if they use it. That is basically all we have to do with money to solve many of the problems created by the interest system.

Solution 1. Interest Free Money-The Wörgl Example



- Circulation incentive of 1% per month or 12% per year
- Work-certificates worth 5.490 schillings circulated 416 times in 13.5 months
- Helped creating goods and services worth 2.283.840 schillings
- Town got $12\% \times 5.490 = 658$ schillings in circulation incentives

Results:

1. Unemployment reduced by 25%
2. Town-Income increased by 35%
3. Public works investment rose by 220%

Between 1932 and 1933 the small Austrian town of Wörgl started one of the first model experiments - based on the book of Silvio Gesell "the Natural Economic order" (1916). Backed by an equivalent amount of ordinary schillings in the bank the town spent 5,490 'Work Certificates' into circulation. This money lost 1% per month. A stamp worth 1% had to be glued to it, so it would keep its value. This caused the Work Certificates to circulate 463 times in the next 13.5 months, thus creating goods and services worth $5,490 \times 463$ or over 2,283,840 million schillings. At a time when most countries in Europe had a decreasing number of jobs, Wörgl reduced its unemployment rate by 25% within a year. Income from local taxes rose 35% and investment in public works 220%. The fee collected by the town government which caused the money to change hands so quickly amounted to 12% of 5,490 Schillings or a total of 658 Schillings. This small amount was used for public purposes and thus no single individual gained from it, but the community as whole. When, however, 130 communities in Austria began to be interested in adopting this model the Austrian National Bank saw its own monopoly in danger and prohibited the printing of any local currency.

Components in Interest for Loans and Credit

In the present money system		In complementary money systems	
Bank Fees	1.7%	Bank Fees	1.7%
Risk Premium	0.8%	Risk Premium	0.8%
Liquidity Premium	4.0%	Liquidity Premium	0.0%
Inflationary Adjustment	1.5%	Inflationary Adjustment	1.5%
Total	8.0%	Total	4.0%

Interest costs in a normal bank loan with an interest rate of 8%, for example, includes four different components: fees for the work of the bank (usually around 1.7%), a risk premium (or an insurance, in case the loan cannot be repaid of around 0.8%), a liquidity premium (as a reward for the person who gives up the claim to its own "liquidity", in this case 4%) and an inflationary adjustment (to balance out the lenders loss through inflation - depending on the rate of inflation - in this case 1.5%).

If we would adopt a circulation incentive or appropriation cost, i.e. a fee for money which is not passed on, we could eliminate the liquidity premium of 4% that would halve the costs for loans and the share of interest in all prices over time

If we could adopt a JAK system, however, this could be halved again, as in this system only 2%, i.e. the work of the bank needs to be paid.

Solution 2: SECTORAL Complementary Currencies

**Creating new financial liquidity
for a limited purpose:**

**Fureai-Kippu System, Japan
WIR Wirtschaftsring, Switzerland
Saber Educational Currency, Brasil**

Solution 3 introduces the concept of "Complementary Currencies" (CCs) as the most feasible way of counteracting the negative consequences of the interest system and economic globalization. It defines complementary currencies, as "means of payment with a built-in target, which are not meant to replace the existing national or international currencies but to complement them". Mainly in those areas in which the present system does not work very well: social, cultural and ecological projects, new liquidity can be created without burdening the taxpayer or governments with additional costs. CCs can be seen as a powerful tool for strengthening the economic viability of a specific social sector or a geographically limited region, each with its own specific interests and potentials. They have proven their potential to support and strengthen the economy - especially in difficult periods - in many instances. The names here give just a few examples of sectoral and regional currencies. The Saber and the Chiemgauer will be explained in more detail.

Fureai-Kippu = Care Tickets

since 1995 in Japan
supports care of elderly
with help from younger people
who get **hour credits**
which can be used at a **later date**
in **another part** of the **country**
or by **another person**

The Fureai Kippu Care tickets have been introduced by a retired Minister of justice Mr. Hotta in 1995 in Japan, when he began to realize that the old age pension schemes of Japan would not provide sufficient means to care for the growing amount of elderly persons in Japan. He proposed a solution by giving younger people a chance to accumulate credits in the form of hours for themselves or for other like their parents in another part of the country. It is a decentralized system which is coordinated on a country wide scale and now provides millions of elderly people in Japan with new possibilities to be looked after.

WIR-WirtschaftsRing
self-help accounting system
among small and medium businesses

since 1934 in Switzerland
15 Swiss regional WIR- organisations
60.000 members
turnover 2002: 1.7 bio WIR

proves to have **anti-cyclical** effect
supports policies of Central Bank

The WIR Wirtschaftsring (which translates as „Trading Circle“) serves small and medium-sized businesses in Switzerland as a parallel currency to counteract difficulties in selling their products for over 70 years. When the economy is down they are able to trade among each other and give each other credit in WIR. When they can sell their products in Swiss Francs the turnover in WIR tends to decrease. This shows - also as a general rule - that CCs tend to act anti-cyclical, which supports the policies of governments and Central Banks having the same goal. Banks, in contrast, will give credit easily when the economy is booming and tend to be more hesitant, when it slows down, thus amplifying the boom and bust cycle.

