Chapter 12
International Resource Movements and Multinational Corporations

"Two underlying sets of causes have led nations to become more closely intertwined. First, technological, social, and cultural changes have sharply reduced the effective economic distances among nations. Second, many of the government policies that traditionally inhibited cross-border transactions have been relaxed or even dismantled."

Richard N. Cooper, Environment and Resource Policies for the World Economy, The Brookings Institution, 1994.

I. Chapter Outline

II. Chapter Summary and Review

In the Heckscher-Ohlin model of trade presented in Chapter 5, the incentives for the movement of goods and services across international borders (trade) and the gains from trade are due to differing factor endowments of nations and differing factor intensities of goods. The economic incentive for the movement of labor and financial capital between nations is also due to differing factor endowments and factor intensities of goods.

In a world with few barriers to the movement of financial capital, funds would flow to the highest return and move from nations where financial capital is abundant and cheap to nations where financial capital is scarce and expensive. Similarly, labor would seek high wages and move from nations where labor is abundant and cheap to nations where labor is scarce and expensive. If financial capital and labor cannot or does not freely move, then nations can export products containing its abundant and cheap factor. Over the past fifty years, both barriers to trade in products and the movement of factors of production have fallen, resulting in both expanded trade and movements of factors of production.

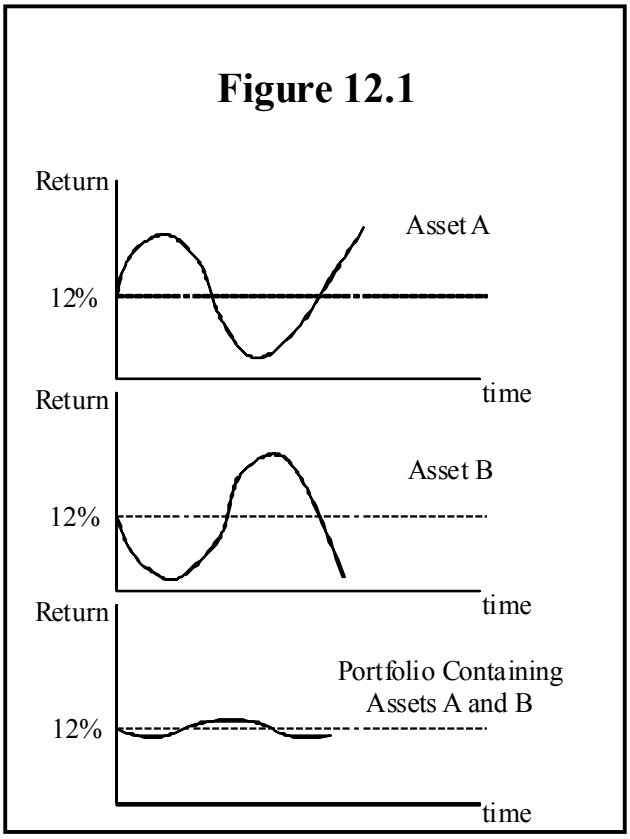
The international movement of capital includes **portfolio investment** and **direct investment**, which together constitute the movement of financial capital. The movement of funds into a nation from abroad, along with a nation's domestic savings, can be used to fund investment in plant and equipment.

International portfolio investment is the international exchange of financial assets. If a U.S. citizen or firm purchases bonds, stocks, bank accounts, etc. in another country, then international portfolio investment has occurred. Direct investment, on the other hand, implies not only the movement of funds into a nation, but control as well. If a U.S. firm funds the construction of a factory in Poland, then the U.S. firm controls the factory and direct investment has occurred. Similarly, if a Dutch firm buys enough stock to have a controlling interest in a factory located in Milwaukee, then direct investment has occurred. What share of ownership constitutes a controlling interest means is not precisely defined. An ownership share in excess of 50% is clearly a controlling interest, but significant control can be exerted for much smaller percentages. The usual rule-of-thumb is that control occurs with 10% ownership.

The basic motivation for portfolio investment is to diversify financial portfolios. A well-known principle of **risk diversification** is that combinations of financial assets can produce less risk than a single asset if the returns on the individual assets do not move together perfectly. If returns on assets are negatively related, then diversification benefits are considerable.

