

Role of Marketing in Dynamic Stochastic General Equilibrium Models

Keyvan Dehmamy
Goethe University Frankfurt

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Abstract: Dynamic Stochastic General Equilibrium (DSGE) models are essential in macroeconomics for policy analysis, forecasting, and central bank governance. These models connect major economic sectors, including households, businesses, governments, and central banks, ensuring equilibrium where supply meets demand across markets. DSGE models incorporate stochastic elements to explain economic cycles and are inherently dynamic, considering future expectations. Recent studies highlight the role of incomplete information in DSGE models, emphasizing firm-specific demand shocks and their impact on business cycles. This paper introduces a "Marketing sector" to address information asymmetry and price differentiation, enhancing the DSGE framework. This addition aims to reduce mismatches between production and consumption, improve product information, and assign accurate prices to consumers. The nature sector is also integrated, focusing on CO₂ absorption and resource production, adding an ecological dimension to the model. This extension provides a comprehensive analysis of economic dynamics influenced by information asymmetry and environmental factors.

Keywords: Dynamic Stochastic General Equilibrium, Recursive Models, Environmental Economics

Track: Methods, Modelling & Marketing Analytics