

# How to measure digital trade?

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Identifying Building Blocks for Facilitating Digital Trade

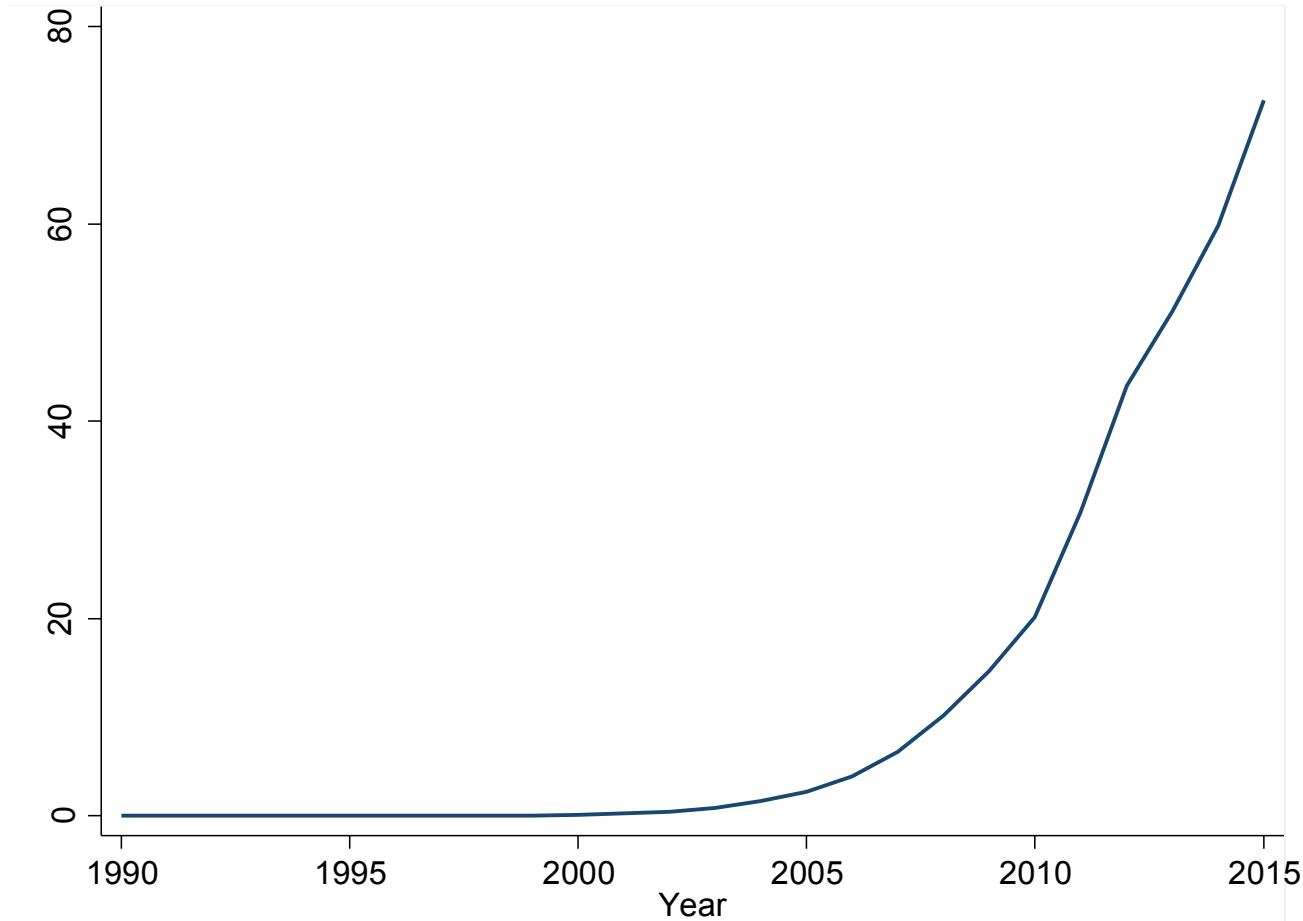
ECIPE & Université Libre de Bruxelles

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# From which angle?

- Trade
- Competitiveness

# Trade angle?



# Trade

- Services trade
- Manufacturing trade
  - Where is data located?
  - ECIPE; Sturgeon (2015); UNCTAD

# Where is data located?

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NACE R.2	Sector description	Share
Highest		
61	Telecommunications	0.236
63	Information services activities	0.141
58	Publishing activities	0.140
80	Security and investigation activities	0.124
79	Travel agency, tour operator reservation activities	0.120
82	Office administrative, office support, other business	0.107
69	Legal and accounting activities	0.095
62	Computer programming, consultancy and related	0.093
78	Employment activities	0.091
66	Activities auxiliary to finance and insurance services	0.087

