

# TIPS Daily Report - August 13, 2025

Date  
8/12/2025

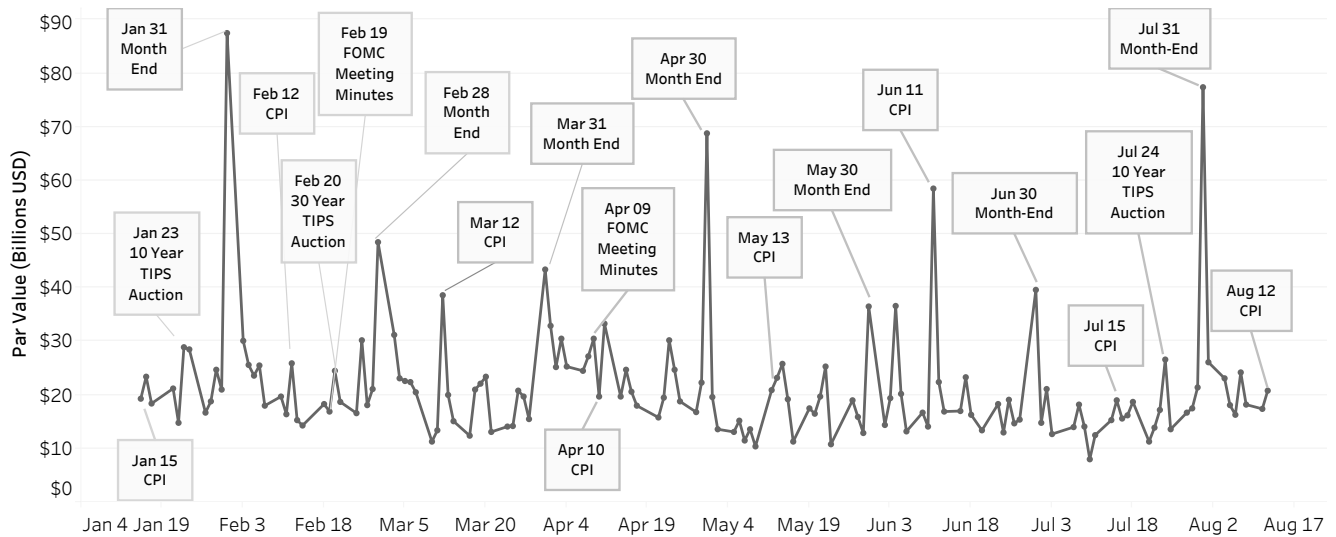
## Total Return Comparison Nominal vs Inflation Indexed

Total Return  
-34.61% 36.20%

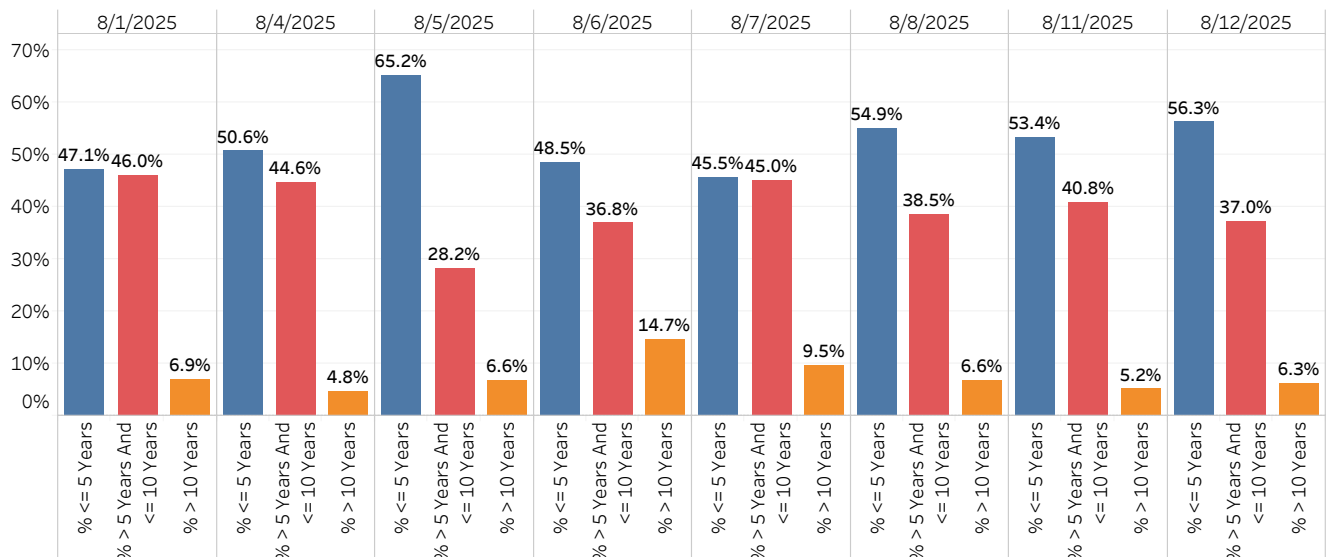
| Maturity  | MTD     |        | YTD     |       | 1 Year  |        | 2 Years |        | 5 Years |         | 10 Years |        |
|-----------|---------|--------|---------|-------|---------|--------|---------|--------|---------|---------|----------|--------|
|           | Nominal | TIPS   | Nominal | TIPS  | Nominal | TIPS   | Nominal | TIPS   | Nominal | TIPS    | Nominal  | TIPS   |
| 1-5 Year  | -0.03%  | 0.12%  | 3.88%   | 5.38% | 3.85%   | 5.95%  | 10.80%  | 13.08% | 4.66%   | 18.06%  | 17.42%   | 35.21% |
| 5-10 Year | -0.27%  | 0.07%  | 5.61%   | 7.14% | 2.22%   | 4.29%  | 10.83%  | 12.85% | -7.05%  | 6.64%   | 14.62%   | 36.20% |
| 10+ Year  | -0.89%  | -0.55% | 2.59%   | 1.85% | -5.93%  | -6.54% | 2.85%   | 1.20%  | -34.61% | -27.85% | -2.93%   | 14.07% |

