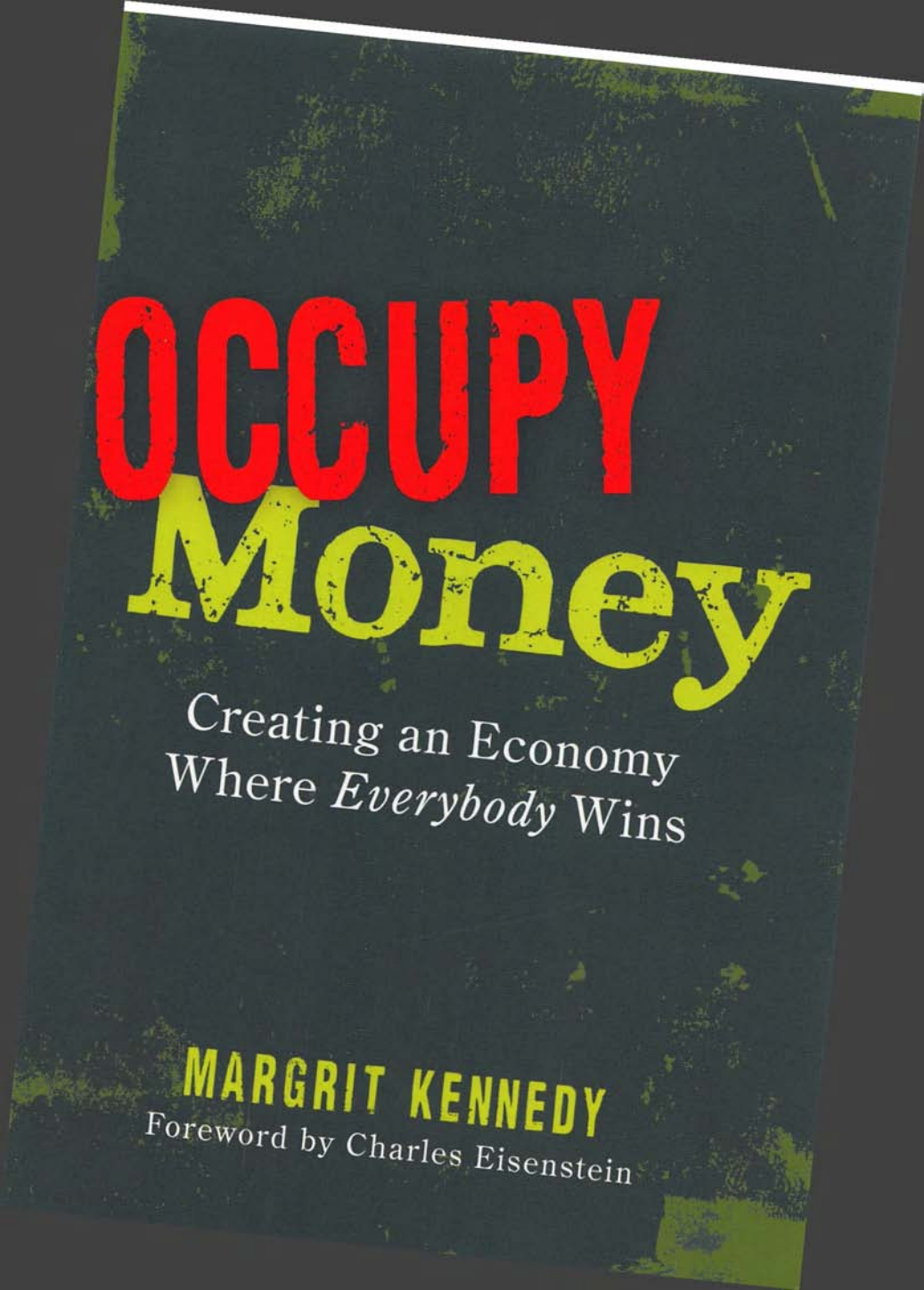
OCCUPY
Money
Creating an Economy
Where *Everybody* Wins
MARGRIT KENNEDY
Foreword by Charles Eisenstein

Praise for *Occupy Money*

We can create a money system that is the ally, and not the enemy, of all that is precious in the world. We can assign value in a way that is aligned with our emerging consciousness that the welfare of all depends on the welfare of each: each person, each species, all of life on Earth. We can make money into something we can truly embrace as ours. That, I think, is the heart of the call to occupy money.

— Charles Eisenstein, from the Foreword

In a world drowning in a tsunami of unrepayable debt, Margrit Kennedy's timely book provides a geography of hope for practical new money systems that will ensure the rebuilding of new resilient economies of well-being and happiness. In her characteristic plain-language, Margrit shows us alternative solutions from around the world to the current usury-debt-money system; these are the seeds that need to be planted in the new economic spring of well-being that is emerging.

— Mark Anielski, Economist and author,
The Economics of Happiness: Building Genuine Wealth

OCCUPY Money

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Creating an Economy Where *Everybody* Wins

MARGRIT KENNEDY
with Stephanie Ehrenschwendner

Foreword by Charles Eisenstein
Translated by Philip Beard PhD

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I dedicate this book to the people expressing their frustration with the existing monetary and financial system: the worldwide "Occupy" movement and the people of Iceland, whose protest demonstrations gave birth to a new constitution. I hope that this book will help them cement the notion of responsible money in that emerging constitution, forever preventing any repetition of their country's financial collapse of 2007.

Among the countless evils that bring about the demise of whole states, these four are surely the most critical: internal discord, high mortality, infertility of the soil, and deterioration of money. The first three are so apparent that hardly anyone would contest them. The fourth evil, however, stemming from the nature of the money, is noticed only by those few who think deeply, for it causes the states to crumble not at one fell swoop, but gradually, near-invisibly.

Nicolaus Copernicus, 1473–1543
from *Treatise on the Nature of Coinage*, 1526

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The enthusiasm of dedicated groups of young people such as *Global Change Now* and the *OccupyMoney Frankfurt* movement, but also individuals like Sebastian Graf and my granddaughter Nora Oberländer. I wish them all success in recruiting many allies who can help them transform their powerful vision of sustainable money into reality.

Foreword

By Charles Eisenstein

What is it to "occupy" money? We might find a clue in the Occupy Wall Street protests of 2011, which surely inspired the title of this book. Two defining issues stand out from those protests. Initially, the protests were motivated by wealth disparity and debt, and indeed, these are both topics that this book addresses. After the encampments were established, however, a second issue came to the fore: the right to occupy public space. Occupy took on the sense of reclaiming something from the few that is supposed to belong to the many. Symbolically, the encampments proclaimed: "This country is for everyone."

Is money for everyone too? We live amidst an ideology that says money is a reward for hard work, personal merit, efficiency, and innovation, but the suspicion is spreading that matters are not quite so simple. After a lifetime of hard work, we retire to find our promised pensions looted. After years of diligent study in school, we graduate to find that the job market has no place for

us. After decades — centuries — of technological development, we should live among unprecedented riches. But somehow, these riches seem accessible only to a shrinking few — the few that have the money.

Our ideology of merit and deservingness can no longer quell the feelings of unfairness, of indignation at these conditions. Fundamentally, the wealth of this planet, of nature and of culture, should belong to all. Who has more right than anyone else to the fruits of Thomas Edison's inventions, or to the bounty of the planet's oceans, topsoil, forests, and biodiversity? The poverty, the anxiety, the scarcity afflicting more and more of us comes from no inherent lack. It comes from how we have agreed to utilize and distribute that wealth. We have forged a system in which we agree to use the wealth to benefit fewer and fewer people, and the primary token and medium of those agreements is money.

Occupy Money, then, is about taking back those agreements. It is not about seizing the money of those who have it; it is about changing the social and political arrangements that tilt the system toward ever-increasing inequality and unfairness to begin with.

Some might protest, "Wait a minute. Land existed prior to any human being, and therefore should belong to all. Money is different; money is a human creation. No one can make land, but anyone can 'make money.' Is there any justification for asserting public rights over something as quintessentially private as money?"

There is. Money is a collective, social creation, bearing value only because of a social agreement. That agreement also includes who gets to create new money, and under what circumstances. As Margrit Kennedy points out, in our system that "who" is private banks, and those circumstances are those that demand the recipient of the new money (the borrower) to give even more money to the bank in the end. These agreements are not value-neutral, but perpetuate and even exacerbate the disparities we experience today.

These are also agreements that can be changed. Part of occupying money, then, would be to reclaim the function of credit from private banks, and perhaps even the process of money creation. We the people can "occupy" the credit commons and take it back from exclusive private interests. How can we do it? This book describes some of the ways: various pieces in an emerging picture that includes credit cooperatives, JAK banking, peer-to-peer credit, public banks, mutual credit rings, and complementary currencies.

The main feature of our current money system responsible for its concentration in fewer and fewer hands is interest. As long as interest rates are higher than the economic growth rate, those with money will tend to get richer faster than those without, a system which locks in historical economic injustice and perpetuates class divisions. And the rate of interest is not a law of the universe; it is yet another social agreement expressed through our

political and legal institutions. It is no accident that populist economic policies usually involve lowering interest rates or enacting expansionary fiscal policies that achieve the same effect via inflation. However it is achieved, mitigating or reversing the effects of interest is key to undoing the concentration of wealth that is a central concern of the Occupy movement.

Within the existing money system, some of the effects of interest can be avoided by bypassing the conventional banking system which essentially charges us for the use of money. Sweden's JAK Bank is an example of an interest-free banking system that works even in the context of the present money system. However, such innovations will, in my opinion, remain marginal—countercurrents against the tide—until the money system that embeds them changes as well. That is why I think one of the most significant concepts in this book is the idea of demurrage, which is essentially a built-in negative interest rate on money. Originally conceived as an anti-hoarding device, demurrage has the potential to transform our economic system and reverse the pernicious effects of interest. While I differ with Margrit on the details of how to implement it, all of us in the new economy movement understand the necessity for experimentation so that a new ecological, equitable, just, and sustainable economy can emerge organically.

Another theme of the Occupy movement has been the migration of economic power away from Main Street

toward Wall Street, the loss of the local, the personal, and the material in favor of distant, anonymous, abstract relationships. The encampments weren't just symbolic; they occupied real physical space. Today, most of our economic relationships are with distant strangers. Few of us personally know the people who grew our food, made our clothes, sang our songs, built our houses, or made our cell phones. Similarly invisible are the social and environmental effects of our own economic activities.

How do we reclaim these important parts of our lives from the realm of anonymity and abstraction? How do we re-occupy economic life so as to make it real again, in the sense of connecting us with the relationships of giving and receiving that underlie all of economics? One way is to make more economic activity local. *Occupy Money* describes the ways that this is happening already: through time banks, parallel currencies, regional currencies, and more. These are hands-on solutions that are available to every citizen, without having to wait for those in power to make changes from above.

I would like to describe one more sense of the term Occupy Money, in the vein of making money ours again. Money as it exists today has become an alien thing, inimical to human goodness, obstructive of our desire to give and share, conducive to greed and all our worst tendencies. It has replaced the reciprocity, mutual aid, and gift relationships of earlier societies, and propelled us along a trajectory of endless exponential growth. Perhaps it was

appropriate in the days when we valued the conquest of nature and sought the illusory paradise of complete individual freedom. But no longer. The kinds of activities that today's money rewards the most richly are precisely the things that are ruining the world. Understandably, many people wish to disown it, seeing it as something dirty or profane.

I look to a day when we no longer need to do that. Money is but a social agreement, a story of value. We can reclaim it as the sacred thing it is meant to be—a means to facilitate the flow of gifts among human beings, a way to bridge the gift of one with the need of another. We can create a money system that is the ally, and not the enemy, of all that is precious in the world. We can assign value in a way that is aligned with our emerging consciousness that the welfare of all depends on the welfare of each: each person, each species, all of life on Earth. We can make money into something we can truly embrace as ours. That, I think, is the heart of the call to occupy money.

— Charles Eisenstein
June, 2012

Introduction

"MONEY RULES THE WORLD." THESE DAYS NOTHING could be more obvious. But even the experts disagree about who rules money—although the global economic crisis demonstrates that our very survival depends on the answer to this fundamental question.

The current banking and currency crisis is hardly the first we've experienced in recent times. The database of the International Monetary Fund (IMF) lists "124 banking crises, 326 currency crises and 64 public debt crises at the national level between 1970 and 2007."[1] Today's crisis, of course, is hitting us not just nationally but globally, making its impact greater and longer-lasting than before.

Shall we continue to allow the stock exchange players—the huge investment banks, the insurance companies, the rating agencies, the so-called free market—to decide what our money is worth? Or can we decide for ourselves what the "coin of our realm" should be, and whom it should benefit?

Thirty years ago I first became aware of a small but serious structural defect in our monetary system that has troubled me ever since: *compound interest.* It took me—an architect and ecologist—about twenty minutes to figure out that the present monetary regime gave me no chance of securing the funding I would need for large-scale ecological projects. No chance—although a practical solution to the interest problem has been available since the beginning of the 20th century. It took about another six months of study to convince myself that my intuition was accurate. And five years passed before I wrote a short book on the subject, since translated into 23 languages.[2]

In 2008, after almost three decades of lecturing and writing about this topic, I noticed that people, finally, were really listening to what I was proposing, and that they were willing to act. After Lehman Brothers had failed and the world financial crisis had broken out, I was invited to give a great many interviews. It seemed as if something was changing in people's heads. Growing numbers of economists were taking issue with neoliberalism and its axiom that "the market will right itself."[3] But still, hardly any talked about the structural defect in the monetary system itself—even as the debts and failed financial products kept piling up. Nobody knew exactly who owed how much, and to whom. Instead of billions, talk now was of trillions and quadrillions of euros or dollars. Current statistics place the figure for existing deriva-

tive investments at about $601 trillion — an unbelievable 601,000,000,000,000 US dollars.[4]

Our governments bought time by bailing out the mega-banks and postponing the crash. But regrettably no *systemic* change has been attempted.

For us taxpayers, the bailout was an expensive breather before the inevitable collapse — inevitable unless we change the system in fundamental ways. That final collapse will not be prevented by rescue packages, grudging concessions by threatened banks, or a handful of new regulations.

One thing that has become apparent to me over the years is the near impregnable "thought dungeon" we have built around the topic of money. The first economist I consulted when I was starting out was quite right when he told me, "Your critique of the system is on the mark. But we lack the power to change it." Only much later did I understand I was challenging the very foundations of economic doctrine.

Interest is a fundamental paradigm that all economists are forced to accept — from entering students to long-standing experts. All conventional economic models and calculations take it for granted. My naïve questioning of the system was possible only because I was not an economist but an architect with a PhD in Public and International Affairs. And the way I saw money was as a public and international affair. As with many other non-economist critics I have since met, my basic common

sense and this different perspective allowed me to see the defects in the system.

Ask yourself: which do I want? A monetary system that guarantees stability and prevents others from getting rich at our expense? Or an established system that lets us get rich by speculating in the financial markets, at others' risk—but may end up divesting us of everything we own?

