U.S. Bond Issuance Hits Record $4.6 Trillion in 2001

New issue volume in the U.S. bond market reached a new record in 2001, totaling $4.6 trillion, up from $2.7 trillion a year earlier. The Federal Reserve lowered interest rates an unprecedented eleven times in 2001, creating a sustained low-interest rate environment that was favorable to bond issuers. In addition, economic uncertainty and volatile stock markets led investors to seek the relative safety and stability of fixed income investments. Issuance was higher across all bond markets in 2001, with records set in the mortgage-related, federal agency, corporate, and asset-backed markets. Long-term municipal issuance was strong, and Treasury coupon issuance increased for the first time since 1996. Secondary market trading volume was higher across all reported sectors, with the exception of the municipal market where trading volume was unchanged from the level reached in 2000.

Highlights

- Treasury gross coupon issuance increased 21.9 percent to $380.7 billion in 2001, up from $312.4 billion in 2000. Treasury bills outstanding increased to $811.2 billion as of December 31, 2001, up from $646.9 billion at year-end 2000.
- Federal agencies more than doubled their long-term new issue volume to $921.5 billion in 2001, up from $428.1 billion in 2000. Short-term federal agency debt outstanding decreased 4.2 percent to $718.3 billion at year-end 2001.
- Municipal issuance—including long and short-term issues—totaled a record $342.6 billion in 2001. Long-term issuance totaled $286.5 billion and short-term issuance totaled $56.1 billion.
- New issues of corporate bonds totaled a record $879.2 billion, with volume increases across all sectors—investment-grade, high-yield, and convertibles.
- Volume of new asset-backed securities set another record in 2001, totaling $419.6 billion. New public issues increased while private issuance decreased.
- Mortgage-related securities issuance more than doubled to a record $1.67 trillion in 2001, up from $709.6 billion in 2000. Issuance of agency MBS and CMOs, and private-label MBS/CMOs increased sharply in 2001.
- Commercial paper outstanding decreased to $1.44 trillion at year-end 2001, a decrease of 10.1 percent from the end of 2000. Credit deterioration forced several large CP issuers from the market.
Treasury Issuance Rises, Reversing Recent Annual Trend

Gross coupon issuance totaled $380.7 billion in 2001, up 21.9 percent from the $312.4 billion issued in 2000. Treasury issuance was slow during the first half of the year, but accelerated in the second half as Treasury’s funding needs changed as a result of continued weakness in the economy, lower-than-expected corporate tax receipts, and unexpected expenditures following the terrorist attacks. The rise in volume in 2001 was the first annual increase since 1996. Issuance was especially strong during the fourth quarter of 2001, totaling $142.1 billion, up 70 percent from the $83.5 billion issued in the third quarter. The deterioration of the U.S. budget was another factor that contributed to the increase in issuance. According to the Congressional Budget Office (CBO), the actual budget surplus was $127.0 billion in FY 2001, down from the $281.0 billion predicted at the beginning of 2001. The latest projections from the CBO show a deficit of $21.0 billion in FY 2002, with the budget not projected to return to surplus until FY 2004.

Short-term Debt Supply Rises as Long-term Supply Shrinks

Total marketable Treasury debt outstanding, which includes bills and coupons, was $2.97 trillion as of December 31, 2001, virtually unchanged from year-end 2000. Outstanding bills increased 25.4 percent, to $811.2 billion as of end of December 2001, up from $646.9 billion outstanding at the end of 2000. The increase in bill issuance resulted from the deterioration of the Treasury’s cash-flow position, which was caused partly by lower-than-expected federal tax receipts and the need for funds to pay for increased government spending in response to the terrorist attacks.

In contrast, the outstanding level of coupon securities decreased to $2.16 trillion as of year-end 2001, down from $2.32 trillion outstanding at the end of 2000. Gross retirements of coupon securities, excluding buybacks, totaled $530.7 billion in 2001, up from $448.5 billion in 2000. Treasury buybacks, totaled $33.5 billion in 2001. Treasury canceled buyback operations in September in order to give the government greater flexibility to meet unexpected spending needs after September, but resumed the buyback program in October. Treasury has indicated that the use of buybacks will slow significantly in 2002.

