

# TIPS Daily Report - May 15, 2025

Date  
5/14/2025

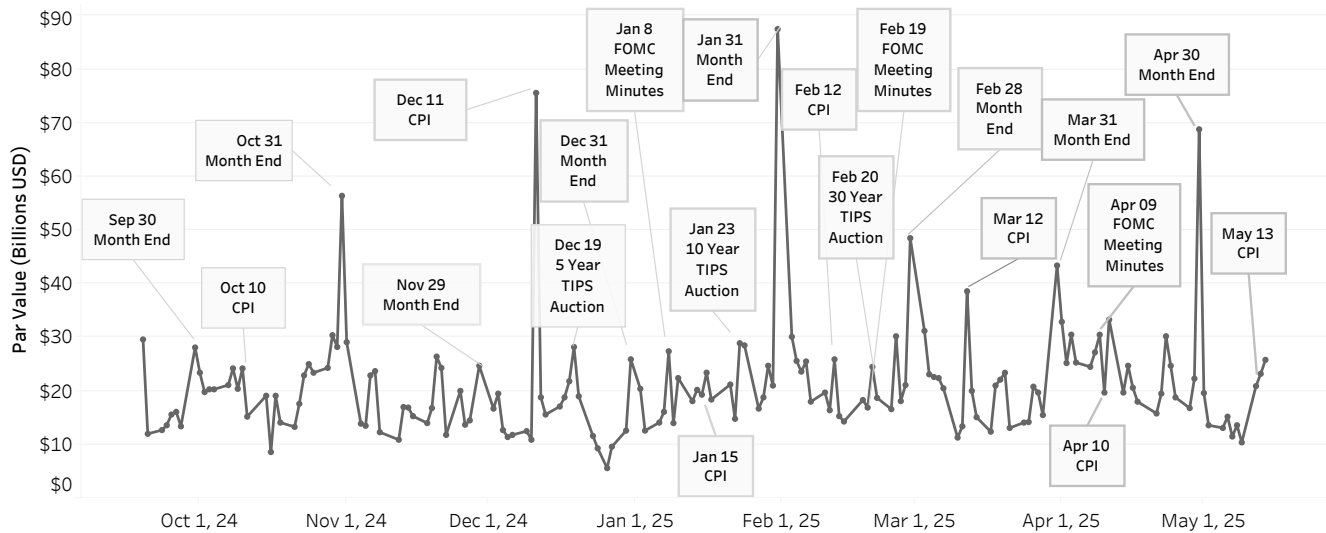
## Total Return Comparison Nominal vs Inflation Indexed

Total Return  
-38.14% 32.01%

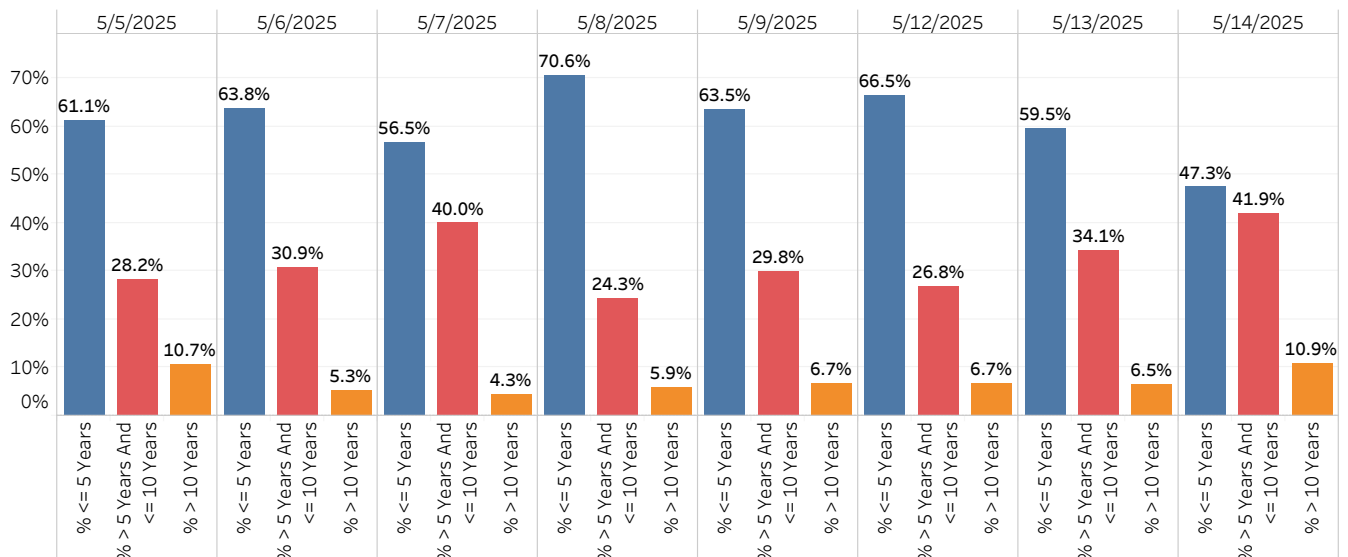
| Maturity  | MTD     |        | YTD     |        | 1 Year  |        | 2 Years |        | 5 Years |         | 10 Years |        |
|-----------|---------|--------|---------|--------|---------|--------|---------|--------|---------|---------|----------|--------|
|           | Nominal | TIPS   | Nominal | TIPS   | Nominal | TIPS   | Nominal | TIPS   | Nominal | TIPS    | Nominal  | TIPS   |
| 1-5 Year  | -0.79%  | -0.79% | 2.02%   | 3.28%  | 5.59%   | 6.74%  | 8.30%   | 10.73% | 2.85%   | 17.58%  | 15.33%   | 32.01% |
| 5-10 Year | -1.87%  | -1.05% | 2.48%   | 3.64%  | 5.12%   | 5.84%  | 4.59%   | 6.65%  | -9.83%  | 5.84%   | 11.73%   | 31.10% |
| 10+ Year  | -3.49%  | -2.18% | -0.59%  | -0.28% | -1.00%  | -1.45% | -7.00%  | -7.70% | -38.14% | -26.76% | -3.24%   | 11.68% |

