optimal patent life will be. When big cost reductions are likely, whether the allowed patent life is modest or long, society is less willing to postpone the realization of its net welfare surplus to motivate still more cost reduction than it would be if the cost savings under comparable patent life conditions and research investments were modest. Third, the smaller the cost reduction[90] induced by an increase in patent life which reduces society's welfare gain by deferring competitive imitation, the shorter the optimal patent term. Nordhaus finds that, for easy innovations, the socially optimal patent life is shorter than 8 years, whereas for hard innovations even a 20 year patent life is insufficient.

---

[90] As the IPF takes on sharper curvatures, the amount of cost reduction becomes smaller.