**Understanding the Economy with Human Sentient Actors: A New Approach to Macroeconomics and Financial Stability**

***By Professor David Tuckett***

Review by Rebecca Zhang:

The one striking lesson that the 2008 financial crisis has revealed is that human emotions have a profound impact on the financial markets. However, our conventional economic theories, including behavioural economics, have largely failed to take this into account. Thus, at the heart of the discipline of emotional finance is the recognition that human sentient agents are complex systems which need to be analyzed in ways that are different from our conventional paradigm.

On the 28th October 2013, The Economist’s Society was honoured to have Professor David Tuckett, who gave an insightful introduction to a new approach to understanding macroeconomics and financial stability. Professor Tuckett, who is currently heading the UCL Centre for the Study of Decision-Making Uncertainty, is renowned for his pioneering work in the discipline of emotional finance. Through his talk, he emphasised that there is an urgent need to recognize the pivotal roles that animal spirits and uncertainty play in our economy, thereby providing a deeper understanding of our economy. Professor Tuckett started his talk by highlighting that economic modelling since 1970s has been idealist – deduction from axioms about how people ought to behave but with little adjustment to knowledge about actual decision-making or testing for empirical support. Through quoting Milton Friedman, Professor Tuckett alluded how conventional economics makes predictions based on the assumption that all rational people lead to the same conclusion, believing that there can be an over-arching model that represents our world. However, this axiom in economics is implausible in many modern contexts. This is a view that resonates with many leading economists and one that I personally share. In the book *Beyond Mechanical Markets,* economists Frydman and Goldberg expounded on how flawed it is to assume that markets act mechanically and economic change is fully predictable. Frydman and Goldberg argue that economists have pulled through the economic crisis with only minor tweaks to our economic theories and models, when there is urgent need to relook at the basic fundamentals.

Building on what he said earlier, Professor Tuckett then stressed that the current financial crisis ought to provoke a deep intellectual crisis in economics. We need to recognise that our economic models are fundamentally misguided insofar as they disregard the importance that sentiments or animal spirits play in our economy. In my opinion, this is one of the most important lessons that we have derived from the past crises. In *The Return of Depression Economics and the Crisis of 2008*, Paul Krugman disconcertingly showed the profound role that confidence plays in fuelling a “self-fulfilling panic”. Krugman argued that market psychology is so crucial that expectations and market sentiments have become economic fundamentals. Hence, Professor Tuckett offered a strong justification to use new empirical methods to understand humans’ complex decision-making processes. Professor Tuckett moves on to discuss empirical methods. The first method used for his book *Minding the Markets* was interviews and ethnographiesof 52 experienced money managers in the US, UK & Europe.He cautioned that such interviews do not draw valid conclusions about individual behaviour and motivation, but reveal consistent patterns that allow conclusions about **the context of** in which financial managers make decisions and the constraints this places on decision-makers. A new method is “big” text data analysis, which utilitiesalgorithmic analysis of 14 million Reuters News Archive articles, Brokers Reports and Bank of England Market intelligence memos. At this juncture, it would have been more impactful if Professor Tuckett had elucidated the degree of impact such empirical methods have in challenging and reassessing the fundamental assumptions of our economic models.

 From these empirical methods, Professor Tuckett drew some important conclusions. Firstly when examined empirically, the context in which decisions are made often precludes assumptions on which such decision-making models rest on. This is because optimisation is not possible due to uncertainty, and independent agents are not possible due to evolved social capacities. Furthermore, the main flaw of current economic models is that they fail to acknowledge that most decisions that matter take place under Ontological Uncertainty. Here, Ontological Uncertainty is taken to be a situation in which interpretively able and interacting actors are uncertain because the future is not bounded by the present. Essentially, Ontological Uncertainty refers to the situation whereby past results cannot be used to predict future occurrences as decision contexts cannot be or are not well defined. The third important conclusion is that Professor Tuckett draw is that human agents are good at Ontological Uncertainty. Humans are evolutionarily adapted to make decisions under uncertainty- **in particular because they are sentient and imaginative.**

 Professor Tuckett further explored the concept of humans as sentient actors. He said that humans are to take advantage of highly efficient mental capacities like imagination, mental simulation and becoming emotionally attached. Thus, we develop expectations by imagining complex futures and what we feel about them. Professor Tuckett then stresses the importance of creating conviction narratives, a behaviour that is particularly important in the financial industry where an individual creates a story about a “phantastic object” (an object of great desire) and spreads the story in hope that the rest will believe in it. Such psychoanalysis is distinctive of the field of emotional finance and is different from Behavioural Economics. Professor Tuckett acknowledges the huge stride that Behavioural Economics has made from conventional economics, but the discipline remains insufficient because biases and framing depends on measuring deviation from an “ideal”. The problem here lies with the fact that there is hardly an “ideal” behaviour to adopt under uncertainty which presents both an opportunity for gain or loss and prescribing predefined parameters only seek to limit the observations.