## TIPS Trading Volume

Total Daily Trading Volume in Billions of US Dollars



## Daily TIPS Volume by Sector



# U.S. Inflation Heatmap

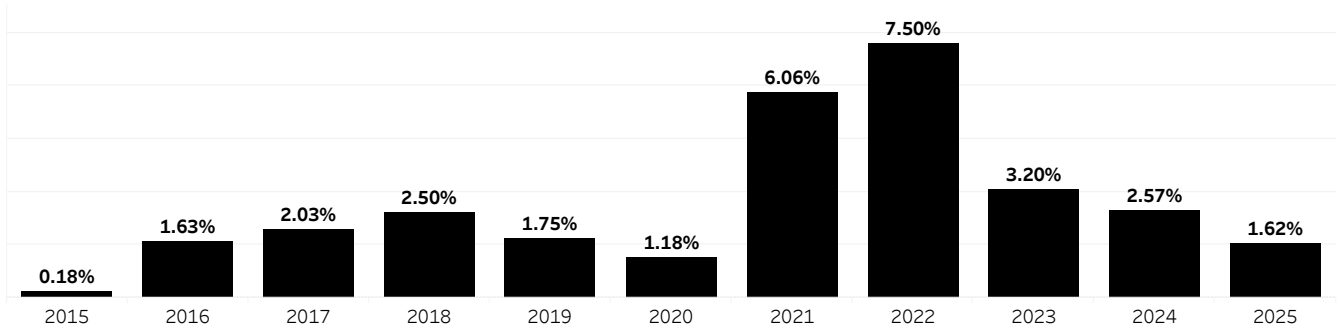
## Consumer Price Index Components

Month-over-Month % Change, Seasonally Adjusted

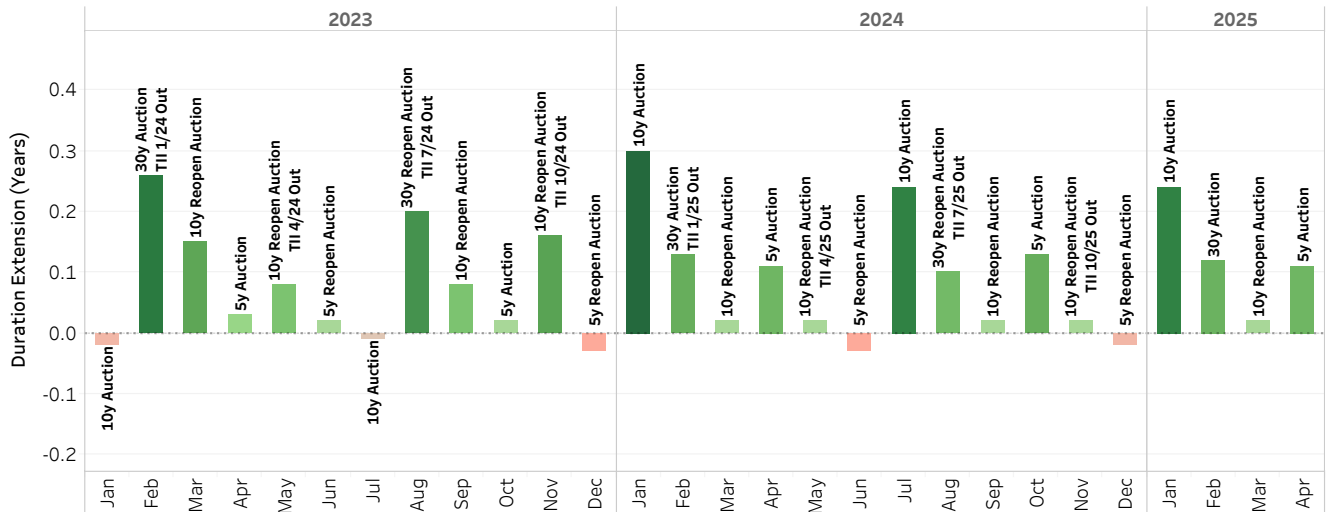
MoM % Change  
-6.25% 4.02%

|                           | 2024   |        |        |        |        |        |        |        | 2025   |        |        |        |
|---------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                           | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Apr    |
| Headline CPI              | 0.04%  | 0.00%  | 0.14%  | 0.18%  | 0.23%  | 0.23%  | 0.28%  | 0.36%  | 0.47%  | 0.22%  | -0.05% | 0.22%  |
| Core CPI                  | 0.14%  | 0.09%  | 0.19%  | 0.28%  | 0.31%  | 0.27%  | 0.29%  | 0.21%  | 0.45%  | 0.23%  | 0.06%  | 0.24%  |
| Core Services Ex-Housing  | -0.04% | -0.05% | 0.21%  | 0.33%  | 0.40%  | 0.31%  | 0.34%  | 0.21%  | 0.76%  | 0.22%  | -0.24% | 0.21%  |
| Energy                    | -1.34% | -1.57% | -0.43% | -0.99% | -0.95% | -0.22% | 0.09%  | 2.42%  | 1.08%  | 0.20%  | -2.39% | 0.67%  |
| Gasoline                  | -2.43% | -3.03% | -0.90% | -1.18% | -2.33% | -0.98% | 0.29%  | 4.02%  | 1.75%  | -0.96% | -6.25% | -0.09% |
| Electricity               | 0.05%  | -0.30% | 0.16%  | -0.41% | 0.54%  | 0.79%  | -0.23% | 0.20%  | -0.04% | 1.02%  | 0.94%  | 0.85%  |
| Utility Gas               | -0.63% | 1.51%  | -0.53% | -1.61% | 0.67%  | 0.50%  | 0.48%  | 2.82%  | 1.79%  | 2.54%  | 3.57%  | 3.70%  |
| Food                      | 0.14%  | 0.24%  | 0.15%  | 0.15%  | 0.32%  | 0.21%  | 0.32%  | 0.29%  | 0.36%  | 0.16%  | 0.44%  | -0.08% |
| Food At Home              | 0.00%  | 0.12%  | 0.11%  | 0.08%  | 0.31%  | 0.19%  | 0.35%  | 0.28%  | 0.46%  | 0.01%  | 0.49%  | -0.44% |
| Food Away From Home       | 0.35%  | 0.41%  | 0.21%  | 0.26%  | 0.34%  | 0.24%  | 0.28%  | 0.30%  | 0.24%  | 0.39%  | 0.36%  | 0.44%  |
| Core Goods                | -0.14% | -0.17% | -0.23% | -0.12% | 0.17%  | 0.02%  | 0.21%  | -0.04% | 0.28%  | 0.22%  | -0.09% | 0.06%  |
| Apparel                   | -0.21% | -0.01% | -0.27% | 0.10%  | 0.99%  | -0.89% | 0.08%  | 0.13%  | -1.38% | 0.60%  | 0.37%  | -0.20% |
| New Vehicles              | -0.42% | -0.15% | -0.14% | 0.03%  | 0.13%  | -0.02% | 0.47%  | 0.36%  | 0.04%  | -0.07% | 0.10%  | -0.01% |
| Used Cars and Trucks      | -0.82% | -1.63% | -1.44% | -0.16% | 0.50%  | 1.21%  | 1.29%  | 0.76%  | 2.19%  | 0.88%  | -0.69% | -0.53% |
| Core Services             | 0.22%  | 0.19%  | 0.32%  | 0.38%  | 0.36%  | 0.34%  | 0.29%  | 0.26%  | 0.51%  | 0.25%  | 0.11%  | 0.29%  |
| Shelter                   | 0.37%  | 0.23%  | 0.36%  | 0.48%  | 0.27%  | 0.39%  | 0.34%  | 0.27%  | 0.37%  | 0.28%  | 0.22%  | 0.33%  |
| Rent of Primary Residence | 0.37%  | 0.27%  | 0.47%  | 0.35%  | 0.29%  | 0.30%  | 0.25%  | 0.30%  | 0.35%  | 0.28%  | 0.33%  | 0.34%  |
| OER                       | 0.42%  | 0.31%  | 0.36%  | 0.47%  | 0.34%  | 0.41%  | 0.25%  | 0.31%  | 0.31%  | 0.28%  | 0.40%  | 0.36%  |

