

Softnomics of the sustainable city

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Urbanisation is by nature a result of a complex intertwining of economic mechanisms and natural conditions. This intertwining has never been properly understood by the economics profession. The disciplinary backwater status of urban, spatial and environmental economics is mainly due to the limits and complications that natural conditions impose on the efficiency of the free-market models and the organisational and administrative schemes that direct the good advice of the mainstream economist. In this respect, the profession is somewhat comparable to the mainstream engineering profession as depicted by Lars Lerup in his fascinating essay on the Toxic ecology of the suburban megacity. A belief in linear, mechanical and cost-effective solutions to problems posed by natural conditions still pervades both professions. In this belief, nature is seen as a set of static limiting conditions that can be harnessed or even overcome if the technology to do so is available. Slowly, since the report issued by the Club of Rome, vanguard practitioners in the economics profession are discovering that nature is not only a static set of conditions, but is indeed a complex system with a life of its own. Conditions change; nature acts and reacts, particularly in the long run. “In the long run, we are all dead,” wrote J.M. Keynes, the leading economist of the 20th century, some 70 years ago, thus putting short-term efficiency and growth first.

Things are changing rapidly these days, due not only to the increasing moral value put on the well-being of future generations but also and principally because nature might strike back forcefully within our lifetime. Putting limits on growth, however, which is the best-known advice of the Club of Rome and their successors in the economics profession, might not be the right answer. The pursuit of wealth is a fundamental ingredient in the eternal pursuit of happiness. The real issue is to grow with nature and replace the struggle against limits to growth with a relationship defined by synergy. Mr. Lerup

calls for engineers and biologists to work together. By the same token, we have to marry economic and biological knowledge and create *softnomics*.

Urban systems and urban economics provide both a most pressing case and possibly fruitful breeding grounds for softnomic approaches. Dealing with urban and spatial processes implies dealing with the full complexity of society and the economy at the meso level, a level at which many so-called externalities occur—systemic interactions either within society or between society and nature that can be foreseen, explained or regulated neither by micro-level market behaviour nor by macro-level policy. Urban economies are also a principal playground for increasing returns to scale, a phenomenon that lies at the very heart of the creation of wealth in our industrialised societies, at the heart of large-scale urbanisation, and at the heart of the risk that struggles against large-scale natural processes entail for mankind. The more extended are interactive systems of behaviour, whether regulated by the market or by private or collective governance, the more wealth can be created by competition, innovation and specialisation. This extension is therefore a natural force, guided by infrastructure grids both at the local level of urban markets for personal services, labour and housing and at the city-systems level of national and international markets for goods, advanced services and capital. The flip side of this systems extension process is that any disturbance at the local level will have repercussions throughout the system. This is as such not the main point of the argument here, however. The main point is that this systems extension and integration process has up to now been fuelled and guided primarily by linear and mechanical concepts and technologies. The system therefore lacks flexibility; repercussions tend to increase in amplitude. The obvious answer to this problem is guided by mechanical thinking: just limit, cut or compartmentalize systems, and you avoid risk. This answer might look obvious but is in fact wishful thinking,

since doing so would entail destroying the roots of innovation and wealth creation, thus depriving us of the resources that we will need to address the issue in a sustainable and fundamental way. The idea that we might live happily in isolated local economic ecosystems is science fiction, with the emphasis on fiction.

Besides, such an answer goes against the grain of natural human pursuits, which will undercut real and substantial political support. This is not to say that some limitations in behavioural systems, in the form of regulations, taxation or subsidies, could not be useful and acceptable. The main solution, however, will have to come from a more organic, softnomic approach to (urban) economic development and extension.

What might this softnomic answer look like? First of all, when administrating the economy and designing policy, we might learn more from complex ecological systems, particularly from those that adapt well to internal and external shocks. We will learn to go with the flow; “if you can’t beat it, join it.” Lack of space prevents me from dwelling further on this, except to say that this will be a huge and time-consuming learning effort involving many trials on the way, which will often be risky. This answer follows the same logic that Mr. Lerup applies in his call for bio-engineering. We should be willing to accept some risk, which is difficult in our increasingly risk-avoiding society and polity. In the meantime, however, and apart from some necessary regulation, we can take some obvious actions that valorise the energy with which large natural processes strike back at our cities and economy. Unexpected invasions of natural processes in the complex urban economy might have toxic consequences, as Mr. Lerup points out, but particularly when these invasions are somewhat better anticipated—and they will be better anticipated, since the financial risks involved trigger huge research

efforts—they also create economic opportunities. Large water reservoirs might be used for energy storage and retrieval. In the meantime, these vast bodies of water could be used for leisure services. Coping with natural and environmental hazards will render new technologies, products and services that will in time also be used for other purposes—much like the technical and macro-economic aftermath effects that warfare can have on the economy. Destruction, either by natural causes or as a creative precondition for building better and safer environments, may well create playgrounds for innovation. Joseph Schumpeter, the other and alternative leading economist of the last century, made this point when coining the concepts of creative destruction and the forging of *Neue Kombinationen*—the main engines for sustainable development. The forces of nature make a much better enemy than warfare. Mr. Schumpeter shows us how struggle and competition can lead to innovation, synergy and new rounds of sustainable wealth creation. One day we might thank Nature.