If you prefer the first option, this book is for you. I'm writing it for ordinary people, because I trust that they can bring about change. The Occupy Wall Street protests that have now become a global movement were the first much-needed acts of rebellion. These non-violent protesters are rallying against the professional speculators (including economists) and mega-bank CEOs who play the stock exchange and couldn't care less whether most people understand the game. On the contrary, for many years bankers and other insiders have hidden the facts from us by describing them in arcane terms and formulas that no layperson can understand. Why? Simply because as long as the game continues—they win. The more turbulent the chaos they create, the bigger their profit. They're not concerned with what life is like for the folks who foot the bill.

The Occupy demonstrations all over the world criticize the behaviour of some 200,000 "guys" (the stock exchange world is run mostly by men) aged 25 to 40 who sit glued to their computer screens, hoping via their clever

trading programs to be the first to profit from minimal price fluctuations in the currencies market. Their stunning success at this game is evident from the bonuses they and their superiors pull down. They manage these currency trades to the tune of 4.5 trillion US dollars a day—chasing after profits with zero real value. Meanwhile entire countries are devastated by their targeted attacks on "victim currencies."[5]

My objective with this book is to present what I have learned in a way that everyone can understand. It is vital to spread this information as widely as possible, and thus to catalyze the changes we all need. Far too few of us are aware of how the structural defects in the monetary system undermine our lives.

Most people believe that only a committed majority can bring about changes. But that is not true. Recent research demonstrates that if only 10% of the population learn something that makes them change their behavior, others will follow.[6]

I will show that compound interest inevitably leads to long-term monetary collapse. Once we're all aware of this, we can finally knock conventional money off its pedestal, realizing that the system is not ordained by God. (Regardless of Goldman Sachs CEO Lloyd Blankfein, who claims that he and his firm do "God's work."[7] No symbol represents this hubris more clearly than the bank towers in the world's large cities—the cathedrals of modern society.) Bankers today have become

all-powerful creators. They generate money and skim off a huge share of it in the process, in what Max Otte, a German economist, calls "social welfare for banks and financiers... an economic order that typically immunizes banks against the risks of speculating and creates free income, based neither on service nor performance, for banks, finance brokers, and the super-rich."[8]

But we humans, not God, created our monetary system. And we are the ones who can change it. We must go beyond blaming the greedy bankers and investors whom we hold responsible for the ongoing financial disaster. Our own ignorance, comfort, and insecurity are part of the problem. To awaken from our slumber, we must expand our knowledge and shake off our fears. And we must overcome the obsession with "multiplying" our money. Be honest: who among us doesn't want our bank or pension fund to give us the "best return" on our deposits?

When I give my lectures, I often encounter a mixture of fascination and resistance. To talk about money is still a taboo; changing the money system sounds like utopia to the majority. Since I have experienced twice a fundamental change of national currency in Germany—in 1948 from the reichsmark to the deutsche mark and in 2002 from the deutsche mark to the euro—to me this seems quite possible. And all the examples presented in this book coming from different historic and cultural tra-

ditions demonstrate that it is possible to create new and sustainable money systems.

This book is about finding solutions, not apportioning blame. It is about introducing new money concepts that benefit everyone. It is about creating a monetary system not pathologically obsessed with growth; one that does not constantly redistribute money from the working poor and middle classes to the small rich minority.

So let's get busy. What's wrong with the existing monetary system? What's keeping us from making it sustainable? How can its structural defects be remedied? And how can each one of us help the process along?

A Systemic Defect and Its Consequences

MONEY IS HUMANITY'S MOST INGENIOUS INVENTION. It is a means of payment whether it consists of shells, of wheat, of coins, of pieces of paper or numbers in a computer. Money is a private good that belongs to its owner, and it is a public good as a "general purpose technology" — like the wheel, electricity or the Internet — that changes the behavior of all its users. It makes all goods not only exchangeable but also comparable and informs through prices about their availability. Last but not least, money motivates psychologically, because it is closely related to our self-esteem and social status. Without money there would be no specialization, and therefore no division of labor in our society as the basis of civilization.[9] But our understanding of money has become completely gridlocked: we can't imagine how else money

could responsibly be created and used besides in its conventional form.

Typically, in the words of the Deutsche Bundesbank,

> Monetary issuance is referred to as "money creation," and its opposite is referred to as "money retirement." The commercial banks can only create checkbook money; the Central Bank alone can create central bank money. That is why only central banks are authorised to bring bank notes and coins — legally authorized money — into circulation. By making use of monetary policy instruments, the euro system can influence and control the money creation process of the commercial banks.[10]

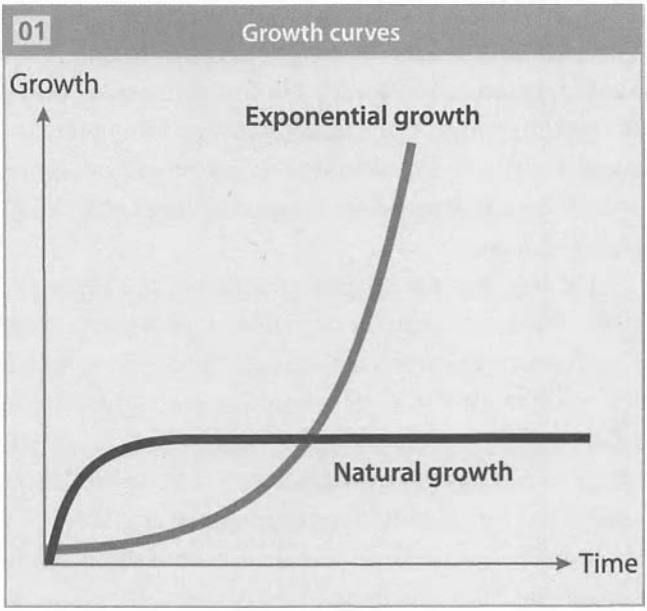
This sounds as if central banks have enormous powers. However, by far most of the money in circulation today is generated by commercial banks in the form of loans. These loans are based both on deposits with the central bank and deposits in the commercial banks' own customer accounts. They are always to be repaid with interest. Simplified, this interest generally breaks down into the following four components, using a base interest rate of 8%:[11]

1. bank service charge (1.7%)
2. risk premium (0.8%)
3. liquidity premium (4.0%)
4. inflation offset (1.5%)

A closer look at the basis for these costs shows that the only indispensable one is the service charge for the bank (for personnel, liability, and cost of materials). Even the risk premium — an insurance against loan default — could be deleted from the interest charges without harm, as I will demonstrate below in my description of Sweden's JAK Bank loans.

The key interest components that give rise to the structural defect in our current monetary system are the liquidity premium and the inflation adjustment, which are rewards for the saver who gives his money to the bank to use. When speaking of "interest" from here onwards, I will be referring to these two items.[12] Both these components invariably breed exponential growth. While short-term exponential growth is inconsequential in supporting the functioning of the money system, and in the medium term it only becomes problematic if interest rates are high, in the long term, however, it will inevitably destroy the system. It is important to understand why this is so.

Everything in nature stops growing once it has reached its optimal size. The natural growth curve of a tree, an animal, or a person starts off with a short period of exponential growth but then slows down and ends when the ideal size has been reached — in human beings at about age 21. This natural growth is stored in the memory of every healthy cell in our body. We assume that it sets the pattern for every type of growth on the planet,

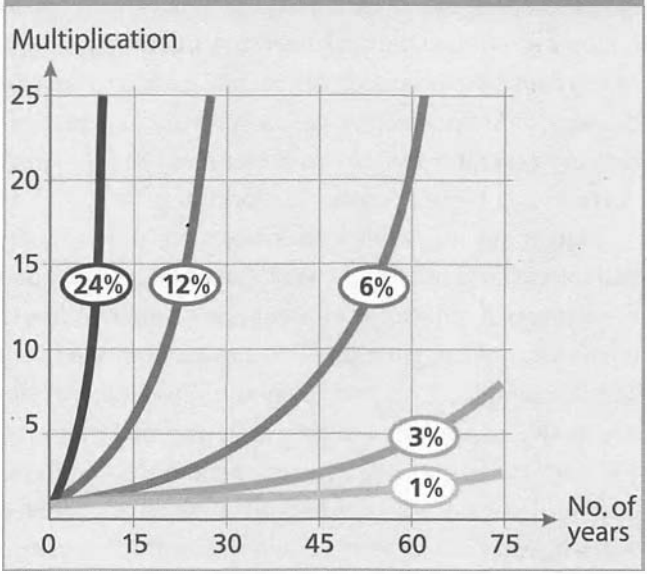


observing for example that "nothing grows forever." And we assume that this limited growth pattern therefore applies to money as well. The trouble is, under the current money system, it doesn't. As we shall see, the implications of this widespread misunderstanding are serious.

The pathological growth imperative

It is of utmost importance to understand that our interest-based monetary system is *not* a natural organism. It is an artificial construct designed by human beings. Therefore, it can also be changed by human beings. Its current

02 How monetary assets multiply at different rates of interest



design postulates a fundamentally unnatural growth pattern — so-called exponential or doubling growth. Initially, money subject to interest grows in very small increments, but then increasingly faster; ultimately the growth curve becomes almost vertical. In nature, such runaway growth ends with the destruction of the affected organism. Our money is subject to the same rule: monetary assets subject to compound interest must double at regular intervals, until the system collapses. The higher the interest rate, the more rapid the breakdown.

At 1% interest compounded annually, any amount of money will double in 72 years; at 3%, in 24 years; at 6%, in 12 years; at 12%, in six years; and at 24%, in three years. In national economies with relatively low interest rates such as Germany, the process takes a while, generally several decades; in Latin America, on the other hand, where interest rates for mortgage loans sometimes run 20%–40%, currencies collapse at relatively short intervals.

Hardly anyone is able intuitively to grasp this drastic ballooning so characteristic of exponential growth, and the dangers it entails. Its consequences simply outstrip our powers of imagination. This can be illustrated by a simple example. If you had to choose spontaneously between two pay raises, which would you pick: $10,000 per week for an entire year, or one cent in the first week, double that ($.02) in the second week, then doubled again in every subsequent week of the year? Most people pick the first option, because they can calculate very quickly in their heads how much money it adds up to. And if you suspect (or even know for sure) at this point that the second option is more lucrative, you will still not know, neither intuitively nor rationally, exactly how much money you would have at the end of the year. It amounts to a total of $45,000,000,000,000.00 — that's 45 *trillion* dollars, or about two-thirds of the world's gross domestic product (GDP). That would mean an average of almost $900 billion a week vis-à-vis the $10,000 a week in the first option. The reason the difference is so enormous is the exponential nature of compound

interest (interest on interest). If we had added only one cent per week to the original penny instead of compound interest, then we would only have 52 cents at the end of the year.

Our monetary system is based on the exponential growth of compound interest, a pattern that in fully grown natural organisms is found only in diseased cells, first and foremost cancer cells.

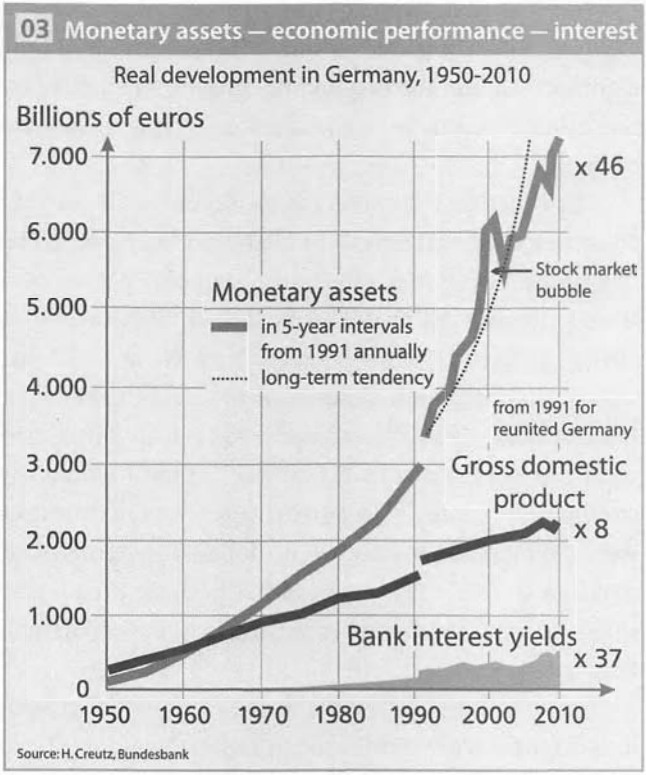
The interest that banks demand is the most significant cost borne by our economy. It is the price of money. It establishes the lowest limit for what we consider "profitable." Thus our economy has literally no choice: it must strive for exponential growth. No company will invest in new projects or be able to survive over the long haul without earning at least the interest payable on the loans it has assumed, to say nothing of turning a profit.

Only one area exists where exponential growth poses no threat. That is *qualitative* growth – for example, growth of knowledge and skills. Here growth is a sign of health. After all, for most of our lives, we do actually change qualitatively in various ways. Were we to stagnate qualitatively and no longer develop, this would be a sign of illness or decay. Therefore these two curves should develop just in the opposite way they do today. We should grow exponentially (or at least in a linear manner) on an intellectual and mental level and in our manual and creative skills, while material growth not based on money, interest, and compound interest anymore should cease when it has reached an optimum level.

As long as the economy is forced to pursue the pathological growth of interest and compound interest in order to keep money circulating, we will need escalating economic growth even at the price of destroying our environment. Our monetary system currently allows us only the choice between two types of collapse: social or ecological.

Investors have to base their calculation on interest if they don't want to end up losing money. For example, say someone wants to insulate his house to conserve energy, and learns that the insulation can save 2% of his yearly energy costs. But financing the investment will cost him 8% per annum for the next five years. So he is losing 6%. If, on the other hand, instead of insulating his house he deposits the money in the bank and receives 4% interest, then from a purely financial point of view, he comes out ahead (leaving aside inflation and energy price increases). While private individuals may be able to ignore short-term economic considerations like this in favor of long-term environmental benefits, the economy as a whole, challenged by increasingly stiff global competition, can't afford the luxury.

The so-called discounted cashflow—used to calculate the profitability of investments—is based on compound interest. Depending on the interest rate, it defines as unprofitable most investments that take 5–10 years to amortize. Nor does this standard method calculate costs incurred after the five-year period is over.[13] Only by ignoring these costs can nuclear power plants, for example,



be deemed "profitable." If the profit calculation included radioactive waste storage and liability coverage over thousands of years, no nuclear plant would ever be built.

The growth of the "real" economy,[14] depending as it does on the availability of natural resources, diverges from monetary growth at the point where the demands of the financial economy can no longer be fulfilled. Graph 3 shows that while monetary assets in Germany

increased 46-fold from 1950 to 2010, and bank interest yields 37-fold, the gross national product increased only eightfold. Plainly the exponential growth demanded by our money cannot be maintained over time in the real economy.

