

# Pivot Tables

Recourse: <https://www.excel-easy.com/data-analysis/pivot-tables.html>

Pivot tables are one of Excel's most powerful features. A pivot table allows you to extract the significance from a large, detailed data set.

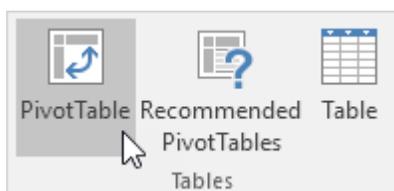
Our data set consists 6 fields. Order ID, Product, Category, Amount, Date and Country.

	A	B	C	D	E	F	G	H
1	<b>Order ID</b>	<b>Product</b>	<b>Category</b>	<b>Amount</b>	<b>Date</b>	<b>Country</b>		
2	1	Carrots	Vegetables	\$4,270	1/6/2016	United States		
3	2	Broccoli	Vegetables	\$8,239	1/7/2016	United Kingdom		
4	3	Banana	Fruit	\$617	1/8/2016	United States		
5	4	Banana	Fruit	\$8,384	1/10/2016	Canada		
6	5	Beans	Vegetables	\$2,626	1/10/2016	Germany		
7	6	Orange	Fruit	\$3,610	1/11/2016	United States		
8	7	Broccoli	Vegetables	\$9,062	1/11/2016	Australia		
9	8	Banana	Fruit	\$6,906	1/16/2016	New Zealand		
10	9	Apple	Fruit	\$2,417	1/16/2016	France		
11	10	Apple	Fruit	\$7,431	1/16/2016	Canada		

## Insert a Pivot Table

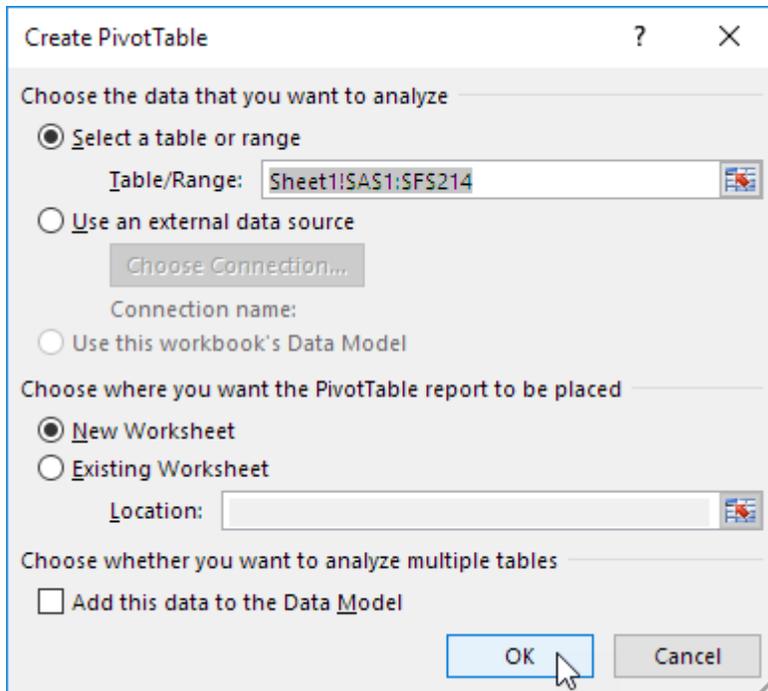
To insert a pivot table, execute the following steps.

1. Click any single cell inside the data set.
2. On the Insert tab, in the Tables group, click PivotTable.



The following dialog box appears. Excel automatically selects the data for you. The default location for a new pivot table is New Worksheet.

