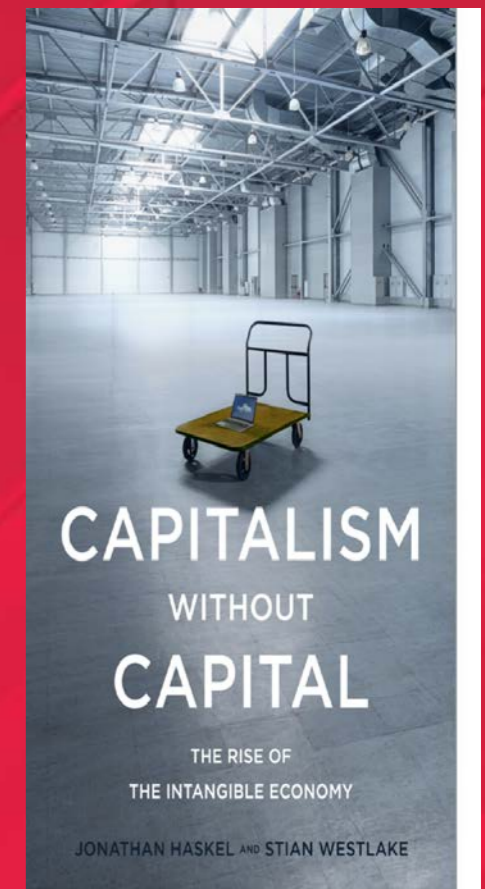


The Intangible Economy  
Book project with Stian Westlake  
“Capitalism without Capital”,  
November 2017.  
Contents and first  
chapter.

Jonathan Haskel  
@haskelcon



#IB320



# Welcome!

- Exciting range of subjects you will be studying
- Here's a view from an Economist working in the Business School...

# We need to understand economies

Which used to produce this...



...and now produce this.



# What do companies look like?

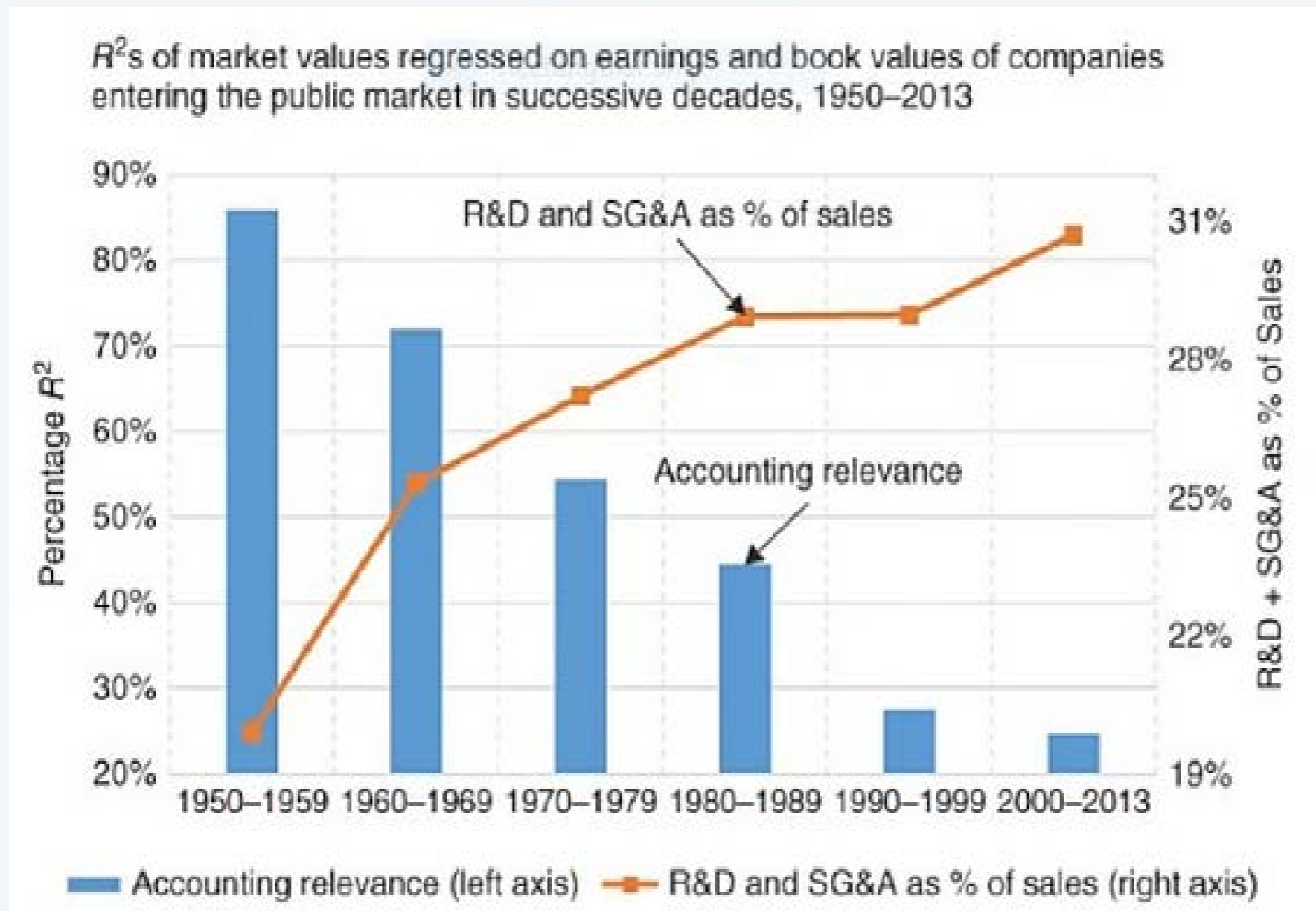
	<b>Sainsbury's</b>	<b>Microsoft</b>
<b>Sales</b>	24bn	85bn
<b>Assets: Property, equipment</b>		

