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Leisure-enhancing Technological Change

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Abstract This paper develops a theory of endogenous growth with leisure-enhancing innovations. When time allocation decisions depend on the menu of available leisure options, these leisure-enhancing innovations, carried out by two-sided platforms, may emerge in equilibrium. The model is highly tractable and can be solved analytically. There are four key results. First, the economy must be sufficiently developed for the leisure-enhancing innovations to be profitable. As it grows, the economy transitions endogenously from a balanced growth path with only productivity-enhancing technologies to one with leisure-enhancing innovations. Second, following the transition, hours worked decline, in line with the trend observed in the data. Third, the growth rate of the economy following the transition is permanently lower, consistent with recent experience in the United States and other advanced countries. However, GDP growth as measured by statistical agencies today does not account for the true value of leisure services and so exaggerates the extent of the slowdown. Finally, the theory highlights two new inefficiencies of the market equilibrium. Static inefficiency stems from the two-sided nature of the leisure market and suggests undersupply of leisure-enhancing services. Dynamic inefficiency goes the other way, emphasizing the adverse impact of leisure-enhancing innovations on future productivity.