CHAPTER 3

The Balance of Payments

Opening Case 3: Opportunity Cost and Comparative Advantage

Let's assume that with a fixed investment of $1 million, the United Kingdom produces more computers than Australia, while Australia produces more coal than the UK. This means that neither the UK nor Australia has an absolute advantage in producing both products. Consequently, the UK and Australia are better off if each country specializes in what it produces best and then trades with the other. Does this mean that specialization and trade provide no benefits for a country that produces more in both products than another country with a given amount of investment? Let's say that Lisa Smith, a great trial lawyer, happens to be a very good typist – so good that she is somewhat faster than her secretary, Jack Lee. But just because Lisa can type faster than Jack, does this mean that she should? To answer this question, you can use the concepts of opportunity cost and comparative advantage. Assume that Lisa can type a legal document in 2 hours. In that 2 hours, she could defend her client in the court and earn $1,000. By contrast, Jack can type the same legal document in 3 hours. In that same 3 hours, he could work at McDonald's and earn $30.

In this example, Lisa's opportunity cost of typing the document is $1,000 and Jack's opportunity cost is $30. Lisa has an absolute advantage in typing the document because she can type it in less time. Yet Jack has a comparative advantage in typing the document because he has the lower opportunity cost. The gains from trade in this example are tremendous. Rather than typing the document, Lisa should defend her client and let Jack type the document. As long as she pays him more than $30 and less than $1,000, both of them are better off.

The original eighteenth-century model of international trade, known as the theory of comparative advantage, assumes complementary trade. Some countries can

produce some goods more efficiently than other countries. Therefore, all countries benefit if they specialize in producing goods that they can produce more efficiently than others and if they buy those goods that other countries can produce more efficiently. There are no losers in complementary trade. In other words, differences in opportunity cost and comparative advantage create the gains from specialization and trade. When each country specializes in producing the good for which it has a comparative advantage, total production in the world economy rises. And this increase in the size of the economic pie can be used to make every country around the world better off.

Since the middle of the nineteenth century, the growth sector in the international economy has been competitive trade between developed countries. Under competitive trade, two countries buy from each other similar goods that both can produce almost equally efficiently. In this type of trade, some countries may lose, although most will gain.

Source: N. Gregory Mankiw, *Principles of Economics*, New York: The Dryden Press, 1997, ch. 45.

A country's **balance of payments** is commonly defined as the record of transactions between its residents and foreign residents over a specified period. These transactions include exports and imports of goods and services, cash receipts and payments, gifts, loans, and investments. Residents may include business firms, individuals, and government agencies.

The balance of payments helps business managers and government officials to analyze a country's competitive position and to forecast the direction of pressure on exchange rates. The ability of multinational companies (MNCs) to move money across national boundaries is critical. MNCs depend on this ability for exports, imports, payment of foreign debts, and dividend remittances. Many factors affect a firm's ability to move funds from one country to another. In particular, a country's balance of payments affects the value of its currency, its ability to obtain currencies of other countries, and its policy toward foreign investment.

This chapter has three objectives: (1) to define the balance-of-payments accounts, (2) to discuss the actual balance of payments, and (3) to explain the means for correcting a balance-of-payments deficit.

3.1 An Overview of the Balance of Payments

3.1.1 Sources and uses of funds

The balance of payments is a sources-and-uses-of-funds statement reflecting changes in assets, liabilities, and net worth during a specified period. Transactions between domestic and foreign residents are entered in the balance of payments either as debits or credits. In other words, balance-of-payments statistics are gathered on a single-entry basis.

In dealing with the rest of the world, a country earns foreign exchange on some transactions and expends foreign exchange on others. Transactions that earn foreign exchange are often called

credit transactions and represent sources of funds. These transactions are recorded in the balance of payments as credits and are marked by plus signs (+). The following transactions represent credit transactions:

1 Exports of goods and services.
2 Investment and interest earnings.
3 Transfer receipts from foreign residents.
4 Investments and loans from foreign residents.

Transactions that expend foreign exchange are sometimes called debit transactions and represent uses of funds. These transactions are recorded in the balance of payments as debits and are marked by minus signs (–). The following transactions represent debit transactions:

1 Imports of goods and services.
2 Dividends and interest paid to foreign residents.
3 Transfer payments abroad.
4 Investments and loans to foreigners.

We can apply these elementary principles to the recording of transactions in the balance of payments. Some hypothetical transactions may illustrate this single-entry approach.

Example 3.1

(a) An American company sells $30,000 worth of machinery to a British company (earn foreign exchange); (b) an American woman visits her husband in Japan. She cashes $5,000 worth of US traveler's checks at a Japanese hotel and spends the $5,000 in Japan before returning to the United States (expend foreign exchange); (c) the US Red Cross sends $20,000 worth of flood-relief goods to Chile (expend foreign exchange); (d) an American purchases $5,000 worth of French bonds (expend foreign exchange); and (e) a US bank lends $10,000 to a Canadian firm for 90 days (expend foreign exchange).

3.1.2 The balance of payments as a whole

A country incurs a "surplus" in its balance of payments if credit transactions exceed debit transactions or if it earns more abroad than it spends. On the other hand, a country incurs a "deficit" in its balance of payments if debit transactions are greater than credit transactions or if it spends more abroad than it earns.

Essentially, analysts focus on those transactions that occur because of self-interests. These so-called autonomous transactions include exports, imports, unilateral transfers, and investments. The arithmetic sum of these autonomous transactions, sometimes called "above-the-line items," represents the balance-of-payments surplus or deficit. A balance-of-payments surplus occurs when

autonomous receipts exceed autonomous payments. By the same token, a balance-of-payments deficit takes place when autonomous payments exceed autonomous receipts. On the other hand, compensating transactions occur to account or compensate for differences between international payments and receipts. These compensating items, called "below-the-line items," are used to eliminate international disequilibrium.

Surpluses and deficits in the balance of payments are of considerable interest to banks, companies, portfolio managers, and governments. They are used to:

1 Predict pressures on foreign-exchange rates.
2 Anticipate government policy actions.
3 Assess a country's credit and political risks.
4 Evaluate a country's economic health.

The transactions of cases (a)–(e) in example 3.1 represent autonomous transactions. In case (a), the export of US machinery earns a foreign exchange of $30,000 and is thus a credit. Transactions of cases (b)–(e) cause the USA to expend a foreign exchange of $40,000 and are therefore debits. Consequently, the USA has an overall deficit of $10,000 in its balance of payments and must undertake $10,000 worth of compensating transactions to make up the difference. In this case, the compensating transactions of the USA involve sales of its gold, reductions in its balance of convertible foreign currencies, or increases in the balance of the US dollars held by other nations.

Now, for a moment, suppose that the USA has a surplus in its balance of payments rather than a deficit. To account for this surplus in the US balance of payments, US reserves, such as gold and convertible foreign currencies, would increase by $10,000, or the balance of the US dollars held by other nations would decrease by $10,000. These transactions, designed to account for the surplus in the balance of payments, are also called compensating transactions.

3.2 Balance-of-Payments Accounts

The balance of payments identifies transactions along functional lines. The International Monetary Fund (IMF) classifies balance-of-payments transactions into five major groups:

A The current account: merchandise, services, income, and current transfers.
B The capital account: capital transfers, nonproduced assets, and nonfinancial assets.
C The financial account: direct investments, portfolio investments, and other investments.
D Net errors and omissions.
E Reserves and related items.

