

Tableau tutorial using Trade data

When it was announced Friday, Oct. 17, the long-awaited [trade deal](#) between Canada and the 28-country European Union made [news](#). Harper beamed during the Brussels photo-op. Provinces such as [Ontario](#) and [Quebec](#) praised the sparsely-documented, agreement-in-principle for its job-producing potential in sectors such as manufacturing, while urging the federal government to keep its promise to compensate hard-hit industries such as cheese and wine-makers.

When the deal is ratified within the projected two years, Canada will have access to 500-million European Union consumers only too happy to buy what we're selling. Or so goes the analysis of trade minister [Ed Fast](#).

Canada's trade with Europe is lopsided. For instance, in 2012, slightly more [than half](#) the EU countries sold more goods to Canada than they bought.

Canada, unlike its relations with the United States, has a negative [trade balance](#) with many European Union countries such as France and Germany.

There are stories to be done about the trade deficits: about why certain countries don't buy Canadian products; the products at issue; the companies struggling to cope, and so on.

There's also a way for us to help people see these stories, through the use of tools such as Google's Fusion Tables, and for the purposes of this tutorial, Tableau Public.

It's important to note that mastering these tools is difficult without a good working knowledge of Excel, where it's advisable to do most of your data cleaning and trend analysis.

A good rule of thumb is this: let Excel do the heavy lifting. The tutorial spends time walking you through Excel, and a handy Tableau plug-in to "transpose" the data so it can be turned into a pivot table, or exported into Tableau.

So let's get started.

- 1) Download [Tableau](#)
- 2) Download the [plug-in](#) that allows you to [transpose](#) tables in Excel, a task we'll perform lower down in the tutorial at step 24.
- 3) Go to the Industry Canada site that contains the [trade data](#)
- 4) Select the "Search by product" tab

[All topics](#) ▾ [Just for businesses](#) ▾ [Just for consumers](#) ▾ [Forms, reports, guides ...](#) ▾

[Home](#) > [Import, Export and Investment](#) > [Trade Data Online](#)

Trade Data Online

Search by product (HS Code)

Begin by making your selection in the options below. To view the data press the Run Report button.
 An asterisk (*) indicates required information.

Trade Type ▾

Trader ▾

Trading Partner ▾

Time Period ▾

Value in ▾

Select a product

Product Options ▾

- 5)
- 6) The search criteria default to the screenshot above. If we wanted to work with the export stats, than the defaulted “Trade Type” selection would be fine. However, we want to determine the trade balance with the EU countries we will eventually select, which means the difference between what we export and import. So select the “Trade Balance” from the drop-down menu to the right of Trade Type, and then “All Countries (Detailed)” option in the drop-down menu to the right of the “Trading

Partner” category.

Trade Data Online

Search by product (HS Code)

Begin by making your selection in the options below. To view the data press the Run Report button.

An asterisk (*) indicates required information.

Trade Type	Trade Balance
Trader	Canada
Trading Partner	All Countries (Detailed)
Time Period	Latest 5 Years
Value in	\$ Canadian (Current Dollars)

Select a product

Product Options	Total - All products
-----------------	----------------------

Run Report

- 7) For now, we want all products. However, if you had a specific product or commodity in mind, you could browse by selecting another option in the drop-down menu beside the “Product Options” section. Let’s stick with “Total – All products” in Canadian dollars.

8) “Run” the Report

Trade Data Online

[Help](#) | [Return to Trade Data Online](#)

Report

Report Date: 2013-10-27

Criteria

Title	Canadian Trade Balances
Products	Total for All Products
Origin	Canada
Destination	All Countries (Detailed)
Period	Latest 5 years
Units	Value in Canadian Dollars

[Change Criteria](#)

Report

		2008	2009	2010	2011	2012
United States	Total Exports	375,479,620,670	270,090,483,148	298,649,074,796	329,771,014,600	338,692,455,143
	Total Imports	227,246,166,074	186,803,488,859	203,343,669,769	221,292,312,892	233,901,687,668
	Trade Balance	148,233,454,596	83,286,994,289	95,305,405,027	108,478,701,708	104,790,767,475
United Kingdom	Total Exports	12,995,966,379	12,051,864,891	16,367,400,308	18,791,771,031	18,759,902,682
	Total Imports	12,555,135,706	9,391,898,521	10,714,426,833	10,329,008,852	8,539,725,370
	Trade Balance	440,830,673	2,659,966,370	5,652,973,475	8,462,762,179	10,220,177,312
Hong Kong	Total Exports	1,771,010,533	1,493,710,092	1,879,945,099	2,966,680,138	2,471,572,493
	Total Imports	464,434,666	364,242,217	370,587,674	318,668,840	279,632,701
	Trade Balance	1,306,575,867	1,129,467,875	1,509,357,425	2,648,011,298	2,191,939,792
United Arab Emirates	Total Exports	1,462,336,814	1,302,985,720	1,137,959,149	1,358,308,480	1,453,364,754
	Total Imports	330,254,559	195,413,299	153,121,148	900,924,240	202,076,497
	Trade Balance	1,132,082,255	1,107,572,421	984,838,001	457,384,240	1,251,288,257

9) You’ll notice that the most recent year for these trade balance figures is 2012, meaning that it’s important to know how frequently the data is updated so that the numbers are timely as possible on publication date. From the few details under the report’s “Criteria” section, we know that these are the total trade balance statistics, which contain the Canadian Trade Balances for the last five years. We could have chosen 10 years. Five will do. Scrolling to the bottom of the screen takes us to tabs that allow us

to save the table as a “CSV” or “Excel” file.

Germany	Total Exports	4,484,140,215	3,734,129,104	3,936,632,944	3,955,358,136	3,578,313,237
	Total Imports	12,713,496,169	10,822,487,142	11,300,778,053	12,797,267,831	14,294,997,535
	Trade Balance	-8,229,355,954	-7,088,358,038	-7,364,145,109	-8,841,909,695	-10,716,684,298
Mexico	Total Exports	5,844,246,266	4,803,423,292	5,008,226,867	5,476,571,985	5,388,219,308
	Total Imports	17,915,795,376	16,535,820,604	22,111,307,640	24,571,767,569	25,521,738,274
	Trade Balance	-12,071,549,110	-11,732,397,312	-17,103,080,773	-19,095,195,584	-20,133,518,966
China	Total Exports	10,468,234,175	11,151,433,323	13,232,243,495	16,810,113,797	19,365,841,726
	Total Imports	42,627,755,296	39,660,839,947	44,524,120,369	48,183,996,195	50,716,020,698
	Trade Balance	-32,159,521,121	-28,509,406,624	-31,291,876,874	-31,373,882,398	-31,350,178,972
Total All Countries	Total Exports	483,488,158,475	359,753,559,301	398,857,006,828	447,501,587,055	454,415,814,891
	Total Imports	433,999,070,830	365,359,380,975	403,701,335,718	446,442,030,883	462,025,634,020
	Trade Balance	49,489,087,645	-5,605,821,674	-4,844,328,890	1,059,556,172	-7,609,819,129

Data Source: Statistics Canada & US Census Bureau

[Share this page](#)

Save Report as CSV **Save Report as Excel**

- 10) Let's select the "Excel" option. Be sure to save this file in the special folder you've created for this tutorial.

A1		fx		Title			
	A	B	C	D	E	F	G
1	Title	Canadian Trade Balances					
2	Products	Total for All Products					
3	Origin	Canada					
4	Destination	All Countries (Detailed)					
5	Period	Latest 5 years					
6	Units	Value in Canadian Dollars					
7							
8			2008	2009	2010	2011	2012
9	United States	Total Expo	3.75E+11	2.7E+11	2.99E+11	3.3E+11	3.39E+11
10		Total Impo	2.27E+11	1.87E+11	2.03E+11	2.21E+11	2.34E+11
11		Trade Balance	1.48E+11	8.33E+10	9.53E+10	1.08E+11	1.05E+11
12	United Kingdom	Total Expo	1.3E+10	1.21E+10	1.64E+10	1.88E+10	1.88E+10
13		Total Impo	1.26E+10	9.39E+09	1.07E+10	1.03E+10	8.54E+09
14		Trade Balance	4.41E+08	2.66E+09	5.65E+09	8.46E+09	1.02E+10
15	Hong Kong	Total Expo	1.77E+09	1.49E+09	1.88E+09	2.97E+09	2.47E+09
16		Total Impo	4.64E+08	3.64E+08	3.71E+08	3.19E+08	2.8E+08
17		Trade Balance	1.31E+09	1.13E+09	1.51E+09	2.65E+09	2.19E+09
18	United Arab Emirates	Total Expo	1.46E+09	1.3E+09	1.14E+09	1.36E+09	1.45E+09
19		Total Impo	3.3E+08	1.95E+08	1.53E+08	9.01E+08	2.02E+08
20		Trade Balance	1.13E+09	1.11E+09	9.85E+08	4.57E+08	1.25E+09
21	Netherlands	Total Expo	3.7E+09	2.76E+09	3.26E+09	4.81E+09	4.54E+09
22		Total Impo	2.18E+09	1.87E+09	1.67E+09	2.56E+09	3.55E+09
23		Trade Balance	1.52E+09	8.85E+08	1.59E+09	2.24E+09	9.94E+08
24	Russia	Total Expo	1.5E+09	8.89E+08	1.19E+09	1.5E+09	1.65E+09
25		Total Impo	1.91E+09	1.53E+09	1.64E+09	1.29E+09	9.95E+08
26		Trade Balance	-4.2E+08	-6.5E+08	-4.5E+08	2.1E+08	6.57E+08
27	Belgium	Total Expo	3.42E+09	1.9E+09	2.15E+09	2.39E+09	2.31E+09
28		Total Impo	2.21E+09	1.45E+09	1.74E+09	1.67E+09	1.72E+09
29		Trade Balance	1.21E+09	4.49E+08	4.13E+08	7.22E+08	5.85E+08
30	Venezuela	Total Expo	8.9E+08	6.06E+08	5.57E+08	6.07E+08	7.4E+08
31		Total Impo	1.4E+09	9.17E+08	7.84E+08	7.39E+08	2.2E+08
32		Trade Balance	-5.1E+08	-3.1E+08	-2.3E+08	-1.3E+08	5.21E+08
33	Indonesia	Total Expo	1.47E+09	9.71E+08	1.06E+09	1.64E+09	1.68E+09
34		Total Impo	1.08E+09	1.01E+09	1.25E+09	1.43E+09	1.31E+09

- 11) Label this Excel worksheet “Original” and paste the Industry Canada URL into the first available cell, C1, in the first row.

	A	B	C	D	E	F	G	H	I	J	K	L
1	Title	Canadian	https://www.ic.gc.ca/app/scr/tdst/tdo/crtr.html?naArea=9999&searchType=All&productType=HS6&timePeriod=									
2	Products	Total for All Products										
3	Origin	Canada										
4	Destination	All Countries (Detailed)										
5	Period	Latest 5 years										
6	Units	Value in Canadian Dollars										
7												
8			2008	2009	2010	2011	2012					
9	United States	Total Exports	3.75E+11	2.7E+11	2.99E+11	3.3E+11	3.39E+11					
10		Total Imports	2.27E+11	1.87E+11	2.03E+11	2.21E+11	2.34E+11					
11		Trade Balance	1.48E+11	8.33E+10	9.53E+10	1.08E+11	1.05E+11					
12	United Kingdom	Total Exports	1.3E+10	1.21E+10	1.64E+10	1.88E+10	1.88E+10					
13		Total Imports	1.26E+10	9.39E+09	1.07E+10	1.03E+10	8.54E+09					
14		Trade Balance	4.41E+08	2.66E+09	5.65E+09	8.46E+09	1.02E+10					
15	Hong Kong	Total Exports	1.77E+09	1.49E+09	1.88E+09	2.97E+09	2.47E+09					
16		Total Imports	4.64E+08	3.64E+08	3.71E+08	3.19E+08	2.8E+08					
17		Trade Balance	1.31E+09	1.13E+09	1.51E+09	2.65E+09	2.19E+09					

- 12) Copy the worksheet, paste it into a blank worksheet and label it “WorkingCopy” (to take up as little room on the worksheet tabs as possible, avoid using spaces when naming your Excel worksheets), eliminate the extra rows. Label A1, “Country” and B1 “Trade”.

	A	B	C	D	E	F	G
1	Country	Trade	2008	2009	2010	2011	2012
2	United States	Total Exports	\$375,479,620,670	\$270,090,483,148	\$298,649,074,796	\$329,771,014,600	\$338,692,455,143
3		Total Imports	\$227,246,166,074	\$186,803,488,859	\$203,343,669,769	\$221,292,312,892	\$233,901,687,668
4		Trade Balance	\$148,233,454,596	\$83,286,994,289	\$95,305,405,027	\$108,478,701,708	\$104,790,767,475
5	United Kingdom	Total Exports	\$12,995,966,379	\$12,051,864,891	\$16,367,400,308	\$18,791,771,031	\$18,759,902,682
6		Total Imports	\$12,555,135,706	\$9,391,898,521	\$10,714,426,833	\$10,329,008,852	\$8,539,725,370
7		Trade Balance	\$440,830,673	\$2,659,966,370	\$5,652,973,475	\$8,462,762,179	\$10,220,177,312
8	Hong Kong	Total Exports	\$1,771,010,533	\$1,493,710,092	\$1,879,945,099	\$2,966,680,138	\$2,471,572,493
9		Total Imports	\$464,434,666	\$364,242,217	\$370,587,674	\$318,668,840	\$279,632,701
10		Trade Balance	\$1,306,575,867	\$1,129,467,875	\$1,509,357,425	\$2,648,011,298	\$2,191,939,792
11	United Arab Emirates	Total Exports	\$1,462,336,814	\$1,302,985,720	\$1,137,959,149	\$1,358,308,480	\$1,453,364,754
12		Total Imports	\$330,254,559	\$195,413,299	\$153,121,148	\$900,924,240	\$202,076,497
13		Trade Balance	\$1,132,082,255	\$1,107,572,421	\$984,838,001	\$457,384,240	\$1,251,288,257
14	Netherlands	Total Exports	\$3,699,048,774	\$2,756,922,085	\$3,259,936,293	\$4,806,929,085	\$4,541,719,896
15		Total Imports	\$2,177,400,689	\$1,871,431,668	\$1,674,617,192	\$2,563,169,880	\$3,547,369,924
16		Trade Balance	\$1,521,648,085	\$885,490,417	\$1,585,319,101	\$2,243,759,205	\$994,349,972
17	Russia	Total Exports	\$1,495,862,767	\$889,362,359	\$1,189,929,673	\$1,496,966,195	\$1,651,045,380
18		Total Imports	\$1,913,861,302	\$1,534,750,588	\$1,644,819,557	\$1,286,477,226	\$994,508,329
19		Trade Balance	-\$417,998,535	-\$645,388,229	-\$454,889,884	\$210,488,969	\$656,537,051
20	Belgium	Total Exports	\$3,422,122,502	\$1,896,472,738	\$2,154,497,458	\$2,388,510,408	\$2,309,483,963
21		Total Imports	\$2,211,861,572	\$1,447,506,577	\$1,741,713,941	\$1,666,384,362	\$1,724,649,370
22		Trade Balance	\$1,210,260,930	\$448,966,161	\$412,783,517	\$722,126,046	\$584,834,593

- 13) The idea is to prepare the table so that it can be imported into Tableau.

- 14) The first step towards this goal is filling in country names to the left of column B. The quickest way to do this is to select the United States, grab and handle to the bottom left of the cell, and copy the name, by dragging the handle to row number four.

	A	B
1	Country	Trade
2	United States	Total Exports
3	United States	Total Imports
4	United States	Trade Balance
5	United Kingdom	Total Exports
6		Total Imports
7		Trade Balance
8	Hong Kong	Total Exports
9		Total Imports
10		Trade Balance
11	United Arab Em	Total Exports
12		Total Imports
13		Trade Balance
14	Netherlands	Total Exports
15		Total Imports
16		Trade Balance

- 15) Repeat the process for the remaining countries, an admittedly tedious task which should only take about ten minutes.