## TIPS Trading Volume

Total Daily Trading Volume in Billions of US Dollars



## Daily TIPS Volume by Sector



# U.S. Inflation Heatmap

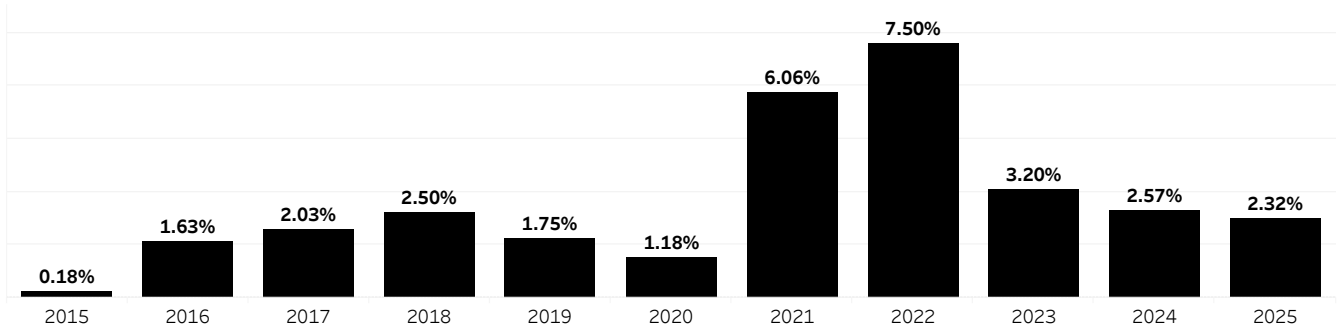
## Consumer Price Index Components

Month-over-Month % Change, Seasonally Adjusted

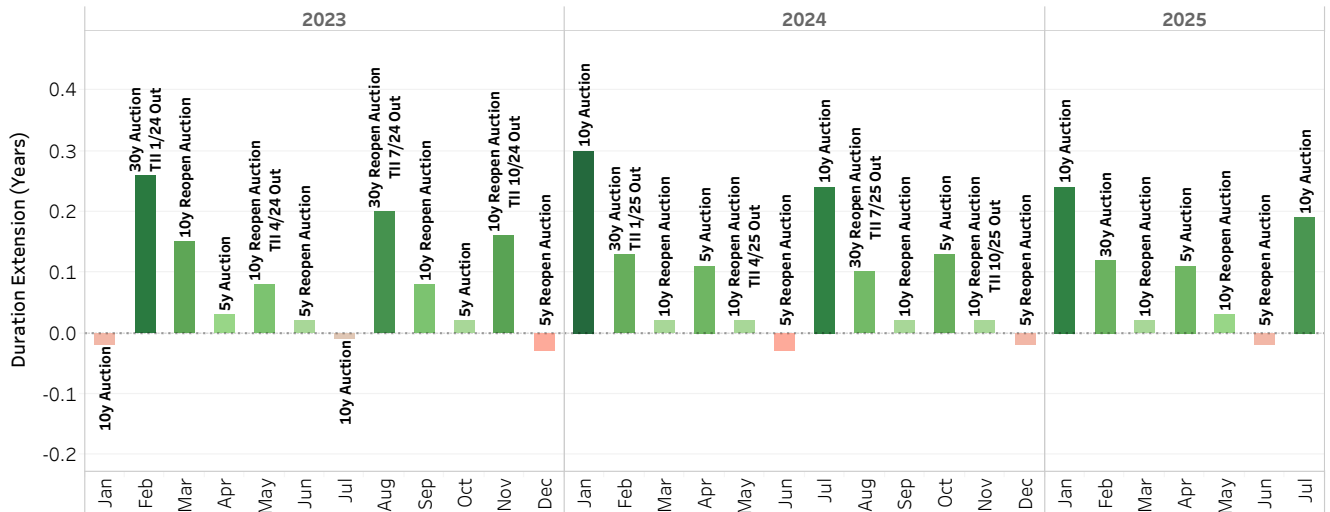
MoM % Change  
-6.25%  4.02%

|                           | 2024   |        |        |        | 2025   |        |        |        |        |        |        |
|---------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                           | Sep    | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    |
| Headline CPI              | 0.23%  | 0.23%  | 0.28%  | 0.36%  | 0.47%  | 0.22%  | -0.05% | 0.22%  | 0.08%  | 0.29%  | 0.20%  |
| Core CPI                  | 0.31%  | 0.27%  | 0.29%  | 0.21%  | 0.45%  | 0.23%  | 0.06%  | 0.24%  | 0.13%  | 0.23%  | 0.32%  |
| Core Services Ex-Housing  | 0.40%  | 0.31%  | 0.34%  | 0.21%  | 0.76%  | 0.22%  | -0.24% | 0.21%  | 0.06%  | 0.21%  | 0.48%  |
| Energy                    | -0.95% | -0.22% | 0.09%  | 2.42%  | 1.08%  | 0.20%  | -2.39% | 0.67%  | -0.98% | 0.95%  | -1.07% |
| Gasoline                  | -2.33% | -0.98% | 0.29%  | 4.02%  | 1.75%  | -0.96% | -6.25% | -0.09% | -2.65% | 1.01%  | -2.17% |
| Electricity               | 0.54%  | 0.79%  | -0.23% | 0.20%  | -0.04% | 1.02%  | 0.94%  | 0.85%  | 0.90%  | 0.97%  | -0.11% |
| Utility Gas               | 0.67%  | 0.50%  | 0.48%  | 2.82%  | 1.79%  | 2.54%  | 3.57%  | 3.70%  | -0.96% | 0.53%  | -0.86% |
| Food                      | 0.32%  | 0.21%  | 0.32%  | 0.29%  | 0.36%  | 0.16%  | 0.44%  | -0.08% | 0.29%  | 0.33%  | 0.05%  |
| Food At Home              | 0.31%  | 0.19%  | 0.35%  | 0.28%  | 0.46%  | 0.01%  | 0.49%  | -0.44% | 0.27%  | 0.28%  | -0.12% |
| Food Away From Home       | 0.34%  | 0.24%  | 0.28%  | 0.30%  | 0.24%  | 0.39%  | 0.36%  | 0.44%  | 0.31%  | 0.40%  | 0.28%  |
| Core Goods                | 0.17%  | 0.02%  | 0.21%  | -0.04% | 0.28%  | 0.22%  | -0.09% | 0.06%  | -0.04% | 0.20%  | 0.21%  |
| Apparel                   | 0.99%  | -0.89% | 0.08%  | 0.13%  | -1.38% | 0.60%  | 0.37%  | -0.20% | -0.42% | 0.43%  | 0.07%  |
| New Vehicles              | 0.13%  | -0.02% | 0.47%  | 0.36%  | 0.04%  | -0.07% | 0.10%  | -0.01% | -0.29% | -0.34% | 0.02%  |
| Used Cars and Trucks      | 0.50%  | 1.21%  | 1.29%  | 0.76%  | 2.19%  | 0.88%  | -0.69% | -0.53% | -0.54% | -0.67% | 0.48%  |
| Core Services             | 0.36%  | 0.34%  | 0.29%  | 0.26%  | 0.51%  | 0.25%  | 0.11%  | 0.29%  | 0.17%  | 0.25%  | 0.36%  |
| Shelter                   | 0.27%  | 0.39%  | 0.34%  | 0.27%  | 0.37%  | 0.28%  | 0.22%  | 0.33%  | 0.25%  | 0.18%  | 0.23%  |
| Rent of Primary Residence | 0.29%  | 0.30%  | 0.25%  | 0.30%  | 0.35%  | 0.28%  | 0.33%  | 0.34%  | 0.21%  | 0.23%  | 0.26%  |
| OER                       | 0.34%  | 0.41%  | 0.25%  | 0.31%  | 0.31%  | 0.28%  | 0.40%  | 0.36%  | 0.27%  | 0.30%  | 0.28%  |