The situation is most dire in the so-called developing countries. Nigerian President Obasanjo, speaking at the G-8 summit in Okinawa in 2008, observed: "We had borrowed around 5 billion dollars by 1985 or 1986. To date we have paid back 16 billion dollars. Now we are told that we still have 28 billion dollars of debt (...) because of the interest rates set by the foreign creditors. If you ask me what the worst thing in the world is, then I would say compound interest."[15] In 2008 the developing countries were paying back $13 for every dollar they received in development aid. The situation has become even worse since then; interest has morphed into a new weapon with devastating long-term effects.

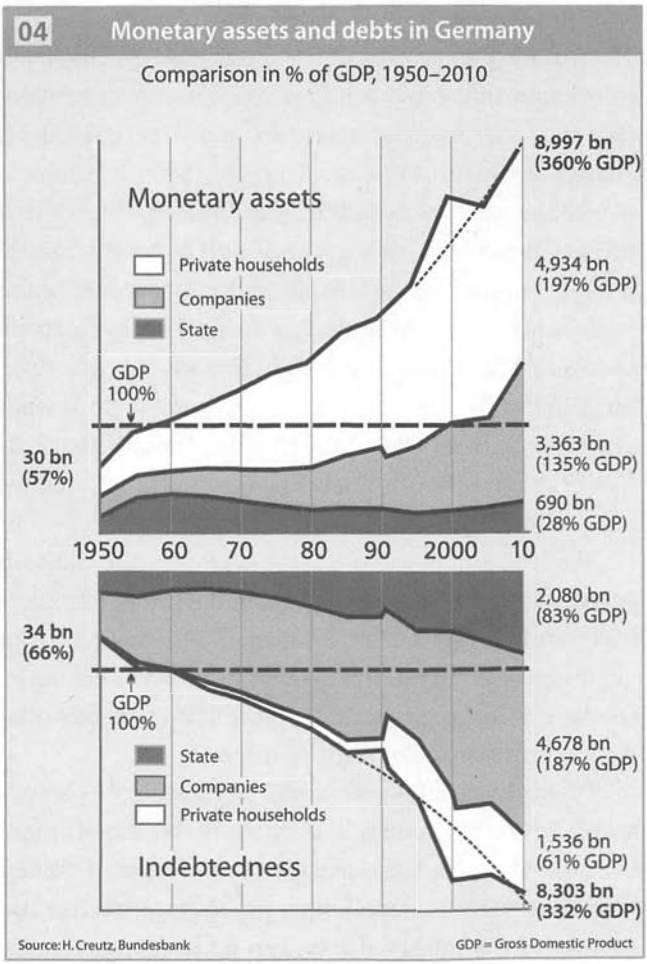
Another difficulty related to the exponential growth in our monetary system is the unreliability of long-term forecasts. Over the past eight years, analysts' estimates of economic data have deviated from the real figures for the G-10 nations by almost 50%. This means that half of these forecasts were wrong.[16] Most of the top economic gurus didn't see the 2008 crisis coming, and the few who warned ahead of time were not listened to. Any chance the failure of the financial and political elite stemmed from underestimating the dangers of exponential growth?

More money assets mean more debt

The exponential growth of money assets resulting from compound interest is mirrored in the growth of debt. One person's financial assets are someone else's debt. Therefore, when politicians trumpet their intention to reduce the national debt, they should also point out that this will mean obliterating a great deal of wealth, mostly private. But they never talk about this "other half of the truth," and it's easy to understand why. Nearly everyone owns financial assets of some kind, in savings accounts, investments, insurance policies, etc., and we don't want them to lose their value. Like it or not, though, that erosion of money assets is unavoidable in the long run if we hold on to the present system.

The critical question is, will the necessary re-evaluation process happen in a planned, voluntary way or chaotically and involuntarily? Historically the switch from quantitative to qualitative growth has never been satisfactorily managed, as far as I know. If anyone can offer contrary evidence, I'm ready to listen.

Typically we allow the banks and insurance companies to invest our money as they see fit. We expect them to "earn" for us at least average rates of interest. When the real economy can no longer pay average interest and these financial intermediaries can no longer absorb excess funds, they turn to speculative investment in currencies, raw materials, real estate, stocks and shares, derivatives. Government securities are considered safe,


04 Monetary assets and debts in Germany
Comparison in % of GDP, 1950–2010
Monetary assets
Private households
Companies
State
GDP
100%
30 bn
(57%)
8,997 bn
(360% GDP)
4,934 bn
(197% GDP)
3,363 bn
(135% GDP)
690 bn
(28% GDP)
1950
60
70
80
90
2000
10
34 bn
(66%)
2,080 bn
(83% GDP)
GDP
100%
State
Companies
Private households
Indebtedness
4,678 bn
(187% GDP)
1,536 bn
(61% GDP)
8,303 bn
(332% GDP)
Source: H. Creutz, Bundesbank
GDP = Gross Domestic Product

so they generally earn the lowest interest. The highest profits are promised from the riskiest investments, such as large-scale development projects and the currencies of politically unstable developing countries. We savers, policy holders, and contributors to government-subsidized pension plans are ill informed about how banks, insurance companies, and pension funds actually use the money we have placed in their trust, money they are "multiplying" for us. Aside from a few exceptional funds and banks, we have zero say about their speculative choices, or what kind of projects they support on our behalf. Banks, for example, may well be investing union members' money in hedge funds that are helping destroy union jobs.

Until recently most of us assumed that states can't go bankrupt. That's why they've been allowed to go into massive debt to their own citizens and international investors alike. But now we learn that this assumption was illusory. What happened in Japan, in Asia, in Latin America, and recently in Europe in the so-called PIIGS countries (Portugal, Ireland, Italy, Greece, and Spain) can happen tomorrow in the USA, Canada, England, France, or Germany; all are going down that same path. Every German finance minister since the founding of the Federal Republic has promised to reduce the national debt. None have succeeded so far for more than brief periods. Does this not apply to most other countries in the world? It's gotten to where we congratulate ourselves when new added indebtedness comes in lower than predicted,

owing to unexpectedly high tax revenues. The decisive factor here is not the absolute level of debt, but the rapid growth of the interest burden this debt entails, resulting of course from compound interest. For decades now, interest on the national debt has been the second-highest expenditure in the German budget, after social security. In 2011, interest on borrowing amounted to 40 billion euros (about 52 billion US dollars).

Since future economic development estimates are made in present time, investments are obviously always based on forecasts. Whether these forecasts are on target or not becomes apparent only much later. Unfortunately, owing to insufficient transparency, monitoring, and cooperation, the financial markets frequently make investment assumptions that turn out wrong. When all economic participants—states, companies, private households—are in debt, the current system fuels the perception that we need economic growth at any price in order to be able to pay at least the interest. Thus more debt accumulates, and more interest is needed. A vicious circle that creates recurrent speculative bubbles, which then burst, and the cycle starts over again.

In discussions of the economy, one often hears of the "scissor" effect, a broadening gap between growing wealth at the top and growing indebtedness at the bottom. This linear image is misleading, however. It would be more accurate to say that two diverging exponential curves arise, one on the positive and one on the negative side.

Hidden interest charges

"What does this all have to do with me?" you might now be asking, believing like most people that you only pay interest when you've borrowed money from the bank or some other lender. A closer look shows that this belief is false. Every price we pay contains an interest component—interest that the producers of the goods and services we buy have to pay to a bank for the loan they took out to purchase machines and equipment, or to pay wages. The following figures refer to research results from Germany, which have been confirmed by the research done for the Norwegian translation.[17] Take garbage collection fees: the interest portion of the price in Germany was 12% already in the 1980s. Other examples from that still relatively low interest period: interest made up 38% of the price of drinking water and reached an astonishing 77% of the rent paid for government-subsidized housing.[18]

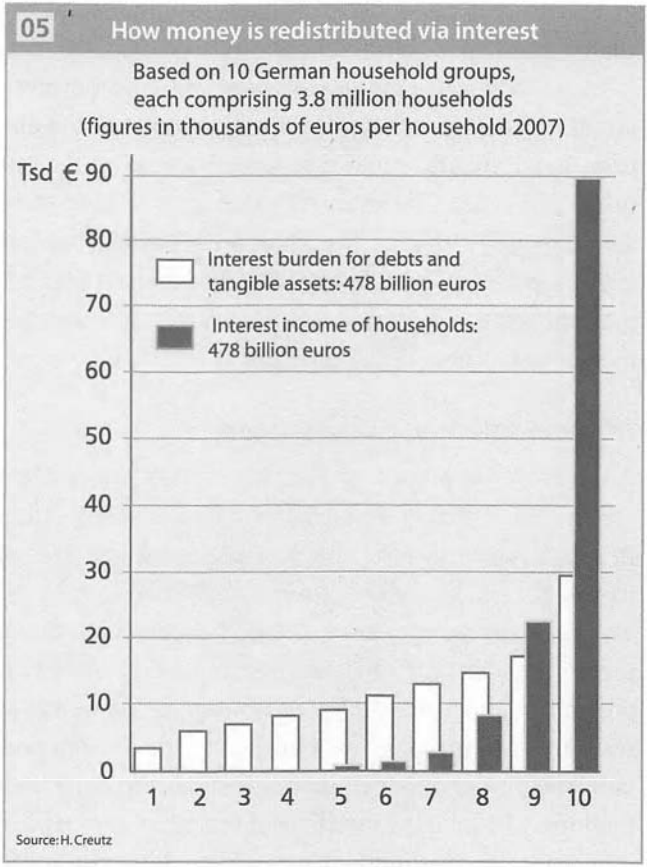
In 2006, the average interest burden contained in the expenditures of German households for everyday goods and services was 40%.[19] If we didn't have to pay this indirect interest, we could increase our income by more than a third, or work correspondingly less, while maintaining the same standard of living.

The rich get richer, the poor get poorer

At first glance, interest looks like a justified reward for savers and a fair fee for lenders. Save money, you earn

interest; borrow money, you pay interest. What nobody knows (and therefore never gets talked about) is the fact that thanks to the interest concealed in all prices, 80% of Germans pay on average twice as much interest as they receive. Interest income and interest costs balance each other out for the next 10% of the populace, who receive a little more than they pay. And only the remaining 10% own enough wealth to profit from their financial investments by "earning" the interest that the large majority loses. In Germany alone in 2007, the sum redistributed as interest from the large majority to this small minority was in excess of 600 million euros *every day*.[20] The monetary system all over the world is thus one of the main factors responsible for the growing divide between rich and poor and the growing polarization of our society—not just nationally, but globally. Economists see no alternative to this system; bankers even contend that "your money can work for you." In fact, of course, only people and machines work; money does no work, but is merely redistributed. Upward.

Once my lecture audiences realize how the interest system functions and that only a small minority profit from it, the usual reaction is: "Those wealthy few are the ones keeping us from changing the system!" But my experience doesn't bear that out. My discussions with members of the financial elite suggest that if they could choose between seeing their profits grow exponentially under increasingly unstable and insecure conditions on the one



hand, or no growth but more stability and security on the other, many (perhaps even most of them) would prefer the latter. But this choice is currently unavailable to them. And unfortunately, neither most of the "winners"

in this system nor most of the losers understand the changes needed for healthier options to *become* available.

A fair and stable monetary system by itself, however, is still no guarantee that the existing inequity in the distribution of wealth would disappear. Redressing the imbalance to achieve fairer distribution mid- to long-term would require either an "equalization of burdens" as was implemented in Germany after WWII, or fiscal measures that encompass capital transaction controls—possibly including an upper limit on wealth.

The inexorable depreciation of money

Another consequence of the defect in our monetary system is the steady depreciation of our money stock. Between 1950 and 2001, the deutsche mark lost 80% of its value—and that was the most stable currency in the world. In the same period, the dollar depreciated to a mere six cents. An inflation-free monetary system is practically inconceivable for us nowadays. Yet we fail to realize how absurd it is that our money, the most important benchmark of our economy, is subject to daily fluctuations. Just imagine the chaos if the same were true of other units of measurement, e.g., meters, kilograms, feet, inches, or ounces.

Why does no inflation-free monetary system currently exist? Because we accept inflation as a given, and assume that we need interest to offset inflation's effects. But that's not an accurate depiction. The last several

decades have seen phases where inflation followed interest fluctuations with a delay of about two years, but vice versa as well, i.e., interest rates changed in reaction to inflation. Clearly, then: if we could eliminate interest, it would finally be possible to create a long-term stable, inflation-free monetary system.[21]

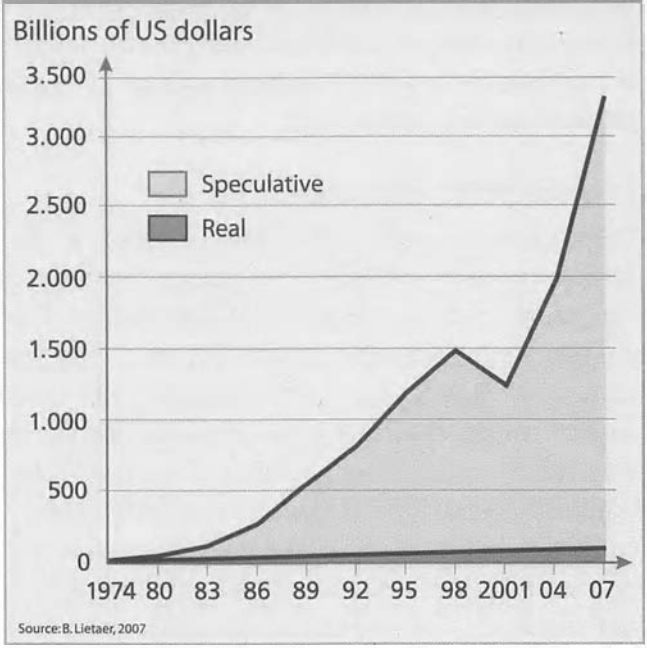
The power of the global casino

Currency fluctuations benefit speculators most of all. The Bank of International Settlements reports that, between 1974 and 2007, daily currency trade revenues rose from less than $20 billion to over $3 quadrillion.[22] Mind you, these are *daily* exchanges on the financial markets. An amount smaller than 2% of these revenues (the narrow gray area in graph 6) would suffice to cover all transactions for real goods and services in the entire world.

This situation is explosive, because the reserves (currencies and gold) of all the world's central banks cover only a fraction of the volume of new financial products such as derivatives (claims on claims on claims). On the horizon of the global financial system, a money tsunami is building up that we have no hope of escaping, because no political authority anywhere has the power to intervene to the extent demanded by such a crisis: no government owns enough reserves to rescue the stability of our currencies.

"Running the printing press," providing huge amounts of central bank money at low interest to enable

06 Exponential increase in speculative as opposed to real revenues



the commercial banks to issue even more loans — which is what the large central banks, the Federal Reserve in the US and the European Central Bank, are doing at the moment — cannot stave off the tsunami. On the contrary, they are adding to its destructive power.

Graph 6 also shows the reduced financial transactions in the 1990s that resulted from the introduction of the euro, which put an end to currency speculation in the

euro area. That was the temporary advantage of a joint currency. But connecting the pre- and post-euro peaks on the graph clearly produces an exponential curve. This temporary advantage for European trade partners has become a trap because national economies of different strengths are all sharing the same boat, and that boat is on course straight for the looming tsunami.