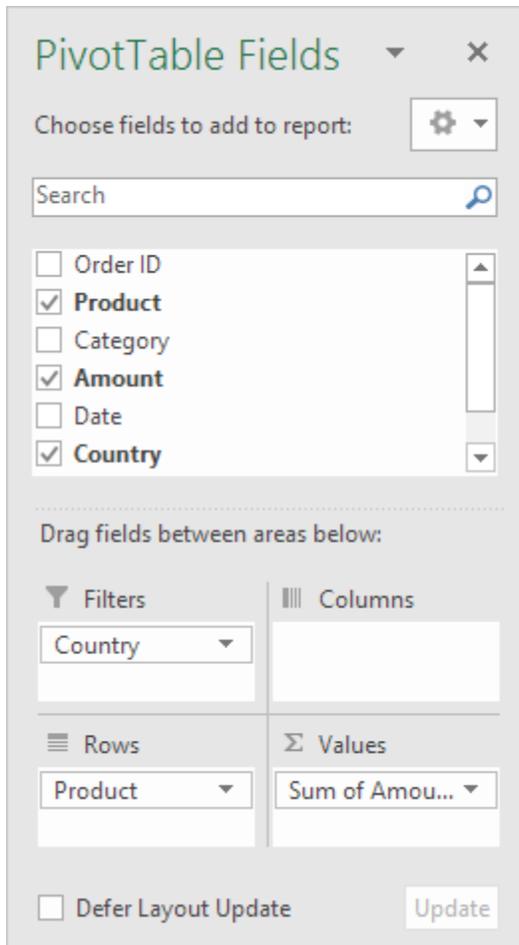
3. Click OK.



## Drag fields

The PivotTable Fields pane appears. To get the total amount exported of each product, drag the following fields to the different areas.

1. Product field to the Rows area.
2. Amount field to the Values area.
3. Country field to the Filters area.



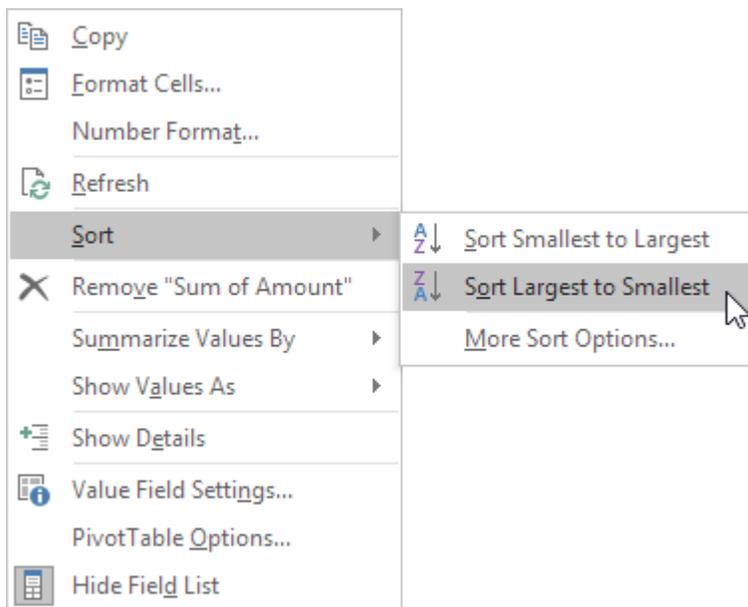
Below you can find the pivot table. Bananas are our main export product. That's how easy pivot tables can be!

	A	B	C
1	Country	(All)	
2			
3	Row Labels	Sum of Amount	
4	Apple	191257	
5	Banana	340295	
6	Beans	57281	
7	Broccoli	142439	
8	Carrots	136945	
9	Mango	57079	
10	Orange	104438	
11	<b>Grand Total</b>	<b>1029734</b>	
12			

## Sort

To get Banana at the top of the list, sort the pivot table.

1. Click any cell inside the Sum of Amount column.
2. Right click and click on Sort, Sort Largest to Smallest.



Result.

	A	B	C
1	Country	(All) ▾	
2			
3	Row Labels ▾	Sum of Amount	
4	Banana	340295	
5	Apple	191257	
6	Broccoli	142439	
7	Carrots	136945	
8	Orange	104438	
9	Beans	57281	
10	Mango	57079	
11	<b>Grand Total</b>	<b>1029734</b>	
12			

## Filter

Because we added the Country field to the Filters area, we can filter this pivot table by Country. For example, which products do we export the most to France?

