>>> Build a Line Chart

Building Line Charts

Line charts connect individual data points in a view. They provide a simple way to visualize a sequence of values and are useful when you want to see trends over time, or to forecast future values. For more information about the line mark type, see Line Mark.

To create a view that displays the sum of sales and the sum of profit for all years, and then uses forecasting to determine a trend, follow these steps:

- 1. Connect to the **Sample Superstore** data source.
- 2. Drag the **Order Date** dimension to **Columns**.

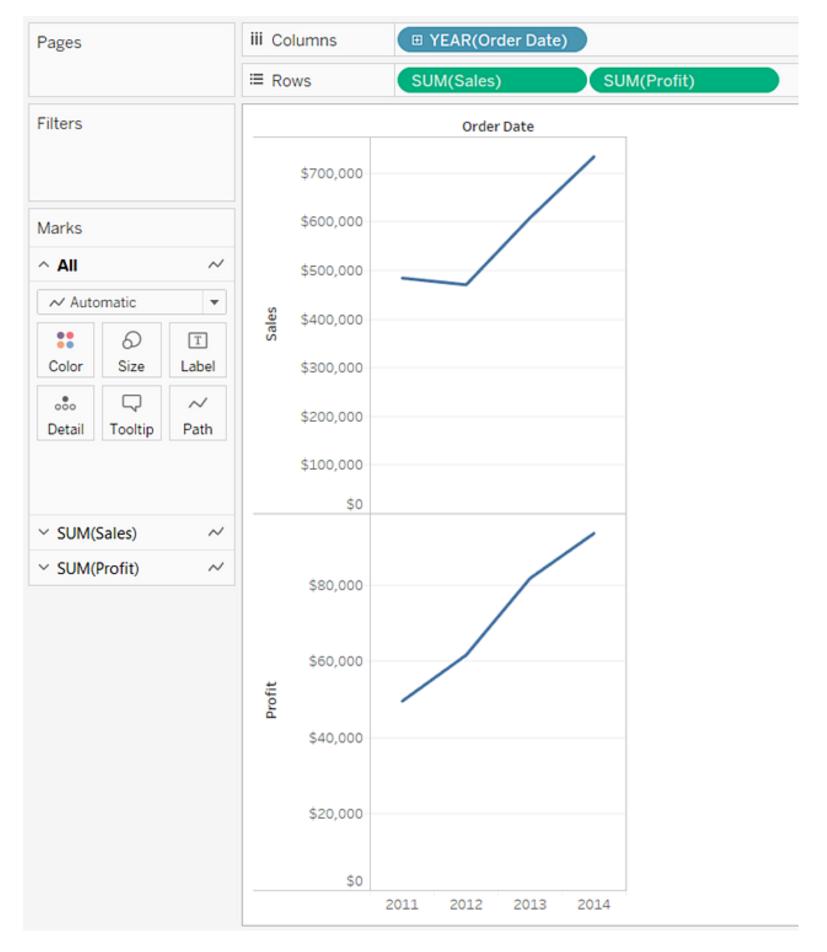
Tableau aggregates the date by year, and creates column headers.

3. Drag the **Sales** measure to **Rows**.

Tableau aggregates **Sales** as SUM and displays a simple line chart.

4. Drag the **Profit** measure to **Rows** and drop it to the right of the **Sales** measure.

Tableau creates separate axes along the left margin for **Sales** and **Profit**.



Notice that the scale of the two axes is different—the **Sales** axis scales from \$0 to \$700,000, whereas the **Profit** axis scales from \$0 to \$100,000. This can make it hard to see that sales values are much greater than profit values.

When you are displaying multiple measures in a line chart, you can align or merge axes to make it easier for users to compare values.