# What do companies look like?

	<b>Sainsbury's</b>	<b>Microsoft</b>
<b>Sales</b>	24bn	85bn
<b>Assets: Property, equipment</b>	10bn	5bn

## Capitalism without Capital

# Lev on declining informativeness of company accounts.



- Source: (Lev and Gu 2016) Figure 82, p.88

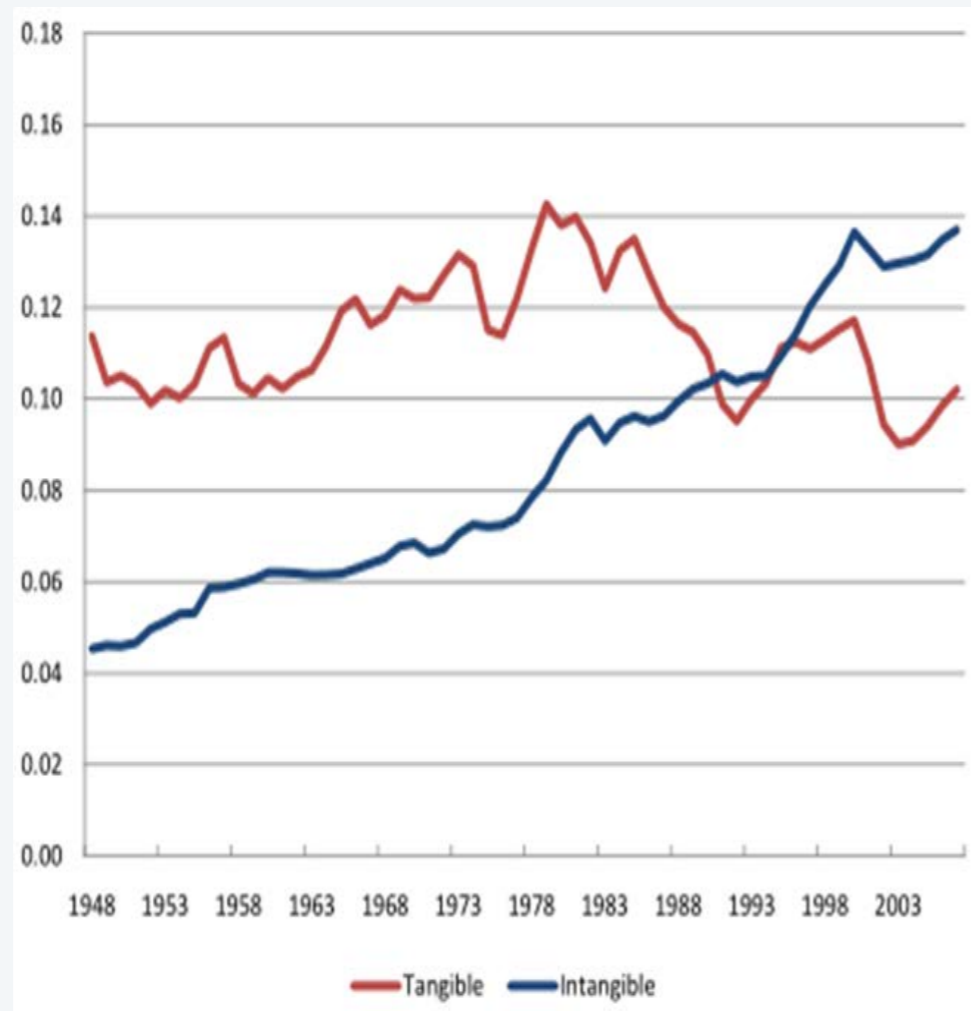
# Investment in modern economies

<b>Tangible investment</b>	<b>Intangible investment</b>
Buildings and structures	<i>Computerised information</i>
IT equipment (computer hardware, communications equipment)	Software
Non-computer machinery, equipment and weapons systems	Databases
Vehicles	<i>Innovative property</i>
	R&D and mineral exploration
	Creating entertainment, literary or artistic originals
	Design
	<i>Economic competencies</i>
	Training
	Market research and branding
	Business process re-engineering



