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Elements in Complexity and Agent-Based Economics

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COMPLEXITY IN ECONOMICS

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Complexity in Economics

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Abstract: Neoclassical economics is heavily based on a formalistic method, primarily centred on mathematical deduction. Consequently, mainstream economists became overly focused on describing the states of an economy rather than understanding the processes driving these states. However, many phenomena arise from the intricate interactions among diverse elements, eluding explanation solely through micro-level rules. Such systems, characterised by emergent properties arising from interactions, are defined as complex. This Element delves into the complexity approach, portraying the economy as an evolving system undergoing structural changes over time.

Keywords: complex systems, non-linearity, emergence, non-ergodicity, statistical equilibrium

JEL classifications: A11, A13, B1, B2, B4, B5, C6, C8

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