Trading Volume Surges in 2001

Average daily trading volume of U.S. Treasury securities by primary dealers was $297.9 billion in 2001, up 44.3 percent from $206.5 billion in 2000. Weakness in the U.S. economy and volatility in the stock market prompted investors to seek the relative safety of the Treasury market throughout 2001. On a quarter-to-quarter basis, average daily trading volume spiked in the fourth quarter to a record $333.5 billion, 21.3 percent higher than in the third quarter of 2001 and 43.2 percent higher than in the fourth quarter of 2000. The average daily trading volume surged in November following Treasury’s October 31st announcement of the elimination of the 30-year bond.
Long-Term Agency Issuance Sets Record

Long-term federal agency debt issuance reached a record $921.5 billion in 2001, more than double the $428.1 billion issued in 2000. Long-term issuance by all federal agencies increased in 2001. Fannie Mae and Freddie Mac each increased issuance partly to finance the rapid growth of their retained mortgage portfolios during 2001.

Short-term federal agency debt outstanding increased to $718.3 billion as of December 31, 2001, up 23.1 percent from the $583.5 billion outstanding at end of 2000. Short-term debt outstanding of Fannie Mae and Freddie Mac increased. In contrast, short-term debt outstanding of Federal Home Loan Banks decreased 13.3 percent, to $139.8 billion as of December 31, 2001.

Average daily trading volume of agency securities by primary dealers was $90.2 billion in 2001, a 23.9 percent increase over the $72.8 billion average daily trading volume in 2000. Average daily trading volume has increased every year since the series began in 1991.

### Long-Term Federal Agency Debt Issuance

<table>
<thead>
<tr>
<th>$ Billions</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>YTD-to-YTD % Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FHLB</strong></td>
<td>239.9</td>
<td>190.8</td>
<td>383.0</td>
<td>100.7%</td>
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<tr>
<td>Freddie Mac</td>
<td>121.0</td>
<td>95.2*</td>
<td>235.2</td>
<td>147.1%</td>
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<td>Fannie Mae</td>
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<td>110.2</td>
<td>249.4</td>
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<td>Sallie Mae</td>
<td>11.8</td>
<td>16.5</td>
<td>19.5</td>
<td>18.2%</td>
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<tr>
<td>FCS</td>
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<td>13.1</td>
<td>31.0</td>
<td>136.6%</td>
</tr>
<tr>
<td>TVA</td>
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<td>2.3</td>
<td>3.4</td>
<td>47.8%</td>
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<tr>
<td>Totals</td>
<td>536.2</td>
<td>428.1</td>
<td>921.5</td>
<td>115.3%</td>
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### Short-Term Federal Agency Debt Outstanding

<table>
<thead>
<tr>
<th>$ Billions</th>
<th>12/31/00</th>
<th>9/30/01</th>
<th>12/31/01</th>
<th>% Change*</th>
</tr>
</thead>
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<tr>
<td><strong>FHLB</strong></td>
<td>161.2</td>
<td>166.0</td>
<td>139.8</td>
<td>-13.3%</td>
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<tr>
<td>Freddie Mac</td>
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<td>220.8</td>
<td>222.8</td>
<td>65.8%</td>
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<tr>
<td>Fannie Mae</td>
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<td>29.2%</td>
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<tr>
<td>Sallie Mae</td>
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<td>31.8</td>
<td>31.1</td>
<td>2.0%</td>
</tr>
<tr>
<td>FCS</td>
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<td>34.5</td>
<td>33.6</td>
<td>6.3%</td>
</tr>
<tr>
<td>TVA</td>
<td>2.5</td>
<td>3.0</td>
<td>2.5</td>
<td>0.0%</td>
</tr>
<tr>
<td>Totals</td>
<td>583.5</td>
<td>749.9</td>
<td>718.3</td>
<td>23.1%</td>
</tr>
</tbody>
</table>

*Percentage change between 12/31/01 and 12/31/00

1 Federal Home Loan Bank System
2 Farm Credit System
3 Tennessee Valley Authority
4 Figures revised: Previous 2000 annual figure was $75.0 billion
Low Interest Rates Propel Muni Issuance

Total municipal issuance reached a record $342.6 billion in 2001, topping the previous record of $340.0 billion set in 1993. New issue volume in 2001 was strong throughout the year, and despite the market interruption in September, finished the year 42.0 percent above the $241.2 billion issued in 2000. Refunding volume accounted for most of the rise in issuance as a low-interest-rate environment prevailed. Investor demand was also strong as retail investors sought the relative safety of municipal bonds and inflows to municipal bond mutual funds increased. Long-term new issue volume totaled $286.5 billion in 2001, 43.1 percent higher than the $200.2 billion issued in 2000. Short-term issuance increased to a record $56.1 billion, up from $43.0 billion in 2000.

