

CHAPTER 4

1. FOREIGN EXCHANGE DEALERS

Most commercial banks in the United States customarily have bought and sold foreign exchange for their customers as one of their standard financial services. But beginning at a very early stage in the development of the over-the-counter market, a small number of large commercial banks operating in New York and other U.S. money centers took on foreign exchange trading as a major business activity. They operated for corporate and other customers, serving as intermediaries and market makers. In this capacity, they transacted business as correspondents for many other commercial banks throughout the country, while also buying and selling foreign exchange for their own accounts. These major dealer banks found it useful to trade with each other frequently, as they sought to find buyers and sellers and to manage their positions. This group developed into an *interbank* market for foreign exchange.

While these commercial banks continue to play a dominant role, being a major dealer in the foreign exchange market has ceased to be their exclusive domain. During the past 25 years, some investment banking firms and other financial institutions have become emulators and direct competitors of the commercial banks as dealers in the over-the-counter market. They now also serve as major dealers, executing transactions that previously would have been handled only by the large commercial banks, and providing foreign exchange services to a variety of customers in competition with the dealer banks. They are now part of the network of foreign exchange dealers that constitutes the U.S. segment of the foreign exchange market. Although it is still called the “interbank” market in foreign exchange, it is more accurately an “interdealer” market.

The 1998 foreign exchange market turnover survey by the Federal Reserve Bank of New York covered the operations of the 93 major foreign exchange dealers in the United States. The total volume of transactions of the reporting dealers, corrected for double-counting among themselves, at \$351 billion per day in traditional products, plus \$32 billion in currency options and currency swaps, represents the estimated total turnover in the U.S. over-the-counter market in 1998.

To be included in the reporting dealers group surveyed by the Federal Reserve, an institution must be located in the United States and play an active role as a dealer in the market. There are no formal requirements for inclusion, other than having a high enough level of foreign exchange trading activity. Of course, an institution must have a name that is known and accepted to enable it to obtain from other participants the credit lines essential to active participation.

Of the 93 reporting dealers in 1998, 82 were commercial banks, and 11 were investment banks or insurance firms. All of the large U.S. money center banks are active dealers. Most of the 93 institutions are located in New York, but a number of them are based in Boston, Chicago, San Francisco, and other U.S. financial centers. Many of the dealer institutions have outlets in other countries as well as in the United States.

Included in the group are a substantial number of U.S. branches and subsidiaries of major foreign banks—banks from Japan, the United Kingdom, Germany, France, Switzerland, and elsewhere. Many of these branches and agencies specialize in dealing in the home currency of their parent bank. A substantial share of the foreign exchange activity of the

dealers in the United States is done by these U.S. branches and subsidiaries of foreign banks.

Some, but not all, of the 93 reporting dealers in the United States act as market makers for one or a number of currencies. A market maker is a dealer who regularly quotes both bids and offers for one or more particular currencies and stands ready to make a two-sided market for its customers. Thus, during normal hours a market maker will, in principle, be willing to commit the firm's capital, within limits, to complete both buying and selling transactions at the prices he quotes, and to seek to make a profit on the spread, or difference, between the two prices. In order to make a profit from this

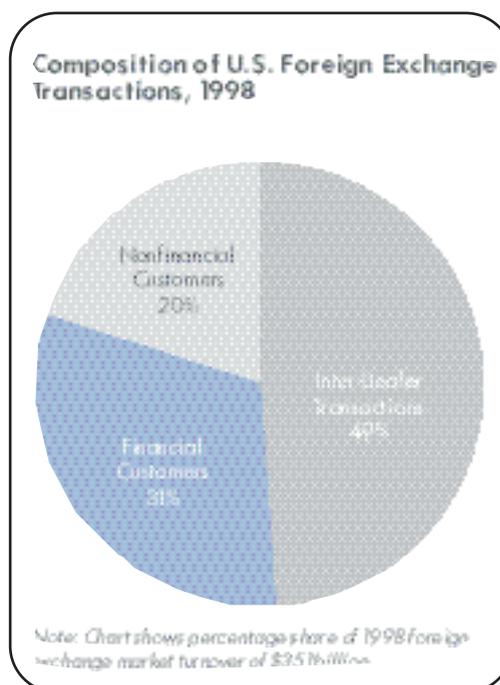
activity, the market maker must manage the firm's own inventory and position very carefully, and accurately perceive the short-term trends and prospects of the market. A market maker is more or less continuously in the market, trading with customers and balancing the flow of these activities with offsetting trades on the firm's own account. In foreign exchange, as in other markets, market makers are regarded as helpful to the functioning of the market—contributing to liquidity and short-run price stability, providing useful price information, smoothing imbalances in the flow of business, maintaining the continuity of trading, and making it easier to trade promptly.

