19.5: Recording Transactions on the Balance of Payments

Learning objectives

1. Learn how individual transactions between a foreign and domestic resident are recorded on the balance of payments accounts.
2. Learn the interrelationship between a country's current account balance and its financial account balance and how to interpret current account deficits and surpluses in terms of the associated financial flows.

In this section, we demonstrate how international transactions are recorded on the balance of payment accounts. The balance of payments accounts can be presented in ledger form with two columns. One column is used to record credit entries. The second column is used to record debit entries.

Almost every transaction involves an exchange between two individuals of two items believed to be of equal value.An exception is the case of unilateral transfers. These transfers include pension payments to domestic citizens living abroad, foreign aid, remittances, and other types of currency transfers that do not include an item on the reverse side being traded. Thus if one person exchanges $20 for a baseball bat with another person, then the two items of equal value are the $20 of currency and the baseball bat. The debit and credit columns in the ledger are used to record each side of every transaction. This means that every transaction must result in a credit and debit entry of equal value.

By convention, every credit entry has a "+" placed before it, while every debit entry has a "−" placed before it. The plus on the credit side generally means that money is being received in exchange for that item, while the minus on the debit side indicates a monetary payment for that item. This interpretation in the balance of payments accounts can be misleading, however, since in many international transactions, as when currencies are exchanged, money is involved on both sides of the transaction. There are two simple rules of thumb to help classify entries on the balance of payments:

1. Any time an item (good, service, or asset) is *exported* from a country, the value of that item is recorded as a credit entry on the balance of payments.
2. Any time an item is *imported* into a country, the value of that item is recorded as a debit entry on the balance of payments.

In the following examples, we will consider entries on the U.S. balance of payments accounts. Since it is a U.S. account, the values of all entries are denominated in U.S. dollars. Note that each transaction between a U.S. resident and a foreign resident would result in an entry on both the domestic and the foreign balance of payments accounts, but we will look at only one country's accounts.

Finally, we will classify entries in the balance of payments accounts into one of the two major subaccounts, the current account or the financial account. Any time an item in a transaction is a good or a service, the value of that item will be recorded in the current account. Any time an item in a transaction is an asset, the value of that item will be recorded in the financial account.

Note that in June 1999, what was previously called the "capital account" was renamed the "financial account" in the U.S. balance of payments. A capital account stills exists but now includes only exchanges in nonproduced, nonfinancial assets. This category is very small, including such items as debt forgiveness and transfers by migrants. However, for some time, it will be common for individuals to use the term "capital account" to refer to the present "financial account." So be warned.

A Simple Exchange Story

Consider two individuals, one a resident of the United States, the other a resident of Japan. We will follow them through a series of hypothetical transactions and look at how each of these transactions would be recorded on the balance of payments. The exercise will provide insight into the relationship between the current account and the financial account and give us a mechanism for interpreting trade deficits and surpluses.

Step 1: We begin by assuming that each individual wishes to purchase something in the other country. The U.S. resident wants to buy something in Japan and thus needs Japanese currency (yen) to make the purchase. The Japanese resident wants to buy something in the United States and thus needs U.S. currency (dollars) to make the purchase. Therefore, the first step in the story must involve an exchange of currencies.

So let's suppose the U.S. resident exchanges $1,000 for ¥112,000 on the foreign exchange market at a spot exchange rate of 112 ¥/$. The transaction can be recorded by noting the following:

1. The transaction involves an exchange of currency for currency. Since currency is an asset, both sides of the transaction are recorded on the financial account.
2. The currency exported is $1,000 in U.S. currency. Hence, we have made a credit entry in the financial account in the table below. What matters is not whether the item leaves the country, but that the ownership changes from a U.S. resident to a foreign resident.
3. The currency imported into the country is the ¥112,000. We record this as a debit entry on the financial account and value it at the current exchange value, which is $1,000 as noted in the table.

Step 1	U.S. Balance of Payments ($)	
	Credits (+)	Debits (−)
Current Account	0	
Financial Account	+1,000 ($ currency)	−1,000 (¥ currency)

Figure 19.5.1: Step 1

Step 2: Next, let's assume that the U.S. resident uses his ¥112,000 to purchase a camera from a store in Japan and then brings it back to the United States. Since the transaction is between the U.S. resident and the Japanese store owner, it is an international transaction and must be recorded on the balance of payments. The item exported in this case is the Japanese currency. We'll assume that there has been no change in the exchange rate and thus the currency is still valued at $1,000. This is recorded as a credit entry on the financial account and labeled "¥ currency" in the table below. The item being imported into the United States is a camera. Since a camera is a merchandise good and is valued at ¥112,000 = $1,000, the import is recorded as a debit entry on the current account in the table below.

