Topic 10 – Trade and Development

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Overview of the lecture

In this lecture, we take a look at four separate topics which are of particular relevance to developing countries:

1) The effect of trade on growth
2) Infant industries
3) Fair Trade
4) Multinationals in developing countries

Trade and growth

- In earlier lectures, we have seen that trade liberalization is likely to increase the level of real incomes thereby bringing about **static gains from trade**

- However, trade may also increase the growth rate of real incomes thereby bringing about **dynamic gains from trade**

- We will now take a brief look at the trade and growth literature following an excellent overview by Grossman and Helpman (2015)

- In particular, we will discuss four mechanisms through which openness may affect growth which have been uncovered by this literature

Trade and growth – International knowledge spillovers

- The most direct mechanism is that knowledge generated in one country may be used to facilitate research in another country

- It builds on the influential idea of Romer (1990) that the growth of knowledge is cumulative in the sense that new knowledge builds on past knowledge in a non-rival way

- Grossman and Helpman (1991) formalize it by allowing for international knowledge spillovers in the Romer (1990) model

- Their main finding is that knowledge spillovers tend to accelerate growth in all countries, just as one would expect

Trade and growth – International knowledge spillovers (contd.)

- While the scope for international knowledge spillovers is taken as exogenous in much of the literature, international trade and foreign direct investment may be important conduits

- In particular, firms in an importing country gain ideas about new products and new techniques from their suppliers

- Moreover, firms in an exporting country acquire information by discussing product specifications or receiving ex post feedback

- Finally, multinational corporations transfer knowledge to their foreign affiliates which may then become available to indigenous firms

Trade and growth – Scale versus competition

- It is sometimes argued that trade liberalization encourages technological progress by allowing firms to operate at a larger scale

- The idea is simply that better export opportunities bring about larger profits which in turn justify incurring higher research and development costs

- However, trade liberalization also intensifies import competition so that its effect on firm scale is actually ambiguous (remember the Krugman model!)

- Grossman and Helpman (1991) illustrate this point in a model in which these forces are exactly offsetting so that trade liberalization has no effect on growth

Trade and growth – Innovation in general equilibrium

- Trade liberalization might also affect growth rates by making countries specialize in more or less dynamic industries

- For example, skilled labor abundant countries might specialize in skilled labor intensive industries which might have higher growth rates

- At the same time, unskilled labor abundant countries might specialize in unskilled labor intensive industries which might have lower growth rates

- Grossman and Helpman (1991) explore this mechanism in an endogenous growth model which introduces Heckscher-Ohlin elements

Trade and growth – Technology diffusion

- Finally, trade might also affect growth rates by changing the process of technology diffusion between firms (i.e. how firms learn from other firms)

- Sampson (2015), for example, analyzes technology diffusion in an endogenous growth model which introduces Melitz elements

- In his model, entrants learn from incumbents so that the productivities of entrants depend on the productivities of incumbents

- Trade liberalization then allows entrants to learn from better incumbents by forcing the least productive ones to shut down (remember the Melitz model!)

Trade and growth – Empirics

- The theoretical literature has thus identified four channels through which trade might affect growth:

  1) International knowledge spillovers
  2) Scale versus competition
  3) Innovation in general equilibrium
  4) Technology diffusion

- Unfortunately, there is still a shortage of convincing empirical work in this area so we can only speculate which mechanisms are operative and how important they are

Infant industries

- Until the 1970s, many developing countries attempted to accelerate their development by pursuing a policy of **import-substituting industrialization**

- The main idea was to foster a manufacturing sector serving the domestic market by limiting imports of manufactured goods

- This policy was justified by the **infant industry argument** which holds that new manufacturing industries need temporary protection until they realize their potential comparative advantage

- We will now take a closer look at this argument combining the discussion in chapter 11 of the KMO textbook with recent research

Infant industries – Theoretical caveats

- The infant industry argument seems highly plausible, and in fact it has been persuasive to many governments

- It is also a historical fact that many advanced economies including the US and Japan began their industrialization behind high trade barriers

- However, it is important to emphasize that the infant industry argument only makes sense if there is some kind of market failure and that even then tariffs are unlikely to be the first-best response

- Market failures could plausibly arise if the social returns to new investments exceed the private returns or if investment is hampered by imperfect capital markets

Infant industries – Historical experience

- As a strategy for encouraging growth of manufacturing, import-substituting industrialization clearly worked

- For example, Latin American countries began generating almost as large a share of their output from manufacturing as advanced nations

- However, the encouragement of manufacturing was not a goal in itself but rather a means to the end goal of economic development

- And, by and large, import-substituting industrialization has not proved to be a useful tool in promoting economic development. India, for example, was poorer relative to the US in 1980 than in 1950

Infant industries – Historical experience (contd.)

