

Growing Role of Innovation and Technology

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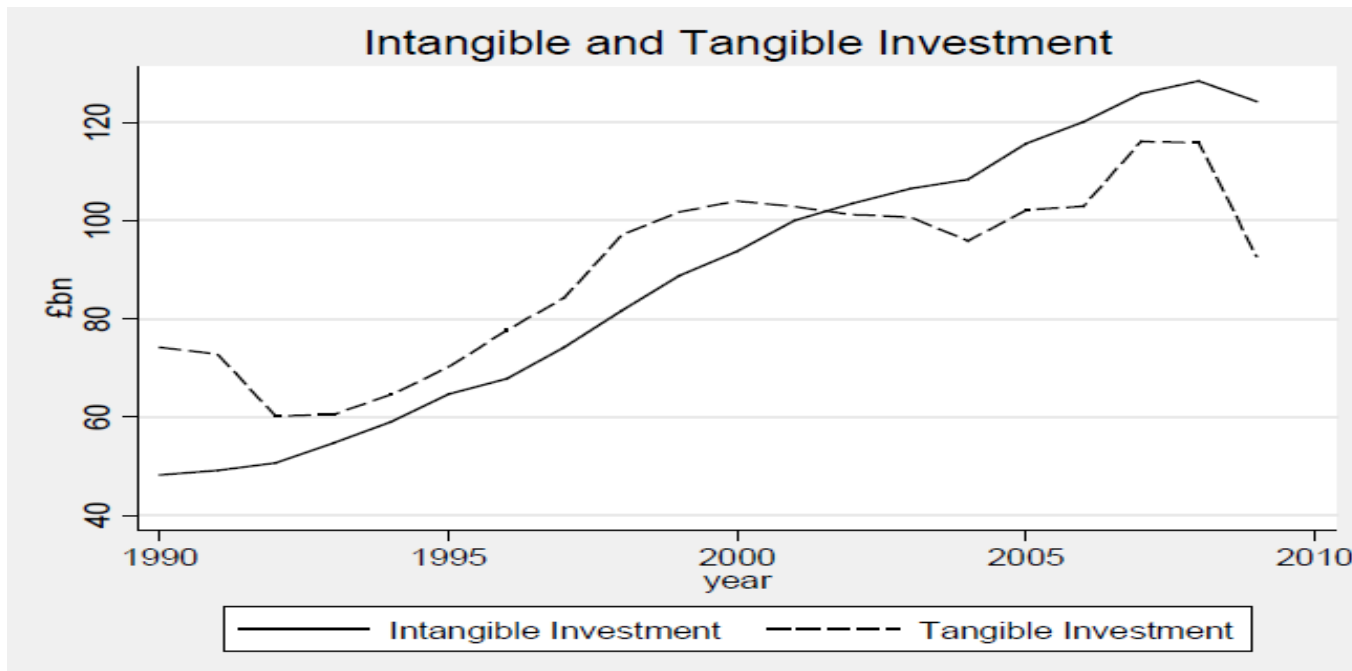
Role of innovation and technology in economic growth

$$Y = AL^{\beta}K^{\alpha}$$

- Y = total production (the real value of all goods produced in a year)
- L = [labor](#) input (the total number of person-hours worked in a year)
- K = [capital](#) input (the real value of all machinery, equipment, and buildings)
- A = [total factor productivity](#)

