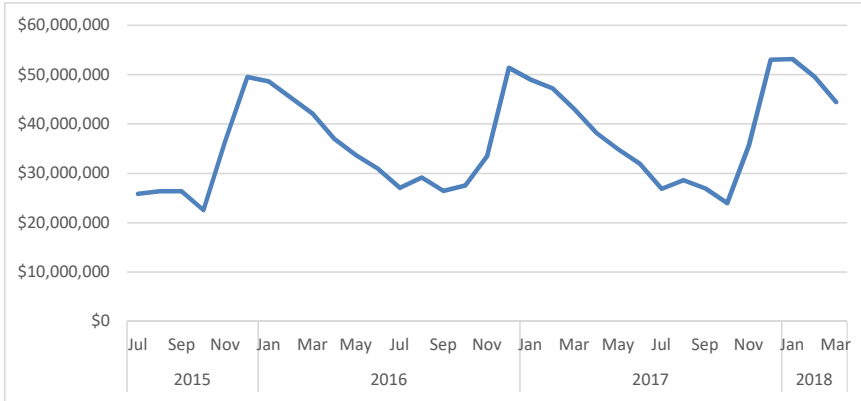


Carolina County Cash and Investments Summary

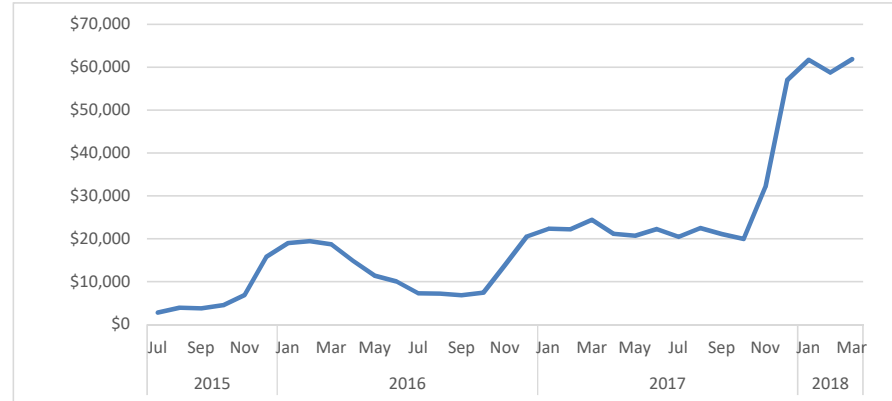
Fiscal Year

Total Holdings Over Period



Total Earnings Over Period

\$681,983



Top 5 Accounts	Average Monthly Balance	% of total	Trend
NCCMT-Term	\$13,212,851	36.2%	
NCCMT-Cash	\$12,320,491	33.7%	
Commercial Paper	\$8,167,249	22.3%	
Fed Home Loan Mort	\$1,713,703	4.7%	
Fed Home Loan Banks	\$890,062	0.7%	

Top 5 as a Percent of Total 97.6%

Average monthly balance only includes those months with a balance

Top 5 Returns by Holding	Total Return	% of total	Trend
Commercial Paper	\$229,385	33.6%	
NCCMT-Term	\$203,723	29.9%	
NCCMT-Cash	\$182,854	26.8%	
Fed Home Loan Mort	\$46,249	6.8%	
Fed Farm Credit	\$10,511	1.5%	

Top 5 as a Percent of Total 98.6%

Source: Made up data for demonstration purposes

Created by Your Name

Steps to creating the interactive dashboard demo from the starting Excel file. A completed version of the file is also available so you can compare the end results.

1. Prepare your dashboard shell. This has been done for you for this exercise. Normally this would be done first with consultation with the dashboard user(s) as to what they want. It can take some time to lay it all out. Start with a blank paper to first sketch your ideas and determine the placeholders you will need, where items will go, what data will be required, etc. so as to best inform and shape the decisions being made.
2. Pull in your data. This has been done for you for this exercise. For this example we have a single table already pulled in place. You might have multiple tables to pull in with completely different data. Excel lets us construct a dashboard that can be built from one or more sources. The data can be copied in, but if you can set up direct links to the original data that will save you importing each time.

The Excel demonstration starts at step three.

