

## World's Economy: what is money? Physicist's approach to tendencies in world's economy

Zeps, Dainis

University of Latvia. Institute of Mathematics and Computer Science

24 March 2009

Online at https://mpra.ub.uni-muenchen.de/20284/MPRA Paper No. 20284, posted 27 Jan 2010 17:04 UTC

# World's Economy: What is Money?

### Physicist's approach to tendencies in world's economy

#### **Dainis Zeps**

dainize@mii.lu.lv

**Institute of Mathematics and Computer Science** 

March 2009,

Revised January 2010

#### **Abstract**

Today economy is run without knowing the rules, or what is run whatsoever. Perhaps commonwealth should be allowed to function under its own laws that could be discovered similarly to those, say, in physics or biology. Moreover, perhaps the quantity value of what money measures could be discovered as well. Greed in whatever appearance, direct or hidden, should be detected as maleficence and excluded completely from scientifically guided economy.

**Key words**: world's economy, crisis, money, bubble of value, greed, noosphere, psychology, religion, physics, commonwealth, common good.

#### Introduction

Along with the globalization of economy, money for the first time starts to function as the global measure of value, and the current world crisis shows that economists do not know the rules how money works, and, moreover, they do not know what money actually is, because money has started to function as a global parameter for the dynamics of economy only in the conditions of economy's global functioning.

Although economists observe empirically that money tends to become less and less valuable as the world economy grows, they have not noticed that it is not the value of money itself that actually grows; instead, it is some kind of a "bubble" forming behind the process of change due to incorrect consideration of the global rules of economy. As soon as economy

becomes global, the bubble bursts, and we find ourselves in a situation where we are unable to follow and understand the process anymore.

Former as well as today's economy is based on the principle of greed, if simplified. However, it should be capable to function in accordance with its own rules or laws. What are these rules or laws? Now the world is forced to start thinking of it seriously, not simply following what first comes into one's head. Physicists build incredibly complicate theories and experimental devices in order to find the fundamental blocks of the universe, whereas contemporary economists are generally still on the same level, or about the same, as Heraclites who bought the whole year's olive crop, trying to persuade the rulers of the polis that economy is also subject to rules.

#### What makes things valuable actually?

Question about what actually is valuable, is of first order of significance for commonwealth. But what concerns current economy, the process of valuation or assignment of its value to what is assessed is based on the principle of greed or lucre. The direct problems arise in case we need the reassessment of previous values when for some reason values are changing. The greed wants to rescue what it has in any case without any loss of values as their possesions whatsoever. Isn't the crisis actually this problem of the reluctance of greed to loose values of their possesions?

But we are interested in objective rules/laws of economy and assessment of values without presence of notion of greed or lucrativeness directly although knowing that they should stand somewhere behind. Have we escaped detriment that through overseeing greed as objectivity we have overseen actual process of forming of values in our commonwealth? No, we have not escaped this, and we may now name the effect of this as some formation of *bubbles of values*. What they are – these bubbles? May we define them? We think that it is easer to show some well known examples from crisis's genesis than to define the thing itself. We give three bubble-formation examples.

First. What are these values what were left overseen that allowed the pre-crisis-bubble to inflate to these tremendous dimensions? Most of them are connected with the people themselves considering them both as producers and consumers of goods of commonwealth. Crucial for understanding of crisis is to notice how radically some well accustamed anthropic values have changed, i.e., pretending not to see this is to let inflation of bubbles go on. Bubble-burst has left nominal money keepers without money itself because it is lent to someone who never would be able this money to return. These we might call *bubble-creditors*. But world is not yet ready to isolate oneself from these people and their aggression. As a result, world doesn't possess initiative to start to functionate appropriately in after-bubble-burst-world, and the world is developing in direction of some auto-abysses or like name of what nobody knows. Second, bubble-burst has left whole army of people who are considered as before-bubble-burst-most-valuable-part-of-humanity: they are mostly these who are considerably more wealthy (with higher incomes 10<sup>5</sup> times and more) than these who are dying in Africa from starvation, but actual estimation of all this should be

a subject of new science of values in commonwealth. Third, bubble-burst has left incredible amount of products of production, be these buildings, cars, computers, and whatever else in no ones possession or in eventual possession of creditors, which value tends to be left outside the reach of the real market of the world, and now these things themselves are left for something specifically contrary to abyss, figurally speaking: now these things are moving upwards from below with tremendous speed, but after some time they should fall down from heaven, and nobody knows who would be, if any, happy possessor of singular thing.

The three named bubble formations are the main subject of the new science of value of money that world economic crisis has posed to us. Not solving them is not solving whatsoever. Whoever teaches otherwise is deceiving community or oneself.

