

Dissertation Abstract: Kristie Briggs

Dissertation Title: Essays on Intellectual Property Rights in Developing Countries

Developing countries today face different international policies and pressures than did the now-industrialized world when they were in the midst of the development process. Recent external pressures on developing countries to implement intellectual property rights (IPRs) are just one example. In practice many developing countries have chosen to implement strong patent policies, despite the fact that these countries have limited capacity for innovation. Developing countries are instead better characterized as “imitators” that learn from technology transferred from innovating (industrialized) countries. Therefore, implementing IPRs would seem counterintuitive for developing countries as it restricts their ability to imitate. Despite the possible costs, many international organizations argue that developing countries do, in fact, benefit from implementing IPRs via increased trade and/or foreign direct investment. However, the true impact of IPR policy in developing countries remains largely unclear. My research tries to untangle some of the links between IPRs, trade, and development by focusing on a particular aspect of this issue in each of three essays.

The first essay examines the role that a country's stage of development plays in their choice of IPRs. Past empirical observations on a panel of countries over time have found a U-shape relationship between IPRs and per capita GDP and taken it to imply a longitudinal U-relationship. A longitudinal U-shape does not follow intuition, however. Countries generally maintain or increase IPRs over time and, therefore, expectedly demonstrate a similar trend as they progress through stages of development. This paper argues that the well known U-shape is a result of cross country differences originating in the year that each country first chooses to implement IPRs, rather than a result of a longitudinal trend. The cross-sectional U is rooted in countries' varying degrees of vulnerability to international pressures to implement IPRs. The least developed countries are the most vulnerable to these pressures and implement relatively strong patent rights, while middle-income developing countries exercise more autonomy and implement weaker patent rights. In addition, countries reach a point in their development when implementing strong IPRs becomes self-benefiting and so higher income countries again implement strong IPRs. Despite the existence of a cross-sectional U relationship, the longitudinal relationship between IPRs and per capita GDP for each country should be monotonically increasing. Understanding differences in the longitudinal and cross-sectional relationship between IPRs and development will help interpret the results of future empirical investigations.

The second essay uses disaggregated data on high technology exports from developed countries to distinguish whether stronger IPRs in developing countries will expand the market for high technology goods or simply give exporting firms market power to raise prices with little impact on the availability of these goods in developing countries. The theoretical model postulates that stronger IPRs in developing countries will have the desired market expansion effect if the cost of producing the high technology good (inclusive of adaptation costs) is sufficiently lower than the limit price to avoid piracy. Price is also higher if the innovation can readily be used in developing country production processes. Therefore, goods that are highly pertinent to production processes common in developing countries, such as textile and agricultural related technologies, have higher prices and exhibit a dominant market power effect from an increase in IPRs. Contrastingly, high technology goods that have relatively high production and adaptation costs (such as pharmaceuticals) may exhibit dominant market expansion effects in developing countries.

The third essay examines the impact that patent policies have on export activity in developing countries. Outward looking development policies centered on export promotion have become increasingly popular strategies for stimulating economic growth in developing countries. At the same time, many developing countries have begun to implement IPRs, often upon the suggestion of industrialized countries. This essay theoretically and empirically examines whether these two policies are inter-related.