Nonlinearities in Macro Models

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Outline

- Events of recent years have increasingly made economists believers in *nonlinearities*
  - Policymakers were presented with a new set of circumstances, and these were met with a new set of policies, unconventional monetary policies. Fed and Treasury purchases of privately issued assets.
- Two types of nonlinearities:
  - Models with equilibrium conditions that are far from linear.
  - Models in which the equations that characterize the equilibrium change with changes in the state of the economy.
- I will begin by reviewing some model solution methods that are relevant for these types of nonlinearities.
- Then, some examples from finance
  - Two models of financial frictions in banks
    - When banking net worth is high enough, the banking system supports efficient allocations. When net worth drops below a threshold, economy becomes dysfunctional.
  - When non-negativity restriction on the interest rate becomes binding, the equations that characterize the equilibrium change.
- The discussion will be a mixture of tools and economic issues.