

Accounting for Intangibles

Faculty Member: [Samuel Kortum](#)

This project is eligible for remote work.

Proposal Description:

Intangibles are an increasingly important component of U.S. economic activity. The Bureau of Economic Analysis reports that the creation of “intellectual property products” rose from 13% of US non-residential fixed investment in 1980 to 27% in 2000 and to 33% by 2017. Our goal is to develop a theoretical framework, and the associated measurement framework, to track intangibles in the global economy, using theory and data to quantify how intangibles have contributed to productivity growth in the United States and abroad.

We focus on the original ideas for technological improvements that result from investments in R&D, broadly defined. Since these intangible entities are durable, they accumulate into a stock of intangible assets. The use of these intangible assets generate rents for their creators as the ideas behind them are put to use. In an international context the use of a techniques abroad constitutes a services export and the use of a foreign technique should count as a services imports, with corresponding rental payments in each direction. By insisting that intangibles be capitalized, we build on the work of Corrado, Hulten, and Sichel (2009). We depart from them, however, in treating the resulting stock of intangibles as a distinct, non-rival factor of production. We argue that this factor should not enter a constant-returns-to-scale production function, but should contribute directly to total factor productivity (TFP) instead. Thus, following the New Growth literature, we explicitly model an economy with imperfect competition so that investments in intangibles can potentially generate a stream of future rents.

The basic framework for this project is in place, but we have only just begun to measure its quantitative implications.

Requisite Skills and Qualifications:

Basic skills in STATA and Matlab. Strong math background to understand technical derivations.

Award: Alvin Chung

Michelle Tong

Tobin Application Link: [Tobin Application](#)

Project Type: Tobin RA

Project Year: 2020

Term: Fall 2020

Source URL: <https://economics.yale.edu/undergraduate/tobin-ra/fall-2020/accounting-intangibles>