	A	B
1	Country	Trade
2	United States	Total Exports
3	United States	Total Imports
4	United States	Trade Balance
5	United Kingdom	Total Exports
6	United Kingdom	Total Imports
7	United Kingdom	Trade Balance
8	Hong Kong	Total Exports
9	Hong Kong	Total Imports
10	Hong Kong	Trade Balance
11	United Arab En	Total Exports
12	United Arab En	Total Imports
13	United Arab En	Trade Balance
14	Netherlands	Total Exports
15	Netherlands	Total Imports
16	Netherlands	Trade Balance
17	Russia	Total Exports
18	Russia	Total Imports
19	Russia	Trade Balance
20	Belgium	Total Exports
21	Belgium	Total Imports
22	Belgium	Trade Balance
23	Venezuela	Total Exports
24	Venezuela	Total Imports
25	Venezuela	Trade Balance
26	Indonesia	Total Exports
27	Indonesia	Total Imports
28	Indonesia	Trade Balance
29	Bahamas	Total Exports
30	Bahamas	Total Imports
31	Bahamas	Trade Balance
32	Morocco	Total Exports
33	Morocco	Total Imports
34	Morocco	Trade Balance

16)

- 17) To ensure that you've filled in the all cells in column A, activate your filter to make sure that there are no "blanks" in your drop-down menu.
- 18) Keep the filter on to choose the European Union Countries. As a reference, we'll use the Statistics Canada [list](http://www23.statcan.gc.ca/imdb/p3VD.pl?Function=getVDPPage1&TVD=141329) that can be copied and imported into your table as a new worksheet.

	A	B	C	D	E	F	G	H
1	Classification structure	http://www23.statcan.gc.ca/imdb/p3VD.pl?Function=getVDPPage1&TVD=141329						
2	Code	Country	(Ctrl) Alpha-3					
3		40 Austria	AT	AUT				
4		56 Belgium	BE	BEL				
5		100 Bulgaria	BG	BGR				
6		191 Croatia	HR	HRV				
7		196 Cyprus	CY	CYP				
8		203 Czech Republic	CZ	CZE				
9		208 Denmark	DK	DNK				
10		233 Estonia	EE	EST				
11		246 Finland	FI	FIN				
12		250 France	FR	FRA				
13		276 Germany	DE	DEU				
14		300 Greece	GR	GRC				
15		348 Hungary	HU	HUN				
16		372 Ireland, Republic of (EIRE)	IE	IRL				
17		380 Italy	IT	ITA				
18		428 Latvia	LV	LVA				
19		440 Lithuania	LT	LTU				
20		442 Luxembourg	LU	LUX				
21		470 Malta	MT	MLT				
22		528 Netherlands	NL	NLD				
23		616 Poland	PL	POL				
24		620 Portugal	PT	PRT				
25		642 Romania	RO	ROU				
26		703 Slovakia	SK	SVK				
27		705 Slovenia	SI	SVN				
28		724 Spain	ES	ESP				
29		752 Sweden	SE	SWE				
30		826 United Kingdom	GB	GBR				

- 19) You can see from this screenshot, that I've created the EU worksheet (the table can be imported a number of ways discussed on pages 52 to 58 of our Computer-Assisted Reporting textbook.) Be sure to paste the Statistics Canada URL into the first

available cell in the first row. The reason for importing this table into Excel is that we want Canada-EU Trade workbook to be self-contained. So if you have to interrupt this process to do another assignment, everything is in one place when you return to the task, which makes life easier.

- 20) It is also advisable to use two screens when performing data-journalism related tasks. Two screens allow you to have a the EU list from the website on one screen, and the trade-date table in Excel on the other screen.
- 21) Now it's just a matter of selecting the EU countries from column A's drop-down menu.

	A1		
	A	B	
1	Country	Trade	
5	United Kingdom	Total Exports	\$12
6	United Kingdom	Total Imports	\$12
7	United Kingdom	Trade Balance	
14	Netherlands	Total Exports	\$3
15	Netherlands	Total Imports	\$2
16	Netherlands	Trade Balance	\$1
20	Belgium	Total Exports	\$3
21	Belgium	Total Imports	\$2
22	Belgium	Trade Balance	\$1
101	Latvia	Total Exports	
102	Latvia	Total Imports	
103	Latvia	Trade Balance	
128	Luxembourg	Total Exports	
129	Luxembourg	Total Imports	
130	Luxembourg	Trade Balance	
134	Malta	Total Exports	
135	Malta	Total Imports	
136	Malta	Trade Balance	
218	Cyprus	Total Exports	
219	Cyprus	Total Imports	
220	Cyprus	Trade Balance	
428	Croatia	Total Exports	
429	Croatia	Total Imports	
430	Croatia	Trade Balance	
434	Estonia	Total Exports	
435	Estonia	Total Imports	
436	Estonia	Trade Balance	
443	Bulgaria	Total Exports	
444	Bulgaria	Total Imports	
445	Bulgaria	Trade Balance	
452	Greece	Total Exports	
453	Greece	Total Imports	
454	Greece	Trade Balance	
470	Slovenia	Total Exports	

22)

23) Once you've filtered the table for just the EU countries, copy and paste it (using the paste-special feature if you have to in order to just bring in the filtered table) into a new worksheet – to the right of the “EUCountries” worksheet. Call the new worksheet “EUCountriesFiltered”

77	France (incl. Monaco, French Antilles)	Total Exports	\$3,239,722,555	\$2,676,607,32
78	France (incl. Monaco, French Antilles)	Total Imports	\$6,052,514,268	\$5,630,378,64
79	France (incl. Monaco, French Antilles)	Trade Balance	-\$2,812,791,713	-\$2,953,771,31
80	Italy (incl. Vatican City State)	Total Exports	\$2,325,494,896	\$1,776,792,95
81	Italy (incl. Vatican City State)	Total Imports	\$5,121,665,757	\$4,447,327,23
82	Italy (incl. Vatican City State)	Trade Balance	-\$2,796,170,861	-\$2,670,534,28
83	Germany	Total Exports	\$4,484,140,215	\$3,734,129,10
84	Germany	Total Imports	\$12,713,496,169	\$10,822,487,14
85	Germany	Trade Balance	-\$8,229,355,954	-\$7,088,358,03
86				
87				
88				
89				
90				
91				
92				
93				
94				
95				
96				
97				
98				

Excel worksheet tabs: TradeBalance, WorkingCopy, EUCountries, **EUCountriesFiltered**

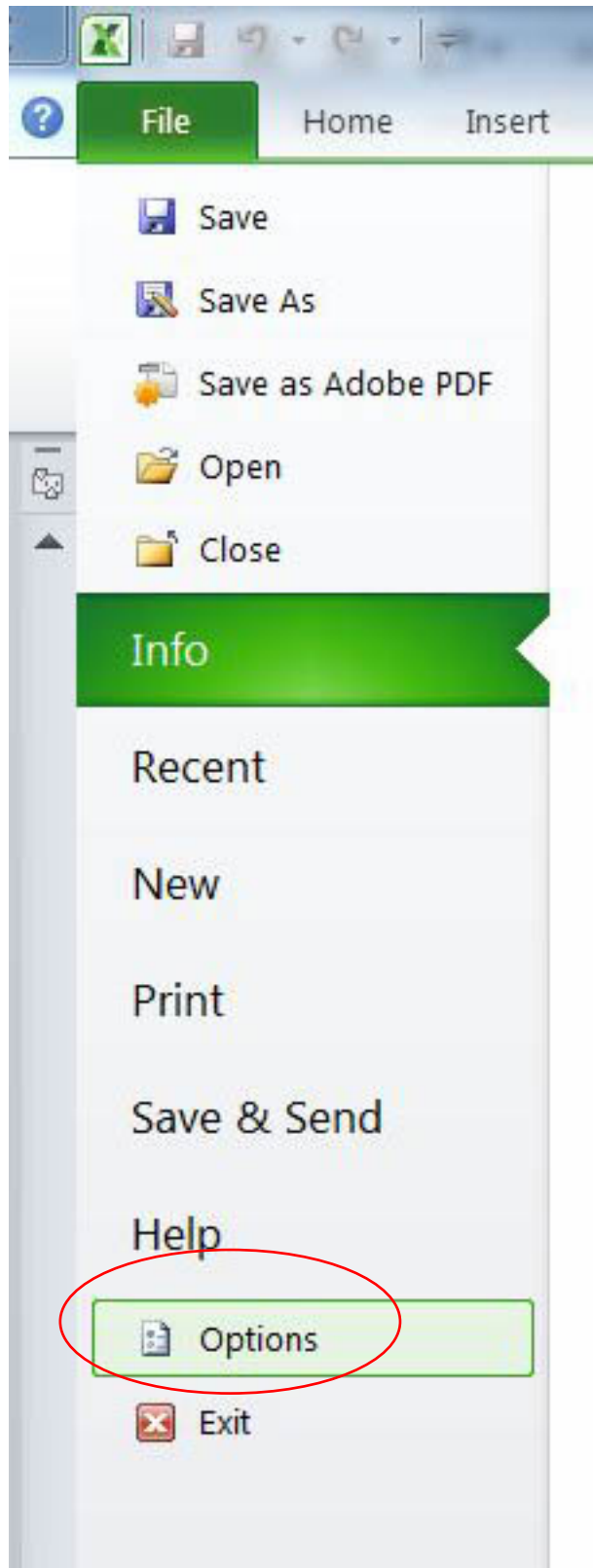
24) Now we have to “transpose” the data. In other words, make sure that each row contains the same information, making it possible to be grouped in a pivot table, or for this tutorial, imported into Tableau. According to the “[Excel 2007 Bible](#)” transposing “Changes the orientation of the copied range. Rows become columns, and columns become rows. Any formulas in the copied range are adjusted so that they work properly when

transposed.” You can also use Excel’s help menu to learn more about transposing.

- 25) Since we’re working with Tableau, we’ll use a special plug-in that transposes in one easy step. If you neglected to download the [plug-in](#) from step two, please do so now.

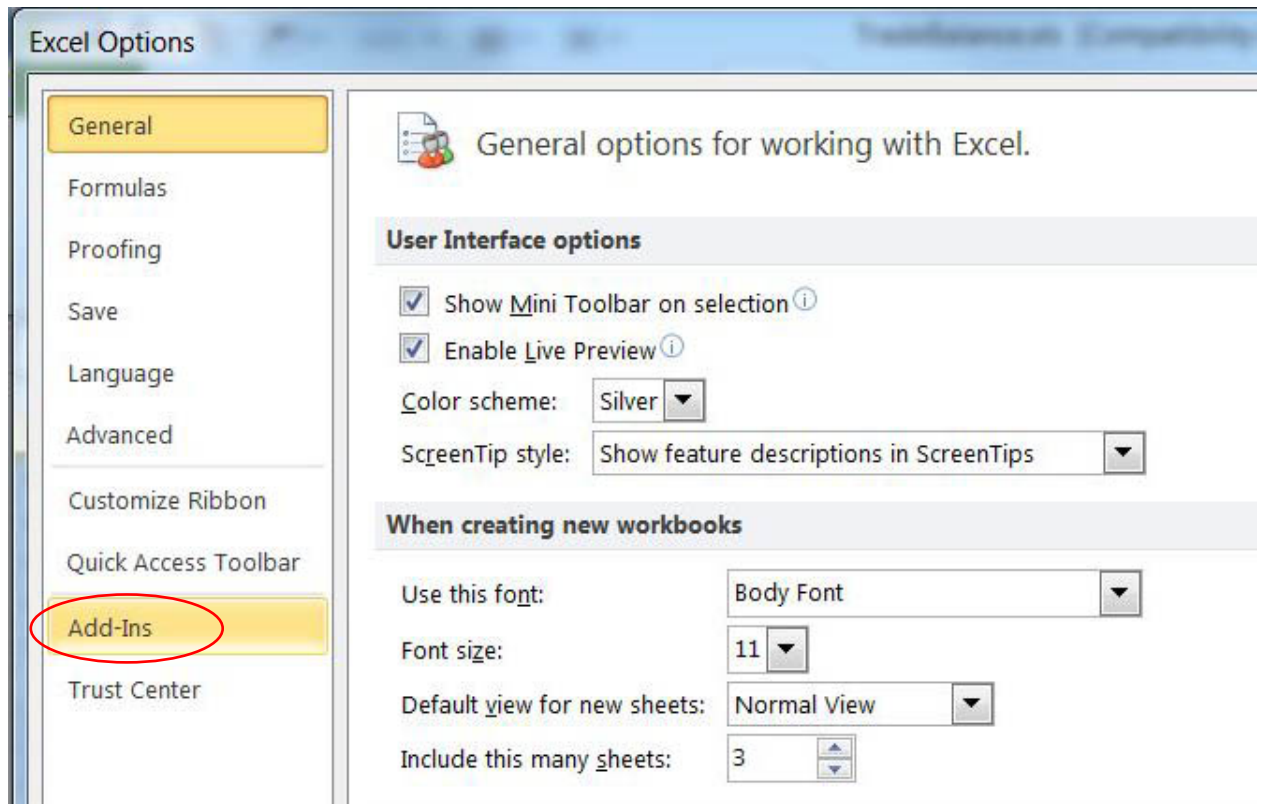
The screenshot shows a web browser window displaying the Tableau Knowledge Base article. The URL is kb.tableausoftware.com/articles/knowledgebase/addin-reshaping-data-excel. The page features the Tableau logo, navigation links (Products, Solutions, Learning, Support, Partners, About), and a 'FREE TRIAL' button. The article title is 'Installing the Tableau Add-In for Reshaping Data in Excel'. The metadata section lists: Product(s): Tableau Desktop, Version(s): All, Last Modified Date: 18 Jun 2013. The main text explains that data in Excel files is often not optimized for Tableau and provides instructions on how to use the add-in. An 'Important' note states that the add-in is unsupported and undocumented. The article includes two steps for installation in Excel 2010. In the 'ATTACHMENTS' section, the file 'tableau_data_tool.zip' is listed and circled in red. A search bar is visible at the bottom right of the article content.

- 26) Follow the three steps which involve downloading the “tableau_data_tool_zip” file which contains the plug-in.
- 27) Save the zip file to the folder you’ve created for this tutorial, and be sure to extract the file from the zip folder.
- 28) Next, go to Excel’s “Options” category located in the “File” section of menu at the top.



29)

- 30) Select the Add-Ins option towards the bottom of the Options box.



- 31) Once in the Add-Ins box, select the “Excel Add-ins” option from the drop-down menu to the right of the “Manage” section at

the bottom, and then select the “Go” tab.

View and manage Microsoft Office Add-ins.

