Innovation at the firm-level – descriptive results

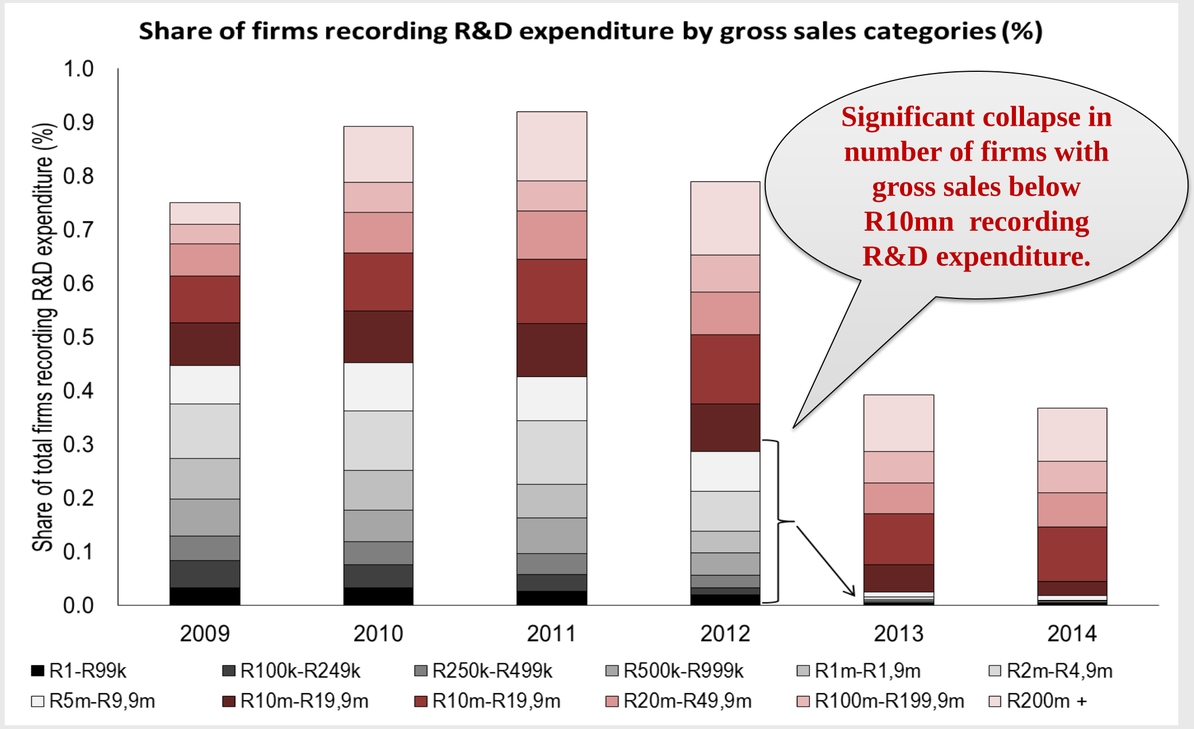
A. Steenkamp – Economist, National Treasury