## Annual TIPS Inflation Accrual



## Monthly Duration Extension US TIPS (Series-L)



US TIPS Report

5/15/2025

| 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   | 0.375  | 15-Jul-25 | 99.854        | 0.563     | 0.12         | 0.31    | 1.84    | 363.0      | 8.2    | 4.6    | -57.6  | 526.9   | 345.4  | 441.7  | 526.9   | 146.0  | 293.0  | 15-Aug-25 |
| TIPS   | 0.125  | 15-Oct-25 | 99.717        | 0.559     | -0.08        | 0.23    | 2.20    | 366.8      | 1.3    | -26.0  | -56.9  | 467.0   | 358.7  | 406.6  | 467.0   | 160.3  | 281.1  | 31-Oct-25 |
| TIPS   | 0.625  | 15-Jan-26 | 99.511        | 1.204     | -0.21        | 0.26    | 2.40    | 297.8      | 0.3    | -38.6  | -57.3  | 385.2   | 290.4  | 335.2  | 385.2   | 154.6  | 245.6  | 15-Nov-25 |
| TIPS   | 2.000  | 15-Jan-26 | 100.404       | 1.184     | -0.23        | 0.26    | 2.40    | 231.5      | -6.7   | -38.4  | -26.5  | 294.6   | 222.4  | 264.1  | 294.6   | 91.8   | 186.4  | 15-Feb-26 |
| TIPS   | 0.125  | 15-Apr-26 | 98.862        | 1.253     | -0.33        | 0.16    | 2.60    | 287.1      | -0.2   | -26.6  | -40.1  | 350.8   | 281.0  | 313.3  | 350.8   | 147.1  | 235.2  | 30-Apr-26 |
| TIPS   | 0.125  | 15-Jul-26 | 99.122        | 0.800     | -0.41        | 0.20    | 2.81    | 330.4      | -2.6   | -22.7  | -19.4  | 374.6   | 325.6  | 343.9  | 374.6   | 190.1  | 270.2  | 15-May-26 |
| TIPS   | 0.125  | 15-Oct-26 | 98.717        | 0.961     | -0.54        | 0.11    | 2.83    | 308.6      | -2.1   | -16.1  | -12.0  | 342.4   | 303.5  | 321.6  | 342.4   | 183.0  | 259.9  | 31-Oct-26 |
| TIPS   | 2.375  | 15-Jan-27 | 101.748       | 1.224     | -0.63        | 0.11    | 2.93    | 233.6      | -0.2   | -16.4  | -2.1   | 267.0   | 228.6  | 247.7  | 267.0   | 136.4  | 202.2  | 15-Feb-27 |
| TIPS   | 0.375  | 15-Jan-27 | 98.481        | 1.235     | -0.63        | 0.18    | 3.00    | 279.8      | -1.3   | -15.4  | -9.2   | 308.3   | 275.7  | 291.6  | 308.3   | 173.3  | 241.0  | 15-Nov-26 |
| TIPS   | 0.125  | 15-Apr-27 | 97.694        | 1.302     | -0.70        | 0.17    | 3.23    | 265.8      | -2.7   | -13.3  | -5.0   | 290.5   | 262.3  | 274.9  | 290.5   | 170.8  | 232.6  | 30-Apr-27 |
| TIPS   | 0.375  | 15-Jul-27 | 98.381        | 1.085     | -0.74        | 0.18    | 3.33    | 285.7      | -1.8   | -9.7   | -0.8   | 306.1   | 278.3  | 291.2  | 306.1   | 192.9  | 251.9  | 15-Aug-27 |
| TIPS   | 1.625  | 15-Oct-27 | 100.961       | 1.181     | -0.78        | 0.13    | 3.40    | 274.8      | -2.4   | -10.0  | 1.5    | 295.6   | 265.3  | 280.9  | 295.6   | 190.0  | 246.7  | 30-Sep-27 |
| TIPS   | 1.750  | 15-Jan-28 | 100.931       | 1.331     | -0.80        | 0.12    | 3.53    | 249.0      | 0.0    | -7.4   | 14.7   | 267.3   | 230.3  | 249.1  | 267.3   | 172.6  | 222.1  | 15-Nov-27 |
| TIPS   | 0.500  | 15-Jan-28 | 97.671        | 1.350     | -0.84        | 0.11    | 3.57    | 260.7      | -2.4   | -7.4   | 5.5    | 277.6   | 247.9  | 263.9  | 277.6   | 184.0  | 235.4  | 15-Feb-28 |
| TIPS   | 3.625  | 15-Apr-28 | 106.145       | 1.391     | -0.78        | 0.07    | 3.64    | 241.6      | -2.5   | -4.1   | 18.9   | 258.9   | 220.6  | 241.8  | 258.9   | 165.0  | 215.0  | 15-Aug-28 |
| TIPS   | 1.250  | 15-Apr-28 | 99.404        | 1.423     | -0.78        | 0.16    | 3.72    | 251.6      | -2.7   | -4.5   | 9.5    | 268.2   | 237.1  | 253.9  | 268.2   | 180.5  | 229.6  | 31-Mar-28 |