1. Click the filter drop-down and select France.

Result. Apples are our main export product to France.

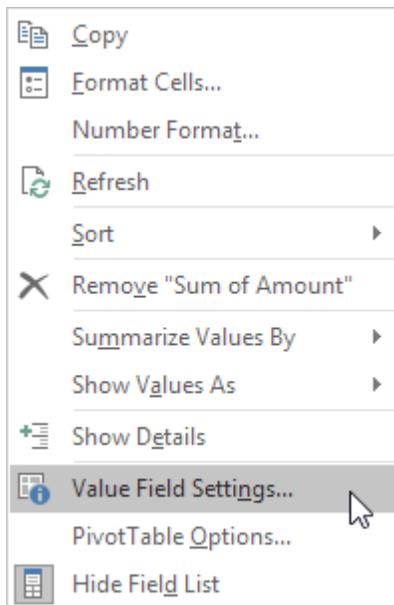
	A	B	C
1	Country	France	
2			
3	Row Labels	Sum of Amount	
4	Apple	80193	
5	Banana	36094	
6	Carrots	9104	
7	Mango	7388	
8	Broccoli	5341	
9	Orange	2256	
10	Beans	680	
11	<b>Grand Total</b>	<b>141056</b>	
12			

Note: you can use the standard filter (triangle next to Row Labels) to only show the amounts of specific products.

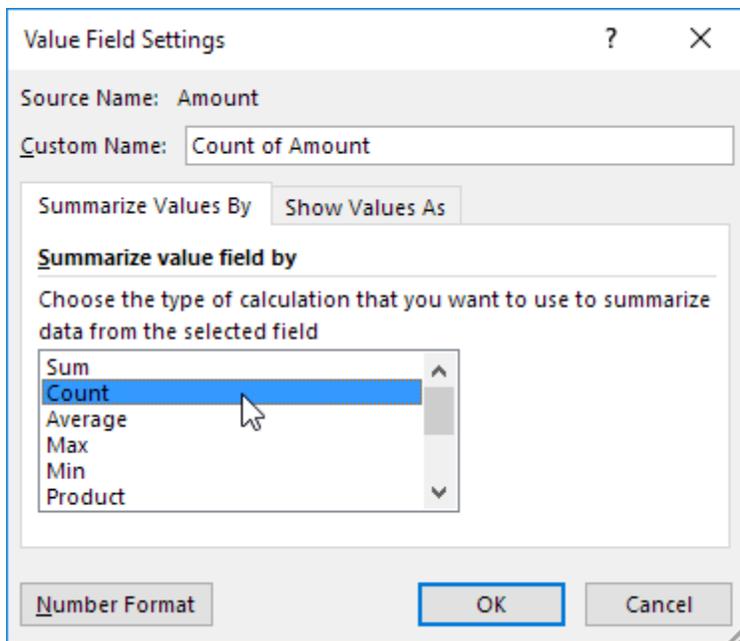
## Change Summary Calculation

By default, Excel summarizes your data by either summing or counting the items. To change the type of calculation that you want to use, execute the following steps.

1. Click any cell inside the Sum of Amount column.
2. Right click and click on Value Field Settings.



3. Choose the type of calculation you want to use. For example, click Count.



4. Click OK.

Result. 16 out of the 28 orders to France were 'Apple' orders.