2. FINANCIAL AND NONFINANCIAL CUSTOMERS

According to the 1998 survey, as shown in *Figure 4-1*, 49 percent of the foreign exchange trading activity in the over-the-counter market represented “interdealer” transactions, that is, trading by the 93 reporting dealers among themselves and with comparable dealers abroad. Of the remaining 51 percent of total foreign exchange transactions, financial (non-dealer) customers accounted for 31 percent, and non-financial customers 20 percent.

The range of financial and nonfinancial customers includes such counterparties as: smaller commercial banks and investment banks that do not act as major dealers, firms and corporations that are buying or selling foreign exchange because they (or the customers for whom they are acting) are in the process of buying or selling something else (a product, a service, or a financial asset), managers of money funds, mutual funds, hedge

FIGURE 4-1



funds, and pension funds; and even high net worth individuals. For such intermediaries and end-users, the foreign exchange transaction is part of the payments process—that is, a means of completing some commercial, investment, speculative, or hedging activity.

Over the years, the universe of foreign exchange end-users has changed markedly, reflecting the changing financial environment. By far the most striking change has been the spectacular growth in the activity of those engaged in international capital movements for investment purposes. A generation ago, with relatively modest overseas investment flows, foreign exchange activity in the United States was focused on international trade in goods and services. Importers and exporters accounted for the bulk of the foreign exchange that was bought from and sold to final customers in the United States as they financed the nation's overseas trade.

But investment to and from overseas—as indicated by the capital flows, cross-border bank claims, and securities transactions reported in Chapter 1—has expanded far more rapidly than has trade. Institutional investors, insurance companies, pension funds, mutual funds, hedge funds, and other investment funds have, in recent years, become major participants in the foreign exchange markets. Many of these investors have begun to take a more global approach to portfolio management. Even though these institutions in the aggregate still hold only a relatively small proportion (5 to 10

percent) of their investments in foreign currency denominated assets, the amounts these institutions control are so large that they have become key players in the foreign exchange market. In the United States, for example, mutual funds have grown to more than \$5 trillion in total assets, pension funds are close to \$3 trillion, and insurance companies about \$2 1/2 trillion. The hedge funds, though far smaller in total assets, also are able to play an important role, given their frequent use of high leverage and, in many cases, their investors' financial strength and higher tolerance for risk.

Given the large magnitudes of these institutions' assets, even a modest shift in emphasis toward foreign investment can mean large increases in foreign exchange transactions. In addition, there has been a tendency among many funds managers worldwide to manage their investments much more actively, and with greater focus on short-term results. Rapid growth in derivatives and the development of new financial instruments also have fostered international investment.

Reflecting these developments, portfolio investment has come to play a very prominent role in the foreign exchange market and accounts for a large share of foreign exchange market activity. The role of portfolio investment may continue to grow rapidly, as fund managers and investors increase the level of funds invested abroad, which is still quite modest, especially relative to the corresponding levels in many other advanced economies.

3. CENTRAL BANKS

All central banks participate in their nations' foreign exchange markets to some degree, and their operations can be of great importance to

those markets. But central banks differ, not only in the extent of their participation, but also in the manner and purposes of their involvement. The

role of the Federal Reserve in the foreign exchange market is discussed more fully in Chapter 9.

Intervention operations designed to influence foreign exchange market conditions or the exchange rate represent a critically important aspect of central banks' foreign exchange transactions. However, the intervention practices of individual central banks differ greatly with respect to objectives, approaches, amounts, and tactics.

Unlike the days of the Bretton Woods par value system (before 1971), nations are now free, within broad rules of the IMF, to choose the exchange rate regime they feel best suits their needs. The United States and many other developed and developing nations have chosen an

“independently floating” regime, providing for a considerable degree of flexibility in their exchange rates. But a large number of countries continue to peg their currencies, either to the U.S. dollar or some other currency, or to a currency basket or a currency composite, or have chosen some other regime to limit or manage flexibility of the home currency (Figure 4-2). The choice of exchange rate regime determines the basic framework within which each central bank carries out its intervention activities.

The techniques employed by a central bank to maintain an exchange rate that is pegged or closely tied to another currency are straightforward and have limited room for maneuver or change. But for the United States and others with more flexible regimes, the approach to intervention can be

FIGURE 4 - 2

CLASSIFICATION OF EXCHANGE RATE ARRANGEMENTS, SEPTEMBER 1997*

Regime	Number of Countries
Independently Floating	51
Managed Floating	47
Limited Flexibility	16
European Monetary System ¹	12
Other	4
Pegged to	67
U.S. dollar	21
French franc	15
Other currency	9
Composite ²	22
Total	181

*The International Monetary Fund classification of exchange rate regimes with “independently floating” representing the highest degree of flexibility, followed by “managed floating”; of the seven largest industrial democracies, four (United States, Japan, Canada, and United Kingdom) belong to the independently floating group, and three (France, Germany, and Italy) participate in the European Monetary System arrangement.