| TIPS   | 0.750  | 15-Jul-28 | 98.198        | 1.306     | -0.84        | 0.07    | 3.74    | 266.6      | -2.9   | -4.1   | 8.9    | 283.0   | 251.4  | 268.7  | 283.0   | 198.8  | 246.0  | 15-Aug-28 |
| TIPS   | 2.375  | 15-Oct-28 | 103.305       | 1.353     | -0.82        | 0.02    | 3.80    | 262.1      | -3.4   | -3.2   | 11.2   | 277.5   | 245.5  | 263.4  | 277.5   | 195.8  | 241.9  | 30-Sep-28 |
| TIPS   | 2.500  | 15-Jan-29 | 103.519       | 1.471     | -0.80        | 0.02    | 3.85    | 236.1      | -2.1   | -2.2   | 21.5   | 251.6   | 213.1  | 234.5  | 251.6   | 173.1  | 217.3  | 15-Feb-29 |
| TIPS   | 0.875  | 15-Jan-29 | 97.763        | 1.477     | -0.80        | 0.04    | 3.92    | 250.8      | -2.9   | -2.2   | 14.9   | 265.5   | 232.0  | 250.7  | 265.8   | 192.6  | 234.0  | 15-Nov-28 |
| TIPS   | 3.875  | 15-Apr-29 | 108.786       | 1.515     | -0.80        | 0.06    | 3.96    | 231.7      | -2.1   | 0.5    | 24.0   | 247.2   | 206.6  | 229.0  | 247.2   | 171.2  | 213.2  | 15-Feb-29 |
| TIPS   | 2.125  | 15-Apr-29 | 102.130       | 1.543     | -0.81        | 0.02    | 3.97    | 247.8      | -2.4   | -0.3   | 16.2   | 261.2   | 227.9  | 246.1  | 261.2   | 187.7  | 229.1  | 30-Apr-29 |
| TIPS   | 0.250  | 15-Jul-29 | 95.153        | 1.429     | -0.86        | -0.02   | 4.05    | 258.6      | -3.3   | 0.2    | 17.9   | 273.2   | 237.6  | 256.7  | 273.2   | 202.2  | 241.9  | 15-May-29 |
| TIPS   | 1.625  | 15-Oct-29 | 100.511       | 1.485     | -0.82        | -0.10   | 4.04    | 256.2      | -3.5   | 0.6    | 17.4   | 270.1   | 234.7  | 254.1  | 270.1   | 234.6  | 252.1  | 31-Oct-29 |
| TIPS   | 0.125  | 15-Jan-30 | 93.366        | 1.583     | -0.88        | -0.13   | 4.10    | 242.6      | -3.4   | 2.0    | 18.9   | 258.4   | 221.2  | 240.5  | 258.4   | 193.9  | 229.0  | 15-Nov-29 |
| TIPS   | 1.625  | 15-Apr-30 | 99.862        | 1.638     | N/A          | N/A     | N/A     | N/A        | N/A    | N/A    | N/A    | 242.5   | 242.5  | 242.5  | 242.5   | 242.5  | 242.5  | 30-Apr-30 |
| TIPS   | 0.125  | 15-Jul-30 | 92.839        | 1.543     | -0.86        | -0.24   | 4.26    | 255.2      | -2.8   | 3.2    | 19.2   | 268.2   | 232.8  | 251.9  | 268.3   | 205.0  | 240.5  | 15-Aug-30 |
| TIPS   | 0.125  | 15-Jan-31 | 91.420        | 1.701     | -0.85        | -0.34   | 4.28    | 238.9      | -3.2   | 3.9    | 16.2   | 254.9   | 218.2  | 237.5  | 255.9   | 195.3  | 228.6  | 15-Feb-31 |
| TIPS   | 0.125  | 15-Jul-31 | 90.732        | 1.695     | -0.89        | -0.50   | 4.33    | 250.9      | -2.9   | 5.3    | 17.2   | 263.3   | 229.5  | 247.4  | 264.7   | 204.3  | 238.3  | 15-Aug-31 |
| TIPS   | 0.125  | 15-Jan-32 | 89.252        | 1.828     | -0.89        | -0.67   | 4.23    | 242.1      | -3.9   | 5.4    | 16.7   | 254.9   | 220.9  | 238.6  | 256.4   | 200.3  | 231.9  | 15-Feb-32 |
| TIPS   | 3.375  | 15-Apr-32 | 110.107       | 1.777     | -0.84        | -0.30   | 4.16    | 231.1      | -3.2   | 5.8    | 20.8   | 244.7   | 207.2  | 226.4  | 246.9   | 181.5  | 218.0  | 15-Feb-31 |
| TIPS   | 0.625  | 15-Jul-32 | 91.893        | 1.822     | -0.87        | -0.78   | 4.27    | 245.5      | -3.3   | 5.6    | 16.6   | 258.7   | 225.0  | 241.6  | 260.3   | 203.6  | 235.1  | 15-Aug-32 |
| TIPS   | 1.125  | 15-Jan-33 | 94.191        | 1.930     | -0.88        | -0.82   | 4.02    | 234.1      | -3.6   | 5.1    | 16.6   | 248.8   | 214.2  | 231.2  | 250.2   | 195.8  | 226.4  | 15-Nov-32 |