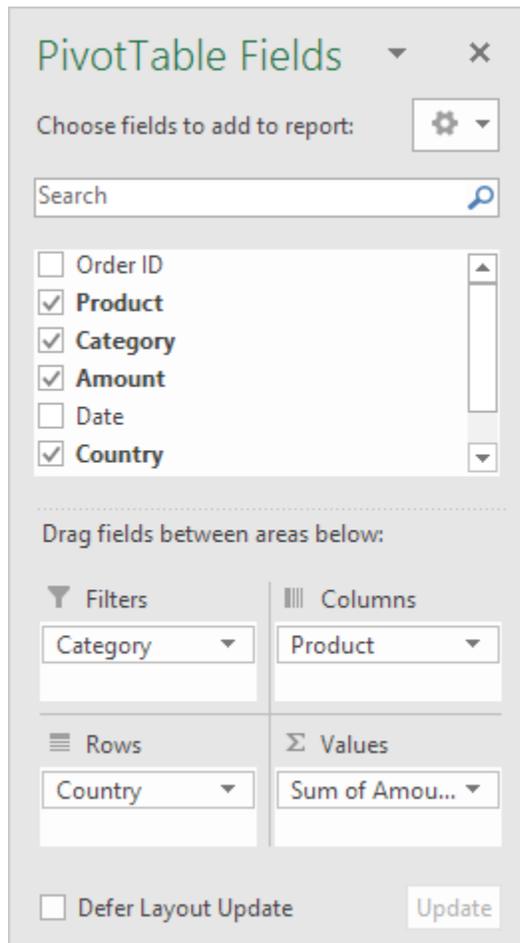
	A	B	C
1	Country	France	
2			
3	Row Labels	Count of Amount	
4	Apple	16	
5	Banana	7	
6	Carrots	1	
7	Mango	1	
8	Orange	1	
9	Beans	1	
10	Broccoli	1	
11	<b>Grand Total</b>	<b>28</b>	
12			

## Two-dimensional Pivot Table

If you drag a field to the Rows area and Columns area, you can create a two-dimensional pivot table. First, [insert a pivot table](#). Next, to get the total amount exported to each country, of each product, drag the following fields to the different areas.

1. Country field to the Rows area.
2. Product field to the Columns area.
3. Amount field to the Values area.

4. Category field to the Filters area.



Below you can find the two-dimensional pivot table.

	A	B	C	D	E	F	G	H	I	J
1	Category	(All)								
2										
3	Sum of Amount	Column								
4	Row Labels	Apple	Banana	Beans	Broccoli	Carrots	Mango	Orange	Grand Total	
5	Australia	20634	52721	14433	17953	8106	9186	8680	131713	
6	Canada	24867	33775		12407		3767	19929	94745	
7	France	80193	36094	680	5341	9104	7388	2256	141056	
8	Germany	9082	39686	29905	37197	21636	8775	8887	155168	
9	New Zealand	10332	40050		4390			12010	66782	
10	United Kingdom	17534	42908	5100	38436	41815	5600	21744	173137	
11	United States	28615	95061	7163	26715	56284	22363	30932	267133	
12	Grand Total	191257	340295	57281	142439	136945	57079	104438	1029734	
13										

To easily compare these numbers, create a [pivot chart](#) and apply a filter.

# Pivot Chart

A pivot chart is the visual representation of a pivot table in Excel. Pivot charts and pivot tables are connected with each other.

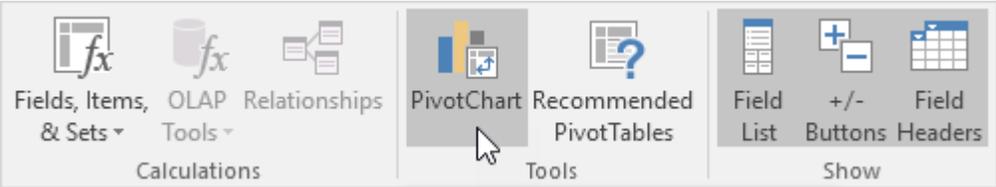
Below you can find a two-dimensional pivot table. Go back to [Pivot Tables](#) to learn how to create this pivot table.

	A	B	C	D	E	F	G	H	I	J
1	Category	(All)								
2										
3	Sum of Amount	Column								
4	Row Labels	Apple	Banana	Beans	Broccoli	Carrots	Mango	Orange	Grand Total	
5	Australia	20634	52721	14433	17953	8106	9186	8680	131713	
6	Canada	24867	33775		12407		3767	19929	94745	
7	France	80193	36094	680	5341	9104	7388	2256	141056	
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12	Grand Total	191257	340295	57281	142439	136945	57079	104438	1029734	
13										

## Insert Pivot Chart

To insert a pivot chart, execute the following steps.

