

# TIPS Daily Report - July 18, 2025

Date  
7/17/2025

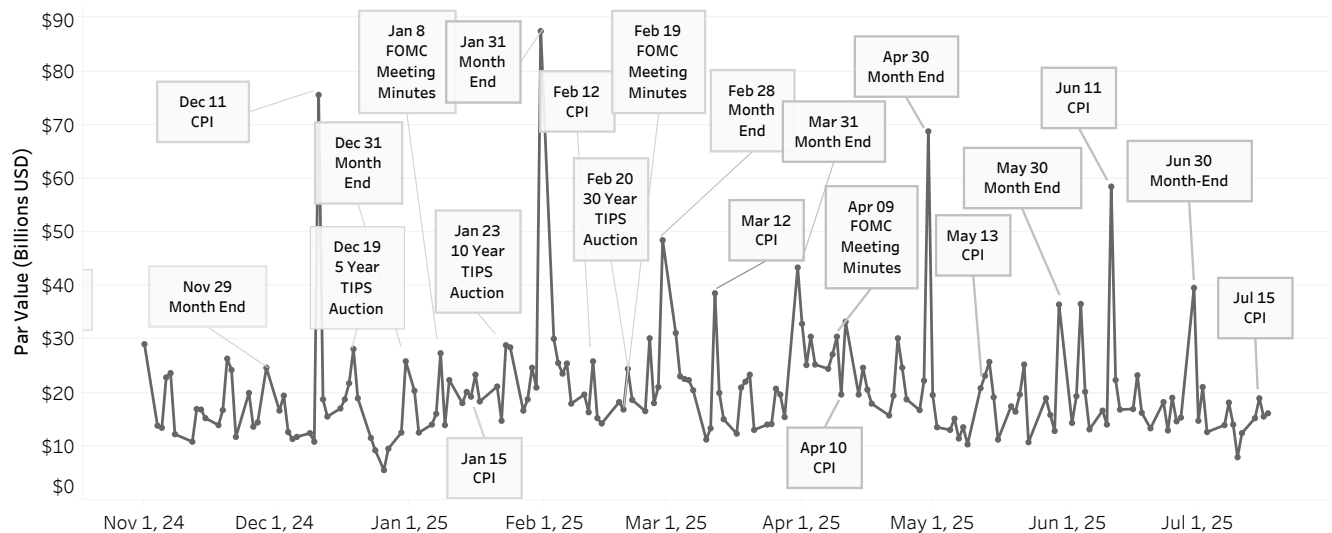
## Total Return Comparison Nominal vs Inflation Indexed

Total Return  
-37.04% 34.12%

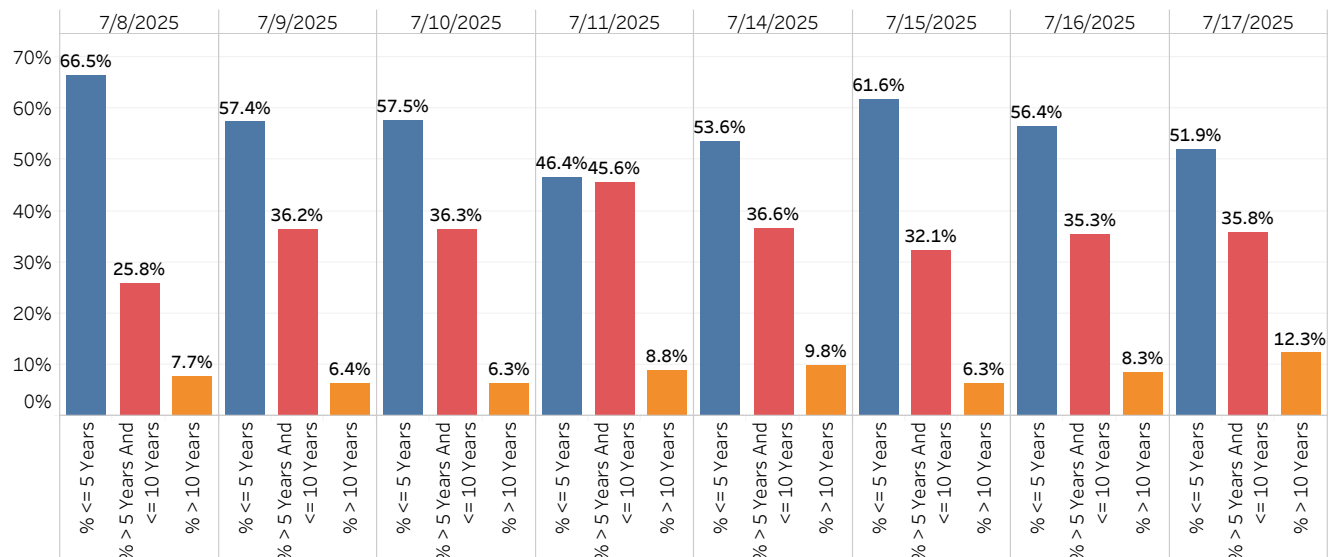
| Maturity  | MTD     |        | YTD     |       | 1 Year  |        | 2 Years |        | 5 Years |         | 10 Years |        |
|-----------|---------|--------|---------|-------|---------|--------|---------|--------|---------|---------|----------|--------|
|           | Nominal | TIPS   | Nominal | TIPS  | Nominal | TIPS   | Nominal | TIPS   | Nominal | TIPS    | Nominal  | TIPS   |
| 1-5 Year  | -0.18%  | 0.47%  | 3.12%   | 4.87% | 4.50%   | 6.53%  | 9.90%   | 12.47% | 3.86%   | 17.54%  | 16.49%   | 34.12% |
| 5-10 Year | -0.96%  | 0.03%  | 4.09%   | 5.99% | 3.31%   | 5.27%  | 8.62%   | 10.53% | -8.55%  | 5.61%   | 12.97%   | 33.52% |
| 10+ Year  | -3.06%  | -2.06% | 0.08%   | 0.64% | -3.81%  | -3.87% | -0.95%  | -1.62% | -37.04% | -28.34% | -4.69%   | 11.04% |