| TIPS   | 1.375  | 15-Jul-33 | 95.694        | 1.933     | -0.94        | -1.02   | 4.02    | 239.7      | -3.1   | 5.0    | 14.4   | 254.6   | 222.5  | 237.1  | 255.6   | 202.2  | 231.8  | 15-May-33 |
| TIPS   | 1.750  | 15-Jan-34 | 97.793        | 2.017     | -0.94        | -1.10   | 3.87    | 236.7      | -2.8   | 5.0    | 15.4   | 249.4   | 218.2  | 233.3  | 250.2   | 199.0  | 227.9  | 15-Feb-34 |
| TIPS   | 1.875  | 15-Jul-34 | 98.793        | 2.009     | -1.02        | -1.15   | 3.87    | 239.1      | -2.9   | 5.0    | 14.9   | 251.7   | 221.7  | 235.6  | 252.9   | 202.2  | 230.3  | 15-May-34 |
| TIPS   | 2.125  | 15-Jan-35 | 100.313       | 2.080     | -1.12        | -1.30   | N/A     | 235.4      | -2.6   | 5.1    | 14.4   | 247.0   | 217.9  | 231.5  | 247.8   | 217.9  | 233.3  | 15-Nov-34 |
| TIPS   | 2.125  | 15-Feb-40 | 97.359        | 2.296     | -1.78        | -2.51   | 3.03    | 245.9      | -2.2   | 7.3    | 12.5   | 250.1   | 227.8  | 238.4  | 250.9   | 201.4  | 231.7  | 15-Feb-40 |
| TIPS   | 2.125  | 15-Feb-41 | 96.580        | 2.347     | -1.68        | -3.11   | 1.97    | 247.2      | -2.7   | 7.4    | 11.1   | 251.3   | 229.9  | 239.7  | 253.4   | 205.1  | 234.8  | 15-Feb-41 |
| TIPS   | 0.750  | 15-Feb-42 | 76.534        | 2.442     | -1.84        | -3.59   | 1.58    | 245.8      | -2.5   | 6.0    | 10.8   | 249.5   | 228.4  | 238.7  | 253.7   | 210.9  | 236.4  | 15-Feb-42 |
| TIPS   | 0.625  | 15-Feb-43 | 73.153        | 2.470     | -2.00        | -3.88   | 1.53    | 247.2      | -1.4   | 7.7    | 12.6   | 250.4   | 229.6  | 239.4  | 253.8   | 214.3  | 238.6  | 15-Feb-43 |
| TIPS   | 1.375  | 15-Feb-44 | 82.732        | 2.504     | -1.93        | -3.83   | 1.43    | 244.9      | -1.8   | 6.5    | 12.7   | 249.6   | 228.0  | 238.6  | 253.3   | 216.6  | 238.4  | 15-Feb-44 |
| TIPS   | 0.750  | 15-Feb-45 | 71.870        | 2.542     | -2.07        | -4.31   | 0.94    | 246.2      | -1.3   | 7.0    | 13.6   | 249.7   | 228.8  | 239.2  | 252.8   | 216.9  | 238.9  | 15-Feb-45 |
| TIPS   | 1.000  | 15-Feb-46 | 74.511        | 2.562     | -2.10        | -4.48   | 0.83    | 245.4      | -1.5   | 7.0    | 12.5   | 249.3   | 228.9  | 239.0  | 251.1   | 216.4  | 238.1  | 15-Feb-46 |
| TIPS   | 0.875  | 15-Feb-47 | 71.175        | 2.589     | -2.24        | -4.94   | 0.23    | 242.9      | -2.1   | 6.3    | 11.5   | 250.0   | 228.0  | 238.2  | 252.1   | 216.3  | 238.3  | 15-Feb-47 |
| TIPS   | 1.000  | 15-Feb-48 | 72.336        | 2.589     | -2.29        | -4.83   | 0.13    | 244.1      | -1.3   | 7.2    | 12.0   | 250.5   | 228.3  | 238.6  | 252.5   | 218.3  | 239.0  | 15-Feb-48 |
| TIPS   | 1.000  | 15-Feb-49 | 71.313        | 2.603     | -2.40        | -5.13   | -0.26   | 243.2      | -1.8   | 7.0    | 12.5   | 250.1   | 227.3  | 238.4  | 251.8   | 218.5  | 238.7  | 15-Feb-49 |
| TIPS   | 0.250  | 15-Feb-50 | 56.771        | 2.607     | -2.79        | -5.91   | -1.11   | 243.2      | -1.7   | 6.6    | 11.2   | 249.5   | 227.6  | 237.9  | 251.7   | 219.2  | 238.3  | 15-Feb-50 |
| TIPS   | 0.125  | 15-Feb-51 | 53.267        | 2.605     | -3.12        | -6.29   | -1.69   | 242.2      | -1.6   | 6.7    | 11.5   | 249.5   | 226.4  | 237.3  | 251.3   | 219.4  | 238.0  | 15-Feb-51 |
| TIPS   | 0.125  | 15-Feb-52 | 52.336        | 2.587     | -3.16        | -6.56   | -2.03   | 241.8      | -1.5   | 6.5    | 11.4   | 248.6   | 225.6  | 236.9  | 251.1   | 217.4  | 237.1  | 15-Feb-52 |