Our shackled minds—a crucial problem

Why has no one addressed this serious defect in our monetary system? Why are we not discussing it candidly? The fact is we're locked worldwide in a kind of intellectual dungeon because we assume that the dominant monetary system is the only possible and proper one. This prisoner mentality is reflected at the legal level by the state monopoly over the whole credit economy that derives from its exclusive control of currency.

Although the doors of this dungeon are wide open, hardly anyone dares set foot outside. That's because money is more important today than water, food, and shelter. After all, these things can't be had without money. Thus anyone who questions money at the same time casts doubt on her own survival. Thanks to the extensive interlinking of all aspects of our society, every change to the system seems like a life threat.

Only a generation ago, most families looked after their own children, took care of their own elderly, and treated most of their own illnesses. By now, though,

these services have largely been taken over by professionals or agencies, and thereby monetized. Preparing food, repairing clothing and furniture, looking after a sick person etc. — these activities are increasingly taking place outside the family. Since they have to be paid for, money systems have mushroomed along with the steady spread of industrial manufacturing throughout the various national economies. And some time ago, we reached a point where real growth in most countries in the northern hemisphere was no longer just unnecessary but positively destructive. Economist Niko Paech describes the new direction we must take as the "post-growth economy." Here people will no longer rely on economic growth to meet their needs, but having changed their lifestyles, they'll see it recede. Paech emphasizes that our individual and shared quality of life will not suffer as a result; on the contrary, it will improve.[23] Or as Charles Eisenstein, in his article "At U.N. Happiness Summit, A Coal Pile in the Ballroom," puts it: "There is a growing awareness among social critics that GDP is a very poor indicator of a people's well-being. In the United States the real per-capita GDP has risen three-fold since the 1950s, but people are not three times happier by any measure. If anything, they are less happy."[24]

Can it be that we *need* this crisis, or perhaps even another crash, to push us into examining and testing new approaches?

chapter two

Escaping the Monetary Crisis

One of money's most important functions is to serve as a medium of exchange. To keep it circulating, it won't suffice simply to abolish interest, because that alone doesn't provide its users an incentive to pass the money on. Past attempts at prohibiting interest and the hoarding of money have proven ineffective.

Two different models exist for neutralizing interest, allowing it to drop to near zero in over-saturated markets while still keeping our money circulating: the Swedish JAK model and a mechanism called "demurrage." Here is how they work.

Interest-free lending: Alternatives within the present system

One of the most ingenious methods for practically eliminating interest while maintaining the present monetary

system has been practiced by Sweden's JAK Bank since 1965. The "J" stands for *jord* (land), "A" for *arbete* (work) and "K" for *kapital* (capital). Unlike most commercial banks, the JAK Bank is a member organization whose original goal was to financially strengthen the rural economy. It's the farmers, understandably, who first notice that the returns from the land they work can't keep pace with the exponential growth of the interest on their loans. They are further impacted by the flow of money to urban centers, where greater profits beckon. That's why farmers were the first to use the JAK system. But they were soon followed by non-farmers from across the Swedish social spectrum. In 2008, the bank boasted 35,000 members, with deposits of 97 million euros and a credit volume of 86 million euros.[25]

While most banks operate for profit, the JAK Bank is a non-profit institution set up to provide long-term gains for everyone. Legally it is a cooperative, but the JAK bankers prefer the term "member bank," to emphasize its social character and the solidarity among its members. These objectives also set it apart from most cooperative banks (except the German Sparkassen[26] and the State Bank of North Dakota, the one bank in the US which had no trouble with bad loans during the recent financial crisis[27]) — which nowadays operate essentially like conventional financial institutions. The JAK member bank, by contrast, focuses in a completely different way on close-knit social relations among participants because

members support each other in times of need. Empirical evidence shows that this approach works best in institutions small enough to foster personal contact, one reason why JAK Bank representatives work closely with clients in the different regions of Sweden.

To date most JAK members have borrowed money to buy homes, finance remodeling projects, or set up businesses. Anyone who opens an account becomes a member of the cooperative. That means they have a say in all the bank's major decisions, and so contribute to its development and orientation, whatever the size of their account. Thus *shareholder value* becomes *careholder value*: rather than earning profits in the conventional sense, they are custodians of profit for everyone.

As we've seen, banks normally require interest payments to cover several cost items: interest yield on customer accounts, bad-debt risk, salaries and supplies, an inflation hedge, and healthy profits for their stockholders. The JAK approach reduces all of these factors to the bank's pure running costs, which normally represent a 1.7% share of the 8% interest charges (the average for recent decades in Sweden). The remaining factors — that is, the risk premium of 0.8%, the liquidity premium of 4%, which depositors receive, and the inflation adjustment of 1.5% — no longer apply. The comparison in the table on the following page illustrates this clearly.

Once belonging to the cooperative, as a first step, you must save up around 10% of the desired credit amount

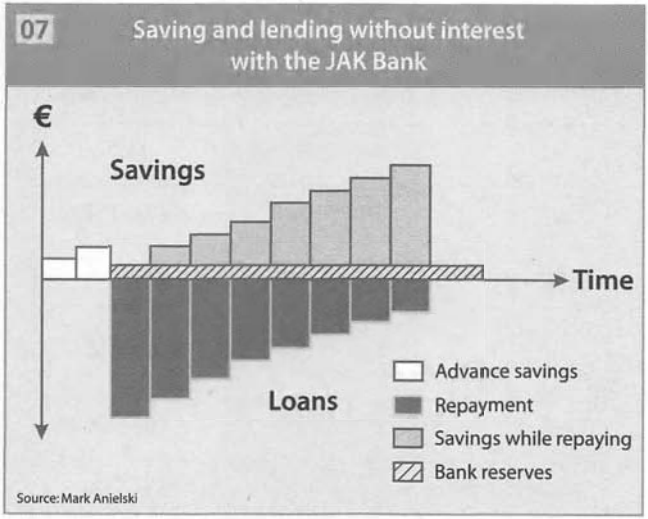
Cost of credit for interest-bearing and interest-free currencies

	DOLLAR	INTEREST-FREE CURRENCY
Bank's administrative costs	1.7%	1.7%
Risk premium	0.8%	0%
Liquidity premium (interest)	4.0%	0%
Inflation offset	1.5%	0%
Total	8.0%	1.7%

to receive "savings points." The desired loan approval is based on this advance.

Borrowers pay back the loan in regular installments, which contain three components (see Fig. 7): one for paying back the loan, one for the work of the bank, and one that goes into their savings accounts. They do not pay interest on the loan, nor do they receive interest on their savings, because savings deposits are the source of the next borrowers' interest-free credit. In other words: You pass on to the next person, at a later date, the advantage from which you yourself have benefited. Half a year after paying the last credit installment to the bank, borrowers are free to take out the money saved — up to around 90% of the loan amount desired.

Instead of interest payments, borrowers have to pay back savings points — corresponding to the loan amount — to bring their personal savings-and-loan bal-



ance down to zero. The calculation is simple: if you save one Swedish krona for one month, you earn one savings point; if you borrow one Swedish krona for one month, you are debited one savings point. The longer the loan period and the more you borrow as a member, the more savings points are due; the longer and greater your savings, the more points you earn. If you've already saved a lot before taking out a loan, you won't need to save as much later on; if you can't save much, you'll need to save longer.

A loan of 200,000 SEK (Swedish krona) with a term of 25 years results in the following figures: A conventional bank would charge 8% interest, which over the 25 years would mean a monthly rate of 1,588 SEK. The JAK

08 **Comparison of a conventional bank loan with a JAK loan**

	Bank	JAK
Loan	200,000 SEK	200,000 SEK
Time	25 years	25 years
Monthly repayment	1,568 SEK incl. interest of 8%	667 SEK
Fees		190 SEK
Savings amount		654 SEK
Total monthly amount	1,568 SEK	1,511 SEK
Total amount 25 years	470,400 SEK	453,300 SEK
Credit balance	0	196,200 SEK

Risk hedging:
Cooperative shares in JAK 6% = 12,000 SEK
withdrawable in the following year, if no loss occurs

Savings:
600,000 bonus points = 2,000 SEK monthly for 2 years

model sets a monthly rate of 1,511 SEK made up of the three components mentioned above:

- Loan repayment: 667 SEK
- 190 SEK in fees for the bank's work (just under 2%)
- and 654 SEK deposit to the member's savings account

By the end of the 25-year term, the conventional bank would have received interest and reimbursement totaling 470,400 SEK. The JAK Bank has received only somewhat less, i.e., 453,300 SEK; but by the end of the payback period, borrowers have saved 196,200 SEK worth of credit for themselves. The conventional bank, by contrast, has nothing left over because of the 470,400 SEK more than half, or 270,400 SEK, goes to the bank in the form of fees and risk premiums and to investors in the form of interest payments.

The "inflationary adjustment" in the JAK system is unnecessary because the system creates an almost perfect balance in itself, through loans having a higher and saving deposits having a lower value (see Fig. 7).

The "risk premium," at the rate of 6% of the loan, must be paid at the outset and is compulsory before receiving a loan. It is comparable to an insurance fee as included in any normal bank loan. However, in contrast to a normal bank, the JAK Bank pays this fee back after seven to nine months if the risk has not materialized. And since all members are collectively responsible for the success

or failure of their credit cohort, anyone in financial difficulties will receive as much help as the other members can provide, because they all want to get their risk premium back.

Those who remain members of the cooperative and leave savings in their accounts are rewarded with new savings points, which can be accumulated against a future loan or given away but not sold. This is an entitlement often made available to non-profit projects or young people without assets who wish to finance their studies or buy a home. Once again the core of the JAK concept emerges: a balance between borrowing and saving.

Along with the bank's ethical and social focus, membership—at least as long as one needs loan money—is also economically attractive because it is a much better deal than a commercial loan. And most JAK customers remain members even when they no longer need a loan. Their personal experience has taught them the advantages of supporting an interest-free monetary system.

The JAK Bank has no branches; it uses the postal check system or electronic transfers for deposits and withdrawals. Employees, including management, receive wages below average for their profession. Their motivation comes from a commitment to proving that an interest-free savings-and-loan system can anchor values like solidarity and sustainability in the financial realm. Some 700 volunteer members, who, in return, receive free annual training, provide most customer service lo-

cally, with coordination and support from central headquarters.

The result is that the member bank can afford to charge unusually low fees for loans. For many years, these fees have averaged around 2%. This means borrowers enjoy a much greater sense of security in planning their future than with a conventional bank, where interest rates are adjusted to costs in the global market.

So instead of borrowing from a conventional bank and paying interest to other people who lend you their money, in the JAK system, you build up your own savings. It flows back into your own pocket—with a slight delay. In the meantime, it allows others to enjoy interest-free loans. I'd call that *productive money!*

Incidentally, Islamic spiritual leaders in Sweden endorse the JAK Bank because it implements so admirably the ethical principles of Sharia regarding the use of money.

In light of the Swedish experience, we begin to see how the introduction of such a bank model can impact the individual and society:

- The system is sustainable because there is no pressure to grow exponentially. The more members, the greater the sustainability factor for society at large.
- If all banks operated according to the JAK model, product prices could be reduced. Instead of 40% interest, which is the average calculated into all prices, the only price to pay for the availability of money

would be the bank's administrative costs, which amount to about 2% of credit issued, plus the risk premium if the situation becomes critical. The result is enormous monetary relief for the economy and for consumers.

- The upward redistribution of capital for the benefit of a few would cease. (Remember, in Germany that's 600 million euros a day.)
- As well as contributing to the stability of the financial and economic system, the JAK system also ensures secure planning by virtue of its low fixed fees, which — in contrast to conventional banks — can't be raised without the members' consent.

An interesting social side effect is that the gap between those who lend money and those who borrow it disappears: everyone assumes both of these roles at different times.

People wanting to invest in non-profits often work through foundations. But few realize that, since foundations generally operate via interest on capital, they reinforce the interest system. I propose an alternative: using investment money to implement a JAK system. Of course this requires seed capital so that loans can be made in the first place. From that point on, the JAK model offers a promising alternative, allowing large numbers of people access to sustainable money while still using the existing national currency. The more people who understand this

and act on it, the faster a qualitative, healthy "snowball effect" will take shape.

Demurrage in place of interest

The term "demurrage" (pronounced deh-muh-RAHJ) refers to the fee imposed on freight left sitting in a cargo boat. Its purpose is to free up the boat for the next user.

In the context of money, demurrage is a "carrying cost" that acts as a circulation incentive. It imposes a small fee when we keep our money in our wallet or in our checking account, inaccessible to other participants in the economy. The fee is reimbursed, but only indirectly via reduced banking fees if the demurrage is collected by the bank, or via reduced taxes if it is collected by the government. It prods us to consider whether we need the money to meet expenses or can afford to make it available to others via short- or long-term bank loans. As soon as the money is placed in a savings account and thus made available for lending, the bank is subject to the same pressure to move it so as not to incur its own demurrage payments. In this way, a similar incentive is created to keep the money circulating, as is the case with interest, but avoiding the latter's exponential growth and upward redistribution features.

If a bank has more money than loan clients are requesting, it can "park" the surplus with the central bank without incurring demurrage. And this enables the central bank to fine-tune the volume of money in

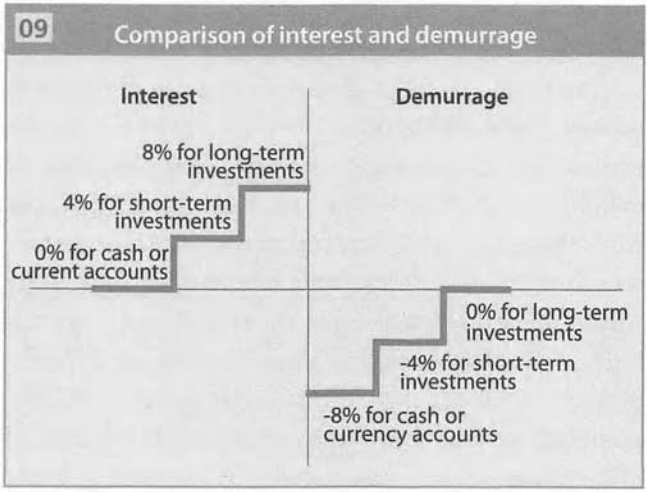
circulation more effectively than the current system allows.[28]

We do need to recognize that advocating a monetary system based on demurrage means surrendering any dreams we may have entertained of getting rich from interest income. At first we might regard that as a loss, but for the great majority of people, steadily undermined by the interest concealed in the prices they pay and by inflation ravaging their savings and insurance policies, it's no loss at all. And it opens up the most direct route to sustainable money, which also benefits the 10% who profit from the current system.

I have been searching for new routes for 30 years. Demurrage is not the only feasible one, as the JAK Bank demonstrates, but to me it looks like the simplest and fairest way to create sustainable money systems.

Figure 9 illustrates neatly how the demurrage tool would change things. At the moment, we generally don't receive interest on cash and checking accounts. For short-term deposits, we receive around 1–4%, and around 4–8% for long-term deposits. With demurrage, by comparison, we would pay an annual 4–8% on cash and checking accounts; for short-term deposits, 1–4%. Long-term deposits wouldn't be subject to demurrage; someone else will pay it because the bank will lend the money out again. If they can't lend it, they transfer it to the central bank.