Step 2	U.S. Balance of Payments ($)	
	Credits (+)	Debits (−)
Current Account	0	
Financial Account	+1,000 (¥ currency)	0

Figure 19.5.2: Step 2

Step 3a: Next, let's assume that the Japanese resident uses his $1,000 to purchase a computer from a store in the United States and then brings it back to Japan. The computer, valued at $1,000, is being exported out of the United States and is considered a merchandise good. Therefore, a credit entry of $1,000 is made in the following table on the current account and labeled as "computer." The other side of the transaction is the $1,000 of U.S. currency being given to the U.S. store owner by the Japanese resident. Since the currency, worth $1,000, is being imported and is an asset, a $1,000 debit entry is made in the table on the financial account and labeled "$ currency."

Step 3a	U.S. Balance of Payments ($)	
	Credits (+)	Debits (−)
Current Account	+1,000 (computer)	
Financial Account	0	−1,000 ($ currency)

Figure 19.5.3: Step 3a

Summary Statistics (after Steps 1, 2, and 3a)

We can construct summary statistics for the entries that have occurred so far by summing the debit and credit entries in each account and eliminating double entries. In the following table, we show all the transactions that have been recorded. The sum of credits in the current account is the $1,000 computer. The sum of debits in the current account is the $1,000 camera. On the financial account there are two credit entries of $1,000, one representing U.S. currency and the other representing Japanese

currency. There are two identical entries on the debit side. Since there is a U.S. currency debit and credit entry of equal value, this means that the net flow of currency is zero. The dollars that left the country came back in subsequent transactions. The same is true for Japanese currency. When reporting the summary statistics, the dollar and yen currency financial account entries would cancel, leaving a net export of assets equal to zero and the net inflow of assets equal to zero as well.

Summary 1, 2, 3a	U.S. Balance of Payments ($)	
	Credits (+)	Debits (−)
Current Account	+1,000 (computer)	
Financial Account	+1,000 ($ currency), +1,000 (¥ currency)	−1,000 ($ currency), −1,000 (¥ currency)

Figure 19.5.4: Summary 1, 2, 3a

After cancellations, then, the summary balance of payments statistics would look as in the following table.

Summary 1, 2, 3a	U.S. Balance of Payments ($)	
	Credits (+)	Debits (−)
Current Account	+1,000 (computer)	
Financial Account	0	0

Figure 19.5.5: Summary 1, 2, 3a

The current account balance is found by summing the credit and debit entries representing exports and imports, respectively. This corresponds to the difference between exports and imports of goods and services. In this example, the current account (or trade) balance is $CA = \$1,000 - \$1,000 = 0$. This means the trade account is balanced—exports equal imports.

The financial account balance is also found by summing the credit and debit entries. Since both entries are zero, the financial account balance is also zero.

Step 3b: Step 3b is meant to substitute for step 3a. In this case, we imagine that the Japanese resident decided to do something other than purchase a computer with the previously acquired $1,000. Instead, let's suppose that the Japanese resident decides to save his money by investing in a U.S. savings bond. In this case, $1,000 is paid to the U.S. government in return for a U.S. savings bond certificate (an IOU) that specifies the terms of the agreement (i.e., the period of the loan, interest rate, etc.). The transaction is recorded on the financial account as a credit entry of $1,000 representing the savings bond that is exported from the country and a debit entry of $1,000 of U.S. currency that is imported back into the country.

Step 3b	U.S. Balance of Payments ($)	
	Credits (+)	Debits (−)
Current Account	0	
Financial Account	+1,000 (U.S. savings bond)	−1,000 ($ currency)

Figure 19.5.6: Step 3b

Summary Statistics (after Steps 1, 2, and 3b)

We can construct summary statistics assuming that steps 1, 2, and 3b have taken place. This is shown in the following table. The sum of credits in the current account in this case is zero since there are no exports of goods or services. The sum of debits in the current account is the $1,000 camera.

On the financial account, there are three credit entries of $1,000: one representing U.S. currency, the other representing Japanese currency, and the third representing the U.S. savings bond. There are two $1,000 entries on the debit side: one representing U.S. currency and the other representing Japanese currency. Again, the dollar and yen currency financial account entries would cancel, leaving only a net export of assets equal to the $1,000 savings bond. The net inflow of assets is equal to zero.

Summary 1, 2, 3b	U.S. Balance of Payments ($)	
	Credits (+)	Debits (−)
Current Account	0	
Financial Account	+1,000 ($ currency), +1,000 (¥ currency), +1,000 (U.S. savings bond)	−1,000 ($ currency), −1,000 (¥ currency)

Figure 19.5.6: Summary 1, 2, 3b

After cancellations, the summary balance of payments statistics would look like the following table.

Summary 1, 2, 3b	U.S. Balance of Payments ($)	
	Credits (+)	Debits (−)
Current Account	0	
Financial Account	+1,000 (U.S. savings bond)	0

Figure 19.5.6: Summary 1, 2, 3b

The current account balance is found by summing the credit and debit entries representing exports and imports, respectively. This corresponds to the difference between exports and imports of goods and services. In this example, the current account (or trade) balance is $CA = \$0 - \$1,000 = -\$1,000$. This means there is a trade deficit of $1,000. Imports of goods and services exceed exports of goods and services.