|      |       |           |        |       |       |       |       |       |      |     |      |       |       |       |       |       |       |           |
|------|-------|-----------|--------|-------|-------|-------|-------|-------|------|-----|------|-------|-------|-------|-------|-------|-------|-----------|
| TIPS | 1.500 | 15-Feb-53 | 77.832 | 2.610 | -2.56 | -5.39 | -0.90 | 235.6 | -1.6 | 6.1 | 11.8 | 241.4 | 218.9 | 230.1 | 242.8 | 208.9 | 230.0 | 15-Feb-53 |
| TIPS | 2.125 | 15-Feb-54 | 89.946 | 2.612 | -2.42 | -5.16 | -0.75 | 233.5 | -1.9 | 6.3 | 11.6 | 239.0 | 216.0 | 227.7 | 240.2 | 206.1 | 227.3 | 15-Feb-54 |
| TIPS | 2.375 | 15-Feb-55 | 95.061 | 2.607 | -2.42 | -4.99 | N/A   | 231.3 | -1.6 | 6.7 | 12.1 | 232.9 | 213.0 | 223.7 | 232.9 | 213.0 | 223.7 | 15-Feb-55 |

US TIPS Total Return Performance vs. Nominal

5/15/2025

| 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 |
| 0.375  | 15-Jul-25 | 2.000   | 15-Aug-25 | 0.03             | 0.06    | -0.03      | 0.12             | 0.17    | -0.05      | 0.31             | 0.50    | -0.19      | 1.84             | 1.54    | 0.30       |
| 0.125  | 15-Oct-25 | 0.250   | 31-Oct-25 | -0.11            | 0.04    | -0.15      | -0.08            | 0.12    | -0.20      | 0.23             | 0.48    | -0.25      | 2.20             | 1.56    | 0.64       |
| 0.625  | 15-Jan-26 | 2.250   | 15-Nov-25 | -0.22            | 0.08    | -0.30      | -0.21            | 0.15    | -0.36      | 0.26             | 0.46    | -0.20      | 2.40             | 1.60    | 0.80       |
| 2.000  | 15-Jan-26 | 6.000   | 15-Feb-26 | -0.21            | 0.06    | -0.27      | -0.23            | 0.00    | -0.23      | 0.26             | 0.49    | -0.23      | 2.40             | 1.70    | 0.70       |
| 0.125  | 15-Apr-26 | 0.750   | 30-Apr-26 | -0.29            | -0.01   | -0.28      | -0.33            | -0.06   | -0.27      | 0.16             | 0.40    | -0.24      | 2.60             | 1.65    | 0.95       |
| 0.125  | 15-Jul-26 | 1.625   | 15-May-26 | -0.29            | 0.00    | -0.29      | -0.41            | -0.08   | -0.33      | 0.20             | 0.40    | -0.20      | 2.81             | 1.70    | 1.11       |
| 0.125  | 15-Oct-26 | 1.125   | 31-Oct-26 | -0.33            | -0.07   | -0.26      | -0.54            | -0.35   | -0.19      | 0.11             | 0.34    | -0.23      | 2.83             | 1.83    | 1.00       |
| 2.375  | 15-Jan-27 | 6.625   | 15-Feb-27 | -0.33            | -0.08   | -0.25      | -0.63            | -0.40   | -0.23      | 0.11             | 0.34    | -0.23      | 2.93             | 1.94    | 0.99       |
| 0.375  | 15-Jan-27 | 2.000   | 15-Nov-26 | -0.33            | -0.05   | -0.28      | -0.63            | -0.30   | -0.33      | 0.18             | 0.39    | -0.21      | 3.00             | 1.91    | 1.09       |
| 0.125  | 15-Apr-27 | 2.750   | 30-Apr-27 | -0.37            | -0.09   | -0.28      | -0.70            | -0.53   | -0.17      | 0.17             | 0.38    | -0.21      | 3.23             | 2.10    | 1.13       |
| 0.375  | 15-Jul-27 | 2.250   | 15-Aug-27 | -0.36            | -0.12   | -0.24      | -0.74            | -0.62   | -0.12      | 0.18             | 0.38    | -0.20      | 3.33             | 2.22    | 1.11       |
| 1.625  | 15-Oct-27 | 4.125   | 30-Sep-27 | -0.37            | -0.11   | -0.26      | -0.78            | -0.65   | -0.13      | 0.13             | 0.38    | -0.25      | 3.40             | 2.30    | 1.10       |
| 1.750  | 15-Jan-28 | 6.125   | 15-Nov-27 | -0.37            | -0.07   | -0.30      | -0.80            | -0.61   | -0.19      | 0.12             | 0.35    | -0.23      | 3.53             | 2.31    | 1.22       |
| 0.500  | 15-Jan-28 | 2.750   | 15-Feb-28 | -0.39            | -0.18   | -0.21      | -0.84            | -0.79   | -0.05      | 0.11             | 0.32    | -0.21      | 3.57             | 2.44    | 1.13       |
| 3.625  | 15-Apr-28 | 5.500   | 15-Aug-28 | -0.33            | -0.21   | -0.12      | -0.78            | -0.88   | 0.10       | 0.07             | 0.22    | -0.15      | 3.64             | 2.51    | 1.13       |
| 1.250  | 15-Apr-28 | 3.625   | 31-Mar-28 | -0.31            | -0.16   | -0.15      | -0.78            | -0.80   | 0.02       | 0.16             | 0.36    | -0.20      | 3.72             | 2.56    | 1.16       |
| 0.750  | 15-Jul-28 | 2.875   | 15-Aug-28 | -0.35            | -0.19   | -0.16      | -0.84            | -0.91   | 0.07       | 0.07             | 0.31    | -0.24      | 3.74             | 2.65    | 1.09       |
| 2.375  | 15-Oct-28 | 4.625   | 30-Sep-28 | -0.32            | -0.17   | -0.15      | -0.82            | -0.92   | 0.10       | 0.02             | 0.32    | -0.30      | 3.80             | 2.72    | 1.08       |
| 2.500  | 15-Jan-29 | 5.250   | 15-Feb-29 | -0.31            | -0.21   | -0.10      | -0.80            | -1.00   | 0.20       | 0.02             | 0.24    | -0.22      | 3.85             | 2.73    | 1.12       |
| 0.875  | 15-Jan-29 | 3.125   | 15-Nov-28 | -0.36            | -0.19   | -0.17      | -0.80            | -0.97   | 0.17       | 0.04             | 0.30    | -0.26      | 3.92             | 2.75    | 1.17       |
| 3.875  | 15-Apr-29 | 5.250   | 15-Feb-29 | -0.29            | -0.21   | -0.08      | -0.80            | -1.00   | 0.20       | 0.06             | 0.24    | -0.18      | 3.96             | 2.73    | 1.23       |