## TIPS Trading Volume

Total Daily Trading Volume in Billions of US Dollars



## Daily TIPS Volume by Sector



# U.S. Inflation Heatmap

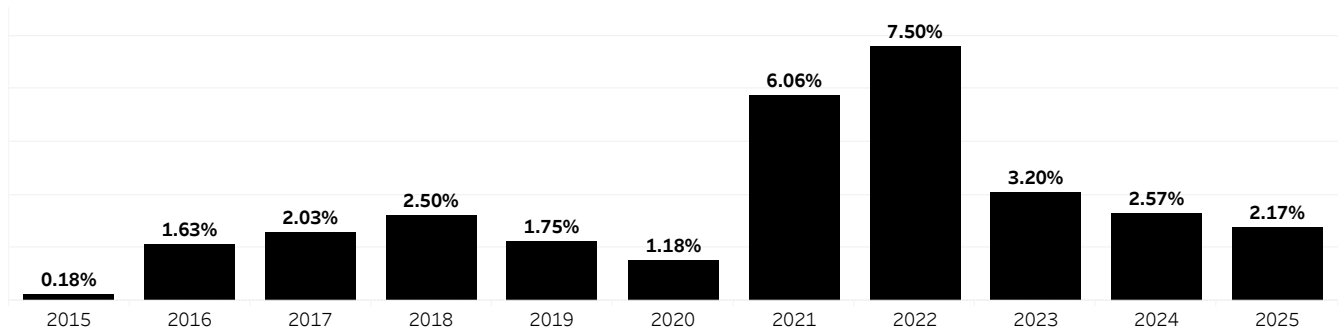
## Consumer Price Index Components

Month-over-Month % Change, Seasonally Adjusted

MoM % Change  
-6.25%  4.02%

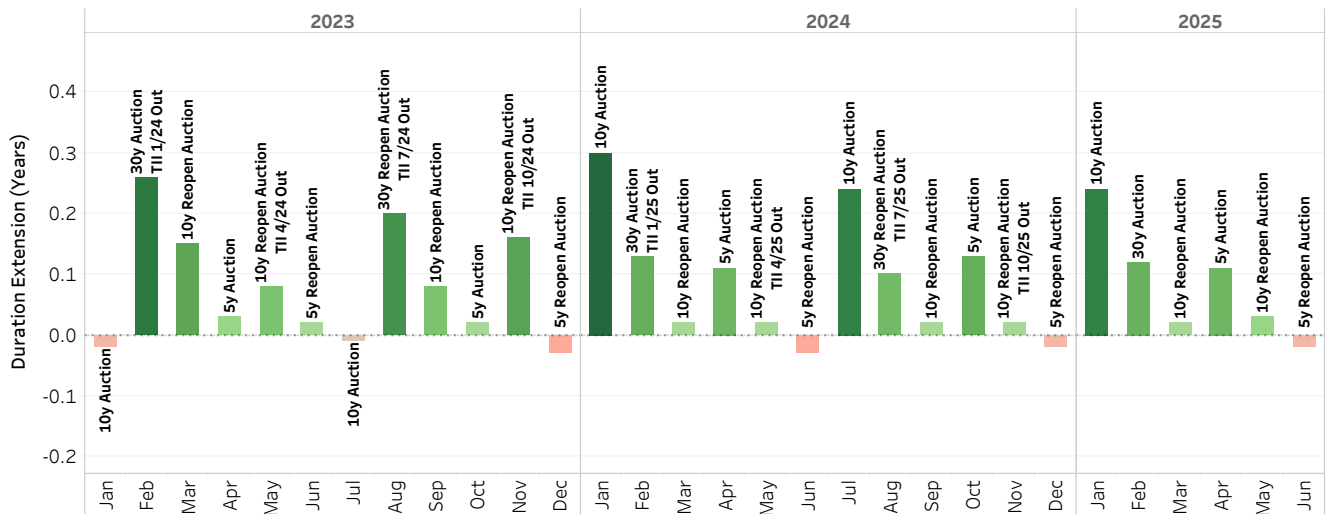
|                           | 2024   |        |        |        |        | 2025   |        |        |        |        |        |
|---------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                           | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Apr    | May    | Jun    |
| Headline CPI              | 0.18%  | 0.23%  | 0.23%  | 0.28%  | 0.36%  | 0.47%  | 0.22%  | -0.05% | 0.22%  | 0.08%  | 0.29%  |
| Core CPI                  | 0.28%  | 0.31%  | 0.27%  | 0.29%  | 0.21%  | 0.45%  | 0.23%  | 0.06%  | 0.24%  | 0.13%  | 0.23%  |
| Core Services Ex-Housing  | 0.33%  | 0.40%  | 0.31%  | 0.34%  | 0.21%  | 0.76%  | 0.22%  | -0.24% | 0.21%  | 0.06%  | 0.21%  |
| Energy                    | -0.99% | -0.95% | -0.22% | 0.09%  | 2.42%  | 1.08%  | 0.20%  | -2.39% | 0.67%  | -0.98% | 0.95%  |
| Gasoline                  | -1.18% | -2.33% | -0.98% | 0.29%  | 4.02%  | 1.75%  | -0.96% | -6.25% | -0.09% | -2.65% | 1.01%  |
| Electricity               | -0.41% | 0.54%  | 0.79%  | -0.23% | 0.20%  | -0.04% | 1.02%  | 0.94%  | 0.85%  | 0.90%  | 0.97%  |
| Utility Gas               | -1.61% | 0.67%  | 0.50%  | 0.48%  | 2.82%  | 1.79%  | 2.54%  | 3.57%  | 3.70%  | -0.96% | 0.53%  |
| Food                      | 0.15%  | 0.32%  | 0.21%  | 0.32%  | 0.29%  | 0.36%  | 0.16%  | 0.44%  | -0.08% | 0.29%  | 0.33%  |
| Food At Home              | 0.08%  | 0.31%  | 0.19%  | 0.35%  | 0.28%  | 0.46%  | 0.01%  | 0.49%  | -0.44% | 0.27%  | 0.28%  |
| Food Away From Home       | 0.26%  | 0.34%  | 0.24%  | 0.28%  | 0.30%  | 0.24%  | 0.39%  | 0.36%  | 0.44%  | 0.31%  | 0.40%  |
| Core Goods                | -0.12% | 0.17%  | 0.02%  | 0.21%  | -0.04% | 0.28%  | 0.22%  | -0.09% | 0.06%  | -0.04% | 0.20%  |
| Apparel                   | 0.10%  | 0.99%  | -0.89% | 0.08%  | 0.13%  | -1.38% | 0.60%  | 0.37%  | -0.20% | -0.42% | 0.43%  |
| New Vehicles              | 0.03%  | 0.13%  | -0.02% | 0.47%  | 0.36%  | 0.04%  | -0.07% | 0.10%  | -0.01% | -0.29% | -0.34% |
| Used Cars and Trucks      | -0.16% | 0.50%  | 1.21%  | 1.29%  | 0.76%  | 2.19%  | 0.88%  | -0.69% | -0.53% | -0.54% | -0.67% |
| Core Services             | 0.38%  | 0.36%  | 0.34%  | 0.29%  | 0.26%  | 0.51%  | 0.25%  | 0.11%  | 0.29%  | 0.17%  | 0.25%  |
| Shelter                   | 0.48%  | 0.27%  | 0.39%  | 0.34%  | 0.27%  | 0.37%  | 0.28%  | 0.22%  | 0.33%  | 0.25%  | 0.18%  |
| Rent of Primary Residence | 0.35%  | 0.29%  | 0.30%  | 0.25%  | 0.30%  | 0.35%  | 0.28%  | 0.33%  | 0.34%  | 0.21%  | 0.23%  |
| OER                       | 0.47%  | 0.34%  | 0.41%  | 0.25%  | 0.31%  | 0.31%  | 0.28%  | 0.40%  | 0.36%  | 0.27%  | 0.30%  |