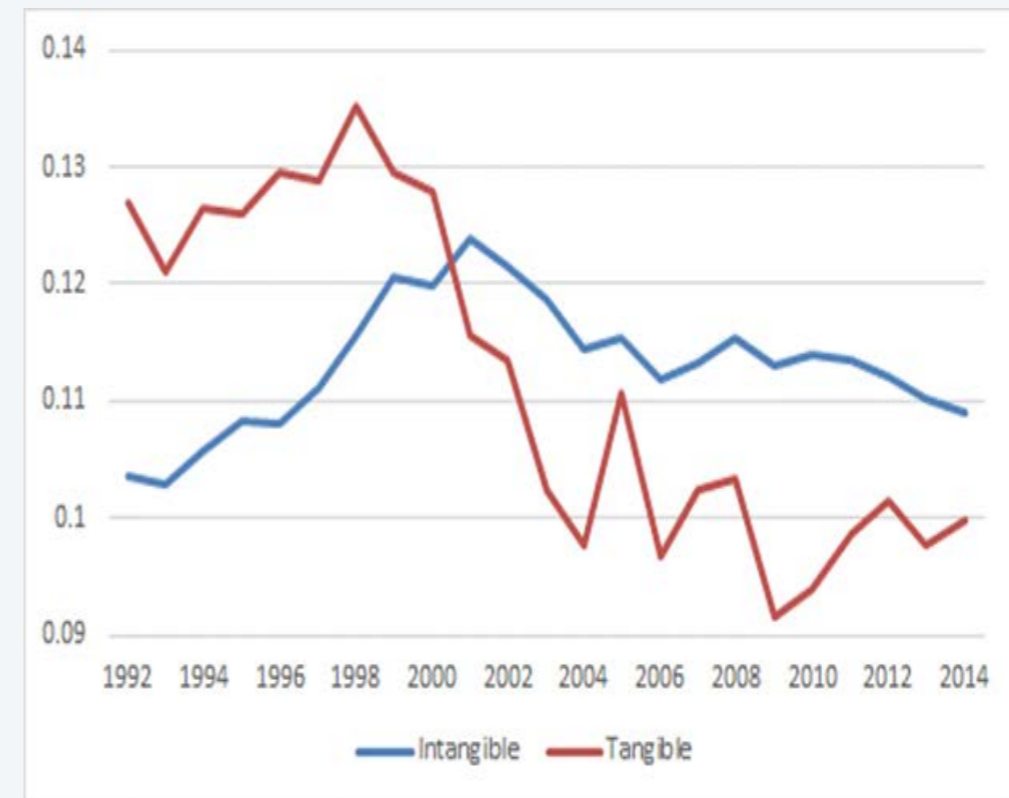
# So what's been happening to tangible and intangible investment over time? The long term...

