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American





THE U.S. BOND MARKET:



### *The Bond Market Is Vital to the American Economy.*

The bond market raises the capital needed to build infrastructure and housing, spur economic development, create jobs and enhance America's competitiveness in world markets. In one way or another, the bond market touches the life of every American. Bonds lower the cost to taxpayers of financing the public debt, reduce the cost of a home mortgage, enable corporations to obtain capital for expansion and provide financing for schools, parks, hospitals, low-income housing and a multitude of other public works that enhance the quality of life.

## The Role of the Bond Market...

In its basic form, a bond is a loan. It reflects a promise by a borrower (the issuer of the bond) to repay the amount borrowed at a specific date in the future, plus interest at an agreed-upon rate.

The bond market is the channel through which governments and corporations that need to borrow money are matched with investors who have funds to lend. Bond dealers at securities firms and banks act as intermediaries, buying from issuers and selling to investors in the primary market. Once the bonds have been issued, bond dealers use their capital to maintain active secondary markets, bidding for bonds that investors wish to sell and offering bonds from their inventory to investors who wish to buy.

Today's U.S. bond market, representing more than \$11.0 trillion in outstanding debt obligations, is by far the world's largest securities market, larger even than the U.S. stock market, which had a combined market value of approximately \$8.9 trillion through the end of 1996.

The bond market functions largely as an "over-the-counter" market. The "counters" are highly sophisticated electronic-information, communications and processing networks through which securities are bought and sold from dealer to dealer, who in turn buy from and sell to investors.

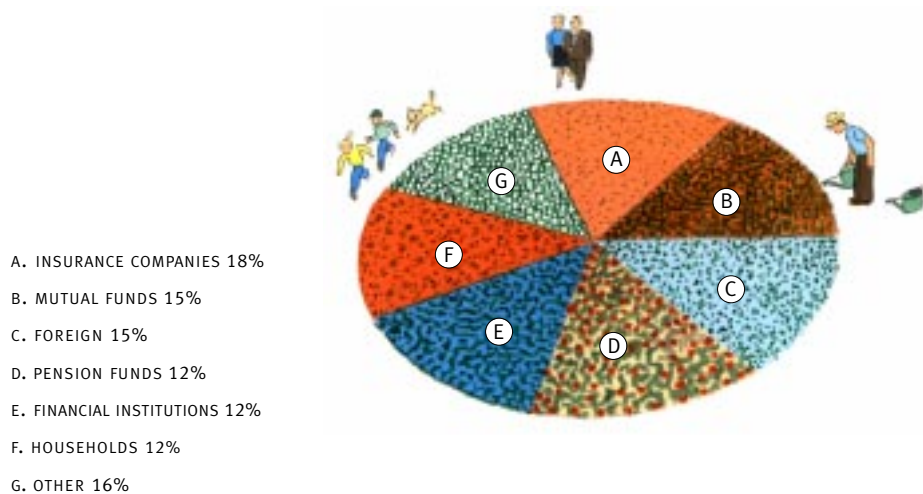
The bond market's liquidity and efficiency are continuously improved by competition, standardized market practices and technology-based innovations in the structure and trading of securities.

THE BOND MARKET  
VERSUS  
THE STOCK MARKET



\$8.9 TRILLION      \$11.1 TRILLION  
TOTAL OUTSTANDING

## WHO OWNS BONDS



### *Who Buys Bonds and Why...*

Bonds are bought by thousands of institutions, including mutual funds, pension funds, insurance companies, commercial banks, corporations, state and local governments and international investors such as central banks. Millions of individual investors also buy or own bonds, either directly or through mutual funds or pension plans. In general, bond investors are looking for dependable income, relative safety and portfolio diversification. A strategy combining both bonds and stocks in a portfolio generally provides for a more stable investment performance over time than one limited to just one or the other. Municipal bonds and Treasury securities can also offer significant tax advantages. More information on who buys specific types of bonds is included in later sections of this booklet.

## How to Interpret Fluctuations in the Bond Market...

The single most important factor in understanding fluctuations in the bond market is the impact that changes in the prevailing level of interest rates have on the market value of all outstanding bonds.