The financial account balance is also found by summing the credit and debit entries. In this example, the financial account balance is $KA = \$1,000 - \$0 = +\$1,000$. This means the financial account has a surplus of $1,000. Exports of assets exceed imports of assets.

Important Lessons from the Exchange Story

The exercise above teaches a number of important lessons. The first lesson follows from the summary statistics, suggesting that the following relationship must hold true:

current account balance + financial account balance = 0.

In the first set of summary statistics (1, 2, 3a), both the current account and the financial account had a balance of zero. In the second example (1, 2, 3b), the current account had a deficit of $1,000 while the financial account had a surplus of $1,000.

This implies that anytime a country has a current account deficit, it *must* have a financial account surplus of equal value. When a country has a current account surplus, it *must* have a financial account deficit of equal value. And when a country has balanced trade (a balanced current account), then it *must* have balance on its financial account.

It is worth emphasizing that this relationship is *not* an economic theory. An economic theory could be right or it could be wrong. This relationship is an accounting identity. (That's why an identity symbol rather than an equal sign is typically used in the formula above.) An accounting identity is true by definition.

Of course, the identity is valid only if we use the *true* (or actual) current account and financial account balances. What countries report as their trade statistics are only the *measured* values for these trade balances, not necessarily the true values.

Statisticians and accountants attempt to measure international transactions as accurately as possible. Their objective is to record the true values or to measure trade and financial flows as accurately as possible. However, a quick look at any country's balance of payments statistics reveals that the balance on the current account plus the balance on the financial account rarely, if ever, sums to zero. The reason is not that the identity is wrong but rather that not all the international transactions on the balance of payments are accounted for properly. Measurement errors are common.

These errors are reported in a line in the balance of payments labeled "statistical discrepancy." The statistical discrepancy represents the amount that must be added or subtracted to force the measured current account balance and the measured financial

account balance to zero. In other words, in terms of the measured balances on the balance of payments accounts, the following relationship will hold:

current account balance + financial account balance + statistical discrepancy = 0.

The second lesson from this example is that imbalances (deficits and surpluses) on the balance of payments accounts arise as a result of a series of mutually voluntary transactions in which equally valued items are traded for each other. This is an important point because it is often incorrectly interpreted that a trade deficit implies that unfair trade is taking place. After all, the logic goes, when imports exceed exports, foreigners are *not* buying as many of our goods as we are buying of theirs. That's unequal exchange and that's unfair.

The story and logic are partially correct but incomplete. The logic of the argument focuses exclusively on trade in goods and services but ignores trade in assets. Thus it *is* true that when imports of goods exceed exports, we are buying more foreign goods and services than foreigners are buying of ours. However, at the same time, a current account deficit implies a financial account surplus. A financial account surplus, in turn, means that foreigners are buying more of our assets than we are buying of theirs. Thus when there is unequal exchange on the trade account, there must be equally opposite unequal exchange on the financial account. In the aggregate, imbalances on a current account, a trade account, or a financial account do not represent unequal exchanges between countries.

Key Takeaways

- Every transaction between a domestic and foreign resident can be recorded as a debit and credit entry of equal value on the balance of payments accounts.
- All components of transactions that involve assets, including currency flows, are recorded on the financial account; all other items are recorded on the current account.
- All trade deficits on a country's current account implies an equally sized financial account surplus, while all trade surpluses implies an equally sized financial account deficit.
- In the aggregate, imbalances on a current account, a trade account, or a financial account do not represent unequal exchanges, or inequities, between countries.

Exercises

1. **Jeopardy Questions**. As in the popular television game show, you are given an answer to a question and you must respond with the question. For example, if the answer is "a tax on imports," then the correct question is "What is a tariff?"

- The balance on a country's financial account when its current account has a deficit of $80 billion.
- A country's financial account balance when its trade balance is −$60 billion, its service balance is +$25 billion, and its unilateral transfer and income account has a surplus of +$10 billion.
- The international transactions for shares of stock in corporations (in excess of 10 percent of the company's value) or for real estate.
- Of *credit* or *debit*, this is how exports are recorded on the balance of payments.
- Of *current account* or *financial account*, this is where an export of a clock will be recorded.
- Of *current account* or *financial account*, this is where an import of currency from your aunt in Paraguay will be recorded.

2. Use the information below from the 1997 U.S. national income accounts to calculate the following. (Assume the balance on income and unilateral transfers was zero.)

- Current account balance: _____
- Merchandise trade balance: _____
- Service balance: _____
- Net income payments and receipts: _____
- Goods and services balance: _____

Gross Domestic Product	8,080
Exports of Goods and Services	934
Merchandise Exports	678

Income Receipts	257
Imports of Goods and Services	1,043
Merchandise Imports	877
Income Payments	244
Net Unilateral Transfers	−45

Figure 19.5.7: TABLE 2.4 U.S. NATIONAL INCOME STATISTICS, 1997 (BILLIONS OF DOLLARS)