

1. Record Nr.	UNINA9910823629003321
Titolo	Stochastic economic dynamics [[electronic resource] /] / Bjarne S. Jensen & Tapio Palokangas (editors)
Pubbl/distr/stampa	[Copenhagen?], : Copenhagen Business School Press Portland, OR, : International Specialized Book Services [distributor], c2007
ISBN	87-630-9982-9
Edizione	[1st ed.]
Descrizione fisica	438 p. : ill
Altri autori (Persone)	JensenBjarne S PalokangasTapio
Disciplina	519.2/3
Soggetti	Stochastic processes Statics and dynamics (Social sciences)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Stochastic Economic Dynamics -- Table of Contents -- Introduction -- Part I: Developments in Stochastic Dynamics -- 1. Fractional Brownian Motion in Finance -- 1.1 Introduction -- 1.2 Framework and definitions -- 1.3 Classical white noise theory and Hida-Malliavin calculus -- 1.4 Fractional stochastic calculus -- 1.5 Summary of results -- 1.6 Concluding remarks -- 2. Moment Evolution of Gaussian and Geometric Wiener Diffusions -- 2.1 Introduction -- 2.2 Structure of basic diffusion processes -- 2.3 Dynamics of first-order and second-order moments -- 2.4 Expectation vector functions -- 2.5 Covariance matrix functions -- 2.6 Probability density functions -- 2.7 Final comments -- Appendices -- 3. Two-Dimensional Linear Dynamic Systems with Small Random Terms -- 3.1 Introduction -- 3.2 Non-random dynamic system -- 3.3 Lyapunov index of the random system -- 3.4 One-dimensional diffusion process in an interval -- 3.5 Spiral point and center -- 3.6 Saddle point -- 3.7 Improper and proper node -- 4. Dynamic Theory of Stochastic Movement of Systems -- 4.1 Dynamic theory of stochastic processes -- 4.2 Kinematic theory -- 4.3 Sample path equation in kinematic theory -- 4.4 Mechanics and the equation of motion -- 4.5 Evolution function and kinematic equation -- 4.6 Exponent of motion and initial condition -- 4.7 Examples -- 4.8

Schrödinger's wave theory and dynamic theory -- 4.9 Sample paths of motion governed by the Schrödinger equation -- 4.10 Interference phenomena and entangled motion -- Part II: Stochastic Dynamics of Basic Growth Models and Time Delays -- 5. Stochastic One-Sector and Two-Sector Growth Models in Continuous Time -- 5.1 Introduction -- 5.2 Neoclassical technologies and CES forms -- 5.3 Stochastic one-sector growth models -- 5.4 Boundaries, steady-state, and convergence -- 5.5 Explicit steady-state distribution with CD technologies.

5.6 Sample paths and asymptotic densities with CD and CES technologies -- 5.7 General equilibria of two-sector economies -- 5.8 Dynamics of two-sector economies -- 5.9 Sample paths of two-sector models and CES -- 6. Comparative Dynamics in a Stochastic Growth and Trade Model with a Variable Savings Rate -- 6.1 Introduction -- 6.2 Stochastic dynamic systems for trading economies -- 6.3 Comparative dynamics and policy parameters -- 7. Inada Conditions and Global Dynamic Analysis of Basic Growth Models with Time Delays -- 7.1 Introduction -- 7.2 Neoclassical growth model with time delays -- 7.3 Dynamics with delays in production and depreciation -- 7.4 Persistent oscillation in a growth model with delays -- 7.5 Final comments -- 8. Hopf Bifurcation in Growth Models with Time Delays -- 8.1 Introduction -- 8.2 Dynamics of growth and cycles -- 8.3 Hopf bifurcation analysis -- 8.4 CD technologies and time delays -- 8.5 CES technologies and time delays -- 8.6 CES and delays with cycles, square waves, and chaos -- 8.7 Final comments -- Part III: Intertemporal Optimization in Consumption, Finance, and Growth -- 9. Optimal Consumption and Investment Strategies in Dynamic Stochastic Economies -- 9.1 Introduction -- 9.2 Consumption and investment in complete markets -- 9.3 Results for CRRA utility in general markets -- 9.4 Examples -- 9.5 Extensions -- 9.6 Concluding remarks -- Appendix -- 10. Differential Systems in Finance and Life Insurance -- 10.1 Introduction -- 10.2 The differential equations of Thiele and Black-Scholes -- 10.3 Surplus and dividends -- 10.4 Intervention -- 10.5 Quadratic optimization -- 10.6 Utility optimization -- 11. Uncertain Technological Change and Capital Mobility -- 11.1 Introduction -- 11.2 Framework of the model -- 11.3 The effect of uncertainty on growth -- 11.4 Conclusion -- Appendices.

12. Stochastic Control, Non-Depletion of Renewable Resources, and Intertemporal Substitution -- 12.1 Introduction -- 12.2 The preferences -- 12.3 The optimal control problem -- 12.4 Non-optimality of immediate total depletion -- 12.5 Concluding remarks -- 13. Capital Accumulation in a Growth Model with Creative Destruction -- 13.1 Introduction -- 13.2 Framework of the model -- 13.3 Solving the model -- 13.4 Cycles and growth -- 13.5 Conclusions -- Appendices -- 14. Employment Cycles in a Growth Model with Creative Destruction -- 14.1 Introduction -- 14.2 Technology -- 14.3 R&D and capital accumulation -- 14.4 Capitalists -- 14.5 Wage settlement -- 14.6 Economic growth -- 14.7 Cycles -- 14.8 Conclusions.

---