¹Refers to the arrangement under the European Monetary System covering Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Portugal and Spain.

²Refers to countries where exchange rates are pegged to various “baskets” of currencies, including two countries (Libya and Myanmar) that peg their currencies to the SDR basket.

varied in many ways—whether and when to intervene, in which currencies and geographic markets, in what amounts, aggressively or less so, openly or discreetly, and in concert with other central banks or not. The resolution of these and other issues depends on an assessment of market conditions and the objectives of the intervention. As discussed in Chapter 9, the United States, operating under the same broad policy guideline over a number of years, has experienced both periods of relatively heavy intervention and periods of minimal activity.

Foreign exchange market intervention is not the only reason central banks buy and sell foreign currencies. Many central banks serve as their government's principal international banker, and handle most, and in some cases all, foreign exchange transactions for the government as well as for other public sector enterprises, such as the post office, electric power utilities, and nationalized airline or railroad. Consequently, even without its own intervention operations, a central bank may be operating in the foreign exchange market in

order to acquire or dispose of foreign currencies for some government procurement or investment purpose. A central bank also may seek to accumulate, reallocate among currencies, or reduce its foreign exchange reserve balances. It may be in the market as agent for another central bank, using that other central bank's resources to assist it in influencing that nation's exchange rate. Alternatively, it might be assisting another central bank in acquiring foreign currencies needed for the other central bank's activities or business expenditures.

Thus, for example, the Foreign Exchange Desk of the Federal Reserve Bank of New York engages in intervention operations only occasionally. But it usually is in the market every day, buying and selling foreign currencies, often in modest amounts, for its "customers" (i.e., other central banks, some U.S. agencies, and international institutions). This "customer" business provides a useful service to other central banks or agencies, while also enabling the Desk to stay in close touch with the market for the currencies being traded.

4. BROKERS

► In the Over-the-Counter Market

The role of a broker in the OTC market is to bring together a buyer and a seller in return for a fee or commission. Whereas a "dealer" acts as principal in a transaction and may take one side of a trade for his firm's account, thus committing the firm's capital, a "broker" is an intermediary who acts as agent for one or both parties in the transaction and, in principle, does not commit capital. The dealer hopes to find the other side to the transaction and earn a spread by closing out the position in a subsequent trade with another party, while the broker relies on the commission

received for the service provided (i.e., bringing the buyer and seller together). Brokers do not take positions or face the risk of holding an inventory of currency balances subject to exchange rate fluctuations. In over-the-counter trading, the activity of brokers is confined to the dealers market. Brokers, including "voice" brokers located in the United States and abroad, as well as electronic brokerage systems, handle about one-quarter of all U.S. foreign exchange transactions in the OTC market. The remaining three-quarters takes the form of "direct dealing" between dealers and other institutions in the market. The present

24 percent share of brokers is down from about 50 percent in 1980 (Figure 4-3). The number of foreign exchange brokers in the United States was 9 in 1998, including voice brokers and the two major automated order-matching, or electronic brokerage systems. The number of brokers surveyed is down from 17 in 1995.

The share of business going through brokers varies in different national markets, because of differences in market structure and tradition. Earlier surveys showed brokers' share averages as low as 10-15 percent in some markets (Switzerland and South Africa) and as high as 45-50 percent in others (France, Netherlands, and Ireland). Many U.S. voice broker firms have branches or affiliations with brokers in other countries. It is common for a deal to be brokered between a bank in the United States and one in London or elsewhere during the period of the day when both markets are active.

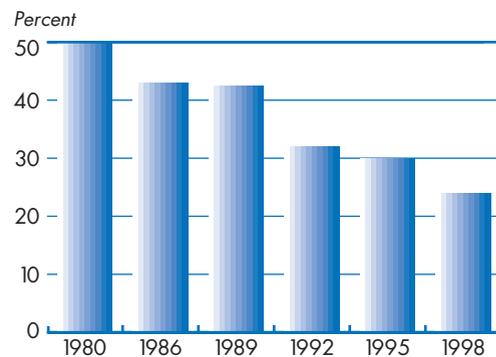
In the OTC market, the extent to which brokering, rather than direct dealing, is used varies, depending on market conditions, the currency and type of transaction being undertaken, and a host of other factors. Size is one factor—the average transaction is larger in the voice brokers market than in the market as a whole. Using a broker can save time and effort, providing quick access to information and a large number of institutions' quotes, though at the cost of a fee. Operating through a broker can provide at least a degree of confidentiality, when a trader wants to pursue a particular strategy without his name being seen very widely around the market in general (counterparties to each transaction arranged by a broker will, of course, be informed, but after the fact). The brokers market provides access to a wide selection of banks, which means greater liquidity. In addition, a market maker may wish to show only one side of the price—that is, indicate a price at

which the market maker is willing to buy, or a price at which the market maker is willing to sell, but not both—which can be done in the brokers market, but generally not in direct dealing. Of course, a trader will prefer to avoid paying a broker's fee if possible, but doesn't want to miss a deal just to avoid a fee.

