EAEPE 2002 Conference

Complexity and the Economy: Implications for Economic Policy

7th - 10th November, Aix-en-Provence, France

CALL FOR PAPERS

The next EAEPE conference will focus on one of the most challenging cutting edge topics in modern social science – the analysis of complexity and the economy, and its implications for economic policy.

Complexity is more and more acknowledged to be a key characteristic of the world we live in and of the way we perceive it, notably the socio-economic world. Although definitions of complexity vary widely and still constitute a terminological minefield, one may rely on the broadly shared notion that a system is complex when its properties cannot be satisfactorily explained by an understanding of its component parts. And a problem is complex when it cannot be solved analytically. A consequence in economics is that, although all economic problems are not necessarily complex, the description of the economy cannot be done satisfactorily through universal laws or theories deductively derived from sovereign, immutable first principles.

Shortcomings in reductionism as a general approach to science in general, and to social science in particular, are increasingly apparent. In a special section of *Science* on complex systems in a variety of sciences, entitled Beyond Reductionism, the editors notice that "The much-used axiom that scientists "know more and more about less and less" may have a~element of truth" and that "perhaps there is something to be gained from supplementing the pre-dominantly reductionist approach with an integrative agenda" (*Science*, 284, 2 April 1999, p. 79). In his viewpoint on Complexity and the Economy of this same journal, W. Brian Arthur portrays the economy as a system characterized by process and emergence in which components adapt to the world, that is, the aggregate pattern they co-create: as the elements react, the aggregate changes, as the aggregate changes, elements react anew. The emergence of structures and the unfolding of patterns result in viewing the economy as process dependent, organic and evolving rather than deterministic, mechanistic and predictable.

These views illustrate a recent burst of interest in complexity that is even sometimes pictured as "the" complexity perspective. It has been introduced recently into economics without paying attention to previous contributions in the history of economics on the themes tackled
nowadays under the name of complexity. What is remarkable about complexity is the historical succession of eruptions of interest through holism and gestalt first, then through systems theory and cybernetics, and nowadays through computer simulation mainly. And it is fascinating how these outbursts coexist with an historically old interest for emergent economic order or self organisation, in-creasing returns, cumulative causation, institutions, and organic interdependence in political economy and economics. Evolutionary, institutionalist and behavioural economists should welcome this recent burst. Taken together, these perspectives highlight open ended processes, institutions, and rich, non predetermined behavioural patterns.

In sum, among the many ways of dealing with complexity, complexity is a word connoting nowadays what may be simplified into two broad strands of re-search in economics, a computer-based complexity and an observation-based complexity, which differ in their tools but not in the central features they high-light, their method and their status in economic science. The difference in tools appears as follows. One strand is based mainly on computer simulation and on formal modelling in search of a substitute for the analytic limits of conventional mathematics. The Santa Fe Institute programme is representative of this perspective. The other one is based on observation, on empirical enquiry and on theorising from it, and is represented by the evolutionary, institutionalist and behavioural perspectives in political economy.

This basic difference in the tools coexists with three striking similarities. The first is in content. Both strands emphasize process, emergence, learning, novelty, institutions, organic interdependence, procedural or bounded rationality, history, path dependence, con-text, and interdisciplinarity, rather than equilibrium, optimization, universality and single, narrow disciplinarity. The second similarity is in method. Both strands rely mainly on induction, one on computer-based induction through simulation and the search of imitation, the other on observation-based induction. They are therefore facing a similar challenge about their robustness and about how they move from the particular to the more general. Their third similarity is in their status in economic science since they are both critical of conventional, equilibrium-oriented, economics.

What may be new about the present activity in economics and political economy may thus not be the interest in particular features but the identification un-der the unified banner of complexity of two strands of research focussing on similar central features. One benefits from the unifying tool provided by the spectacular progress of computers and of simulation but is weak on theory. The other is rooted in observation but suffers from a lack of a unifying tool, as is illustrated by the recurrent problems of self identification experienced by evolutionary and institutionalist economists.

The 2002 Conference on Complexity and the Economy will thus provide a unique opportunity to discuss the insights, strengths and weaknesses of the complexity perspectives. Of special interest will be the focus on their implications for economic policy. What difference do the complexity perspectives make for economic policy compared with
conventional views? This question pertains to both a general level and to sectoral, specific fields.

It must be emphasized that this focus will not preclude the strategy of welcoming other contributions pertaining to evolutionary, institutional and behavioural economics, especially contributions originating from work done within and around the domains covered by the EAEPE Research Areas.

The Conference venue will be Universite d'Aix-Marseille, 3 Avenue Robert Schuman, 13628 Aix-en-Provence Cedex 1 -France. The Conference Programme Organiser is Robert Delorme and the Conference Local Organiser is Magali Orillard.

Submission of Abstracts and Papers

Participants wishing to submit papers are invited to send a title with a 600-1000 word abstract by email (as an attached file) and by post (in hard copy) to Thierry RAYNA (Scientific Assistant) at eaepe.aix2002@univ.u-3mrs.fr and EAEPE Conference, University of Aix-Marseille, GREQAM (rez-de-chaussee) Centre Forbin, 15-19 Allée C. Forbin, 13627 Aix-en-Provence, cedex 1, France, Tel. (+33) 442 96 14 96, Fax. (+33) 442 96 80 00. Priority will be given to abstracts submitted before 30 March 2002. Any questions regarding the programme can be addressed to Professor Robert DELORME (Programme Organiser) at robert.delorme@cepremap.cnrs.fr.

If the paper can be fitted into the conference schedule then a final version will be requested by 31 August 2002. Both paper and abstract of paper (pdf or html format only) should be sent by email (as an attach file) to Thierry RAYNA at eaepe.aix2002@univ.u-3mrs.fr and by post (in hard copy) to Professor Magali ORILLARD (Local Organiser) University of Aix-Marseille, GREQAM (rez-de-chaussee) Centre Forbin, 15-19 Allée C. Forbin, 13627 Aix-en-Provence, cedex 1, France, Tel. (+33) 442 96 14 96, Fax. (+33) 442 96 80 00, email magali.orillard@univ.u-3mrs.fr.

Further information will be available at http://eaepe.tuwien.ac.at or http://eaepe.org.

Please note that you have to be an EAEPE member in order to attend the Conference. Payment should be made in Euros by credit card (provide number and expiry date) or bank transfer to Albert Jolink. If you do not have the 2002 conference booking form or the 2002 EAEPE membership form, please download it from http://eaepe.tuwien.ac.at or http://eaepe.org.