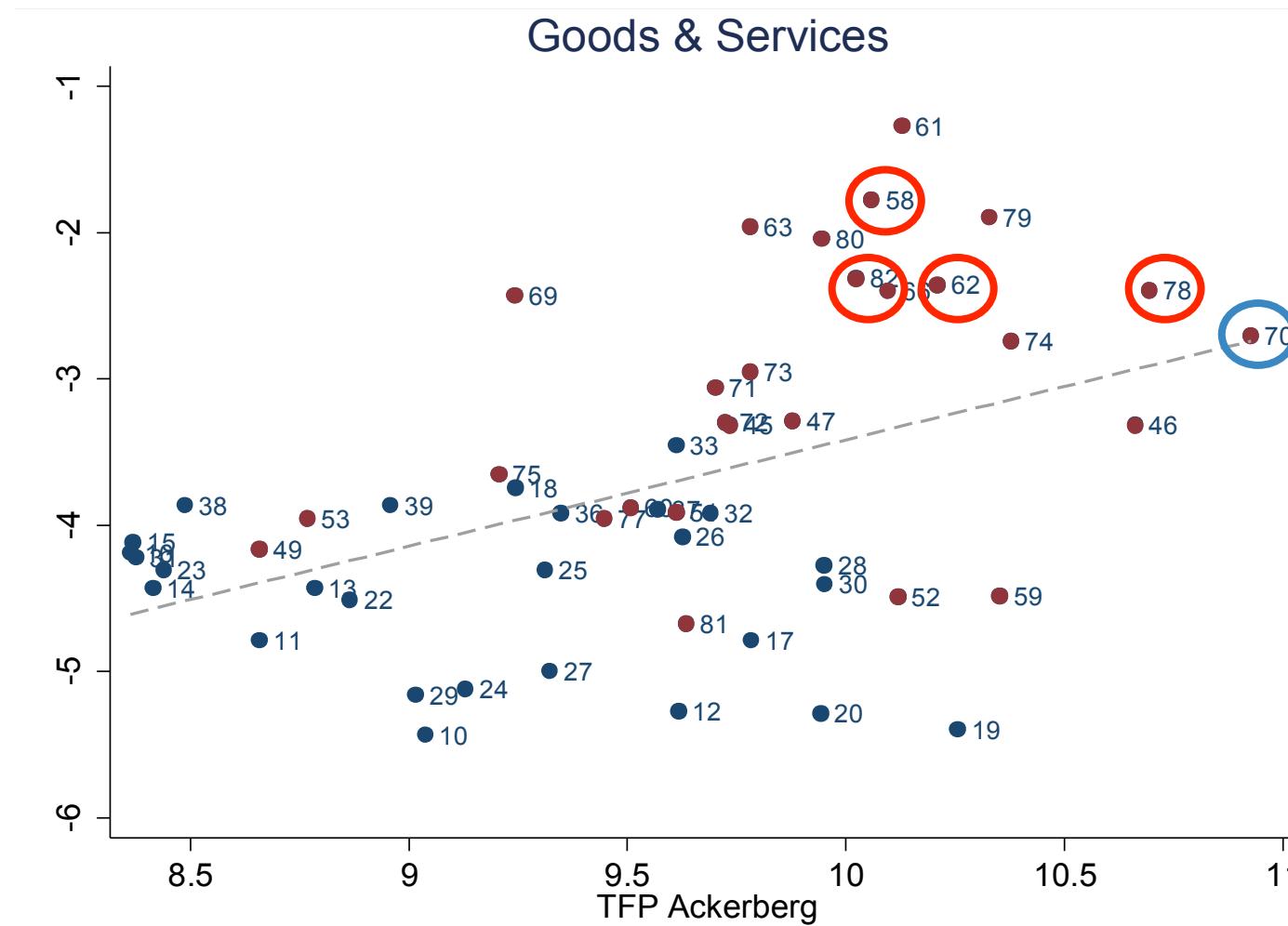
# Where is data located?

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Lowest		
17	Paper and paper products	0.011
21	Basic pharmaceuticals products and preparations	0.011
27	Electrical equipment	0.009
24	Basic metals	0.008
20	Chemical and products	0.007
29	Motor vehicles, trailers and semi-trailers	0.007
11	Beverages	0.007
10	Food products	0.005
12	Tobacco products	0.005
19	Coke and refined petroleum products	0.004