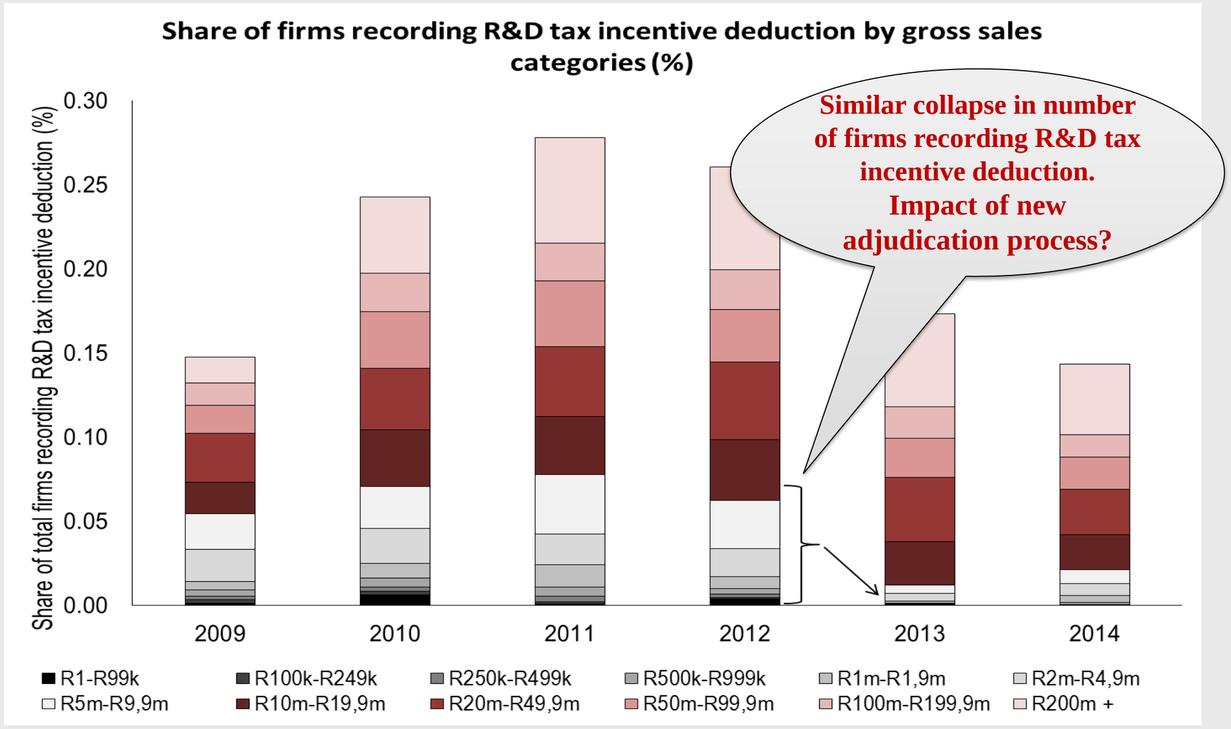
Introduction and context

- Policy-makers and researchers widely acknowledge that **innovation is essential for increasing productivity.**
- Innovation is critical to achieving government's policy goals of reindustrialising the economy and expanding exports to achieve higher economic growth.
- SA spent 0.73% of its GDP on R&D in 2013/14 according to HSRC R&D survey.
- OECD average is 2.4% of GDP – although these countries have larger GDPs.

R&D tax incentive

- Government recognises the important role of innovation policy - introduced the R&D tax incentive in November 2006.
- Science and Technology Minister, Naledi Pandor, recently announced a new R&D expenditure target of 1.5% of GDP by 2019, more than double the current spend.
- Incentive offers 150% tax deduction for approved R&D expenditure – accessible to firms of all sizes in all industries.
- From 1 Oct 2012, procedure changed from retrospective to pre-approval – **backlog of applications, complexity, need to simplify administrative processes**