## Annual TIPS Inflation Accrual



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



US TIPS Report

8/13/2025

| 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 | 99.679        | 1.465     | 0.09         | 0.44    | 2.99    | 263.0      | -18.3  | -56.3  | -52.2  | 396.1   | 263.0  | 332.7  | 467.0   | 162.9  | 309.2  | 31-Oct-25 |
| TIPS   | 0.625  | 15-Jan-26 | 99.504        | 1.583     | 0.17         | 0.52    | 3.35    | 253.4      | -1.8   | -18.1  | -31.9  | 315.9   | 249.0  | 281.3  | 385.2   | 154.6  | 263.9  | 15-Nov-25 |
| TIPS   | 2.000  | 15-Jan-26 | 100.069       | 1.584     | 0.16         | 0.51    | 3.36    | 201.1      | -14.4  | -26.9  | -29.2  | 256.7   | 194.0  | 224.2  | 294.6   | 94.5   | 204.9  | 15-Feb-26 |
| TIPS   | 0.125  | 15-Apr-26 | 99.175        | 1.242     | 0.29         | 0.70    | 3.76    | 271.5      | -1.5   | -4.7   | -5.0   | 298.8   | 255.9  | 278.4  | 350.8   | 147.1  | 254.6  | 30-Apr-26 |
| TIPS   | 0.125  | 15-Jul-26 | 99.427        | 0.629     | 0.38         | 0.72    | 3.96    | 329.6      | 0.9    | 0.1    | 2.7    | 344.1   | 305.4  | 326.5  | 374.6   | 191.9  | 292.9  | 15-May-26 |
| TIPS   | 0.125  | 15-Oct-26 | 99.198        | 0.743     | 0.47         | 0.79    | 4.17    | 307.4      | 0.4    | 2.8    | 4.7    | 323.6   | 286.0  | 305.8  | 342.4   | 186.4  | 279.1  | 31-Oct-26 |
| TIPS   | 2.375  | 15-Jan-27 | 101.786       | 1.001     | 0.52         | 0.80    | 4.36    | 234.6      | 4.2    | 11.3   | -8.8   | 246.1   | 211.7  | 229.5  | 267.0   | 136.9  | 214.6  | 15-Feb-27 |
| TIPS   | 0.375  | 15-Jan-27 | 99.015        | 1.020     | 0.55         | 0.84    | 4.46    | 278.3      | 2.5    | 3.3    | -6.1   | 295.7   | 259.8  | 277.9  | 308.3   | 174.5  | 256.0  | 15-Nov-26 |
| TIPS   | 0.125  | 15-Apr-27 | 98.313        | 1.096     | 0.60         | 0.83    | 4.72    | 261.4      | 0.9    | 2.7    | -0.3   | 277.7   | 242.5  | 261.3  | 290.5   | 170.8  | 244.6  | 30-Apr-27 |
| TIPS   | 0.375  | 15-Jul-27 | 99.092        | 0.811     | 0.63         | 0.88    | 4.99    | 285.9      | -0.3   | 2.5    | 0.7    | 299.8   | 264.9  | 283.7  | 306.1   | 192.9  | 265.0  | 15-Aug-27 |
| TIPS   | 1.625  | 15-Oct-27 | 101.557       | 0.856     | 0.67         | 0.89    | 5.22    | 279.8      | 0.0    | 3.7    | -1.5   | 291.2   | 259.1  | 275.8  | 295.6   | 190.0  | 258.5  | 30-Sep-27 |
| TIPS   | 1.750  | 15-Jan-28 | 101.587       | 1.038     | 0.68         | 0.92    | 5.44    | 245.5      | 1.7    | 6.0    | -6.7   | 260.6   | 227.7  | 243.9  | 267.3   | 172.6  | 230.8  | 15-Nov-27 |
| TIPS   | 0.500  | 15-Jan-28 | 98.618        | 1.041     | 0.70         | 0.95    | 5.52    | 261.2      | 0.7    | 3.4    | 2.5    | 273.5   | 243.1  | 258.4  | 277.6   | 184.0  | 244.9  | 15-Feb-28 |
| TIPS   | 3.625  | 15-Apr-28 | 106.511       | 1.091     | 0.68         | 1.00    | 5.66    | 245.1      | 0.1    | 4.1    | -0.7   | 255.6   | 222.0  | 239.4  | 258.9   | 167.6  | 224.9  | 15-Aug-28 |
| TIPS   | 1.250  | 15-Apr-28 | 100.244       | 1.122     | 0.70         | 0.98    | 5.72    | 252.1      | -0.7   | 2.3    | -3.3   | 265.4   | 233.6  | 250.0  | 268.2   | 180.5  | 237.5  | 31-Mar-28 |
| TIPS   | 0.750  | 15-Jul-28 | 99.343        | 0.949     | 0.76         | 1.05    | 5.95    | 271.4      | 0.4    | 2.3    | -2.0   | 282.7   | 251.3  | 267.7  | 283.0   | 198.8  | 254.6  | 15-Aug-28 |
