# Innovation, Growth, and Dynamic Gains from Trade

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**Abstract**

How large are the welfare gains from trade? Would such gains be significantly amplified in the long run when productivity is endogenously enhanced? We address these questions by focusing on the dynamic effect of trade, in particular, how trade affects the incentives for technological advancement. We construct an innovation-based endogenous growth model of North-South trade. There are two types of innovation: one by the North to upgrade the general purpose technology (GPT) and another by both countries to advance entrepreneurial knowledge for developing differentiated products. We find sizable welfare gains from trade, about 5.3% when compared to autarky. The gains in our dynamic model are much higher than the static estimates where the effets of GPT-driven innovation are eliminated. The share of dynamic gains from trade is about 78% of the total gains in our benchmark economy – much higher than comparable figures identified in previous studies. Comparative statics indicate that GPT innovation efficacy, entrepreneurial talent distribution and trade elasticity are crucial for dynamic gains from trade.

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