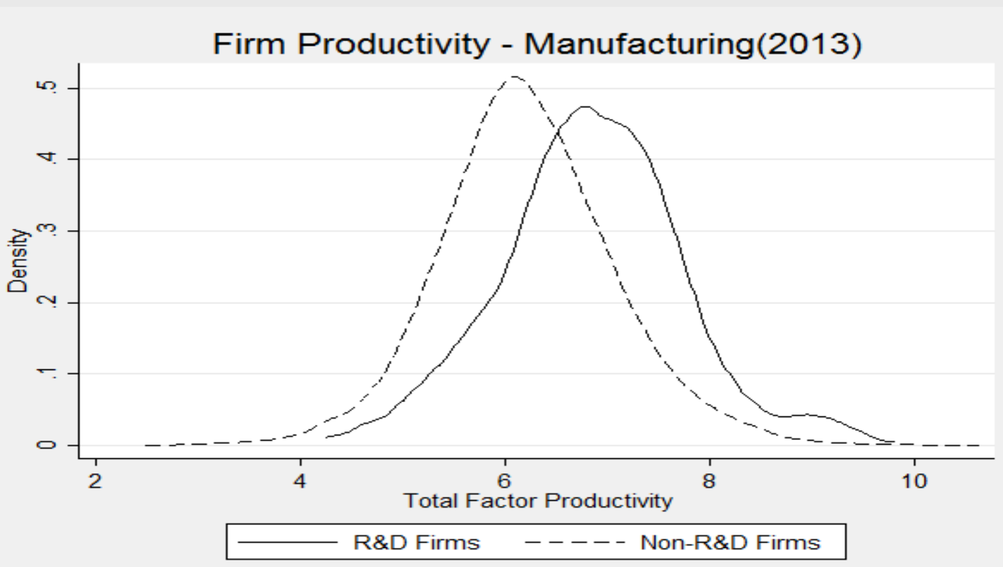


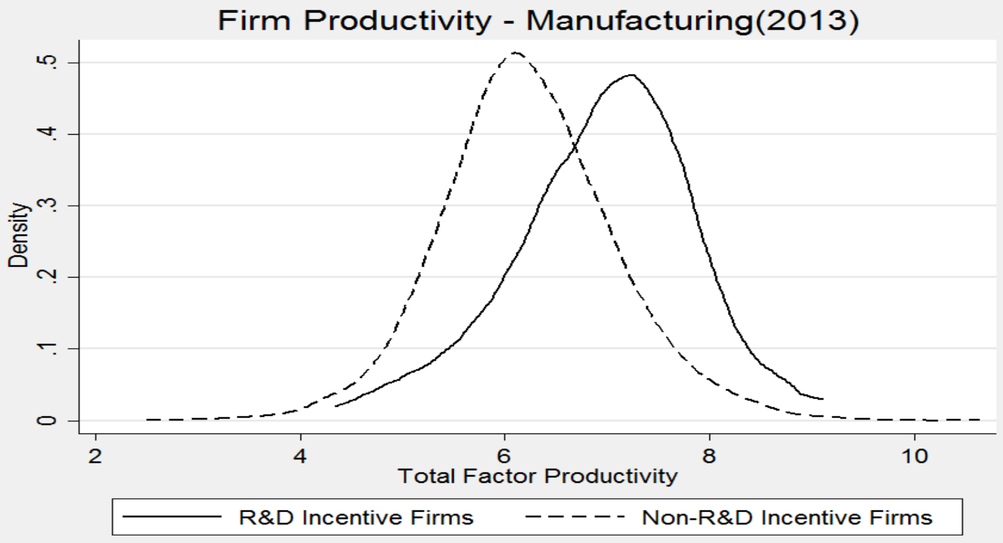
Productivity and the innovation process

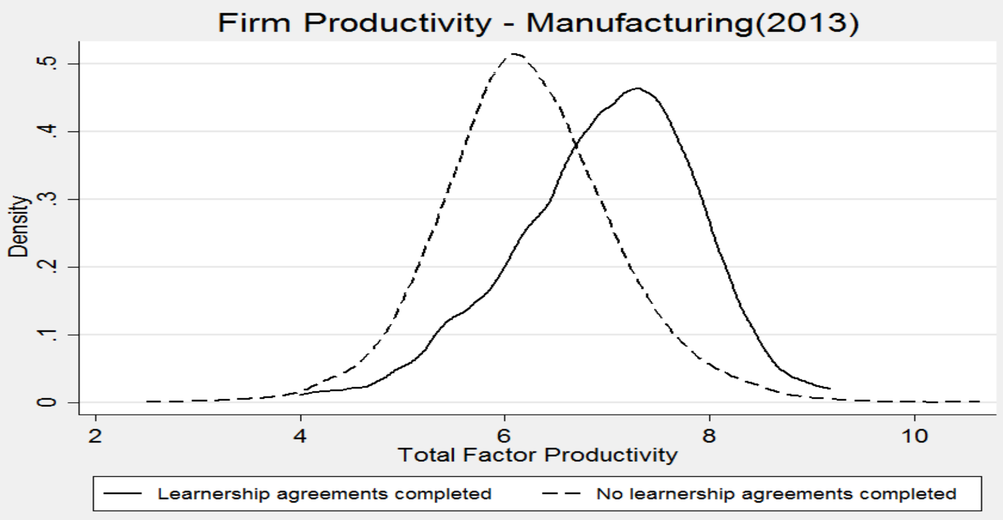
- The literature emphasises a **positive correlation** between **firm-level innovation and productivity gains**, although evidence for developing countries is mixed.
- **On average – manufacturing firms investing in R&D, claiming the R&D tax incentive deduction, completing learnership agreements, and spending on training are more productive than firms that do not. This holds across years.**

