

Growing Oaks

By Jan-Petter Janssen

Eleven years ago I planted six oak trees. Four are still alive, but only two are thriving. The two successful ones however, have outgrown even the spruces and birches which are native in this area. As I'm observing these botanical wonders, my mind wanders into some economic parallels.

The Necessary Complements

I don't know why two of the trees have grown two stories tall, whilst the other two are still small bushes. Some elementary theorization comes into place though. As most often with growth, a positive circle-effect between the necessary factors must take place. Some carbon and energy produced by the leaves will go to extend the root system. More roots mean more water can support water for more photosynthesis.

The trees I planted were collected from a garden, and in the digging process were the roots severely amputated. This may be the reason why even the now successful ones did almost not grow (above ground and very slowly below) for about five seasons, and suddenly exploded into an exponential growth rate.

Clustering of firms in geographic regions (e.g. IT in Silicon Valley and watches in Switzerland,) and the industrialization of some parts of the world, are economic examples of such necessary complements.

Ambiguous Diversity

Without my knowledge, I planted two oak species. One of the oaks is *Quercus Robur* (English oak) while the three others are *Quercus Petraea* (Sessile oak). It was not until this spring I realized this. The

reason for this discovery is that all but one tree have slightly injured leaves, which most likely is due to a very late and rare snow fall in mid May.

The English oak is by the way one of the two great ones, and the fact that this tree withstood the negative surprise the best, indicates that this species is the most fit for this climate.

The economic lesson should be that diversity, whether it comes from lack of information or not, is a good thing as it will make the economy more plausible to withstand unforeseeable negative surprises.

E.g. one bank going bankrupt is indeed a tragedy for its employees, customers and share holders. For the economy in total, it's not a big crisis. However, if all banks went down, the entire economy would go down the drain as well.

Spreading of the Fittest Genes

My area is generally dominated by spruces, with some local environments favoring pines or birches. My observation is an indication of the climate having been not normal for the last summers (or that a shock – negative for oaks, not for others, which occur less than annually, has not been observed in this period.) Let's assume the last summers are normal, i.e. a new climate. Will oaks take over the area?

Acorns from these garden trees will, with the help of birds and squirrels, spread to the surrounding forest. In a natural environment, spreading would take a lot

Growing Oaks

more time. As far as I know the closest natural oaks are some eighty kilometers away. I don't know how long time mother nature would have taken to spread the species this far.

Although this is a minor problem, the spreading of species between continents is a major one. A paradox is that humans introduce species which are more fit than the original ones, which boosts evolution but is universally considered a bad thing. I for sure agree, as a common reason for introduced species being more fit is simply that they lack enemies. Hence is the eco system out of equilibrium and the consequence is disastrous.

I will leave it for the reader to philosophize on economic similarities on this point.