We construct a model of endogenous investment specific technological change in which the stock of public capital influences the real price of capital goods. We show that there exist infinitely many capital and labor tax-subsidy combinations that decentralize the planner’s growth rate. The optimal factor income tax mix is therefore indeterminate, a result that is robust to a variety of model specifications. We show that one way of out of indeterminacy is to account for administrative costs in tax setting. This recovers a unique combination of factor income taxes that, under certain conditions, also yields the planner’s optimal growth rate. A simple numerical exercise suggests that changes in factor income taxes do not cause a significant change in the optimal growth rate, a result that is consistent with the empirical evidence.