Add-ins

Name ▲	Location
Acrobat PDFMaker Office COM Addin	C:\...robat 10.0\PDFM
Google Desktop Office Addin	C:\...\Google Desktop
Tableau 7	C:\...pData\Roaming\

Inactive Application Add-ins

Analysis ToolPak	C:\...oft Office\Office:
Analysis ToolPak - VBA	C:\... Office\Office14\
Custom XML Data	C:\... Files (x86)\Micr
Date (XML)	C:\...mon Files\micro:
Euro Currency Tools	C:\...icrosoft Office\O
Financial Symbol (XML)	C:\...mon Files\micro:
Headers and Footers	C:\... Files (x86)\Micr
Hidden Rows and Columns	C:\... Files (x86)\Micr
Hidden Worksheets	C:\... Files (x86)\Micr
Invisible Content	C:\... Files (x86)\Micr
Microsoft Actions Pane 3	
Solver Add-in	C:\...oft Office\Office:

Document Related Add-ins

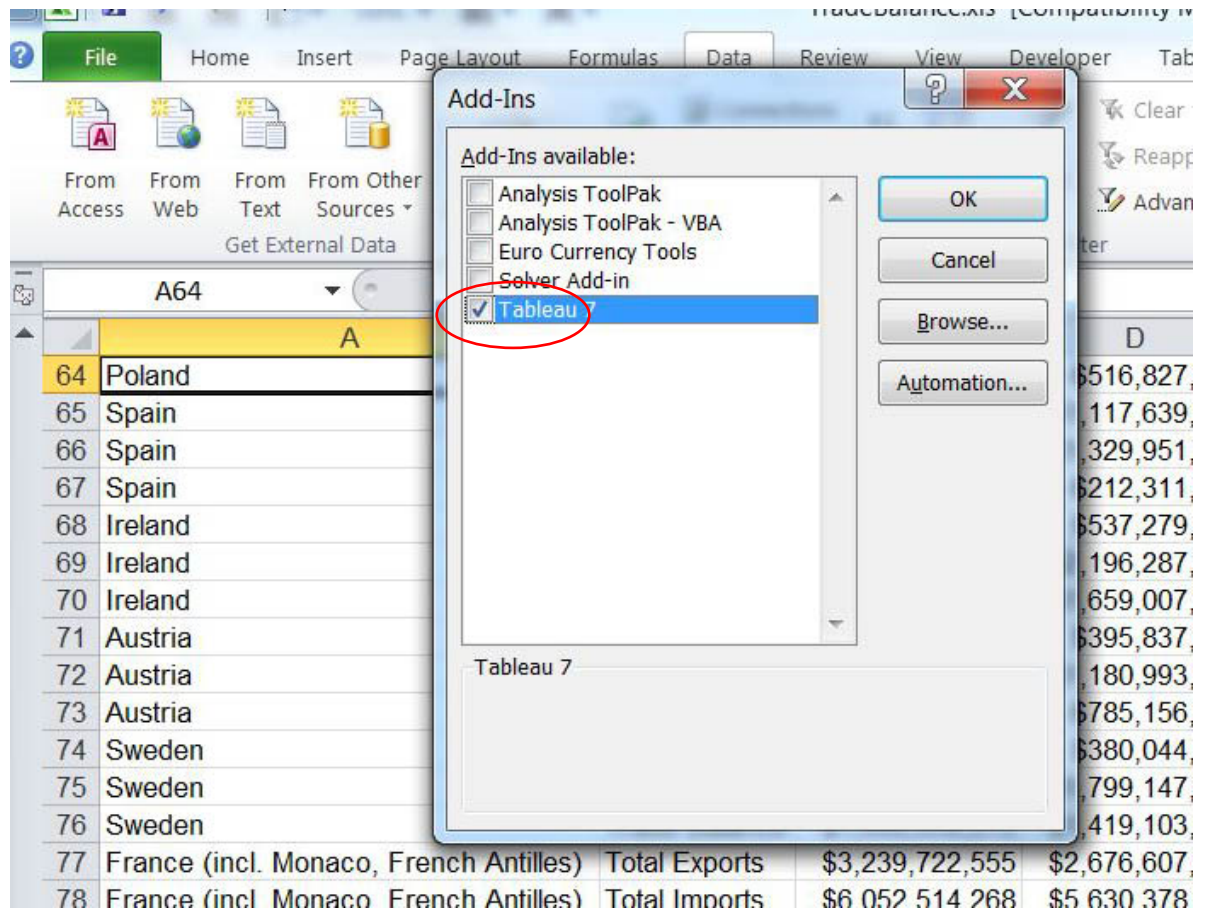
No Document Related Add-ins

Disabled Application Add-ins

Add-in: Acrobat PDFMaker Office COM Addin
Publisher: Adobe Systems, Incorporated
Compatibility: No compatibility information available
Location: C:\Program Files (x86)\Adobe\Acrobat 10.0\PDFMaker\Office

Description: Acrobat PDFMaker Office COM Addin

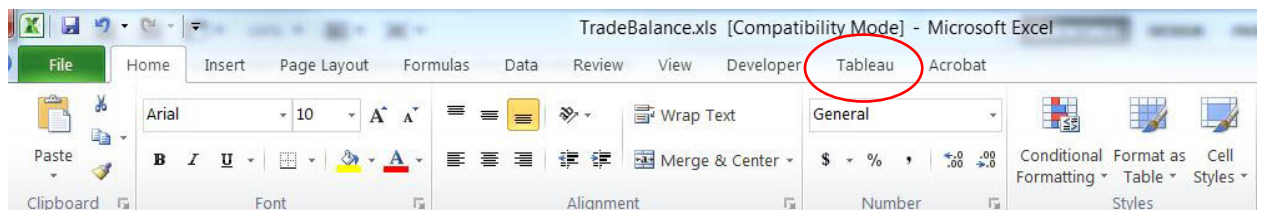
Manage: Excel Add-ins ▼ Go...



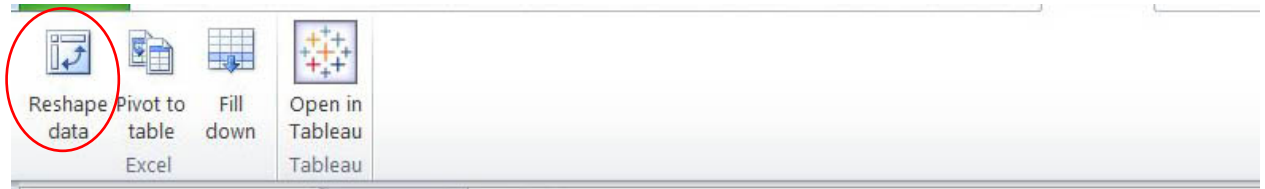
32)

33) Select the Tableau plug-in that you've extracted from the downloaded zip folder. **NOTE:** If the "Tableau" option does not appear in the Add-Ins box, it means that you've neglected to extract it from the zip folder. If the plug-in remains in the zip folder, Excel will be unable to find it.

34) Once you select the Tableau plug-in, it will appear on your menu across the very top on the right-hand side.



35) Click on the “Tableau” option to see the plug-in.



36) Now we're ready to transpose the EU countries table. Return to your worksheet that contains the filtered EU Countries, activate C2, which is where the transposing will begin.

The image shows an Excel worksheet with the following data:

	A	B	C	D	
1	Country	Trade	2008	2009	
2	United Kingdom	Total Exports	\$12,995,966,379	\$12,051,864,891	\$16
3	United Kingdom	Total Imports	\$12,555,135,706	\$9,391,898,521	\$10
4	United Kingdom	Trade Balance	\$440,830,673	\$2,659,966,370	\$5
5	Netherlands	Total Exports	\$3,699,048,774	\$2,756,922,085	\$3
6	Netherlands	Total Imports	\$2,177,400,689	\$1,871,431,668	\$1

37) Select the “Reshape data” icon.

File Home Insert Page Layout Formulas Data Review View Developer Tableau Acrobat

Reshape Pivot to Fill Open in
data table down
Excel Tableau

C2 12995966379

	A	B	C	D	E	F
1	Country	Trade	2008	2009	2010	2011
2	United Kingdom	Total Exports	\$12,995,966,379	\$12,051,864,891	\$16,367,400,308	\$18,791,771,031
3	United Kingdom	Total Imports	\$12,555,135,706	\$9,391,898,521	\$10,714,426,833	\$10,329,008,852
4	United Kingdom	Trade Balance	\$440,830,673	\$2,659,966,370	\$5,652,973,475	\$8,462,762,179
5	Netherlands	Total Exports	\$3,699,048,774			
6	Netherlands	Total Imports	\$2,177,400,689			
7	Netherlands	Trade Balance	\$1,521,648,085			
8	Belgium	Total Exports	\$3,422,122,502			
9	Belgium	Total Imports	\$2,211,861,572			
10	Belgium	Trade Balance	\$1,210,260,930			
11	Latvia	Total Exports	\$49,120,554			
12	Latvia	Total Imports	\$32,334,821			
13	Latvia	Trade Balance	\$16,785,733			
14	Luxembourg	Total Exports	\$177,164,972			
15	Luxembourg	Total Imports	\$97,204,418			
16	Luxembourg	Trade Balance	\$79,960,554			
17	Malta	Total Exports	\$17,479,013			
18	Malta	Total Imports	\$22,346,435			
19	Malta	Trade Balance	-\$4,867,422			
20	Cyprus	Total Exports	\$17,857,545			
21	Cyprus	Total Imports	\$2,937,486			
22	Cyprus	Trade Balance	\$14,920,059	\$10,246,433	\$45,560,629	\$9,456,092
23	Croatia	Total Exports	\$71,079,497	\$103,556,308	\$94,331,679	\$36,014,612
24	Croatia	Total Imports	\$60,404,695	\$65,450,444	\$65,000,400	\$60,000,454

Reshape Data

Data | Advanced

Select the first data value. This should be a number. Or select the entire range of data values to unpivot.

\$C\$2

Example:

OK

38)

39)

Select the OK tab

	A	B	C	D	E	F	G	H	I
1	Country	Trade	Col3	Col4					
2	United Kin	Total Expo	2008	#####					
3	United Kin	Total Expo	2009	#####					
4	United Kin	Total Expo	2010	#####					
5	United Kin	Total Expo	2011	#####					
6	United Kin	Total Expo	2012	#####					
7	United Kin	Total Impo	2008	#####					
8	United Kin	Total Impo	2009	#####					
9	United Kin	Total Impo	2010	#####					
10	United Kin	Total Impo	2011	#####					
11	United Kin	Total Impo	2012	#####					
12	United Kin	Trade Bale	2008	#####					
13	United Kin	Trade Bale	2009	#####					
14	United Kin	Trade Bale	2010	#####					
15	United Kin	Trade Bale	2011	#####					
16	United Kin	Trade Bale	2012	#####					
17	Netherland	Total Expo	2008	#####					
18	Netherland	Total Expo	2009	#####					
19	Netherland	Total Expo	2010	#####					
20	Netherland	Total Expo	2011	#####					
21	Netherland	Total Expo	2012	#####					
22	Netherland	Total Impo	2008	#####					
23	Netherland	Total Impo	2009	#####					
24	Netherland	Total Impo	2010	#####					
25	Netherland	Total Impo	2011	#####					

40)

41) Adjust the column widths (column D contains hash tags,
Excel's way of informing you that the cell width is too narrow to

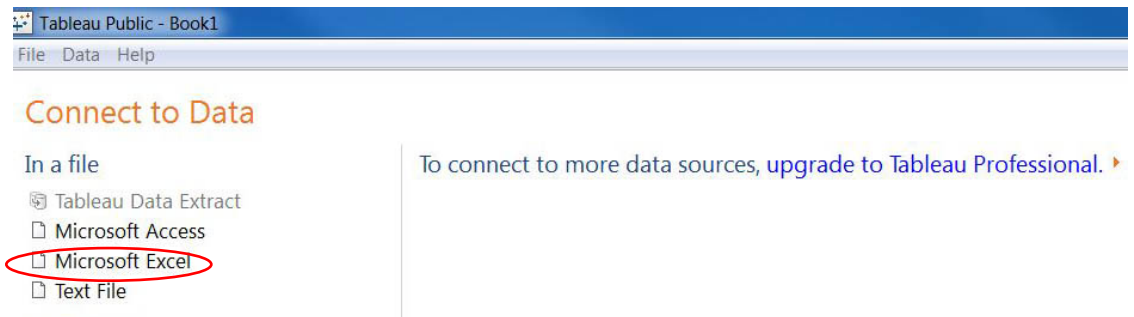
accommodate the dollar values.)

	A	B	C	D	E
1	Country	Trade	Col3	Col4	
2	United Kingdom	Total Exports	2008	\$12,995,966,379.00	
3	United Kingdom	Total Exports	2009	\$12,051,864,891.00	
4	United Kingdom	Total Exports	2010	\$16,367,400,308.00	
5	United Kingdom	Total Exports	2011	\$18,791,771,031.00	
6	United Kingdom	Total Exports	2012	\$18,759,902,682.00	
7	United Kingdom	Total Imports	2008	\$12,555,135,706.00	
8	United Kingdom	Total Imports	2009	\$9,391,898,521.00	
9	United Kingdom	Total Imports	2010	\$10,714,426,833.00	
10	United Kingdom	Total Imports	2011	\$10,329,008,852.00	
11	United Kingdom	Total Imports	2012	\$8,539,725,370.00	
12	United Kingdom	Trade Balance	2008	\$440,830,673.00	
13	United Kingdom	Trade Balance	2009	\$2,659,966,370.00	
14	United Kingdom	Trade Balance	2010	\$5,652,973,475.00	
15	United Kingdom	Trade Balance	2011	\$8,462,762,179.00	
16	United Kingdom	Trade Balance	2012	\$10,220,177,312.00	
17	Netherlands	Total Exports	2008	\$3,699,048,774.00	
18	Netherlands	Total Exports	2009	\$2,756,922,085.00	
19	Netherlands	Total Exports	2010	\$3,259,936,293.00	
20	Netherlands	Total Exports	2011	\$4,806,929,085.00	
21	Netherlands	Total Exports	2012	\$4,541,719,896.00	
22	Netherlands	Total Imports	2008	\$2,177,400,689.00	
23	Netherlands	Total Imports	2009	\$1,871,431,668.00	
24	Netherlands	Total Imports	2010	\$1,674,617,192.00	
25	Netherlands	Total Imports	2011	\$2,563,169,880.00	

- 42) The data has been transposed. The Years and dollar amounts (the two values we wanted to transpose) are now in rows. Rename the column containing years “Years” and the column with the dollar amounts “Amount.”
- 43) You could create a pivot table from this to determine, among other things, the countries with which Canada has the

highest trade deficits. That analysis could produce stories, or good questions that could lead stories. We'll import this table into Tableau. You'll also notice that Excel places the transposed dataset into a new worksheet with a "Tableau" extension. This is important to recognize, because it is this worksheet **"ECCountriesFiltered – Tableau"**, that we will import into Tableau.

- 44) Click on the Tableau icon that has been downloaded on to our desktop, and click on the orange "Open Data" tab.



- 45)
- 46) You'll notice that Tableau wants us to upgrade to Tableau Professional, a version that handles much larger data sets (up to a million records) and costs money. There are ways of obtaining this upgraded version without paying directly. For instance, you could obtain a professional version by becoming a member of the [Investigative Reporters and Editors](#).
- 47) Under the "Connect to Data" section, let's choose the "Microsoft in Excel" option, which will then allow us to browse for the file.

