

**CHAPTER 1**

In a universe with a single currency, there would be no foreign exchange market, no foreign exchange rates, no foreign exchange. But in our world of mainly national currencies, the foreign exchange market plays the indispensable role of providing the essential machinery for making payments across borders, transferring funds and purchasing power from one currency to another, and determining that singularly important price, the exchange rate. Over the past twenty-five years, the way the market has performed those tasks has changed enormously.

**1. HOW THE GLOBAL ENVIRONMENT HAS CHANGED**

Since the early 1970s, with increasing internationalization of financial transactions, the foreign exchange market has been profoundly transformed, not only in size, but in coverage, architecture, and mode of operation. That transformation is the result of structural shifts in the world economy and in the international financial system. Among the major developments that have occurred in the global financial environment are the following:

▶ *A basic change in the international monetary system*, from the fixed exchange rate “par value” requirements of Bretton Woods that existed until the early 1970s to the flexible legal structure of today, in which nations can choose to float their exchange rates or to follow other exchange rate regimes and practices of their choice.

▶ *A tidal wave of financial deregulation throughout the world*, with massive elimination of government controls and restrictions

in nearly all countries, resulting in greater freedom for national and international financial transactions, and in greatly increased competition among financial institutions, both within and across national borders.

▶ *A fundamental move toward institutionalization and internationalization of savings and investment*, with funds managers and institutions around the globe having vastly larger sums available, which they are investing and diversifying across borders and currencies in novel ways and in ever larger amounts as they seek to maximize returns.

▶ *A broadening and deepening trend toward international trade liberalization*, within a framework of multilateral trade agreements, such as the Tokyo and the Uruguay Rounds of the General Agreement on Tariffs and Trade, the North American Free Trade Agreement, and U.S. bilateral trade initiatives with China, Japan, and the European Union.

► *Major advances in technology*, making possible instantaneous real-time transmission of vast amounts of market information worldwide, immediate and sophisticated manipulation of that information to identify and exploit market opportunities, and rapid and reliable execution of financial transactions—all occurring with a level of efficiency and reduced costs not dreamed possible a generation earlier.

► *Breakthroughs in the theory and practice of finance*, resulting not only in the development of innovative new financial instruments and derivative products, but also in advances in thinking that have changed our understanding of the financial system and our techniques for operating within it.

The common theme underlying all of these developments is the role of markets—the growth and development of markets, enhanced freedom and competition in markets, improvements in the efficiency of markets, increased reliance on market forces and mechanisms, and the creation of better market techniques and instruments.

The interplay of these forces, feeding off each other in a dynamic and synergistic way, created a global environment of creativity and ferment. In the 1970s, exchange rates became more volatile and imbalances in international payments grew much larger for well-known reasons: the advent of

a floating exchange rate system, deregulation, and major macroeconomic shifts in the world economy. That caused financing needs to expand, which—at a time of rapid technological advance—provided fertile ground for the development of new financial products and mechanisms. These innovations helped market participants circumvent existing controls and encouraged further moves toward deregulation, which led to additional new products, facilitated the financing of still larger imbalances, and encouraged a trend toward institutionalization of savings and diversification of investment. Financial markets grew progressively larger and more sophisticated, integrated, and efficient.

In that environment, foreign exchange trading increased rapidly and changed intrinsically. The market has expanded from one of banks to one in which many other kinds of financial and non-financial institutions also participate—including nonfinancial corporations, investment firms, pension funds, and hedge funds. Its focus has broadened from servicing importers and exporters to handling the vast amounts of overseas investment and other capital flows that currently take place. It has evolved from a series of loosely connected national financial centers to a single integrated international market that plays a far more extensive and direct role in our economies, affecting all aspects of our lives and our prosperity.

## 2. HOW FOREIGN EXCHANGE TURNOVER HAS GROWN

In 1998, the Federal Reserve's most recently published survey of reporting dealers in the United States estimated that foreign exchange turnover in the U.S. market was \$351 billion a day, after adjustments for

double counting. That total is an increase of 43% above the estimated turnover in 1995 and more than 60 times the turnover in 1977, the first year for which roughly comparable survey data are available.

