

## **RIIA Methodologies Committee: Statement of Principles**

*RIIA has established this “Statement of Principles” as an industry standard for the development of tools, illustrations, and other materials that promote retirement income products and strategies. These Principles seek to promote the use of clear and effective modeling techniques, illustration, explanation, and communication through complete disclosure of assumptions and the use of consistent terminology. These Principles are intended to supplement RIIA members’ own compliance standards.*

- 1) Regardless of an individual’s asset allocation and/or retirement spending, the future is inherently random and unpredictable. Probabilities and statistics are the natural language for explaining this randomness and uncertainty. We strongly endorse and promote the use of stochastic methods for any demonstrations.
- 2) Any retirement income projection illustration should disclose its assumptions such that readers can gauge its reasonableness for a particular purpose. That is, two varying sets of assumptions and corresponding outcomes may both be valid since the purpose of the illustration may be different in each case.
- 3) Various mortality tables and longevity forecasts may be suitable for retirement income demonstrations, although others may not be suitable. The relevant methodology used should be clearly disclosed along with an explanation of the suitability of the selected method.
- 4) Inflation is neither a universal constant nor uniformly measurable. Different individuals experience different inflation rates, especially as people age and progress through the life-cycle. Those modeling inflation over long periods of time should take into account that an individual’s cost of living will be different from aggregate measures of inflation such as a consumer price index.
- 5) The technique and methodology known as Monte Carlo simulation will only provide reasonable results when a large number of trials are generated. While we do not require a minimal number of trials, illustrations and systems should strive to attenuate sampling error. They should disclose their standard error statistics or some other measure of the uncertainty inherent in the modeling process.
- 6) Output should strive to convey the various components of risk rather than selectively focusing only on certain components. The entire distribution is important, not just a particular tail or statistical moment. The probability of success or failure is only one component of risk; the magnitude of potential failure is another. Illustrations should strive to make these components of risk understandable to the general public.

- 7) The yield curve (also known as the term structure of interest rates) is a dynamic and complex economic process. It is not reasonable to model interest rates as constant and flat over long periods of time.
- 8) The precision with which output is shown should avoid conveying a misleading degree of accuracy in the model.
- 9) General acceptance of the industry's models and illustrations depends on individual investors' ability to understand them. Consistent use of terminology and explanations is beneficial and necessary so that the public may compare the output of the many different models that are available to them and establish a level of comfort in interpreting it. The use of wording and illustration should be appropriate for the audience to which it is intended.

To this end, RIIA plans to design and formulate a set of calibration points or probability values that we believe all such models should strive to reproduce (within a reasonably defined range). If a model does not reproduce these values, then the reasons for divergence should be explained.

In addition, RIIA plans to develop a set of *Guidelines to the Statement of Principles* to provide its members with guidance and examples for meeting them.