

# INTERNATIONAL **ECONOMICS**

Fifth Edition



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what we found in the case of immigration, the gains to Home from the capital outflow is the triangle  $ABC$ , while the gains to Foreign is the triangle  $A^*BC$ , and the world gains are  $A^*BA$ .

## APPLICATION

### Measuring the Gains from Foreign Direct Investment

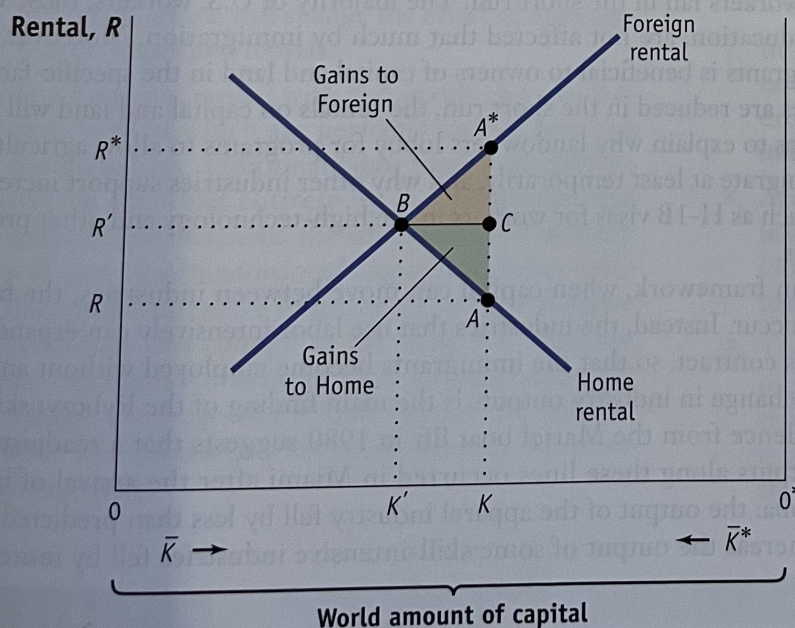


The gains from foreign direct investment are calculated by the triangles shown in Figure 5-17. Because this calculation is complex, researchers have often asked simpler questions to get an idea of the gains from foreign direct investment. One of these questions is whether foreign firms pay *higher wages* than domestic firms operating in the same country. There is evidence in favor of this hypothesis for many countries, including China, Mexico, Portugal, Sweden, Venezuela, and the United States. But there is also a reason to be cautious about accepting these results: What if foreign firms try to establish themselves in a new country by hiring the very best workers and paying them more because they are the best? In that case, the higher wages would be evidence of high worker *quality* and would not actually indicate gains for these workers over and above what they might earn working for a domestic firm.

One recent study by Professors Bradley Setzler and Felix Tintelnot controls for the quality of workers by keeping track of the wages paid to the *same worker* when they move from working for an American firm to working for a foreign firm operating in the United States.<sup>19</sup> The quality of that worker does not change when they change jobs, so any difference in pay must be due to the firm they are working for.

According to this study, foreign firms operating in the United States pay wages that are 7% higher on average than when the same worker was employed in an

**FIGURE 5-17**



**World Capital Market** With  $OK$  units of capital in Home, the Home rental is  $R$  at point  $A$ . The remaining capital  $0^*K$  is in Foreign, and the Foreign rental is  $R^*$  at point  $A^*$ . Capital will move from Home to Foreign to receive a higher rental. The equilibrium with full capital flows is at point  $B$ , where rentals are equalized at  $R'$ . Triangle  $ABC$  measures the gains to Home from the capital outflow, and triangle  $A^*BC$  measures the gains to Foreign.

<sup>19</sup> See Bradley Setzler and Felix Tintelnot, 2020, "The Effects of Foreign Multinationals on Workers and Firms in the United States," National Bureau of Economic Research Working Paper No. 26149.



American-owned firm. There is a spread of these higher average wages from zero to 15%, depending on the nationality of the foreign firm. An exception occurs, however, for Chinese firms operating in the United States. On average, Chinese-owned firms tend to pay wages that are 4% lower than wages earned by those workers at an American firm. This study also finds that jobs created by foreign firms have positive effects on employment and wages at American-owned firms in the same city. For every one job created by a foreign-owned firm, there is an additional 0.4 jobs created in an American firm. In addition, wages are increased at American firms as foreign capital flows in, which is a gain for those workers even when they do not shift to a foreign-owned firm. That rise in wages due to an inflow of foreign capital is consistent with the short-run model as shown in Figure 5-13, panel (a).

A different source of gains provided by foreign-owned firms—which is not part of our model—occurs when those firms provide technological knowledge that spills over to domestic firms. An example comes Chile, a country that is well known for the production of grapes because of its climate and geography. In the 1970s and 1980s, Chile was one of the top grape-exporting countries but was struggling to export wine. A number of foreign firms entered Chile, mainly from Spain (which is one of the top five exporters of wine in the world), and opened facilities to produce and export wine to other South American countries and to North America. Over time, domestic Chilean firms learned the advertising methods, technology, and management used by the Spanish firms and became very successful in foreign markets. Chile has now joined Spain as one of the top five wine-exporting countries in the world.<sup>20</sup>

## 4 Conclusions

Immigration, the movement of workers between countries, potentially affects the wages in the host country in which the workers arrive. In the short-run specific-factors model, a larger supply of workers due to immigration will lower wages. Most immigrants into the United States have either the lowest or the highest amounts of education. As a result, after an inflow of labor from other countries, the wages of these two groups of workers fall in the short run. The majority of U.S. workers, those with mid-levels of education, are not affected that much by immigration. Moreover, the arrival of immigrants is beneficial to owners of capital and land in the specific-factors model. As wages are reduced in the short run, the rentals on capital and land will rise. This result helps to explain why landowners lobby for programs to allow agricultural workers to immigrate at least temporarily, and why other industries support increased immigration, such as H-1B visas for workers in the high-technology and other professional industries.

In a long-run framework, when capital can move between countries,