Theory

- In a process of creative destruction R&D investments are ideally countercyclical
- But in a world with credit constraints they can become pericyclical

Empirical evidence

- Consider Payment incidents (PI) as a proxy for credit constraints
 - $\frac{R\&D}{Investments}$ positively related to sales
 - $\frac{R\&D}{Investments}$ negatively related to sales*PI
- R&D procyclical for credit constrained firms!

Discussion

- Relevance of the paper:
 - Cleansing effect of economic downturn
 - Fiscal policy.
- ullet But R&D and Physical investments may have different temporal plans
 - Easier to cut Physical investment than R&D?
 - why not R&D as a dependent variable (and control for physical inv.)?
- Control for the impact of fiscal policy/ Fiscal implications:
 - in downturn is more difficult to deduct R&D costs: subsidies to R&D?