3. Click on the "DATABASE" tab in the workbook to find the three years of starting data. Click on the Insert Menu and select Table. This will make it easier to update the data later.
4. Construct Pivot Tables for Graphs
 - a. Create a pivot table from the Insert Menu for total cash and investment balance by month. When using actual dates, select the date items and "group" them by month and year.
 - b. Copy this first pivot table to the same worksheet off to the right side. Replace the balance totals amount with the earnings to get a total of earning by month.
 - c. Go to the Dashboard and in the cell for the total earnings over time, type "=" and then point to the Pivot Table total for earnings total. This is your total earnings over the time period.
5. Create pivot charts connected to the first two pivot tables.
 - a. Create a pivot line chart for total investments by month. Select the original pivot table and create the pivot chart. Get rid of the legend, title, and buttons to make the chart cleaner. Move the graph to the dashboard page. Resize it to fit the allotted space on the dashboard.
 - b. Repeat this last step by creating a line pivot chart for earnings. Follow the same steps as the previous chart and move it to the dashboard.
6. Create data for Top 5 cash and investment allocations.
 - a. Create a new pivot table with investment average monthly totals by allocation type. Add a second column with investments expressed as a percent of the grand total. Sort the investments pivot by the average monthly amount of investments in descending order.
 - b. Link the first fund allocation name on the dashboard to the first name on the first pivot table.
 - c. Use a GETPIVOTDATA function to extract first the total amount invested and then for the percent. You will have to change the name in parentheses to a cell reference to the fund name so that you can copy the average and percent formulas down.
 - d. Copy this pivot table to the right to create a second pivot table for average investments by month. Eliminate the percent column. Add the date by months across the columns to produce a table of investment amounts by month. Filter this second table to the top five allocations by invested amount. Go to Pivot Table options and remove the grand totals for the row.
7. Create data for Top 5 for Earnings

- a. Create a new pivot table as before with a total of earnings and a second column with the total expressed as a percent of the grand total. Sort by the list in descending order by size of earnings.
 - b. Link the first earnings type on the dashboard to the first type on the new pivot table.
 - c. Use a GETPIVOTDATA function to extract first the sum total and then for the percent. You will have to change the name in parentheses to a cell reference to the fund name so that you can copy the average and percent formulas down.
 - d. Create a second pivot table by copying the first with allocation type, sum of earnings, and month going across. Filter the table to the top five allocations by sum total. Eliminate the grand totals as before.
8. Create the **Databars** (horizontal bars for an in-cell graph) to show relative size of assets and earnings.
- a. First put a simple “=” formula that points to the data we want to graph in the investment totals. This will let us create the graph in the cell but the number will be hidden.
 - b. Highlight the range and select DataBars from the Conditional Formatting menu, choose the Solid Fill.
 - c. Select the databar range again, go back to Conditional Formatting and choose Manage Rules and then edit the rule. Click the box to only show the bar to hide the numbers. Adjust other settings as desired.
 - d. Repeat this for the top five earnings table.
9. Create the **Sparklines** – (small in-cell line graphs) to show individual trends over time.
- a. Highlight the range under trend for the top 5 investments by holding. Insert Line **sparklines** from the menu. From the popup box, point to the data range for the top 5 investments by month on the balance pivot table showing the top five investment allocations with each month showing.
 - b. Format the sparklines as desired. Consider adding high/low markers.
 - c. Repeat these steps for the top 5 earnings table.
10. Create a date **Slicer** to control which months get shown.
- a. Go to one of the pivot tables. Add a slicer by selecting fiscal year.
 - b. Cut and paste the slicer to the dashboard.
 - c. Format the slicer from the slicer menu to fit 10 years and be on a single line.
 - d. Right click the Slicer, select pivot table connections and add all of the unchecked pivot tables. This way all of the data will be affected by the slicer selections.
11. Enter your name in the lower right corner. Putting a name on the report helps make sure users can follow up with the correct person. You might put an email/phone number if someone needs to reach out.
12. You’ve finished creating an interactive dashboard. But now copy the extra data on the NEWDATA tab to your original table. The Table will resize automatically. Refresh the pivot tables, and you now have an updated report in just a minute.

Congratulations, you are done. An interactive dashboard that can be easily updated with new data and filtered as desired. Design your own dashboard and start to work at getting data in place to help support decision making.

Some additional resources:

Web Resources/Courses

www.myonlinetraininghub.com
www.exceluser.com
www.chandoo.org

Books

[Information Dashboard Design](#) by Stephen Few
[Excel Dashboards and Reports](#) by Alexander and Walkenback
[Dashboard Reporting with Excel](#) by Charles Kyd

This demonstration was adapted from an online demonstration by Melinda Tracey from www.myonlinetraininghub.com