

# The relevance of intangible investments in the digital age

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- Leading the economy successfully through fast changing markets requires new business models, great customer relations, competitive intelligence, agility, speed, and talent (Telstra Corporation Ltd and Deloitte tilted Taking Leadership in a Digital Economy).
  - Main finding: with the increasing expectation of having to deliver more with less - and the fact that digitisation accelerates those pressures - we need to invest in new capabilities not old business models.
- Digitalization is expected to boost productivity growth enabling innovation and reducing the costs of a range of business processes (OECD, 2018).
- Digitalization is changing business models so that firms are placing greater emphasis on intangible assets (OECD, 2018)
- To realize the growth potential of innovations related to digitalization it is necessary to invest in intangible assets (Brynjolffson, Syverson, and Rock, 2017).

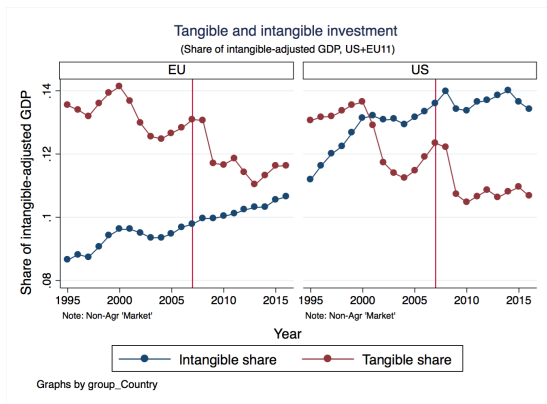
# Expanding the investment boundaries to include intangibles change the productivity perspective

Does considering these investments help understand the ongoing transformation of the global economies and productivity trends?

	<i>Treated as Investment in GDP?</i>		<i>Treated as Investment in GDP?</i>
<b>Tangible Investment</b>		<b>Intangible Investment</b>	
Buildings and Structures	Yes	<i>Computerised information</i>	
IT equipment (hardware, communication)	Yes	Software	Yes (1993 SNA)
Non-computer equipment	Yes	Databases	Uneven
Vehicles	Yes	<i>Innovative Property</i>	
		R&D and mineral exploration	Yes (2008 SNA)
		Artistic originals	Yes (1993 SNA)
		Design	No
		<i>Economic Competencies</i>	
		Training	No
		Market Research and Branding	No
		Business process re-engineering	No

Source: Corrado, Haskel, Iommi, Jona-Lasinio (2016)

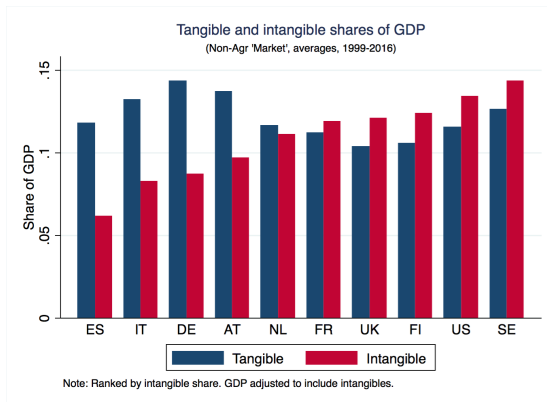
By 2013, for every *pound* of investment in tangible assets, the major developed countries spent 1.10 *pounds* on intangible assets (Haskel and Westlake, 2017)



Note: EU aggregation uses Eurostat's industry-specific production side PPPs.

Source: INTAN-Invest© 2018, available at [www.intaninvest.net](http://www.intaninvest.net)

- Intangibles are outpacing tangibles in most of the advanced economies



Note: Non Agricultural market sector excludes real estate.

Source: INTAN-Invest© 2018, available at [www.intaninvest.net](http://www.intaninvest.net)

- In more intangible intensive economies (UK, US, FI, FR, SW) HD intensive sectors are gaining more relevance.

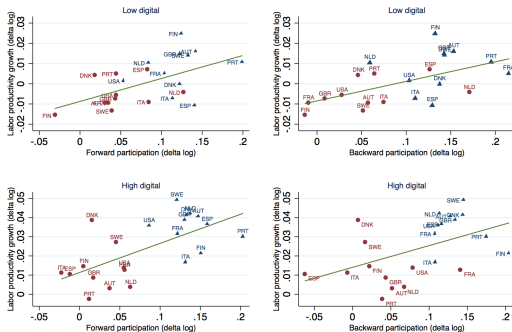
Shares of Total Value Added						
Country	HD		MD		LD	
	2000-07	2010-15	2000-07	2010-15	2000-07	2010-15
Austria	25.8%	27.2%	42.7%	42.0%	31.6%	30.8%
Belgium	33.6%	36.8%	40.5%	36.6%	25.9%	26.6%
Germany	36.4%	36.6%	42.3%	41.3%	21.3%	22.1%
Denmark	27.2%	31.5%	43.5%	43.2%	29.4%	25.3%
Spain	25.9%	28.6%	38.2%	36.9%	40.2%	39.4%
Finland	22.2%	26.9%	51.5%	44.4%	26.3%	28.7%
France	35.6%	37.8%	37.1%	33.4%	27.3%	28.9%
Italy	30.6%	32.1%	42.6%	39.2%	26.9%	28.7%
Netherlands	37.1%	40.9%	38.6%	36.0%	24.3%	23.1%
Sweden	32.3%	35.1%	41.3%	38.0%	26.4%	26.9%
UK	36.8%	42.0%	36.4%	32.1%	26.9%	25.9%
USA	35.3%	36.6%	42.5%	41.7%	22.2%	21.6%

Source: Battiati, Jona-Lasinio, Sopranzetti (2019)

- The correlation is stronger in the high digital sectors but the distribution is more dispersed after the financial crisis.

GVC participation and Labor productivity growth in low and high digital sectors

(triangle 2000-07; circle 2008-14)



Source: Battiati, Jona-Lasinio, Sopranzetti (2019)

- Investment in training and workforce skills are crucial to enable the digital transformation
- Strengthen technology and knowledge diffusion is essential to benefit from digital transformations
- The emergence of new business models (as well as new ways of delivering public and private services) requires new regulatory approaches in many areas (financial services, education services, public sector...)
- All things digital suggest optimism for future productivity growth (R&D in ICT/AI/computing is very robust)