

Automation and Repression

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We consider a model of automation embedded in a political environment where workers can undertake a revolt (modeled as a global game), and greater inequality between capital and labor increases the likelihood of a revolt. Decentralized automation decisions raise the share of capital in national income and increase the likelihood of a successful revolt. A capitalist state (representing capital-owners) prefers to regulate the level of automation to lessen the threat of a successful revolt. The capitalist state can also redistribute to workers via the tax system or repress political action, thus creating greater room for further automation. We characterize the trade-off between the regulation of automation, redistribution and repression.

Our main result is a complementarity between automation and repression. Unless the threat of revolt is quite weak or the capital stock is very low, the capitalist state prefers repression. A higher capital stock in turn encourages more automation and thus more repression. In our full dynamic model with capital accumulation, in the long run the economy tends to repression (again unless the threat of revolt is very weak). We also prove that the same conclusions apply when firms can additionally invest in new labor-intensive tasks. Finally, we show that, starting in a democracy, capital accumulation and thus greater automation encourages the capitalists to support a coup against democracy and set up a repressive system.