Total issuance for the fourth quarter was $103.4 billion, up from $78.7 billion issued in the third quarter. Long-term issuance totaled $90.5 billion in the fourth quarter, up from $59.3 billion in the third quarter. Short-term issuance was $12.9 billion in the fourth quarter.

Refunding Issuance Surges

Refunding issuance totaled $88.2 billion in 2001, more than double the $35.4 billion issued a year earlier. The increase in refunding volume can largely be attributed to lower interest rates throughout the year, allowing for refinancing of higher-interest rate debt at substantial cost savings to bond issuers. Refunding volume in the general government sector increased to $26.0 billion in 2001, compared to $5.8 billion in 2000. A large increase also occurred in the education sector, with issuance totaling $18.7 billion in 2001, more than triple the $4.5 billion issued in 2000. Issuance in the airport sector totaled $4.2 billion in 2001, an increase over the $3.2 billion issued in 2000. Refunding issuance reached $23.2 billion in the fourth quarter, up from the $19.0 billion in the third quarter.

New Capital Hits Record

New capital issuance totaled $198.3 billion, up 20.3 percent from the previous record of $164.8 billion issued in 2000. Issuance volume in the general government, education and healthcare sectors comprised almost 60 percent of new capital issuance in 2001. New issue volume in the general government sector increased to $55.7 billion in 2001, up from $47.6 billion in 2000. New capital issuance in the education sector totaled $46.3 billion in 2001 compared to $36.8 billion in 2000. Healthcare sector issuance increased to $16.5 billion, up from the $10.9 billion issued in 2000. New capital issuance in the airport sector increased to $8.1 billion in 2001, nearly double the $4.2 billion issued in 2000. Issuance volume in this sector remained steady through the first three quarters of the year, but declined dramatically in the fourth quarter. New capital issuance volume for the fourth quarter totaled $67.3 billion, a 66.9 percent increase over the $40.3 billion issued in the third quarter.

Trading Volume Remains Stable

Secondary trading volume in the municipal market remained flat at $8.8 billion in 2001, compared to trading volume in 2000. Average daily trading volume for the fourth quarter of 2001 was $8.9 billion, up from the $8.1 billion average in the third quarter.
Corporate Bond Market

Corporate Bond Volume Hits Record

New issue volume in the corporate bond market increased to a record $879.2 billion in 2001, up 30.8 percent from the $672.3 billion issued in 2000. The low-interest-rate environment buoyed long-term issuance throughout the year. Many issuers shifted out of short-term instruments into longer-term funding because of the attractive interest rates. Additionally, there was a lack of appetite for new equity issues, which led many issuers to the bond market. Demand for corporate bonds was strong despite continuing concerns over credit quality and a record amount of defaults. Issuance in the high-yield market more than doubled, and investment-grade issuance increased 20.7 percent in 2001 compared to 2000.

New issues of convertible bonds—including investment-grade and high-yield issues—totaled $83.9 billion in 2001, up 78.2 percent from the $47.1 billion issued in 2000. Most of the increase in issuance of convertible bonds came from the private sector. Convertible bonds issued for short-term funding purposes were popular, as were deals that enabled issuers to restructure their balance sheet and issues that provided growth capital. In contrast, issuance of medium-term notes (MTNs) decreased 20.5 percent to $131.6 billion in 2001, compared to the $165.5 billion issued in 2000. Most of the decrease in MTN issuance is attributable to the investment and commercial bank sectors. MTN issuance volume has been decreasing recently, as many issuers have tended to place very large issues instead of many smaller MTNs.

Investment-Grade Issuance Sets Record

Issuance in the nonconvertible investment-grade sector totaled $707.7 billion in 2001, up 20.7 percent from the $586.4 billion issued in 2000. Over one-half of the increase in issuance is attributable to the manufacturing and credit institutions sectors. New issue activity in the manufacturing sector increased 53.5 percent, to $109.5 billion in 2001 and volume in the credit institutions sector increased nearly 30 percent, to $131.9 billion in 2001. The surge in manufacturing volume partly reflects the activity of several auto and other manufacturers who were forced out of the commercial paper market as a result of deteriorating credit quality. CP refinancing accounted for $38.5 billion of new issue volume in 2001.

High-Yield New Issues More than Double

New issue volume of nonconvertible high-yield bonds totaled $87.6 billion in 2001, more than double the $38.8 billion issued in 2000. New issue activity was higher across most sectors. Issuance was especially strong in the manufacturing sector totaling $21.4 billion in 2001, more than triple the $5.3 billion issued in 2000. Also, the retail and cellular telephone/radio/television sectors showed strong gains totaling $4.5 billion and $15.0 billion, respectively. However, with significant defaults in the telephone communication sector—i.e., telephone voice and data communications—issuance totaled $2.7 billion, down almost 60 percent in 2001, from the $6.7 billion issued in 2000.

