Mervyn King and Maynard Keynes on Money and Uncertainty

Keiran Sharpe[1]

1 UNSW Canberra

In their discussions on monetary economics, both King and Keynes make much of the importance of 'radical uncertainty' and its role in accounting for liquidity preference. Keynes, in his 1937 *QJE* article, gives a famous characterization of true 'uncertainty' as against mere probabilistic knowledge when he writes:

"By "uncertain" knowledge, let me explain, I do not mean merely to distinguish what is known for certain from what is only probable. The game of roulette is not subject, in this sense, to uncertainty … About these [uncertain] matters there is no scientific basis on which to form any calculable probability whatever. We simply do not know." [pp213-14]

Moreover, there is a connection between the apprehension of uncertainty (absence of probabilistic knowledge) and liquidity preference, specifically the demand for money:

"… our desire to hold Money as a store of wealth is a barometer of the degree of our distrust of our own calculations and conventions concerning the future." [p.216]

In a similar vein, King writes:

"The fundamental point about radical uncertainty is that if we don't know what the future might hold, we don't know, and there is no point pretending otherwise. Right through his life, John Maynard Keynes was convinced that radical uncertainty, as it has become known, was the driving force behind the behaviour of a capitalist economy." [p.131]

Moreover:

"Money is not principally a means of buying 'stuff' but a way of coping with an uncertain future." [p.84]

Both writers go on to suggest that economic decision makers cannot rely on any calculus to warrant their decision making, and that they rely, in part, on 'conventional opinion' (in the case of Keynes) or 'narratives' (in the case of King).

This paper broadly concurs with King and Keynes on the importance of uncertainty in economic decision making and on the role that money plays in allaying our fears about uncertainty. Moreover, the paper accepts the premise that mutually held— 'intersubjective'—beliefs are an important but often neglected feature of decision makers' framing of uncertainty. Hence, we agree with much of the authors' discussion on conventions and narratives. However, unlike King and Keynes, we think that it is possible to (mathematically) model intersubjective beliefs and their role in agents' decision making.

The paper draws on research from two distinct literatures—the literature on imprecise probability and the literature on collective intentionality. Recently, researchers from the former research program have extended the imprecise probability model to characterize degrees of confidence alongside degrees of belief (Chateauneuf & Faro, 2009; Hill, 2016). Decision makers' choices are then shown to depend both on beliefs and on the confidence that they have in those beliefs.

In our paper, we also present a model of imprecise beliefs with varying degrees of confidence. However, although we model all the beliefs as being subjectively *held* by decision makers, those beliefs are not wholly subjectively *formed*. Specifically, the paper proposes a model of *conventional beliefs* in which decision makers jointly regard some (degrees of) belief as being more 'epistemologically secure' than other—purely subjective—beliefs. Such 'conventional' beliefs are held with less confidence than are purely 'objective' beliefs, but they are more confidently held than are purely 'subjective' beliefs. In characterizing the way in which beliefs are formed, the paper draws on the collective intentionality literature. This research program has roots in philosophy (Searle, 2017), but also informs the work of economists—such as Gold and Sugden (2007).

The contribution of the paper is twofold. The first contribution is the characterization of Keynes' concepts of *confidence* and *convention* in terms of the imprecise probability literature. The fragility of economic conventions of which both Keynes and King speak is characterized as the dilation of decision makers' jointly held—conventional—beliefs. Furthermore, liquidity in Keynes and King's sense is characterized as the stability of an asset's marketable value when conventional beliefs dilate in the face of uncertainty.

The second—technical—contribution is the representation of a *conditional imprecise probability space* on the vector space, $\mathbb{R}^3$. This extends the result obtained by Sharpe (2019) in an earlier Australian

Conference of Economists paper which represented beliefs on $\mathbb{R}^2$. Although our presentation mostly deals with the case of $n = 3$ (for objective, subjective and conventional beliefs), we also discuss the fact that there may be multiple nested conventional beliefs, and this requires a representation on $\mathbb{R}^n$, $n > 3$.

References:
Chateauneuf, A., Faro, J.H. (2009) "Ambiguity through confidence functions" *Journal of Mathematical Economics* **45**: 535-558
Gold, N., Sugden, R. (2007) "Collective intentions and team agency" *The Journal of Philosophy* **104**:109-137
Hill, B. (2016) "Incomplete preferences and confidence" *Journal of Mathematical Economics* **65:**83-103
Keynes, J.M. (1937) "The General Theory of Employment" *Quarterly Journal of Economics* 51: 209-223
King, M. (2016) *The End of Alchemy* London: Little, Brown
Searle, J. (2017) "Money: ontology and deception" *Cambridge Journal of Economics* **40**:1453-1470
Sharpe, K. (2019) "Updating beliefs under risk and uncertainty" *Economic Record* **95:**39-64

Key Words

radical uncertainty, imprecise probabilities, conventional probabilities, liquidity preference