We can classify balance-of-payments transactions into several different groups. However, it is important to note that a country interacts with other countries in two ways. First, it buys and sells goods and services in world product markets. Second, it buys and sells financial assets in world financial markets. You could use your $3,000 to buy a personal computer from Toshiba, but instead you could use that money to buy stock in the Toshiba Corporation. The first transaction would represent a flow of goods, while the second would represent a flow of financial assets. Here we discuss these two activities and the close relationship between them.

The IMF format in table 3.1 below is regarded as useful for analyzing balance-of-payments developments in a uniform manner. In other words, the format facilitates a variety of analytic perspectives. Each of the five major data categories has a name and a particular analytic use. Table 3.1 also shows data codes, which are used by the IMF and other international organizations to facilitate international data reporting.

3.2.1 The current account – group A

BALANCE ON GOODS Balance on goods refers to the balance between exports and imports of physical goods such as automobiles, machinery, and farm products. Merchandise exports and imports are the largest single components of total international payments for most countries. In each year from 1995 to 2002, the USA ran a deficit on its trade balance. In 2002, the USA exported $685 billion of merchandise and imported $1,165 billion for a balance on goods of $479 billion. The minus sign for a balance indicates a deficit.

SERVICES International trade involves exports and imports of both goods and services. Services include such invisible items as insurance and financial services, travel and transportation, computer and information services, plus fees and royalties. A country's purchases of services represent imports with debits recorded. A country's sales of these services to foreigners represent exports with credits recorded. The balance between exports and imports of goods and services is called the balance on goods and services.

These services represent a significant portion of the overall balance of payments for many industrial countries. For example, table 3.1 shows that US exports of services have consistently exceeded US imports of services by an appreciable margin. In fact, service transactions have played a crucial role in lowering the US trade deficit, but this has tended to escape our attention for several reasons. First, some service-trade categories reflect transactions that rarely come to mind when the topic is trade. Second, service items have remained a relatively minor part of the overall trade volume. Third, international trade negotiations have tended to focus on barriers to merchandise trade.

INCOME Income on investments includes interest, dividends, and compensation of employees. Investment income represents the flow of earnings from foreign direct and portfolio investments made in prior years. For example, the income that US investors currently earn on their previous foreign investments falls into the income balance. The initial foreign investment of capital, however, was a capital outflow recorded in either the capital account or the financial account during the year when it was originally made. The balance of exports and imports between goods, services, and investment income is known as the balance on goods, services, and income. In 2002, the USA earned $256 billion in income while paying out $260 billion.

CURRENT TRANSFERS All transfers that are not transfers of capital are **current transfers**; they directly affect the level of disposable income and should influence the current consumption of goods and services. Current transfers include gifts and grants by both private parties and governments. Private gifts and grants include personal gifts of all kinds, philanthropic activities, and shipments by relief organizations. For example, money sent by immigrants to their families in their

native countries represents private transfers. Government transfers include money, goods, and services given as aids to other countries. For instance, goods and services provided by the US government to other countries as part of a drought relief program represent government transfers.

THE CURRENT ACCOUNT The **current account** includes merchandise exports and imports, earnings and expenditures for invisible trade items (services), income on investments, and current transfers. Entries in this account are "current" in nature because they do not give rise to future claims. The balance of payments on the current account is the broadest measure of a country's international trade because it includes investment income as well as trade in goods and services. A surplus on the current account represents an inflow of funds, while a deficit represents an outflow of funds.

The first line in table 3.1 shows that the US deficit on current account reached a peak of $481 billion in 2002. In 1991, the USA enjoyed a rare surplus of $4 billion in its balance on current account (table 3.1 does not show this figure). Analysts view the actual balance on current account as a deficit of approximately $39 billion, because $43 billion of US receipts in 1991 were current transfers from Gulf War (Desert Storm) allies.

3.2.2 The capital account – group B

The **capital account** consists of capital transfers and the acquisition or disposal of nonproduced, nonfinancial assets. The major types of capital transfers include the transfer of title to fixed assets, the transfer of funds linked to the sale or acquisition of fixed assets, debt forgiveness by creditors, and migrants' transfers of goods and financial assets as they leave or enter the country. Nonproduced, nonfinancial assets include the sale or purchases of nonproduced assets (i.e., the rights to natural resources) and the sale or purchases of intangible assets (i.e., patents, copyrights, trademarks, and leases). Though conceptually important, capital-account transactions are generally small in most countries.

3.2.3 The financial account – group C

The **financial account** consists of foreign direct investments, foreign portfolio investments, and other investments. **Foreign direct investments (FDIs)** are equity investments such as purchases of stocks, the acquisition of entire firms, or the establishment of new subsidiaries. The US Department of Commerce defines FDI as investments in either real capital assets or financial assets with a minimum of 10 percent ownership in a foreign firm. If McDonald's opens up a fast-food outlet in Germany, that is an example of foreign direct investment.

Up to 1995, the USA ran a huge deficit in its FDI flows, which means that Americans invested more abroad than did foreigners in the USA. The US deficit in FDI flows, however, has declined rapidly in recent years; in 1997, foreigners invested more in the USA than did US residents in foreign countries. Some of this change in directions was caused by the strong economic performance of the USA during the late 1990s; prospects for the US economy had been sufficiently bright for Americans and foreigners to make investment in the USA more attractive than investment elsewhere. FDI inflows into the USA have dropped since 2000, as the boom in the US economy and its stock market ended in March 2000.

Table 3.1 The US balance of payments (billions of US dollars)