Connect to Data

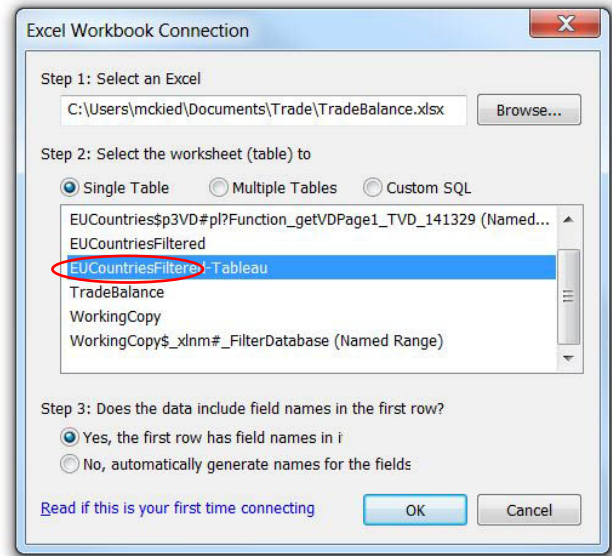
In a file

- Tableau Data Extract
- Microsoft Access
- Microsoft Excel
- Text File

On a server

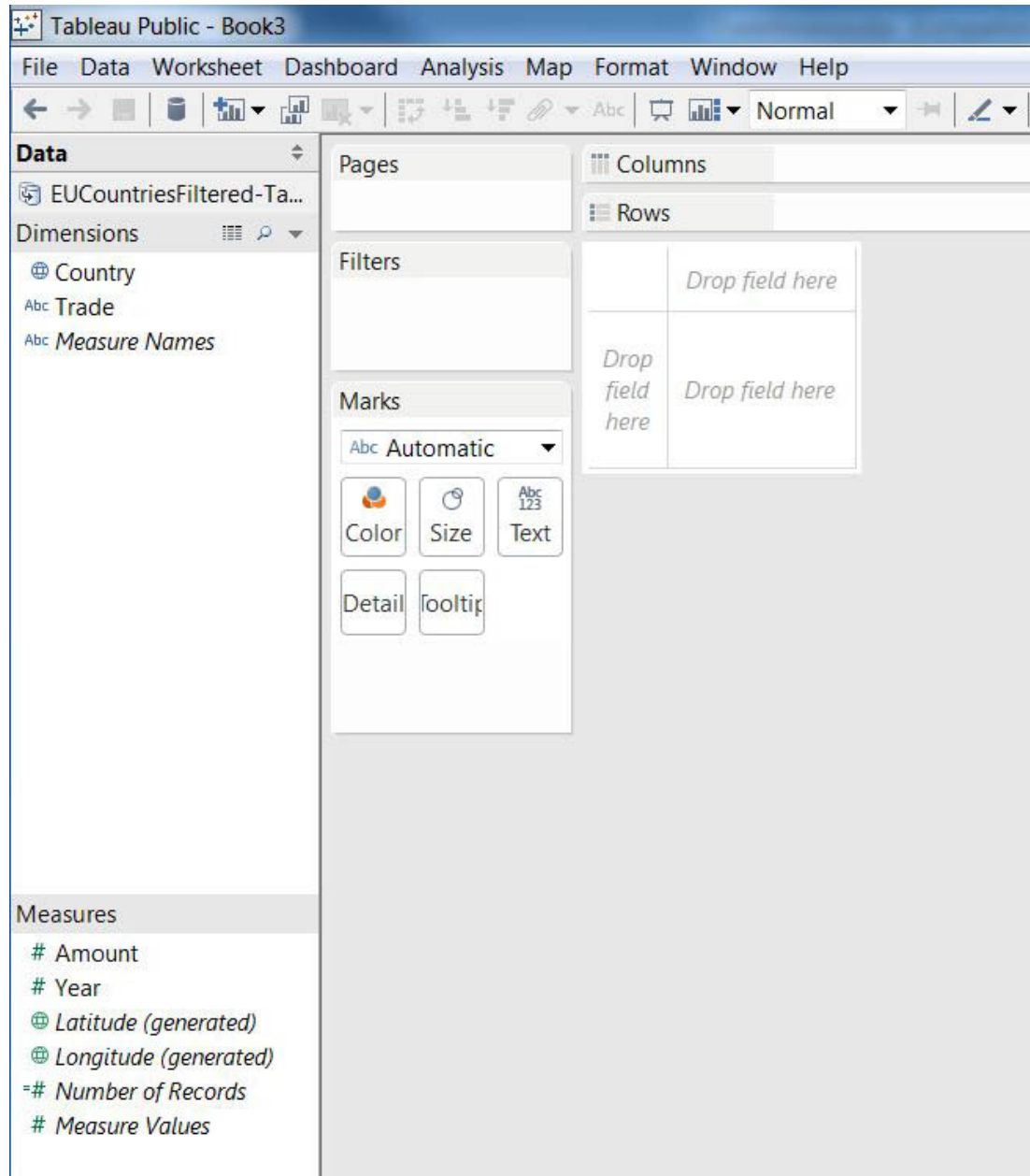
- Actian Vectorwise
- Amazon Redshift
- Aster Database
- Cloudera Hadoop
- DataStax Enterprise
- EMC Greenplum
- EXASolution
- Firebird
- Google Analytics
- Google BigQuery
- Hortonworks Hadoop Hive
- HP Vertica
- IBM DB2
- IBM Netezza
- MapR Hadoop Hive
- Microsoft Analysis Services
- Microsoft PowerPivot
- Microsoft SQL Server
- MySQL

To connect to more data sources, upgrade to Tableau Professional. ▶



48)

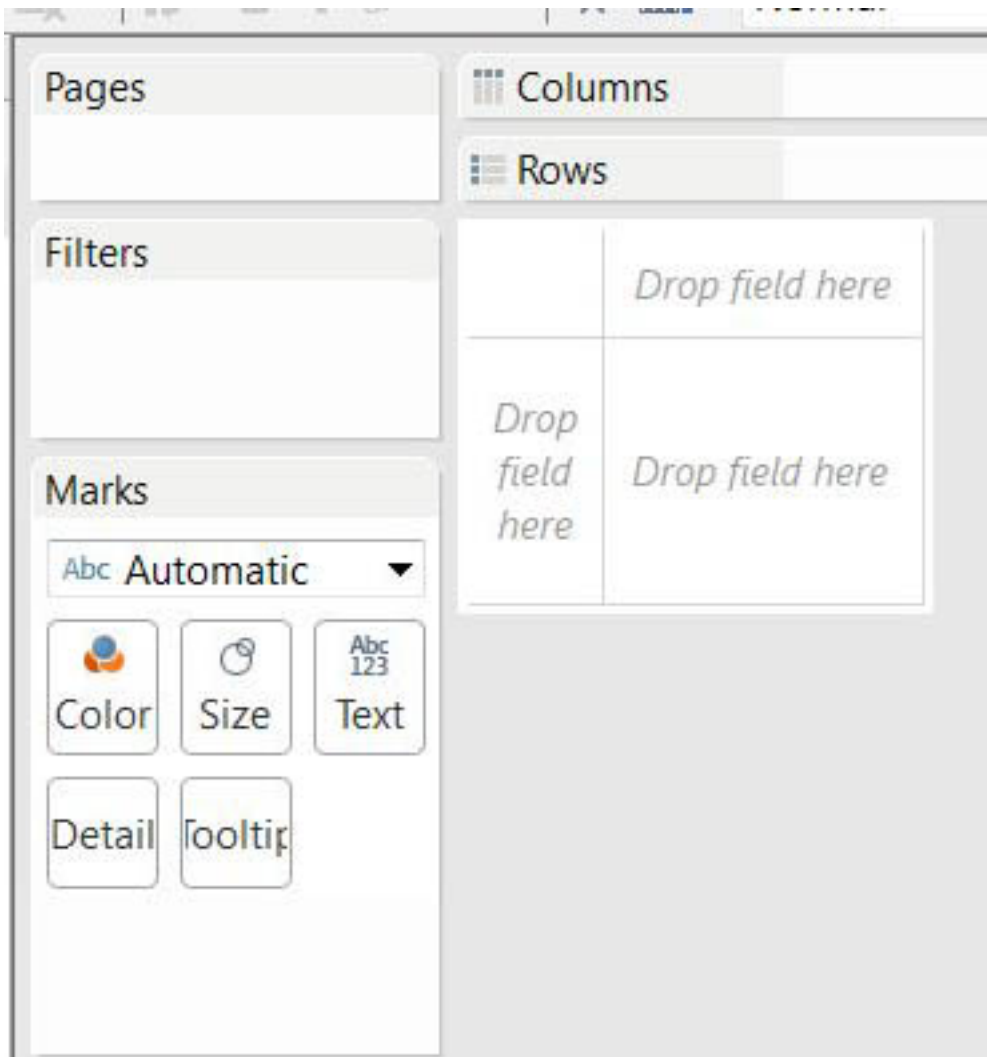
49) Select the tab “EUCountriesFiltered – Tableau” that contains the transposed trade data.



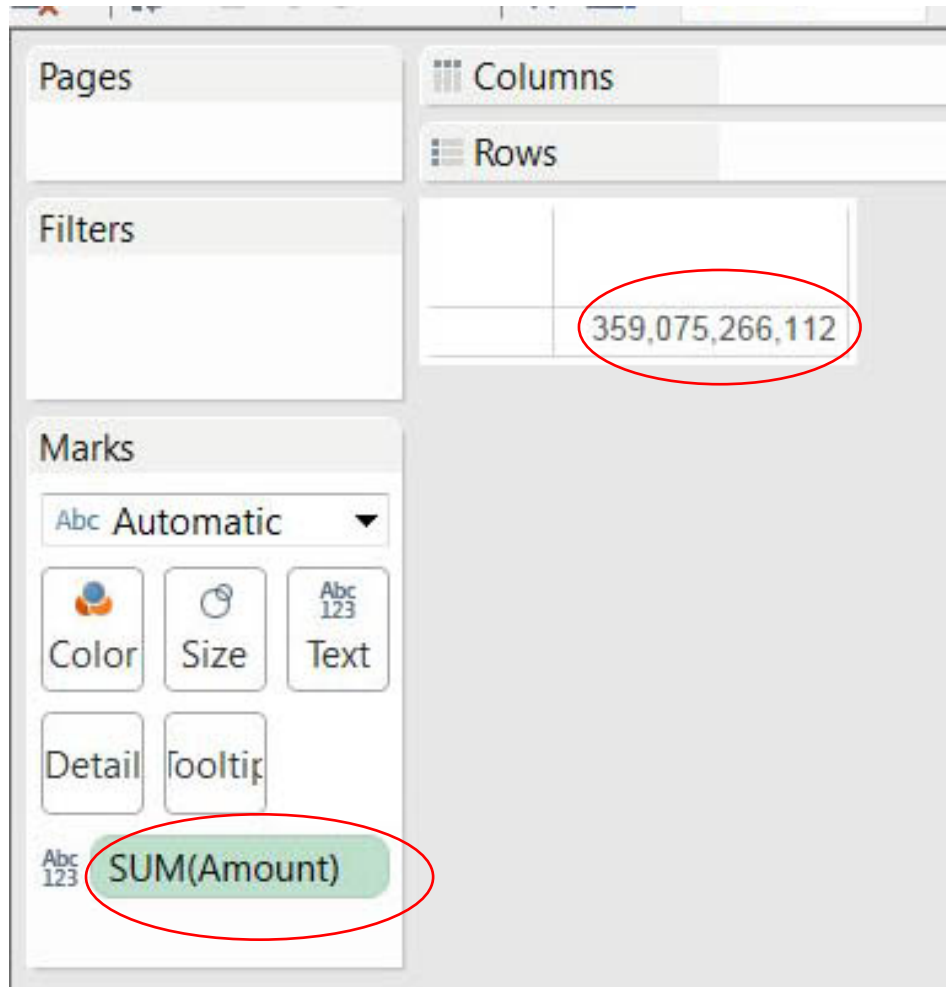
50)

51) Tableau has placed the Country and Trade columns into the “Dimensions” category at the top left-hand side, and the fields containing the numeric values in the “Measures” section. Because we won’t be doing any math on the values in the “Year” field, drag it to the “Dimensions” section.

52) You'll notice that the box containing the "Drop" options looks like a pivot table.



53) Drag the "Amount" column and drop it into the "Drop" zone in the box's bottom right.



54)

55) Tableau also places the “Amount” values to the “Marks” section to the left. This section provides information about your data points. In this case, Tableau recognizes the values in this field as numbers, but they must be formatted as currency. To do so, place your cursor over the “SUM(Amount)” tab, and click on the

downward arrow that appears on the tab's right-hand side.

Pages

Columns

Rows

Filters

	359,075,266,112

Marks

Abc Automatic ▾

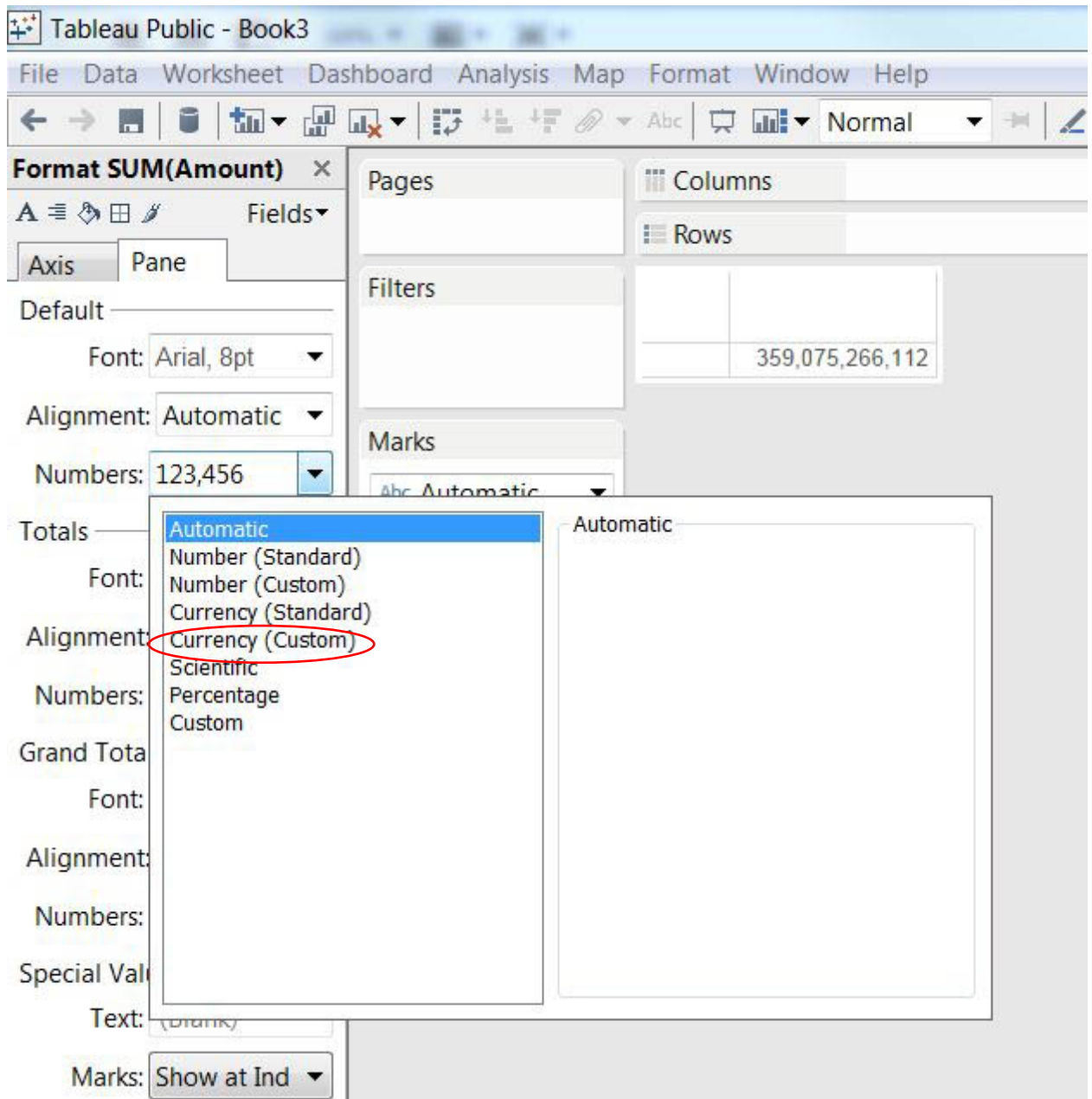
Color Size Text

Detail Tooltip

Abc 123 **SUM(Amount)**

- Filter...**
- Show Quick Filter
- Format...**
- Include in Tooltip
- Dimension
- Attribute
- Measure (Sum) ▶
- Discrete
- Continuous
- △ Add Table Calculation...
- Quick Table Calculation ▶
- Remove

56) Chose the “Format” option.



57) Select “Currency (Custom)”, which allows you to specify that you don’t want any decimal points. Once you’ve made the selection, close the format box by clicking on the “X” at the top right-hand side.