## Intangible and tangible investment over time, US



**Source:** Carol Corrado

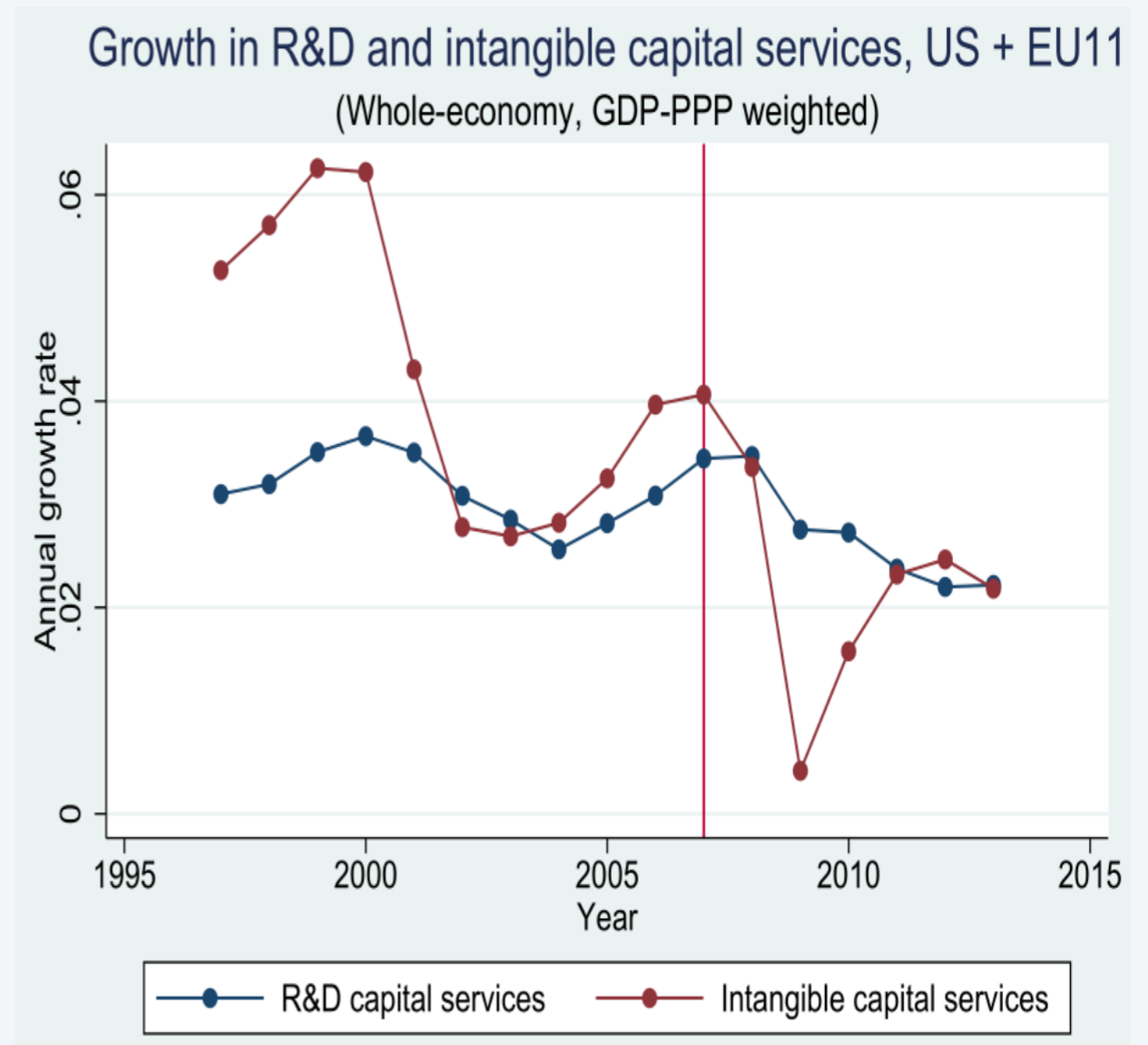
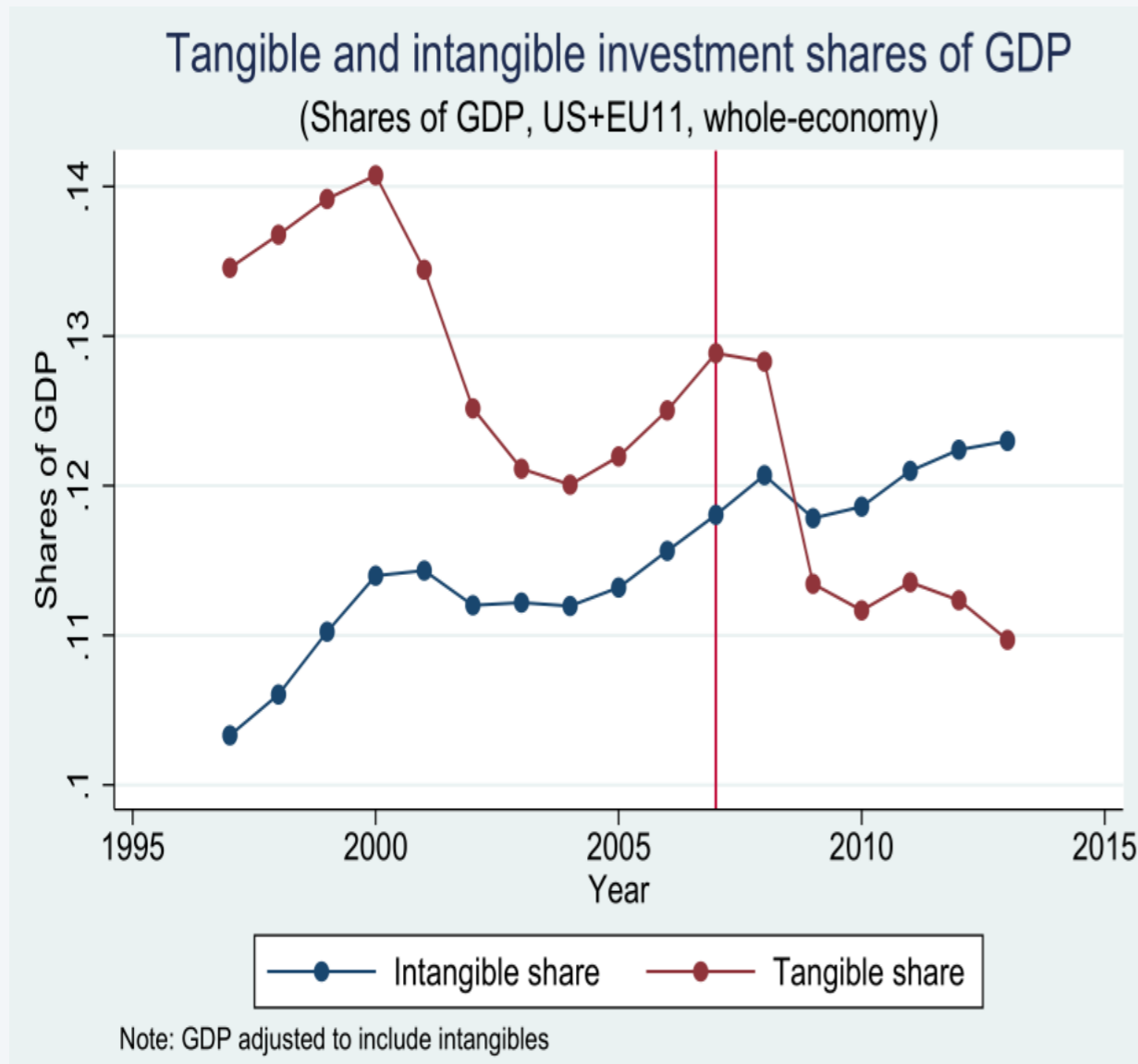
## Intangible and tangible investment over time, UK



