

Comment on “Long Run Behavior of R&D Investment and Economic Growth”

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Project Scope & Structure

- **Aims:**
 - To show the relationship between R&D activity and macro-economic variables
 - To provide a reference for discussion on Korean transition from resource-based to innovation-based growth strategy
- **Method:**
 - Establish macro-economic model with R&D as a separate sector, 49 equations and identities, certain assumptions about R&D characteristics (e.g., lags and obsolescence)
 - Conduct simulations of expanded public spending on R&D

Strengths...

- Relatively clear and simple approach
- Delivers insights into basic relationships among the macro variables of interest
- Provides indications of possible impacts of adjustment in policy levers

Refining present report...

- Would be helpful to have a more detailed specification of the **caveats**
 - R&D returns may not be smooth or linear (in fact often lumpy)
 - Disruptive technologies may also impact rates of obsolescence
 - Provides indications of associations, but does not explain process
- Would be helpful to have indication of **sensitivity** (e.g., how important are assumptions such as rate of obsolescence?)

Possibilities for further development...

- Clarify impact of globalisation on R&D
 - Korean firms may conduct or own R&D abroad
 - Fruits of R&D can be intangible, easily scaled and leveraged, may be tradable
 - R&D systems not contained by national boundaries

Possibilities for further development...

- May be able to refine: assess R&D variation performance by sector (e.g. lags & obsolescence; perhaps nest in model)
- Assess variation over time (e.g. due to change in non-tech innov or user-driven innovation)
- Conclusions: public spending may have relatively positive long-term effects; perhaps also nuance between public & private R&D

Thank you for your attention.