ANTICIPATED UTILITY: SOME DEVELOPMENTS IN THE ECONOMIC THEORY OF UNCERTAINTY

A thesis submitted for the degree of Doctor of Philosophy of the University of New England by

John Charles QUIGGIN

I certify that this is all my own work and that it has not been submitted for the award of any other degree.

TABLE OF CONTENTS

_	REFACE Chapter 1 UNCERTAINTY	••••	1 3
1.1 1.2 1.3 1.4	Introduction Fundamental sources of uncertainty Instability and variability Risk Ambiguity Risk, instability and ambiguity - an information	nal approa	ch
C	Chapter 2 UTILITY	••••	22
2.1 2.2 2.3 2.4 2.5 2.6	Introduction Background Expected Utility theory Impossibility of risk preference Tools of analysis for Expected Utility theory Applications of Expected Utility theory The firm under uncertainty Expected Utility theory as a scientific research	program	
Ch	apter 3 ANOMALIES IN EXPECTED UTILIT	Y THEOR	Y 40
3.1 3.2 3.3 3.4 3.5 3.6	Introduction Gambling Insurance Experimental violations of EU theory - the Allai Other experimental violations Studies of probability weighting Construction of utility functions. The response of EU theorists	is paradox	
	Chapter 4 ALTERNATIVES TO EXPECTED U HEORY	JTILITY 	61
4.1 1 4.2 1 4.3 1 4.4 1 4.5 1	Introduction Desiderata for an alternative theory Probability weighting Prospect theory Subjectively weighted utility Regret theory Expected utility' without the independence axid	om	

Chanter !	5 _	ANTICIPATED	ערד וויידו	THEORY	
Chapter	, -	MILLOIPALED		IDEURI	

83

- 5.0 Introduction
- 5.1 Motivation
- 5.2 A formal outline of Anticipated Utility theory
- 5.3 Axioms
- 5.4 Anomalies in EU theory
- 5.5 Empirical evidence
- 5.6 Relation to Machina
- 5.7 AU risk aversion and increasing risk
- 5.8 Optimism and pessimism
- 5.9 Apologia

Chapter 6 APPLICATIONS - ECONOMIC THEORY 114

- 6.0 Introduction
- 6.1 The AU-maximising firm under price uncertainty
- 6.2 The optimal design of lotteries
- 6.3 Future developments

Chapter 7 APPLICATIONS - AGRICULTURAL POLICY 132

- 7.0 Introduction
- 7.1 'Imperfections' and government intervention
- 7.2 The rationale for stabilisation policy
- 7.3 General issues in stabilisation policy
- 7.4 Price bands and buffer funds
- 7.5 Underwriting
- 7.6 Wool price stabilisation
- 7.7 Issues for the future