Growing role of innovation and intangible assets

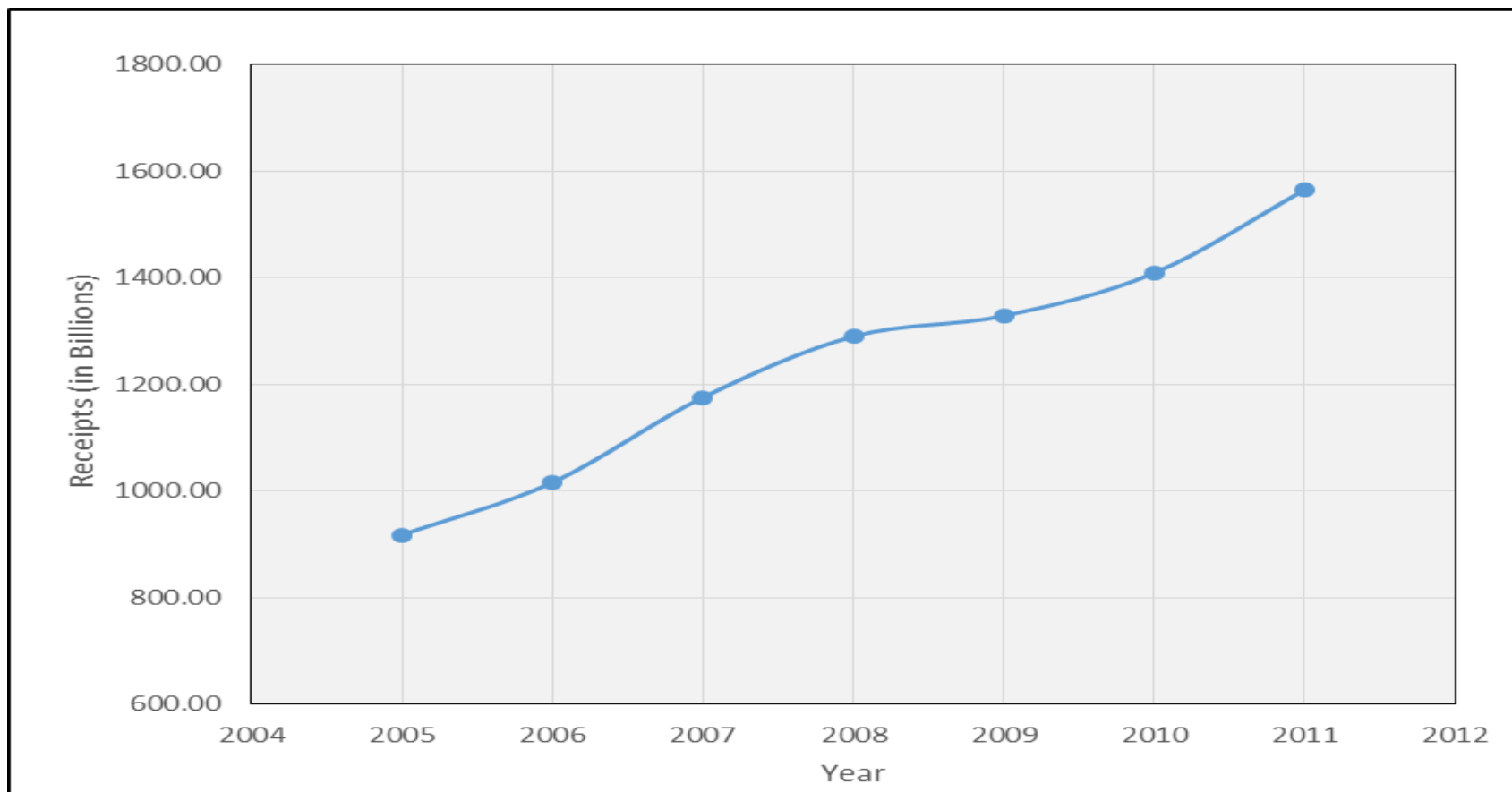
Market Sector Tangible and Intangible Investment in the UK, £bn, 1990-2009



http://www2.lse.ac.uk/researchAndExpertise/units/growthCommission/documents/pdf/contributions/lseGC_haskel_investment.pdf

Global trade in non-physical goods

Royalty and license fees, receipts (BoP, current US\$)



Inculcating skills among students on innovation and IP commercialization- via coursework

- **What happens when students do not understand these issues**
Chou vs. University of Chicago
<http://www.ipfrontline.com/depts/article.aspx?id=432&deptid=7>
- **Courses on Engineering Law in place last several decades-** contracts, cybersquatting, environmental law, safety, product liability
- **Last 15 years, another course on topics related to IP & innovation commercialization** in curriculum of engineering and other applied sciences disciplines. WIPO has readymade content on many topics
- **Course contents:** patent, copyright, trade secret, mask work, and cybersquatting legal and procedural principles, as well how to properly use new vehicles of intellectual property protection for novel software, biotech inventions, and business methods.

Inculcating skills among students on innovation and IP commercialization – hands-on experience

- Masters/PhD students work at the TTO.
 - Selection highly competitive.
 - Hands-on experience on commercialization – technology screening, IP landscape analysis, market intelligence, patent prosecution
- MBA School conducts business plan competition using TTO/incubator technologies
 - Students prepare commercialization plan for technologies that the TTO and incubators is handling.
 - Credit for the course.
 - The cases are then judged by industry experts in a contest. Students that win get equity in firms – some even get financing.
 - Russia also replicating this.

Education throughout ecosystem

- **Educating practitioners/SMEs about IP**
 - Conferences/workshops in collaboration with chambers of commerce
- **Incorporating IP concerns into exports, cultural development, and sector-specific development**
 - Establish a mechanism that periodically provides updates and insights to ministries on topics related to innovation/IP and economic development

Opportunities

- Nature of university changing – triple helix
- Open innovation – not just in IT, but also in biotech and mechanical engineering
- Patents are a minefield that can be used to guide practical research and find potential investors
- Reach out to the Diaspora