**Source:** Peter Goodridge

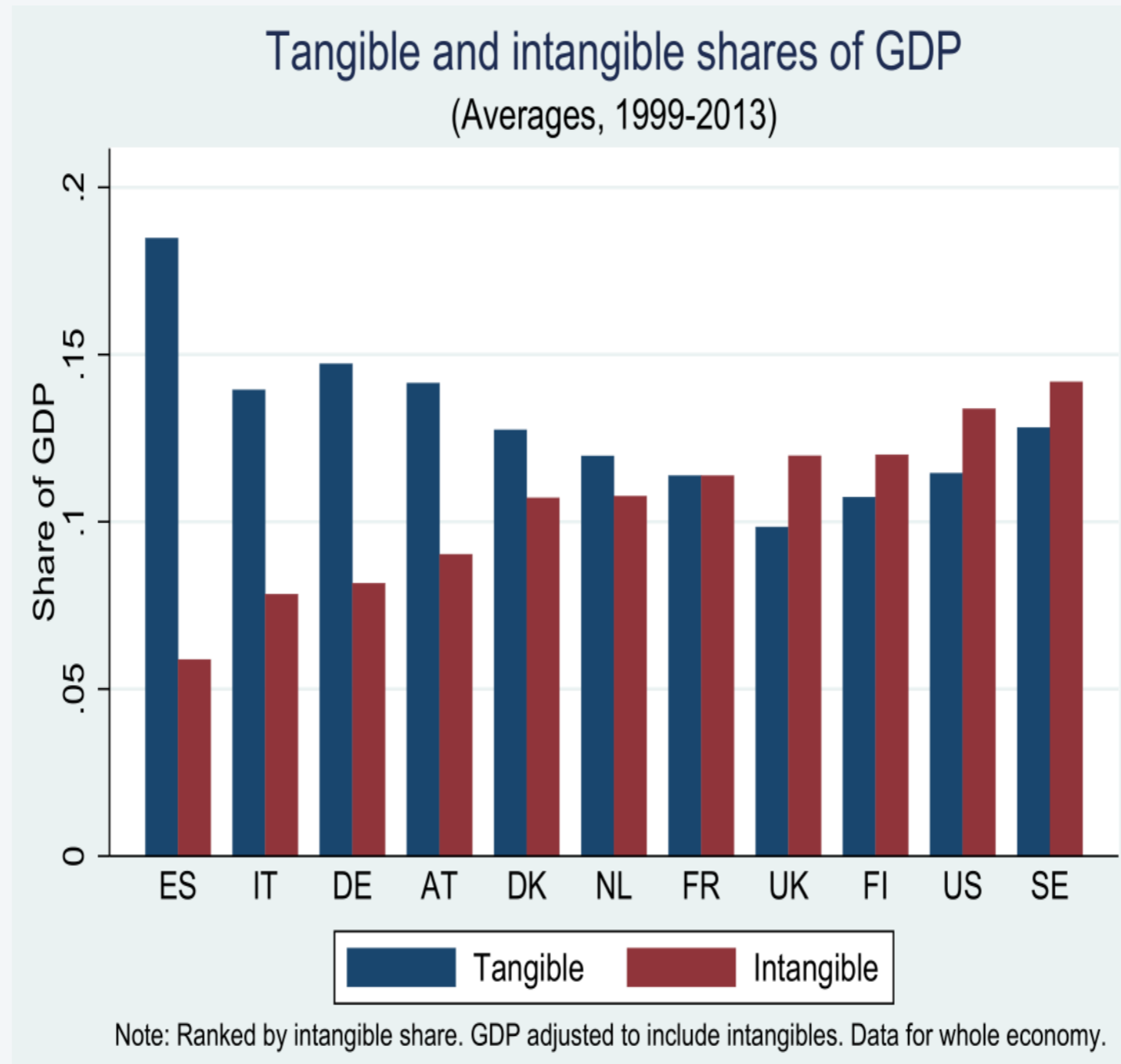


...shorter term: slowdown in capital services growth since 2008...