## Annual TIPS Inflation Accrual



## Monthly Duration Extension

US TIPS (Series-L)



US TIPS Report

7/18/2025

| Issue  |        |           | Closing Level |           | Total Return |         |         | Breakevens |        |        |        |         |        |        |         |        |        | UST       |
|--------|--------|-----------|---------------|-----------|--------------|---------|---------|------------|--------|--------|--------|---------|--------|--------|---------|--------|--------|-----------|
| Issuer | Coupon | Mat. Date | Bid Price     | Bid Yield | MTD (%)      | QTD (%) | YTD (%) | Current    | 1d Chg | 5d Chg | 1m Chg | 3m High | 3m Low | 3m Avg | 1y High | 1y Low | 1y Avg | Mat. Date |
| TIPS   | 0.125  | 15-Oct-25 | 99.694        | 0.824     | 0.22         | 0.22    | 2.76    | 331.5      | 15.5   | 6.8    | 29.0   | 418.9   | 299.3  | 355.5  | 467.0   | 160.3  | 299.6  | 31-Oct-25 |
| TIPS   | 0.625  | 15-Jan-26 | 99.549        | 1.308     | 0.29         | 0.29    | 3.11    | 290.4      | 0.7    | 4.7    | 17.9   | 353.0   | 260.4  | 298.8  | 385.2   | 154.6  | 257.2  | 15-Nov-25 |
| TIPS   | 2.000  | 15-Jan-26 | 100.214       | 1.333     | 0.28         | 0.28    | 3.13    | 239.3      | 10.7   | -17.4  | 35.2   | 274.5   | 194.0  | 233.5  | 294.6   | 91.8   | 197.4  | 15-Feb-26 |
| TIPS   | 0.125  | 15-Apr-26 | 99.099        | 1.217     | 0.39         | 0.39    | 3.43    | 292.7      | 3.1    | 11.4   | 36.1   | 326.3   | 255.9  | 287.4  | 350.8   | 147.1  | 246.7  | 30-Apr-26 |
| TIPS   | 0.125  | 15-Jul-26 | 99.359        | 0.644     | 0.42         | 0.42    | 3.65    | 344.1      | 2.2    | 13.2   | 31.6   | 361.7   | 305.4  | 331.2  | 374.6   | 190.1  | 284.3  | 15-May-26 |
| TIPS   | 0.125  | 15-Oct-26 | 99.099        | 0.775     | 0.45         | 0.45    | 3.82    | 322.8      | 0.6    | 11.2   | 36.8   | 331.2   | 286.0  | 308.5  | 342.4   | 183.0  | 271.4  | 31-Oct-26 |
| TIPS   | 2.375  | 15-Jan-27 | 101.793       | 1.055     | 0.41         | 0.41    | 3.97    | 239.1      | -1.5   | -4.3   | 15.9   | 254.2   | 211.7  | 232.8  | 267.0   | 136.4  | 209.4  | 15-Feb-27 |
| TIPS   | 0.375  | 15-Jan-27 | 98.877        | 1.061     | 0.45         | 0.45    | 4.05    | 293.7      | -1.7   | 6.2    | 29.1   | 301.5   | 259.8  | 280.4  | 308.3   | 173.3  | 249.8  | 15-Nov-26 |
| TIPS   | 0.125  | 15-Apr-27 | 98.168        | 1.142     | 0.44         | 0.44    | 4.32    | 275.0      | -2.7   | 8.0    | 32.5   | 282.0   | 242.5  | 263.9  | 290.5   | 170.8  | 239.4  | 30-Apr-27 |
| TIPS   | 0.375  | 15-Jul-27 | 98.893        | 0.881     | 0.42         | 0.42    | 4.51    | 297.4      | -2.4   | 6.9    | 32.5   | 299.8   | 264.9  | 284.3  | 306.1   | 192.9  | 259.6  | 15-Aug-27 |
| TIPS   | 1.625  | 15-Oct-27 | 101.404       | 0.945     | 0.40         | 0.40    | 4.71    | 289.3      | -1.9   | 5.5    | 24.7   | 291.2   | 259.1  | 275.0  | 295.6   | 190.0  | 253.6  | 30-Sep-27 |
| TIPS   | 1.750  | 15-Jan-28 | 101.404       | 1.114     | 0.39         | 0.39    | 4.89    | 255.6      | -1.8   | 2.6    | 22.4   | 257.4   | 227.7  | 243.9  | 267.3   | 172.6  | 227.0  | 15-Nov-27 |
| TIPS   | 0.500  | 15-Jan-28 | 98.359        | 1.130     | 0.42         | 0.42    | 4.96    | 270.9      | -2.6   | 6.9    | 27.8   | 273.5   | 243.1  | 258.1  | 277.6   | 184.0  | 240.8  | 15-Feb-28 |
| TIPS   | 3.625  | 15-Apr-28 | 106.435       | 1.176     | 0.46         | 0.46    | 5.10    | 253.8      | -1.8   | 4.5    | 25.6   | 255.6   | 222.0  | 237.5  | 258.9   | 165.0  | 220.6  | 15-Aug-28 |