Interest rates change in response to a number of things: changes in supply and demand of credit, Federal Reserve policy, fiscal policy, exchange rates, economic conditions, market psychology and, most important for the bond market, changes in expectations about inflation. The public is sometimes puzzled by the fact that the bond market often reacts negatively to positive economic news. The simple explanation is that the bond market acts as a barometer for inflation. Higher inflation is feared by bond investors. Because it reduces the future buying power of fixed interest payments that investors will receive, inflation lowers the value of bonds. Any economic development or report that raises the specter of higher rates of inflation — for example, lower unemployment or higher retail sales — tends to weaken bond market prices. Conversely, negative news, such as higher unemployment or weak GDP growth, reduces inflationary concerns, and bond prices tend to rise.

BOND PRICES AND YIELDS  
MOVE IN  
OPPOSITE DIRECTIONS



TRACKING

INTEREST RATES:

30-YEAR TREASURY BOND



### *Why Interest Rates Are Important to You...*

Bond investors, or anyone who plans to buy a home, car or major appliance on credit, can follow the direction of interest rates by following the yield on the 30-year Treasury bond in the newspaper or on TV. Widely regarded as the “bell-wether” of the bond market, it is analogous in some ways to the Dow Jones Industrial Average for the stock market.

*And now, let's follow a typical family through one day as it is affected by each part of the bond market.*

## U.S. TREASURY MARKET

When the federal government spends more than it receives in tax revenues, it must borrow to finance the deficit. The Treasury securities market is an efficient means of financing ongoing federal government operations at the lowest possible cost to taxpayers. Because the securities carry the “full-faith-and-credit” backing of the U.S. government, they have long been considered the safest investment in the world. Maintaining that reputation for safety and ensuring the market’s liquidity and efficiency are of immense importance to U.S. taxpayers. An increase of only one hundredth of one percent (.0001) in the interest rate on new U.S. government bonds could cost taxpayers hundreds of millions of dollars annually!

The Federal Reserve System, through the New York Fed, uses the Treasury market to implement mone-

tary policy. In order to increase the money supply, it buys Treasury securities, injecting funds into the economy and reducing interest rates. To reduce the money supply, it sells Treasury securities, taking money out of the economy and raising interest rates. In this way, the Fed attempts to manage price inflation in the economy.

The U.S. Treasury issues its securities through regularly scheduled public auctions. Key participants in the auction process are a group of investment firms and banks, known as Primary Dealers, that are obligated to bid at every auction and to make continuous markets in Treasury securities. Once the securities are issued, Primary Dealers provide bids and offers in the secondary market. Dealers are aided by brokers, who act as intermediaries on trades between dealers. Trading volume in the Treasury securities market averages over \$200 billion a day, making it the world’s most liquid securi-



ties market. Indeed, the liquidity and efficiency of the market help the U.S. dollar to be the world's preeminent currency of exchange.

The U.S. Treasury is the largest issuer of debt securities in the world, with an estimated \$3.5 trillion in marketable securities currently outstanding. Treasury securities are bought and sold worldwide by a wide range of institutional investors — including pension funds, money market funds, commercial banks, insurance companies, corporations, state and local governments, securities dealers and international investors. Approximately 5 percent of outstanding marketable Treasury securities are directly in the hands of individual investors. However, many large institutional investors, like pension funds, mutual funds and insurance companies, hold Treasury securities for the benefit of individuals.

More than 50,000 state and local governments and their agencies borrow money by issuing bonds to build, repair or improve schools, streets, highways, hospitals, bridges, low-income housing, water and sewer systems, ports, airports and many other public works. Projects funded by municipal bonds have a positive impact on the surrounding communities by creating jobs, strengthening the infrastructure required to maintain a competitive business environment and improving the quality of life.

Municipal issuers repay their debts in two ways: Projects that benefit the entire community, such as schools, courthouses and municipal office buildings, are typically funded by general obligation bonds, which are repaid by tax revenues. Projects that benefit only their users, such as utilities and toll roads, are typically funded by revenue bonds, which are often repaid with fees collected from people who use the services or facilities.

When the federal income tax law was adopted in 1913, the interest on municipal bonds was excluded from federal taxation. As a result, municipal bond investors are willing to accept lower yields than they can get from taxable investments; and state and local governments can borrow at interest rates that are, on average, 25 to 30 percent lower than would otherwise be possible.

The municipal securities market has a record of safety second only to that of the U.S. Treasury securities market. Individuals investing directly or through mutual funds, money market funds and bank personal trust accounts hold about 74 percent of the \$1.3 trillion of municipal debt outstanding. Property and casualty insurance companies and commercial banks are the other major investors, holding about 13 percent and 7 percent, respectively.



