

Faced with a food and energy crisis, how can society improve its well-being?

### Summary

The food and energy crisis is global. The solution is also global. Carbon-dioxide emissions, climate change, global warming are words on the lips of every informed person on this world. There are more than words. There are real global problems. Can we find solutions or these problems are here to stay? There is no limit to innovation, research and development so we can find the answer to all our problems by working together for a better future.

We are facing a food and energy crisis there is no doubt about this. "The way we use energy threatens our planet." (Barak Obama, 2009) Why do we have these crises? Where do these crises come from? Are these man made crises? What can be done to design a solution that would make a difference?

Private investing in agriculture was neglected in developing and developed countries in the last decades because of the low profitability of the sector. The consequences are high social costs.

Agriculture has an important role of development so the world food crisis increased the attention on this sector. Will this make a difference or will agriculture continue to be neglected by government, private investors and international development agencies?

The continuous rising of food and energy prices (commodities) led to overshooting. Were the governments' policies wrong? Were there any policies?

Causes of the rising in food prices were biofuel policies that now need to be reviewed in US as well as in EU, changes in incomes in China and India that led to changes in diets, population growth, increasing volatility of the exchange rates, and drought in some places of the world.

Rural areas, where many small farmers live, are highly dependent on agricultural sector. The increase in the productive capacity of these areas is a solution to the food crisis. Policies that incentivise the increase in production are using more wisely the public budget.

The percentage of food and energy in the consumption basket is different depending on ones income. The food crisis impact is mostly felt by people who spend a large fraction of their income on food and because of this their health can be affected.

Global food security is a global problem so collective action must be taken with political support and international organizations involvement. This is no easy task and a can do mentality is necessary.

Central banks target core-inflation (excludes food and energy price fluctuations) Are central bankers taken care of the citizens by maintaining stable prices in the economy if they don't pay attention to food and energy prices?

In many parts of the world, inflation is above 10% so prices are far from stable. One conclusion can be reached: Inflation is back.

For global shocks, there is a need for global measures. What are the correct policy actions?

"Food prices are rising faster than other goods. The only times when prices of food increased faster than anything else were times of war. Every other year, on average, food prices increased slower than anything else the exception is the 2005-2008 period and we are in peace right now.[...]"

In the past the price of oil and the price of food have been negatively correlated except the last 5-6 years when the correlation is consistently (monthly) positive." (Roberto Rigobon research, 2008, MIT World)

One reason for these serious anomalies is that India and China are growing very fast, in fact they are booming. Lately the pace slowed. However, for how long?

The answer to these crises is a challenge. Policy makers must tailor the right policies that include the right incentives for innovation so solutions, which actually work, can be found.

The world's population power consumption will increase adding more and more terawatts to power demand so there is money to be made on this market. Because of the fact that it's not exactly known if the oil supply is at the peak while consumption is rising, global warming, climate change issues, the existing political risk in oil exporting countries (Iran) many alternative/green energy solutions to the above problems are developing fast. Topics like wind power, solar(-thermal) energy, geothermal (artificial volcanism), biofuel (grasses, trees, and algae), and plug-in cars are strongly researched in universities, different think tanks, or in house laboratories.

Some voices claim that there is a bubble in alternative energy like the bubbles in biotechnology and nanotechnology, but as long there is a strong need for energy this doesn't look like a bubble because it covers a basic necessity of the modern world – energy.

Alternatively friendly world for our children is not so distant. In such a world electricity no longer relies on fossil fuels.

The future of energy has to deal with a dilemma. Is more efficient to generate energy centrally and transport it over long distances to the customer, or to generate and consume energy in the same area.

Efficiency is not to be neglected. Less light pollution, which means smart public lighting, conducts to more efficient use of electric energy.

A Nobel Prize in Economic Sciences for energy economics is still not awarded maybe in the next decade or so the solution to these crises will come from research in this field, maybe from genetic engineering algae, or maybe from biofuel crops tailored to grow on land that cannot compete with food arable land.

As long as the Earth moves around the Sun and around its axis there are ways out of these crises because there are no limits to innovation, research and development.

These are man made problems. The solution is out there. It is called global collaboration. We face global problems that require global actions. It is all global now.