	Code	1995	1996	1997	1998	1999	2000	2001	2002
A. Current account*	4993 Z.	**–105.19**	**–117.16**	**–127.68**	**–204.67**	**–290.87**	**–411.46**	**–393.74**	**–480.86**
Goods: exports f.o.b	2100 . .	577.04	614.01	680.33	672.38	686.27	774.63	721.84	685.38
Goods: imports f.o.b	3100 . .	–749.37	–803.11	–876.51	–917.12	–1,029.99	–1,224.43	–1,145.95	–1,164.76
Balance on goods	4100 . .	*–172.33*	*–189.10*	*–196.18*	*–244.74*	*–343.72*	*–449.79*	*–424.11*	*–479.38*
Services: credit	2200 . .	216.69	236.89	253.55	260.19	279.20	295.42	285.74	288.72
Services: debit	3200 . .	–139.43	–150.63	–164.44	–178.59	–196.70	–221.01	–219.44	–227.38
Balance on goods and services	4991 . .	*–95.07*	*–102.84*	*–107.06*	*–163.14*	*–261.23*	*–375.38*	*–357.82*	*–418.04*
Income: credit	2300 . .	211.96	226.28	261.05	258.66	290.20	346.86	277.36	255.54
Income: debit	3300 . .	–186.89	–201.74	–240.37	–251.74	–273.09	–327.25	–266.67	–259.51
Balance on goods, services, and income	4992 . .	*–70.00*	*–78.30*	*–86.38*	*–156.23*	*–244.12*	*–355.78*	*–347.13*	*–422.01*
Current transfers: credit	2379 Z.	8.64	10.39	9.86	9.64	8.85	10.78	8.56	11.50
Current transfers: debit	3379 . .	–43.82	–49.25	–51.16	–58.07	–55.60	–66.46	–55.18	–70.35
B. Capital account*	4994 Z.	**–.93**	**–.65**	**–1.04**	**–.74**	**–4.84**	**–.80**	**–1.06**	**–1.29**
Capital account: credit	2994 Z.	1.03	.89	.83	.93	1.08	1.08	1.05	1.11
Capital account: debit	3994 . .	–1.96	–1.55	–1.87	–1.67	–5.92	–1.87	–2.11	–2.39
Total, groups A plus B	4981 . .	*–106.12*	*–117.81*	*–128.72*	*–205.41*	*–295.71*	*–412.26*	*–394.80*	*–482.14*
C. Financial account*	4995 W.	**95.91**	**130.54**	**220.18**	**82.51**	**227.82**	**456.63**	**420.50**	**531.68**
Direct investment abroad	4505 . .	–98.78	–91.88	–104.82	–142.64	–224.93	–159.21	–119.96	–137.84
Direct investment in United States	4555 Z.	57.80	86.52	105.59	179.03	289.44	321.27	151.58	39.63
Portfolio investment assets	4602 . .	–122.51	–149.83	–118.98	–124.20	–116.24	–121.91	–84.64	15.80
Equity securities	4610 . .	–65.41	–82.85	–57.58	–101.36	–114.31	–106.71	–109.10	–17.68
Debt securities	4619 . .	–57.10	–66.98	–61.40	–22.84	–1.93	–15.19	24.47	33.48
Portfolio investment liabilities	4652 Z.	210.35	332.78	333.11	187.56	285.60	420.00	425.08	421.44
Equity securities	4660 . .	16.52	11.06	67.03	41.96	112.29	193.60	121.42	53.20
Debt securities	4669 Z.	193.83	321.72	266.08	145.61	173.31	226.40	303.66	368.24
Financial derivatives	4910 . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
Financial derivatives assets	4900 . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
Financial derivatives liabilities	4905 . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
Other investment assets	4703 . .	–121.38	–178.87	–262.82	–74.20	–171.22	–288.39	–140.43	–53.27
Monetary authorities	4701 . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
General government	4704 . .	–.98	–.99	.07	–.42	2.75	–.94	–.49	–.03
Banks	4705 . . .	–75.11	–91.56	–141.12	–35.57	–76.26	–148.66	–134.95	–21.36
Other sectors	4728 . .	–45.29	–86.33	–121.77	–38.20	–97.70	–138.79	–5.00	–31.88
Other investment liabilities	4753 W.	170.43	131.82	268.09	56.96	165.17	284.86	188.87	245.91
Monetary authorities	4753 WA	46.72	56.88	–18.85	6.88	24.59	–6.70	35.29	64.91
General government	4753 ZB	.90	.73	–2.70	–3.25	–.98	–.39	–4.78	2.66
Banks	4753 ZC	64.18	22.18	171.31	30.27	67.20	122.72	88.40	108.72
Other sectors	4753 ZD	58.63	52.03	118.33	23.07	74.37	169.24	69.96	69.62
Total, groups A through C	4983 . .	*–10.21*	*12.73*	*91.46*	*–122.89*	*–67.89*	*44.37*	*25.70*	*49.54*
D. Net errors and omissions	4998 . .	**19.96**	**–19.39**	**–90.45**	**129.63**	**59.16**	**–44.08**	**–20.77**	**–45.84**
Total, groups A through D	4984 . .	*9.75*	*–6.67*	*1.01*	*6.73*	*–8.73*	*.29*	*4.93*	*3.69*
E. Reserves and related items	4802 A.	**–9.75**	**6.67**	**–1.01**	**–6.73**	**8.73**	**–.29**	**–4.93**	**–3.69**
Reserve assets	4802 . .	–9.75	6.67	–1.01	–6.73	8.73	–.29	–4.93	–3.69
Use of Fund credit and loans	4766 . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
Exceptional financing	4920 . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .

*Excludes components that have been classified in the categories of Group E.

Source: The International Monetary Fund, *Balance of Payments and Statistics Yearbook*, 2003, p. 957.

Foreign portfolio investments are purchases of foreign bonds, stocks, financial derivatives, or other financial assets without a significant degree of management control. Desires for return, safety, and liquidity in investments are the same for international and domestic portfolio investors. However, international portfolio investments have additional risks such as changes in exchange rates, wars and revolutions, and expropriations. Portfolio investments in utilities, governments, and government agencies are active because the risk of loss in these fields is less than in other fields. If an American buys bonds in the Volkswagen Corporation of Germany, that is an example of foreign portfolio investment. In each year from 1995 to 2002, the USA ran a huge surplus in its balance on financial account, which means that foreigners purchased US securities more than did Americans foreign securities.

Other investments include changes in trade credit, loans, currency, and deposits. Both portfolio investment and other investments consist of short-term capital flows and long-term capital flows. Some short-term capital flows occur due to changes in the current account or changes in long-term investment. More specifically, these changes may take place because of merchandise trade, service trade, current transfers, and investments. Short-term capital movements induced by such transactions are sometimes called compensating or accommodating adjustments. These compensating accounts change only for one reason – to finance other items in the balance of payments. In contrast, other short-term flows are attributable to differences in interest rates among nations and to expected changes in foreign-exchange rates. Short-term capital movements caused by such changes are frequently called autonomous adjustments. These autonomous accounts change for purely economic reasons.

3.2.4 Net errors and omissions – group D

In theory, the balance of payments should always actually balance, because all debits are offset by credits and vice versa. But it rarely does balance in practice, for a number of reasons. Balance-of-payments data gathered from many different sources are incomplete and may be interpreted differently by individuals and agencies. Many transactions are not recorded but are known to have occurred because other components of the balance of payments reveal an imbalance. Thus, the debits and credits may not balance at the end of a year. This is why the net errors and omissions are treated as a "plug" item to keep the balance-of-payments accounts in balance.

Net errors and omissions occur for several reasons. First, they may be due to unreported foreign funds coming to a country for investment in some form of asset. Second, increased trading in foreign currencies, in combination with the flexible exchange system, undoubtedly introduces large errors in payments figures. Third, because most data on the balance of payments depend on personnel in banks and other business offices completing federal forms, these people sometimes make multimillion-dollar mistakes.

TOTAL – GROUPS A–D Usually known as the overall balance of payments or above-the-line items, this balance is the net result of trading, capital, and financial activities. It constitutes the sum of all autonomous transactions that must be financed by the use of official reserves. The overall balance of payments is often used to evaluate a country's competitive position in terms of all private transactions with the rest of the world. Table 3.1 shows that the overall balance of the USA has been relatively small in recent years.

Table 3.2 The US dollar as a fraction of government reserves around the world

Year	*Dollar as percent of total reserves*	*Year*	*Dollar as percent of total reserves*
1987	56.1%	1995	57.0%
1988	55.3%	1996	60.3%
1989	52.0%	1997	62.4%
1990	50.1%	1998	65.9%
1991	51.3%	1999	68.4%
1992	55.3%	2000	68.2%
1993	56.7%	2001	68.3%
1994	56.6%	2002	68.6%

Source: The International Monetary Fund, Washington, DC.

3.2.5 Reserves and related items – group E

Group E consists of official reserve assets, the use of IMF credit and loans, and exceptional financing. These categories represent only purchases and sales by official monetary authorities, such as the Federal Reserve System of the USA or the Bank of England. Changes in reserves and related items are necessary to account for the deficit or surplus in the balance of payments.

Reserve assets are government-owned assets. They include monetary gold, convertible foreign currencies, deposits, and securities. For most countries, the principal convertible currencies are the US dollar, the British pound, the euro, and the Japanese yen. Credit and loans from the IMF are usually denominated in special drawing rights. **Special drawing rights (SDRs)**, sometimes called "paper gold," are rights to draw on the IMF. SDRs can be used as means of international payment. Exceptional financing is financing mobilized by a country's monetary authorities that is not regarded as official reserves. Examples of this account include postponing the repayment of foreign-currency debt and drawing on private bank loans to finance transactions that would otherwise deplete the country's reserve assets.