## CORPORATE BOND MARKET

Corporations raise capital to finance investments in facilities, equipment, research, development, new technology and general business expansion. Such investment helps create new jobs and enhance productivity, which ultimately improves the quality of life for all Americans. In deciding how to raise capital for investment, corporations can issue equity securities, borrow in the debt markets or pursue a mix of both. The driving force behind a corporation's financing strategy is the need to minimize its cost of capital.

A wide variety of corporate debt securities are available to allow businesses to match certain financing requirements with investor needs.

By taking advantage of changing market conditions, corporate bond issuers can realize lower borrowing costs, which in turn result in lower production costs and help American corporations compete in today's global markets. Most types of debt securities offer investors a predictable cash flow and rate of return. They are also generally secure investments because, as creditors, bondholders have a high claim on the corporation's income and assets.

At issuance, corporate bonds are purchased by underwriters, who then make them available for sale to investors. The vast majority of corporate bonds trade in an efficient over-the-counter market maintained by national and regional bond dealers. This large liquid market is now valued at approximately \$2.0 trillion. Investors in corporate bonds include both individuals and large financial institutions.



While governments and corporations typically tap the securities markets for long-term funding needs, they may also need to issue debt instruments for shorter periods to finance imports, to meet seasonal cash-flow needs or to create “bridge” financing until conditions are right for longer-term debt issues. To obtain this type of short-term financing, they can turn to the “money market,” which includes bankers’ acceptances, commercial paper and certificates of deposit (CDs).

Used primarily in trade finance, bankers’ acceptances are guarantees of payment that permit international trade to function smoothly without the risk that goods shipped will not be paid for or that payments will be made

for goods sold that don’t meet specifications. Commercial paper, typically the lowest-cost short-term financing for creditworthy issuers, consists of unsecured promissory notes, often supported by bank credit lines, with maturities of up to 270 days, but generally extending less than a month. Foreign corporations can issue dollar-denominated commercial paper, and municipalities issue tax-exempt commercial paper or other short-term instruments to raise cash in anticipation of tax receipts or as interim financing prior to a bond sale. Certificates of deposit are negotiable debt instruments issued by banks and thrift institutions against funds deposited for specified periods.

The generally short maturities of money market instruments permit firms to be flexible in funding short-term cash needs that may fluctuate

unpredictably and to take advantage of lower interest rates that typically exist in the shorter maturity ranges. Additionally, the money market’s efficiency, liquidity and size, estimated currently at \$1.4 trillion, frequently make these instruments cost-effective alternative funding sources relative to bank loans.

From the investor’s perspective, money market instruments represent a liquid, low-risk investment that generally offers a higher yield than bank deposits. The rise in popularity of money market mutual funds, beginning in the early 1980s, has been a major factor in the growth of demand for money market instruments. Mutual funds and other large investors are the principal investors in money market instruments.



## FEDERAL AGENCY SECURITIES MARKET

Certain U.S. government agencies and government-sponsored enterprises (GSEs) issue their own debt securities to finance activities supported by public policy, such as home ownership, farming, small-business operations and education. These issuers are able to borrow at favorable rates and channel the proceeds into programs that make credit available to sectors of the economy that would not otherwise enjoy such affordable sources of funding.

The federal agency market includes debt securities issued by the Federal National Mortgage Association (Fannie Mae); the Federal Home Loan Mortgage Corporation (Freddie Mac); the Federal Farm Credit System, which includes the Farm Credit System Financial Assistance Corporation and the Federal Agricultural Mortgage Corporation (Farmer Mac);

the Federal Home Loan Banks; the Student Loan Marketing Association (Sallie Mae); the College Construction Loan Insurance Association (Connie Lee); the Small Business Administration; and the Tennessee Valley Authority, among others.

Although most agency securities do not carry the government's full-faith-and-credit guarantee, their credit quality is enhanced by their government-sponsored status. With an estimated \$845 billion in debt outstanding, the agency securities market is smaller than the Treasury market but functions with comparable efficiency and liquidity due to strong investor interest and competition among dealers.

Investors in agency securities are primarily institutional in nature and include state and local governments, mutual funds, pension funds, investment trusts and, increasingly, foreign investors.