Foreign exchange brokerage is a highly competitive field and the brokers must provide service of high quality in order to make a profit. Although some tend to specialize in particular currencies, they are all rivals for the same business in the inter-dealer market. Not only do brokers compete among themselves for broker business—voice brokers against each other, against voice brokers located abroad, and against electronic broking systems—but the broker community as a whole competes against banks and other dealer institutions that have the option of dealing directly with each other, both in their local markets and abroad, and avoiding the brokers and the brokers' fees.

FIGURE 4 - 3

**Brokers' Share of Daily Turnover
in the U.S. Foreign Markets, 1980-98**



Note: Percent of total foreign exchange market turnover, adjusted for double-counting.
Source: Federal Reserve Bank of New York.

► Voice Brokers

Skill in carrying out operations for customers and the degree of customers' confidence determine a voice broker's success. To perform their function, brokers must stay in close touch with a large number of dealers and know the rates at which market participants are prepared to buy and sell. With 93 active dealers in New York and a much larger number in London, that can be a formidable task, particularly at times of intense activity and volatile rate movements. Information is the essential ingredient of the foreign exchange market and the player with the latest, most complete, and most reliable information holds the best cards. As one channel, many voice brokers have open telephone lines to many trading desks, so that a bank trader dealing in, say, sterling, can hear over squawk boxes continuous oral reports of the activity of brokers in that currency, the condition of the market, the number of transactions occurring, and the rates at which trading is taking place, though traders do not hear the names of the two banks in the transaction or the specific amounts of the trade.

► Automated Order-Matching, or Electronic Broking Systems

Until 1992, all brokered business in the U.S. OTC market was handled by voice brokers. But during the past few years, *electronic broker systems* (or automated order-matching systems) have gained a significant share of the market for spot transactions. The two electronic broking systems currently operating in the United States are Electronic Brokerage Systems, or EBS, and Reuters 2000-2. In the 1998 survey, electronic broking accounted for 13 percent of total market volume in the United States, more than double its market share three years earlier. In the

brokers market, 57 percent of turnover is now conducted through order-matching systems, compared with 18 percent in 1995.

With these electronic systems, traders can see on their screens the bid and offer rates that are being quoted by potential counterparties acceptable to that trader's institution (as well as quotes available in the market more broadly), match an order, and make the deal electronically, with back offices receiving proper notification.

The electronic broking systems are regarded as fast and reliable. Like a voice broker, they offer a degree of anonymity. The counterparty is not known until the deal is struck, and then only to the other counterparty. Also, the systems can automatically manage credit lines. A trader puts in a credit limit for each counterparty that he is willing to deal with, and when the limit is reached, the system automatically disallows further trades. The fees charged for this computerized service are regarded as competitive. The automated systems are already widely used for certain standardized operations in the spot market, particularly for smaller-sized transactions in the most widely traded currency pairs. Many market observers expect these electronic broking or order-matching systems to expand their activities much further and to develop systems to cover additional products, to the competitive disadvantage, in particular, of the voice brokers. Some observers believe that automated systems and other technological advances have substantially slowed the growth in market turnover by reducing "daisy chaining" and the "recycling" of transactions through the markets, as well as by other means. (Electronic broking is discussed further in Chapter 7.)

► **In the Exchange-Traded Market**

In the exchange-traded segment of the market, which covers currency futures and exchange-traded currency options, the institutional structure and the role of brokers are different from those in the OTC market.

In the exchanges, orders from customers are transmitted to a *floor broker*. The floor broker then tries to execute the order on the floor of the exchange (by open outcry), either with another floor broker or with one of the *floor traders*, also called “locals,” who are members of the exchange on the trading floor, executing trades for themselves.

Each completed deal is channeled through the clearinghouse of that particular exchange by a

clearing member firm. A participant that is not a clearing member firm must have its trades cleared by a clearing member.

The clearinghouse guarantees the performance of both parties, assuring that the long side of every short position will be met, and that the short side of every long position will be met. This requires (unlike in the OTC market) payment of initial and maintenance margins to the clearinghouse (by buyers and sellers of futures and by writers, but not holders, of options). In addition, there is daily marking to market and settlement. Thus, frequent payments to (and receipts from) brokers and clearing members may be called for by customers to meet these daily settlements.