Tableau Public - Book3

File Data Worksheet Dashboard Analysis Map Format Window Help

← → | [Icons] | Abc | [Icons] | Normal

Format SUM(Amount) [Close]

A [Icons] Fields

Axis Pane

Default

Font: Arial, 8pt

Alignment: Automatic

Numbers: \$123,456

Totals

Font: Arial, 8pt

Alignment: Automatic

Numbers: \$123,456

Grand Totals

Font: Arial, 8pt

Alignment: Automatic

Numbers: \$123,456

Special Values (eg. NULL)

Text: (Blank)

Marks: Show at End

Pages

Columns

Rows

Filters

Marks

Abc Automatic

Color Size Text

Detail Tooltip

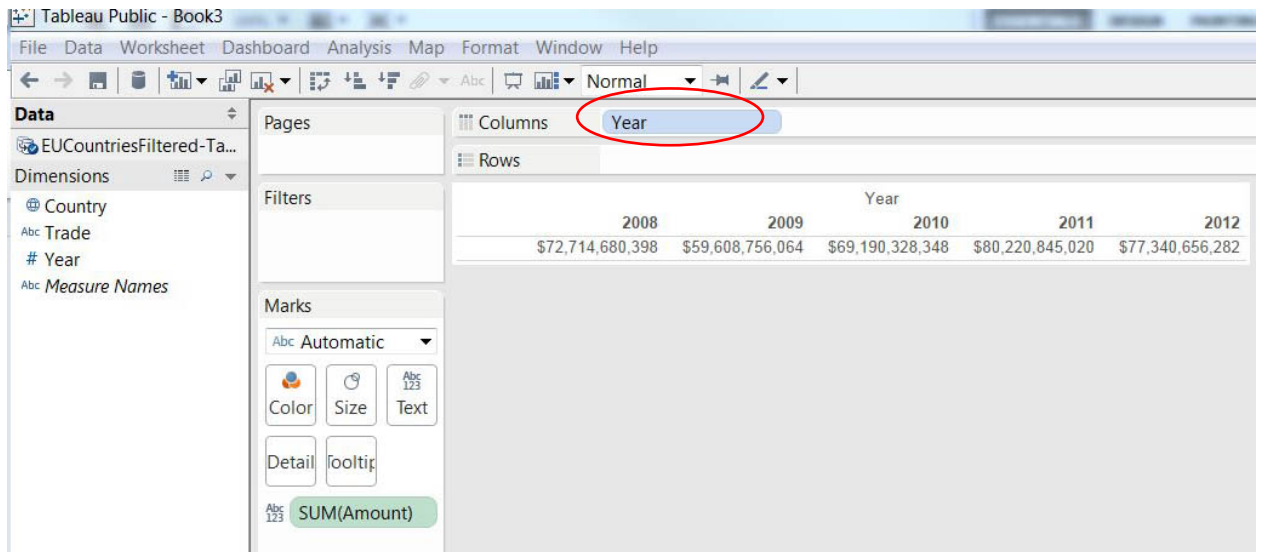
Abc 123 SUM(Amount)

\$359,075,266,112

The image shows a screenshot of the Tableau Public interface. At the top, the window title is "Tableau Public - Book3". Below the title bar is a menu bar with "File", "Data", "Worksheet", "Dashboard", "Analysis", "Map", "Format", "Window", and "Help". A toolbar contains various icons for navigation and editing. The main area is divided into several panes: "Pages", "Columns", "Rows", "Filters", and "Marks". The "Format SUM(Amount)" dialog box is open on the left side, with a close button circled in red. The dialog has tabs for "Axis" and "Pane", and sections for "Default", "Totals", "Grand Totals", and "Special Values (eg. NULL)". Each section contains settings for "Font" (Arial, 8pt), "Alignment" (Automatic), and "Numbers" (\$123,456). The "Special Values" section has "Text" set to "(Blank)" and "Marks" set to "Show at End". In the "Columns" pane, a data cell contains the value "\$359,075,266,112", which is circled in red. The "Marks" pane shows "SUM(Amount)" selected.

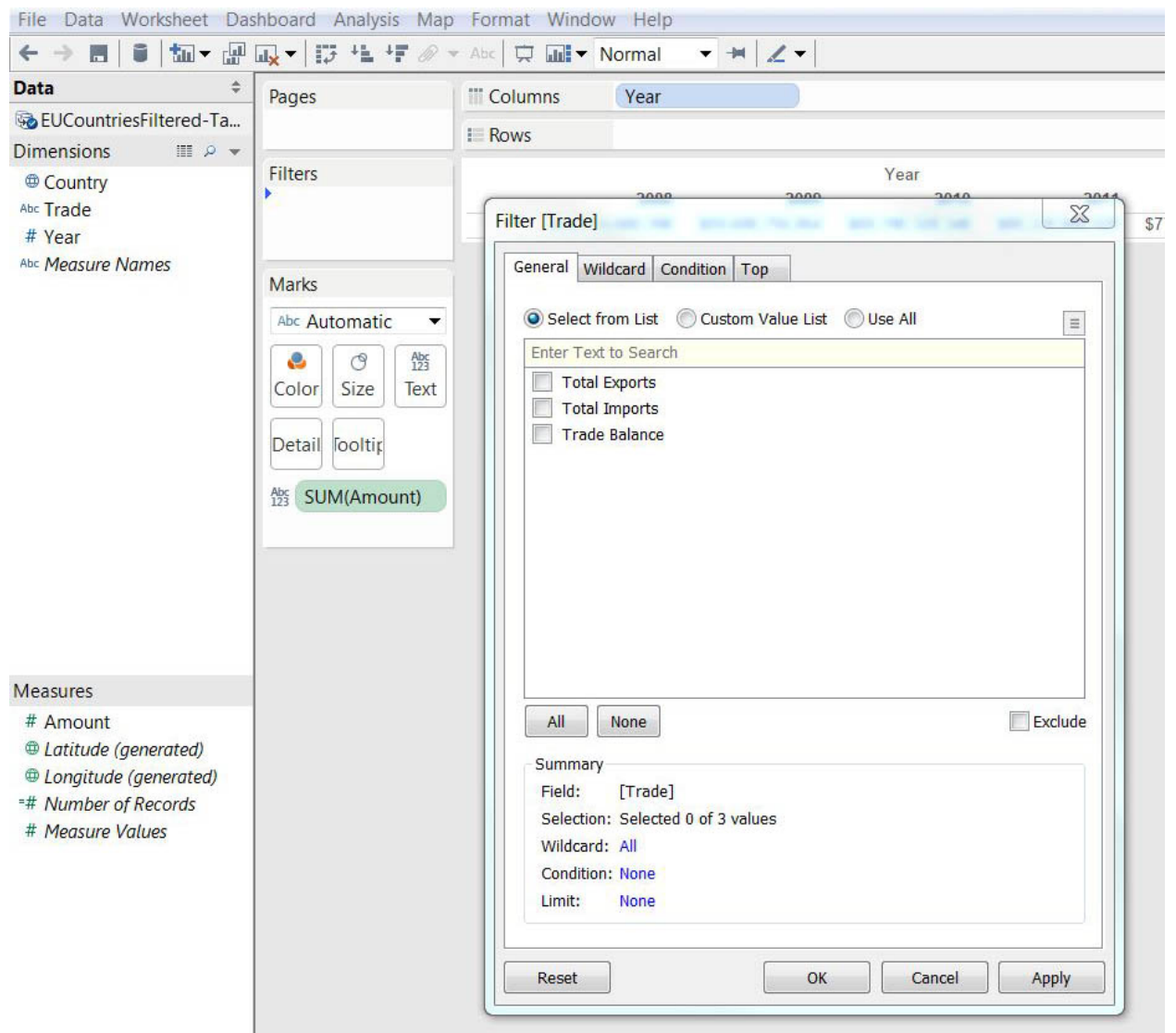
58)

59) Now drop the “Year” field, from the “Dimensions” section where you moved it, into the “Columns” section.



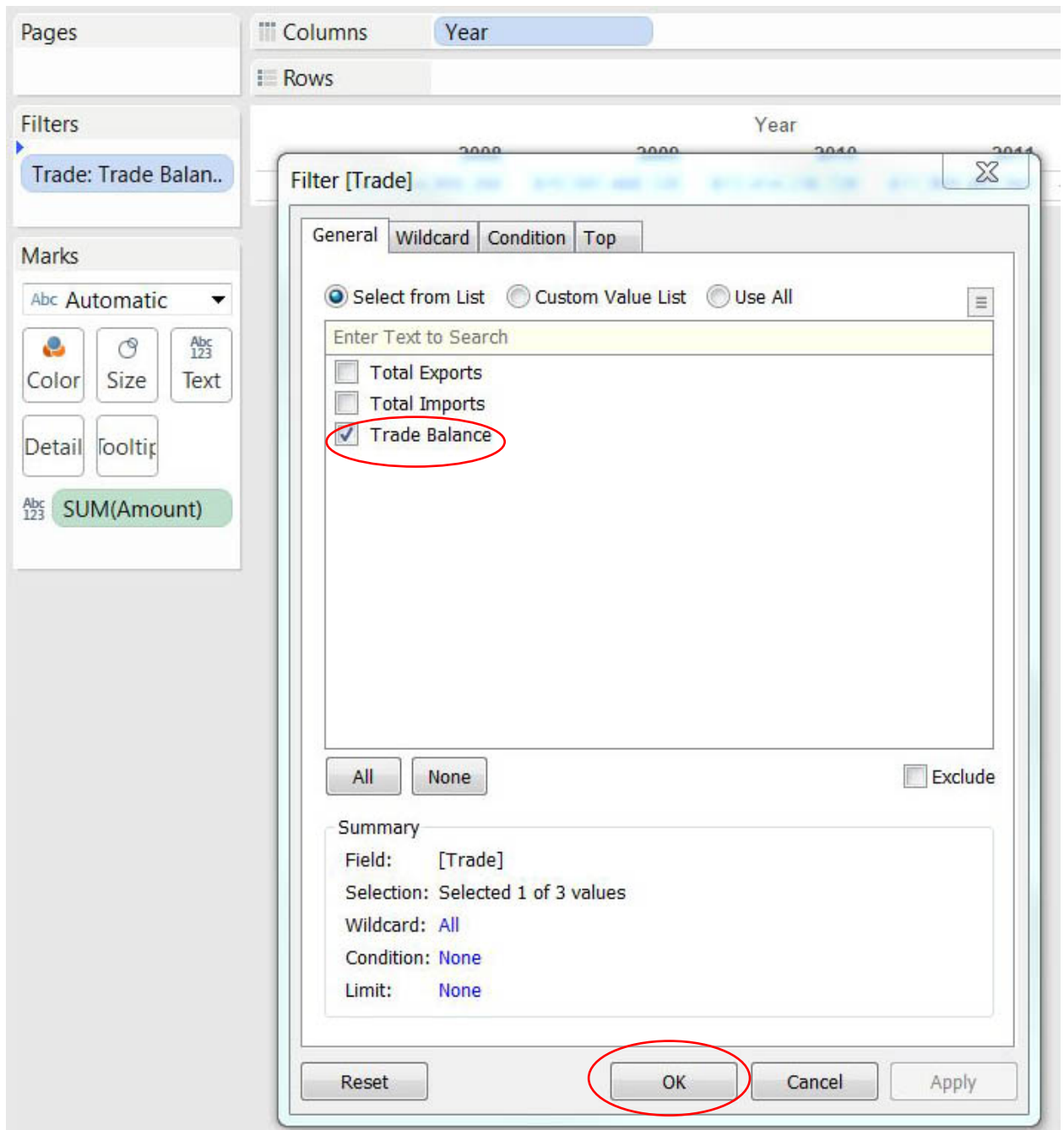
60) This table contains the dollar values for Exports, Imports and Trade Balances. We only want the latter. So let’s use the filter. To do this, we’ll need the “Trade” column. Select and drag it into the “Filters” section which will provide a “Filter[Trade]” box in the screen shot below that contains the three categories (Total

Exports, Total Imports and Trade Balance) in the column.



61) Select "Trade Balance".

62) Once you select the “Apply” and OK tabs, Tableau will place the field into the “Filters” section.



63) Now the table is filtered for trade balances, but the numbers are aggregate. We need them broken down by country. Drag the

“Country” tab and place it in the Row section.

Country	Year				
	2008	2009	2010	2011	2012
Austria	-\$1,029,395,968	-\$785,156,579	-\$807,377,566	-\$887,613,522	-\$1,015,449,737
Belgium	\$1,210,260,930	\$448,966,161	\$412,783,517	\$722,126,046	\$584,834,593
Bulgaria	-\$37,270,921	-\$48,393,526	\$50,981,268	\$39,757,491	-\$31,395,447
Croatia	\$20,594,862	\$78,099,867	\$28,529,257	\$9,046,461	-\$15,936,520
Cyprus	\$14,920,059	\$10,246,433	\$45,560,629	\$9,456,092	\$5,867,119
Czech Republic	-\$138,479,194	-\$132,448,985	-\$187,164,945	-\$251,936,008	-\$294,241,947
Denmark	-\$1,325,078,571	-\$987,826,152	-\$1,581,565,428	-\$1,171,436,098	-\$616,828,727
Estonia	-\$18,123,712	\$8,950,628	-\$15,925,655	\$14,552,600	-\$25,502,611
Finland	\$154,881,688	-\$610,384,086	-\$673,702,707	-\$945,541,644	-\$590,586,022
France (incl. Monaco, ...)	-\$2,812,791,713	-\$2,953,771,318	-\$3,084,905,320	-\$2,471,142,938	-\$1,864,646,109
Germany	-\$8,229,355,954	-\$7,088,358,038	-\$7,364,145,109	-\$8,841,909,695	-\$10,716,684,298
Greece	\$13,497,940	-\$29,040,172	-\$27,551,140	-\$80,058,103	-\$54,586,984
Hungary	-\$156,039,647	-\$96,489,727	-\$178,971,455	\$10,446,294	-\$207,705,963
Ireland	-\$1,533,369,540	-\$1,659,007,468	-\$1,145,762,843	-\$844,961,930	-\$955,595,283
Italy (incl. Vatican City ...)	-\$2,796,170,861	-\$2,670,534,280	-\$2,745,941,750	-\$3,138,026,788	-\$3,518,073,117
Latvia	\$16,785,733	\$7,466,403	\$163,211,166	\$21,913,273	\$34,573,324
Lithuania	-\$272,015,046	-\$112,801,922	-\$362,201,794	-\$545,403,579	-\$106,478,088
Luxembourg	\$79,960,554	-\$67,366,132	-\$38,433,902	-\$25,837,747	\$27,748,940
Malta	-\$4,867,422	\$22,878,990	\$91,364,056	\$28,404,903	\$24,253,213
Netherlands	\$1,521,648,085	\$885,490,417	\$1,585,319,101	\$2,243,759,205	\$994,349,972
Poland	-\$448,756,786	-\$516,827,932	-\$772,048,704	-\$1,187,396,409	-\$649,485,302
Portugal	-\$225,689,744	-\$123,119,787	-\$13,191,690	-\$132,193,575	-\$185,785,868
Romania	\$82,243,954	-\$31,421,364	-\$118,397,359	-\$254,244,745	-\$159,520,831
Slovakia	-\$122,949,182	-\$138,273,030	-\$155,602,673	-\$120,410,013	-\$219,516,834
Slovenia	-\$5,887,639	-\$30,897,856	-\$62,318,592	-\$87,885,498	-\$84,013,300
Spain	-\$585,674,566	-\$212,311,469	-\$487,950,294	-\$771,012,741	-\$829,784,081
Sweden	-\$1,668,658,272	-\$1,419,103,566	-\$1,621,800,271	-\$1,774,697,454	-\$1,644,122,968
United Kingdom	\$440,830,673	\$2,659,966,370	\$5,652,973,475	\$8,462,762,179	\$10,220,177,312

64) To find out which country had the greatest trade imbalance with Canada in 2012, the most recent year, sort that column in descending order by letting your cursor hover over the 2012 label.

2011	2012
\$13,522	-\$1,015,449,737
126,046	\$584,834,593
757,491	-\$31,395,447
146,461	-\$15,936,520
156,092	\$5,867,119
136,008	-\$294,241,947
136,098	-\$616,828,727

65)

66) The icon with the arrow, allows Tableau to sort the numbers in ascending or descending order. Sort the numbers from lowest (the greatest trade deficits) to highest.