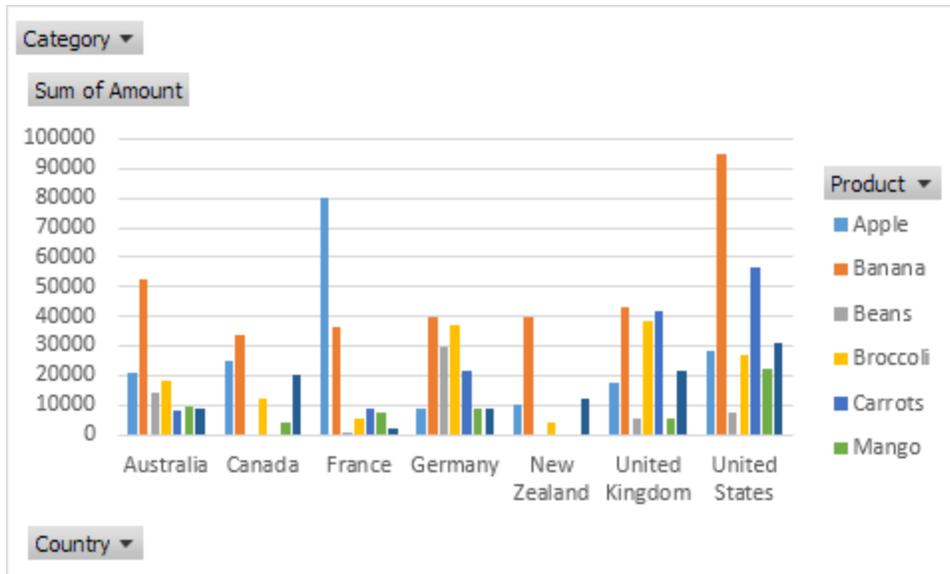
1. Click any cell inside the pivot table.
2. On the Analyze tab, in the Tools group, click PivotChart.



The Insert Chart dialog box appears.

3. Click OK.

Below you can find the pivot chart. This pivot chart will amaze and impress your boss.

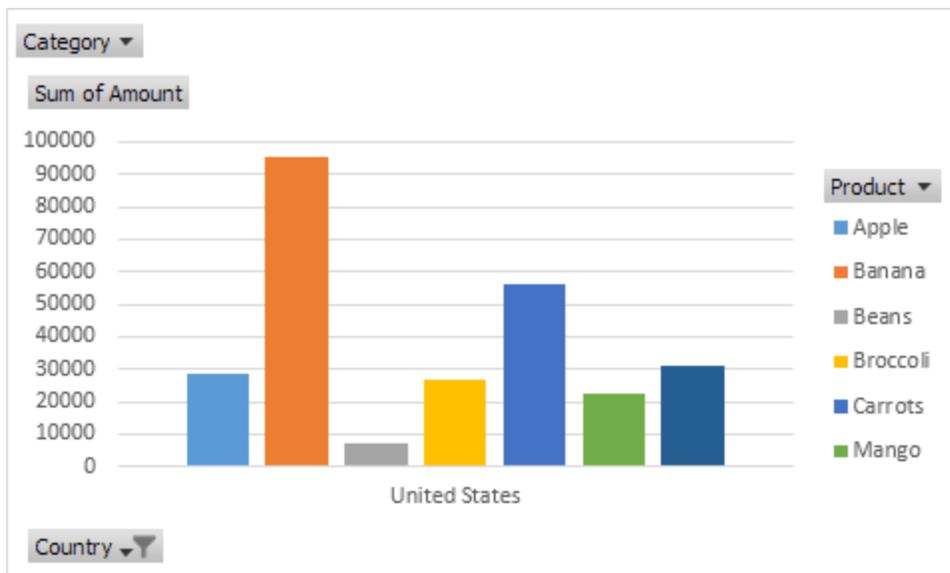


Note: any changes you make to the pivot chart are immediately reflected in the pivot table and vice versa.