Maybe you're wondering at this point: isn't demurrage just another form of inflation? The difference is not



easy to grasp because the circulation of money is presently ensured by interest as the carrot and inflation as the stick. The effect of demurrage, however, is diametrically opposite. A numerical example will illustrate this. An average household has 5,000 dollars in cash and checking accounts, and owns financial assets of 100,000 dollars. Demurrage at the rate of 8%, applied to the 5,000 dollars cash/checking accounts, would mean a charge of 400 dollars per year. Inflation at the rate of 8% on the other hand, because it affects not just the cash but all assets, would mean a loss of 8,000 dollars. Furthermore, the 400-dollar demurrage charge would only come into effect in the "worst-case scenario," i.e., if you forget to transfer the unrequired portion of your money to your

savings account, where it won't earn interest but won't lose value or purchasing power either.[29]

The fundamental goal of demurrage is therefore to prevent the earning of income via interest—income earned without providing a service, simply by virtue of owning money. That recipe only benefits a few people, while the great majority end up paying for it. Demurrage sees to it that I don't take an additional fee from those who protect the future value of my money by providing a service for which they should be rewarded. And it prevents exponential growth through interest and compound interest, as well as the resulting redistribution of money from society's vast majority to the privileged few.

Historical solutions and their applicability today

All great religious leaders, whether Judaic, Islamic, or Christian, understood the compound interest problem and provided ways of avoiding or neutralizing it. In Islam, Sharia forbids not only investment in morally or socially damaging projects, but also speculation and excessive interest on loans. So moneylenders, whether private or bank-assisted, become partners in the project that they are co-financing. If they bear 50% of the costs, they receive 50% of the profits, but they also participate proportionally in any losses. This ensures that moneylenders develop a healthy interest in the success of the project, rather than turning their backs on it if it looks like it might not succeed.[30]

Judaism solved the problem of compound interest by declaring a jubilee year every seven years, at which point debts were cancelled. And after seven times seven or 49 years, not only were debts cancelled, but debt slaves freed and private property returned to the community.

In the Middle Ages, Christian churches in Europe observed a strict ban on interest. Anyone who demanded interest was ostracized from the Christian community and refused a Christian burial. Regular recalls of so-called bracteate coins ensured circulation in a similar way to demurrage. The mint sovereign, a bishop or king, recalled the thin coins every three to four years; once handed in, they were replaced with 10–20% fewer newly minted coins. By holding on to the difference, the sovereign collected taxes at the same time.[31]

Take a moment to ponder what it would mean if you were to bring your entire cash and checking account holdings to a bank at an unforeseen date, approximately every three years, and received 20% less new money in return — but had to pay no further taxes. It would result in a stunningly low tax rate for the majority of the populace, and simultaneously keep currency values stable and provide for largely interest-free loans.

Since using the old money during the Middle Ages incurred a prison sentence, hoarding wasn't worth the risk. Anyone requiring a loan over several years generally received it without interest because the creditors were pleased to simply receive the full value of their money

back. Instead of speculating with their money, people invested it in whatever would hold its value over time: solid houses, beautifully carved furniture, jewelry, paintings, valuable household goods.[32] Ordinary citizens were so prosperous that communities could afford to build huge cathedrals from donations alone, even though everyone knew they would take at least 200 years to finish. And as for us, what do we leave our children instead of cathedrals? — Gigantic mountains of debt and lethal nuclear waste.

All three of these historical solutions to the interest problem are still practiced today. The Sharia model is increasingly being applied in Islamic countries, as the flaws of the capitalist system become clearer every day. Even some European banks now allow deposits according to Sharia principles. A few years ago, a campaign (largely supported by Christian churches) proposed a jubilee year as a solution to the non-repayable debts of developing nations. What we today call the Euro Rescue Package will probably go down in history as an involuntary jubilee year. And many new currency designs — most of the regional currencies in German-speaking countries, for instance — operate successfully with demurrage spurring money circulation. But so far, they're not big or numerous enough to stabilize the system at large.

When these three solutions — creditor participation in profit or loss, jubilee year, or demurrage — are ignored, four historical consequences typically result: hyper-

inflation, crash, social revolution, or worst case: war. But neither hyperinflation, nor the crash of 1929, nor the 124 monetary crises of the last 37 years (IMF 2008), nor the French, Russian, or Chinese Revolutions, nor the First or Second World War have moved humanity to address the structural errors in the monetary system. And now, thanks to globalization, for the first time we're stuck in a systemic crisis of truly global proportions.

Economist Eva-Maria Hubert has studied whether a clear rationale exists for the various traditional bans on interest. Analyzing 25 "interest functions"[33] that have been used in economic textbooks to justify the adoption of interest, she concludes that, with interest-based currencies, five essentially negative consequences are ignored: the growth imperative, upward redistribution of wealth, errors in assigning risks and liability, social erosion, and the accelerated growth of monetary wealth and debt.

Diversity trumps uniformity

Just as we don't make do with one universal home design, or a single car model to meet all our needs, or clothing suitable for just one kind of weather, we need specific money designs for different purposes as well. One day we'll probably be shaking our heads in disbelief about how we sent our children to the ice-cream parlor with the same currency we used to buy Japanese cars; and it will seem completely natural to use a chip card or our

mobile phone to pay for different goods and services like education, healthcare, or public transport, using different currencies from multiple accounts.

New money concepts aim not to multiply money, but to multiply its benefits. Ecological, cultural, and social projects usually go begging for funding because they seldom serve to multiply money. So they need either state support, hard to come by in these tight-budget times, or — more simply and effectively — new kinds of money. These can be designed to serve a particular objective as will be shown later.

Today's monetary system is only optimal in one respect: its efficiency. The world's stock exchanges process millions of transactions in mere seconds. The profits can be calculated to the 14th decimal place. That's why this system mainly benefits large investors such as insurance companies, investment banks, governments, and multinationals that often earn more from their financial transactions than from their own core business. Small private investors are the ones who get fleeced; the long-term logic of the system puts them always at a disadvantage.

Doubters may ask, "If the system is so wonderfully optimized to produce the maximum profit from money transactions, why then do we need complementary currencies?" For the same reason the timber industry now realizes that diversified forests are much more sustainable and ultimately more profitable than monocultures. It only takes one pest to destroy a whole monoculture.

Money monoculture is just as dangerous. All national currencies today are run on the same principles. If the present system collapses, the result will be a global catastrophe. By introducing complementary currencies, we increase sustainability through diversity and thus make the entire system more resilient[34] — because parallel currencies not only provide a different set of benefits, but also work according to fundamentally different principles. Unfortunately, this fact hasn't filtered through yet to the central banks, politicians, and legislative bodies. And our university departments of economics are nearly as clueless. So the crucial question arises: How, then, can these insights be put into practice in the real world?

In the following sections, I'll introduce a few different models. They range from simple measures that can be implemented immediately, to existing forms of money that prove the functionality and benefits of complementary currencies, right up to proposals for as-yet-untried forms of money crying out for some dedicated pioneers.

Ethical investment and transparent banking

The question every single person should be asking him- or herself: How "radioactive" is my money? What's its impact on the environment? Whom does my money exploit? Or: Does it support my priorities, even if I have to accept reduced financial returns?

From Switzerland, Italy, Germany, Denmark, the Netherlands to the USA, Mongolia, Nicaragua, Peru,

Bangladesh — all over the world, ethical investments (and banks specializing in them) are becoming increasingly popular.[35] Just imagine:

- a bank that takes your ethical concerns seriously and applies them to its banking services. You can save, borrow, and invest money there, knowing that it only flows into projects in line with your social and ethical principles;
- a bank whose loans support the production and sale of regional, fair-trade foodstuffs and products, thus reducing our ecological footprint; one that keeps its investments transparent by providing information about them on the Internet;
- a bank that shows the effects of your investments on public health, social justice, and other important issues;
- one with a personal, family-like atmosphere, whatever your concerns;
- bank employees who are both professional and discreet;
- a bank that aims to adapt its business to the information age and the needs of our times;
- one that helps you, its client, to recognize the importance of money and use it sensibly and profitably.

During the 2008 crisis, clients of such banks suffered no sleepless nights because the banks took no part in highly speculative schemes. And all of them recorded astonishing growth after 2008. The GLS Bank, for example, as the

oldest and largest bank of its kind in Germany offering all banking services, has since been gaining an average of 2,000 new customers per month.[36]

Tried and tested money concepts for different purposes

Today we have many examples of complementary currencies, i.e., currencies that exist alongside the national currency that demonstrate how money can work to promote the common wealth. They can be classified geographically, whether locally, regionally, nationally, or internationally; or according to the specific areas they target, such as education, health, small and medium enterprises, culture, pension plans, and so on. Various countries have gained long experience with these diverse forms of money.

The simplest type of new monetary system was started by Michael Linton on Vancouver Island, Canada: the *local exchange trading system* (LETS).[37] They range from perhaps 20 to 2,000 members and since the early 1980s have spread all over the globe. Their advantage is that they can get up and running very fast because, as a rule, members' hours of work are simply offset against each other. However, if the system is not run by a well-organized central body, it may fall apart fast. This happens, for example, when no one is keeping track of accounts going too deep in the red versus others amassing too many credits. This organizational work demands skills that deserve a salary, and the money to pay it usually needs to be earned within the system.

In part to obviate this control function, Konstantin Kirsch has invented *Minuto* time credits.[38] Instead of a central organizational unit, he provides a website-building recipe with instructions and rules. It's cheap to launch and easy to use. Time credits make social networks possible and promote ecological sustainability; they support individual regions but can be used across regions as well. Anyone can create his or her own Minutos and use them like cash. The calculated value is based on a minute of qualitative work, hence the name "time credit"; one hour equals 60 Minutos. Legally the Minuto is a bearer bond. Participating in a system of this kind is the simplest way of creating your own money, backed by personal responsibility.

In addition to these simple forms of money, primarily found at the neighborhood level, a number of other models have been successful on a larger scale. I'll focus here on the few that I consider most promising. But keep in mind that many other creative, practicable money designs exist worldwide.[39]

Time banks

In 1995, a retired Japanese minister of justice discovered that his country's pension funds could no longer guarantee the amount of care required by the burgeoning ranks of senior citizens. He hit on the idea of collecting in time accounts the working hours of younger people who regularly provide simple services to older people (such

as shopping, taking them for walks, helping with eating, reading, etc.). Thus was born the Fureai-Kippu system (in English: Care Ticket). Young people can cash in their time credits in the future, if they themselves fall ill or need assistance, or they can send them to their parents who perhaps need care in another part of the country. This time currency is not subject to inflation, because an hour always remains an hour—today, tomorrow, forever. Having spread from Japan via South Korea to other parts of Asia, the system is now also being introduced in Vorarlberg/Austria, where the state government issues a guarantee for the long-term value of the hours.

Another good example—inspired by Edgar Cahn's experiments in Washington, DC—is the Time Bank in Dane County, Madison, Wisconsin, that was launched in October 2005 with 20 people and now has 1,900 members. In a region of about 1,200 square miles with a population of 500,000 people that includes the city, members have exchanged 60,000 hours of service in 6 years of operation.

Their main aims are to connect different sectors and to promote collaboration and resource sharing. Meanwhile the bank cooperates with 125 community organisations, the Youth Court, mentors for kids in trouble, the Madison Gas and Electric Company, and community health associations.[40]

In Germany, Herbert Henzler and Lothar Späth have just put forward a similar proposal in their book *The*

Generation Treaty: Why the Elderly Are Not the Problem, but the Solution.[41] They argue in favor of a time currency for care services as the third official column of the pension provision system. The proposal is being avidly discussed,[42] and might become the first complementary currency officially introduced on a nationwide scale.

The advantage of time bank money is that it benefits everyone, it's transparent, and it's easy to implement and track. Moreover, it's based on one of our most precious goods — our time. None of that is true of conventional money.

Parallel currencies

A parallel currency usually exists alongside a national currency or legal tender without enjoying that status itself. That means its acceptance is voluntary — a feature of *all* complementary currencies described in this book.

The most frequently used models of private parallel currencies are barter systems. They exist all over the world. Many have joined forces in IRTA (the International Reciprocal Trade Association). They are mostly cashless clearing systems, functioning to track the exchange of goods and services among the participants. A central management unit — financed by a certain percentage of the transactions between the participants — monitors account credits and debits and assures that all participants observe the prescribed overdraft limits and payment rules, including tax payments. The worldwide

turnover of the barter industry in 2009 was estimated by IRTA at 10 billion US dollars a year.[43]

In addition to providing cashless clearing systems, parallel currencies can also offer loans to their members. One good example is the WIR (pronounced Veer) (the abbreviation of Wirtschaftsring, Economic Circle), an official parallel currency in Switzerland. A second one is the RES, which is used in Belgium.

When the WIR was set up in 1934, the economy was suffering a crisis similar to ours today. Bank loans to small and medium enterprises (SMEs) had practically dried up. So some businessmen got together and decided to grant *each other* credit, subject to limits carefully defined on the basis of financial performance and business reputation. They created a cashless clearing system for products, raw materials, and services that has survived to this day. The system's "WIR franc" is traded at 1:1 to the Swiss franc.

Initially paper vouchers were used in addition to checking accounts. Nowadays credit cards have taken over, which can be used to pay both in WIR and in Swiss francs. This was the first credit card for two currencies in the world. A total of 60,000 SMEs in 15 regions of Switzerland belong to the WIR Circle—about 20% of all Swiss SMEs. Their total annual revenue in 2010 averaged 16 billion WIR francs.

As demonstrated by its more than 77 years of documentation, the WIR system is attractive for businesses

particularly in times of crisis because it functions anti-cyclically and thus supports official finance policy. Conventional banks work pro-cyclically: if the economy is flourishing, they readily give loans. If the economy is shaky, they hold back; loans become more expensive and require higher collateral. Thus the traditional banks encourage the ups and downs in the economy, the so-called boom-and-bust cycle, instead of countering it. Not so the WIR. Even when merchants can still sell their goods for Swiss francs, they will purchase with WIR whenever possible to protect their SF-liquidity; but if a scarcity of Swiss francs causes their sales to fall off, the parallel currency opens up new marketing opportunities for them.

However, the WIR is a form of money that requires information. Those using it always need to know what they can buy for WIR before applying for a loan or accepting it as payment. Since users receive no interest on their accounts, they try to avoid high positive balances. The advantage gained is that members can count on a reliable customer base within the WIR Circle (sometimes called a "club effect").

As only very few large investments can be handled in WIR alone, the WIR Circle decided in the 1990s to expand into conventional banking as well: it now makes not only WIR loans, but Swiss franc loans as well (on which it charges interest).

Unlike the barter systems, which are internationally networked and voluntarily heed the rules of the non-

profit association IRTA, the WIR Bank answers to the Swiss Bank supervisory authorities. This state oversight guarantees for the WIR a high degree of security.

