

## Effect of Delay on Supply Side on Market Behavior: A System Dynamic Approach

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**Abstract :** Dynamic systems, which in mathematical point of view are those governed by differential equations, are much more difficult to study and to predict their behavior in comparison with static systems which are governed by algebraic equations. Economical systems such as market are among complicated dynamic systems. This paper tries to adopt a very simple mathematical model for market and to study effect of supply and demand function on behavior of the market while the supply side experiences a lag due to production restrictions.

**Keywords :** dynamic system, lag on supply demand, market stability, supply demand model

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