Country	Year				
	2008	2009	2010	2011	2012
Germany	-\$8,229,355,954	-\$7,088,358,038	-\$7,364,145,109	-\$8,841,909,695	-\$10,716,684,298
Italy (incl. Vatican City ..	-\$2,796,170,861	-\$2,670,534,280	-\$2,745,941,750	-\$3,138,026,788	-\$3,518,073,117
France (incl. Monaco, ..	-\$2,812,791,713	-\$2,953,771,318	-\$3,084,905,320	-\$2,471,142,938	-\$1,864,646,109
Sweden	-\$1,668,658,272	-\$1,419,103,566	-\$1,621,800,271	-\$1,774,697,454	-\$1,644,122,968
Austria	-\$1,029,395,968	-\$785,156,579	-\$807,377,566	-\$887,613,522	-\$1,015,449,737
Ireland	-\$1,533,369,540	-\$1,659,007,468	-\$1,145,762,843	-\$844,961,930	-\$955,595,283
Spain	-\$585,674,566	-\$212,311,469	-\$487,950,294	-\$771,012,741	-\$829,784,081
Poland	-\$448,756,786	-\$516,827,932	-\$772,048,704	-\$1,187,396,409	-\$649,485,302
Denmark	-\$1,325,078,571	-\$987,826,152	-\$1,581,565,428	-\$1,171,436,098	-\$616,828,727
Finland	\$154,881,688	-\$610,384,086	-\$673,702,707	-\$945,541,644	-\$590,586,022
Czech Republic	-\$138,479,194	-\$132,448,985	-\$187,164,945	-\$251,936,008	-\$294,241,947
Slovakia	-\$122,949,182	-\$138,273,030	-\$155,602,673	-\$120,410,013	-\$219,516,834
Hungary	-\$156,039,647	-\$96,489,727	-\$178,971,455	\$10,446,294	-\$207,705,963
Portugal	-\$225,689,744	-\$123,119,787	-\$13,191,690	-\$132,193,575	-\$185,785,868
Romania	\$82,243,954	-\$31,421,364	-\$118,397,359	-\$254,244,745	-\$159,520,831
Lithuania	-\$272,015,046	-\$112,801,922	-\$362,201,794	-\$545,403,579	-\$106,478,088
Slovenia	-\$5,887,639	-\$30,897,856	-\$62,318,592	-\$87,885,498	-\$84,013,300
Greece	\$13,497,940	-\$29,040,172	-\$27,551,140	-\$80,058,103	-\$54,586,984
Bulgaria	-\$37,270,921	-\$48,393,526	\$50,981,268	\$39,757,491	-\$31,395,447
Estonia	-\$18,123,712	\$8,950,628	-\$15,925,655	\$14,552,600	-\$25,502,611
Croatia	\$20,594,862	\$78,099,867	\$28,529,257	\$9,046,461	-\$15,936,520
Cyprus	\$14,920,059	\$10,246,433	\$45,560,629	\$9,456,092	\$5,867,119
Malta	-\$4,867,422	\$22,878,990	\$91,364,056	\$28,404,903	\$24,253,213
Luxembourg	\$79,960,554	-\$67,366,132	-\$38,433,902	-\$25,837,747	\$27,748,940
Latvia	\$16,785,733	\$7,466,403	\$163,211,166	\$21,913,273	\$34,573,324
Belgium	\$1,210,260,930	\$448,966,161	\$412,783,517	\$722,126,046	\$584,834,593
Netherlands	\$1,521,648,085	\$885,490,417	\$1,585,319,101	\$2,243,759,205	\$994,349,972
United Kingdom	\$440,830,673	\$2,659,966,370	\$5,652,973,475	\$8,462,762,179	\$10,220,177,312

67) In 2012, we had our largest trade deficit with Germany, a number that has been worsening since 2009. Of course, these numbers are summaries of ALL the goods we traded with that country. To obtain a breakdown of specific products – something that could produce BETTER stories – you’d have to download tables with specific products from the Industry Canada website, and then follow the same process that got us to this point. Let’s

continue to create our interactive visualization with the data we have.

- 68) Save this worksheet by labelling it "TradeBalance". Select a new worksheet.
- 69) For this one, we'll grab the "Country" field, which we will use to create a map. To the left of the Country field, you'll notice that it has an icon that resembles a globe. Double click on the Country field name.

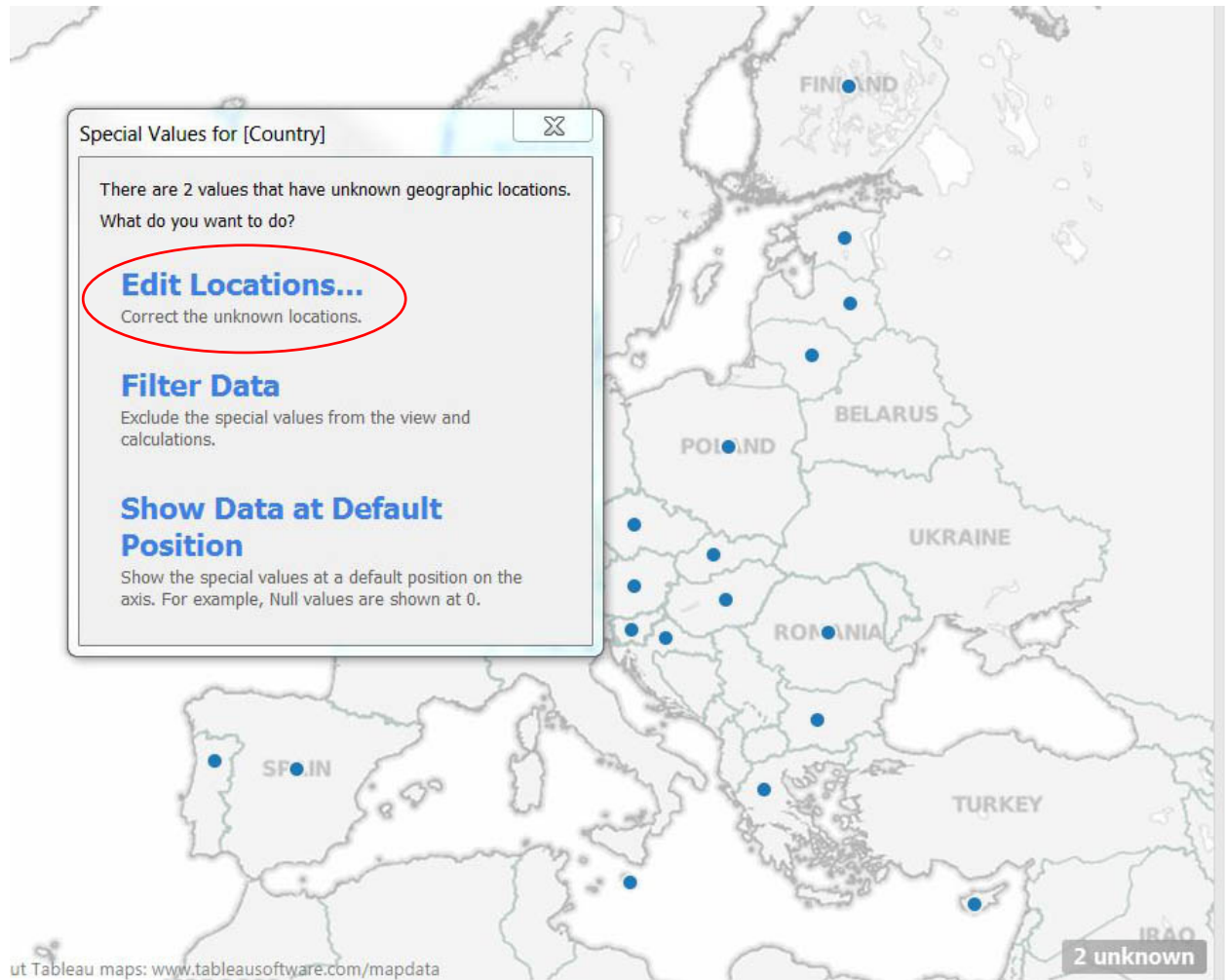


70)

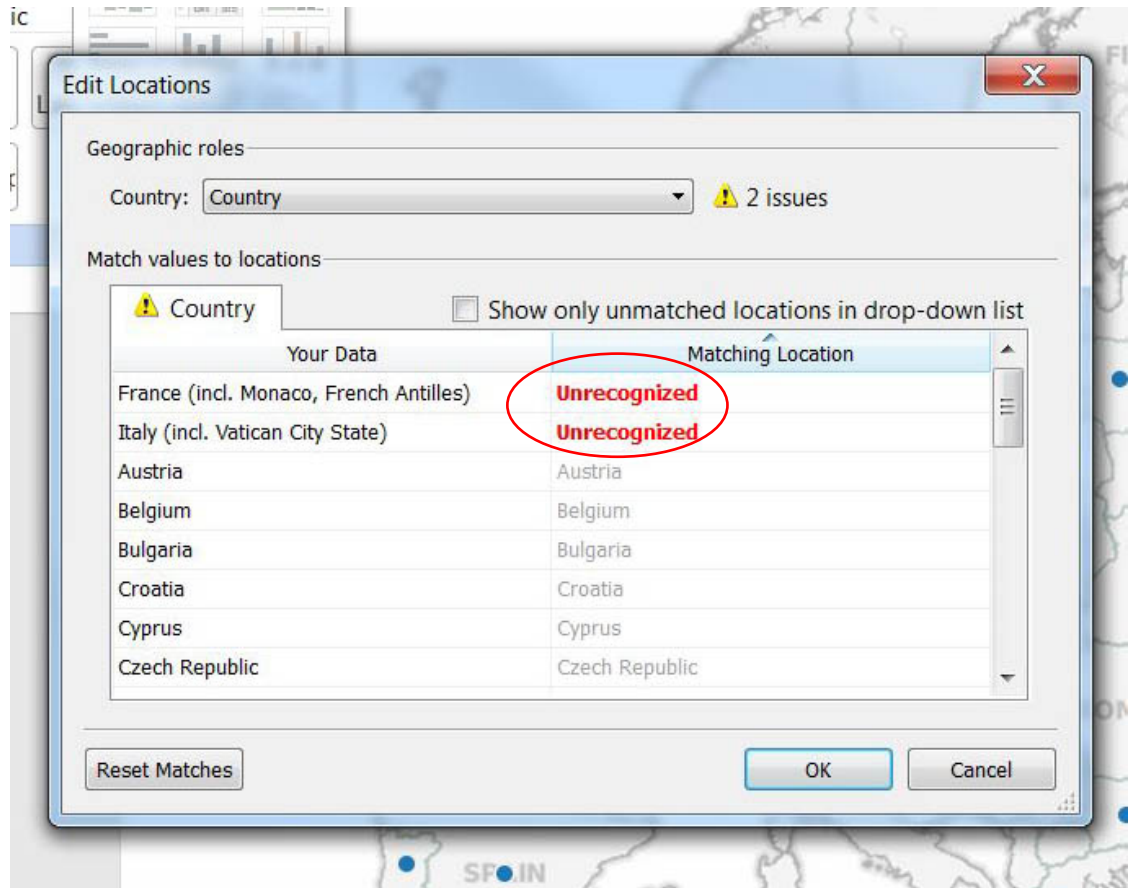
- 71) Tableau has placed each country on the map using its longitude and latitude coordinates. That is, except for two

countries, the reason for the “2 unknown” tab on the map’s bottom right-hand corner. There are two countries with names Tableau doesn’t recognize.

72) Click on the “2 unknown” tab.

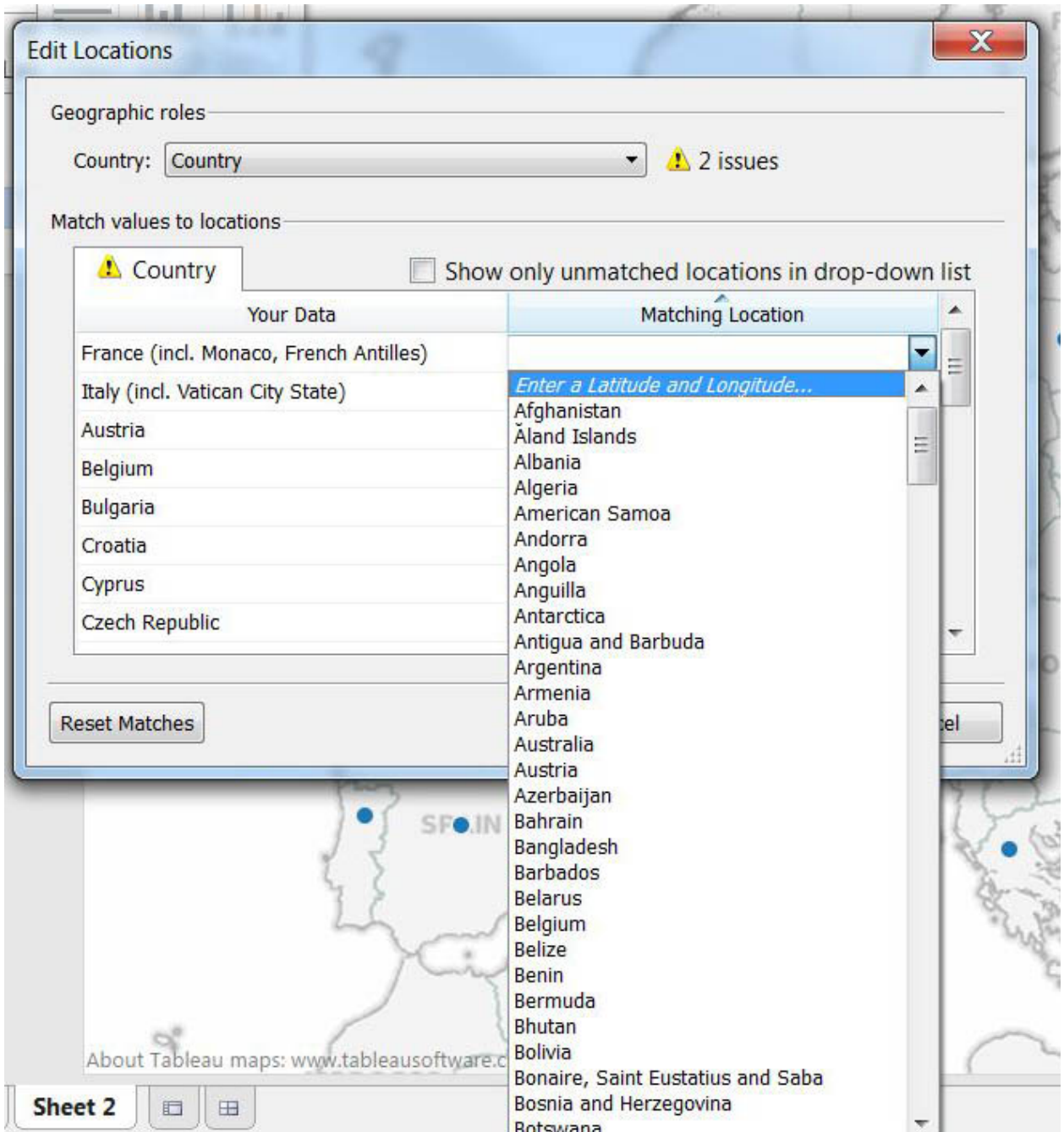


73) Choose the “Edit Locations” option.