In Fig. 12.1, the returns on two financial assets, A and B, are shown. Note that both assets average about 12%, but when one asset's return increases, the other decreases. If you held only Asset A, then you would bear all of the fluctuations associated with asset A; likewise for holding only Asset B. If, however, you split your funds between assets A and B, then your total portfolio value would exhibit small fluctuations, but you would still earn the 12% average,

as shown in Fig 12.1. Proper diversification in this case produces lower risk for the same return. (It can also be shown that diversification can increase return for the same risk.)



Foreign financial assets are likely candidates for diversification, because they do not move as closely with domestic financial assets as domestic financial assets do with each other. Foreign and domestic financial assets are subjected, to some degree, to different economic forces. For financial assets with little risk, like short-term government securities, foreign assets often have different rates of return, motivating international borrowing and lending, although the risk of exchange-rate changes poses definite risks. (This is described in more detail in Chapter 14.)

Direct foreign investment is also motivated by risk and return considerations. Foreign plants can be more productive and produce higher returns than domestic investment because of more favorable tax treatment, fewer trade barriers, a better social infrastructure, access to cheaper inputs, etc. A firm may also wish to diversify its production facilities. Because the time path of profitability of foreign facilities may differ from domestic facilities, there may be

diversification benefits as in the case of portfolio investment.

If a firm has control over a unique input in its own production process, such as patents, managerial expertise, technical expertise, etc., it may decide not to sell the input to foreign markets, but to undertake the production itself in foreign markets. By controlling the production process, control over the unique input is maintained, which does not allow others to easily develop a similar expertise. In this case the firm is expanding through **horizontal integration** — expanding by producing identical or similar products in other markets. The *International Economics* text offers IBM as an example. IBM does not license foreign producers to produce IBM computers, but locates its own plants abroad in order to control patents, trade secrets, quality, and service.

If a U.S. firm acquires ownership of foreign firms that provide important inputs to the U.S. firm, then the U.S. firm is expanding through **vertical integration**. Vertical integration includes expansion by acquisition of foreign firms that provide inputs earlier in the production process, or by providing inputs later in the production process, such as marketing and retail services. Steel firms may own and mine iron ore deposits in other countries rather than buying foreign iron ore from foreign-owned sources, and auto firms may own retail establishments in other countries, rather than selling autos to foreign-owned retailers.

International movements of direct and portfolio financial capital provide the funds for investment in plant and equipment in other countries. Capital moves to where the return (adjusted for risk) on real investment is higher. A basic gain from international movements of capital is due to the difference in returns. If investment in plant and equipment occurs where productivity is higher, then international production will increase. (In competitive markets, real returns and marginal productivity are equivalent.) There may be a distributional issue, but there is an improved allocation of resources because world production is higher. (The *International Economics* text shows this using the value of marginal productivity of capital in two nations.) The distributional issue is that as capital flows out of the source country the productivity and income earned by labor decreases due to less capital available. In the target (host) country, labor will gain from having access to more physical capital, and owners of capital in the host country will lose as foreign capital drives down the rate of return on capital in the host country.

Another consideration in the international movement of financial capital is

the balance of payments effect. As financial capital flows out of a country, the balance of payments will move towards deficit, but this may be mitigated in the future as income from the foreign financial investment returns. In the case of direct investment, there may also be increased exports to supply the facilities located abroad. On the other hand, foreign facilities may mean that exports fall, as production for the foreign market is located in the foreign market rather than in the domestic market. There may even be increased imports if a substantial number of domestic production facilities shift abroad and consumption in the source nation may be satisfied from relocated facilities that were originally located domestically.

Finally, the location of production facilities may affect the tax base and tax collections in both source and host countries. Most countries agree to avoid double taxation, with the high-tax country collecting only the difference in tax rates. If the tax rate in the United States is 50%, and the foreign tax rate is 30%, then the United States will collect 20% on the profits of U.S. foreign subsidiaries, while the foreign nation will collect 30%.

Almost all direct foreign investment is undertaken by large **multinational corporations (MNCs)**, also known as **transnational corporations (TNCs)**. MNCs are firms that exercise control through ownership of management in many nations. As noted by the *International Economics* text, MNCs account for as much as one-fourth of world production, and shipments between the parent firm and foreign branches—intra-firm shipments—account for approximately one-third of global manufacturing trade.

