



Questions for Limits to Rationality in Economics Programme, 15th June-3rd July 2009

Institute for Advanced Studies - Glasgow

PHILOSOPHY

1. What is the nature of explanation in economics?
2. Is there place for emergence in economical explanations; in particular, how does one take into account downward causality (from macro-effects to micro-foundations)?
3. What can and cannot one expect of mathematical modelling in economics?
4. Is psychology indispensable for understanding of economical phenomena?
5. Does economics have an ontologically sound domain?
6. How different are biological systems and economical ones?
7. Is an analysis of various notions of rationality (including bounded rationality) still important, and if so, why?
8. What has philosophy of economics to say about the present crisis?
9. What has philosophy to offer the methodology of behavioural economics and neuroeconomics?
10. Is economics possible without a growth ideology?

NEUROECONOMICS

1. What has neuroeconomics contributed to long-standing problems in economics, in particular those that hinge on economic agents not being rational?
2. What new problems has neuroeconomics suggested?
3. How do neuroeconomics propose to tackle the problem of inferring causality from correlation?
4. How precisely are economic constructs such as personal utility functions are supposed to be encoded in neurophysiological structures?
5. How does neuroeconomics suggest to treat the fact that economic decisions are constrained by factors beyond the individual economic agent, such as institutions?

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6. How do evolutionary psychology and neuroeconomics co-exist, for example, how does the neuroeconomic framework explain systemic biases in human thinking?
7. Why does neuroeconomics put such an emphasis on non-human studies, which clearly cannot cover most economic situations (cutting a cake fairly, ultimatum game, etc.)?
8. What insights does neuroeconomics have for mathematical modelling in economics?
9. How does neuroeconomics describe memory in economic agents?
10. How falsifiable are the findings of neuroeconomics? Alternatively, what tools does neuroeconomics have for choosing between different models?
11. Finally, do neuroeconomic explanations ever involve closed loops?

MATHEMATICAL MODELLING:

1. How can the findings of behavioural economics best be incorporated within a mathematical framework?
2. Ditto for perverse incentives/rational herding.
3. How do the decision-making processes of individuals differ from those of organisations? Does this require a different modelling approach in each case?
4. Can we categorise efficient-market violations and structural defects into those that cancel out (in the sense of rational expectations) and those that do not.
5. How robust is the efficient-market solution to real-world perturbations?
6. Are there objective, quantitative, early, indicators of bubble formation?
7. How can/should memory-effects be incorporated into models? Can unit-root vs hysteretic processes be distinguished at either the micro or macro level?

EXPERIMENTS IN FINANCIAL MARKETS:

1. What trading differences occur at times of market stress/volatility, both at the level of participants and institutions? Some are obvious, such as margin calls, others less so. Which cognitive biases are magnified at such times and which are diminished?

These should be investigated at the level of both individuals and organisations.

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2. Over what timescales do different aspects of behavioural economics (herding, anchoring,...) manifest themselves?
3. How does past trading performance affect future behaviour and for how long? (this is related to question 2).
4. How can 'traditional' economists be persuaded to take on board the findings of behavioural economics and incorporate them into their models. Are more convincing experiments required, and if so, what needs to be addressed?
5. How do heuristics change in the presence of increased uncertainty?

ECONOMIC ANALYSIS:

1. How discredited is the "new consensus" DSGE (Dynamic Stochastic General Equilibrium) macroeconomic model by the current financial crisis? Does it need amendment or replacement? How do we put monetary economics back into macroeconomics?
2. How can insights from behavioural and neuroeconomics be embedded in macroeconomic models?
3. What is the best way to model the interaction between affective and cognitive processes underlying economic decision taking? By dual process models, for example?
4. Can cognitive learning processes eventually override affective influences on economic decision taking?
5. How do we identify the selection of the small number of items that the working memory can juggle when economic decisions are taken?
6. What are the macroeconomic implications of modelling the brain as a relay of hysteretic processes?
7. How can bonus incentives paid to those working in financial markets be structured to reflect loss aversion?
8. Do recessions and booms have permanent effects on "trend" rates of GDP growth?

POLICY IMPLICATIONS:

1. What effects will the introduction of cyclically varying capital reserve requirements for banks have on fluctuations in real GDP and inflation?
2. How should bonus and other elements of compensation packages for bankers be restructured to align behaviour with regulatory requirements and long-term, sustainable profitability?

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3. Are suggestions that retail and investment banking activities be kept separate feasible, desirable or sheer Ludditism?
4. Does "Goodhart's Law" apply to regulation?
5. How can the "fat tails" and "clustered volatility" that characterise financial market returns be taken into account in regulatory reform?
6. How should the remit of the BoE MPC be revised to take account of the sine qua non of monetary stability?
7. Should the full funding rule for UK fiscal deficits be abolished?
8. What light can behavioural and neuroeconomics throw on the behaviour of policy makers and regulators?
9. Should the CPI target be retained? What is the case for having multiple targets?
10. Should the devolved Scottish Government be given debt issuing powers? What level of Scottish debt would be sustainable?
11. Should those working in key central bank positions have a background in monetary economics and/or financial institutions?
12. Whatever happened to the lender of last resort facility, or restructuring outwith the public gaze, during the early stages of the current financial crisis?

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