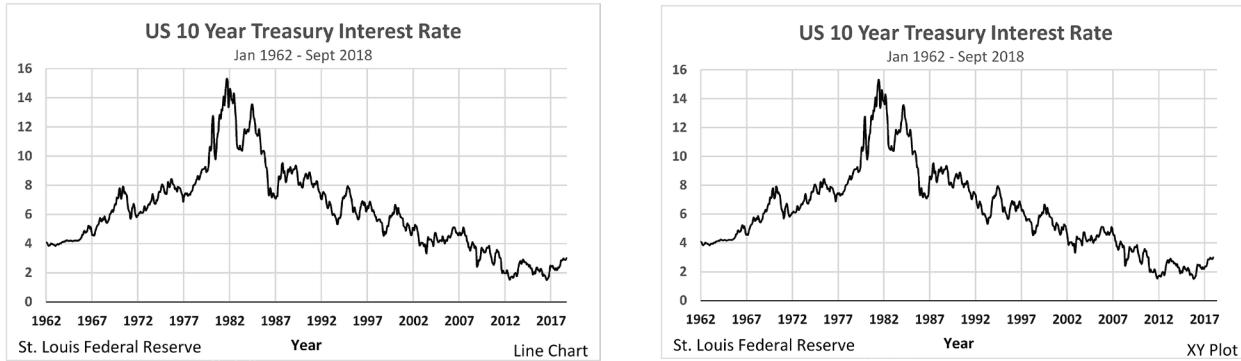# Excel Date-Based Charts: Line versus Scatter (XY)
Milo Schield

Excel's line and scatter (XY) charts can create identical date-based graphs. They differ in how they measure time.

These two charts are different types. The left is a Line chart; the right is a scatter (XY) chart.
Both use the same data (center below). They differ in how they measure time.

Compare their Format Axis windows.

Frequency: Monthly	
observation_date	DGS10
1962-01-01	4.08
1962-02-01	4.04
1962-03-01	3.93
1962-04-01	3.84
1962-05-01	3.87
1962-06-01	3.91
1962-07-01	4.01
1962-08-01	3.98
1962-09-01	3.98
1962-10-01	3.93
1962-11-01	3.92
1962-12-01	3.86

These two charts measure date-times in different units.

- The Line chart (left) uses month/day/year units.
- The scatter (XY) chart (right) uses Excel units: days since Jan 1, 1900.

Moral: Use the line chart, not the scatter (XY) chart, when plotting data versus date-based time.

Source: Excel 2013.

Copy at www.StatLit.org/pdf/2018-Schield-Excel-Date-Based-Charts.pdf