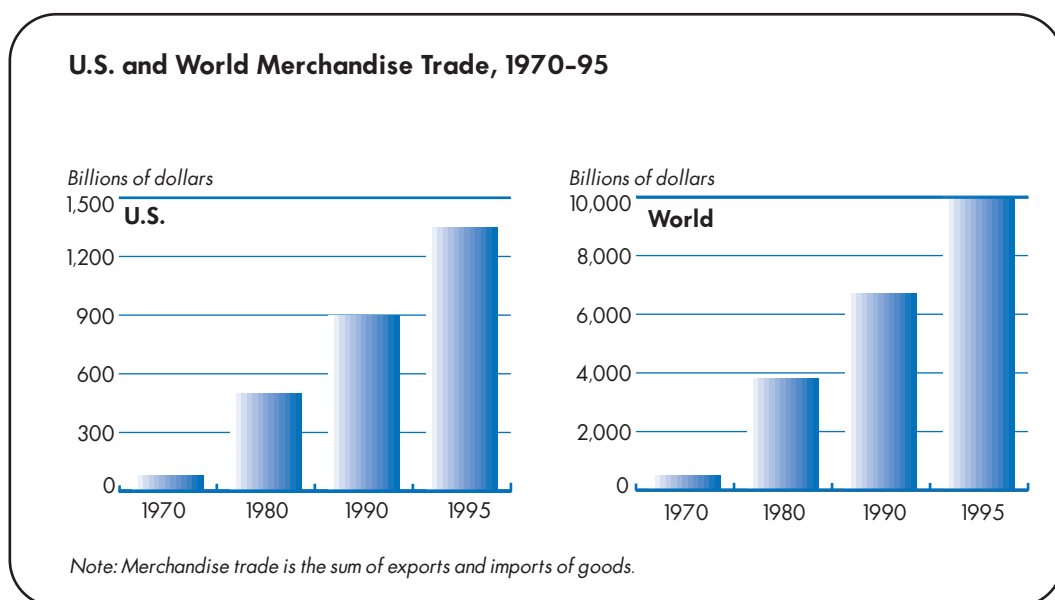
In some ways, this estimate understates the growth and the present size of the U.S. foreign exchange market. The \$351 billion estimated daily turnover covered only the three *traditional* instruments in the “over-the-counter” (OTC) market—*spot*, *outright forwards*, and *foreign exchange (FX) swaps*; it did not include *over-the-counter currency options* and *currency swaps* traded in the OTC market, which totaled about \$32 billion a day in notional value (or face value) in 1998. Nor did it include the two products traded, not “over-the-counter,” but in organized exchanges—*currency futures* and *exchange-traded currency options*, for which the notional value of the turnover was perhaps \$10 billion per day.<sup>1</sup>

The global foreign exchange market also has shown phenomenal growth. In 1998, in a survey under the auspices of the Bank for International Settlements (BIS), global turnover of reporting dealers was estimated at about \$1.49 trillion per day for the traditional products, plus an

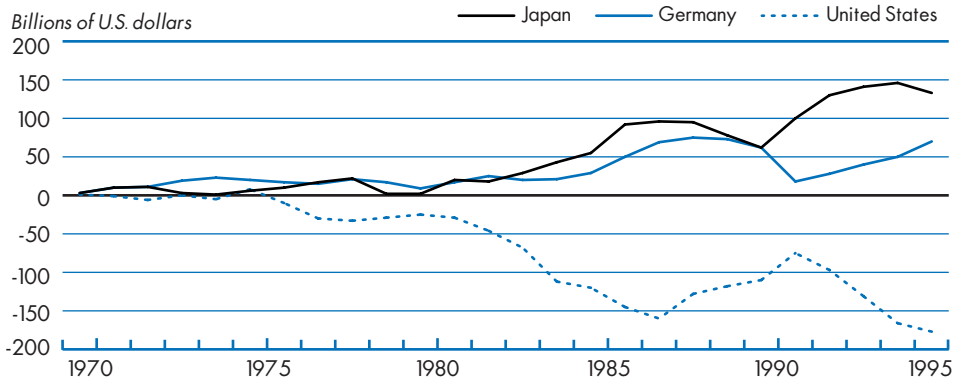
additional \$97 billion for *over-the-counter* currency options and currency swaps, and a further \$12 billion for currency instruments traded on the organized exchanges. In the traditional products, global foreign exchange turnover, measured in current exchange rates, increased by more than 80 percent between 1992 and 1998.

The expansion in foreign exchange turnover, in the United States and globally, reflects the continuing growth of international trade and the prodigious expansion in global finance and investment during recent years. With respect to trade, the dollar value of United States international transactions in goods and services—the sum of exports and imports—tripled between 1980 and 1995 to around 15 times its 1970 level. International trade in the global economy also has expanded at a rapid pace. World merchandise trade is now more than 2½ times its 1980 level (Figure 1-1).