Trading behaviour and R&D expenditure

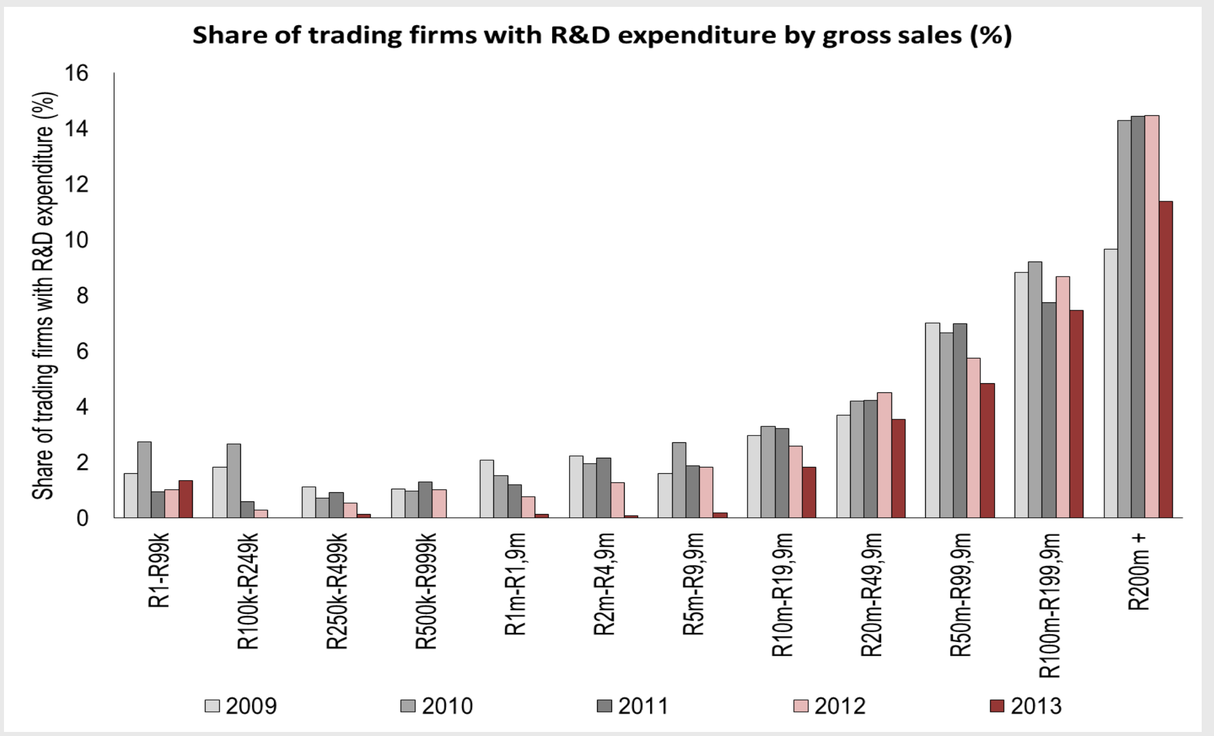
- Empirical literature suggests that **innovative firms are more likely to export**, and generally export more products to more countries.
- **Trading firms more likely to be involved in R&D activity compared to those that do not trade - this likelihood increases as gross sales of a firm increases.**
- **Manufacturing trading firms investing in R&D more productive** than those that do not invest.

