

# FIN 303 Hybrid - Professor Dow

Finance in a Global Context  
Part II

## Finance in a global context

- Currency risk
- Country risk
  
- Capital budgeting
- Financial investing

As you've seen before, the basic principles you'll learn in this class apply to both domestic and international businesses. However, two important differences you'll find when doing business internationally are that other countries may have different laws, cultures and business institutions and they also may use different currencies, which will require you to convert between one currency and another when making transactions.

Uncertainty due to potential future changes in exchange rates is called currency risk. Uncertainty due to potential future changes in the economic environment in a specific country is called country risk.

Currency risk and country risk affect two important decisions in financial management. Many companies will be involved in projects that require manufacturing or sales in another country. As we've seen, making decisions about the desirability of these kinds of projects is called capital budgeting. Currency risk and country risk will increase the hurdle rate for projects in foreign countries making them less attractive.

Investors also will want to invest in foreign stocks and bonds to provide additional diversification in their portfolio. However, currency risk and country risk reduce the attractiveness of these investments and need to be taken into account.

## Country Risk

- Any uncertainties tied to the government, institutions or business environment of the company.
- Examples:
  - Import/export restrictions
  - Capital controls
  - Political instability

Generally we won't talk about the specifics of country risk in this class (it is covered in more detail in various international management courses) but you need to know that this will be a concern when evaluating projects taking place in foreign countries. Formally, country risk refers to any uncertainties tied to the government, institutions or business environment of the company. Examples include a company restricting the import of capital items needed for your project or taxing or limiting exports of your product. Capital controls refer to a country limiting the inflows or outflows of financial capital from the country. Political instability includes a wide variety of things, everything from a socialist government taking power and nationalizing foreign investments to civil war.

For some countries, the risks of any of these things happening is small. For other countries, they can be very real concerns and need to be taken into account in any evaluation of an investment possibility.

## Changes in exchange rates

- Rate this year: 0.85€/€
- Rate next year: 0.95€/€
- The euro has depreciated against the dollar.
- The dollar has appreciated against the euro.

Currently, the value of most currencies is determined by buying and selling in the world currency markets. If the demand for a specific currency increases, its value will increase relative to other currencies, that is, it will take more units of the other currency to buy one unit of this currency.

When a currency increases in value, we say that the currency *appreciates*. When a currency decreases in value we say that the currency *depreciates*. Since the value of every currency is relative to another currency, if currency A appreciates against currency B, then currency B must depreciate against currency A.

In this example, the value of the euro changes from 0.85€/€ to 0.95€/€, and the euro is worth less with respect to the dollar(it has depreciated) and the dollar is worth more with respect to the euro (it has appreciated). Notice that getting *more* euros for your dollar means that the euro is worth less.

## Exchange rate changes and investment returns

- Using currency numbers from the last slide.
- Assume you can invest in a European project that offers a 10% return (in euros)
- How does the depreciation of the euro affect your return in dollars?

$$\square \$100,000(0.85\text{€}/\$)(1.1)/(0.95\text{€}/\$)=\$98,421$$

How would the change in the value of the euro in the last slide affect an investment you made in Europe? Say that you started with \$100,000 and decide to make an investment in Europe that was denominated in euros. At a 0.85€/€ exchange rate, this give you €85,000 to invest. If your investment earns 10%, you have €93,500 at the end of the year. You convert the euros back to dollars, but now that the euro has depreciated, you get fewer dollars than you would have at the start of the year. You end with \$98,421 and so the return on your investment (in dollars) is -1.6%. So while the underlying investment earned 10%, the actual return on your investment is negative because of the currency change.

Your net return is *approximately* the euro return (as a percentage) less the depreciation of the euro (as an absolute percentage). This formula is only an approximation, and works progressively less well as the percentages become larger, but it's a useful way to make a quick ballpark estimate of the effect of a currency change.

## Currency risk and investing

- Financial investing
- Capital budgeting

Because changes in the exchange rate will affect your return when investing overseas (either for the better or the worse), investing overseas involves additional risk. This is called currency risk. As we know from class, it is important to be diversified when making financial investments, which means including foreign securities, but it needs to be recognized that the returns on these securities will vary due to the changes in exchange rates

Similarly, companies must take into account currency risk when evaluating a project that involves selling or manufacturing overseas. Firms can avoid some of this risk by hedging their foreign exchange exposure (that is, buying contracts that pay them if the exchange rate moves against them but requires them to make a payment if the exchange rate increases their return). This is discussed in more detail in our International Financial Management course.