The reserve account of a country also includes its liabilities to foreign official holders, which constitute foreign authorities' reserves. A country's liabilities to foreign official holders are sometimes called its foreign reserve assets. For example, US liabilities to foreign official holders, such as the European Central Bank or the Bank of Japan, refer to foreign official deposits with US banks and official holdings of US Treasury securities. Foreign governments frequently wish to hold such assets in the USA because of their interest earnings.

Foreign currencies account for approximately 90 percent of the total reserve assets held by IMF member countries. Among foreign exchanges, the US dollar has been, and still is, the most important asset. Table 3.2 shows that the dollar share of world foreign-exchange reserves declined from 1987 to 1990, increased from 1993 to 1998, and has been relatively flat at around 68 percent since 1998.

Some economists forecast that the dollar, which represented 76 percent of world reserves in 1976, will lose market share in the years ahead. Because Europe created its new single currency, known as the euro (€), on January 1, 1999, some governments and many private investors are likely to switch some of their reserves out of dollars and into euros. The creation of the euro is regarded as the most important development in the international monetary system since the end

of the Bretton Woods Agreement in 1973. In addition, many governments desire to diversify their reserve portfolios.

The net result of all activities in groups A–D in table 3.1 must be financed by changes in reserves and related items. Thus, these two items – "Total, groups A–D" and "Group E" – are identical except that the sign is reversed. In other words, the net result of all activities in groups A–D was financed by various accounts in group E.

ACCOUNTING TREATMENT OF THE RESERVE ACCOUNT The reserve account presents a great difficulty when one tries to classify its transactions either as debits or credits. On the one hand, an increase in any of the reserve assets represents a use of funds or a debit entry (–) in the balance of payments. On the other hand, a decrease in any reserve asset indicates a source of funds or a credit entry (+). By the same token, a decrease in any official liability is entered as a debit, and an increase in any official liability is recorded as a credit. In other words, any transaction that finances the balance-of-payments surplus should be recorded as a debit (increase in reserve assets and decrease in official liability); any transaction that finances the balance-of-payments deficit should be recorded as a credit (decrease in reserve assets and increase in official liability).

3.2.6 *The balance-of-payments identity*

We have seen that a country interacts with the rest of the world in two ways: world markets for goods and services (the current account) and world markets for financial assets (net foreign investment = capital account, financial account, net errors and omissions, plus reserves and related items). The current account and net foreign investment each measure a type of imbalance in these markets. The current account measures an imbalance between a country's exports and imports. Net foreign investment measures an imbalance between the amount of foreign assets bought by domestic residents and the amount of domestic assets bought by foreigners.

The **balance-of-payments identity** states that the combined balance of the current account (CuA), the capital account (CaA), the financial account (FiA), net errors and omissions (NEO), and reserves and related items (RR) must be zero:

$$\mathrm{CuA} + \mathrm{CaA} + \mathrm{FiA} + \mathrm{NEO} + \mathrm{RR} = 0 \tag{3.1}$$

In other words, current-account deficits or surpluses are offset by corresponding net foreign-investment surpluses or deficits. An important fact of accounting states that for an economy as a whole, these two imbalances must offset each other. Under this assumption, current account is equal in size, but opposite in sign, to net foreign investment. Thus, equation 3.1 is the balance-of-payments identity that must hold.

3.3 The Actual Balance of Payments

3.3.1 *Major-country balances on current and financial accounts*

Table 3.3 shows the current-account balances of China, Germany, Japan, the UK, and the USA from 1994 to 2001. Several inferences may be drawn from the table. First, the two largest

Table 3.3 Major-country balances on current account (billions of US dollars)

Country	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*
China	7	2	7	37	31	21	21	17	32
Germany	–21	–19	–8	–3	–6	–19	–20	2	46
Japan	130	114	66	97	119	115	120	87	112
UK	–10	–14	–13	–3	–8	–32	–29	–29	–14
USA	–118	–106	–118	–128	–204	–293	–410	–393	–480

Source: The International Monetary Fund, *Balance of Payments Statistics Yearbook*, 2002 and 2003, various pages.

Table 3.4 Major-country balances on financial account (billions of US dollars)

Country	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*
China	2	16	8	–14	–13	–3	–9	–12	–42
Germany	32	37	5	5	4	16	41	–21	–75
Japan	–110	–123	–63	–127	–106	–115	–127	–89	–109
UK	3	8	9	–8	0	32	21	28	12
USA	130	86	137	219	64	265	409	382	527

Source: The International Monetary Fund, *Balance of Payments Statistics Yearbook*, 2002 and 2003, various pages.

economies in the world – the USA and Japan – have incurred massive current-account imbalances since 1994. Second, the British current-account balance has been in large deficit since 1999. Third, the Chinese current-account balance has increased sharply since 1994.

The current-account balances of China, Japan, and the USA since 1995 largely reflect the Asian financial crisis of 1997–8. Several factors have been singled out as leading causes of a huge rise in the US deficit for current-account balance from 1998 to 2002: faster economic growth in the USA than in its major trading partners, the strong US dollar, and reduced US exports to those Asian countries hit hard by the Asian crisis.

Table 3.4 shows the financial-account balances of China, Germany, Japan, the UK, and the USA from 1994 to 2002. Apparently, the US current-account deficit was largely offset by massive inflows of capital (the financial account). On the other hand, the financial account of Japan, which reflects the net financial outflow from the trade surplus, has been systematically negative. China had mostly maintained surpluses in both the current account and the financial account until 1996, thereby increasing its reserve assets. After 1996, however, China's current-account surplus declined until 2001 and its financial-account balance had reversed as it entered the WTO in 2001.

3.3.2 The world balance of payments

Table 3.5 shows that the expansion of world trade averaged 6.4 percent per year between 1991 and 1999, while the growth of global output averaged only 2.4 percent per year during the same

Table 3.5 World merchandise trade

Year(s)	*World trade growth*	*World output growth*
1991–9	6.4%	2.4%
2000	13.1%	3.8%
2001	0.4%	1.2%
2002	3.0%	1.7%
2003[f]	6.2%	2.3%
2004[f]	8.1%	3.2%
2005[f]	8.1%	3.1%

Note: f = forecast.
Sources: The World Bank, *Global Development Finance*, Washington, DC, 2000, 2003, and 2004, various pages.

period. As a result of the 1997–8 Asian crisis, world output grew 1.9 percent in 1998 and 2.9 percent in 1999. With such a slow output growth, world trade growth fell from 1997's exceptional 9.5 percent, but maintained a 4–5 percent pace in 1998 and 1999. These statistics indicate that the share of production traded increased substantially during the 1990s; this reflects the relative openness of markets and the ongoing integration of the global economy.

The value of world merchandise trade reached a new record of $6 trillion in 2002. Table 3.5 shows that world trade had grown about 2.7 times as fast as world output in the 1990s. In 2001, world merchandise grew slower than world output for the first time in modern history, perhaps due to the September 11, 2001, attacks. However, the World Bank forecasts that world merchandise trade will grow two or three times as fast as world output from 2002 through 2005 again. It seems that the excess of trade over output in the twenty-first century will be as great as that in the 1990s. The head of economic research at the World Trade Organization has said that the gap between exports and output "is the handiest practical measurement of the pace of globalization" of manufacturing.