FIGURE 1-1

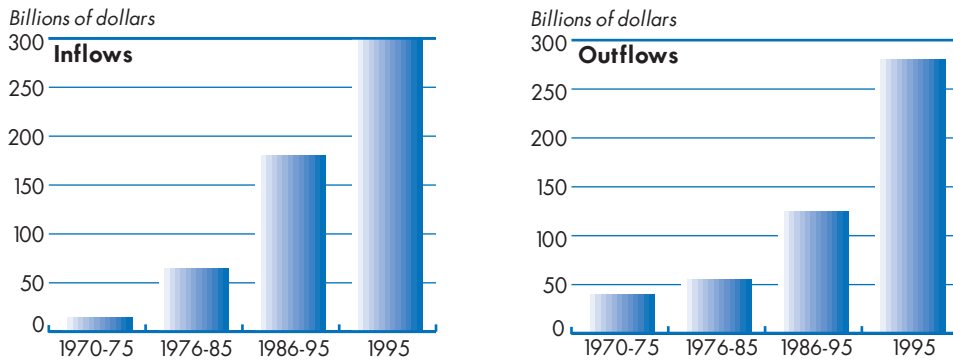


**Merchandise Trade Balance**



Note: Merchandise trade balance is the gap between exports and imports of goods.

**U.S. International Capital Flows, 1970-95 (Annual Rate)**



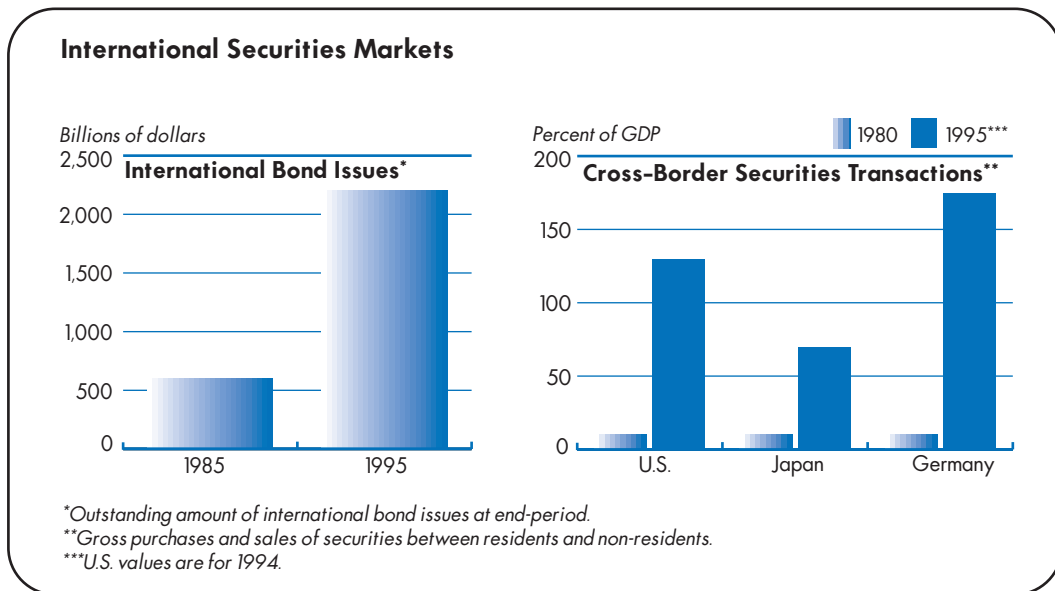
Note: Both inflows and outflows of capital exclude official capital movements.

But international trade cannot account for the huge increase in the U.S. foreign exchange turnover over the past twenty-five years. The enormous expansion of international capital transactions, both here and abroad, has been a dominant force. U.S. international capital inflows, including sales of U.S. bonds and equities

to foreigners, acquisition of U.S. factories by foreigners, and bank deposit inflows, have averaged more than \$180 billion per year since the mid-80s.

Large and persistent external trade and payments deficits in the United States and

FIGURE 1-2



corresponding surpluses abroad have contributed to the growth in financing. Through much of the period since 1983, the United States has recorded trade deficits in the range of \$100-\$200 billion per year, while Japan and, to a lesser extent, Germany have registered substantial trade surpluses. In contrast, all three countries experienced only modest trade deficits or surpluses through the 1960s and early 1970s.

The internationalization of financial activity has increased rapidly. Cross-border bank claims are now nearly five times the level of 15 years ago; as a percentage of the combined GDP of the OECD countries, these claims have risen from about 25 percent in 1980 to about 42

percent in 1995. During that same period, cross-border securities transactions in the three largest economies—United States, Japan, and Germany—expanded from less than 10 percent of GDP to around 70 percent of GDP in Japan and to well above 100 percent of GDP in Germany and the United States (Figure 1-2). Annual issuance of international bonds has more than quadrupled during the past ten years (Figure 1-2). Between 1988 and 1993, securities settlements through Euroclear and Cedel—the two main Euro market clearing houses—increased six-fold.

All of this provided fertile ground for growth in foreign exchange trading.