- The main reason seems to be that there are more fundamental reasons for economic underdevelopment than a lack of experience with manufacturing

- By the late 1980s, the critique of import-substituting industrialization had been widely accepted and many developing countries removed import quotas and reduced tariff rates

- Since then, the Asian Tigers, China, and India have experienced startling economic takeoffs under relatively open trade regimes

- But how important their open trade regimes were for their economic development remains controversial among economists

Infant industries – Econometric evidence

- While the historical experience has made most economists skeptical of temporary trade protection, recent econometric evidence actually suggests that it can work

- In particular, Juhasz (2015) uses a natural experiment to estimate the causal effect of temporary trade protection on the long-term economic development

- During the Napoleonic Wars (1803-15), the French Empire attempted to block British exports from reaching France (and the rest of Continental Europe)

- However, the blockade was most strictly enforced along the Northern coastline so that it reduced import competition in the North of France much more than in the South of France

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Infant industries – Econometric evidence (contd.)

- She finds that the mechanized cotton spinning industry did much better in more protected regions even in the long-run after the blockade of Britain had been removed

- Moving from the 25th to the 75th percentile of the shock lead to an increase in spinning capacity which is similar in size to mean spinning capacity at the end of the blockade

- This industry was one of the fastest growing and most innovative industries in the 19th century, playing a key role in the Industrial Revolution

- Overall, the applicability of the infant industry argument therefore appears to depend on the concrete circumstances and cannot be viewed as effective or ineffective per se

Fair Trade

- Fair Trade is a labelling initiative which aims to improve the living conditions of farmers and workers in developing countries

- Fair Trade certified products still comprise a small share of the market (e.g. 1.8% of global coffee exports in 2009) but growth has been very rapid over the past decade

- We will now discuss how Fair Trade works and whether it is effective following an excellent survey by Dragusanu et al (2014)

- We will look at the coffee industry as an example which is the largest single producer in the Fair Trade market

Fair Trade – How does it work?

- The central requirements of Fair Trade labels are a **price floor** and a **Fair Trade premium** for all eligible coffee that is marketed as Fair Trade

- In particular, buyers have to pay sellers a minimum price which provides insurance against a drop in market prices

- Also, buyers have to pay an additional premium to a producer cooperative which is then supposed to democratically allocate it to a useful cause

- In addition, Fair Trade labels often promote long-term business relationships, access to credit, decent working conditions, democratic administration, and environmental protection