## MORTGAGE SECURITIES MARKET

Mortgage securities make the dream of home ownership a reality for more Americans by increasing the pool of capital available for mortgage loans and reducing the cost of a mortgage by as much as half a percent. On a 30-year \$100,000 mortgage, the difference between 8.5 percent and 8 percent would mean total savings of more than \$12,500 over the life of the mortgage. Mortgage securities are created by institutions that either directly originate or buy loans from mortgage lenders, pool the loans and then issue securities representing an interest in the underlying loan pools. This process is sometimes referred to as "securitizing" mortgages. The securities are bought by securities dealers and sold to investors around the world. As the underlying mortgage loans are paid off by the homeowners, the investors receive monthly payments of interest and principal.

Before the advent of mortgage securities, people in some parts of the country found it harder to get a mortgage simply because local institutions had only limited access to funding sources. Now mortgage lenders can sell mortgage loans and use the proceeds to make new mortgage loans, thereby constantly replenishing the supply of available funds and making housing more affordable to all home buyers, including lower-income home buyers.

Most mortgage securities are issued and/or guaranteed by the Government National Mortgage Association (Ginnie Mae), an agency of the U.S. government, or by government-sponsored enterprises (GSEs) such as the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac). Some private institutions, such as subsidiaries of investment banks, financial institutions and home builders, also package various types of mortgage pools. The latter are known as “private label” mortgage securities, in contrast to “agency” mortgage securities. Most mortgage securities carry double-A or triple-A credit ratings from nationally recognized rating agencies.

Investors in the \$1.7 trillion agency mortgage securities market include institutions of all sizes: corporations, commercial banks, life insurance companies, pension funds, trust funds, mutual funds and charitable endowments. In recent years, individual investors have also become significant purchasers of mortgage securities.

The concept of transforming loans into securities has been extended in recent years from mortgages to other types of receivables such as credit card debt, auto loans, home equity loans, equipment leases, accounts receivable, small-business loans and other corporate loans. Asset-backed securities are created by institutions that buy loans from lenders such as banks and auto companies, package (or “pool”) the loans and then issue securities representing an interest in the underlying pools. Thus the market provides a ready source of capital to replenish funds for lending to consumers, small businesses and other borrowers. It also gives issuers the ability to strengthen

their balance sheets by removing liabilities associated with carrying loan assets.

Asset-backed securities are underwritten by dealers and sold to investors around the world. As the loans are repaid by the borrowers, the cash flow of interest and principal is passed on to the investors. In some cases, credit enhancements such as insurance or letters of credit back the securities to make them more attractive to investors.

The asset-backed securities market is one of the fastest-growing areas of finance, with \$154.0 billion of new issuance in 1996, up 42.7 percent from the previous year's level.

Investors in asset-backed securities include pension funds, mutual funds, insurance companies, money market funds and financial institutions.



## THE FUNDING MARKET

The ability of securities firms to price securities effectively and to underwrite issues of government and corporate debt depends on their ability to finance their holdings of these securities in their capacities as underwriters and market makers. The funding markets (also sometimes called the repurchase or securities lending markets) are essential to the smooth functioning of all the debt markets. Highly liquid markets in debt securities require readily available funding sources. In fact, repurchase agreements (repos) are the most important source of liquidity in the Treasury and agency securities markets. This liquidity serves to lower the government's cost of money and thereby saves taxpayer dollars. In addi-

tion, the Federal Reserve uses repo transactions to carry out monetary policy.

In a typical repo agreement, a securities dealer wishing to finance a bond position sells the bonds to a cash investor while simultaneously agreeing to repurchase them at a later date for an agreed-upon price. The investor receives a return for providing the funds. A reverse repurchase agreement is the flip side of the transaction, with the buyer agreeing to buy bonds and the seller agreeing to repurchase them at a future point in time. The term of the repo can be custom-tailored for any period, ranging from overnight up to a year.

The repo market originated as a means by which securities dealers could finance their bond positions and it still serves this vital purpose today. Institutional investors can generally earn better short-term yields by investing their idle cash in the repo market

than they can by investing in bank deposits or money market instruments.

The outstanding volume of repos is enormous — in excess of \$1.7 trillion on an average daily basis in 1996 among Primary Dealers in U.S. government securities alone. Securities firms, commercial banks, corporations, pension funds, state and local governments, and mutual and money market funds use the repo market as a safe haven for cash investment and as a flexible alternative to bank deposits and money market instruments such as CDs and commercial paper. In the United States, repos are typically done in conjunction with U.S. Treasury bonds, mortgage securities, corporate bonds or other forms of debt agreed upon by the counterparties to the agreement.





The Bond Market Association represents securities firms and banks that underwrite, trade and sell debt securities, both domestically and internationally.

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*Note: All figures are estimates through the end of 1996.*