Developing it further, Professor Tuckett then suggests an additional approach: to focus on the processes that determined how, given uncertainty and the threat of failure, economic **agents actually manage to act at all.** His pioneering research at UCL focuses on operationalizing Keynes’ *animal spirits.* Professor Tuckett shared his theory on conviction narratives, but did not manage to illustrate in detail the profound impact such narratives have in swinging market psychology. In his talk on BBC Radio 4-All in the Mind, he revealed the striking importance of conviction narratives in creating bubbles, causing a self-reinforcing situation. If interested, you can listen to his talk at <http://www.bbc.co.uk/programmes/b00ktcb2>

Perhaps the most instructive part of the talk was when Professor Tuckett shared how we could operationalise and model animal spirits. Though there was much technicalities, it is fascinating to see how closely aligned narrative sentiments shifted with Fannie Mae share prices based on data collected from Reuters News. Before the collapse of the Lehman Brothers, market sentiments decreased sharply (reflecting market anxiety) in the period leading up to the collapse. It is also intriguing to see that government policies have important implications on market sentiments. Professor Tuckett for instance drew our attention to how when European Central Bank President [Mario Draghi](http://topics.bloomberg.com/mario-draghi/) said policy makers will do “whatever is takes” to preserve the euro, market anxiety decreased immediately. This paves the way for a different approach to understanding economics: the core underlying purpose of macroeconomics then is to model the impact of events that change agent’s expectations- in other words, to model sentient human responses to information events. Understanding the importance of influencing market sentiments, central banks have tried to affect economic changes not just via conventional policies, but also narrative such as forward guidance and “whatever it takes”. This directly coincided with the insights gathered from our talk with Mr. Spencer Dale, Executive Director and Chief Economist of the Bank of England on forward guidance.

Professor Tuckett provided further statistical evidence to show the importance of animal spirits. Animal spirits were high during the boom years of 2004, 2005 and 2006, but there was a marked downturn in the middle of 2007. Specifically, in July 2007, in both UK and US economies, the measure fell to its lowest level to date. This picture was not widely anticipated at the time and showed exactly what Professor Tuckett meant by how past data cannot be used to predict the future. Although there had been increasing concerns about the economic situation, consensus in July 2007 showed that economic forecasts remained reasonably buoyant. Even up to one month before the collapse of Lehman Brothers, the consensus forecasts for 2009 still showed positive growth for 2009, albeit at levels close to zero. Though US recovery also did not really start to get under way until the winter of 2009/10, US animal spirits series rose sharply prior to this. There is a general conclusion that can be drawn for these data: animal spirits have profound implications in drive market changes. However, this is not to suggest that animal spirits series will offer accurate point predictions of the future course of GDP. While all these data were insightful, I personally wished to hear Professor Tuckett expound on other methods to operationalise animal spirits, and factor uncertainty, informational ambiguity and groupthink into our economic models. Given how it is difficult to quantify such factors, it would have been more instructive if Professor Tuckett suggested more ways in which such psychoanalysis can be integrated constructively into government policies.

Professor Tuckett concluded his insightful talk by reiterating the need to capture social-psychological dynamics within an economy. The omission of such variables like uncertainty oversimplifies the conclusion, and makes little sense in modelling the reality of decision-making. The empirical methods that Professor Tuckett suggested have considerable potential, particularly if narratives can be tracked in networks. With more time, it would have been more impactful if Professor Tuckett expounded on his theory of tracking narrative in the network to identify the sources of narratives- a potential way to better understand (and possibly alleviate) occurrences of financial crisis (insights are covered in some of his talks on BBC and CFA Institute). Given Professor Tuckett’s pioneering work in the discipline of emotional finance, it was a truly a privilege to understand how we could better understand and analyse humans as sentient actors in the economy, thereby completing and nuancing our economic theories. For those that missed Professor Tuckett’s talk, please read his acclaimed book *Minding the Markets* and listen to his talks online at <http://www.ucl.ac.uk/psychoanalysis/unit-staff/david.htm> On behalf of The Economist’s Society, I would like to thank Professor Tuckett for gracing the society with his time and invaluable insights.