# Can we break the cycles of economic crises?

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While the European Union is still fighting against the crisis that threatens the integrity of the continent, there may be developing technologies that might help to prevent such damage. What can the European Union do against the crisis and how will be able to foresee the weaknesses of the economic and social system?

#### I. INTRODUCTION

Seeing the European Union struggle in the current waves of the crisis, many people might ask: is the EU taking the right way in order to decrease the negative effects of the crisis. How can the European Union handle the situation, when it is not only about effects from the outside, but serious tension inside of it?

Will there be a chance to foresee these crises? The technological foundation already exists, but how far are we from this kind of use of it?

## II. CRISIS MANAGEMENT IN THE EUROPEAN UNION

It is important to note right in the beginning that although the goal of the founding of the European Union was to gather the European countries under one flag, the inner differences between the states has not disappeared, yet it has grown bigger with the outbreak of the crisis.

The developing countries tried to keep up pace, tried to get closer to the developed countries, as the result of all negative effects these last few years has made, simply deleted every development.

After the Soviet Union fell apart, those states that were once part of, were suddenly alone. They highly depended on the western countries that were more stable and much richer. The rising of the debt of these developing countries started this time, when the change from communism to capitalism began. In order to launch this kind of system change, they needed to get loans from the western countries.

The fact that most of these states became later part of the European Union, is a proof that they turned out to be a good investment for Western Europe. But the current crisis can easily change this, because the developing countries get more easily destabilized, and while bankruptcy endargers them, it also may destabilize the developed countries due to the tight financial and economical connection. They had to decide: the developing countries should be subsidized or left alone?

The biggest problem is that because the European Union itself is not unified, it is very difficult to find a strategy that fits every member. And the fact has to be taken into account that every economic crisis is different, that is why no precedent can be made to help in a future crisis.

The lack of unity forces the european countries to find their own method to manage this crisis. So, we cannot speak of a universal crisis management, only about individual. This is sometimes gets more difficult when the rules of the Union come in, just like excessive deficit procedure. It might seem that the Union thinks the best way is growth with the reducing of deficit.

It is highly unlikely that develpong countries can follow this strategy in this state of economy. It is already hard to reduce the deficit, but to create surplus in the budget seems even more impossible even with restrictive actions and keeping the country's expences on level.

An interesting option might occur at this point, thinking about the deficit of states budgets. What if there would be an opportunity to let the deficit grow to a certain level, around 6-7 percent? If this could be done, maybe a little "push" to the economy could be made with reducing taxes. Although, to maintain balance, we have to think of the economy growth as well.

For example, if the taxes are reduced from 40 to 30 percent (in the ratio of GDP) we need to make a 33 percent growth in GDP in one year. But if we give not one but three years of elevated deficit, the GDP growth will become "only" 10 percent per year.

Even with the current states of the developing countries it is a highly unlikely strategy to make, not to mention that during these years the expences must not grow.

If the growth has already started, producing may grow even faster, because during the crisis unnecessary capacities form (such as machines, manpower). These "resting" capacities can be used quickly and efficiently, but only if there is need for them.

Every crisis has its own properties of making products and services unneeded that were popular before the crisis, not to mention the probable technological development that may occur during these years.

So it is likely that not all of these "resting" capacities will be used after the crisis, and is probable that in this case the GDP growth needed cannot be produced. This makes the elevation of the deficit very risky.

The other opportunity is to let the economic system do its work, letting the spontaneous processes take over. The depression of the crisis and the turning point will happen even when governments do nothing.

If we examine a closed economy with a crisis outbreak, producing will reduce. Accordingly, the realized income will reduce, with the consequenses of the disappearance of savings. We have to see though that the consumption will reduce slower than the production, because - if we assume that working people have savings - society will cover their expences by using their savings.

As the producing and consumption fall, there will come a turning point, where consumption becomes bigger than production. And that will cause a slight growth in creating products and services. And this happen without the government interfering.