Trading Volume Rises in Fourth Quarter

The average daily corporate bond trading volume by primary dealers for bonds with maturities of greater than one year was $19.9 billion during the fourth quarter, up 25.2 percent from $15.9 billion in the third quarter.
ABS Volume Breaks Record

Issuance in the asset-backed securities (ABS) market reached a record in 2001, totaling $419.6 billion, an 8.4 percent increase over the $387.1 billion issued in 2000. The increase in volume can be attributed to the public sector, where issuance increased 20.6 percent, to $321.8 billion in 2001 compared to the $266.8 billion issued in 2000. In contrast, issuance in the private sector totaled $97.8 billion for the year, an 18.7 percent decrease from the $120.3 billion issued in 2000 and the lowest annual new issue volume since 1997. On a quarter-to-quarter basis, the scenario was reversed with issuance in the public sector decreasing to $75.0 billion in the fourth quarter, down from $80.7 billion in the third. In the private sector, issuance increased to $27.8 billion in the fourth quarter, up from the $17.3 billion issued in the third quarter. On the demand side, weakness in the U.S. economy has attracted investors to the relatively safer, less volatile ABS market. On the supply side, low interest rates along with an increase in corporate credit rating downgrades led several large issuers to the comparatively cheaper ABS market. The strongest increases in issuance were in the credit card, home equity, and stranded cost sectors. In contrast, new issue activity in the equipment lease, manufactured housing, and student loan sectors decreased.

Home Equity and Credit Card Sectors Post Strongest Gains

New issue activity in the home equity sector increased strongly to $118.5 billion in 2001, an increase of 43.3 percent from the $82.6 billion issued in 2000. The low interest rate environment that persisted throughout 2001 helped spur loan originations, which buoyed home equity-backed ABS issuance. New issue volume in the credit card sector totaled $76.3 billion in 2001, an increase of 26.7 percent from the $60.3 billion issued in 2000. However, issuance in the fourth quarter slowed to $12.3 billion, down from the $16.1 billion issued in the third quarter. The quarterly decrease can be partly attributable to the fact that credit card delinquencies in securitized pools, due in part to a weak job market, rose to their highest level in over three years in December. Total auto-loan-backed issuance increased slightly to $78.8 billion in 2001, up from the $77.0 billion issued a year earlier. Issuance was buoyed by low auto loan rates and an increasing number of rebates, which spurred car buying and additional loan originations, especially toward the end of the year. Stranded cost issuance totaled $8.4 billion in 2001, a sharp increase from the $0.9 billion issued in 2000.

Equipment Lease, Manufactured Housing and Student Loan Issues Decrease

Equipment lease issuance totaled $12.4 billion in 2001, a decrease of 14.7 percent from the $14.5 billion issued in 2000. Total manufactured housing issuance decreased 38.4 percent, to $7.0 billion during 2001, down from the $11.3 billion issued in 2000. This sector continues to experience difficulty as inventories have been accumulating, repossession volumes have increased, and a weaker economy negatively affected issuance. Student loan issuance totaled $18.3 billion during 2001, a decrease of 8.3 percent from the $19.9 billion issued in the year 2000.
Mortgage-Related Securities Issuance Soars to New Record

Mortgage-related securities issuance, which includes agency and private-label MBS/CMO, reached a record $1.67 trillion in 2001, more than double the $709.6 billion issued during the year 2000. Issuance volume increased each quarter throughout 2001, reaching $566.0 billion in the fourth quarter, up 28.9 percent from the $439.2 billion issued during the third quarter. The Mortgage Bankers Association 30-year fixed-rate mortgage index fell to a quarterly low of 6.79 percent during the fourth quarter, down from 6.85 percent in the third quarter. The index rose to 7.15 percent during the month of December, which was the highest monthly average since May of 2001.

Issuance in the private-label MBS/CMO market increased over 70 percent, to $217.3 billion in 2001, compared to the $125.8 billion issued in 2000. New issue volume totaled $68.1 billion in the fourth quarter, up 21.4 percent from the $56.1 billion issued in the third quarter.