| TIPS   | 1.250  | 15-Apr-28 | 100.053       | 1.189     | 0.47         | 0.47    | 5.19    | 263.3      | -2.1   | 5.5    | 24.3   | 265.4   | 233.6  | 248.6  | 268.2   | 180.5  | 233.8  | 31-Mar-28 |
| TIPS   | 0.750  | 15-Jul-28 | 99.046        | 1.043     | 0.46         | 0.46    | 5.34    | 280.9      | -1.8   | 4.3    | 24.9   | 282.7   | 251.3  | 265.3  | 283.0   | 198.8  | 250.9  | 15-Aug-28 |
| TIPS   | 2.375  | 15-Oct-28 | 103.931       | 1.100     | 0.46         | 0.46    | 5.41    | 274.9      | -2.1   | 5.1    | 23.8   | 277.0   | 246.4  | 259.5  | 277.5   | 195.8  | 246.3  | 30-Sep-28 |
| TIPS   | 2.500  | 15-Jan-29 | 104.237       | 1.216     | 0.45         | 0.45    | 5.57    | 249.6      | -1.9   | 6.7    | 29.3   | 251.5   | 219.3  | 232.2  | 251.6   | 173.1  | 220.6  | 15-Feb-29 |
| TIPS   | 0.875  | 15-Jan-29 | 98.710        | 1.222     | 0.46         | 0.46    | 5.66    | 263.3      | -2.5   | 7.8    | 27.4   | 265.8   | 235.7  | 247.6  | 265.8   | 192.6  | 237.0  | 15-Nov-28 |
| TIPS   | 3.875  | 15-Apr-29 | 109.298       | 1.279     | 0.44         | 0.44    | 5.65    | 243.3      | -1.9   | 6.2    | 26.4   | 245.2   | 212.9  | 227.3  | 247.2   | 171.2  | 215.8  | 15-Feb-29 |
| TIPS   | 2.125  | 15-Apr-29 | 102.893       | 1.306     | 0.46         | 0.46    | 5.69    | 258.1      | -2.6   | 5.4    | 22.0   | 260.7   | 231.8  | 243.5  | 261.2   | 187.7  | 232.2  | 30-Apr-29 |
| TIPS   | 0.250  | 15-Jul-29 | 96.282        | 1.180     | 0.47         | 0.47    | 5.91    | 270.5      | -2.0   | 7.8    | 24.3   | 272.5   | 241.5  | 254.8  | 273.2   | 202.2  | 244.6  | 15-May-29 |
| TIPS   | 1.625  | 15-Oct-29 | 101.465       | 1.249     | 0.44         | 0.44    | 5.89    | 267.5      | -2.3   | 5.4    | 21.0   | 269.8   | 238.7  | 252.4  | 270.1   | 234.6  | 252.4  | 31-Oct-29 |
| TIPS   | 0.125  | 15-Jan-30 | 94.618        | 1.337     | 0.43         | 0.43    | 6.10    | 254.4      | -2.4   | 6.7    | 24.4   | 256.8   | 225.8  | 238.8  | 258.4   | 193.9  | 231.3  | 15-Nov-29 |
| TIPS   | 1.625  | 15-Apr-30 | 100.870       | 1.416     | 0.37         | 0.37    | N/A     | 253.4      | -1.9   | 6.9    | 23.1   | 255.3   | 230.3  | 239.8  | 255.3   | 230.3  | 239.8  | 30-Apr-30 |
| TIPS   | 0.125  | 15-Jul-30 | 94.160        | 1.316     | 0.42         | 0.42    | 6.34    | 266.2      | -2.3   | 5.9    | 20.4   | 268.5   | 238.5  | 251.0  | 268.5   | 205.0  | 242.9  | 15-Aug-30 |
| TIPS   | 0.125  | 15-Jan-31 | 92.801        | 1.478     | 0.35         | 0.35    | 6.46    | 250.1      | -1.9   | 5.4    | 18.6   | 252.0   | 223.8  | 236.0  | 255.9   | 195.3  | 230.3  | 15-Feb-31 |
| TIPS   | 0.125  | 15-Jul-31 | 92.168        | 1.483     | 0.28         | 0.28    | 6.59    | 261.9      | -1.8   | 5.2    | 19.4   | 263.7   | 234.9  | 247.4  | 264.7   | 204.3  | 240.5  | 15-Aug-31 |
| TIPS   | 0.125  | 15-Jan-32 | 90.664        | 1.632     | 0.16         | 0.16    | 6.48    | 252.6      | -2.0   | 4.5    | 18.0   | 254.6   | 225.4  | 238.8  | 256.4   | 200.3  | 233.6  | 15-Feb-32 |
| TIPS   | 3.375  | 15-Apr-32 | 111.130       | 1.590     | 0.14         | 0.14    | 6.24    | 238.5      | -1.9   | 3.3    | 14.9   | 240.4   | 209.0  | 226.0  | 246.9   | 181.5  | 220.7  | 15-Feb-31 |
| TIPS   | 0.625  | 15-Jul-32 | 93.252        | 1.639     | 0.11         | 0.11    | 6.51    | 255.9      | -2.1   | 4.4    | 17.1   | 258.0   | 229.9  | 242.2  | 260.3   | 203.6  | 236.7  | 15-Aug-32 |
| TIPS   | 1.125  | 15-Jan-33 | 95.412        | 1.770     | 0.02         | 0.02    | 6.16    | 243.6      | -2.4   | 1.2    | 14.3   | 246.0   | 219.2  | 231.2  | 250.2   | 195.8  | 227.3  | 15-Nov-32 |