| TIPS   | 2.375  | 15-Oct-28 | 104.153       | 1.014     | 0.74         | 1.06    | 6.04    | 265.0      | -0.3   | 3.5    | -2.4   | 277.0   | 246.4  | 261.9  | 277.5   | 195.8  | 249.9  | 30-Sep-28 |
| TIPS   | 2.500  | 15-Jan-29 | 104.496       | 1.124     | 0.78         | 1.09    | 6.24    | 241.4      | 0.8    | 3.8    | 3.9    | 251.5   | 220.3  | 235.6  | 251.6   | 175.4  | 224.0  | 15-Feb-29 |
| TIPS   | 0.875  | 15-Jan-29 | 99.069        | 1.123     | 0.78         | 1.12    | 6.35    | 254.6      | 0.0    | 2.5    | 4.0    | 265.8   | 235.9  | 250.6  | 265.8   | 192.6  | 240.2  | 15-Nov-28 |
| TIPS   | 3.875  | 15-Apr-29 | 109.519       | 1.186     | 0.78         | 1.12    | 6.36    | 235.2      | 0.5    | 3.4    | 2.2    | 245.2   | 216.9  | 230.7  | 247.2   | 172.3  | 218.9  | 15-Feb-29 |
| TIPS   | 2.125  | 15-Apr-29 | 103.206       | 1.208     | 0.79         | 1.14    | 6.40    | 249.1      | -1.3   | 2.4    | -1.7   | 260.7   | 232.0  | 246.3  | 261.2   | 187.7  | 235.3  | 30-Apr-29 |
| TIPS   | 0.250  | 15-Jul-29 | 96.748        | 1.073     | 0.82         | 1.20    | 6.68    | 262.1      | -0.5   | 2.9    | 3.9    | 272.5   | 246.2  | 258.3  | 273.2   | 202.2  | 247.6  | 15-May-29 |
| TIPS   | 1.625  | 15-Oct-29 | 101.847       | 1.146     | 0.79         | 1.16    | 6.64    | 258.8      | -0.8   | 2.6    | -1.0   | 269.8   | 243.1  | 255.7  | 270.1   | 234.6  | 253.3  | 31-Oct-29 |
| TIPS   | 0.125  | 15-Jan-30 | 95.168        | 1.231     | 0.90         | 1.25    | 6.96    | 245.0      | -1.0   | 2.1    | 2.1    | 256.8   | 230.0  | 242.3  | 258.4   | 194.1  | 233.8  | 15-Nov-29 |
| TIPS   | 1.625  | 15-Apr-30 | 101.374       | 1.303     | 0.88         | 1.21    | N/A     | 245.2      | -0.7   | 2.7    | 3.5    | 255.3   | 230.3  | 242.0  | 255.3   | 230.3  | 242.0  | 30-Apr-30 |
| TIPS   | 0.125  | 15-Jul-30 | 94.755        | 1.205     | 0.92         | 1.30    | 7.27    | 256.3      | -1.0   | 1.4    | -2.6   | 268.5   | 242.9  | 254.5  | 268.5   | 205.0  | 245.5  | 15-Aug-30 |
| TIPS   | 0.125  | 15-Jan-31 | 93.519        | 1.349     | 1.03         | 1.36    | 7.53    | 242.9      | -1.1   | 2.7    | -0.3   | 252.0   | 228.1  | 239.7  | 255.9   | 195.6  | 232.5  | 15-Feb-31 |
| TIPS   | 0.125  | 15-Jul-31 | 92.931        | 1.351     | 1.06         | 1.35    | 7.72    | 253.6      | -1.5   | 2.4    | -1.7   | 263.7   | 239.6  | 251.1  | 264.7   | 204.7  | 242.8  | 15-Aug-31 |
| TIPS   | 0.125  | 15-Jan-32 | 91.549        | 1.494     | 1.17         | 1.37    | 7.77    | 245.4      | -0.8   | 3.3    | -1.5   | 254.6   | 231.9  | 242.6  | 256.4   | 200.3  | 235.6  | 15-Feb-32 |
| TIPS   | 3.375  | 15-Apr-32 | 111.893       | 1.458     | 1.02         | 1.26    | 7.42    | 232.5      | -1.0   | 4.1    | -0.7   | 240.4   | 221.1  | 230.0  | 246.9   | 183.2  | 223.2  | 15-Feb-31 |
| TIPS   | 0.625  | 15-Jul-32 | 94.160        | 1.503     | 1.18         | 1.36    | 7.84    | 248.2      | -1.1   | 3.3    | -1.9   | 258.0   | 236.0  | 246.0  | 260.3   | 203.6  | 238.7  | 15-Aug-32 |
| TIPS   | 1.125  | 15-Jan-33 | 96.359        | 1.636     | 1.17         | 1.32    | 7.53    | 235.8      | -1.3   | 3.2    | -6.6   | 246.0   | 224.2  | 234.5  | 250.2   | 195.8  | 228.9  | 15-Nov-32 |
| TIPS   | 1.375  | 15-Jul-33 | 97.847        | 1.652     | 1.18         | 1.24    | 7.53    | 239.0      | -1.5   | 1.8    | -0.4   | 250.2   | 230.4  | 239.0  | 255.6   | 202.2  | 234.2  | 15-May-33 |