74)

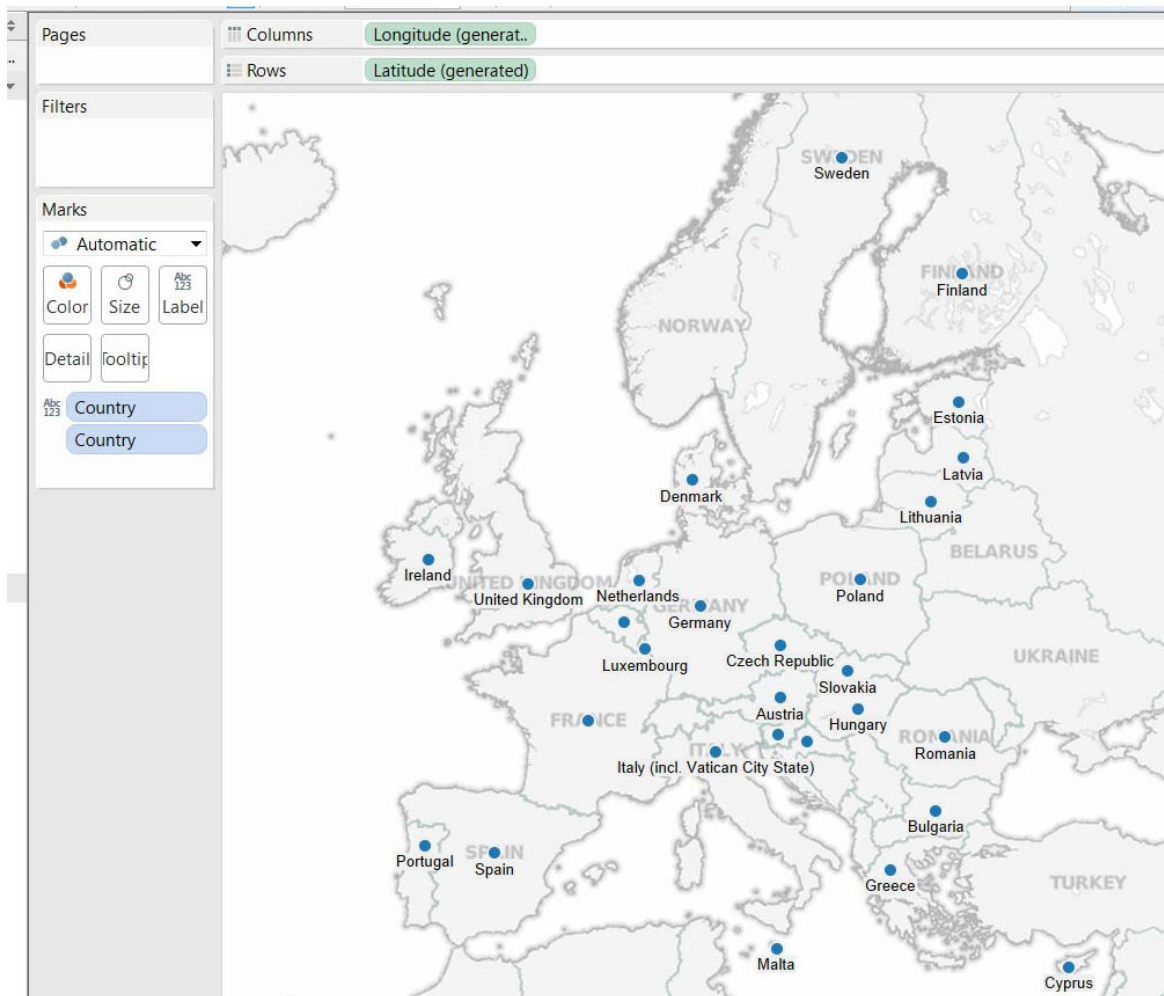
- 75) Double click on the “Unrecognized” label beside France to obtain a drop-down menu.



- 76) Choose France.
- 77) Repeat the same process to obtain the match for Italy.
Essentially, Tableau doesn't recognize those two country names because they are followed by information in brackets.

78) Once you've selected France and Italy from the drop-down menu, hit the OKAY tab to get back to the map. The "2 unknown" tab has disappeared.

79) The names are difficult to see. So let's drag the "Country" column into the "Label" tab in the Marks section. You'll notice that Tableau places that column below the country tab that it has already been used to create the map.



80) We can do fancier things, by using some of the other tabs in the Marks section, but let's stick with this for now. Name the worksheet "Map".

- 81) Right-click on the next worksheet, and choose the “New Dashboard” option. This is where we will link the map and the table to create an interactive visualization.
- 82) Drag the countries table into the space to the right.
- 83) Drag the “TradeBalance” data, placing the tip of the cursor on the bottom of the box containing the map and releasing it.

The screenshot shows a Tableau dashboard titled "Dashboard 1" with two main components: a map of Europe and a table of trade balance data.

Countries

The map displays several European countries with blue dots indicating their locations. The countries shown are: Sweden, Finland, Denmark, Lithuania, Poland, Ireland, Luxembourg, Italy (incl. Vatican City State), Portugal, Greece, Malta, and Cyprus. The map also shows parts of Iceland, Iran, and the UK.

TradeBalance

Country	2008	2009	2010	2011	2012
Germany	-\$8,229,355,954	-\$7,088,358,038	-\$7,364,145,109	-\$8,841,909,695	-\$10,7...
Italy (incl. ...	-\$2,796,170,861	-\$2,670,534,280	-\$2,745,941,750	-\$3,138,026,788	-\$3,5...
France (in...	-\$2,812,791,713	-\$2,953,771,318	-\$3,084,905,320	-\$2,471,142,938	-\$1,8...
Sweden	-\$1,668,658,272	-\$1,419,103,566	-\$1,621,800,271	-\$1,774,697,454	-\$1,6...
Austria	-\$1,029,395,968	-\$785,156,579	-\$807,377,566	-\$887,613,522	-\$1,0...
Ireland	-\$1,533,369,540	-\$1,659,007,468	-\$1,145,762,843	-\$844,961,930	-\$9...
Spain	-\$585,674,566	-\$212,311,469	-\$487,950,294	-\$771,012,741	-\$8...
Poland	-\$448,756,786	-\$516,827,932	-\$772,048,704	-\$1,187,396,409	-\$6...
Denmark	-\$1,325,078,571	-\$987,826,152	-\$1,581,565,428	-\$1,171,436,098	-\$6...
Finland	\$154,881,688	-\$610,384,086	-\$673,702,707	-\$945,541,644	-\$5...
Czech Re...	-\$138,479,194	-\$132,448,985	-\$187,164,945	-\$251,936,008	-\$2...
Slovakia	-\$122,949,182	-\$138,273,030	-\$155,602,673	-\$120,410,013	-\$2...
Hungary	-\$156,039,647	-\$96,489,727	-\$178,971,455	\$10,446,294	-\$2...
Portugal	-\$225,689,744	-\$123,119,787	-\$13,191,690	-\$132,193,575	-\$1...
Romania	\$82,243,954	-\$31,421,364	-\$118,397,359	-\$254,244,745	-\$1...
Lithuania	-\$272,015,046	-\$112,801,922	-\$362,201,794	-\$545,403,579	-\$1...

The dashboard interface includes a sidebar with "TradeBalance" and "Countries" data sources, layout options (Tiled, Floating), and a "Size: Range" section with dimensions (Min: w 420, h 560; Max: w 650, h 860). The bottom of the dashboard shows tabs for "TradeBalance", "Countries", and "Dashboard 1".

84) Select the “Show Title” box in the Dashboard section on the bottom left, which will produce a generic title that we can change.

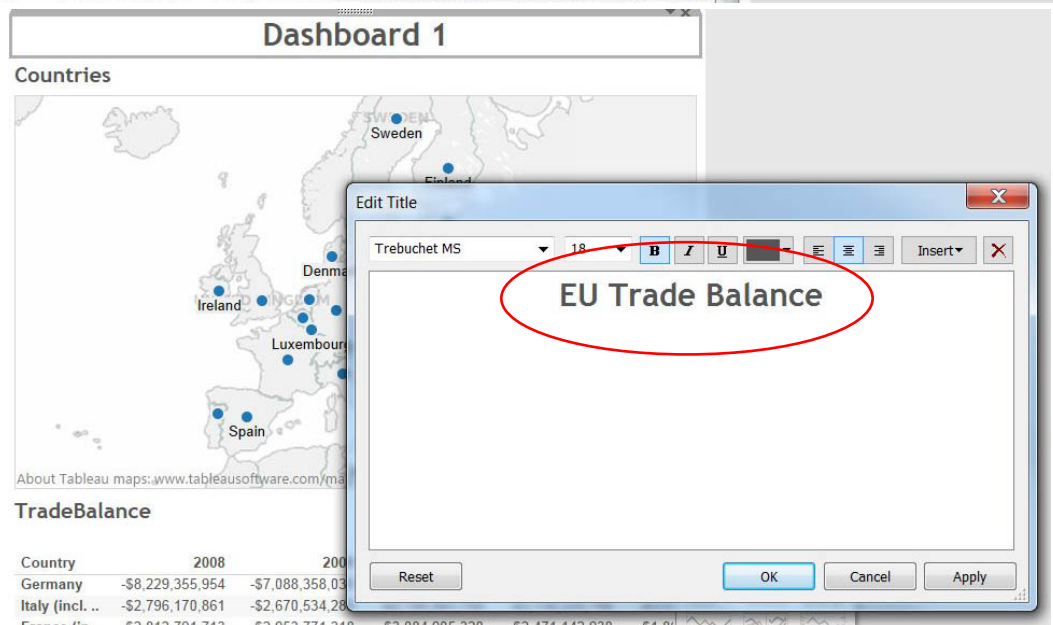
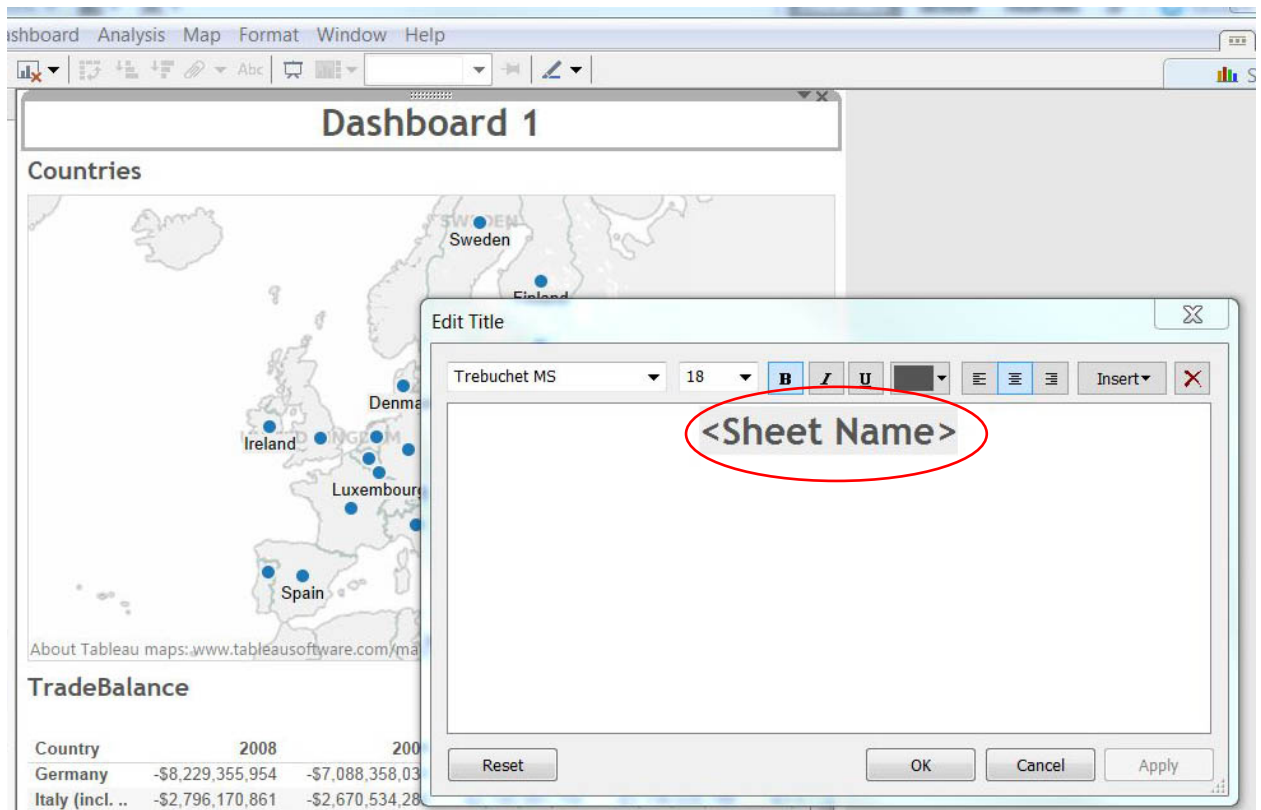
The screenshot shows the Tableau Public interface with a dashboard titled "Dashboard 1". The dashboard contains two views: "Countries" (a map of Europe with blue dots representing various countries) and "TradeBalance" (a table showing trade balance data for various countries from 2008 to 2012). The "TradeBalance" table is as follows:

Country	2008	2009	2010	2011	2012
Germany	-\$8,229,355,954	-\$7,088,358,038	-\$7,364,145,109	-\$8,841,909,695	-\$10,7...
Italy (incl. ...	-\$2,796,170,861	-\$2,670,534,280	-\$2,745,941,750	-\$3,138,026,788	-\$3,5...
France (in..	-\$2,812,791,713	-\$2,953,771,318	-\$3,084,905,320	-\$2,471,142,938	-\$1,8...
Sweden	-\$1,668,658,272	-\$1,419,103,566	-\$1,621,800,271	-\$1,774,697,454	-\$1,6...
Austria	-\$1,029,395,968	-\$785,156,579	-\$807,377,566	-\$887,613,522	-\$1,0...
Ireland	-\$1,533,369,540	-\$1,659,007,468	-\$1,145,762,843	-\$844,961,930	-\$9...
Spain	-\$585,674,566	-\$212,311,469	-\$487,950,294	-\$771,012,741	-\$8...
Poland	-\$448,756,786	-\$516,827,932	-\$772,048,704	-\$1,187,396,409	-\$6...
Denmark	-\$1,325,078,571	-\$987,826,152	-\$1,581,565,428	-\$1,171,436,098	-\$6...
Finland	\$154,881,688	-\$610,384,086	-\$673,702,707	-\$945,541,644	-\$5...
Czech Re..	-\$138,479,194	-\$132,448,985	-\$187,164,945	-\$251,936,008	-\$2...
Slovakia	-\$122,949,182	-\$138,273,030	-\$155,602,673	-\$120,410,013	-\$2...
Hungary	-\$156,039,647	-\$96,489,727	-\$178,971,455	\$10,446,294	-\$2...
Portugal	-\$225,689,744	-\$123,119,787	-\$13,191,690	-\$132,193,575	-\$1...
Romania	\$82,243,954	-\$31,421,364	-\$118,397,359	-\$254,244,745	-\$1...

In the bottom left corner, the "Dashboard" settings panel is visible, with the "Show Title" checkbox checked and highlighted by a red circle.

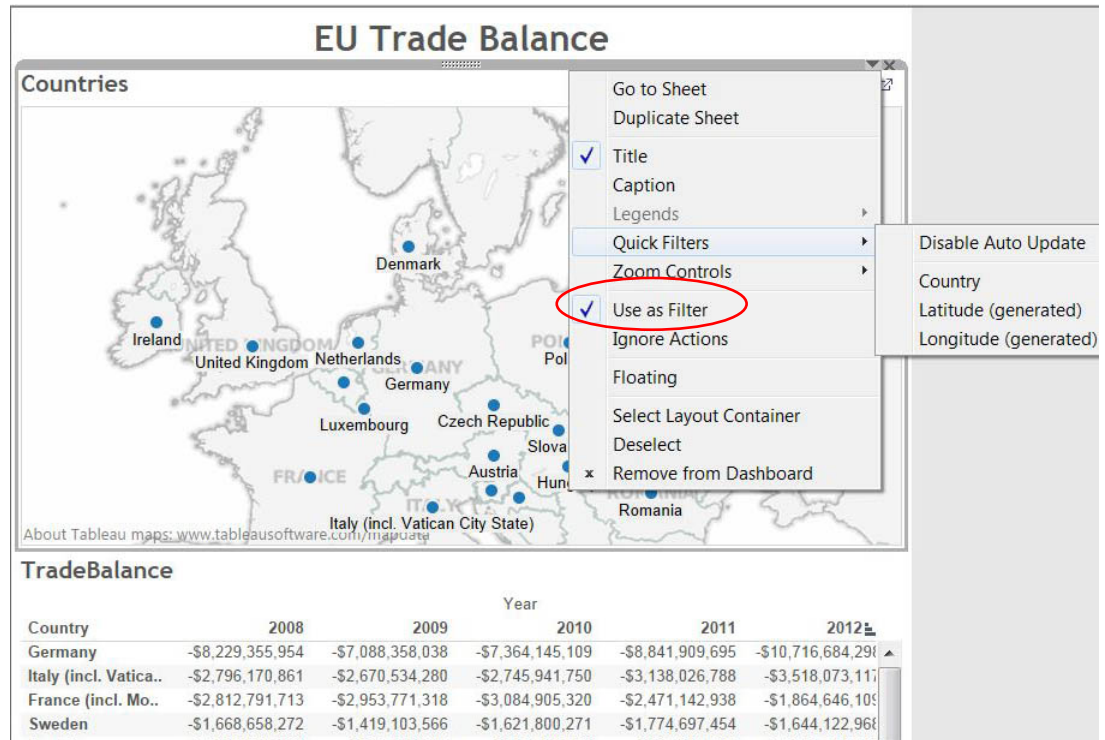
85)

- 86) Double click on the generic “Dashboard 1” title to type and format a title.