| TIPS   | 1.375  | 15-Jul-33 | 96.885        | 1.782     | -0.07        | -0.07   | 6.15    | 247.9      | -2.3   | 5.2    | 17.5   | 250.2   | 226.5  | 236.1  | 255.6   | 202.2  | 232.6  | 15-May-33 |
| TIPS   | 1.750  | 15-Jan-34 | 98.809        | 1.892     | -0.18        | -0.18   | 5.84    | 243.9      | -2.1   | 2.9    | 13.6   | 246.0   | 223.0  | 233.3  | 250.2   | 199.0  | 229.0  | 15-Feb-34 |
| TIPS   | 1.875  | 15-Jul-34 | 99.710        | 1.904     | -0.27        | -0.27   | 5.74    | 244.4      | -2.2   | 3.6    | 14.7   | 246.6   | 225.7  | 235.1  | 252.9   | 202.2  | 231.4  | 15-May-34 |
| TIPS   | 2.125  | 15-Jan-35 | 101.153       | 1.984     | -0.33        | -0.33   | N/A     | 241.3      | -2.2   | 2.4    | 12.3   | 243.5   | 222.5  | 231.8  | 247.8   | 217.9  | 233.3  | 15-Nov-34 |
| TIPS   | 2.125  | 15-Feb-40 | 97.610        | 2.274     | -0.90        | -0.90   | 4.25    | 249.8      | -2.7   | 4.8    | 15.2   | 252.5   | 231.7  | 241.1  | 252.5   | 201.4  | 233.7  | 15-Feb-40 |
| TIPS   | 2.125  | 15-Feb-41 | 96.557        | 2.356     | -1.12        | -1.12   | 2.91    | 248.6      | -2.8   | 3.1    | 11.9   | 251.4   | 231.0  | 240.9  | 253.4   | 205.1  | 235.8  | 15-Feb-41 |
| TIPS   | 0.750  | 15-Feb-42 | 76.389        | 2.461     | -1.45        | -1.45   | 2.12    | 247.6      | -2.2   | 2.6    | 9.3    | 249.8   | 230.7  | 240.8  | 253.7   | 210.9  | 237.0  | 15-Feb-42 |
| TIPS   | 0.625  | 15-Feb-43 | 73.053        | 2.498     | -1.52        | -1.52   | 2.11    | 248.9      | -2.2   | 4.4    | 13.0   | 251.1   | 231.9  | 241.5  | 253.8   | 214.3  | 238.8  | 15-Feb-43 |
| TIPS   | 1.375  | 15-Feb-44 | 82.595        | 2.524     | -1.48        | -1.48   | 2.12    | 248.4      | -2.3   | 4.6    | 11.9   | 250.7   | 230.8  | 240.9  | 253.3   | 216.6  | 238.6  | 15-Feb-44 |
| TIPS   | 0.750  | 15-Feb-45 | 71.572        | 2.580     | -1.83        | -1.83   | 1.27    | 247.3      | -2.2   | 3.0    | 6.8    | 249.9   | 231.7  | 241.7  | 252.8   | 216.9  | 239.2  | 15-Feb-45 |
| TIPS   | 1.000  | 15-Feb-46 | 74.191        | 2.600     | -1.96        | -1.96   | 1.20    | 247.0      | -2.3   | 4.0    | 9.0    | 249.3   | 231.4  | 241.5  | 251.1   | 216.4  | 238.5  | 15-Feb-46 |
| TIPS   | 0.875  | 15-Feb-47 | 70.832        | 2.627     | -2.10        | -2.10   | 0.52    | 244.5      | -2.2   | 2.1    | 6.4    | 246.7   | 229.9  | 239.2  | 252.1   | 216.3  | 238.3  | 15-Feb-47 |
| TIPS   | 1.000  | 15-Feb-48 | 71.885        | 2.633     | -2.12        | -2.12   | 0.31    | 245.0      | -2.3   | 3.5    | 8.4    | 247.3   | 230.8  | 239.9  | 252.5   | 218.3  | 239.0  | 15-Feb-48 |
| TIPS   | 1.000  | 15-Feb-49 | 70.793        | 2.648     | -2.33        | -2.33   | -0.18   | 243.9      | -2.1   | 3.3    | 7.8    | 246.0   | 230.2  | 239.0  | 251.8   | 218.5  | 238.8  | 15-Feb-49 |
| TIPS   | 0.250  | 15-Feb-50 | 56.404        | 2.653     | -2.83        | -2.83   | -1.13   | 244.8      | -2.3   | 3.4    | 8.6    | 247.1   | 230.2  | 239.6  | 251.7   | 219.2  | 238.6  | 15-Feb-50 |
| TIPS   | 0.125  | 15-Feb-51 | 52.778        | 2.657     | -3.11        | -3.11   | -2.01   | 243.7      | -2.0   | 3.0    | 8.5    | 245.7   | 230.3  | 238.7  | 251.3   | 219.4  | 238.2  | 15-Feb-51 |
| TIPS   | 0.125  | 15-Feb-52 | 51.595        | 2.651     | -3.46        | -3.46   | -2.84   | 243.0      | -1.8   | 2.9    | 8.4    | 244.8   | 229.8  | 238.2  | 251.1   | 217.4  | 237.5  | 15-Feb-52 |
| TIPS   | 1.500  | 15-Feb-53 | 77.046        | 2.665     | -2.74        | -2.74   | -1.01   | 237.8      | -2.3   | 2.8    | 8.6    | 240.1   | 223.0  | 232.5  | 242.8   | 208.9  | 230.3  | 15-Feb-53 |