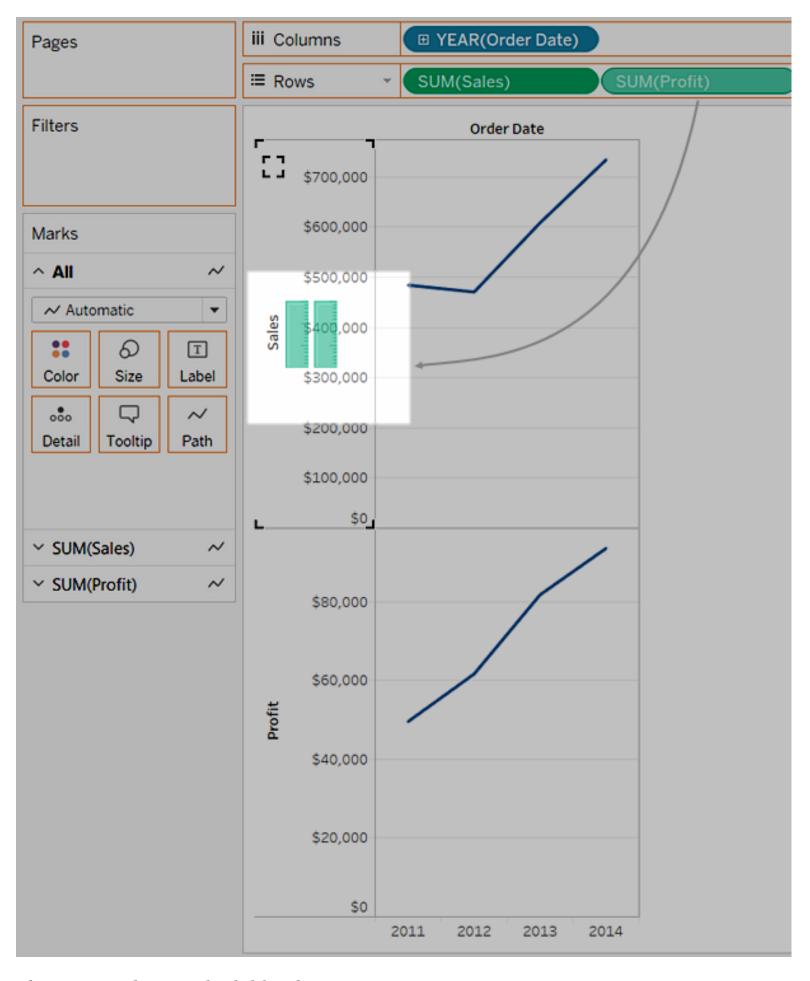
For more information about aligning the axes, see Dual Axes.

For more information about enforcing a single axis across multiple measures, see Blended Axes.

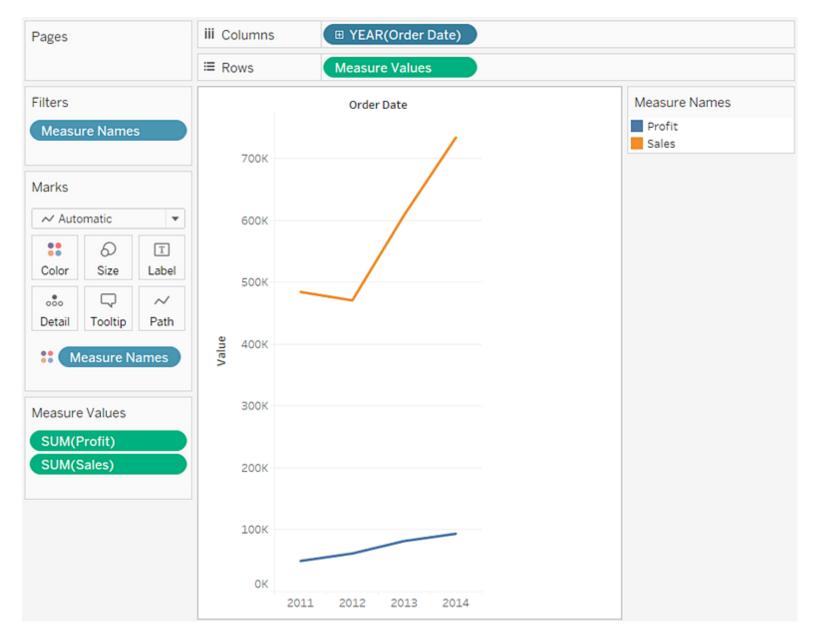
With either of these options, you can create a combination chart to change the mark type for one of your measures.

For more information, see Combination Charts.

5. Drag the **SUM(Profit)** field from **Rows** to the **Sales** axis to create a blended axis. The two pale green parallel bars indicate that **Profit** and **Sales** will use a blended axis when you release the mouse button.