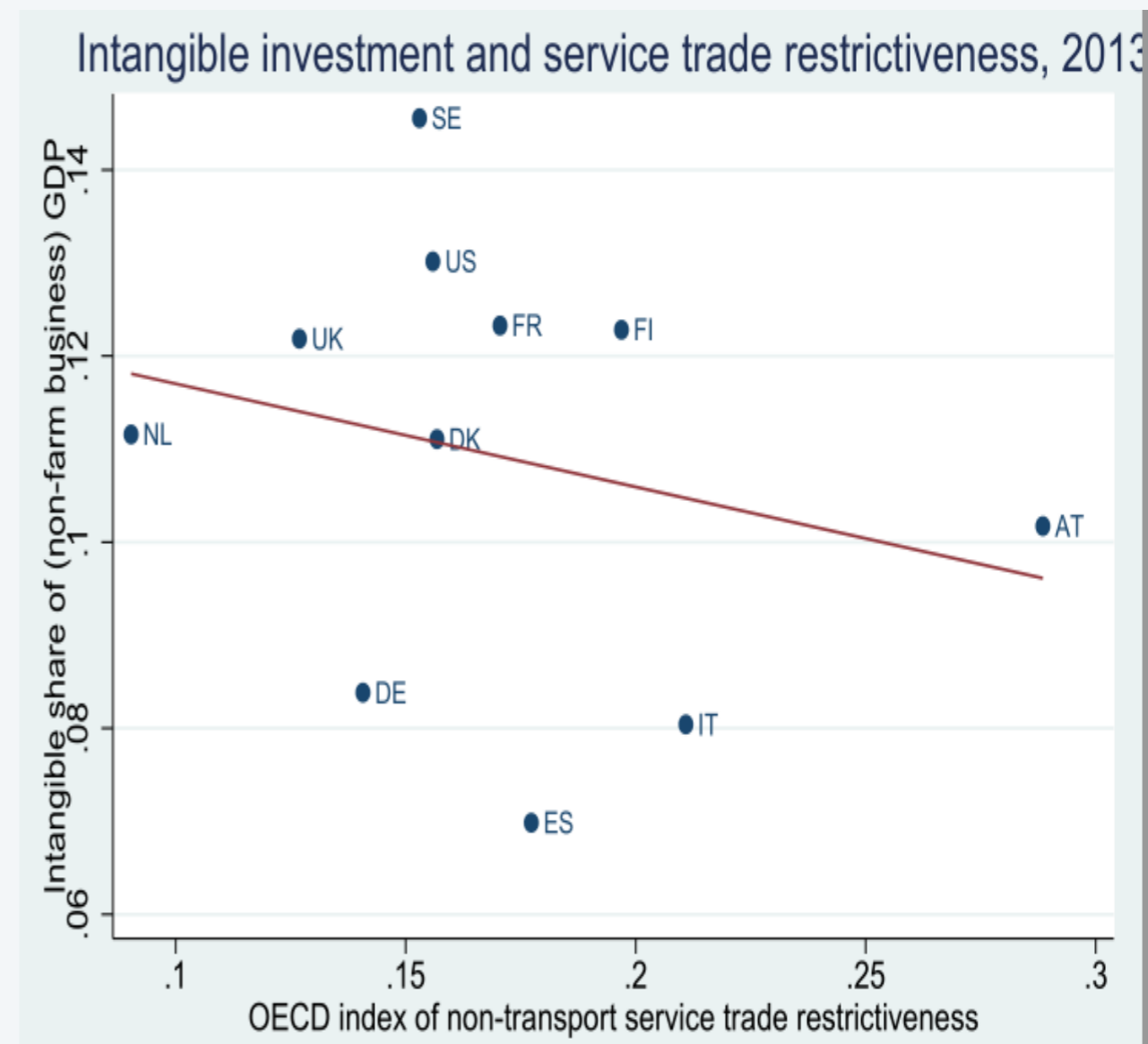
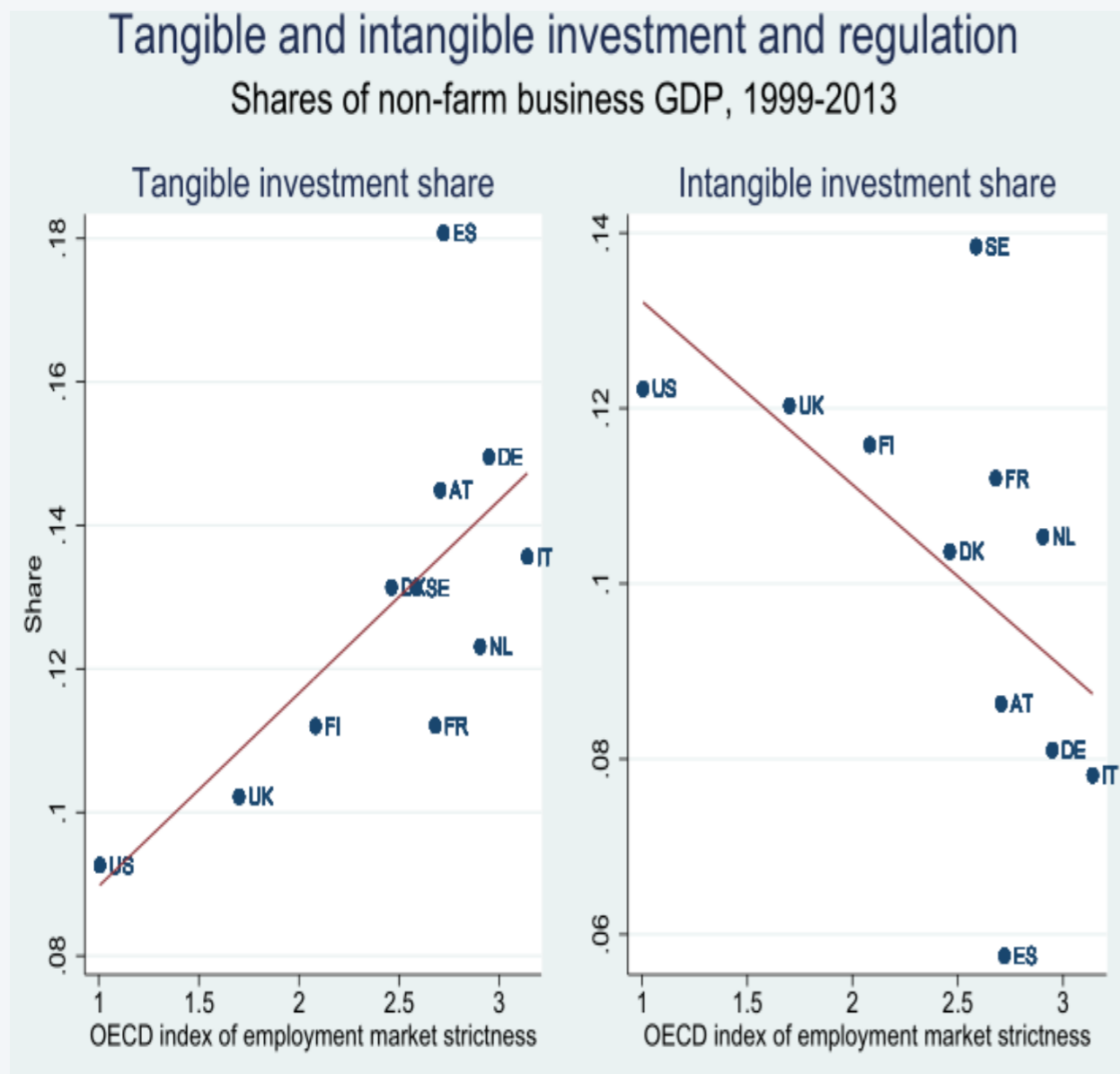
**Source:** calculations from SPINTAN database