In addition to offering loans to its customers the Belgian RES—modelled after the WIR as a parallel currency—is open for ordinary consumers. In 2007, the state officially accepted RES as a complementary currency with detailed agreements about how to do the accounts and internal controls. It cost RES 450,000 euros to get this agreement, but they calculate it will be worth far more than that in the future.

RES is structured as a cooperative company with three types of shares: main founding shares, 100% owned by the initiator, Walther Smets; B shares worth 1 euro, each participating merchant needs to buy for legal registration in the system; and C shares costing 2,500 euros each, with a maximum of 10 shares per member for eligible B shareholders.

The company issuing RES has fought several court cases against businesses with persistent negative balances that did not trade positively, and it has won every case. Today RES has 21 full-time staff with offices around Belgium. Their goal is to recruit 20,000 merchants and 250,000 users by 2017.[44]

Regional money

When people bring their money to the bank, they usually expect the bank to invest it where it will earn the highest

profit. This could be in China, where at times up to 40% of the world's speculative capital has been invested. Or it might be other countries promising economic growth like Russia, Brazil, or India. Thus the standard monetary system works like a pump that sucks capital out of the communities where it was earned and redirects it to where it garners the highest returns.

If money is to orient itself toward the needs of a region, it is important to shorten the distance it travels during circulation so that the region can maintain its own liquidity. In its essence, after all, money is the agreement between several parties to accept something as a means of payment. And when this means of payment is regionally defined, it allows users to directly support the economy of their own region. Furthermore, when we buy things with regional money, the person receiving it will also have to spend it in the region. That is the main difference vis-à-vis the euro or dollar: of course you can spend a national currency regionally, but you never know if the receiver will spend the money there as well. If the conventional monetary system should waste away bit by bit or end abruptly in a crash, people and their skills will still exist, as will the machines and their productive capacity, the buildings, the land, the technical and social infrastructure. And in order to keep people employed and using these resources, we will need a means of payment in order to exchange our productive activities.

Who can say with any certainty how long his or her job is safe? That uncertainty is one reason people hoard money, especially in times of crises. But if a larger number of people keep their money out of circulation, they cause interest rates to go up and businesses to go bankrupt. This puts people out of work, which exacerbates everyone's insecurity—and the situation goes from bad to worse. Regional money can stop this downward spiral. Better yet, it can create an upward spiral that progressively renews security and confidence.

Of course it will take awhile before people feel the positive effects, but regional money does give us a way to pull ourselves up by our own bootstraps. Even if the first steps are small, it's worth starting to develop regional currencies now because it will be much harder to do in the midst of a crisis.

Regional money not only strengthens the economy, it also makes people identify more strongly with their communities because currencies of this type are based, we might say, on a healthy dose of local and regional patriotism. It's a great boon for the inhabitants of a region to be given an instrument that allows them actively to shape their own living environment. It makes them less vulnerable to global developments they can't control. The region is a political unit on a scale that enables people to renew their sense of responsibility. In my view, this responsible participation is what it's all about. If we don't

find a way to participate, we become passive; weighed down by the certainty that we can't change anything, we lose all interest in shaping our community.

If we want to halt unemployment, stop the spread of social decay and vandalism, save our locally owned businesses from bankruptcy, and reverse the brain drain of educated citizens — all trends that are currently devastating many municipalities and regions — then regional currencies are the right tool. By relocalizing economic circulation, regional money will restore and increase our buying power.

"Would regional currency replace the national currency?" I'm frequently asked. The answer is of course not. Like all other complementary currencies, it supplements legal tender by playing a role that the latter cannot. Even if the national currency was made stable and sustainable by adopting a form of demurrage, the gulf would still exist between economically strong and weak regions, so the need for effective regional currencies would remain acute.

The average German with a yearly income of 30,000 euros spends about 40% on the interest that's concealed in prices. Under the present monetary regime, this could be reduced by 75% by adopting an interest-free regional currency, a JAK system, and other complementary money concepts. Of course, for the benefit to materialize, the producers of regional goods would have to pass on to the customer, in the form of reduced prices, the cost

advantage that the producers gain from their access to interest-free regional-money loans.

All the products and services that our life requires (food, drinking water, waste removal, energy, education, healthcare, etc.) would cost less if they were produced regionally. Even if loan costs can't be eliminated completely, in a well-developed regional monetary system, the prices of basic commodities could be reduced over time significantly.

Small and medium enterprises (SMEs) in particular, which create the lion's share of jobs and earn their money primarily not from financial transactions but from production and services, can be given a leg up by regional currencies. Demand for regional products increases added value and wages in the region. It generates tax revenue while relieving public budgets of much of their unemployment insurance burden. Through interest-free or low-interest microloans—like the ones already functioning successfully since 2003 in Germany's Chiemgau region in Bavaria[45]—regional money increases the opportunities for companies to invest and thereby to thrive.

Regional currencies encourage entrepreneurs to combine local sourcing with use of renewable-energy technologies, e.g., by buying locally produced wind- and solar-generated electricity. This can reduce somewhat their vulnerability to world energy market fluctuations. Transport distances from producers to distributors to consumers are shortened considerably by regional

trading, thus also saving time and energy. In addition, the closer geographical proximity of partners and customers makes contact more personal.

The added value required by interest can be achieved in a few ecologically relevant markets, but their range is quite limited. How, for instance, can kindergartens or eldercare be made to turn a profit, and why should they? As the Chiemgau example has shown, interest-free regional monetary systems provide a new, more practical source of funding for sports clubs, cultural initiatives, social projects, and the like than the interest-burdened euro system that they complement.[46]

Selling off basic service contracts to private companies at home and abroad—a tactic adopted increasingly by governments to lower taxes—over time brings nothing but financial woe to the inhabitants of a region. In Great Britain, a few years after large chunks of the water supply system had been sold to private investors, the country experienced its first-ever water system malfunctions. London was faced with similar problems after the privatization of the city's subway system, which it had to buy back at a high price some years later. With the help of regional currencies, municipal authorities could be relieved of the pressure to privatize, and could keep the business of supplying basic services in public hands.

If the money system falters, regions that have implemented regional currencies early on have the advantage that they can start paying for regional services with their

own money right away. And if the debt crisis should cripple us to an extent we can't even imagine today, regional money will help ensure the continued supply of basic goods and services at the regional level.

"That's all well and good," you might say, "but what will happen if the national currency is worthless after the crash? Won't the regional currency, which is tied 1:1 to the national, become worthless as well?" This reasonable question is addressed in the bylaws of most regional currency associations, which authorize their management board, upon a majority vote of the membership, to couple the currency to a new value standard that makes more sense. This might be the average cost of an hour of labor, a Kilowatt hour of renewable solar electricity, a cubic meter of water, etc. The members choose.

Anyone at all familiar with the financial markets knows that the existing national debts in all highly industrialized countries cannot be repaid. We do not know when and in what form hyperinflation or a currency revaluation will occur. But sooner or later, one of these default "solutions" will be imposed; in fact, it is already happening. I hope that in time a sufficiently large number of people will have built enough lifeboats in the form of regional currencies that we won't all be drowned. From our big-ship perspective, lifeboats like this can appear frivolous. But when a ship is sinking, they come in handy. And chances are they'll be pretty seaworthy in their own right.

By instituting a regional currency, we create a semi-permeable protective membrane around the region. Sure, you can always convert your regional money into the national currency, but since it'll cost you a fee, you might think again: "How can I spend this regional money?" And every time you pay for something with "local bucks," as they're often called, you'll know that you have contributed to your own region's well-being.

Elected officials might ask, for example, "What resources in my region are inactive, and what unmet needs could they be recruited to fulfill?" The objective is to link the resources to the needs via a regional monetary system.

Think for a moment about airline miles. Why do airlines give bonus miles to their customers? It is a loyalty scheme. It costs the company almost nothing to grant price reductions on unoccupied seats, but for the customer, the miles are a financial boon that motivates them to come back for more.

Similarly, a region can gain the loyalty and raise the purchasing power of its citizens by linking supply with demand — without money entirely, or with a currency specially designed for the given purpose. This can be a complex task, but it's not impossible. On the one hand, you have the free capacities in a region, for example, buses and swimming pools, schools and cinemas, museums and sports fields, all of which are only in use a

fraction of the time. Then there are the houses and shops that can't be rented out at market value, vacant lots that haven't found a buyer. And at the "demand" end, you have social services and other needs that have to be met, but for which "the money's not there": people needing medical care, parents needing childcare, public spaces and green areas to be kept clean and maintained, healthy foods that are often unaffordable for low-income folks. Regional added value is created when the two sides are brought together, either with money or without it; for instance, when we remunerate providers of essential social services with those free capacities that the region possesses, but which are lying idle only because they're not "marketable." Go shopping for an elderly person, and you might receive a cinema coupon that can be used Monday through Thursday afternoons, when the theaters aren't full. If you look after children for free, you might earn a ticket to the county swimming pool. Help clean up the park, and you might be allowed to plant vegetables on a vacant lot. These resource-to-need linkups will take different shapes in different regions, but they are feasible. They need only to be organized.

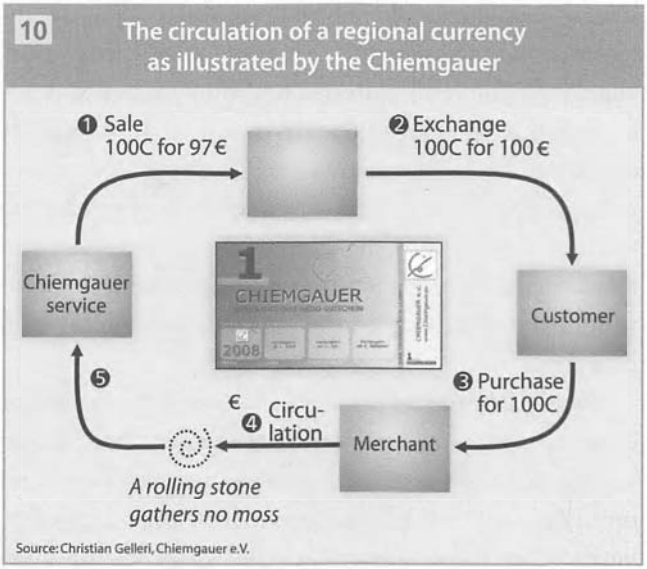
Regional money also creates long-term benefits. If, for example, we can finance solar or wind power plants interest-free, we secure a source of needed energy not only now, but for future generations as well. Instead of sending our money to the oil-producing states that keep

us on tenterhooks with their fluctuating prices, we could invest in our energy independence — and in an energy safety net for our declining years.

Citizens of a region must insist that the government also allow them to use regional money for payment of regional and state fees such as property and business taxes. Some municipalities in the Austrian Vorarlberg and the German Chiemgau have started accepting regional payment media for fees and taxes.[47]

Regional currencies can be designed compatibly and flexibly enough as to enable regions to cooperate with one another. Then they can be networked throughout the country. In Vorarlberg, the organizers of the local complementary currencies — which also include two regional currencies — have set up a clearinghouse to exchange different currencies, working like a foreign exchange bureau. This enables the transfer of credits and debits among different systems.[48]

To date, most regional money initiatives have used various kinds of paper notes. However, the Chiemgauer — one of the regional currency pioneers — now uses magnetic swipe cards and computer-assisted settlement options, and allows for trades with the currencies of neighboring regions. This makes it considerably easier for people living in border areas to use the regional currency. In the "Transition Town" of Brixton, England, people can now even pay in local Brixton Pounds via a text message on their mobile phones.[49] Obviously the



spread of regional money models needn't be hindered by a lack of appropriate technology.

It's important for the regional currency systems to become economically viable as soon as possible, because they can't survive for long if managed solely by volunteers. Fees should be charged to guarantee the organizers an income. And the organizations need entrepreneurial skills and efficient management structures if they are to survive for longer than a few years.

As regional monetary systems and other complementary currency models spread, the conventional system will be freed up to concentrate on those areas where

it works best: areas where profits are still feasible and interest demands can be met—but due to new legislation, changed behavioral patterns, and new money systems no longer at the cost of the environment or the quality of people's lives. This might be in international trade, or in large-scale projects bearing a high level of risk, which justifies correspondingly high returns. Until alternative systems have become firmly established, the conventional system may be the most appropriate for such domains.

"Anti-Globalizers' Money,"[50] scoffed the headline of an article about regional currencies in the German weekly *DIE ZEIT* in 2004. But these currencies aren't set up to do away with globalization. They intend rather to balance out the disadvantages that globalization gives rise to regionally, culturally, socially, and ecologically; those goals that are hard to achieve within the national money systems. Of course, the euro was and remains a positive step in some ways. As noted above, it temporarily prevented speculation among the European currencies and allowed trading partners in Europe to plan more rationally because it obviated the need for insurance against currency fluctuations. But it's impossible to react adequately to national, regional, or local predicaments with a monolithic European or international currency, as has been demonstrated by many recent events. Some of the EU-funded programs have turned out to be hugely bad investments. For example, EU funds support the

expansion of suburban shopping malls that hollow out inner-city economies. The German reunification process offered a prime example, when in response to abstract demands for modernization and the equalization of living conditions, unique regional and locally important features of life were wiped out in many East German municipalities. To my mind, one of the most important tasks of regional currencies is to correct these negative trends.

Most countries in the world are made up of diverse regions whose individual needs might be better satisfied using regional currencies rather than the national. In times of crisis, regional currencies could surely be targeted more cost-effectively than the one-size-fits-all national rescue package. Since every country has its own regional currency models, and they are currently developing at an enormous pace, I recommend following Stephen de Meulenaere's website. He is a former organiser for STRO in Indonesia who went on to develop the Complementary Currency Resource Center,[51] a treasure-house of resources for local currencies.

Proposals for new money concepts

Unlike those described above, the models I shall outline in the next section have not yet been tested in practice. But they do indicate the diversity of tools available for achieving specific goals, whether in improving education or healthcare or the introduction of a global interest-free currency.

Education currency

One ingenious theoretical monetary model in the form of a complementary educational currency is the *Saber* (pronounced sa-BEHR — Spanish/Portuguese for "knowledge"), a proposal developed by Bernard Lietaer and Gilson Schwartz in 2004.[52] This model bears eloquent witness to the various ways money can be designed. One important objective of the Saber is to make higher education affordable for many more students than is the case today.

In 2004, Brazil was facing a crisis. More than 40% of the populace was under age 15, presenting the nation's schools and universities with a great problem. Taking advantage of the privatization of the mobile telecommunications industry, the government introduced a 1% charge on all phone bills to provide the funds for expanding the education system. By mid 2004, the Education Ministry had amassed 1 billion phone-fee dollars (= 3 billion reais, the real being Brazil's national currency) for this task.

But how best to distribute these substantial funds? Lively debate ensued among the decision-makers. Bernard Lietaer and his colleague Gilson Schwartz proposed adding to the national currency a complementary one, denominated at par and issued as non-counterfeitable credit notes. The model would work as follows.

