

# Empirical studies on R&D, innovation and the business cycle

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Thesis propositions for

# Empirical Studies on R&D, Innovation and the Business Cycle

Martin Hud

February 2017

1. While policymakers are well-advised to increase public R&D support during positive growth periods, they should be rather careful in designing a recession-induced subsidy expansion program.
2. Firms should counter-cyclically increase their product innovation investment as this will generate higher sales shares in the following boom period than pro-cyclical investments.
3. It is a more promising strategy for firms to link higher product innovation investment to the development and introduction of new-to-the-market products than to the implementation of products that are only new to the firm.
4. SMEs should implement product innovations particularly during recessions as new products make them more resilient to economic crises than non-product innovators.
5. For large firms it may not necessarily be worthwhile to implement new products during recessions in terms of employment growth. Maybe they should rather focus on the implementation of new processes and business practices, respectively.
6. Start-ups achieve higher employment growth if they are R&D-active and even more if they keep on investing in R&D during recession periods.
7. Firms and public institutions should always spend a significant amount of money into the creation of knowledge – it will always pay off.
8. It isn't all over; everything has not been invented; the human adventure is just beginning. (Gene Roddenberry)
9. Nintendo's philosophy is never to go the easy path; it's always to challenge ourselves and try to do something new. (Translated, Shigeru Miyamoto)
10. Movie directors, or should I say people who create things, are very greedy and they can never be satisfied. That's why they keep on working. I've been able to work for so long because I think next time, I'll make something good. (Translated, Akira Kurosawa)