Globalization represents a huge opportunity for countries at all levels of development. The rapid increase in trade volume over the past 30 years has been one of the most important factors in the rise of living standards across the globe. Because a fresh wave of market-opening initiatives alters economies, many forecasts predict an annual global-trade growth of 10 percent for the next two decades.

3.3.3 The international investment position

Trade balance is a flow concept because it measures the economic activities of a country over a 1-year period. The **international investment position** is a stock concept because it summarizes a country's assets and liabilities on a given date. Tables 3.6 and 3.7 show the international investment position of the USA and of Japan from 1994 to 2002.

These two tables reveal striking differences in the international investment position between the two countries. First, the USA is the largest net debtor nation in the world, while Japan is the largest net creditor nation. For the USA and Japan over the same period, a largely reciprocal rela-

Table 3.6 The international investment position of the USA (billions of US dollars)

Type of investment	*1994*	*1996*	*1998*	*1999*	*2000*	*2001*	*2002*
US assets	**3,327**	**4,631**	**6,174**	**7,387**	**7,351**	**6,863**	**6,473**
Direct investment	1,115	1,608	2,280	2,805	2,674	2,289	2,036
Portfolio investment	949	1,468	2,053	2,583	2,389	2,111	1,847
Other investment	1,100	1,394	1,695	1,863	2,160	2,333	2,432
Reserve assets	163	161	146	136	128	130	159
US liabilities	**3,450**	**5,018**	**7,269**	**8,441**	**8,934**	**9,172**	**9,079**
FDI	758	1,229	2,179	2,798	2,766	2,527	2,007
Portfolio investment	1,414	2,291	3,217	3,605	3,866	4,132	4,339
Other investment	1,278	1,498	1,873	2,038	2,302	2,513	2,733
Net position	**–123**	**–387**	**–1,095**	**–1,583**	**–1,583**	**–2,309**	**–2,605**

Sources: The International Monetary Fund, *Balance of Payments Statistics Yearbook*, 2002 and 2003, various pages.

Table 3.7 The international investment position of Japan (billions of US dollars)

Type of investment	*1994*	*1996*	*1998*	*1999*	*2000*	*2001*	*2002*
Japanese assets	**2,424**	**2,653**	**2,986**	**3,013**	**2,970**	**2,882**	**3,052**
Direct investment	276	259	270	249	278	300	304
Portfolio investment	859	933	1,056	1,242	1,306	1,290	1,394
Other investment	1,162	1,243	1,444	1,234	1,025	892	882
Reserve assets	127	218	216	288	361	400	468
Japanese liabilities	**1,734**	**1,762**	**1,833**	**2,185**	**1,812**	**1,521**	**1,590**
Direct investment	19	30	26	46	50	50	78
Portfolio investment	631	556	633	1,165	884	666	610
Other investment	1,084	1,176	1,174	974	878	805	898
Net position	**690**	**891**	**1,153**	**858**	**1,158**	**1,361**	**1,462**

Sources: The International Monetary Fund, *Balance of Payments Statistics Yearbook*, 2002 and 2003, various pages.

tionship is evident. Growth in the net international investment position of the USA coincided with the rapid increase of Japan's net investment position during the 1990s. The US net overseas investment evolved steadily from $6 billion in 1919 to $358 billion in 1983. This long-term increase in the US net investment position has decreased dramatically since 1983. In 1987, the USA became a net debtor nation for the first time since World War I. As shown in table 3.7, its foreign debt reached $2.6 trillion in 2002. This is about 60 percent of the combined total debt of some 140 developing countries. Huge trade and budget deficits, caused by major shifts in macroeconomic policy in the first half of the 1980s, turned the USA from creditor to debtor. Persistent trade and budget deficits, along with more foreign acquisitions of US assets than US acquisitions of foreign assets, caused US foreign debt to grow continually.

Second, FDI in the US accounts for approximately 35 percent of foreign assets in the USA, but FDI in Japan amounts to about 10 percent of foreign assets in Japan. Critics charge that Japanese firms participate in keiretsu to insulate themselves from outside competitors in all aspects

of operations. In Japanese, the word "keiretsu" stands for large, financially linked groups of companies, but foreign critics translate it as meaning something else – an "economic barrier to non-Japanese companies." They wag their fingers at keiretsu as barriers to everything: trade, FDI in Japan, and financing for Japanese firms in the USA. The relatively small amount of FDI in Japan indicates that Japanese firms are more sheltered from foreign competition in their home market than firms in other industrial countries.

Third, the USA's other investment abroad accounts for nearly 30 percent of its total foreign assets, while Japan's amounts to more than 45 percent. Most of the other investments are short-term capital flows such as trade credit, short-term bank loans, and currency. Moreover, portfolio investments also include short-term capital flows such as short-term government securities and money market funds. Apparently, Japan keeps most of its foreign assets in short-term capital as compared with the USA and other industrial countries, which do not. No wonder, then, so many Japanese banks are still suffering from bad short-term loans that they have made abroad in the past.

Net international investment positions themselves are not particularly meaningful. This is why many economists look at three broad categories of the international investment position: direct investment, portfolio investment, and other investment. In other words, analysts break down international investment holdings into several categories so that they can draw policy implications from each category about the liquidity status of a country.

Short-term foreign assets in the USA, such as bank deposits and government securities, are meaningful because foreigners can withdraw these holdings on very short notice. For example, if they fear capital losses from further depreciation of the dollar, or if interest rates decline, foreign investors may turn away from dollar-denominated short-term assets. Such actions by foreign investors may endanger the stability of the US financial system. Foreign official assets in the USA are also significant. If foreign monetary authorities decide to liquidate their holdings of US government securities, the financial strength of the dollar will fall. Long-term investments, such as long-term corporate securities and direct investment, are less important because they respond to basic economic trends and are not subject to erratic withdrawals.

Global Finance in Action 3.1

Is there Another Wave of American Decline?

The collapse of the Soviet Union in 1991, along with the unusually strong performance of both the US economy and its stock market during the 1990s, elevated the USA to unsurpassed economic, militarily, and cultural power. However, in the early 2000s, the USA faced another wave of decline since the 1950s, a phenomenon largely triggered by its economic problems. Every single empire and great nation of history has been destroyed or has greatly diminished in world influence. Why should we assume that the USA, today's great nation, could prevail over the pattern of history? If we assume for the moment American decline, the European Union or China seems likely to emerge as a great power, which might end the dominance of the USA in the

game of influence on world affairs. We can base the current wave of decline on three bodies of evidence: (1) mounting US budget and trade deficits; (2) continuing declines in the US economy and its stock market; and (3) a growing European Union's resistance to American unilateral actions.