The Education Ministry was to control the issuance of the credit notes. It would distribute them to schools

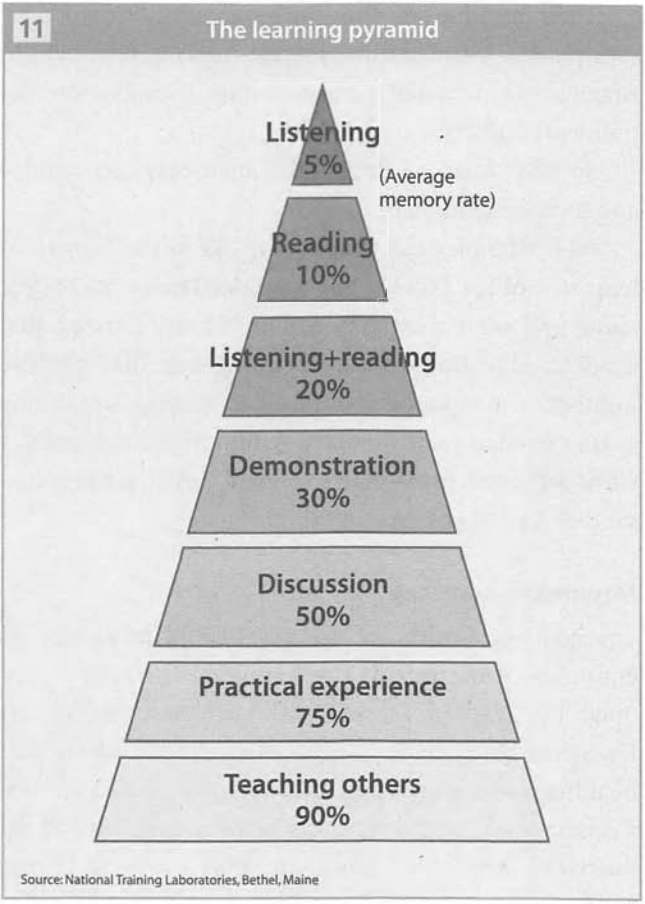
in economically weaker regions where higher education was usually unaffordable, though plenty of young people were qualified for it. The schools would give the credit notes to the youngest pupils. The teachers would work out with the children where their strengths and weaknesses lay, and which of the weaknesses could be addressed by tutoring. The students were to get the coaching they needed from mostly older fellow students and pay their tutors in Sabers. This process was to continue until the Sabers reached those students ready to leave school, who could then use them to pay the first year's tuition at one of the participating universities. These universities, and no one else, could then exchange the Sabers back into reais at the Education Ministry at a rate of 2:1 (two Sabers for one real). As vacant student slots cost the universities about 10% of what filled slots cost, this project would bring them approximately 40% more income, while the state saves half of the costs per slot—a profitable situation for both, but even more so for the young people whose educational horizons would be dramatically enhanced.

Furthermore, the Saber was designed to lose 20% of its value after one school year plus 4 months. In this period, Lietaer and Schwartz estimated that a Saber would change hands an average of five times. Together with the 50% savings on student seats at the partner universities, this results in a tenfold (!) increase in education benefits: "Two times for the university discount of Sabers, and

five times for the circulation of Sabers in [the mentoring process]."[53] The one billion dollars in the Education Ministry fund thus would create a benefit for education worth at least 10 billion dollars (= 30 billion reais).

The whole country would profit from the introduction of an educational currency like this. More young people would earn the necessary qualifications to enter the university, and then could also afford to pay for their studies. The economy, politics, and culture of the country would gain many more educated citizens. More tutoring and new courses of study would become available at no extra cost. In addition, most people retain their own knowledge of a particular subject much better when they teach it to others. While teaching, 90% of the relevant information content is assimilated, while only 10% is assimilated while reading and a mere 5% when listening to another person's lecture. So in theory at least, the Saber program would be educationally far more effective than the current system.

Once, after I'd explained this model in a lecture to a group of young managers, two human resources people from a large industrial firm said to me, "We can use the same principle for our internal training and continuing education program. We can issue credit notes that employees use inside the company to pay tutors they have chosen themselves. These credit notes can be passed on for a certain period of time until they end up back at the human resources department, which can exchange them



1:1 back into the national currency—and we can buy educational services from the outside with these. This way we can multiply the benefit of our in-service training program!"

Their intuition was spot-on, but I'm not aware of their ever putting the idea into practice. Lula's government in Brazil never instituted the Saber either, owing to internal political conflicts.

So why don't we implement such easy-to-organize and promising models?

As I've pointed out, for changes like this to happen, at least 10% of the public have to understand what they're about and what good they will do.[54] Only through that kind of educational pump-priming can the requisite number of people be mobilized to change something as ingrained as our monetary system. If the preparatory work isn't done, projects like this will sink into the quicksand of wasted opportunities.

Healthcare currency

The costs of healthcare are skyrocking in almost all countries of the world. The following currency developed by Bernard Lietaer and physician/psychiatrist Dr. Stefan Brunnhuber[55] is based on the realization that healthcare comprises one of the largest single markets. Conservative estimates put its value at one third of industrially developed gross national products. Costs in this sector increase faster than overall productivity. And the sector only generates financial rewards when people are ill, not when they stay healthy. Profits and wages are earned where illnesses are treated. The more illness, the more growth. So the system rewards destruc-

tive, unhealthy behavior. But on the other hand, this market holds the greatest potential for health-oriented investment. After all, everyone wants to stay healthy or become healthier. All that's missing at present is a mechanism that allows appropriate profits to be made from preventive care.

The introduction of a complementary health currency aims to improve home care and to reward preventive measures such as early detection examinations, participation in preventive gymnastic courses, and the like. People who participate in these activities, or who care for someone at home, receive health bonuses granting them reduced health insurance premiums, plus access to a broader spectrum of services. In addition, people can use the bonuses—in their own region—to buy services and products that are known to promote better health.

Client members of the health currency association have four options for using their bonuses: (1) a reduction in their insurance premiums; (2) a broader range of services covered by their health insurance (acupuncture, homeopathy, etc.); (3) saving the bonuses to use themselves, or for others to use; and (4) using them to go shopping at their regional healthcare market. The regional providers of healthcare products can cash these bonuses in for the national currency at the offices of the consortium of health insurance companies. Client members can't cash them in themselves.

Scientific studies[56] have shown that, over time, preventive measures reduce health insurance companies' costs. When all the parties involved in the healthcare sector work together, the result is a win-win for all. Clients profit long-term from the health currency both directly (they live healthier lives) and indirectly (they save money). The insurance companies save capital and therefore should also bear the business risk. For example, the estimated potential savings for the German government run to about 30 billion euros if preventive treatment is fully implemented. It's clear that the current bonus programs being introduced by the more enlightened health insurance companies are heading in the right direction, but they have yet to be fully integrated into the dominant system.

Even the pharmaceutical industry will benefit if it redirects its focus to maintaining the health of the still-healthy majority of people. After all, health maintenance is one of the most important objectives in private and public life, and all markets, providers, and the general public will benefit from improvements to the system.

Why don't health insurance companies join forces to introduce a health currency—a currency that rewards lifestyles that promote health?

Global reference currency

Currency fluctuations are one of the largest trade barriers for companies that negotiate long-term supply con-

tracts with one another. That's why about 30% of our entire world trade volume is carried out via so-called countertrade transactions, i.e., via direct exchange of goods between large companies. A beverage producer, for example, might deliver his lemonade concentrate to Russia and receive payment in vodka instead of rubles.

To obviate the disadvantages and restrictions involved in direct exchanges, Bernard Lietaer in 1998 developed the concept of a global reference currency—the *Terra*.[57] It combines the advantages of a global currency with the promise of stability. Just as money was once backed by gold, the Terra is backed by a basket of raw materials that are traded on the international commodity futures exchange. Lietaer proposes that the Terra be issued by an alliance of different countries or multinational companies. The basis is formed by supply contracts that have been concluded for essential raw materials, e.g., 1/10 of a barrel of oil + 8 gallons of wheat + 2 pounds of copper + 1/100 of an ounce of pure gold. The goods stay where they are, perhaps in warehouses or shipping containers, but the storage costs are assigned to the respective money holders, thus effecting a kind of demurrage similar to the circulation incentive described above. If implemented, this form of global money creation would generate three main advantages:

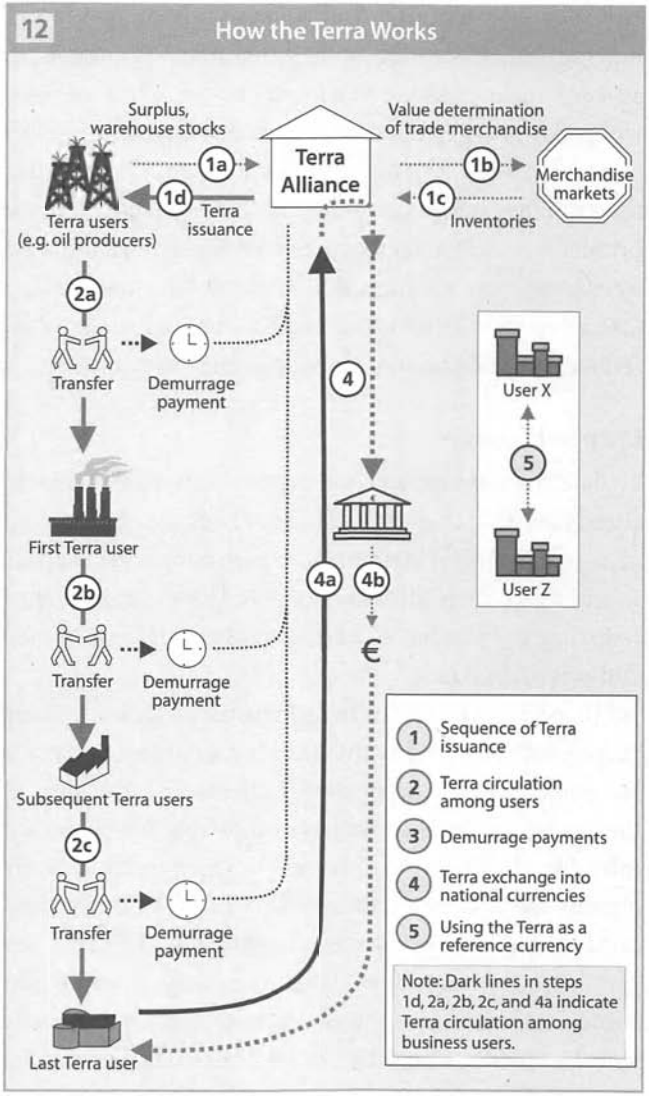
1. It functions anti-cyclically. If world trade is flourishing, the raw materials are needed and Terras are cashed in for them. The result is that the amount

of Terras in circulation drops and, concurrently, the demand for raw materials. This puts a damper on the world economy. If economic activities drop too much, the opposite happens: an excess of raw materials builds up in the Terra basket, which results in the availability of more Terras. This means that the money doesn't become scarce when the economy slumps; on the contrary, more of it becomes available.

2. The money holders bear the storage costs (which will be calculated into end prices in any event) in the form of a demurrage, as long as they keep their Terras rather than spending them.
3. The Terra is always secured 100% by a basket of internationally tradable raw materials, which makes it far more stable than our present money.

The overall effect of the Terra could be to jumpstart a worldwide value-added chain. The Terra alliance would manage the basket of goods and its storage costs, and would also oversee the exchange of Terras into other currencies. Essentially, participating governments and/or multinationals would be creating an extremely flexible, sustainable international complementary currency that could replace the countertrade model.

The Terra overcomes several trade barriers. Because it is backed 100% by a basket of goods, it is a stable currency that obviates expensive hedging (insurance against


12
How the Terra Works
Surplus, warehouse stocks
1a
Terra Alliance
Value determination of trade merchandise
1b
Merchandise markets
1c
Inventories
1d
Terra issuance
Terra users (e.g. oil producers)
2a
Transfer
Demurrage payment
4
User X
5
User Z
First Terra user
2b
4a
4b
€
Transfer
Demurrage payment
Subsequent Terra users
2c
Transfer
Demurrage payment
Last Terra user
1 Sequence of Terra issuance
2 Terra circulation among users
3 Demurrage payments
4 Terra exchange into national currencies
5 Using the Terra as a reference currency
Note: Dark lines in steps 1d, 2a, 2b, 2c, and 4a indicate Terra circulation among business users.

currency fluctuations). And because it is subject to demurrage, it makes long-term investments profitable. In an economic slump, participants in the Terra alliance will seek out investment opportunities that are more lucrative than holding onto money that can do no better than not *lose* value. Compared to that, it would be more profitable to invest, for example, in reforestation, because trees grow, thus adding value, while the Terra stagnates. Carrying out international trade in Terras, furthermore, reduces the incidence of global currency speculation.

Carbon currency

To date, both companies and private households have resisted investing in energy efficiency because of perceived or actual financial strictures. A carbon-based currency would make such investments a lot less expensive, thus reducing the burden of additional loan debt on public and private budgets.

In a 2009 study,[58] Ludwig Schuster proposes making carbon emission rights the basis for a parallel currency. He demonstrates the powerful effects an extension of the emissions trade could have on private households if introduced globally. If everyone were awarded a legally guaranteed individual ownership of part of our shared atmosphere, and everyone were granted the same use privilege, the emission rights themselves would become a universal guaranteed income. Thereby the entire world populace would be placed from birth to death on

an equitable financial footing, at least as regards emissions. As a limited but unconditional basic income,[59] this stipend represents a reliable floor that at the very least would counteract poverty and alleviate the rich-poor divide. Low-income households in particular would benefit from receiving this guaranteed emissions income, as it would level the economic playing field both domestically and globally.[60] If, say, a North African produces only a fraction of the carbon emissions that a West European produces, she can sell her unused emission rights to Western Europe. This constitutes a redistribution of money based on environmental wisdom. Distributing income more fairly this way would work toward equalizing living conditions; indirectly, it could even help roll back population growth.

As a worldwide uniform currency, the carbon currency, like the Terra, could also help stabilize the overall economic situation. It certainly possesses all the features that define genuine currencies: the carbon equivalent of the old gold standard would be the right to use the atmosphere to an extent legally guaranteed, but limited by ecological considerations; and if granted legal tender status, it would be officially recognized in countries all over the world.

Designed appropriately, the carbon currency could also target specific concerns, such as our consumption and investment behavior, which it could redirect toward prioritizing ecological goals. All this, of course,

on top of the main purpose of this currency, which is to reduce greenhouse gases and help renewable energy compete more effectively with fossil fuels. As we speak, greenhouse gas emissions from fossil fuels are already generating social costs estimated at $85 per ton of CO_2 equivalent. For the 7 billion people on Earth, at the beginning of carbon-currency trade, the annual emission rights would already be worth $75 to $320 per person per year.[61]

The greatest benefit of this parallel currency is that it would address the appalling imbalance of wealth between emerging economies and the industrial nations, and between the rich and poor social strata of all nations that adopt it.

Laws—the straitjacket of the system

The interest mechanism is so firmly fixed in our monetary system that it's extremely difficult to establish new forms of money that forego it. For example, we in German-speaking countries have introduced complementary currencies only very cautiously because of the experience of the 1930s in Austria and Germany, when the first functioning models, namely in Wörgl and Schwanenkirchen, were dismantled by court decisions and legislative action.