Educational Currency „Saber“

**Brasil: 40% of population under 15 years
1% surcharge on mobile phone bills
1 bio US\$ for education**

**Proposal:
funds back vouchers for student tutorials
limited validity (-20%/a)
universities can redeem them**

**educational BENEFIT
equivalent to
10 billion US\$**

A recently designed sectoral currency is the „Saber“, the proposed Brazilian educational currency. As 40% the population of Brazil is under 15 years of age, this country has an enormous educational problem. When the mobile telephone industry was privatized the government put a 1% surcharge for education on the mobile phone bills. This resulted in a fund of 1 billion US\$ or 3 billion Reais for education in 2004. What could be done with this money? In 2004, Prof. Bernard Lietaer proposed to introduce a voucher system called „Saber“ to multiply the number of students that can afford to obtain a college level education. The value of the Saber will be nominally the same as the Real, however it will only be redeemable for tuition payments for higher education and lose 20% per year to give an incentive not to hoard it. The vouchers will be given to schools for their youngest - e.g. the 7 year old - students, at the condition that they would chose a mentor from an older class to strengthen a weaker subject. The Saber is then transferred to the older student, and so on, until at last a Senior of 17 years who wants to go to university can use the Sabers to pay a part of the tuition. Including a reduced tuition rate for those subjects with free spaces in the universities the Saber will probably enable a factor of ten times what a direct allocation of the resources for education would allow.

Differences between **COMPLEMENTARY** and **TRADITIONAL** currencies:

use- instead of profit-oriented
limited instead of general acceptance
circulation incentive instead of interest
transparent instead of obscure creation
democratic instead of central control
inflation-resistant instead of inflation-prone
promoting community instead of destroying it
win-win solution for everybody
instead of only ten percent of the population

The differences between complementary and traditional currencies are marked: Instead of being profit-oriented they are use-oriented; instead of having the goal to make more money out of money, they have the goal to connect underutilized resources with unmet demands. Their limited instead of general acceptance provides a "semi-permeable membrane" around the function or the region for which they are designed. They cannot be used to speculate on the international financial markets; they cannot be used to buy cars from abroad. They will help one purpose, and that is their advantage. Most of the complementary currencies do not charge interest but use a circulation incentive or a demurrage mechanism to keep the currency "on the move", thus avoiding all the dire consequences associated with interest. They can be established through a transparent process, and be democratically controlled by the users. As they are always 100% covered by services they are completely inflation-resistant. Complementary currencies can stop the drain of financial resources to low-wage countries and tax havens, thereby calling a halt to the resulting loss of wealth and job opportunities, and promoting community instead of destroying it. They create a win-win situation for everybody: from an expansion of educational benefits to solving the problems of the increasing numbers of elderly, from the protection of cultural identity to marketing regionally grown foods, from an ecologically sensible use of the shortest transportation routes to exercising ethical concern when utilizing non-renewable resources.

Solution 3. REGIONAL Currencies:

- **partial decoupling** from globalized economy
- increased use of **regional products and services**
- **added value and surpluses** remain in the region
- community keeps its **essential public utilities**
- **closer links** between consumer and producer
- strengthening **regional identity & diversity**
 - reducing need for **transport and energy**

Solution 3 introduces the concept of "Regional Complementary Currencies" (RCCs) as one of the feasible way of counteracting the negative consequences of economic globalization. The Regio - as the currency is called in contrast to the Euro - mostly to be found in the German speaking parts of Europe - allows a partial decoupling from the global economy and thus may become an effective life raft in the case of a global financial melt down.

Regios based on demurrage provide a means to increase the velocity of circulation and thus of increasing the production of added value in the region, which then remains in the region, because everyone who accepts Regios will pass them on to a next person who does the same (while the Euro could go anywhere in world).

Some examples show how it may help to provide or keep essential public utilities in the hands of the inhabitants of the region.

It provides closer links between consumers and producers in strengthening the local markets and thereby also to reduce transport i.e. energy needs

And last but nor least helps to re-animate local and regional identity and diversity.