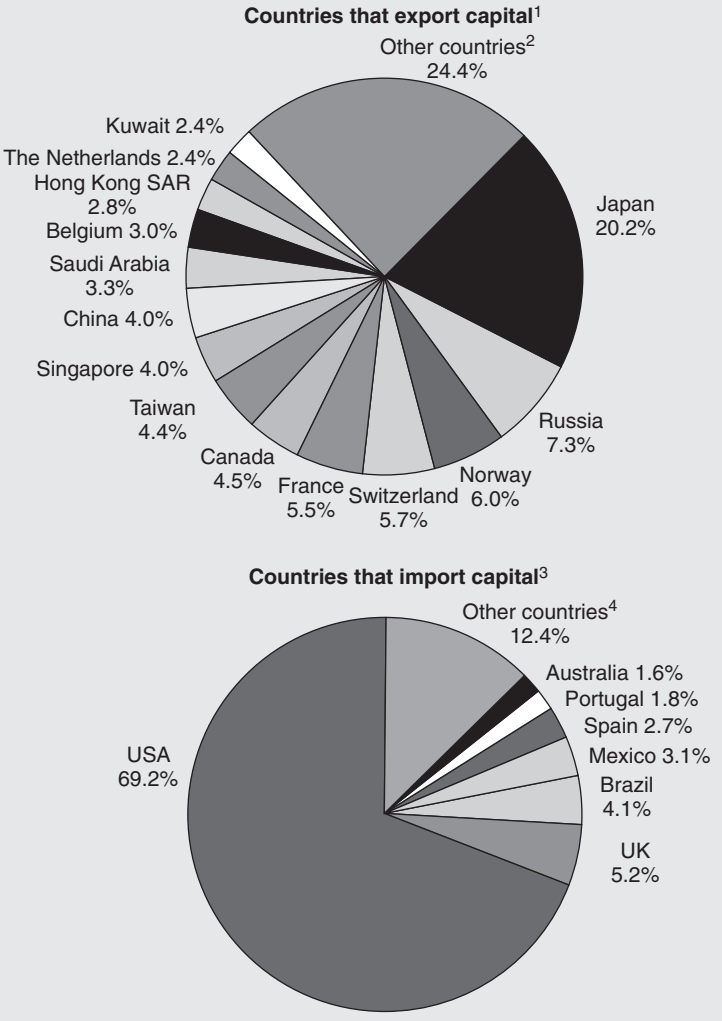
A massive tax cut of $1.7 trillion and a military buildup larger than during the Cold War shifted the government budget from a record surplus of $387 billion predicted for 2004 a few years beforehand to a record deficit of $500 in 2004 itself. Observers believe that this huge budget deficit is unsustainable and thus will eventually ruin the US economy.

It is no secret that US economic expansion in the 1990s had been sustained with money borrowed abroad. American companies accrued huge debts, often to buy back company shares. American consumer debt is enormous and continues to grow, with no end in sight. In addition, the spending boom has generated record trade deficits, including $500 billion in 2002. To finance current-account deficits, the USA has been forced to borrow approximately $2 billion every working day, most of which comes from foreign investors. Japanese and other foreign investors continue to fund the US economy even today (see figure 3.1), but the boom in the US economy and its stock market ended in 2000. In addition, nobody thinks that this kind of inflow can be sustained indefinitely as war and terrorism fears mount, a change that may boost the inflation rate and hurt corporate profits, the US dollar, and investment returns. The financial reversal would also bring about the collapse of US security policy and of its calculated strategy of world pacification.

When President George W. Bush took office on January 25, 2000, his aides assured allies that America was a team player and would practice "multilateralism." However, Bush opposed a considerable number of multilateral treaties and agreements within 6 months of taking office. Consequently, Bush encountered hostility from US allies in Europe, Asia, and other parts of the world, as the USA shifted its foreign policy from multilateralism under the Clinton Administration to unilateralism under the Bush Administration. Critics charge that international crises, such as arms conflicts in Iraq and North Korea, simultaneously are "the natural consequences of Bush's unilateralism, his militaristic new doctrine of preemption, and his insistence on expanding a justified war against al Qaeda to a misconstrued axis of evil."

The weak performance of both the US economy and its stock market in the past few years, the sinking confidence of American people in their government's ability to govern, and a growing anti-Americanism around the world indicate a possible decline of US power economically and militarily. A decline in American hegemony may play itself out over this decade and the next. In turn, the USA could lose interest in playing the role of global protector, as the European Union becomes a new center of global power and renews competition for international dominance. If the USA is compelled to give away its global power to a more dangerous environment, the chief threat may come not from the likes of Osama bin Laden, but from the return of traditional geopolitical rivalry.

Source: S. H. Kim, *North Korea at a Crossroads*, Jefferson, NC: McFarland, 2003, ch. 9.



Source: International Monetary Fund, *World Economic Outlook* database.
[1]As measured by countries' current (capital) account surplus (deficit).
[2]Other countries include all countries with shares of total surplus less than 2.4%.
[3]As measured by countries' current (capital) account deficit (surplus).
[4]Other countries include all countries with shares of total deficit less than 1.6%.

Figure 3.1 Global capital flows: sources and uses of global capital in 2001

Source: The International Monetary Fund, *Global Financial Stability Report*, Washington, DC, 2004, p. 105.

3.4 How to Reduce a Trade Deficit

Some countries have had trade deficits for many years. But compensating transactions cannot be maintained indefinitely. Therefore, some adjustments must be made to correct trade deficits. A trade deficit may be reduced in several ways: by deflating the economy, by devaluing the currency, and by establishing public control.

3.4.1 Deflating the economy

If a country adopts tight monetary and fiscal policies, its inflation and income decrease. Lower inflation and income are expected to increase exports and reduce imports, thus improving the trade balance. To reduce its trade deficit, therefore, a country should control government budget deficits, reduce growth of money supply, and institute price and wage controls. On the other hand, these policies may slow the economy.

3.4.2 Devaluing the currency

A country may reduce its trade deficit by devaluating its currency against the currencies of major trading partners. A currency devaluation may improve the trade balance because a weak currency makes imported goods more expensive and exported goods less expensive. However, currency devaluation might not correct a trade deficit: (1) if foreign markets do not buy more goods in response to lower prices; (2) if domestic companies do not have the capacity to produce more goods for export; (3) if domestic residents continue to import foreign goods regardless of their higher prices; and (4) if middlemen do not pass on changes in prices to their customers.

3.4.3 Establishing public control

In general, there are two types of public controls: foreign-exchange controls and trade controls. Think, for a moment, of a case in which increased Mexican imports create a shortage in its foreign exchange. Under exchange controls, the Mexican government would force its exporters and other recipients to sell their foreign exchange to the government or to designated banks. Then, the government would allocate this foreign exchange among the various users of foreign exchange. In this way, the Mexican government could restrict Mexican imports to a certain amount of foreign exchange earned by Mexican exports. Thus, imports under exchange controls would be less than they would be under free market conditions.

When governments are faced with a serious payment deficit, they may manipulate exports and imports through tariffs, quotas, and subsidies. High tariffs on imported goods and import quotas by Mexico would reduce Mexican imports. On the other hand, the Mexican government might subsidize certain Mexican exports to make them competitive in world markets and to increase the volume of exports. Special taxes on foreign direct investments by Mexican firms would tend to reduce Mexican capital outflows. However, these protectionist policies might increase inflation, erode purchasing power, and lower the standard of living.