Of course, there is some functional part of the eventually new science of economy that should be constructed or invented from the very beginnings, but it should be developed as exact science but not as tool for group of most greedy persons.

#### What world community presently have as measure of value of money?

At present, it is market, demand and supply, with addendum in tools of regulations by legal laws, that is naming prices for things, and in whole and in general produces value for money. Market in generally sense, where human qualification becomes article of market too, produces all including values of their own constituents. All this starts with rude demand and supply rule, and then, with interference of legal laws and regulations, develops in what we see all over.

But in nature laws are not invented in sense as legal laws are invented in some authoritative country by dictator. Laws and rules are discovered, not invented. Maybe God invents rules, but people must them discover. The same applys for rules of commonwealth. We see now only some empirical approach at work: market is let to run spontaneoously by letting it run on its own only with some episodic interferences from side of legislature. The praxis of the market's correction with legal laws as model of world economy might be compared in physics with some assumable lasting investigation, say, of second law of Newton, starting, say, with  $g_1(F) = g_2(m)g_3(a)$  rule, and thenafter, taking some hundreds of years to discover that , say, function  $g_1$  should be linear, then this same for other function and the other too, in some complicate mixture of discoveries of these linear dependencies, but with incredible time consuming duration. Why so? Nobody is believing there should be rules? Who gave the knowledge to Newton? Apple?

But, dear economists, there should be rules and laws of nature, the same rules and laws that we find in nature but only with anthropic implication. Thus, to solve our problem of how to run economy, we must facilitate development of all anthropic sciences, which, in their turn, should give clues for exact economical science too. One more suggestion, the problem might turn to be so complicate that we need to take for its solving our common effort, but how to exercise it, the common effort? Yes, what could be our common effort when we know only one way of running of economy – who grabs first is wealthier? First of all, we must allow all

sciences develop, be they of religious or mystical or whatever else cast from today point of view, some examples being these: (1; 2; 3; 4; 5; 6; 7; 8). We must say to ourselves that sciences are these activities of our lifestyle that lead us to our commonwealth. Third, there is no escape from these statements, either we solve, or we die. Second, we must think about science not as competitive activity, i.e., who is cleverer is more winning, but that we all, by thinking and by scientific activities, are doing some common work. In (9) author suggested to consider collective thinking as process something comparable with time in general. Let us use notion of noosphere, used in their scientific argument by Teilhard de Chardin (10) and by Vernadsky (11). Noosphere may be considered both as collective mind and capacitor of results of thinking. If noosphere might be considered as general container of whatever thinking activity, there could be sense for some scientific subsphere of noosphere, scholarsphere or ratio-sphere, or called whatsoever else, that would correlate to mind more specifically in some scientific way. We already have one common effort, that natural one, i.e., our contribution in noosphere, but we have not learned to use it sufficiently creatively or sufficiently targeted. All types of competitiveness should be eliminated from our scientific praxis.

Returning to the question posted in the beginning of paragraph we must realize that we can't think that we have only theories dependent from market, and that would be sufficient. Let to the contrary, for a while, let cast out all what we have in connection with market, and see, what we have left behind, and then start from this point as some ground state. This attitude is valuable because we may be forced to behave just in this way in case economy stops completely. We named three big spheres which should burst; after this we would start from some very beginning: which rules we would apply? Are we going to leave this question to these who would survive, who would be rulers in this period?

#### What could be taken from physical sciences?

Physics may be called science number one not because it tackles problems of ground rules of nature, but because it has achieved the most incredible success in its development. In case Heraclites could visit our planet second times, he would be surprised by at least two things: first, that people still needs his suggestions about how to solve their economical problems, and bye one more year's crop of olives, and, second, how far contemporary physics is from the state that was in disposal of his time. Following this point, let us ponder, isn't this somewhat escaped from notice of most clever scientists and contributors to economic sciences? Someone may argue that economic sciences use most forwarded methods of modeling of mathematics, and so on. Rubbish. The notion of values as scientific qualities, qualifiers, or quantifiers are absent in economical sciences at all. Nobody knows what money is actually, what is its value. Are gangsters those who know proper value of money? But it is not science. Greed is borrowed from animal world, not from scientific way of thinking.

World's economy has resourses to produce and has already produced sufficiently many goods for all people to live in the world comfortably. We do not need to struggle for existence in sense of living any more, at least, in general, and if somewhere these problems

still are present then because of these same reasons why world is in conditions of crisis but not because of lack of ways to produce goods in the world sufficiently. World has experienced Romanian empire, Medieval times with feudal way of running economy, modern times with capitalistic economy after Adams Smith model. Now we come to something else, something new when world has become global what concerns transfer of information with speed information spreads physically. We must start to discover proper rules of economy, of role of money in it, we must discover what money is actually whether we need it at all.