# Variation over countries...



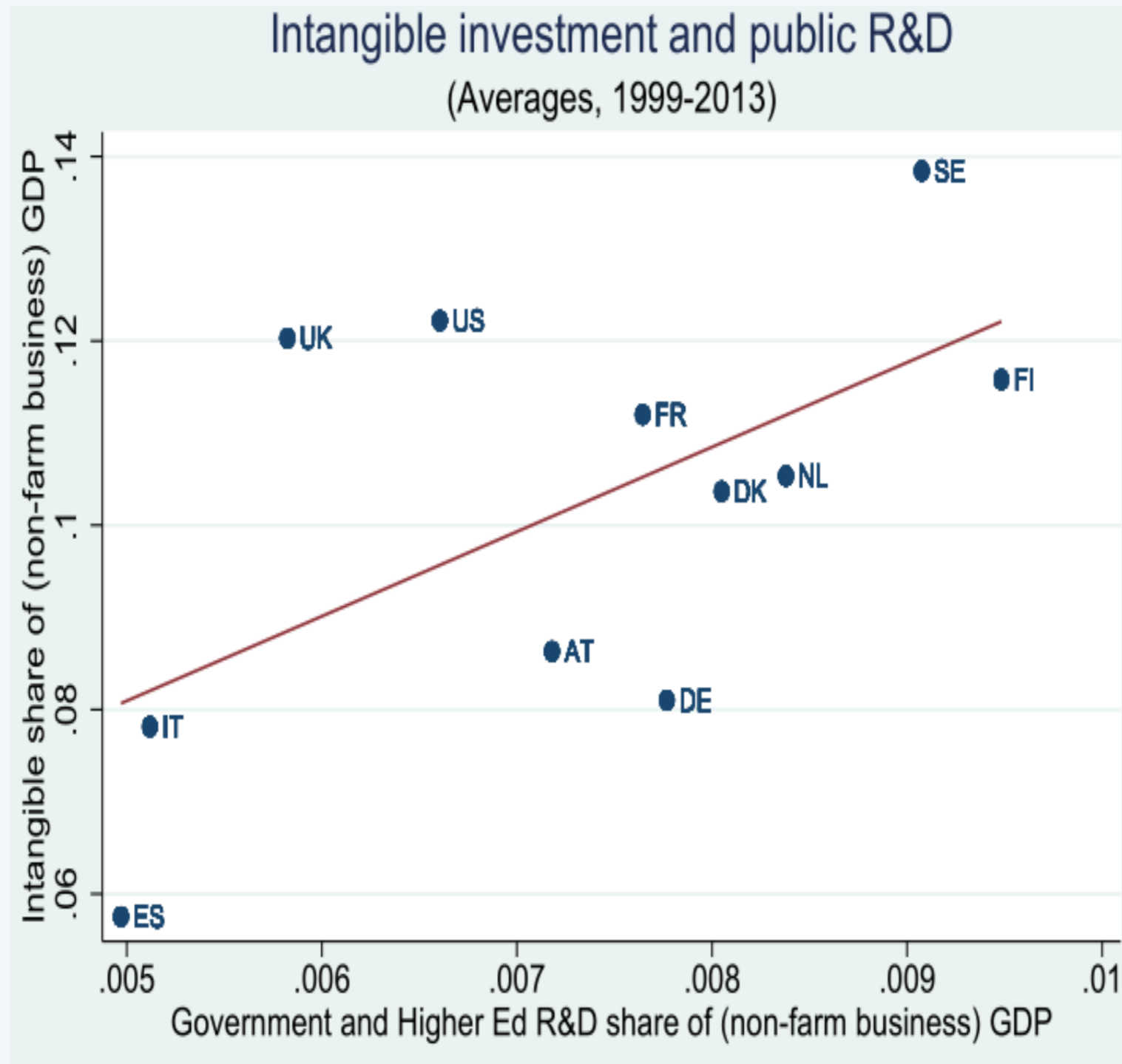
**Source:** calculations from SPINTAN database

...correlated with policy-relevant variables...



**Source:** calculations from SPINTAN database

...including public R&D



**Source:** calculations from SPINTAN database

# Properties of intangibles 1: Accounting conventions

- In company and national accounts, many are unmeasured
- Typical treatment in company accounts
  - If own-account, expensed, not capitalised
  - If bought-in, valued and depreciated
  - If company is sold “goodwill” is valued
  - (some software and R&D can be capitalised under restrictive circumstances e.g. late in development stage)
- Implications
  - it looks like we have some fabulously profitable companies (in return on capital terms i.e. huge sales, no capital.
  - if we miss out investment, we
    - undercount GDP
    - Changes in investment are early predictors of business cycles, so we might miss early signals
    - Brexit might affect investment, but if we don't count it we might miss any effects.