Regional money system based on vouchers



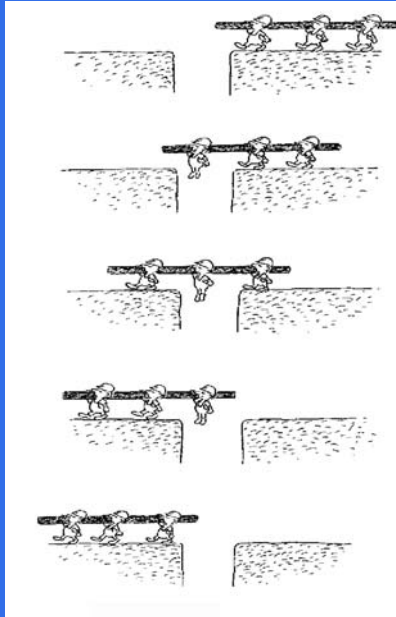
A practical example of a regional currency is the Chiemgauer which circulates in the area around the Chiemsee in Southern Germany. Initiated as a complementary currency by the Waldorf School in Prien, it uses a voucher model. The design is such that all participants benefit. A bonus of 3 % is given to selected regional associations for purchasing Chiemgauer vouchers. The associations in turn sell 1 Chiemgauer for 1 Euro to their members, who profit by supporting their association without losing or paying money. The members who buy the Chiemgauer from them can then spend the Regio in over 560 participating shops. The first buyers of the new currency were Waldorf School parents, who bought vouchers to support the construction of an addition to the school. Since then, over 100 mostly non-profit projects have joined and since 2003 received over 30.000,- € for distributing it, Approximately 2000 participants come from different parts of the region. Similar to the Woergl model users accept an annual fee of 8% to guarantee circulation. Four times a year a stamp worth 2% of the value of the voucher has to be attached to the Chiemgauer note, in order for it to retain its nominal value. The businesses that accept the vouchers can either exchange them for Euros at a five percent fee, or they can use them for paying other businesses, employees, the publisher of the local newspaper, etc. If they pass the vouchers on, they won't have to pay the fee. For the majority of businesses, accepting the Regio vouchers and the small fee, which is tax deductible, is a matter of cultivating customer loyalty and supporting the region. The basic philosophy could be described as: We have plenty of money. What we need is to make it circulate faster and thereby create more added social and economic value in a region to which we are linked by common cultural and ethical values. The 550.000,- Chiemgauer that were issued in 2006 circulated about 3 times as fast as the Euro. (i.e. changes hands over 20 times, while the Euro changes hands on average 7 times per year.) Since August 2006 an electronic version of the Chiemgauer is used in Wasserburg at the river Inn, a small towns which belongs to the region. (More details and figures can be found under www.Chiemgauer.Info.)

TRUST in complementary currencies is created by reliable issuing body (examples) and backing

- banks (Delitzsch) banking licence
- businesses (Potsdam) goods/services
- infrastr.agencies (Steyerberg) electricity/water
- social services (Traunstein) time
- associations (Prien) national currency

Money is based on an agreement to accept something usually a coin or a piece of paper as a means of exchange. Trust in that means is of utmost importance. Without trust the token is worth nothing. Therefore new types of money which are not legal tender - as the national currency - have to create a high level of trust to become functional. They not only to provide measure of security which professional banks provide but also have to grow in acceptance and usefulness over a relatively short time.

Existing examples which have reached the necessary trust level all show that they had a backing which was acceptable. This can be the national currency, a banking licence, goods and services, or time. All of the existing regional currencies in the German speaking parts of Europe - mainly Germany but also Austria - are using one or the other or sometimes several of these.



In **2003**
24 regional money initiatives
in Germany formed a network which
became an umbrella association called
Regiogeldverband
in **2006**

In March **2007**
22 initiatives already issued their own
currencies and
30 additional regional initiatives
are planning the same

For more information see:
www.Regiogeld.de
www.margritkennedy.de

Surprisingly different regional currency models are presently tried out in the German speaking parts of Europe. Why this idea is being applied so widely may have essentially three reasons: 1. Many individuals and groups are searching for ways to contribute to the solution of the current economic crisis in which all the old recipes do not seem to work anymore. 2. There are several legal avenues for creating a regional means of exchange that are advantageous for all participants and therefore have the potential of being widely accepted. 3. Many other reasons for the revitalization of the regional economy exist beyond the economic benefits. As no initiative has all the answers yet and every single one is trying to develop its own specific solution for the individual problems of their region, the Regio-Network as a teaching and learning platform is used by almost all of them. It is being supplemented by meetings, which happen on average every six months in places where new currencies have already been started or are being planned. Since 2003 ever larger yearly conferences in the German speaking parts of Europe bring together all of the activists, the researchers and those who want to be informed about the development. In 2004 a first European conference with about 200 participants took place in Bad Honnef, North Rhine Westfalia, Germany. A CD with all of the relevant lectures and presentations can be ordered at: info@ksi.de. In September 2006 the second International Conference was held at the University of Weimar, Germany. A DVD with most of the lectures and presentations can be ordered from Kay Voßhenrich, c/o MonNetA Ginsterweg 3, 31595 Steyerberg - Germany, or by e-mail to info@monneta.org