In book (12) Kerson Huang shows how all physical laws may be arranged in nature under one general pattern. Gauge symmetry, equipped with most forwarded mathematical tools switches all necessary things that arrange laws of physics in nature in way that one might wonder who all this arranged in our universe. But this beautiful picture of our universe with laws of nature being run there is revealed before our eyes only after scientists in all times have exercised incredibly great effort and ingenuity. But, after all, the world is the same, matter and its rules are run by mostly simple and beautiful laws. (Even God who might be very responsible person for all this is not found to be the most greedy person in universe. What a miracle for all greedy of our planet!) Then, maybe our commonwealth may be run by this same pattern? Or even, not we would be who run it, similarly as in case of universe, when it is run from nature, or God, if person at all. Maybe we should do some proper actions, and commonwealth, to response to our actions, would function according the well known rules. Which rules?

Rules have two sides. Functional side and nominal side. For us, first it is crucial to find how these rules work. Then after, we may try to find nominal side too, and try to formulate them. Central question in all this theory should be question – what actually money is, what value is measured by money, how value works in economy? What value should be measured by money? Now money is subdued to voluntary actions of stock exchange transactions; why these actions are performed by persons, why only greed at work? If we could run all this under some discovered laws then money maybe would emerge as some measuring instrument of values in transactions in commonwealth.

Physics (13; 14) has many to say, much more to say to hep us – let us draw physicists in for rescuing of world's commonwealth. In today's understanding of economy, money measures some general value, but of what? Is this value degree of freedom? But then, why only one? In sciences we know many degrees of freedom under action. Maybe, we do not understand what we run if only one degree of freedom is applied in our way of running of economy? Or money measures some other quantity, directly or some hidden not yet discovered? Then this quantity achieves values that money tries to measure, either directly, or via some rule. This quantity would be parameter of the whole body of commonwealth: but it functions as degree of freedom in the same time too. In any case, rules of what we are running should be discovered, and scientists have many models in other fields of human investigations which would serve as good patterns for management of commonwealth.

Scientists. The answer is trivial. But why nobody has noticed this? Why society is ruled by people who are named presidents, ministers, members of parlaments, administrators, officials, political responsible persons, and so on? Of course, people have noticed from time immemorial, if someone has no access to money, he may be most honest person in the world, but, it suffices to appoint him or her to some office with access to money, and outcome may be most unpredictable resulting for him or her may to become most adherent person with valuing money by uncontrollable growing greed.

What works against greed? Some people are preordained by Providence to be outside this vice. But let leave this outside this text. Let person's occupation make person's position without need for greed in its characterization. One of such is person's occupation with science, but without personal profit. Or simpler, we must learn to discern when person is occupied in science only with interest for this science or with other implications. Today we would have sufficiently developed physical equipments to measure parameters of person's psychological behaviour in the process of thinking, whether person thinks about personal profit or society's, but nowadays nobody don't seems of trying to solve these problems in this way, because this would be the greatest threat for all greedy persons in the world who as a rule sit in the chairs of presidents, ministers and other mostly profitable offices.

Thus, first method would be to force people become scientists. But not all people may become scientists. Maybe in future, not today. Next thing to be called, may be religious. For religious ones there applies the same argument that in science. Religious person may be as greedy as most greedy parasite in the world. But, as we told before, there are actually religious people who receive from their being religious very great inner support of force, pleasure, happiness, and so on, possibly naming all Holy Spirit graces from Bible. In the same time, there may be persons who try to use false religiousness, pretending being such, trying to get profit from all this business. How we can decide? After all, can't be persons with both trends, good and evil mixed up? May be, who knows.

What are else human activities that make people less subjected to vice of greed? Arts, and being artist. Next, all creative pleople. And, in the end, people who tend to think more for benefit of other people than for themselves. From point of view of greedy persons, they are ill, they are mad; they can't defend themselves, they are not able to do things for themselves, because in this they do not have any sense of their lives. They are unguarded from side of society. People with natural instinct of greed do not love such people. We know that such people exist among us. Some of them we know from history. We know Nikola Tesla (15). But there are many of them who didn't become famous inventors or whosoever else. Why we do not have scientific equipment to measure crucial brain activities of such people? *Exempli gratia*, we have lie-detectors invented, why not greedy-detectors<sup>1</sup>? The problem is harder? No. Answer is clear enough: we are forced think that these benefactors are our presidents, bank presidents, mostly paid persons on the planet Earth. In no case we should learn that some or rather many of them maybe sit in prisons, are inhabitants of madhouses, or are simply beggars or bushrangers. Many of such people are actually in the

<sup>&</sup>lt;sup>1</sup> Such greedy-detectors would become very dangerous instrument for all who now are ruling our countries and commonwealth in general.

world (how many? who knows), let world economy's rescuers try to find at least some of them, in lunatic asylums or like, in order to rescue by help of them their spared billions and, as small addendum, the whole world by the way.