MNCs have risen to exploit the competitive advantages associated with increasing the size of the firm. These advantages include the monopoly power that may come with horizontal integration; the control of inputs that comes with vertical integration; the ability to exploit economies of scale in distribution, production, and information; and the flexibility to locate R&D, production, and distribution facilities in those nations that are best suited for those activities. Size also brings significant bargaining power in both the economic and political spheres. Finally, because intrafirm shipments can be priced internally **(transfer pricing)**, MNCs can price inputs high (understating profits) when they are shipped to branches in high tax areas, and price final goods low (understating profits) when they are shipped from branches in high-tax areas.

The rapid growth of MNCs since WWII has raised important issues concerning their effect on the world economy. From the home country's

perspective, foreign investment is usually perceived as the export of jobs. However, if the motive for locating affiliates abroad is cheaper production costs, then it is conceivable that the jobs would have moved abroad in any case due to foreign competition in those nations with cheaper production costs. Additionally, as foreign investment increases, the home office will expand, creating new administrative and financial service jobs in the home office.

There is also the issue of the diffusion of technology. By locating production facilities abroad, foreign nations become aware of new technology, possibly eroding the technological edge of the home country. On the other hand, expanded trade may spur even more R&D in the home country, advancing technological knowledge beyond what would exist in the absence of MNCs.

MNCs, as explained above, can also use transfer pricing to minimize home country tax payments, thereby eroding the tax base of the home country. The ability to locate abroad also allows MNCs to avoid regulations and policies in the home market, eroding the power of the national government to affect economic conditions.

Criticisms of MNCs from the host countries are more controversial. Many host countries are concerned about their dependency on foreign firms. Foreign firms use host country resources, influence host country tastes and culture, and bend host country policies, all to their own ends, which may not necessarily be in the perceived self-interest of the host country. In response many host countries have regulated foreign direct investment through tax rates and/or minimum local ownership rules.

Although labor migration can be motivated by social and political conditions, it appears that economic incentives have become more important since World War II. If labor mobility is due to a perceived difference in real wages, then labor migration will produce gains similar to those described for international capital flows. As labor leaves low wage areas for high wage areas, world income and production will increase by the differential.

Although labor migration increases world income, there are distributional issues, as in the case of international capital movements. Foremost is the effect of immigration on workers' wages. In the United States, labor groups are generally opposed to immigration because immigration increases the supply of labor, driving down local wage rates, until they are roughly equal to foreign wage rates. Labor in the supplying country, on the other hand, will support out-

migration because it allows its population to seek higher wages, and raises the wages of labor remaining in the supplying country. This sentiment in the supplying country only applies for unskilled labor. In the case of skilled labor, migration out of the country is seen as a loss of valuable human capital, known as **brain drain**. This does indeed represent a cost to the supplying country that has expended valuable resources in training and educating skilled workers for which they receive none of the benefits.

III. Questions

1. a) Explain how direct investment in Mexico by MNCs located in the U.S. can be explained by the Heckscher-Ohlin model of trade.

b) Explain how the Heckscher-Ohlin model of trade can explain the movement of labor from Mexico to the United States.

c) What effect will the movement of labor and capital have on real returns to these two factors across countries?

d) Suppose movements of labor and capital are restricted, but goods and services trade freely. What effects will the restrictions on labor and capital, but not on goods and services, have on the real returns to labor and capital across countries?

2. a) How do the movement of labor from Mexico to the United States and the movement of capital from the U.S. to Mexico affect world output?

b) What effect will the international movement of labor and capital between Mexico and the U.S. have on the distribution of income within nations?

3. a) Why might countries wish to curb the foreign direct investment activities of their own MNCs?

b) Why might host countries wish to curb foreign direct investment?

4. Why are MNCs often able to produce and sell at a lower cost than local firms

in host countries?

5. We observe financial capital moving in two directions, i.e., funds move from the United Kingdom to the United States at the same time that funds move from the United States to the United Kingdom.

a) Can this be explained by funds seeking the higher rate of return?

b) How does the principle of risk diversification explain this two-way movement of financial capital?

6. Help-wanted advertisements often carry the phrase "experience necessary." How is this requirement related to the brain drain phenomenon? Consider the positive externality (third-party benefits) associated with training a worker, and the effect this positive externality has on the level of training.

7. What effect will freer trade with Mexico have on Mexican migration to the United States and on the movement of US capital to Mexico?