| TIPS   | 1.750  | 15-Jan-34 | 99.847        | 1.757     | 1.17         | 1.21    | 7.31    | 236.2      | -1.4   | 2.2    | -2.8   | 246.0   | 227.6  | 236.0  | 250.2   | 199.0  | 230.6  | 15-Feb-34 |
| TIPS   | 1.875  | 15-Jul-34 | 100.778       | 1.769     | 1.14         | 1.14    | 7.24    | 236.9      | -1.2   | 2.1    | -0.5   | 246.6   | 229.7  | 237.4  | 252.9   | 202.2  | 232.6  | 15-May-34 |
| TIPS   | 2.125  | 15-Jan-35 | 102.237       | 1.857     | 1.14         | 1.10    | N/A     | 233.2      | -1.2   | 1.9    | -4.1   | 243.5   | 226.5  | 234.1  | 247.8   | 217.9  | 233.6  | 15-Nov-34 |
| TIPS   | 2.125  | 15-Feb-40 | 99.130        | 2.165     | 1.15         | 1.01    | 6.24    | 239.0      | -1.2   | 1.1    | -1.5   | 252.5   | 234.1  | 242.3  | 252.5   | 202.7  | 235.3  | 15-Feb-40 |
| TIPS   | 2.125  | 15-Feb-41 | 97.969        | 2.250     | 0.96         | 0.70    | 4.78    | 236.6      | -1.8   | 0.9    | -7.8   | 251.4   | 232.8  | 241.7  | 253.4   | 205.1  | 236.9  | 15-Feb-41 |
| TIPS   | 0.750  | 15-Feb-42 | 77.748        | 2.359     | 1.01         | 0.59    | 4.23    | 236.5      | -1.1   | 1.0    | -7.3   | 249.8   | 232.6  | 241.5  | 253.7   | 210.9  | 237.8  | 15-Feb-42 |
| TIPS   | 0.625  | 15-Feb-43 | 74.275        | 2.411     | 0.93         | 0.40    | 4.10    | 236.8      | -2.0   | 0.7    | -4.6   | 251.1   | 233.8  | 242.4  | 253.8   | 214.3  | 239.4  | 15-Feb-43 |
| TIPS   | 1.375  | 15-Feb-44 | 83.816        | 2.443     | 0.83         | 0.31    | 3.97    | 236.6      | -1.6   | 0.0    | -4.1   | 250.7   | 234.6  | 242.1  | 253.3   | 216.6  | 239.2  | 15-Feb-44 |
| TIPS   | 0.750  | 15-Feb-45 | 72.786        | 2.498     | 0.91         | 0.13    | 3.28    | 236.7      | -1.5   | 0.3    | -6.2   | 249.9   | 234.6  | 242.6  | 252.8   | 216.9  | 239.6  | 15-Feb-45 |
| TIPS   | 1.000  | 15-Feb-46 | 75.465        | 2.517     | 0.96         | 0.04    | 3.24    | 236.6      | -1.7   | 0.6    | -4.0   | 249.3   | 234.1  | 242.3  | 251.1   | 216.4  | 239.1  | 15-Feb-46 |
| TIPS   | 0.875  | 15-Feb-47 | 72.145        | 2.544     | 0.99         | 0.01    | 2.68    | 234.0      | -1.3   | 0.5    | -6.8   | 246.7   | 231.4  | 239.8  | 252.1   | 216.3  | 238.6  | 15-Feb-47 |
| TIPS   | 1.000  | 15-Feb-48 | 73.183        | 2.554     | 1.00         | -0.04   | 2.43    | 234.8      | -1.9   | 0.5    | -4.2   | 247.3   | 232.3  | 240.6  | 252.5   | 218.3  | 239.4  | 15-Feb-48 |
| TIPS   | 1.000  | 15-Feb-49 | 72.107        | 2.569     | 1.04         | -0.21   | 1.98    | 233.6      | -1.7   | 0.4    | -4.7   | 246.0   | 231.1  | 239.5  | 251.8   | 218.5  | 239.0  | 15-Feb-49 |
| TIPS   | 0.250  | 15-Feb-50 | 57.565        | 2.577     | 1.21         | -0.58   | 1.15    | 235.1      | -1.5   | 1.3    | -4.3   | 247.1   | 232.0  | 240.3  | 251.7   | 219.2  | 239.0  | 15-Feb-50 |
| TIPS   | 0.125  | 15-Feb-51 | 54.031        | 2.577     | 1.28         | -0.57   | 0.55    | 234.6      | -1.6   | 1.1    | -3.9   | 245.7   | 231.5  | 239.3  | 251.3   | 219.5  | 238.5  | 15-Feb-51 |
| TIPS   | 0.125  | 15-Feb-52 | 52.832        | 2.574     | 1.39         | -0.91   | -0.28   | 233.2      | -1.2   | 1.6    | -4.5   | 244.8   | 229.9  | 238.5  | 251.1   | 217.4  | 237.9  | 15-Feb-52 |
| TIPS   | 1.500  | 15-Feb-53 | 78.488        | 2.582     | 1.16         | -0.58   | 1.17    | 228.5      | -1.3   | 1.5    | -4.2   | 240.1   | 225.0  | 233.2  | 242.8   | 208.9  | 230.8  | 15-Feb-53 |