|      |       |           |        |       |       |       |       |       |      |     |     |       |       |       |       |       |       |           |
|------|-------|-----------|--------|-------|-------|-------|-------|-------|------|-----|-----|-------|-------|-------|-------|-------|-------|-----------|
| TIPS | 2.125 | 15-Feb-54 | 89.076 | 2.664 | -2.72 | -2.72 | -0.73 | 236.1 | -2.1 | 2.5 | 8.3 | 238.2 | 221.1 | 230.8 | 240.2 | 206.1 | 227.7 | 15-Feb-54 |
| TIPS | 2.375 | 15-Feb-55 | 94.168 | 2.653 | -2.68 | -2.68 | N/A   | 234.8 | -2.2 | 2.8 | 9.6 | 237.0 | 218.4 | 228.5 | 237.0 | 213.0 | 226.6 | 15-Feb-55 |

US TIPS Total Return Performance vs. Nominal

7/18/2025

| Tips   |           | Nominal |           | WTD Total Return |         |            | MTD Total Return |         |            | QTD Total Return |         |            | YTD Total Return |         |            |
|--------|-----------|---------|-----------|------------------|---------|------------|------------------|---------|------------|------------------|---------|------------|------------------|---------|------------|
| Coupon | Mat.Date  | Coupon  | Mat.Date  | Tips             | Nominal | Net Return | Tips             | Nominal | Net Return | Tips             | Nominal | Net Return | Tips             | Nominal | Net Return |
| 0.125  | 15-Oct-25 | 0.250   | 31-Oct-25 | 0.06             | 0.08    | -0.02      | 0.22             | 0.22    | 0.00       | 0.22             | 0.22    | 0.00       | 2.76             | 2.32    | 0.44       |
| 0.625  | 15-Jan-26 | 2.250   | 15-Nov-25 | 0.11             | 0.09    | 0.02       | 0.29             | 0.21    | 0.08       | 0.29             | 0.21    | 0.08       | 3.11             | 2.32    | 0.79       |
| 2.000  | 15-Jan-26 | 6.000   | 15-Feb-26 | 0.09             | 0.01    | 0.08       | 0.28             | 0.16    | 0.12       | 0.28             | 0.16    | 0.12       | 3.13             | 2.24    | 0.89       |
| 0.125  | 15-Apr-26 | 0.750   | 30-Apr-26 | 0.15             | 0.07    | 0.08       | 0.39             | 0.13    | 0.26       | 0.39             | 0.13    | 0.26       | 3.43             | 2.38    | 1.05       |
| 0.125  | 15-Jul-26 | 1.625   | 15-May-26 | 0.22             | 0.09    | 0.13       | 0.42             | 0.17    | 0.25       | 0.42             | 0.17    | 0.25       | 3.65             | 2.45    | 1.20       |
| 0.125  | 15-Oct-26 | 1.125   | 31-Oct-26 | 0.27             | 0.11    | 0.16       | 0.45             | 0.04    | 0.41       | 0.45             | 0.04    | 0.41       | 3.82             | 2.62    | 1.20       |
| 2.375  | 15-Jan-27 | 6.625   | 15-Feb-27 | 0.23             | 0.12    | 0.11       | 0.41             | -0.08   | 0.49       | 0.41             | -0.08   | 0.49       | 3.97             | 2.70    | 1.27       |
| 0.375  | 15-Jan-27 | 2.000   | 15-Nov-26 | 0.23             | 0.11    | 0.12       | 0.45             | 0.02    | 0.43       | 0.45             | 0.02    | 0.43       | 4.05             | 2.67    | 1.38       |
| 0.125  | 15-Apr-27 | 2.750   | 30-Apr-27 | 0.28             | 0.15    | 0.13       | 0.44             | -0.06   | 0.50       | 0.44             | -0.06   | 0.50       | 4.32             | 2.95    | 1.37       |
| 0.375  | 15-Jul-27 | 2.250   | 15-Aug-27 | 0.28             | 0.15    | 0.13       | 0.42             | -0.08   | 0.50       | 0.42             | -0.08   | 0.50       | 4.51             | 3.10    | 1.41       |
| 1.625  | 15-Oct-27 | 4.125   | 30-Sep-27 | 0.30             | 0.13    | 0.17       | 0.40             | -0.12   | 0.52       | 0.40             | -0.12   | 0.52       | 4.71             | 3.18    | 1.53       |
| 1.750  | 15-Jan-28 | 6.125   | 15-Nov-27 | 0.35             | 0.08    | 0.27       | 0.39             | -0.27   | 0.66       | 0.39             | -0.27   | 0.66       | 4.89             | 3.09    | 1.80       |
| 0.500  | 15-Jan-28 | 2.750   | 15-Feb-28 | 0.33             | 0.16    | 0.17       | 0.42             | -0.15   | 0.57       | 0.42             | -0.15   | 0.57       | 4.96             | 3.46    | 1.50       |
