Switching-Track after the Great Recession
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Discussed by
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Bank of Canada Monetary Policy Workshop
Introduction

• Outline for this discussion
  1. Data: A change in steady-state after the Great Recession?
  2. Overview of the model
  3. Comments and suggestions
Motivation for the paper

- Strong departure from long-run (log) linear path after the Great Recession
Aftermath of the Great Recession

- Can growth accounting tell us where the action is?
  - Labor and Capital
  - In contrast, no much action from TFP (Solow residual)
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This paper

- **New Keynesian model to explain the change in steady-state**
  - After small shocks the economy goes back to original steady-state
  - But large/prolonged shocks push the economy to lower trajectory

- **Key ingredients:**
  - Endogenous growth model
  - An initial shock that destroys a lot of capital
  - A Taylor rule whose target output changes over time
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  ▶ An initial shock that destroys a lot of capital
  ▶ A Taylor rule whose target output changes over time
Key ingredients: $AK$ setup + nature of the shock

• Endogenous growth framework with aggregate capital externality
  ▶ Parametrize the model to get $AK$ structure

• Basic $AK$ properties
  ▶ Capital always grows at a constant rate (even out of steady state)
    \[ \gamma_k = \gamma_c = A - (n + \delta + \rho) \]
  ▶ Shocks that destroy capital move the economy to a different steady state
    • Seems appropriate in view of the data!

• Microfoundation for the capital destruction shock
  ▶ Firms go bankrupt and bankruptcy leads to more depreciation.
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Key ingredients: Taylor rule with moving output target

• But why aren’t all shocks moving the steady states around?
  ▶ Monetary authority pushes the economy around

• Taylor rule

\[
R_t^m = \bar{R} + \rho_\pi (\pi_t - \bar{\pi}_t) + \rho_y \left( \log \hat{GDP} - \log y_t^p \right)
\]

with the ZLB constraint \( R_t = \max(1, R_t^m) \) and the adjusting target

\[
y_t^p = y_{t-1}^p + \rho \left( \frac{1}{n} \sum_{j=1}^{n} \hat{GDP}_{t-4-j} - y_{t-1}^p \right)
\]

• Importance for dynamics
  ▶ For small recession, \( y_t^p \) does not move much
    • Central Bank pushes for a return to the previous steady state
  ▶ For large recession, \( y_t^p \) falls down
    • During recovery the Central Bank stops pushing before reaching the old steady state
      ⇒ New steady state
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      - New steady state
Results: Large shock
Results: Small shock

- Outcomes after a small shock (blue lines)
Comments

• Nice, interesting paper!
  ▶ Different behavior for small vs large shock
  ▶ Reasonable mechanism with plausible outcomes

• What’s next?
  ▶ Some comments about the exposition and the state of the literature
I would suggest to better motivate two key assumptions

- Spillovers in the depreciation cost of bankruptcy
  - When an entrepreneur defaults, she increases the loss in capital of other defaulting entrepreneurs
  - Not clear to me why this is needed or what feature of the data motivates this assumption
  - But assuming that there are no spillovers more-or-less kills the mechanism, why?

- The behavior of the Central Bank feels odd to me.
  - The CB’s output target is low because the economy is depressed because the CB’s output target is low
  - Smart Central Bankers could fix the whole problem!
  - The observed decline in the reported output target might be a sign of something deeper going on.
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Is it possible to derive some theoretical results?

- Does the economy actually change steady-state after a large shock or is the adjustment just really slow?

- Does the economy go back to the old steady state after small shock, or are all shocks permanent?

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General comment about the literature

- We now have many papers that generate multiple steady states/equilibria/non-linear dynamics.

- Some recent and/or famous contributions:
  ▶ Shopping externalities: Kaplan and Menzio (2014)
  ▶ Information externalities: Fajgelbaum, Schaal and Taschereau-Dumouchel (2017)
  ▶ Beliefs updating: Kozlowski, Veldkamp and Venkateswaran (2020)
  ▶ Matching function non-linearities: Petrosky-Nadeau, Kuehn, and Zhang (2013)
  ▶ ... and many more!

- Next step
  ▶ Which mechanism is actually important?
  ▶ Many models seem consistent with macro data → looks to micro data to add discipline
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