|      |       |           |        |       |      |       |      |       |      |     |      |       |       |       |       |       |       |           |
|------|-------|-----------|--------|-------|------|-------|------|-------|------|-----|------|-------|-------|-------|-------|-------|-------|-----------|
| TIPS | 2.125 | 15-Feb-54 | 90.656 | 2.580 | 1.19 | -0.62 | 1.39 | 227.0 | -1.3 | 1.7 | -4.3 | 238.2 | 223.4 | 231.6 | 240.2 | 206.1 | 228.2 | 15-Feb-54 |
| TIPS | 2.375 | 15-Feb-55 | 95.801 | 2.570 | 1.18 | -0.61 | N/A  | 226.5 | -1.2 | 1.7 | -3.3 | 237.0 | 222.8 | 229.8 | 237.0 | 213.0 | 226.9 | 15-Feb-55 |

| US TIPS Total Return Performance vs. Nominal |           |         |           |                  |         |            |                  |         |            |                  |         |            |                  |         | 8/13/2025  |
|----------------------------------------------|-----------|---------|-----------|------------------|---------|------------|------------------|---------|------------|------------------|---------|------------|------------------|---------|------------|
| 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 | -0.02            | 0.05    | -0.07      | 0.09             | 0.19    | -0.10      | 0.44             | 0.53    | -0.09      | 2.99             | 2.63    | 0.36       |
| 0.625                                        | 15-Jan-26 | 2.250   | 15-Nov-25 | -0.01            | 0.05    | -0.06      | 0.17             | 0.18    | -0.01      | 0.52             | 0.52    | 0.00       | 3.35             | 2.63    | 0.72       |
| 2.000                                        | 15-Jan-26 | 6.000   | 15-Feb-26 | 0.01             | 0.12    | -0.11      | 0.16             | 0.22    | -0.06      | 0.51             | 0.68    | -0.17      | 3.36             | 2.77    | 0.59       |
| 0.125                                        | 15-Apr-26 | 0.750   | 30-Apr-26 | 0.06             | 0.08    | -0.02      | 0.29             | 0.33    | -0.04      | 0.70             | 0.53    | 0.17       | 3.76             | 2.80    | 0.96       |
| 0.125                                        | 15-Jul-26 | 1.625   | 15-May-26 | 0.08             | 0.09    | -0.01      | 0.38             | 0.31    | 0.07       | 0.72             | 0.58    | 0.14       | 3.96             | 2.87    | 1.09       |
| 0.125                                        | 15-Oct-26 | 1.125   | 31-Oct-26 | 0.11             | 0.11    | 0.00       | 0.47             | 0.47    | 0.00       | 0.79             | 0.52    | 0.27       | 4.17             | 3.11    | 1.06       |
| 2.375                                        | 15-Jan-27 | 6.625   | 15-Feb-27 | 0.16             | 0.13    | 0.03       | 0.52             | 0.55    | -0.03      | 0.80             | 0.54    | 0.26       | 4.36             | 3.32    | 1.04       |
| 0.375                                        | 15-Jan-27 | 2.000   | 15-Nov-26 | 0.18             | 0.12    | 0.06       | 0.55             | 0.49    | 0.06       | 0.84             | 0.51    | 0.33       | 4.46             | 3.17    | 1.29       |
| 0.125                                        | 15-Apr-27 | 2.750   | 30-Apr-27 | 0.15             | 0.14    | 0.01       | 0.60             | 0.59    | 0.01       | 0.83             | 0.50    | 0.33       | 4.72             | 3.51    | 1.21       |
| 0.375                                        | 15-Jul-27 | 2.250   | 15-Aug-27 | 0.18             | 0.17    | 0.01       | 0.63             | 0.67    | -0.04      | 0.88             | 0.56    | 0.32       | 4.99             | 3.76    | 1.23       |
| 1.625                                        | 15-Oct-27 | 4.125   | 30-Sep-27 | 0.19             | 0.19    | 0.00       | 0.67             | 0.65    | 0.02       | 0.89             | 0.51    | 0.38       | 5.22             | 3.83    | 1.39       |
| 1.750                                        | 15-Jan-28 | 6.125   | 15-Nov-27 | 0.20             | 0.19    | 0.01       | 0.68             | 0.69    | -0.01      | 0.92             | 0.62    | 0.30       | 5.44             | 3.99    | 1.45       |
| 0.500                                        | 15-Jan-28 | 2.750   | 15-Feb-28 | 0.19             | 0.21    | -0.02      | 0.70             | 0.72    | -0.02      | 0.95             | 0.56    | 0.39       | 5.52             | 4.18    | 1.34       |
| 3.625                                        | 15-Apr-28 | 5.500   | 15-Aug-28 | 0.18             | 0.21    | -0.03      | 0.68             | 0.89    | -0.21      | 1.00             | 0.48    | 0.52       | 5.66             | 4.27    | 1.39       |
| 1.250                                        | 15-Apr-28 | 3.625   | 31-Mar-28 | 0.17             | 0.22    | -0.05      | 0.70             | 0.72    | -0.02      | 0.98             | 0.54    | 0.44       | 5.72             | 4.26    | 1.46       |
| 0.750                                        | 15-Jul-28 | 2.875   | 15-Aug-28 | 0.20             | 0.24    | -0.04      | 0.76             | 0.79    | -0.03      | 1.05             | 0.57    | 0.48       | 5.95             | 4.56    | 1.39       |
| 2.375                                        | 15-Oct-28 | 4.625   | 30-Sep-28 | 0.19             | 0.24    | -0.05      | 0.74             | 0.78    | -0.04      | 1.06             | 0.56    | 0.50       | 6.04             | 4.60    | 1.44       |
| 2.500                                        | 15-Jan-29 | 5.250   | 15-Feb-29 | 0.20             | 0.28    | -0.08      | 0.78             | 0.86    | -0.08      | 1.09             | 0.60    | 0.49       | 6.24             | 4.74    | 1.50       |
| 0.875                                        | 15-Jan-29 | 3.125   | 15-Nov-28 | 0.23             | 0.24    | -0.01      | 0.78             | 0.83    | -0.05      | 1.12             | 0.55    | 0.57       | 6.35             | 4.74    | 1.61       |
| 3.875                                        | 15-Apr-29 | 5.250   | 15-Feb-29 | 0.21             | 0.28    | -0.07      | 0.78             | 0.86    | -0.08      | 1.12             | 0.60    | 0.52       | 6.36             | 4.74    | 1.62       |
| 2.125                                        | 15-Apr-29 | 4.625   | 30-Apr-29 | 0.19             | 0.29    | -0.10      | 0.79             | 0.86    | -0.07      | 1.14             | 0.56    | 0.58       | 6.40             | 4.93    | 1.47       |
| 0.250                                        | 15-Jul-29 | 2.375   | 15-May-29 | 0.21             | 0.27    | -0.06      | 0.82             | 0.90    | -0.08      | 1.20             | 0.57    | 0.63       | 6.68             | 5.03    | 1.65       |