| 3.625  | 15-Apr-28 | 5.500   | 15-Aug-28 | 0.37             | 0.11    | 0.26       | 0.46             | -0.30   | 0.76       | 0.46             | -0.30   | 0.76       | 5.10             | 3.48    | 1.62       |
| 1.250  | 15-Apr-28 | 3.625   | 31-Mar-28 | 0.38             | 0.16    | 0.22       | 0.47             | -0.16   | 0.63       | 0.47             | -0.16   | 0.63       | 5.19             | 3.55    | 1.64       |
| 0.750  | 15-Jul-28 | 2.875   | 15-Aug-28 | 0.39             | 0.18    | 0.21       | 0.46             | -0.23   | 0.69       | 0.46             | -0.23   | 0.69       | 5.34             | 3.75    | 1.59       |
| 2.375  | 15-Oct-28 | 4.625   | 30-Sep-28 | 0.41             | 0.17    | 0.24       | 0.46             | -0.24   | 0.70       | 0.46             | -0.24   | 0.70       | 5.41             | 3.79    | 1.62       |
| 2.500  | 15-Jan-29 | 5.250   | 15-Feb-29 | 0.45             | 0.17    | 0.28       | 0.45             | -0.29   | 0.74       | 0.45             | -0.29   | 0.74       | 5.57             | 3.83    | 1.74       |
| 0.875  | 15-Jan-29 | 3.125   | 15-Nov-28 | 0.47             | 0.19    | 0.28       | 0.46             | -0.29   | 0.75       | 0.46             | -0.29   | 0.75       | 5.66             | 3.87    | 1.79       |
| 3.875  | 15-Apr-29 | 5.250   | 15-Feb-29 | 0.45             | 0.17    | 0.28       | 0.44             | -0.29   | 0.73       | 0.44             | -0.29   | 0.73       | 5.65             | 3.83    | 1.82       |
| 2.125  | 15-Apr-29 | 4.625   | 30-Apr-29 | 0.45             | 0.18    | 0.27       | 0.46             | -0.36   | 0.82       | 0.46             | -0.36   | 0.82       | 5.69             | 3.99    | 1.70       |
| 0.250  | 15-Jul-29 | 2.375   | 15-May-29 | 0.51             | 0.20    | 0.31       | 0.47             | -0.37   | 0.84       | 0.47             | -0.37   | 0.84       | 5.91             | 4.06    | 1.85       |
| 1.625  | 15-Oct-29 | 4.125   | 31-Oct-29 | 0.49             | 0.18    | 0.31       | 0.44             | -0.47   | 0.91       | 0.44             | -0.47   | 0.91       | 5.89             | 4.15    | 1.74       |
| 0.125  | 15-Jan-30 | 1.750   | 15-Nov-29 | 0.50             | 0.19    | 0.31       | 0.43             | -0.49   | 0.92       | 0.43             | -0.49   | 0.92       | 6.10             | 4.29    | 1.81       |
| 1.625  | 15-Apr-30 | 3.875   | 30-Apr-30 | 0.52             | 0.20    | 0.32       | 0.37             | -0.54   | 0.91       | 0.37             | -0.54   | 0.91       | N/A              | N/A     | N/A        |
| 0.125  | 15-Jul-30 | 0.625   | 15-Aug-30 | 0.57             | 0.20    | 0.37       | 0.42             | -0.62   | 1.04       | 0.42             | -0.62   | 1.04       | 6.34             | 4.64    | 1.70       |
| 0.125  | 15-Jan-31 | 1.125   | 15-Feb-31 | 0.57             | 0.18    | 0.39       | 0.35             | -0.71   | 1.06       | 0.35             | -0.71   | 1.06       | 6.46             | 4.69    | 1.77       |
| 0.125  | 15-Jul-31 | 1.250   | 15-Aug-31 | 0.58             | 0.15    | 0.43       | 0.28             | -0.83   | 1.11       | 0.28             | -0.83   | 1.11       | 6.59             | 4.65    | 1.94       |
| 0.125  | 15-Jan-32 | 1.875   | 15-Feb-32 | 0.52             | 0.15    | 0.37       | 0.16             | -0.90   | 1.06       | 0.16             | -0.90   | 1.06       | 6.48             | 4.49    | 1.99       |
| 3.375  | 15-Apr-32 | 5.375   | 15-Feb-31 | 0.52             | 0.15    | 0.37       | 0.14             | -0.64   | 0.78       | 0.14             | -0.64   | 0.78       | 6.24             | 4.47    | 1.77       |
| 0.625  | 15-Jul-32 | 2.750   | 15-Aug-32 | 0.55             | 0.12    | 0.43       | 0.11             | -0.98   | 1.09       | 0.11             | -0.98   | 1.09       | 6.51             | 4.45    | 2.06       |
| 1.125  | 15-Jan-33 | 4.125   | 15-Nov-32 | 0.49             | 0.12    | 0.37       | 0.02             | -1.02   | 1.04       | 0.02             | -1.02   | 1.04       | 6.16             | 4.23    | 1.93       |
