# Understanding Exchange Rates

Suppose you win a vacation to Cabo San Lucas in Mexico. You will want to buy a t-shirt to help you remember your trip. The price is 198.90 Mexican pesos. You have U.S. dollars in your pocket, but you must pay the store owner in the currency most useful to her, the peso.

How will you get your hands on some pesos? You must exchange your dollars for pesos in the foreign exchange market. How many Mexican pesos does one U.S. dollar fetch at the foreign exchange counter? It depends upon the exchange rate. Let’s say the current exchange rate is 1:

13.25. This means one U.S. dollar could buy 13.25 pesos. Or, if you were in Mexico and you wanted some dollars, it would take 13.25 of your pesos to buy one dollar. If you only had one peso, you could buy 1/13.25 = $0.75.

So how much does the shirt cost you to buy? (198.9 pesos) / (13.25 pesos per dollar) ≈ $15 The exchange rate is just a price. In this case, 13.25 pesos is the price of a U.S. dollar. And we know from many previous modules that prices change based upon the forces of supply and demand.

For example, let’s say it only took 12.75 pesos to buy 1 U.S. dollar. This means that if you were in Mexico, your dollar would have been able to purchase fewer pesos. How much would the shirt cost at this exchange rate?

In other words, the peso is more expensive (measured in pesos per dollar) at the new rate. Economists would say that the dollar has depreciated in value against the peso because it has become less expensive.

Calculate the price of each good based on the exchange rate given.

|  |  |  |
| --- | --- | --- |
| **Exchange Rate: 1 USD=** | **Price of good in foreign money** | **Price of good in U.S. Dollars** |
| 0.60 British Pounds | 135 Pounds |  |
| 6.09 Chinese Yuan | 85.26 Yuan |  |
| 0.73 Euro | 18.25 Euros |  |
| 2.35 Brazilian Real | 164.50 Reals |  |

If 1 USD buys .6 British Pounds this month and .75 British Pounds next month, has the USD appreciated or depreciated against the British Pound?

If 1 USD buys 6.09 Chinese Yuan this month and 5.98 Cines Yuan next month, has the USD appreciated or depreciated against the Chinese Yuan?

# Understanding Exchange Rates Answer Key

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For example, let’s say it only took 12.75 pesos to buy 1 U.S. dollar. This means that if you were in Mexico, your dollar would have been able to purchase fewer pesos. How much would the shirt cost at this exchange rate? *(198.9 pesos) / (12.75 pesos per dollar) = $15.60.*

In other words, the peso is more expensive (measured in pesos per dollar) at the new rate. Economists would say that the dollar has depreciated in value against the peso because it has become less expensive.

Calculate the price of each good based on the exchange rate given.

|  |  |  |
| --- | --- | --- |
| **Exchange Rate: 1 USD=** | **Price of good in foreign money** | **Price of good in U.S. Dollars** |
| 0.60 British Pounds | 135 Pounds | *$225 U.S.* |
| 6.09 Chinese Yuan | 85.26 Yuan | *$14 U.S.* |
| 0.73 Euro | 18.25 Euros | *$25 U.S.* |
| 2.35 Brazilian Real | 164.50 Reals | *$70 U.S.* |

If 1 USD buys .6 British Pounds this month and .75 British Pounds next month, has the USD appreciated or depreciated against the British Pound?

*Appreciated (It can buy more pounds)*

If 1 USD buys 6.09 Chinese Yuan this month and 5.98 Cines Yuan next month, has the USD appreciated or depreciated against the Chinese Yuan?

*Depreciated (It can buy fewer yuan)*