# Properties of intangibles 2: economic properties

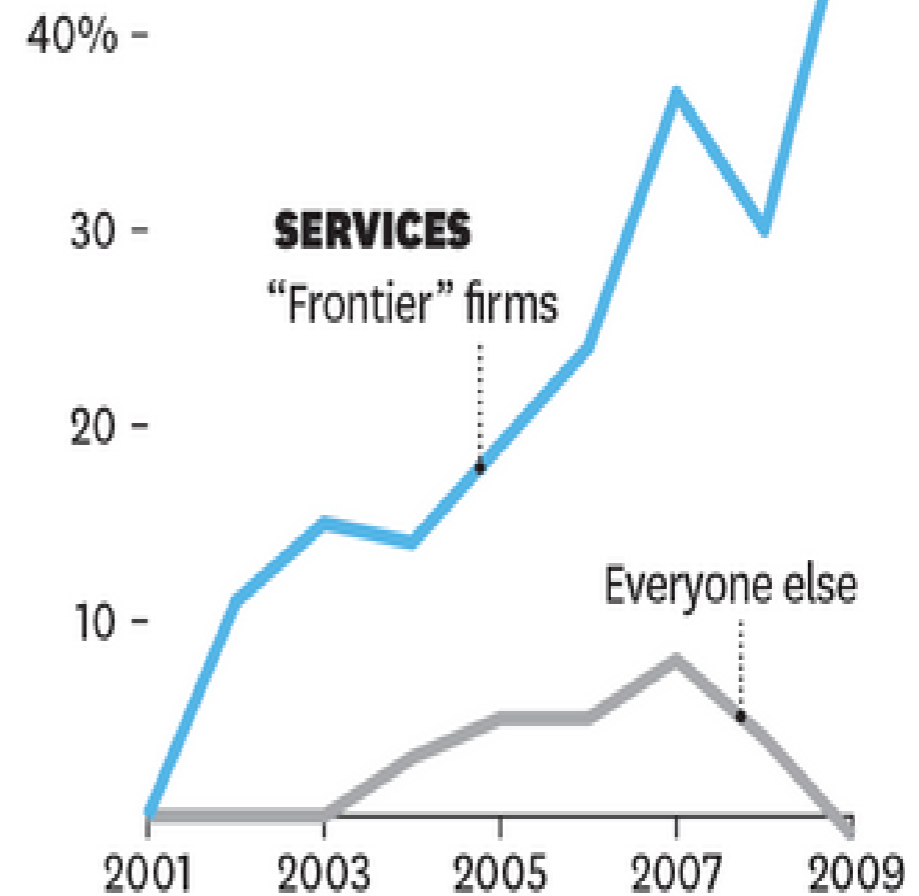
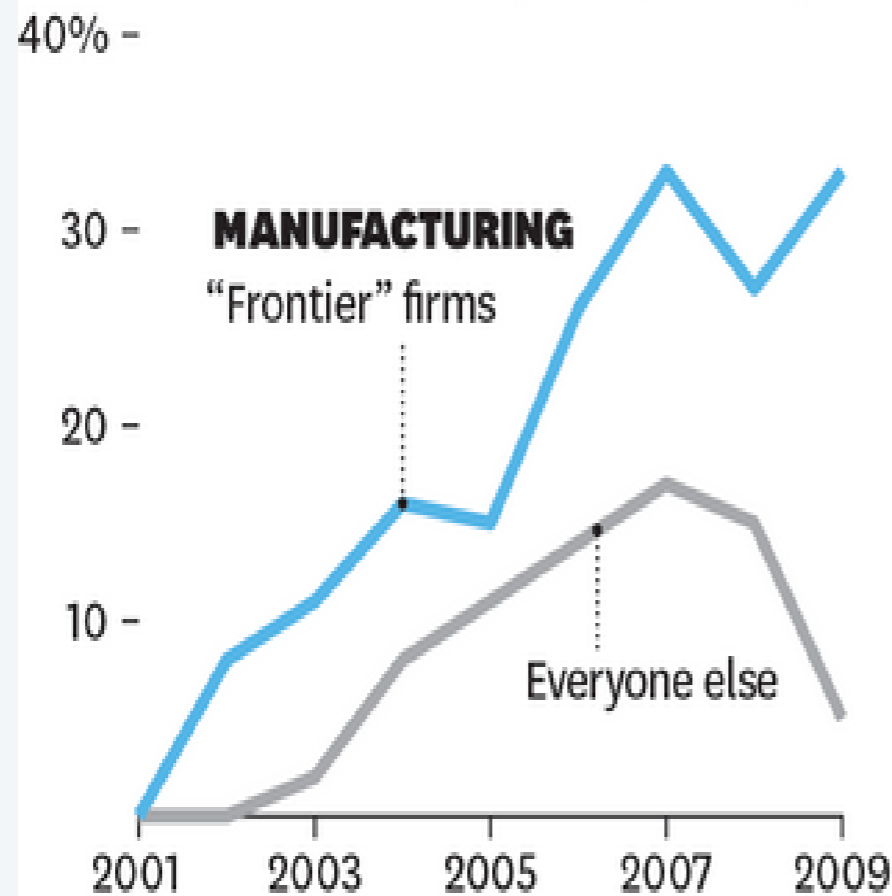
- Properties of intangibles- the four “S”s (Haskel/Westlake)
  - **Sunk** - investment cannot be recovered
  - **Scalable** – fixed investment e.g. in Uber software, can be scaled
  - **Spillovers** – knowledge investment can be used by others
  - **Synergies** – investment synergies with other intangible capital and human capital
- Implications:
  - *Sunk: financing difficulties*
  - *Spillovers: slowdown in investment affects other firms: demand for living in cities rises*
  - *Scalable: intangible-intensive companies get relatively larger => frontier gap gets bigger*
  - *Synergies: potentially large wage gains for intangible capital owners*

# Example of implications of intangibles: scalable

## The Gap Between the Most Productive Firms and the Rest Is Growing

A look at labor productivity in manufacturing and services.

PERCENTAGE DIFFERENCE IN LABOR PRODUCTIVITY LEVELS FROM THEIR 2001 VALUES (INDEX, 2001=0)



SOURCE "THE FUTURE OF PRODUCTIVITY," OECD, 2015

© HBR.ORG

Source: Andrews, D. C. Criscuolo and P. Gal (2015),



# Summary

- Investment is becoming more intangible
- That's not well measured
- If you leave it out
  - You understate GDP
  - Cannot understand modern firms
- Intangible assets have different economic properties to tangible with implications for the economy
  - Sunk: financing problems
  - Scalable: leader/laggard gaps
  - Spillovers: demand for cities rises, investment slowdowns in some firms affect all others
  - Synergies: returns rise in intangible-intensive firms
- Rich set of business strategy and policy implications
  - Intangible investment correlated with policy instruments e.g. strictness of employment legislation
  - Leadership and management become more important
  - Analysis of just company accounts less important,
  - Understanding the business environment more important...which is the purpose of your course!