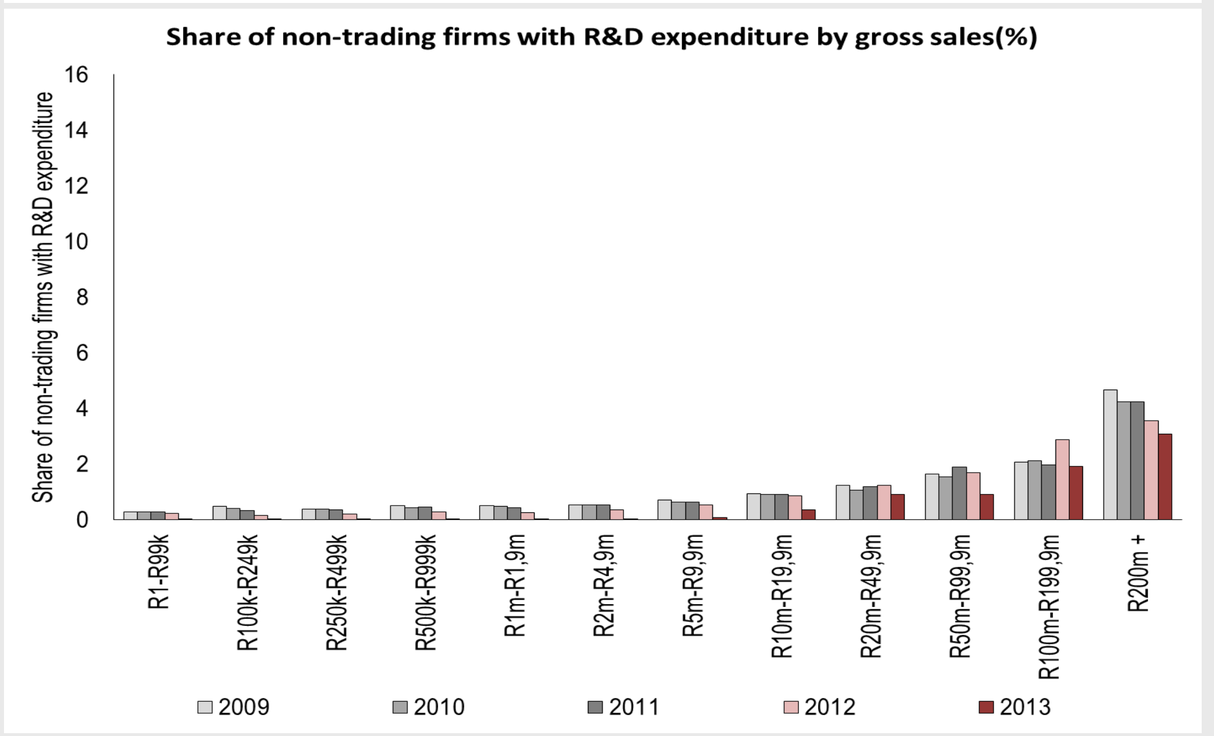






*Total firms refers to those that record positive gross sales and fixed capital stock





Next steps

- Create an **innovation index** to evaluate investment in innovation inputs and productivity more comprehensively.
- **Evaluate the impact of the procedural change for the R&D tax incentive** in 2012 on R&D spend more robustly.
- **Test these descriptive relationships econometrically.**