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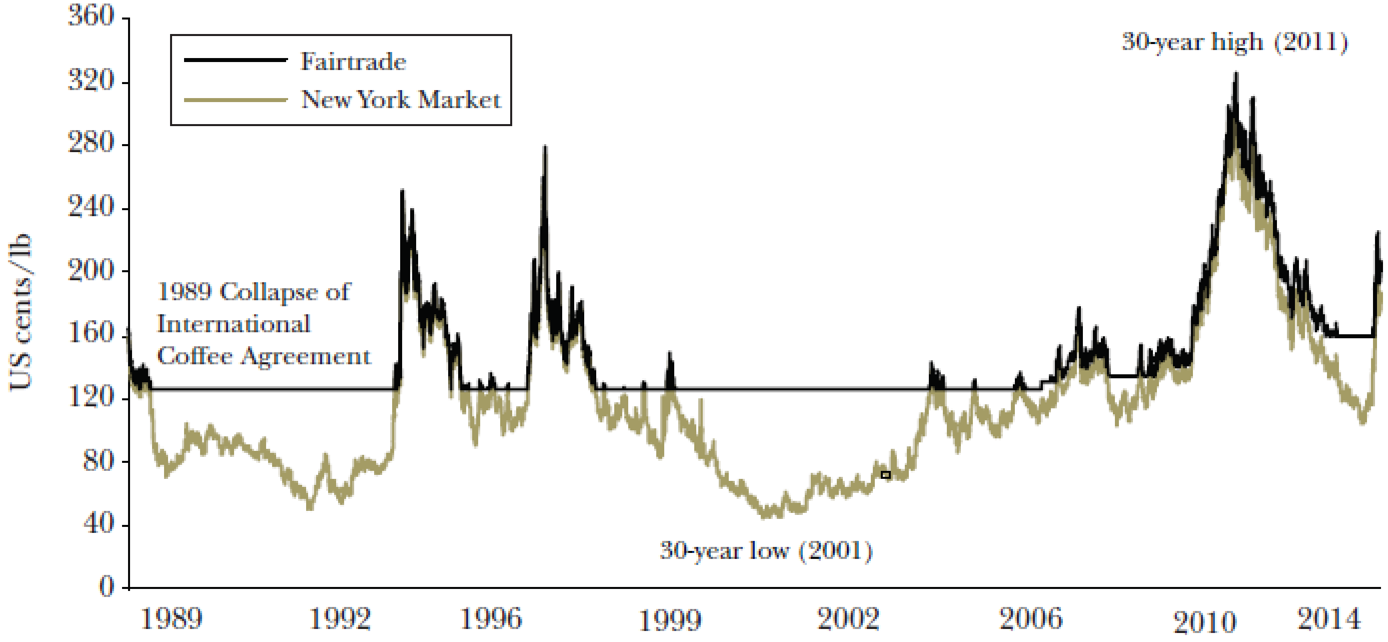
Fair Trade – How does it work? (contd.)

Figure 1

Comparison of Fairtrade and Market Prices for Coffee, 1989–2014



Source: Dragusanu et al (2014)

Fair Trade – What does it mean?

- Fair Trade is sometimes interpreted as an elaborate transfer scheme from rich consumers to poor producers

- This interpretation gives rise to a skeptical view of Fair Trade since there are more efficient ways to redistribute income (or maybe not?)

- A more positive view is that Fair Trade provides useful information to consumers who do not only derive utility from a good’s attributes but also from the process with which it is produced

- This view is supported by recent evidence from experimental studies that consumers are willing to pay more for Fair Trade goods

Fair Trade – Is it effective?

- It is uncontroversial that Fair Trade certified producers receive higher prices than conventional farmers for their products

- However, this does not necessarily imply a causal relationship because prices and Fair Trade participation could be driven by omitted factors

- Dragusanu and Nunn (2014) attempt to address this problem by looking at a panel of 262 coffee mills from Costa Rica between 1999 and 2010

- They find that Fair Trade certified mills receive 5 cents more per pound for exports than conventional mills with no effect on the quantity sold or exported

Fair Trade – Is it effective? (contd.)

- One concern is that free entry into Fair Trade certification might ultimately imply that Fair Trade and conventional farmers are just as well off

- This could arise, for example, if there are fixed costs of Fair Trade compliance and more entry means that each farmer sells a smaller share of output as Fair Trade

- But even then, Fair Trade might still be beneficial if it achieves nonmonetary goals such as improving working conditions

Multinationals in developing countries

- It is often argued that multinational corporations exploit their workers in developing countries by paying low wages and offering poor working conditions

- This negative impression is reinforced by calculations that workers in developing countries typically only get paid a small fraction of the retail price of the products they make

- We will now take a brief look at the evidence on this issue building on the interesting literature review of Brown et al (2004)

Multinationals in developing countries - Facts

The relevant literature can be summarized in three main points:

1) Wages and working conditions offered by multinationals in developing countries are often appalling by Western standards

2) However, it is unlikely that workers in developing countries would be better off without multinational firms

3) In fact, multinational firms seem to offer higher wages and better working conditions even though this is hard to identify due to selection effects

Multinationals in developing countries – Horror stories

- While multinationals therefore appear to be a positive force in developing countries, there are clearly examples where they have caused major harm

- One famous case is the Nestle infant formula scandal which led to Nestle boycotts first in Switzerland and then in other parts of world

- Another famous case is the Union Carbide gas leak in Bhopal, India, which is still considered to be the world’s worst industrial disaster in history

Conclusions

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