The Robust Social Market Economy – Some Thoughts on the Corona Pandemics

The current pandemic that originated in the Chinese city of Wuhan has hit the whole world hard, and the whole world has been spectacularly unprepared for the crisis. The financial markets, whose job it is to anticipate future developments and to adapt prices according to their expectations, were caught by surprise. The Dow Jones plummeted by more than 20 %, experiencing the worst week in history in terms of percentage losses. Self-employed people and small and medium-sized businesses in the world fear insolvency. Governments and central banks are trying to bolster the economy with unprecedented spending and credits, surpassing the measures of ten years ago by a significant degree, thereby risking inflation, a currency crisis, or another debt crisis.

When this crisis is over, questions will be asked: how could we have been so stupid as to let this happen? Why did we leave the borders open? Why did we close them when it was too late? Why did we let Italy down (again)? Why did they tell us that masks are useless even though their usefulness is clear? Why did they tell us that closing schools does not make sense only to close schools a week later? These are good questions, and some politicians may have to pay for their negligence, maybe. However, it is always good to ask oneself: how would I have dealt with the possibility of a virus outbreak if I were a politician? Would I have been prepared? As it is impossible to be prepared for everything, we might ask what we can do for our markets and societies to help them through future storms.

For the second time in the twenty-first century, the world has been hit hard by a “small event”. In 2008, financial markets had been speculating for quite some time on credit risks, ignoring the possibility that many small-credit borrowers become insolvent at the same time; traders were believing in a law of large numbers that holds true for many small, independent, and statistically identical cases, yet not in situations when the many small events may be highly correlated via some common factor. Improper regulation induced even higher and higher speculation and the game went on until the unthinkable happened and the now famous “black swan” appeared on stage.

In these days, the world has been taken by surprise by another small event, a world-wide pandemic created by a virus. The possibility of such a pandemic was well known, of course. In fact, the German Government must have been aware of the possibility for quite some time, as it asked the Robert Koch Institute to carry out a study of potential consequences of a corona (!) virus pandemic in 2012. When you read the study, you cannot help but ask: why did the authorities not react on this study?

The reason for the lack of a response can be called “neglect of small events”, or “Knightian uncertainty”. The Chicago-based economist Frank Knight was the first social scientist who emphasized the importance of small events whose probability we do not know and cannot reasonably estimate for modern economies. During the financial crisis, markets had neglected the possibility of a vast number of simultaneous credit events, and regulators had even allowed them to ignore that uncertainty. Now, politicians, markets, and health authorities had apparently been convinced that there was no need to prepare for a virus pandemic, probably judging the cost of such preparations as too high.

In fact, you cannot be prepared for everything that might happen out there. Doing so would require a rather paranoid approach to life that would kill the way of life as we know it. We are currently getting a glimpse at this very end of life as we know it during the current complete lockdown that most governments have chosen as a first policy to stop the spreading of the virus. This policy is certainly not optimal, yet given the shock and the general sense of nervousness in most societies, it was a reasonable first approach.

Is it possible to prepare a society against such uncertain small events? The answer is no. However, as with raising children, there is one thing you can do: you cannot always protect them from harm, but you can try to make them strong.

After the financial crisis, it became clear that we need to make financial markets, and in particular banks, more "robust". [1]
The measures that were taken were simple, yet effective, although it required quite a number of years to implement them: banks are more robust when they hold more equity, and they are more robust when they measure their risks correctly. As far as measurement is concerned, banks and regulators finally went away from the mistaken "Value at Risk" that played a not well known, yet infamous role in the 2008 crisis. Banks and regulators are now using better risk measurement practices (Expected Shortfall). At the same time, banks were forced to build up a higher equity ratio in order to be able to withstand unexpected events.

The current crisis has highlighted some fragilities of our current markets. As alluded to above, it will be impossible and too costly to prepare for all possible events; instead, we can only aim to make our markets more robust. In recent years, quite some progress has been made in economics in order to understand optimal behavior under Knightian uncertainty. Simple profit maximization in linear models often leads to extreme optimal solutions. When we set up a simple probabilistic model that focus on expected returns within the model only, so—called bang-bang solutions often result as optimal solutions. Translated to our current world, such profit maximization leads us to assemble *all* Iphones in China, or to shift *all textile* production to low-wage countries, thereby rendering us dependent on the functioning of these economies. Another example of non-robust profit maximization can be found in the extreme supply chains that have been developed in the globalized world. Such complex chains allow to profit from comparative advantages across countries, yet can be extremely sensitive to shocks in one region and thus are highly unstable and non-robust.

Instead, the optimal policy in robust models often prescribes a so—called "mixed" action, which can also be described as a well-diversified action. Put simply: do not put all eggs into one basket. To give an example: The world has ignored, as we have learned now, the danger of missing geographic diversification. It is important for well-defined economic regions to be self-sustained and politicians have the job to define what an "economic region" is. Here in Europe, it might hopefully be the European Union, in the writers' opinion, or it could also be a smaller entity, like the individualnations. In any case, it will be important to make these regions robust, meaning more independent of outside economic shocks. As a consequence, Europe, or whatever economic region you have in mind, needs to have its own supply of food, its own supply of textile production, its own production of pharmaceuticals, its own production of cars etc.

[1] The ZiF hosted a research group on the topic of "Robust Finance" in 2015, https://www.uni-bielefeld.de/(en)/ZiF/FG/2015Finance/

The consequences for globalization might be substantial. So far, the world has worked under the premise that there is one global market. Such a global market definitely offers opportunities, and in theory, allows for higher social welfare than a world with many small, fragmented markets. Yet, every market requires institutions that ensure the working of the rules and the fair play of all involved actors. The current crisis has emphasized (again, as I would say) that our global institutions like the UN, the WHO, the IWF are not (yet) strong enough to ensure a fair and even game. In times of crisis and need, the national governments simply take over, and perhaps rightfully so.

Given the current crisis, we may need to revert to a less global, more local approach. This doesn't have to be bad news. After thirty years of globalization, a certain pause could be good for all of us, especially after the many challenges of the past few years. It could be useful for economic regions, but also for cultures and traditions, to concentrate on their own basis for a while and to be aware of what they are aiming for in the world. On the economic policy side, we should try to produce as large and robust economic regions as possible (in order to take advantage of the comparative welfare benefits), but we should also ensure that we have the appropriate institutions to implement fair and free markets. This approach should promise to be a more successful approach in the long term than trying to offset all the losses in the crisis by printing arbitrarily large amounts of money.