Global Knowledge and Trade Flows Theory and Measurement

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We study the global innovation and diffusion of ideas by introducing trade into the model in Eaton and Kortum (1999) (EK). This extension allows us to use international trade flows and country-level factor costs to estimate both the intensity of innovation within countries over time and diffusion rates across countries. We find significant specialization across the globe: some countries have high innovation rates, while other countries rely on diffusion. Although innovation is correlated with economic growth, there are many high income countries that primarily produce using diffused ideas. Additionally, these patterns shift over time — we estimate that a wave of innovation began in China during the early-2000’s, reducing its reliance on diffused technology.

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