## Filter Pivot Chart

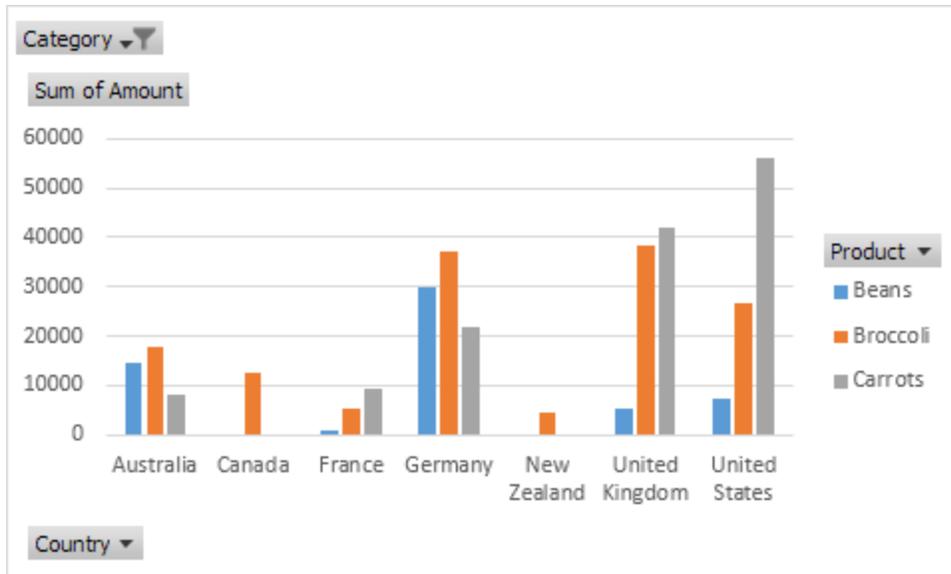
To filter this pivot chart, execute the following steps.

1. Use the standard filters (triangles next to Product and Country). For example, use the Country filter to only show the total amount of each product exported to the United States.



2. Remove the Country filter.

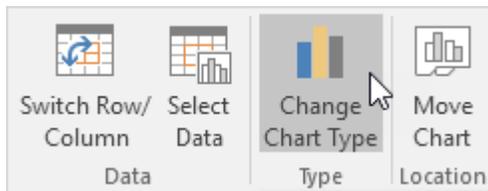
3. Because we added the Category field to the Filters area, we can filter this pivot chart (and pivot table) by Category. For example, use the Category filter to only show the vegetables exported to each country.