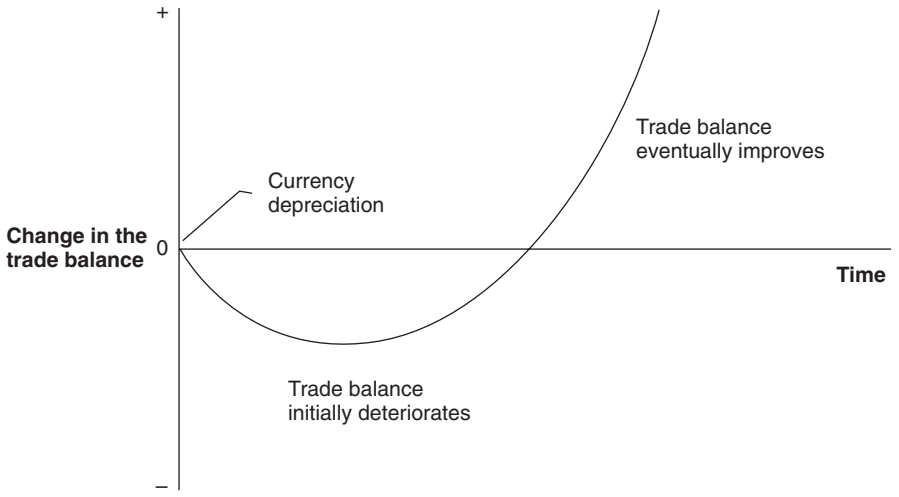


Figure 3.2 The J-curve effect

3.4.4 The J-curve

There are a variety of reasons why currency depreciation will not necessarily improve the balance of trade. One possible reason why a weak currency will not always reduce the trade deficit has to do with the J-curve effect. The **J-curve** is the term most commonly used by economists to describe the relationship between the trade balance and currency devaluation. As illustrated in figure 3.2, the J-curve effect holds that a country's currency depreciation causes its trade balance to deteriorate for a short time, followed by a flattening-out period, and then a significant improvement occurs for an extended period. When a country's currency depreciates against the currencies of major trading partners, the country's exports tend to rise and imports fall, which improves the trade balance. In the short run, however, a country's trade deficit may deteriorate just after its currency depreciates, because the higher cost of imports will more than offset the reduced volume of imports.

This J-curve effect received wide attention in the mid-1980s when the US dollar plunged in the foreign-exchange market, while the US trade deficit hit new peaks (Forsyth 1986). Specifically, the US dollar began to decline after reaching its peak in March 1985, but the US trade deficit hit a new record each year from 1985 through 1987. The US trade deficit began to fall with the rapid expansion of American exports in 1988. Economists estimate that trade patterns typically lag currency changes by at least 18 months. Edwards (1989) and Oskooee and Malixi (1992) examined various cases of devaluations carried out by developing countries in the 1960s through the 1980s. Their studies confirmed the existence of the J-curve effect in about 40 percent of the cases.

SUMMARY

The balance of payments summarizes all international transactions between residents of a country and residents of foreign countries during a specified period. The systematic record of these international transactions requires preestablished principles. These principles include rules or procedures, such as debits and credits, and definitions of terminology, such as the current account.

The balance of payments is neither an income statement nor a balance sheet. The balance of payments is a sources-and-uses-of-funds statement reflecting changes in assets, liabilities, and net worth during a specified period. Increases in assets and decreases in liabilities or net worth constitute debits (uses of funds). On the other hand, decreases in assets and increases in liabilities or net worth represent credits (sources of funds). Some international transactions, such as exports or imports, occur due to purely economic reasons. These transactions are called autonomous transactions. Such transactions as sales of gold or increases in foreign debt take place to account for differences between international payments and receipts. These transactions are often called compensating transactions.

Some countries have had deficits for many years. These deficits cannot be financed indefinitely by compensating transactions. The balance-of-payments deficit can be corrected by deflating the economy, devaluing the currency, and establishing public control. The first two methods are supposed to correct international disequilibrium through changes in prices, income, and interest rates. Government controls, such as exchange and trade controls, can be used to alleviate or correct the balance-of-payments deficit.

Questions

1 What are the four major components of the current account?
2 Briefly describe the financial account.
3 If a country has a deficit on its current account, what are the consequences for the country's balance of payments on financial account? Assume that the country practices a flexible exchange rate system.
4 What is the role of net errors and omissions in the balance of payments? What are the major causes of the net errors and omissions?
5 Most developing countries (excluding oil-exporting countries) have incurred huge balance-of-payments deficits for many years. What alternatives are available to these countries for dealing with their balance-of-payments problems?
6 The US current-account trade deficit has risen sharply since 1997. Discuss some reasons for such a dramatic increase.
7 What is the major difference between the balance of payments and the international investment position? When did the USA become a net debtor nation for the first time since World War I? Explain why the USA became a net debtor nation.
8 What is the balance-of-payments identity?

9 What is adversarial trade? Why do both sides (the buyer and the seller) lose in adversarial trade?
10 Explain why a currency depreciation will not necessarily improve the balance of trade.
11 What is the J-curve?

Problems

1 Answer questions 1(a) through 1(c) using example 3.1.
   (a) Prepare the balance of payments in a good form.
   (b) Does the country have a balance-of-payments deficit or surplus?
   (c) How can the country account for this payments imbalance?
2 Assume that a country has a current-account deficit of $10,000 and a financial-account surplus of $12,000. Assume that the capital account and net errors and omissions are negligible.
   (a) Does the country have a balance-of-payments deficit or surplus?
   (b) What will happen to the country's official reserve account?
3 A country has a merchandise trade surplus of $5,000, an income balance of zero, a current transfer surplus of $3,000, and a current-account deficit of $4,000. What is the service trade balance?
4 Assume that: (1) a country has a current-account surplus of $10,000; (2) its financial account has a deficit of $15,000; and (3) its other two accounts – the capital account and net errors and omissions – are negligible. What is the balance of the country's reserve account? How can the country eliminate the $5,000 imbalance on its balance of payments?

REFERENCES

Bergin, P., "Should We Worry about the Large US Current Account Deficit?" *FRBSF Economic Letter*, Dec. 22, 2002.

Brown, S. and P. Caputo, "China's Growing Economic Influence in East Asia After WTO," *Southwest Economy*, Federal Reserve Bank of Dallas, May/June 2002, pp. 13–15.

The Council of Economic Advisors, *Economic Report of the United States*, Washington, DC: US Government Printing Office, various issues.

Edwards, S., *Real Exchange Rates, Devaluation, and Adjustment: Exchange Rate Policy in Developing Countries*, Cambridge, MA: The MIT Press, 1989.

Fieleke, N. S., *What Is the Balance of Payments?* Boston, MA: Federal Reserve Bank of Boston, 1996.

Forsyth, R. W., "No Overnight Cure: The Trade Deficit Follows the J Curve," *Barron's*, Feb. 10, 1986, p. 28.
International Monetary Fund, *Balance of Payments Statistics Yearbook*, various issues.
International Monetary Fund, *Balance of Payments Manual*, Washington, DC: IMF, 1976.
Kim, S. H., *North Korea at a Crossroads*, Jefferson, NC: McFarland, 2003.
Oskooee, M. B. and M. Malixi, "More Evidence on the J Curve from LDCs," *Journal of Policy Modeling*, Oct. 1992, pp. 641–53.
Rosensweig, J. A. and P. D. Koch, "The US Dollar and the Delayed J-Curve," *Economic Review*, Federal Reserve Bank of Atlanta, July/Aug. 1988, pp. 1–15.
The US Department of Commerce, *Survey of Current Business*, various issues.

Case Problem 3: USA–China Trade Relations

The history of Chinese trade is long and distinct, with the twentieth century being marked by large shifts in policy. A focus on the history of trade between the USA and China helps to reveal some of the fundamental moments in the history of Chinese trade. In 1936, the USA accounted for 22 percent of China's exports and 20 percent of its imports. In 1949, the Chinese Communist Party seized control of China and, after decades of struggle, founded the People's Republic of China. Under this new regime, the economy was completely state controlled. These changes, the Korean War from 1950 to 1953, and the subsequent embargo toward China caused a sharp decline in USA–China trade relations. In 1972, the American share of China's total trade accounted for only 1.6 percent.