| 1.375  | 15-Jul-33 | 3.375   | 15-May-33 | 0.49             | 0.11    | 0.38       | -0.07            | -1.06   | 0.99       | -0.07            | -1.06   | 0.99       | 6.15             | 4.40    | 1.75       |
| 1.750  | 15-Jan-34 | 4.000   | 15-Feb-34 | 0.44             | 0.08    | 0.36       | -0.18            | -1.14   | 0.96       | -0.18            | -1.14   | 0.96       | 5.84             | 4.17    | 1.67       |
| 1.875  | 15-Jul-34 | 4.375   | 15-May-34 | 0.40             | 0.08    | 0.32       | -0.27            | -1.16   | 0.89       | -0.27            | -1.16   | 0.89       | 5.74             | 4.08    | 1.66       |
| 2.125  | 15-Jan-35 | 4.250   | 15-Nov-34 | 0.40             | 0.05    | 0.35       | -0.33            | -1.27   | 0.94       | -0.33            | -1.27   | 0.94       | N/A              | N/A     | N/A        |
| 2.125  | 15-Feb-40 | 4.625   | 15-Feb-40 | 0.21             | -0.25   | 0.46       | -0.90            | -2.03   | 1.13       | -0.90            | -2.03   | 1.13       | 4.25             | 2.39    | 1.86       |
| 2.125  | 15-Feb-41 | 4.750   | 15-Feb-41 | 0.23             | -0.29   | 0.52       | -1.12            | -2.19   | 1.07       | -1.12            | -2.19   | 1.07       | 2.91             | 1.87    | 1.04       |
| 0.750  | 15-Feb-42 | 3.125   | 15-Feb-42 | 0.20             | -0.30   | 0.50       | -1.45            | -2.43   | 0.98       | -1.45            | -2.43   | 0.98       | 2.12             | 1.21    | 0.91       |
| 0.625  | 15-Feb-43 | 3.125   | 15-Feb-43 | 0.30             | -0.35   | 0.65       | -1.52            | -2.52   | 1.00       | -1.52            | -2.52   | 1.00       | 2.11             | 1.23    | 0.88       |
| 1.375  | 15-Feb-44 | 3.625   | 15-Feb-44 | 0.21             | -0.38   | 0.59       | -1.48            | -2.48   | 1.00       | -1.48            | -2.48   | 1.00       | 2.12             | 1.12    | 1.00       |
| 0.750  | 15-Feb-45 | 2.500   | 15-Feb-45 | 0.12             | -0.50   | 0.62       | -1.83            | -2.69   | 0.86       | -1.83            | -2.69   | 0.86       | 1.27             | 0.58    | 0.69       |
| 1.000  | 15-Feb-46 | 2.500   | 15-Feb-46 | 0.04             | -0.51   | 0.55       | -1.96            | -2.73   | 0.77       | -1.96            | -2.73   | 0.77       | 1.20             | 0.51    | 0.69       |
| 0.875  | 15-Feb-47 | 3.000   | 15-Feb-47 | 0.03             | -0.51   | 0.54       | -2.10            | -2.74   | 0.64       | -2.10            | -2.74   | 0.64       | 0.52             | 0.58    | -0.06      |
| 1.000  | 15-Feb-48 | 3.000   | 15-Feb-48 | 0.07             | -0.42   | 0.49       | -2.12            | -2.74   | 0.62       | -2.12            | -2.74   | 0.62       | 0.31             | 0.58    | -0.27      |
| 1.000  | 15-Feb-49 | 3.000   | 15-Feb-49 | -0.05            | -0.48   | 0.43       | -2.33            | -2.84   | 0.51       | -2.33            | -2.84   | 0.51       | -0.18            | 0.46    | -0.64      |
| 0.250  | 15-Feb-50 | 2.000   | 15-Feb-50 | -0.09            | -0.61   | 0.52       | -2.83            | -3.25   | 0.42       | -2.83            | -3.25   | 0.42       | -1.13            | -0.41   | -0.72      |
| 0.125  | 15-Feb-51 | 1.875   | 15-Feb-51 | -0.18            | -0.57   | 0.39       | -3.11            | -3.43   | 0.32       | -3.11            | -3.43   | 0.32       | -2.01            | -0.73   | -1.28      |

|       |           |       |           |       |       |      |       |       |       |       |       |       |       |       |       |
|-------|-----------|-------|-----------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.125 | 15-Feb-52 | 2.250 | 15-Feb-52 | -0.37 | -0.65 | 0.28 | -3.46 | -3.45 | -0.01 | -3.46 | -3.45 | -0.01 | -2.84 | -0.84 | -2.00 |
| 1.500 | 15-Feb-53 | 3.625 | 15-Feb-53 | -0.23 | -0.58 | 0.35 | -2.74 | -3.14 | 0.40  | -2.74 | -3.14 | 0.40  | -1.01 | -0.46 | -0.55 |
| 2.125 | 15-Feb-54 | 4.250 | 15-Feb-54 | -0.25 | -0.53 | 0.28 | -2.72 | -3.05 | 0.33  | -2.72 | -3.05 | 0.33  | -0.73 | -0.74 | 0.01  |
| 2.375 | 15-Feb-55 | 4.625 | 15-Feb-55 | -0.20 | -0.54 | 0.34 | -2.68 | -3.05 | 0.37  | -2.68 | -3.05 | 0.37  | N/A   | N/A   | N/A   |