But in the case of bankruptcy there is a high chance of restrictive politics to occur. This has long term consequences of depening the crisis, which will be longer in the end. As soon as a country prevented the financial breakdown, it has to stop restrictions.

Can restrictions be the solution to the crisis? Although people might be sick of only mentioning it, economically can it have curing effects? In the state of trying to regain balance, it might happen that restrictions cause the lack of balance to grow bigger.

If we examine the Hungarian economic state after the Soviet Union fell apart, with the losing of economic and financial contacts, the recession was bigger than during the years of the Great World Crisis. After a few years bankruptcy became a real danger more than ever, but suddenly recovery started spontaneously in 1994.

The recovery continued until the "package" of Bokros and Surányi was announced, which delayed the growth of Hungary for a few years. But it can be seen that spontaneous recovery can occur in any country, although restrictions can stop that process.

So long with the contribution of IMF and the Central Bank of Europe financial "firewalls" were set up with the task to financially help out those countries that are close to bankruptcy.

The operation of these firewalls were approved by the parliament of european countries and the financial background is also provided by these countries.

The first firewall was the European Financial Stability Facility (EFSF) which had the priority to secure the financial stability of Europe and if necessary, giving loans to those who needed. In the opinion of IMF this "experiment" was successful, therefore the European Stabilty Mechanism (ESM) will take over its prior tasks.

The European meeting in October 2012 this decision was made of the ESM, furthermore it was decided that the financial institutes will get the loan directly, so no request will be necessary from their government. Int his meeting the bank union was also mentioned, because it is a very needed union in Europe.

The disadvantage of it is that only the members of the eurozone will get a vote in the Central Bank of Europe, other countries would be labeled as secondary members of the European Union.

Naturally, all those countries that are not part of the eurozone declared this as discriminative. Politically this problem can be solved, but legally this will be a harder job.

Meanwhile the gossips of Germany leaving the eurozone have come up again, and according to a survey, 51 percent of Great-Britain would also leave the European Union. But it has to be noted that the British are depending on the economic performance of the EU, and the other main partner, the United States of America is also performing weakly. That is why the British government decided to take restrictive steps in economics.

So the European Union has to face the crisis in a state where it is everything but not united. We can speak of members of the eurozone and those who are not members of it, the southern countries which are in a very destabilized state and the more stable. This is the reason we can assume that the best strategy would be to do nothing, let the spontaneous processes take over.

#### III. CAN THE ECONOMIC CRISES BE FORSEEN?

To deal with a problem it is better to prevent it. but an event as complex as an economic crisis how could be prevented in this world economic system? This events can be explained with the glitches of the system, so they urge the world to correct the mistakes.

Despite this can there be a tendency that can help us foresee the next crisis? And besides the social crisis that occured during this economic event could be foreseen as well in order to help to see when the next economic crisis rises?

It might be not so surprising that this technology already exists, and is under continuous development to make it more precise.

Humanity has reached a great technological development only in the last century and surprisingly the science fiction authors had a great part in this. We only have to think about the satellites (*Arthur C. Clarke*), submarines (*Jules Verne*), robotics (*Isaac Asimov*) or virtual reality (*Philip K. Dick*).

At the same time, these authors were able to see through their era's society, its mistakes and strengths and used them in their stories so precisely that they could almost foresee the future (for example the book of the *Strugackij-brothers* called *Inhabited Island*)

If they had such an impact on tehnological development, there might be a chance that there is an economical impact in these writings.

If we mention the word 'crisis', the most science fiction fan recalls the name of *Asimov*, because of the so called *Seldon-crises* in the *Foundation* series. Asimov's story describes the centuries after the falling apart of the Galactic Empire. *Hari Seldon*, the father of psychohistory (whiyh is the mathematical version of sociology and psychology), that helps the foresee the movements of huge amount of people, therefore their future can be predicted.

Seldon calculated the fall of the Empire and saw that thirty thousand years of barbarism will conquer the galaxy before the Second Empire could be created. He makes a plan to reduce these thirty thousand years to only a millenia, but through these thousand years the Foundation has to face crises from time to time. These crises end up shaping the face of the galaxy, slowly making it in the perfect shape for the Second Empire.

