Discussion of "Make America Great: Long-Run Impacts of Short-Run Public Investment" by Alexandr Kopytov and Haotian Xiang

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This paper: How does public investment affect the economy?

- RBC model with complementary public and private investment
  - TFP and both types of capital increase firm technology adoption
  - Public investment can move economy from low to high technology steady state
- Studies dynamic effects of productivity and public investment shocks
- Examines specific episodes
  - Does model rationalize post-1960 aggregate patterns?
  - Does low public investment explain weak recovery following Great Recession?
  - Would more public investment have improved the recovery?

- Important, policy-relevant question
- Focus on different types and sizes of shocks is useful
- Clear discussion of key economic issues

Comment 1: What happened in the 1960s?

- Authors calibrate low-to-high productivity differential using difference in pre-1960 and post-1973 detrended output
- What happened in the 1960s?
  - Public investment in highways and R&D
  - Decrease in effective corporate tax rates with introduction of ITC in 1962 [Auerbach and Hines 1987]
  - Increase in defense spending for Vietnam War
- How much of increase in output was due to public investment?
- To what degree are effects driven by initial investment in highways?
  - What are appropriate values of α and ω in counterfactuals?

Comment 2: Financing public investment

- Baseline: government budget is balanced through lump-sum taxes
  - Extension: effects of public investment are smaller under distortionary taxes
- What is appropriate amount of distortionary taxes in baseline?
- How do distortionary taxes affect size of investment needed to generate long-run effects?
- How do results differ if investment is financed through distortionary taxes on labor or capital?
- How do results differ if investment is financed through debt?

Comment 3: Producing public investment

- In model, savings generate capital goods immediately
- Given focus on *large* public investment shocks, production of capital goods could be important
  - Supply of capital goods might less than perfectly elastic [Goolsbee 1998]
  - Capital goods can be produced domestically or purchased from abroad [House, Mocanu, and Shapiro 2017]

Minor comments

- How would qualitative conclusions change with other models?
  - This model: Firms adopt new technology when productivity (A) is high
  - Other models: Firms adopt new technology when opportunity cost is low
- How important is existence of two steady states?
  - Depends on parameter (α) for which there is little consensus
  - More realistic model: heterogeneity in firm adoption, so $m \in (0, 1)$ generally
- More sensitivity analysis and discussion of new parameters
  - Elasticity of output w.r.t. government capital (α)
  - Low-to-high productivity differential (ω)
  - Fixed cost of productivity adoption (f)