Introduction of a regional currency also involves surveying the legal surroundings. Hugo Godschalk, one of Germany's experts in the field, describes how difficult it is to say whether a regional complementary currency can

even be called "money," as the legal definition of money is still disputed.[62] However, one important criterion for the introduction of a regional complementary currency is to distinguish it clearly from the national currency. The user must be able to recognize at sight that a "Regio" bill is *not* national currency. The name of the monetary unit should also differ from that of the official legal tender.

As long as regional currencies do not displace the national currency to any great extent, they present no problem to the German Bundesbank. But what would happen if this should change and the use of the "Regio" became far more widespread? I'm not worried. Given the loss of esteem that the big banks — "too big to fail" — have suffered among large segments of the public, it should prove difficult for the government to ban well-functioning complementary currencies.

The acceptance and spread of new forms of money depends not only on the social commitment, far-sightedness, and courage of the initiators, but also on political and institutional decision-makers.

So far, all complementary currencies have been implemented — by motivated individuals or groups — on an honorary basis. They provide at the same time laboratories for new ways of dealing with money. Research would collapse — in no time — if medical, biological or chemical laboratories were staffed by volunteers. Can we really afford to pursue in such a haphazard way the development of the most influential field of our economy — the money system?

Outstanding examples show that it is worth investing in this field. Thus the cooperation between a region and a community bank issuing a regional currency — the Banco Palmas — is the world's best example of a poor community using a complementary currency to help itself. The bank, which was founded in 1998 in Conjunto Palmeiras near Fortaleza, Brazil, is like a school for both money and community development. In 1997, 80% of the inhabitants' purchases were made outside the community; by 2011, 93% were made in the district. It has created over 1,800 jobs, is the exclusive source of currency for many people, and has sparked imitations in 66 communities around the world's fifth-largest country. It has the full support of the Brazilian government and Central Bank. The President of the Central Bank even apologised for its early negative treatment of Banco Palmas. Microcredit combined with a local currency keeps wealth local and reduces transport costs, "food miles," and CO_2 footprints. Thus regional money works to protect the local and global environment. Support for "community development banks" issuing new currency is now state policy.

I believe that the lessons learned from the current crisis that has devastated so many individual savings accounts and ruined firms all over the globe will boost our courage to try out new ways of dealing with different types of money and finance on a worldwide scale — the courage to *occupy money*.

Sustainable Money—An Idea Whose Time Has Come

As important as it is to curtail the exponential growth dynamic with its ingrained compound interest, and although doing so may well bring about an increase in our general welfare, it is not a cure-all. I sometimes compare the effect of interest-free money to that of homeopathic remedies: it might exacerbate the situation at first by making all kinds of things profitable that were unprofitable before. That would indeed create more favorable conditions for ecological activities and projects, on the one hand, but it would also increase the profitability of environmentally damaging activities, and could spur an initial upswing of consumerism as well.

So to assure that the new sustainable money will move in the right direction, it is vital, in the next phase, to make prices that tell the "ecological truth"[63] of our

lifestyle decisions reflecting the real costs that our transactions impose on the environment and on coming generations. All progressive economists support this view.

As with homeopathy, however, after an initial exacerbation of symptoms, an interest-free monetary system can soon return the economy to real health — because the money in circulation can stop growing once it's reached its optimum amount. That's precisely what differentiates it from conventional money, which doesn't stop growing until the exponential growth process kills it.

A potential problem arises, however. If interest as the most important market price can be reduced by demurrage and hover around zero, and if currency speculation is no longer lucrative and therefore ceases, speculators will likely redirect their focus to land and real estate. This must be prevented by taxing such speculative profits accordingly. Since the land on which we live actually belongs to all of us, issuing land via leaseholds would create a far greater benefit than private land ownership, which has always invited speculation.[64]

It's important to keep this relationship between cause and effect clearly in mind. Take, for example, the agricultural land in my home of Lower Saxony. Since investors are hunting for tangible assets to invest in before the next stock market bubble bursts, land prices there have increased threefold. In many developing countries, huge tract sales are putting farm- and ranchland out of reach for the local populace — especially farmers. Similarly, in-

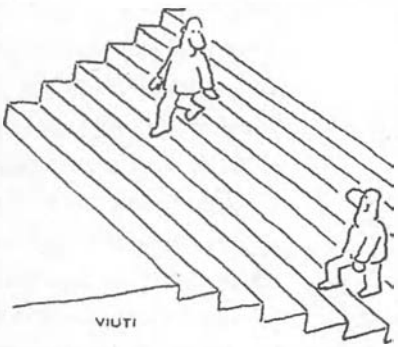
vestors speculate on staple food prices on the exchange markets, hiking up the prices worldwide and inflicting often catastrophic hunger on people in the developing world.

The need for mass participation

If we want to prevent bloody social revolutions or a new brand of monetary dictatorship, all sectors of society need to join in an open discussion, including citizen groups that have been addressing the money topic for decades, academic experts, politicians, bankers, right on up to the central banks.

Their collaboration in a creative dialog will be crucial if we are to overcome the current global calamity. Complementary currency initiatives alone, even in great numbers, will not suffice to solve a crisis this large.

Science advances via research and experimentation. Only the economic sciences have neglected for hundreds of years to improve the design of that most basic element of their professional field, the monetary system. Money is still often treated as a "neutral veil" over the economy. But if there's one thing I've learned and experienced over the past



We need a change of perspective from above and below

30 years, it's that this misinterpretation of how money works has contributed powerfully to today's crisis. So it makes less sense than ever to keep paying homage to it.[65]

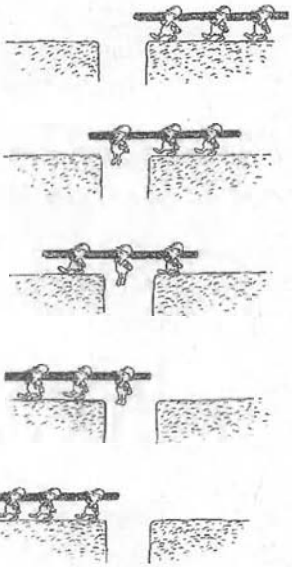
The magic formula: Smaller organizational units

The monetary system is at the core of every national economy. The system rules in force today have proved inadequate. So it's incumbent on us to replace them with new rules, written in language that everyone can understand.

At present we're stuck in the near-vertical part of the exponential growth curve of money assets and debt. In nature the organism harboring this diseased growth would be on the verge of death. Can we even grasp that we've lost control—that we don't rule this system, but it rules us?

We need a transition process in which the creative power of money issuance is transferred to new institutions that will use this power to benefit society, thereby ending the domination of our compulsive, boundless expansion of money and debt. Only via a transition of this sort can we initiate a peaceful, evolutionary process that will lead us out of the crisis.

We must also find our way back to smaller organizational units,[66] decentralizing the power that currently rests in the hands of the few. That's the only way to transfer responsibility to a group of democratically elected decision-makers large enough to move us forward.



Sharing responsibility

Even large corporations now recognize that the future lies in localization within globalization, as outlined, e.g., in the working paper "Global Added Value Generated by the Volkswagen Group." The authors state, "Increasing localization within the framework of globalization will continue to be an important phenomenon in the future. Corporations should not take it for granted that in a so-called globalized world, everything will follow a unified global model."[67] It appears only the central banks and their ilk still worship the doctrine of monolithic control over all aspects of their product—in their case, money.

I agree with critics like economist Johann Walter who having recognized this problem argue in favor of a "new monetary order" because the dominant order is

> suboptimal from a macro-economic, structural and regulative point of view, owing to its harmful compulsion to grow and create debt, its unstable money supply, and the (social) polarization it generates. Although powerful, the central bank is only able to implement anti-cyclical monetary policies to a limited extent. This is why we need to

engage in a fundamental debate about the existing monetary order. None of the ideas concerning a restructuring of the banking sector that have been put forward to date go far enough.[68]

New sustainable money needs "old" money

The financial industry does everything in its power to maintain the status quo and resist changes. For example, three million euros of lobbying money are spent in Brussels every day to make sure everything stays put. And Washington is home to five financial lobbyists for each congressional representative.

But Occupy Wall Street and its emulators show that people are no longer willing to put up with the status quo. It is critically important for this peaceful evolutionary movement to grow and to help formulate long-overdue changes to our monetary and financial system.

Introducing new bank products is risky. Marketing costs run to millions of dollars, and profitable yields can hardly be expected from a model that is not devoted to returns on investment. This is a problem facing every established bank. If they have to pay interest on savings deposits, but the envisioned new model relies on their customers' willingness to waive their interest earnings, then the introduction of this model is not just ideologically unorthodox, but financially risky. How do banks expect to continue selling interest-bearing "bank prod-

ucts"—i.e., loans—if they offer interest-free loans at the same time? How can they explain to their customers that they'd like to be issuing interest-free loans, if the customers are not willing to stop earning interest from their savings?

Ideally, what we need are savers who understand that they have a unique chance to help bring into the world a sustainable monetary system that benefits us all.

At the beginning, in spite of the inevitable missteps that birthing these new models will entail, ultimately some of them will prevail. It's gratifying to note that the worldwide grassroots, democratic youth movement has included the money topic among the top items of their reform agenda. I wish them all success in putting these visionary monetary concepts into practice.

The advantages of a sustainable money system

The examples I've cited show that, by following the basic rules outlined above, robust interest-free monetary systems *can* be set up to complement the present system. Here's a review of the advantages of sustainable money.

Sustainable money substitutes real benefit for "paper profit."

That is the fundamental difference. Real benefit does not rule out profit, but it does subordinate profit to social value.

Its scope is limited, not universal.
A complemetary currency like the Saber is hardly going to be traded on the world market, for example.

It is backed by fees and earns no interest.
Keeping it in circulation is what guarantees its stability. In the new system, exponential growth is a feature neither of monetary assets nor of debt.

It is easy to understand.
Everyone understands how it originates and how it functions—in contrast to conventional money, about whose origin and function even the economists who work with it disagree.

It can be controlled democratically.
It will end the chaotic use of money as an instrument of power.

It supports community.
Its functional essence is communication. Conventional money undermines community because it does its work largely apart from person-to-person communication.

It curbs inflation.
It is backed 100% by goods and services every time it changes hands. Conventional systems are beset worldwide by inflation, because inexorable debt growth forces

central banks to print more money than is justified by the real economy of goods and services.

It is backed by performance, not by ownership.
Time spent and productivity are the basis of earnings in a complementary currency, regardless of one's wealth and status. Classic bank loans, by contrast, require the borrower to post collateral theoretically equal to the loan amount.

It benefits everyone.
Sustainable money benefits that 90% of society who will nearly double their present income as the interest hidden in prices dies away. And it benefits the remaining 10% as well — people who prefer a stable money system that maintains their wealth to a system that may increase their wealth, but destabilizes it. In the truest sense of the word, sustainable money will provide us access to *service* — service to our communities, our environment, and our coming generations.

The time has come for the systematic adoption of *sustainable money*. Let's get moving.

Insanity is doing the same thing over and over and expecting different results.

« ALBERT EINSTEIN »

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63. A term coined by Ernst-Ulrich von Weizsäcker.
64. Margrit Kennedy, *Geld ohne Zinsen und Inflation* (Interest and Inflation Free Money), 8th edition, Munich, 2006, pp. 60ff.
65. See conclusions in Hans Bürger and Kurt W. Rothschild, *Wie Wirtschaft die Welt bewegt: Die großen ökonomischen Modelle auf dem Prüfstand* (How Economics Moves the World: A Critical Observation of the Large Economic Models), Vienna, 2009.
66. This was already brilliantly argued and postulated by Leopold Kohr and E. F. Schumacher decades ago. The book by Schumacher published in 1973, *Small Is Beautiful: A Study of Economics as If People Mattered*, is regarded as one of the 100 most influential books published since the Second World War. He is one of the most renowned heterodox economists.

67. Stefan Schmid and Philipp Grosche, *Globale Wertschöpfung im Volkswagen-Konzern: Auf dem Weg zu mehr Dezentralisierung bei Produktion und Entwicklung* (Global Added Value Generated by the Volkswagen Group: On the Way to More Decentralization in Production and Development), ESCP-EAP Working Paper, No. 41, 11. 2008, page 35; see also escp-eap.eu/uploads/media/WP-41_Schmid-Grosche_Volkswagen_01.pdf.
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About the Author

Margrit Kennedy, born in 1939, is an architect and an urban and regional planner with a doctorate in public and international affairs. As the head of the Research Department Ecology and Energy at the International Building Exhibition in Berlin from 1979–1984, and in her teaching and research as a professor for "Building Technology and Resource-Efficient Construction" at the University of Hanover from 1991–2002, she came to understand that the monetary system is a primary cause of our ecological and economic problems. In 1987, she wrote the bestseller "Interest and Inflation Free Money," which has been translated into 23 languages, revised and updated in 1991 and in the expanded German version in 2006. Her book *Regional Currencies: A New Path to Sustainable Prosperity*, 2004, written in cooperation with Bernard Lietaer, has become a standard of the regional money movement in Germany. It has also become a point of entry for such models in other parts of Europe, owing to its translation into Spanish and French. Triarchy Press in the UK (triarchypress.com) is publishing the first English-language edition, edited and abridged by John Rogers, in 2012.

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For almost 30 years, Margrit Kennedy has been explaining in lectures and seminars how to overcome "economic illiteracy" so that money can finally serve people rather than vice versa, as is the case today. Currently her work focuses on introducing and testing complementary payment media.

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We can create a money system that is the ally, and not the enemy, of all that is precious in the world. We can make money into something we can truly embrace as ours. That, I think, is the heart of the call to occupy money. These are hands-on solutions that are available to every citizen, without having to wait for those in power to make changes from above.

— CHARLES EISENSTEIN, from the Foreword

INFLATION AND COMPOUND INTEREST have caused our monetary system to balloon to the point where bailing out banks, large corporations, and even entire countries will not prevent a complete breakdown of the global economy – unless we make some fundamental changes. It's time for a grassroots movement to knock conventional money off its pedestal and replace it with a fresh paradigm that puts people before profits.

Occupy Money makes the case for a stable and sustainable monetary system that reflects real wealth instead of the smoke and mirrors of speculative profit. This hopeful vision can be realized through such creative initiatives as:

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- Re-localizing economies through regional currencies
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For many years financial insiders have hidden economic truths by describing them in arcane terms that no layperson can understand. *Occupy Money* cuts through the confusion and clearly and succinctly explains how, rather than favoring the 1% at the expense of the 99%, we can restructure our monetary system to meet the needs of us all. In so doing, this revolutionary manifesto issues a challenge to the very foundations of conventional economic doctrine.

Margrit Kennedy's timely book provides a geography of hope for practical new money systems … these are the seeds that need to be planted in the new economic spring of well-being that is emerging.

— MARK ANIELSKI, economist and author of *The Economics of Happiness*

MARGRIT KENNEDY is the author of the international best-seller *Interest and Inflation Free Money*, an outspoken critic of the current global economic system and a renowned advocate of alternative regional and complementary currencies.

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