This theory, that huge masses movement can be calculated, both scientists and the intelligence try to use for their own benefit. The data required for this needs no search; in our information-addicted century provides it all by websearches, blogs and social sites.

This means that intelligence knows far more about us than we dare to imagine. Everyting we do on internet serves data to these technologies and our private lives may soon become no longer private. This is a huge concern of social scientists, but this predictive algorithm needs every data to be more precise. And we have to admit that people share those informations willingly. The other problem is that this programme is very similar to Pentagon's *Total Information Awareness (TIA)*, which was launched after the terrorist attacks in 2001.

Nowadays DARPA (Defence Advanced Research Projects Agency) tries to develop this programme to be more precise. Its main task is to predict terrorist attacks against the USA and trying to identify terrorist cells.

This system, despite the fact that it needs personal and private information, can be a huge step forward to foresee social crises, and may helps to prevent them. In many countries the economic crisis can be connected with the social events, because of the restrictive acts.

At the same time we cannot forget about the political use of the system. If this happens there might be a great chance that political crisis would outbreak.

Not to mention that while the system is not perfect there is a chance that innocent people will be found guilty by it.

But we have to admit that great predictive power lies in these programs. For example, analyzing the data from our cell phone can tell where we will be in a few hours or in a few days by the precicison of 93 percent.

It is already recodnized that huge crowds have a predictive power, may it be about a rebellion or economical trends. The intelligence of the United States is working on the more precise use of this power.

Universities "race" against each other in order to foresee an event more precisely. These universities gathered people in their projects and they try to predict epidemics or political events. They use different methods but the goal is the same, to be even more precise.

That's how we can see an other use of this huge database: it can give advises in certain situations. Countries' governments may use it to prevent unpleasant events or reduce their negative effects.

Although this system is under serious development, it is very possible that its predicted data will be used regularly in the near future. With this might help to create a harmonic and stable society and economics only if there will be leaders who can make the right decisions.



Figure 1. Prediction of the movement of the H5N1 avian flu in 2003-2004. The color gets lighter with the progression of time.

#### IV. SUMMARY

It can be seen that the diversity og the European Union causes the need of individulal crisis management in all countries. But, in the meantime the Union has to fill in its own holes: a monetary union has to established as soon as possible.

However, the inner tensions of the Union makes the establishment of this unity very difficult. We can see that the EU is not as unified as it was dreamt before its founding. We can speak about the eurozone and the countries outside of eurozone, those who are in a very dangerous position according to their economic states, and those who are trying to help them.

Crisis management can be difficult because of these tensions, therefore every country needs its own strategy suited for their own state.

This paper discusses three theoretical options for individual strategies. First, the rules of deficit were discussed: reducing deficit will lead to restrictive actions, which does not help the economy to grow.

Second, the possibility of increasing the deficit was stated, but this is risky for developing coountries, because the growth of the economy should balance the increase of deficit.

And third, there is a chance that if we let the spontaneous processes of the economy do their job, the economy will recover itself without anyone interfering.

In the second half of the paper a very interesting technology is introduced. Humanity is always interested in its own future and this might be the chance to foresee events in the world.

First it was used in military intelligence, but the theory of calculating the movement of huge masses is still under development. After the terrorist attacks in 2001 the need to recognise terrorist cells before they attack became the most important for the United States of America. In 2002 Pentagon launched *Total Information Awareness*, which used the data found on the internet.

Soon, it was stopped, but DARPA continued its work to foresee not only terrorist attacks but other events like epidemics and economical trends. And the best way to improve the system is to use the talented and interested youth of universities who try to predict the future as precisely as possible.

The conclusion is that whatever the governments do, the crisis will come to a turning point and soon economy starts growing again. This does not need any prediction to see that the mistakes of our economic system will cause more crises in the future.

The question is, will we be prepared for it, and do everything it takes to shorten the depression and to cure the system.

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