

Robots and Export Quality

in 2000.⁵

pre-requisite for participating in global value chains and exporting to advanced economies (Bastos et al., 2018; Cadestin et al, 2018; Kummritz et al., 2017). However, producing high-quality exports remains a particular challenge for developing economies

Figure 4:

III. Data and quality measures

i. Robot data

Table

iii. Descriptive iii.

Figure 6: Robot Diffusion in Top Five Developed and Developing Economies

Notes: Observations in the figure reflects the (log) total robot stock for each country and s

When looking at descriptive statistics in levels, we find as expected, both unit prices and export quality are not affected

Given the scope of this paper, we focus explicitly on within product quality gains as a result of robot diffusion. The literature on export quality finds evidence of quality gains accruing both from within product quality improvements (

G

measures of robot adoption in (initial) import partners

V. Resu

a 0.3% to 1.2%

Table 3: Robotics and Initial Quality Gap

	(1)	(2)	(3)	(4)
Outcome:		OLS	Quality	IV

through simulations, to identify production challenges early on

Table 4: Robotics, product complexity and initial quality gap

Table

iv. Robustness

VI. Conclusions and Policy Implications

VII. References

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Dachs, B., Kinkel, S., & Jäger, A. (2019). Bringing it all back home? Backshoring of manufacturing activities and the adoption of Industry 4.0 technologies. *Journal of World Business*, 54(6), 1017.

DeBacco, K. & DeStefano, T. (2021). Robotics and the Global Organisation of Production. In *Robotics, AI, and Humanity* (pp. 71

Hallak, J. C. (2010). A product-quality view of the Linder hypothesis.

Appendix

Table A1: Descriptive Statistics

Table A3: First stlr ssT0 T24 Tc 0.-024 Tw 2.7.429 TdθTj0.015 Tc -0015 Tc 0.211 0 Tdβ1 (s2.7 10E16.9 @-31.7 f)

Table A4:

Table A8: Handling Robots and Export Quality – IV Estimates

(1)