Agency MBS Issuance Increases

Issuance in the agency MBS market broke a record with volume of $1.1 trillion in 2001, an increase of more than 125 percent from the $483.4 billion issued in 2000. Falling interest rates benefited the agency MBS market by encouraging mortgage borrowers to refinance their loans, and, along with increased mortgage originations, allowed agencies to pool those assets into MBS. Fannie Mae’s issuance totaled $528.4 billion during 2001, more than double the $211.7 billion issued in 2000. Issuance of Freddie Mac MBS also increased strongly to $389.6 billion in 2001, up from the $166.9 billion issued in 2000. New issue volume of Ginnie Mae MBS increased to $170.8 billion in 2001, up 63 percent over the $104.8 billion issued in 2000. On a quarter-to-quarter basis, Ginnie Mae MBS issuance decreased 11.4 percent, to $45.2 billion in the fourth quarter from the third quarter, while Fannie Mae and Freddie Mac increased issuance during the fourth quarter.

Agency CMO Issuance Volume Rises

Agency collateralized mortgage obligations (CMO) issuance increased to $362.2 billion in 2001, more than triple the $100.4 billion issued in 2000. Issuance increased consistently throughout 2001, reaching a high of $169.3 billion in the fourth quarter. Freddie Mac CMO issuance totaled $192.4 billion for the year, a sharp increase from the $48.2 billion issued in 2000. Fannie Mae CMO issuance increased almost three-fold, to $123.5 billion during 2001, compared to 2000. Ginnie Mae CMO issuance totaled $46.3 billion in 2001, up from the $18.6 billion issued in 2000.

Trading Volume Surges

Average daily trading volume in agency mortgage-backed securities by primary dealers increased to $112.0 billion in 2001, up 62.2 percent from the $69.5 billion in 2000. On a quarter-to-quarter basis, the average daily trading volume was $135.3 billion during the fourth quarter of 2001, 25.2 percent higher than the third quarter.
Level of Outstanding Repo Agreements Totals $3.10 Trillion

The average daily trading volume of total outstanding repurchase (repo) and reverse repo agreement contracts totaled $3.10 trillion for 2001, an increase of 22.3 percent over the average daily volume of $2.53 trillion in 2000. Outstanding repurchase agreements averaged $1.79 trillion in 2001, a 24.1 percent increase over the $1.44 trillion average daily volume in 2000. Outstanding reverse repo agreements averaged $1.31 trillion during 2001, a gain of 19.9 percent from $1.09 trillion in the previous year. The average daily amount of repo and reverse repo peaked at $3.48 trillion in December. In the fourth quarter, total outstanding repo levels increased 5.7 percent to $3.33 trillion, as compared to $3.16 trillion in the third quarter. The data represent financing activities of the primary dealers reporting to the Federal Reserve Bank of New York and include repo and reverse repo agreements involving U.S. government, federal agency, mortgage-related agency, and beginning in the third quarter, corporate securities.

The Government Securities Clearing Corporation (GSCC), a registered clearing corporation that facilitates orderly settlements in the U.S. government securities market, tracks repo trades settled through its system by product type. In excess of $187 trillion in repo trades were submitted by GSCC participants in 2001, with an average daily volume of approximately $748.1 billion. Repo transactions involving Treasury notes accounted for the largest share of GSCC repo activity, representing $120.2 trillion, or 64.3 percent of the year’s total volume. Repos involving Treasury bonds accounted for an estimated $16.1 trillion, or 8.6 percent of the total, and Treasury bills accounted for $17.1 trillion, or 9.1 percent of the activity for 2001. Transactions involving federal agency securities continued to increase, accounting for 12.3 percent of 2001’s volume, up from 8.6 percent for the year 2000.

Money Market Supply Decreases, Totals $2.54 Trillion

The outstanding volume of money market instruments, including commercial paper (CP), large time deposits and bankers’ acceptances (BA), totaled an estimated $2.54 trillion at the end of 2001, a 4.5 percent decrease from the $2.66 trillion outstanding in 2000. Commercial paper outstanding declined during the first three quarters of 2001, but increased slightly in the fourth quarter to end the year at $1.44 trillion, up from $1.41 trillion in September. The amount of CP outstanding at year-end 2001 was 10.1 percent less than the $1.60 trillion at the end of 2000. The decrease in commercial paper outstanding can be partly attributed to the credit deterioration of several large issuers who were forced to shift from short-term instruments to longer-term financing. Low long-term interest rates also contributed to a decline in CP outstanding, as many companies sought to lock in historically low interest rates by issuing long-term debt.

The outstanding level of large time deposits rose to an estimated $1.10 trillion as of December 31, 2001, up from the $1.05 trillion outstanding at the end of 2000. Bankers’ acceptances continued to decline, ending the year at an estimated $4.1 billion, down 48.1 percent from the $7.9 billion outstanding at the end of 2000.