Trade Replication Assignment 1

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Explanations of Judgment Calls

The paper originally uses 1997 data from the OECD STAN database and the University of Groningen's GGDC Productivity Level Database, retrieving 21 countries and 13 industry sectors. When examining data availability for 2017, the PLD data includes 12 sectors that differ from the 1997 PLD data sectors.

As such, we perform the analysis using the new sectors and replicate an equivalent of Table 2. There are two versions of the OECD BTDlxE database available for use. The 2025 version incorporates all sectors included in the 2017 PLD database but does not contain all the countries used in the original paper. The archived version, however, includes all 22 countries (as we can now separately analyze Belgium and Luxembourg instead of treating them as one). However, this version only contains four sectors that share the same definition as the PLD database: Agriculture, Manufacturing, Mining, and Energy (i.e., Utilities).

Given these constraints, I have chosen to utilize the archived version (22 countries and 4 sectors) to conduct a more general cross-sectional analysis of all 22 countries, albeit across a limited number of sectors. We also replicate an equivalent version of Table 3.

Replicated Tables (2) and (3) are Below

Table : Relative Productivity Levels by Country and Industry

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Trade	1.02	1.01	1.85	1.75	0.92	0.95	1.89	1.21	1.52	1.36	2.41	1.08	1.85	4.28	4.45	2.29	0.81	1.27	1.55	1.52	1.00	1.00
Transport	0.53	0.45	1.30	0.42	0.38	0.62	0.52	0.69	0.56	1.22	0.84	0.87	1.23	2.03	5.31	1.34	0.40	1.01	0.65	1.18	0.48	1.00
Public Admin	1.07	0.99	3.49	1.45	1.06	1.50	1.57	1.85	1.61	3.35	3.81	1.40	1.79	9.21	7.81	1.19	1.22	3.60	2.01	3.47	1.40	1.00
Utilities	0.42	0.27	0.49	0.24	0.23	0.29	0.65	0.55	0.58	0.94	0.95	0.76	0.55	2.66	5.12	0.96	0.49	0.57	0.30	0.61	0.56	1.00
Other Services	0.85	0.84	1.70	1.00	0.57	0.99	0.95	1.22	1.21	2.24	2.16	1.22	1.44	4.33	5.26	1.24	1.05	1.91	1.35	1.61	0.70	1.00
Mining	0.41	0.56	0.42	0.82	1.05	0.43	0.99	0.98	1.34	0.53	0.40	0.87	1.62	2.17	1.18	0.75	0.91	0.34	0.47	0.52	0.53	1.00
Manufacturing	0.78	0.49	0.72	0.87	0.51	0.61	0.83	1.02	1.18	1.06	0.73	1.01	0.93	5.84	2.72	0.94	0.64	0.82	0.54	0.63	0.75	1.00
Finance	0.76	1.01	1.53	1.16	0.83	1.13	1.45	2.19	1.14	1.43	2.12	1.10	1.59	8.82	4.75	1.52	1.15	1.41	1.24	1.28	1.11	1.00
Real Estate	09.0	0.82	2.22	1.19	0.65	1.12	1.00	1.29	0.72	3.31	3.41	1.01	1.85	6.38	7.72	0.96	0.79	6.26	1.81	1.75	1.22	1.00
Construction	1.03	2.93	7.16	1.95	2.35	4.60	2.16	2.96	3.88	16.20	9.34	2.27	8.20	6.48	26.91	2.15	2.78	6.27	11.79	6.82	1.72	1.00
Business	0.76	0.69	1.22	0.93	0.65	0.82	0.95	1.06	0.99	1.52	1.36	1.03	1.23	4.44	3.38	1.15	0.85	1.42	1.00	1.11	0.83	1.00
Agriculture	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Country	AUS	BEL	CZE	DEU	DNK	ESP	FIN	FRA	GBR	GRC	HUN	IRL	ITA	JPN	KOR	LUX	NLD	POL	PRT	SVK	SWE	USA

Table : Cross-sectional results (2017 data)

		OLS	IV				
Dependent variable	$\frac{\log(\text{exports})}{(1)}$	log(corrected exports) (2)	$\frac{\log(\text{exports})}{(3)}$	log(corrected exports) (4)			
log(productivity)	1.0387*** (0.1806)	0.7848*** (0.1910)	4.5738*** (1.1247)	3.7873*** (1.1832)			
R-squared	0.8638	0.8622	0.8613	0.8612			
Estimation method	OLS	OLS	IV	IV			
$Exporter \times importer FE$	YES	YES	YES	YES			
${\rm Industry}{\times}{\rm importer~FE}$	YES	YES	YES	YES			
Observations	1426	1426	1426	1426			