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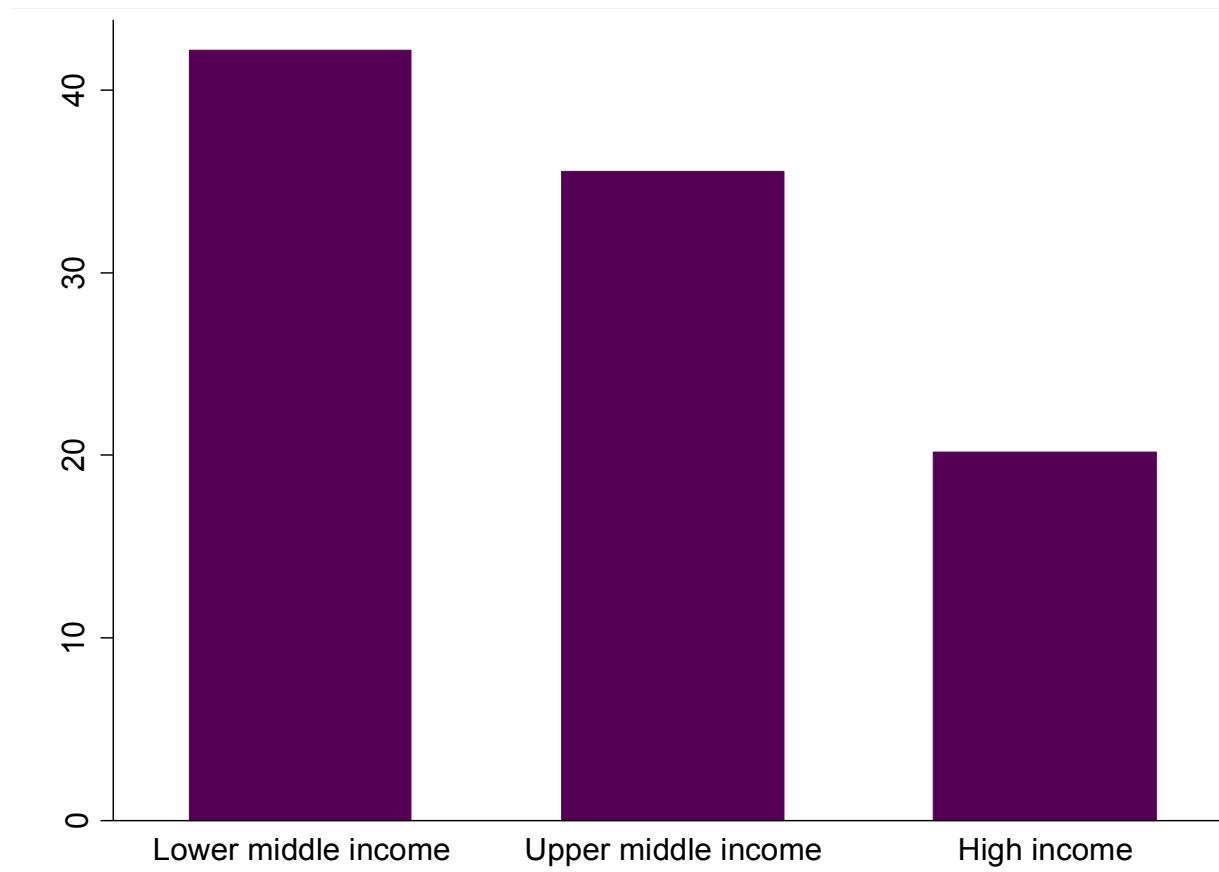
# Where is data located?



# Competitiveness

- Policy information ([www.ecipe.org/dte](http://www.ecipe.org/dte))
- Competitiveness (trade?) performance (development)

# Digital policies



# Competitiveness

	(1) TFP	(2) TFP	(3) TFP	(4) TFP	(5) TFP
Overall index	-1.245*** (0.000)				
Data policies (8)		-1.299*** (0.000)			-1.281*** (0.000)
Intermediate liability (9)			-0.537** (0.049)		-0.094 (0.771)
Content access (10)				-0.185 (0.309)	0.098 (0.635)
FE Country	Yes	Yes	Yes	Yes	Yes
FE Sector	Yes	Yes	Yes	Yes	Yes
Firm controls	Yes	Yes	Yes	Yes	Yes
Observations	633698	633698	633698	633698	633698
R2A	0.834	0.835	0.833	0.832	0.835
R2W	0.019	0.023	0.012	0.009	0.023
RMSE	0.640	0.639	0.642	0.643	0.639

# Conclusion

- Standard tools may fall short
- Need to “locate” data in (traditional) sector approach
  - New mapping of activities (hybrid service and goods)
- Digital is as much a trade issue as a competitiveness issue

# Thanks you!

- van der Marel, E., H. Lee-Makiyama, M. Bauer and B. Verschelde (2016) "A Methodology to Estimate the Costs of Data Regulation", International Economics, Vol. 146, Issue 2, pages 12-39.
- van der Marel, E., M. Ferracane and J. Kren (2017) "Do Data Policies Impact the Productivity Performance of Firms?" *forthcoming*
- Ferracane, M. and E. van der Marel (2017) Digital Trade Estimated, ECIPE *forthcoming*