#### Escape by use of implanted society?

One might suggest to solve money and greed's problem suggesting to implant all people with chips, in order money exchange to be run by use of global computer. Then after, people would use not to know what is money at all. All would be run by world's supercomputers, both financial operations, and economical actions. But it is not sort of solving of problem, this method is called *problem besoming under carpet* method. The disaster of this method might be even more horrible than now with money present. Nothing would be solved in this case: greed would be left, but now to operate with other methods: by achieving positions, offices, honors, and so on. The struggle would be carried out in other fronts with mostly avaricious or even more avaricious modes, but not be stopped in any way.

#### Another escape: Having problems, let us pray for others.

When we have most heavy problems without any escape whatsoever to do, what we would do? What to do when there are not let options to do anything? There is always one last option, and this is to pray God for people who maybe are in even worse conditions. But this is way of thinking suggested by theology, or religious teachings, or religious ethics, and so on.

But let us turn this paradigm other way. Let us suppose that there could be analogue approach in business-like world too. What we mean by this? Maybe, in case we want to solve our general problem of economy's rescuing, there exist some way to try to apply this religious-like approach. Let, in case some person does not have money to solve his own problem, he be performing action to help someone in similar or even worse position. Figurally saying, let someone help to someone in Africa not to die in order to rescue person's own economical position. And, maybe, as some mode of side effect, after person has learnt this method he would cease to think only for his own benefit but starts to think for benefit of other people too.

This gives us general clue after all. Let us give rights to exercise commercial activities only to people who do this for benefit of society but not only for themselves. We know that partially this rule works, i.e., business people procure working places, jobs for society, they supply shops with goods, they produce all type of goods, after all. Now, let this approach work completely, to the very end. Firstly, let do not allow to exercise commercial activity on the most high levels to greedy persons. Second, let us discover precise rules how we could run economy under such conditions in general. Let us discover psychology of person able to be manipulate with money.

Let God be with us and we do not stand in His way to procure us with His mercy what concerns world economy too.

#### References

- 1. **Bohm, David.** *Wholeness and the Implicate Order*. Routledge, 2002.
- 2. **D'Aquili, Eugene un Newberg, Andrew B.** *The Mystical Mind: Probing the Biology of Religious Experience.* bez viet. : Augsburg Fortress Publishers, 1999.
- 3. **Dlyasin, G.** Azbuka Germesa Trismegista ili molekularnaja tainopis mishelnija. 2002.
- 4. **Ouspensky, Peter.** *Tertium Organum. Key to Solving Mysteries of the World. In Russian.* 1911.
- 5. **Radin, Dean.** *Entangled Minds. Extrasensory Experiences in a Qauntum Reality.* Paraview Pocket Books, 2006.
- 6. **Steiner, Rudolf.** *Die vierte Dimension. Mathematik und Wirklichkeit.* Dornach : R. Steiner Verlag, 1995.
- 7. **Whorf, Benjamin Lee.** *Language, Mind and Reality*.1952. gada, A Review of General Semantics, Vol. IX, No 3, 167-188.
- 8. **Tipler, Frank J.** *Structure of the World from Pure Numbers*. 2005. gada, Reports on Progress in Physics, 68, lpp. 897-964.
- 9. **Zeps, D.** Cognitum hypothesis and cognitum consciousness. How time and space concetion of idealistic philosophy is supported by contemporary physics. 2005.
- 10. **De Chardin, Teilhard.** *The Phenomenon of Man.* 1975.
- 11. **Vernadski, Vladimir.** *Biosphere and Noosphere (In Russian).* Moscow. 2002.
- 12. **Huang, Kerson.** *Fundamental Forces of Nature. The Story of Gauge Fields.* Singapore : World Scientific, 2007.
- 13. **Penrose, Roger.** *The Road to Reality. A Complete Guide to the Laws of the Universe.* New Yourk: Vintage Books, 2007.
- 14. **Lisi, A. Garrett.** *An Exceptionally Simple Theory of Everything.* 2007. gada, arXiv:0711.0770v1, lpp. 31.
- 15. **Seifer, Marc.** Wizard: The Life and Times of Nikola Tesla: Biography of a Genius (Citadel Press Book) by Marc Seifer. Citadel Press Book, 2001.