

Unit 4 *Risk*

Introduction

Learning objectives

This unit brings together earlier work on probability and applies to a number of contexts where risk is important. After studying this unit you should be able to

- predict the expected outcomes in a variety of experiments, including games of chance
- illustrate and interpret the risks involved in a number of gambling scenarios.

Notes

Whilst the contexts used here are based on a variety of games or gambling examples, it should be noted that the analysis used is more widely applicable, based as it is on probability theory. You use risk analysis in a less mathematical way when you have to fit a certain number of activities, some of which might involve, for instance, time spent queuing, into a specified time. You probably do not knowingly assign probabilities but you are weighing up the level of risk involved when you make your decisions.

Key points

- For analysing games, you need to find expected outcomes and values, based on probability theory.

Glossary of terms

Expected values: the expected winnings (or losses) on average made when playing a game of chance which has financial outcomes.