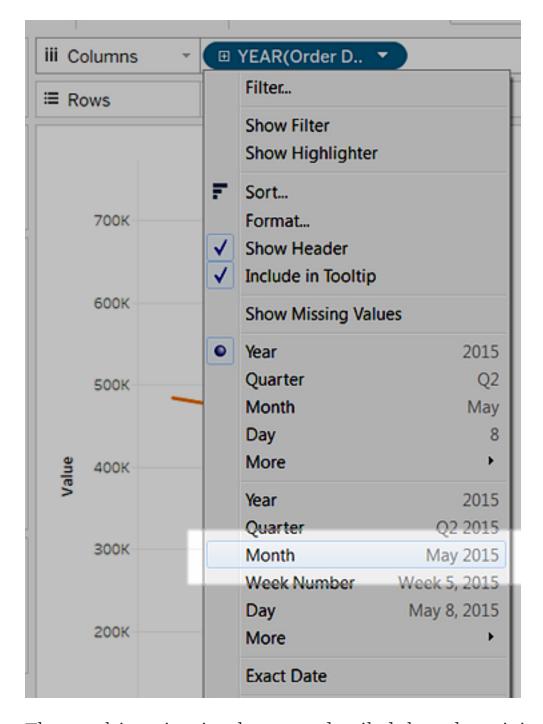


The view updates to look like this:

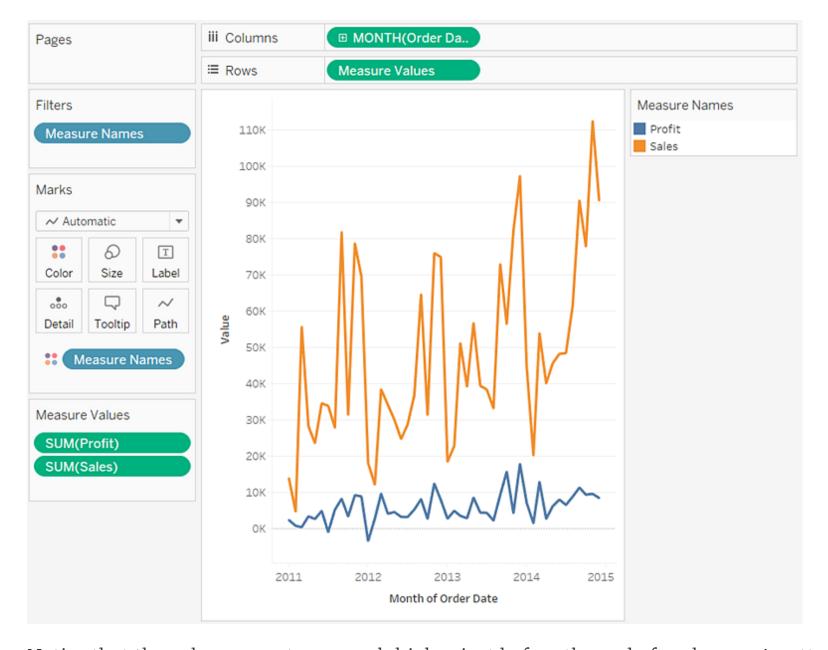


The view is rather sparse because we are looking at a summation of values on a per-year basis.

6. Click the drop-down arrow in the **Year(Order Date)** field on the **Columns** shelf and select **Month** in the lower part of the context menu to see a continuous range of values over the four-year period.

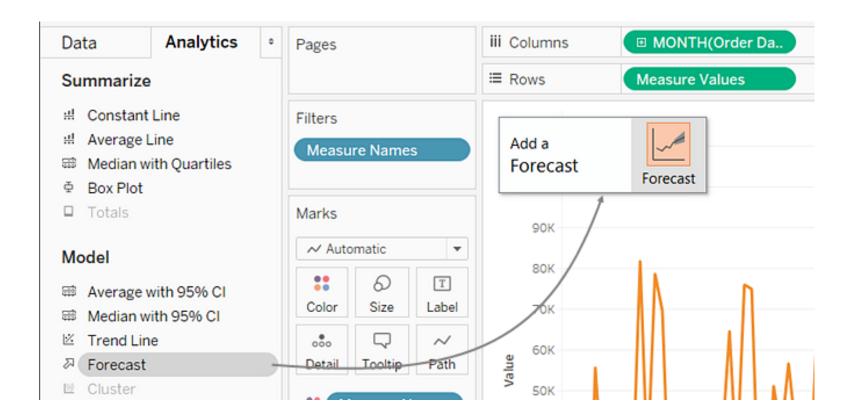


The resulting view is a lot more detailed than the original view:



Notice that the values seem to go much higher just before the end of each year. A pattern like that is known as *seasonality*. If we turn on the forecasting feature in the view, we can see whether we should expect that the apparent seasonal trend will continue in the future.

7. To add a forecast, in the **Analytics** pane, drag the **Forecast** model to the view, and then drop it on **Forecast**.



We then see that, according to Tableau forecasting, the seasonal trend does continue into the future:

