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On the welfare implications of automation

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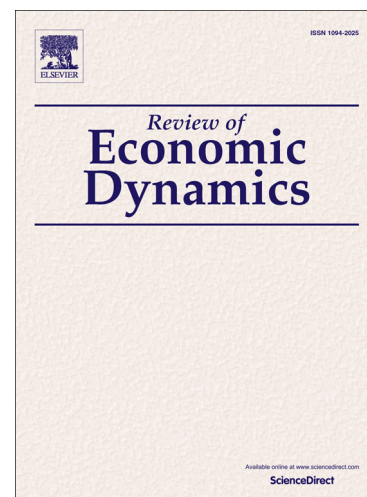
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On the Welfare Implications of Automation

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Abstract: We document that the decline in the labor income share since the 1950s has been countered by a rise in the income share of capital goods that embody information and communication technology (ICT). In parallel, there has been substantial reallocation of labor income from occupations relatively substitutable with ICT (routine) to ones relatively complementary (non-routine). These trends are consistent with the view that ICT allows for the mechanization of tasks that traditionally required labor, a process known as automation. Our calibration suggests that automation can account for half of the decline in the labor share, but that it is unlikely to be the sole driver of the decline in the routine labor income share. A representative agent framework suggests welfare gains of 4%.

JEL: E25, E22, J24, J31, O33

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