In 1978, under the new leadership of Deng Xiaoping, China began the long process of economic reform. Initially focused on just agricultural reform, these economic reforms eventually became a transition to a capitalist and globally integrated economy. Focused on the four modernizations – the modernization of industry, agriculture, science and technology, and national defense – these reforms represented a deep-seated shift in policy and helped to spur a steady growth of USA–China trade. Between 1990 and 2000, total trade rose from $20 million to over $116 billion. By 2000, America had become China's second-largest trade partner and China was the USA's fourth-largest importer, supplying a wide variety of goods. Moreover, investors poured money into China, with $400 billion invested in 2001, $28.5 billion of this coming from the USA alone. It is estimated that by 2010, China's total imports will reach three trillion dollars, a large share of which will come from the USA.

For 13 years, China had applied for WTO membership, but this effort had not been successful, mainly due to US opposition. This opposition was based on a laundry list of economic and political issues, including concerns with human rights, tension between Taiwan and China, China's nuclear arsenal, objections from labor unions in the USA, and the use of protectionist policies by China. "As bad as our trade deficit with China is today, it will grow even worse if we approve a permanent trade deal," said House Minority Whip David Bonior (D., Mich.) back in October 1999. Even with this opposition, on November 15, 1999, an historic agreement was reached between Chinese and American trade negotiators, which set the stage for China's formal entry into the WTO.

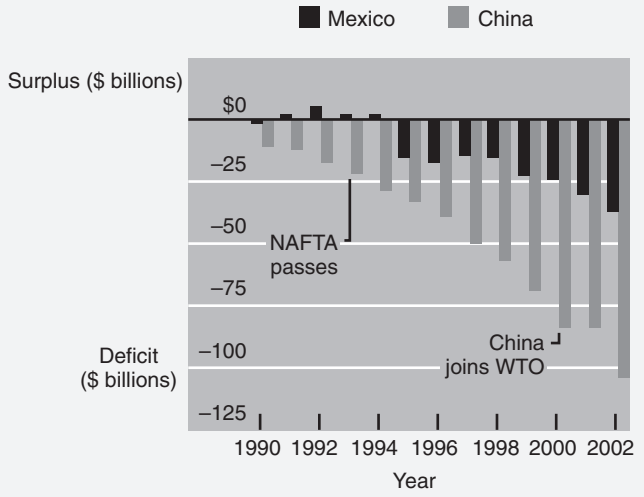


Figure 3.3 US trade balances with Mexico and China
Source: *The Wall Street Journal*, Aug. 4, 2003, p. A4.

One of the major worries by those who opposed the normalization of trade relations with China was concern about a growing trade imbalance between the two countries. According to US trade data, the trade deficit with China was $69 billion in 1999, $83 billion in 2000, $85 billion in 2001, and $103 billion in 2002 (see figure 3.3). Many believed that this growing deficit was due to China's high tariffs and numerous restrictions on American exports. In joining the WTO on December 11, 2001, China agreed to lower its average tariff from 16.7 percent in 2000 to 10 percent in 2005, and to reduce the number of items under import license and quota from approximately 300 to zero in the next 5 years. In addition, China agreed to liberalize foreign investment in banking, insurance, financial services, wholesale/retail trade, and telecommunications. All these industries had been under tight government control until recently.

In return, the USA granted China permanent normalized trade relations status. Without this legislation, China's trade status would be open to yearly debate, as it had been in the past. Additionally, China, as a member of the WTO, now enjoys open markets with all other WTO members, including the USA. One area in which this has provided a great advantage for China's exports is in its textile industry. Textiles have been one of the Chinese major export items but, for years, the USA had imposed a quota on them. With the removal of these tariffs, the Chinese textile industry has boomed and it grew by 27 percent in 2001.

Many US multinational companies are in the midst of an unprecedented wave of shifting capital and technology to plants in China and other low-cost locales. This wave pulls away vast chunks of business that formerly filtered down through the intricate networks of suppliers and producers inside the USA. While the tension is most acute in trade associations and other industry groups, it has recently gained political momentum that threatens to spill over into political debates. To be sure, there are some things that all manufacturers can rally

around, such as the broad push to get China to stop pegging the value of the yuan to the dollar at what many believe is an artificially low level. Some economists believe that the Chinese currency is undervalued by as much as 40 percent, which gives Chinese goods a built-in advantage against identical US products. Even with the unanimity, the Bush Administration does not appear eager to get involved.

In dollar terms, China's economy is about 10 percent of the US economy and 20 percent of Japan's. After adjusting for differences in the cost of living (purchasing power parity), however, China's economy is more than half as large as the US economy and surpassed Japan to become the world's second-largest economy; in 2002, the gross domestic product was $10.1 trillion for the USA, $6 trillion for China, and $3.6 for Japan. It grew 7.3 percent in 2001 and an average of about 9 percent annually between 1980 and 2000. China expects its economy to grow at an annual rate of 6–7 percent over the next 10 years. China's membership of the WTO represents another great step as it continues to move toward a more capitalistic economy. It will increase the opportunities for Chinese growth and will help China play an increasingly large role in the global economy. All of these trends together point to the emergence of China as a dominant, if not the dominant, economic power for the coming century.

China's first manned space shot – the blastoff of a rivalry with the USA and Russia in civil space exploration and military innovation – happened in a flash but reflects the long, methodical effort of a serious program. The Shenzhou V spacecraft, launched on October 15, 2003, circled Earth 14 times before safely parachuting onto the grasslands of Inner Mongolia. The Shenzhou's progress heightened already strong public enthusiasm for the 11-year-old manned program as a symbol of China's rising economic and technical prowess.

Case Questions

1 What are some of the sources of trade friction between China and the USA? Why do some scholars view this friction as a positive sign?
2 What is managed trade and how does it apply to China and the USA?
3 Discuss what steps the USA can take to reduce its trade deficit with China. Mention the deflation of economies, devaluation of the currency, and the establishment of public control.
4 Suppose that the value of the US dollar sharply depreciates. Under these conditions, how would the J-curve discussed in this chapter apply to the trade relationship between China and the USA?
5 Discuss in broad terms the major changes since World War II in the trade relations between China and the USA in terms of actual balance of payments and foreign direct investment.
6 The website of the US Central Intelligence Agency, www.cia.gov, and the website of the US Census Bureau, www.census.gov, both contain economic data and statistics on trade.

Use specific numbers from these two sites to support some of your claims in the answer to question 5.

Sources: Anonymous, "American Firms Rushing to Build in China," *USA Today*, Aug. 2002; anonymous, "Competing with China," *Business Mexico*, July 2002; T. Aeppel, "US–China Trade Becomes a Delicate Issue of Turf," *The Wall Street Journal*, July 23, 2003; F. M. Armbrecht, Jr, "WTO Entry, Government's Welcome Could Spur Foreign R&D in China," *Research Technology Management,* Sept./Oct. 2002; S. Brown and P. Caputo, "China's Growing Economic Influence in East Asia After WTO," *Southwest Economy*, Federal Reserve Bank of Dallas, May/June 2002, pp. 13–15; C. Y. Cheng, "The future prospects of US–China economic relations," *USA Today*, Sept. 2002; H. Cooper, "Trade Gap Sets Record for March – Oil's Rise is Cited; Debate Now Focuses on Status of China," *The Wall Street Journal*, May 22, 2000; and P. Wonacott and G. Winestock, "A Global Journal Report: China and US Make Progress on Trade Rifts," *The Wall Street Journal*, Sept. 26, 2002.