TREASURY MARKET BRIEF

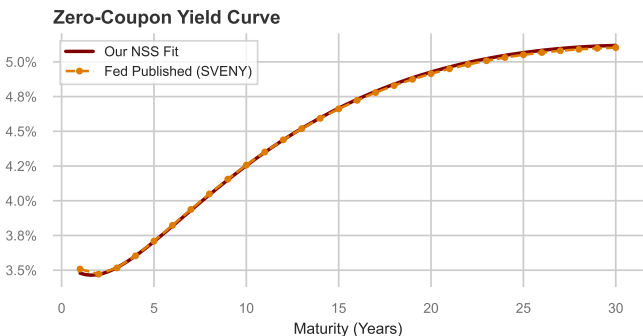## CRSP Treasury Cross-Section Analysis

Data as of December 31, 2025

FINM 32900 ✉ Case Study: Yield Curve

ZERO-COUPON YIELD CURVE

Fitted Nelson-Siegel-Svensson spot curve compared with the Federal Reserve's published SVENY estimates (Gürkaynak, Sack, and Wright 2007).

Zero-Coupon Yield Curve
— Our NSS Fit
—●— Fed Published (SVENY)

TERM SPREAD OVER TIME

The 10-year minus 1-year zero-coupon spread captures the slope of the yield curve. A negative spread has historically preceded recessions.

Term Spread (10Y − 1Y Zero-Coupon)
● Current: 0.75%
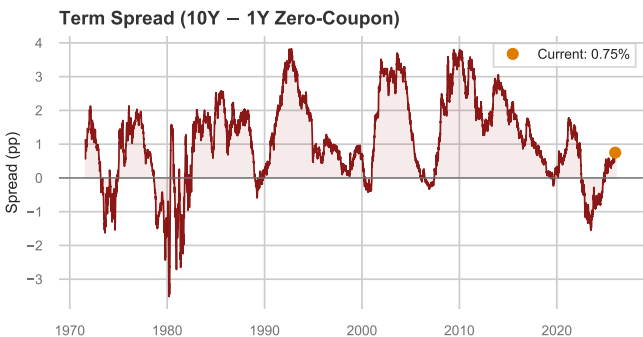
CROSS-SECTION SUMMARY

Summary statistics for Treasury notes and bonds on the analysis date, after applying the GSW filters.

Statistic	Value
Bond Count	294
Mean Yrs to Mat	7.1294
Median Yrs to Mat	3.5811
Mean Coupon (%)	3.2662
Mean Price ($)	95.6025
Mean Duration	1990.8123
Mean Error ($)	-0.0040
Std Error ($)	0.2440
Mean Error (%)	-0.0075
Std Error (%)	0.2834

TOP 5 RICH BONDS (BY $)

CUSIP	Coupon	Maturity	Yrs to Mat	Error ($)	Error (%)
912810PW	4.375	2038-02-15	12.1	+1.08	+1.06
912810FT	4.500	2036-02-15	10.1	+1.06	+1.02
912810PU	5.000	2037-05-15	11.4	+1.04	+0.98
912810PX	4.500	2038-05-15	12.4	+1.03	+1.01
912810PT	4.750	2037-02-15	11.1	+0.94	+0.89

TOP 5 CHEAP BONDS (BY $)

CUSIP	Coupon	Maturity	Yrs to Mat	Error ($)	Error (%)
912810RE	3.625	2044-02-15	18.1	-0.72	-0.82
912810RC	3.625	2043-08-15	17.6	-0.71	-0.81
912810RD	3.750	2043-11-15	17.9	-0.70	-0.79
912810RG	3.375	2044-05-15	18.4	-0.69	-0.83
912810RH	3.125	2044-08-15	18.6	-0.67	-0.83

TOP 5 RICH BONDS (BY %)

CUSIP	Coupon	Maturity	Yrs to Mat	Error ($)	Error (%)
912810PW	4.375	2038-02-15	12.1	+1.08	+1.06
912810SN	1.250	2050-05-15	24.4	+0.50	+1.05
912810FT	4.500	2036-02-15	10.1	+1.06	+1.02
912810PX	4.500	2038-05-15	12.4	+1.03	+1.01
912810PU	5.000	2037-05-15	11.4	+1.04	+0.98

TOP 5 CHEAP BONDS (BY %)

CUSIP	Coupon	Maturity	Yrs to Mat	Error ($)	Error (%)
912810RH	3.125	2044-08-15	18.6	-0.67	-0.83
912810RG	3.375	2044-05-15	18.4	-0.69	-0.83
912810RE	3.625	2044-02-15	18.1	-0.72	-0.82
912810RC	3.625	2043-08-15	17.6	-0.71	-0.81
912810RJ	3.000	2044-11-15	18.9	-0.62	-0.79

SOURCES

References

- Gürkaynak, Refet S., Brian Sack, and Jonathan H. Wright (2007). "The US Treasury Yield Curve: 1961 to the Present". In: *Journal of Monetary Economics* 54.8, pp. 2291–2304. DOI: `10.1016/j.jmoneco.2007.06.029`.

- Svensson, Lars E. O. (1994). "Estimating and Interpreting Forward Interest Rates: Sweden 1992–1994". In: *NBER Working Paper* 4871.

- Nelson, Charles R. and Andrew F. Siegel (1987). "Parsimonious Modeling of Yield Curves". In: *Journal of Business* 60.4, pp. 473–489.

METHODOLOGY

- **Model**: Nelson-Siegel-Svensson (NSS) parametric yield curve with 6 parameters ($\tau_1, \tau_2, \beta_0, \ldots, \beta_3$).

- **Optimization**: Minimize duration-weighted sum of squared pricing errors, per Gürkaynak, Sack, and Wright 2007.

- **Filters**: Exclude T-bills, callable bonds, on-the-run/first off-the-run (post-1980), bonds with <3 months to maturity, and 20-year bonds (post-1996).

- **Rich/Cheap**: Error = Actual Price − Model Price. Positive error ⇒ bond trades *rich* (above fair value); negative ⇒ *cheap*.

- **Data**: CRSP US Treasury Database (via WRDS) and Federal Reserve published GSW parameters.

NOTES