

The Innovation Dilemma: Uncertainty and Economic Policy

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Abstract

General principles and theoretical understanding should guide policy formulation in economics, public policy, and many other areas of human endeavor. However, the planner knows that principles and theory will sometimes be invalid in practice because of limited understanding and unanticipated contingencies. The challenge facing the planner is to balance between fundamental theory-based planning, and pragmatic solution of pressing problems. At one extreme the planner uses theory to formulate innovative new solutions. At the other extreme the planner adheres to standard tools for which extensive experience exists. We explore the problem of balancing between these extremes.

The concept of an innovation dilemma assists in understanding and resolving the planner's challenge. An innovative and highly promising new policy is less familiar than a more standard approach whose implications are more familiar. The innovation, while purportedly better than the standard approach, may be much worse due to uncertainty about the innovation. The resolution (never unambiguous) of the dilemma results from analysis of robustness to surprise (related to flexibility, adaptability, etc.) and is based on info-gap decision theory.

These ideas will be discussed theoretically and illustrated by considering two examples: monetary policy, and policy for ameliorating rural poverty. We will consider both quantitative and qualitative analyses.