| 2.125  | 15-Apr-29 | 4.625   | 30-Apr-29 | -0.28            | -0.22   | -0.06      | -0.81            | -1.07   | 0.26       | 0.02             | 0.22    | -0.20      | 3.97             | 2.84    | 1.13       |
| 0.250  | 15-Jul-29 | 2.375   | 15-May-29 | -0.28            | -0.25   | -0.03      | -0.86            | -1.12   | 0.26       | -0.02            | 0.19    | -0.21      | 4.05             | 2.86    | 1.19       |
| 1.625  | 15-Oct-29 | 4.125   | 31-Oct-29 | -0.25            | -0.26   | 0.01       | -0.82            | -1.20   | 0.38       | -0.10            | 0.16    | -0.26      | 4.04             | 2.96    | 1.08       |
| 0.125  | 15-Jan-30 | 1.750   | 15-Nov-29 | -0.25            | -0.29   | 0.04       | -0.88            | -1.25   | 0.37       | -0.13            | 0.16    | -0.29      | 4.10             | 3.04    | 1.06       |
| 1.625  | 15-Apr-30 | 3.875   | 30-Apr-30 | N/A              | N/A     | N/A        | N/A              | N/A     | N/A        | N/A              | N/A     | N/A        | N/A              | N/A     | N/A        |
| 0.125  | 15-Jul-30 | 0.625   | 15-Aug-30 | -0.22            | -0.31   | 0.09       | -0.86            | -1.42   | 0.56       | -0.24            | 0.03    | -0.27      | 4.26             | 3.28    | 0.98       |
| 0.125  | 15-Jan-31 | 1.125   | 15-Feb-31 | -0.12            | -0.35   | 0.23       | -0.85            | -1.46   | 0.61       | -0.34            | 0.03    | -0.37      | 4.28             | 3.32    | 0.96       |
| 0.125  | 15-Jul-31 | 1.250   | 15-Aug-31 | -0.14            | -0.41   | 0.27       | -0.89            | -1.61   | 0.72       | -0.50            | -0.25   | -0.25      | 4.33             | 3.29    | 1.04       |
| 0.125  | 15-Jan-32 | 1.875   | 15-Feb-32 | -0.13            | -0.41   | 0.28       | -0.89            | -1.67   | 0.78       | -0.67            | -0.36   | -0.31      | 4.23             | 3.16    | 1.07       |
| 3.375  | 15-Apr-32 | 5.375   | 15-Feb-31 | -0.13            | -0.29   | 0.16       | -0.84            | -1.33   | 0.49       | -0.30            | 0.02    | -0.32      | 4.16             | 3.21    | 0.95       |
| 0.625  | 15-Jul-32 | 2.750   | 15-Aug-32 | -0.10            | -0.40   | 0.30       | -0.87            | -1.72   | 0.85       | -0.78            | -0.46   | -0.32      | 4.27             | 3.15    | 1.12       |
| 1.125  | 15-Jan-33 | 4.125   | 15-Nov-32 | -0.13            | -0.35   | 0.22       | -0.88            | -1.61   | 0.73       | -0.82            | -0.42   | -0.40      | 4.02             | 3.07    | 0.95       |
| 1.375  | 15-Jul-33 | 3.375   | 15-May-33 | -0.15            | -0.44   | 0.29       | -0.94            | -1.73   | 0.79       | -1.02            | -0.57   | -0.45      | 4.02             | 3.14    | 0.88       |
| 1.750  | 15-Jan-34 | 4.000   | 15-Feb-34 | -0.18            | -0.44   | 0.26       | -0.94            | -1.79   | 0.85       | -1.10            | -0.77   | -0.33      | 3.87             | 3.00    | 0.87       |
| 1.875  | 15-Jul-34 | 4.375   | 15-May-34 | -0.16            | -0.46   | 0.30       | -1.02            | -1.77   | 0.75       | -1.15            | -0.83   | -0.32      | 3.87             | 2.90    | 0.97       |
| 2.125  | 15-Jan-35 | 4.250   | 15-Nov-34 | -0.17            | -0.50   | 0.33       | -1.12            | -1.89   | 0.77       | -1.30            | -1.00   | -0.30      | N/A              | N/A     | N/A        |
| 2.125  | 15-Feb-40 | 4.625   | 15-Feb-40 | -0.26            | -0.84   | 0.58       | -1.78            | -2.64   | 0.86       | -2.51            | -2.68   | 0.17       | 3.03             | 1.79    | 1.24       |
| 2.125  | 15-Feb-41 | 4.750   | 15-Feb-41 | -0.20            | -0.90   | 0.70       | -1.68            | -2.81   | 1.13       | -3.11            | -3.00   | -0.11      | 1.97             | 1.30    | 0.67       |
| 0.750  | 15-Feb-42 | 3.125   | 15-Feb-42 | -0.13            | -0.92   | 0.79       | -1.84            | -3.04   | 1.20       | -3.59            | -3.49   | -0.10      | 1.58             | 0.82    | 0.76       |
| 0.625  | 15-Feb-43 | 3.125   | 15-Feb-43 | -0.30            | -0.96   | 0.66       | -2.00            | -3.06   | 1.06       | -3.88            | -3.49   | -0.39      | 1.53             | 0.94    | 0.59       |
| 1.375  | 15-Feb-44 | 3.625   | 15-Feb-44 | -0.27            | -0.92   | 0.65       | -1.93            | -2.97   | 1.04       | -3.83            | -3.42   | -0.41      | 1.43             | 0.91    | 0.52       |
| 0.750  | 15-Feb-45 | 2.500   | 15-Feb-45 | -0.27            | -1.04   | 0.77       | -2.07            | -3.26   | 1.19       | -4.31            | -3.92   | -0.39      | 0.94             | 0.37    | 0.57       |
| 1.000  | 15-Feb-46 | 2.500   | 15-Feb-46 | -0.26            | -1.04   | 0.78       | -2.10            | -3.28   | 1.18       | -4.48            | -4.06   | -0.42      | 0.83             | 0.36    | 0.47       |
| 0.875  | 15-Feb-47 | 3.000   | 15-Feb-47 | -0.27            | -1.03   | 0.76       | -2.24            | -3.21   | 0.97       | -4.94            | -3.92   | -1.02      | 0.23             | 0.46    | -0.23      |
| 1.000  | 15-Feb-48 | 3.000   | 15-Feb-48 | -0.27            | -1.06   | 0.79       | -2.29            | -3.31   | 1.02       | -4.83            | -3.96   | -0.87      | 0.13             | 0.42    | -0.29      |
| 1.000  | 15-Feb-49 | 3.000   | 15-Feb-49 | -0.24            | -1.07   | 0.83       | -2.40            | -3.38   | 0.98       | -5.13            | -4.09   | -1.04      | -0.26            | 0.32    | -0.58      |

