

# **An Alternative Paradigm for Economics**

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# Introduction (1)

- Financial crisis as a wake-up call for monetary theory, finance and macroeconomics
- Not because timing could not be predicted
- Analysing, describing financial (in)stability difficult in a framework where money & finance have no proper foundation/place

# Introduction (2)

- Against the background of the Great Financial Expansion (GFE) of past 4-5 decades
- GFE has probably fundamentally changed the way the economy and the financial system works
- Cannot be understood without understanding money and finance

# Introduction (3)

- Can not in a framework in which money and finance are inessential; are a sideshow; in the mainstream framework money and finance do not matter for the longer term outcome of the economic process
- Problem in the mainstream with two core assumptions related to the knowledge of economic agents; and then also related to economics
  1. Uncertainty about the future
  2. Dispersion of knowledge and information across the system; heterogeneity; complexity of the financial system

# Introduction (4)

- Taking into account uncertainty and complexity implies a different paradigm for economics
- Different methodology
- Different pretence of what economic theory can achieve

# Introduction (5)

- A different concept of economic policy and what it can achieve
- Own language and concepts
- This other paradigm need not be built up from scratch

# Introduction (6)

- It can build on the three already existing pillars
- 1. The original work of Keynes and the post-Keynesians focusing on the role of uncertainty
- 2. The work of the (neo-) Austrians, von Mises and Hayek in particular, on praxeology, dispersed knowledge, markets and (spontaneous) order
- 3. Tools from “modern” complexity theory, as developed from the 1980s with Santa Fe Institute as starting point

# Agenda

- 1. Lack of knowledge about the future (uncertainty)
- 2. Dispersion of knowledge and information; heterogeneity along several dimensions; complexity
- 3. Features of the alternative paradigm
- 4. Research and spreading the message



# Lack of knowledge (1)

- Based on Keynes (1921) and Knight (1921)
- Distinction between risk and uncertainty
- Risk: all possible outcomes of a decision or action can be known

# Lack of knowledge (2)

- Probability calculus is applicable; VAR, Expected Utility, tail risks including Black Swans
- Decision making can be modeled as a computable optimising problem
- According to Keynes assumed by the Classical Theory and today in the prevailing mainstream

# Lack of knowledge (3)

- However, logically it is impossible to define and list all potential events in the future that may affect the outcome of today's decisions
- People cannot know now what will be discovered in the future
- The future is not prestatable (cf. Kauffman)
- The future phase space is not completely knowable now

# Lack of knowledge (4)

- Particularly relevant for taking long-term decisions, wealth/investment decisions being important examples
- Economic agents cannot and do not make decisions fully rationally as defined and modeled in mainstream economics
- Point is not that they are irrational, but that they cannot be rational as defined in mainstream economics. Has therefore nothing to do with better education or providing more information

# Lack of knowledge (5)

- Traditional economic calculus under risk should be replaced with a theory of decision making under uncertainty
- Keynes has provided elements for such a theory and von Mises has proposed an alternative (Human Action: praxeology)
- Keynes has linked the existence of uncertainty and the role of money and finance in the economy

# Dispersion of knowledge; complexity (1)

- Back to the 1930s, to Hayek in particular, but von Mises made similar points
- His articles “Economics and knowledge” and “the use of knowledge in society”
- The socialist calculation debate strongly influenced his view of economics

# Dispersion of knowledge; complexity (2)

- Lange argued that central planning was efficient and that it was possible to calculate an efficient rather than leaving it to markets
- Hayek came to realise that no economic agent (including a central planner) in a decentralised economy can possess all the information (data) that are assumed to be known in calculating an efficient allocation of resources

# Dispersion of knowledge/complexity (3)

- In the market system somehow this widely dispersed information and knowledge is used
- Equilibrium system is just a logical system; it shows that a set of prices exists such that the plans of all economic agents are consistent and can be executed unchanged
- Does not tell if and how that will happen



# Dispersion of knowledge; complexity

## (4)

- Equilibrium system has no empirical content
- Hayek initially argues that such empirical content can only come from understanding how people acquire knowledge and change expectations on that basis
- Very similar to what is now being done in disequilibrium economics
- See for example work on heterogeneous expectations in financial markets; expectations formed according to behavioural finance insights

# Dispersion of knowledge; complexity (5)

- Hayek has left that path
- He became convinced that a theory of learning and expectations formation is beyond reach
- He instead becomes fascinated by how economic agents do decide having only very limited and very limited and local knowledge
- And that still a rather structured overall outcome of the economic process emerges, with continuous growth and development

# Dispersion of knowledge/complexity (6)

- Leads him to focus on the role of prices and of a common set of rules in a broad sense (also law, ethics, etc)
- Role of money and finance analysed from that perspective
- Similar to the framework that Keynes used and interesting relation to von Mises' praxeology

# Dispersion of knowledge; complexity (7)

- Economy is complex, in the sense that not all information and knowledge that is present in the system can be known by one agent, at one point
- A complex system still has structure; it is not random
- Leads us to outline of alternative paradigm

# Alternative paradigm (1)

- Abandon the equilibrium/non-equilibrium lens
- Replace it by the lens of order
- Order: the set of types of outcomes (patterns) of the economic process

# Alternative paradigm (2)

- Order emerges from (is the result of) purposefully acting and interacting agents under uncertainty on the basis of a common set of rules
- Correct expectations or fully coordinated plans  
no requirement for order
- Order evolves; the time dimension is a critical lens

# Alternative paradigm (3)

- Example competitive order
- Patterns: drive for efficiency, law of one price, constant process of innovation and increasing productivity
- Detailed prediction and control impossible; surprises are always possible; they define change and make time essential

# Alternative paradigm (4)

- The future is imaginable, but not predictable; exogenous expectations, i.e. no rational expectations
- The future emerges from the interactions of economic agents according to the rules in a broad sense; it is not waiting to be discovered
- Order emerges to a certain extent spontaneously without central direction; self-organisation



# Alternative paradigm (5)

- Economic policy is about creating the right conditions/rules of the game for certain patterns to arise (e.g. stability, growth, innovation, peace) or not to arise
- Tools of “modern” complexity theory provide a language to describe an evolving economic order and actual patterns within that order
- Evolutionary dynamics, non-linear dynamics

# Alternative paradigm (6)

- The macro patterns emerge from micro behaviour and interaction
- The whole is more than the sum of its parts; fallacy of composition
- Micro decisions are made in a framework of rules for interaction; the economic process seen through the lens of an evolving game in which not all outcomes can be known at any moment

# Alternative paradigm (7)

- Micro behaviour has a macro foundation
- Alternative paradigm unifies economic theory
- Alternative paradigm has the potential to unify the social sciences and biology

# Research (1)

- Many fruitful research topics; both conceptually and applications to concrete issues
- Supervision of the financial sector, both micro and macro; many subquestions
- Explanation of the Great Financial Expansion since the nineteen seventies and questions about monetary policy

# Research (2)

- Data collection and data management strategy
- Innovation and growth
- Sustainability

# Research (3)

- Structural policies with respect to the financial sector
- The role of norms in economic policy
- Can views of knowledge of Keynes, Hayek and von Mises be synticised and if so, how?

# Research (4)

- Consequences for the methodology of the social sciences
- Also in relation to the “hard” sciences
- Finally, GloComNet, an emerging network to promote awareness, research, education and consultancy in the context of social complexity and uncertainty: [www.glocomnet.com](http://www.glocomnet.com)

Finally

**THANK YOU FOR YOUR ATTENTION**