| 1.625                                        | 15-Oct-29 | 4.125   | 31-Oct-29 | 0.19             | 0.28    | -0.09      | 0.79             | 0.91    | -0.12      | 1.16             | 0.54    | 0.62       | 6.64             | 5.19    | 1.45       |
| 0.125                                        | 15-Jan-30 | 1.750   | 15-Nov-29 | 0.18             | 0.28    | -0.10      | 0.90             | 0.96    | -0.06      | 1.25             | 0.59    | 0.66       | 6.96             | 5.41    | 1.55       |
| 1.625                                        | 15-Apr-30 | 3.875   | 30-Apr-30 | 0.19             | 0.29    | -0.10      | 0.88             | 0.96    | -0.08      | 1.21             | 0.56    | 0.65       | N/A              | N/A     | N/A        |
| 0.125                                        | 15-Jul-30 | 0.625   | 15-Aug-30 | 0.19             | 0.32    | -0.13      | 0.92             | 1.12    | -0.20      | 1.30             | 0.66    | 0.64       | 7.27             | 5.99    | 1.28       |
| 0.125                                        | 15-Jan-31 | 1.125   | 15-Feb-31 | 0.20             | 0.30    | -0.10      | 1.03             | 1.10    | -0.07      | 1.36             | 0.61    | 0.75       | 7.53             | 6.07    | 1.46       |
| 0.125                                        | 15-Jul-31 | 1.250   | 15-Aug-31 | 0.20             | 0.34    | -0.14      | 1.06             | 1.13    | -0.07      | 1.35             | 0.65    | 0.70       | 7.72             | 6.20    | 1.52       |
| 0.125                                        | 15-Jan-32 | 1.875   | 15-Feb-32 | 0.23             | 0.34    | -0.11      | 1.17             | 1.15    | 0.02       | 1.37             | 0.65    | 0.72       | 7.77             | 6.11    | 1.66       |
| 3.375                                        | 15-Apr-32 | 5.375   | 15-Feb-31 | 0.20             | 0.30    | -0.10      | 1.02             | 1.07    | -0.05      | 1.26             | 0.66    | 0.60       | 7.42             | 5.82    | 1.60       |
| 0.625                                        | 15-Jul-32 | 2.750   | 15-Aug-32 | 0.27             | 0.33    | -0.06      | 1.18             | 1.16    | 0.02       | 1.36             | 0.60    | 0.76       | 7.84             | 6.10    | 1.74       |
| 1.125                                        | 15-Jan-33 | 4.125   | 15-Nov-32 | 0.25             | 0.33    | -0.08      | 1.17             | 1.16    | 0.01       | 1.32             | 0.58    | 0.74       | 7.53             | 5.88    | 1.65       |
| 1.375                                        | 15-Jul-33 | 3.375   | 15-May-33 | 0.23             | 0.39    | -0.16      | 1.18             | 1.24    | -0.06      | 1.24             | 0.67    | 0.57       | 7.53             | 6.20    | 1.33       |
| 1.750                                        | 15-Jan-34 | 4.000   | 15-Feb-34 | 0.22             | 0.41    | -0.19      | 1.17             | 1.21    | -0.04      | 1.21             | 0.66    | 0.55       | 7.31             | 6.03    | 1.28       |
| 1.875                                        | 15-Jul-34 | 4.375   | 15-May-34 | 0.21             | 0.39    | -0.18      | 1.14             | 1.22    | -0.08      | 1.14             | 0.63    | 0.51       | 7.24             | 5.93    | 1.31       |
| 2.125                                        | 15-Jan-35 | 4.250   | 15-Nov-34 | 0.22             | 0.38    | -0.16      | 1.14             | 1.21    | -0.07      | 1.10             | 0.59    | 0.51       | N/A              | N/A     | N/A        |
| 2.125                                        | 15-Feb-40 | 4.625   | 15-Feb-40 | 0.17             | 0.36    | -0.19      | 1.15             | 1.18    | -0.03      | 1.01             | 0.55    | 0.46       | 6.24             | 5.03    | 1.21       |
| 2.125                                        | 15-Feb-41 | 4.750   | 15-Feb-41 | 0.08             | 0.40    | -0.32      | 0.96             | 1.20    | -0.24      | 0.70             | 0.58    | 0.12       | 4.78             | 4.69    | 0.09       |
| 0.750                                        | 15-Feb-42 | 3.125   | 15-Feb-42 | 0.11             | 0.35    | -0.24      | 1.01             | 1.17    | -0.16      | 0.59             | 0.44    | 0.15       | 4.23             | 4.14    | 0.09       |
| 0.625                                        | 15-Feb-43 | 3.125   | 15-Feb-43 | 0.09             | 0.39    | -0.30      | 0.93             | 1.24    | -0.31      | 0.40             | 0.39    | 0.01       | 4.10             | 4.20    | -0.10      |
| 1.375                                        | 15-Feb-44 | 3.625   | 15-Feb-44 | 0.06             | 0.43    | -0.37      | 0.83             | 1.22    | -0.39      | 0.31             | 0.35    | -0.04      | 3.97             | 4.00    | -0.03      |
| 0.750                                        | 15-Feb-45 | 2.500   | 15-Feb-45 | 0.02             | 0.41    | -0.39      | 0.91             | 1.24    | -0.33      | 0.13             | 0.25    | -0.12      | 3.28             | 3.58    | -0.30      |
| 1.000                                        | 15-Feb-46 | 2.500   | 15-Feb-46 | 0.02             | 0.50    | -0.48      | 0.96             | 1.24    | -0.28      | 0.04             | 0.30    | -0.26      | 3.24             | 3.59    | -0.35      |
| 0.875                                        | 15-Feb-47 | 3.000   | 15-Feb-47 | 0.01             | 0.44    | -0.43      | 0.99             | 1.17    | -0.18      | 0.01             | 0.27    | -0.26      | 2.68             | 3.63    | -0.95      |
| 1.000                                        | 15-Feb-48 | 3.000   | 15-Feb-48 | 0.05             | 0.47    | -0.42      | 1.00             | 1.15    | -0.15      | -0.04            | 0.24    | -0.28      | 2.43             | 3.60    | -1.17      |
| 1.000                                        | 15-Feb-49 | 3.000   | 15-Feb-49 | 0.06             | 0.44    | -0.38      | 1.04             | 1.19    | -0.15      | -0.21            | 0.22    | -0.43      | 1.98             | 3.57    | -1.59      |
| 0.250                                        | 15-Feb-50 | 2.000   | 15-Feb-50 | 0.06             | 0.48    | -0.42      | 1.21             | 1.20    | 0.01       | -0.58            | 0.02    | -0.60      | 1.15             | 2.90    | -1.75      |
| 0.125                                        | 15-Feb-51 | 1.875   | 15-Feb-51 | 0.04             | 0.45    | -0.41      | 1.28             | 1.10    | 0.18       | -0.57            | -0.18   | -0.39      | 0.55             | 2.56    | -2.01      |

