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Institutions and moral hazard in open economies ☆

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Abstract

I investigate the interaction between international trade and national institutional development in an environment characterized by heterogeneous individuals choosing their education levels to maximize their utilities; and institutions alleviating moral hazard by allowing managers to better observe and verify the productive efforts of workers. Liberalized trade allows institutions to serve as independent sources of comparative advantage. In this setting, I examine the effect of trade liberalization on the distribution of income in institutionally developed and underdeveloped nations. Trade affects income via a direct effect on prices and an indirect effect on the incentives to invest in education.

Keywords: Comparative advantage; Endogenous endowments; Inequality; Institutions; Moral hazard

JEL classification: B52; F10; F16

1. Introduction

Many of the consequences of international trade remain a mystery, among them the effects of trade on the growth and distribution of income.[1] Trade liberalization seems a necessary though insufficient cause of economic development. Trade allowed the Asian tigers to capitalize on their comparative advantages, helping grow their economies. Yet other countries, even those facing lower

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[1] Feenstra and Hanson (in press), for example, argues that international trade can explain much of the growth in the American wage gap between skilled and unskilled labor. Lawrence and Slaughter (1993) is an example of research that reaches the contrary conclusion.

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trade barriers, have not enjoyed the same success.[2] As Birdsall et al. (2005) note, “history and economic and political institutions have trumped other factors in determining economic success.” If a nation’s institutions and its access to foreign markets jointly determine its economic development, then we must understand the interaction between institutions and international trade. Such an understanding may also provide insights into the impact of trade on inequality within nations.

A growing literature documents the importance of institutional quality on economic growth and development. There is also a long history of theoretical and empirical investigation into the effects of international trade on growth and the distribution of income. However, relatively little work has been done on the effect of institutional quality on the pattern and consequences of international trade. There are at least two reasons to address this gap in the literature. First, not understanding the interaction between institutional quality and international trade may bias empirical studies of the effect of trade on incomes. I find, for example, that liberalizing trade directly influences agents’ education decisions, and in this way may indirectly increase income inequality. This may help explain the lack of consensus about the role of international trade in widening America’s wage gap. Second, not understanding the interaction between institutional quality and international trade may raise unrealistic expectations about the benefits of liberalized trade.

I consider a framework in which institutions alleviate moral hazard. There are two industries: X and Y. An agent works alone in the Y sector, but the X sector requires the joint effort of two workers. The two industries differ in that individual productive effort is observable and verifiable only in the Y sector. Neither individual effort nor output is observable or verifiable in the X sector, requiring managers in that sector to monitor employees to determine individual contributions. I assume that better trained managers are better able to monitor their employees. I also assume that managers in countries with more developed institutions are better able to monitor their employees: managerial training and national institutions mitigate moral hazard.

In order to capture the effect of the interaction between institutional quality and international trade, I consider a simple game in which agents choose their sector of employment, level of job training, firm, and level of effort. Agents differ according to “natural ability”: agents with more ability obtain training while incurring a lower utility cost of education. This framework enables me to explore subtle interactions in a realistic but tractable setting.

Industries differ in the difficulty of judging individual contributions to firm output. Such judgments are straightforward in settings where units of output can be traced back to individual workers. Certain traditional forms of production–for example, agricultural harvesting, handloom weaving of textiles, and craft production of shoes–best exemplify the circumstances in which an employer can view both an employee’s work and his product and draw a correlation between the two. Even industries in which more than one worker contributes to a given unit of output allow such straightforward judgments when each worker contributes to production in such a deliberately prescribed manner that specific units of output can be traced back to individual workers. This case obtains in assembly-line production. But the modern workplace is particularly characterized by another type of production, one in which multiple workers jointly produce each part of each unit of output. When teams share responsibility for output, employers often have no clear and systematic way to assign responsibility. Investment banking exemplifies team production.

That workers exert more productive effort when they are rewarded for their efforts is hardly controversial. Individual production industries, like agricultural harvesting, find it easy to provide

[2] Birdsall et al. (2005) provide a brief, but excellent comparison between the development success of Vietnam, which is still not a member of the WTO, and the relative failure of Nicaragua, a country with a similar recent history but better market access.