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|       |           |       |           |       |       |      |       |       |      |       |       |       |       |       |       |
|-------|-----------|-------|-----------|-------|-------|------|-------|-------|------|-------|-------|-------|-------|-------|-------|
| 0.250 | 15-Feb-50 | 2.000 | 15-Feb-50 | -0.20 | -1.20 | 1.00 | -2.79 | -3.81 | 1.02 | -5.91 | -4.70 | -1.21 | -1.11 | -0.31 | -0.80 |
| 0.125 | 15-Feb-51 | 1.875 | 15-Feb-51 | -0.38 | -1.24 | 0.86 | -3.12 | -3.89 | 0.77 | -6.29 | -4.91 | -1.38 | -1.69 | -0.52 | -1.17 |
| 0.125 | 15-Feb-52 | 2.250 | 15-Feb-52 | -0.36 | -1.18 | 0.82 | -3.16 | -3.80 | 0.64 | -6.56 | -4.75 | -1.81 | -2.03 | -0.44 | -1.59 |
| 1.500 | 15-Feb-53 | 3.625 | 15-Feb-53 | -0.29 | -1.10 | 0.81 | -2.56 | -3.55 | 0.99 | -5.39 | -4.32 | -1.07 | -0.90 | -0.18 | -0.72 |
| 2.125 | 15-Feb-54 | 4.250 | 15-Feb-54 | -0.23 | -1.10 | 0.87 | -2.42 | -3.54 | 1.12 | -5.16 | -4.29 | -0.87 | -0.75 | -0.46 | -0.29 |
| 2.375 | 15-Feb-55 | 4.625 | 15-Feb-55 | -0.22 | -1.12 | 0.90 | -2.42 | -3.61 | 1.19 | -4.99 | -4.36 | -0.63 | N/A   | N/A   | N/A   |