ARBOR RESEARCH & TRADING, L.L.C.

US 800-876-1825 / US 847-304-1550 / UK 44-207-556-7309

|       |           |       |           |      |      |       |      |      |      |       |       |       |       |      |       |
|-------|-----------|-------|-----------|------|------|-------|------|------|------|-------|-------|-------|-------|------|-------|
| 0.125 | 15-Feb-52 | 2.250 | 15-Feb-52 | 0.09 | 0.45 | -0.36 | 1.39 | 1.08 | 0.31 | -0.91 | -0.16 | -0.75 | -0.28 | 2.48 | -2.76 |
| 1.500 | 15-Feb-53 | 3.625 | 15-Feb-53 | 0.04 | 0.46 | -0.42 | 1.16 | 1.08 | 0.08 | -0.58 | -0.04 | -0.54 | 1.17  | 2.66 | -1.49 |
| 2.125 | 15-Feb-54 | 4.250 | 15-Feb-54 | 0.14 | 0.43 | -0.29 | 1.19 | 1.07 | 0.12 | -0.62 | -0.08 | -0.54 | 1.39  | 2.24 | -0.85 |
| 2.375 | 15-Feb-55 | 4.625 | 15-Feb-55 | 0.13 | 0.44 | -0.31 | 1.18 | 1.07 | 0.11 | -0.61 | -0.21 | -0.40 | N/A   | N/A  | N/A   |