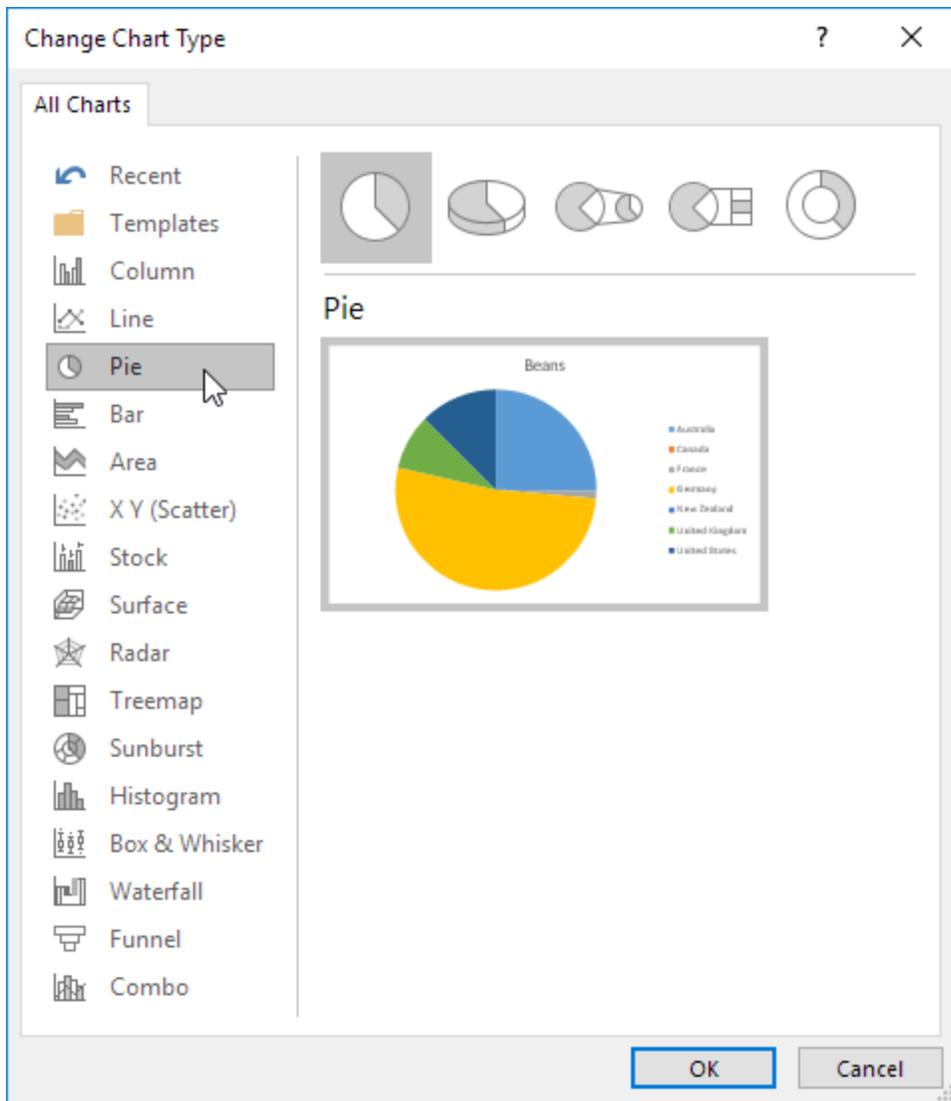
## Change Pivot Chart Type

You can change to a different type of pivot chart at any time.

1. Select the chart.
2. On the Design tab, in the Type group, click Change Chart Type.

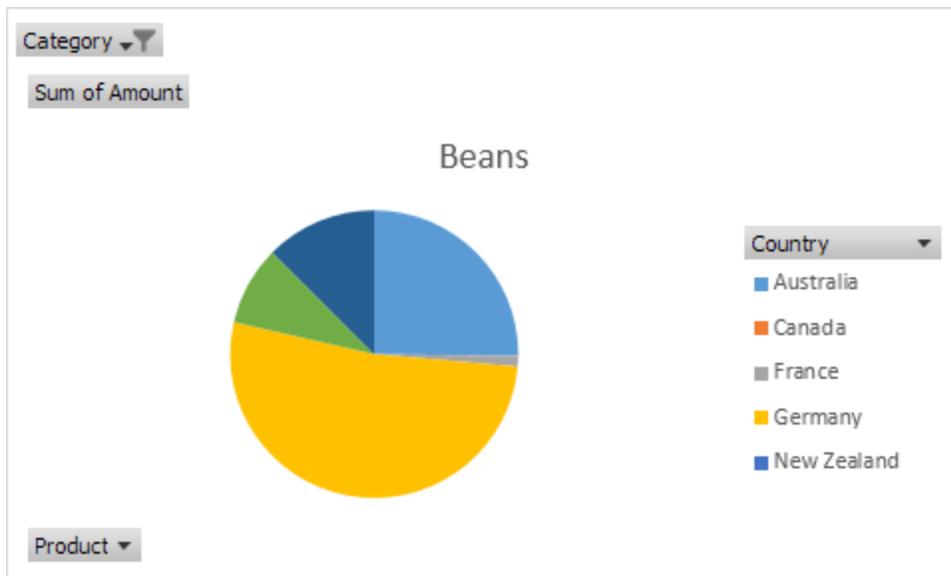


3. Choose Pie.



4. Click OK.

Result:



Note: pie charts always use one data series (in this case, Beans). To get a pivot chart of a country, swap the data over the axis. First, select the chart. Next, on the Design tab, in the Data group, click Switch Row/Column.