- 87)
- 88) Once you have a proper title, formatted and placed where you want it, select the “Apply”, and OK tabs.

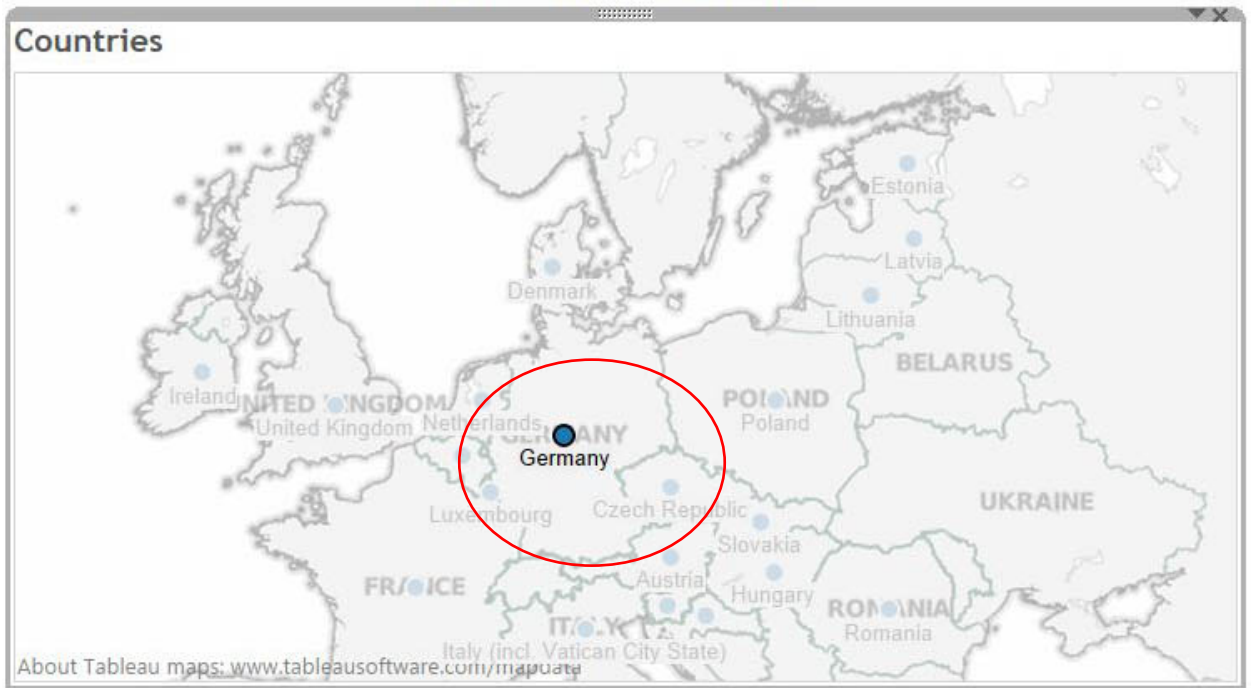
- 89) Select the drop-down menu in the Countries section so we can use it as a filter, meaning that clicking on a country will allow the corresponding trade information in the table below to appear. To do this, select the “Use as Filter” option.



- 90)
- 91) Selecting Germany, for instance, will produce the trade balances from 2008 to 2012, with the aid of a horizontal

navigation bar.

EU Trade Balance



TradeBalance

Country	Year				
	2008	2009	2010	2011	2012
Germany	-\$8,229,355,954	-\$7,088,358,038	-\$7,364,145,109	-\$8,841,909,695	-\$10,716,684,298

92) To get make the rest of the EU countries re-appear, click on any area immediately adjacent to the map.

- 93) Rename the worksheet, “Canada-EU Trade Balance” click on any space adjacent to the map, but within the “Countries” box.

EU Trade Balance

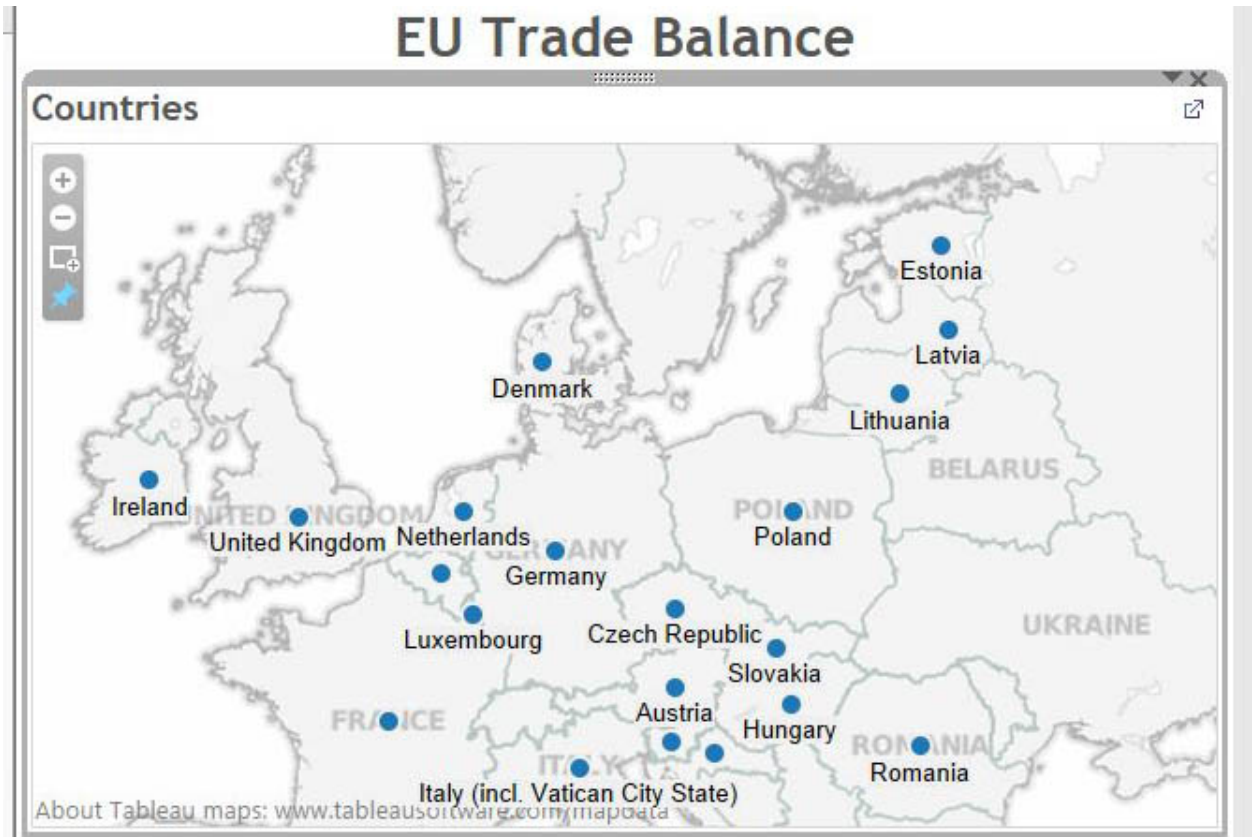


TradeBalance

Country	Year				
	2008	2009	2010	2011	2012
Germany	-\$8,229,355,954	-\$7,088,358,038	-\$7,364,145,109	-\$8,841,909,695	-\$10,716,684,291
Italy (incl. Vatica..	-\$2,796,170,861	-\$2,670,534,280	-\$2,745,941,750	-\$3,138,026,788	-\$3,518,073,111
France (incl. Mo..	-\$2,812,791,713	-\$2,953,771,318	-\$3,084,905,320	-\$2,471,142,938	-\$1,864,646,109
Sweden	-\$1,668,658,272	-\$1,419,103,566	-\$1,621,800,271	-\$1,774,697,454	-\$1,644,122,968
Austria	-\$1,029,395,968	-\$785,156,579	-\$807,377,566	-\$887,613,522	-\$1,015,449,731
Ireland	-\$1,533,369,540	-\$1,659,007,468	-\$1,145,762,843	-\$844,961,930	-\$955,595,283
Spain	-\$585,674,566	-\$212,311,469	-\$487,950,294	-\$771,012,741	-\$829,784,081
Poland	-\$448,756,786	-\$516,827,932	-\$772,048,704	-\$1,187,396,409	-\$649,485,307
Denmark	-\$1,325,078,571	-\$987,826,152	-\$1,581,565,428	-\$1,171,436,098	-\$616,828,721
Finland	\$154,881,688	-\$610,384,086	-\$673,702,707	-\$945,541,644	-\$590,586,021
Czech Republic	-\$138,479,194	-\$132,448,985	-\$187,164,945	-\$251,936,008	-\$294,241,947
Slovakia	-\$122,949,182	-\$138,273,030	-\$155,602,673	-\$120,410,013	-\$219,516,834
Hungary	-\$156,039,647	-\$96,489,727	-\$178,971,455	\$10,446,294	-\$207,705,963
Portugal	-\$225,689,744	-\$123,119,787	-\$13,191,690	-\$132,193,575	-\$185,785,866
Romania	\$82,243,954	-\$31,421,364	-\$118,397,359	-\$254,244,745	-\$159,520,831

- 94) You may notice that in the screen shot above, some countries don't have labels. That's because Tableau's default setting is to prevent the labels from overlapping, which would

look too messy. In order to make the other countries appear, select the “plus” sign that appears to the left-hand side of the Countries section when you allow the cursor to hover over the map.



- 95) Clicking on the plus sign will zoom in and produce labels for the countries that were missing them.
- 96) Let's save what we've done in order to embed the Canada-EU visualization into our story about the agreement-in-principle.
- 97) Go to the “File” section of the menu and select the “Save to Web” option, which produces a dialogue box with your email address.
- 98) Key in your password, which produces a “Save Workbook to the Public Web” dialogue box. Name the worksheet with something like “Canada-EU Trade Balance”. You can either

choose to activate the “Show Sheets as Tabs” option. We only want people to see the Dashboard, so let’s leave it blank.

99) Tableau produces a box that “previews” how the table will appear on the Web, as well as the table’s URL and embed code.

100) Now it’s time to embed the Tableau graphic into our story. There are many ways of doing so, but perhaps the most straightforward method is copying the embed code in from the Preview window that’s created when you save your graphic to the web. To do so, click the “Copy” tab.

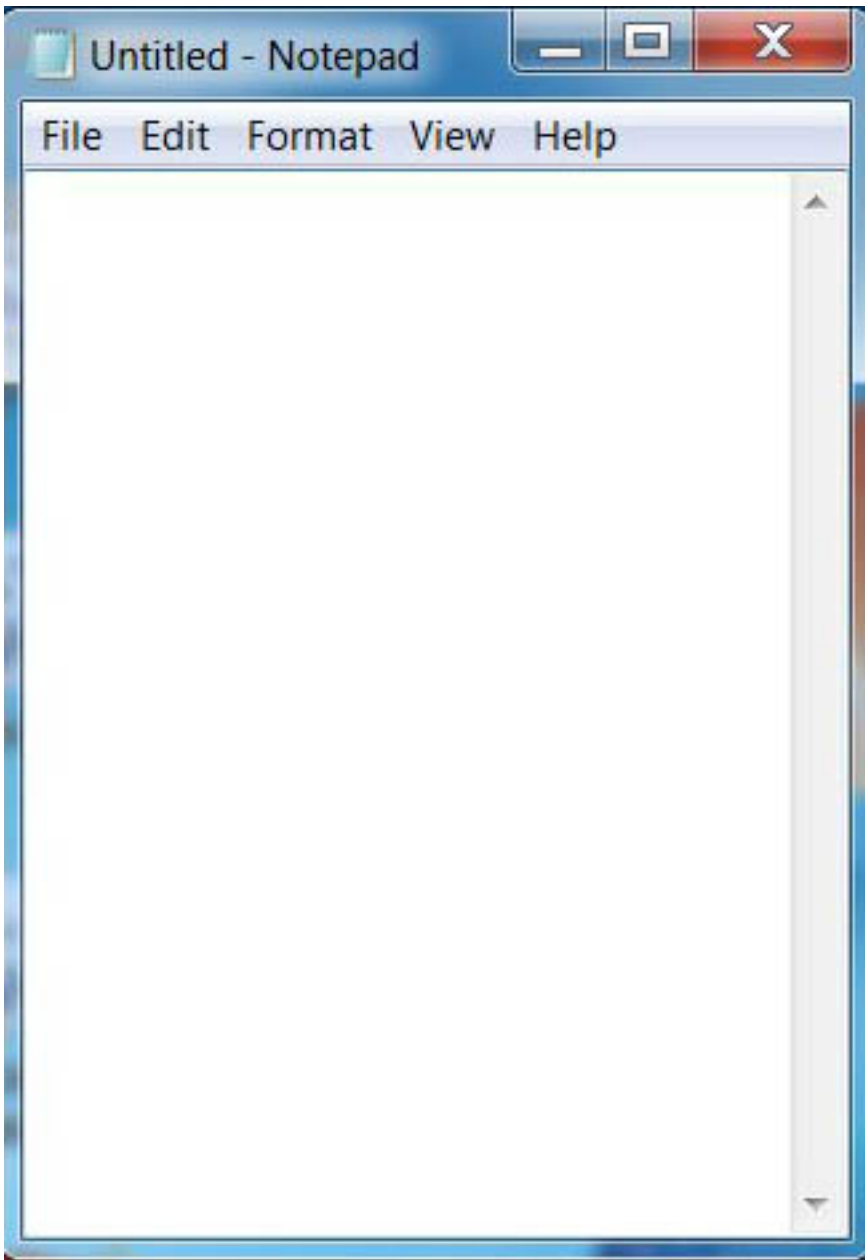
The screenshot shows the Tableau Public interface for a dashboard titled "EU Trade Balance". The interface is divided into several sections:

- Save To Web Results:** A notification at the top stating "Canada-EU Trade Balance successfully saved to Tableau Public".
- Views:** A sidebar on the left showing three views: "TradeBalance", "Countries", and "Canada-EU Trade Balance". The "Canada-EU Trade Balance" view is currently selected and highlighted in blue.
- Preview:** A central area showing a preview of the selected view. It includes a URL: `http://public.tableausoftware.com/views/C` and an embed code: `<script type='text/javascript' src='http://pu`. The embed code is circled in red.
- EU Trade Balance:** The main content area displaying a map of Europe and a table of trade balance data.

The map shows trade balance data for various countries, with blue dots indicating the location of each country. The table below the map shows trade balance data for Germany from 2008 to 2012.

Country	2008	2009	2010	2011	2012
Germany	-\$8,229,355,954	-\$7,088,358,038	-\$7,364,145,109	-\$8,841,909,695	-\$10,716,684,298

101) Once you've selected the "Copy" button to the right of the box containing the embed code, open a note pad.



102) Paste the embed code

```
Untitled - Notepad
File Edit Format View Help
<script type='text/javascript'
src='http://public.tableausoftware.com/javascripts
/api/viz_v1.js'></script><div
class='tableauPlaceholder' style='width: 754px;
height: 929px;'><noscript><a href='null'><img
alt='EU Trade Balance '
src='http://public.tableausoftware.com/
static/images/Ca/Canada-
EUTradeBalance/Canada-
EUTradeBalance/1_rss.png' style='border: none'
/></a></noscript><object class='tableauViz'
width='754' height='929'
style='display:none;'><param name='host_url'
value='http://public.tableausoftware.com/'
/> <param name='site_root' value='' /><param
name='name' value='Canada-
EUTradeBalance/Canada-EUTradeBalance' /><param
name='tabs' value='no' /><param name='toolbar'
value='yes' /><param name='static_image'
value='http://public.tableausoftware.com/
static/images/Ca/Canada-
EUTradeBalance/Canada-
EUTradeBalance/1.png' / > <param
name='animate_transition' value='yes' /><param
name='display_static_image' value='yes' /><param
name='display_spinner' value='yes' /><param
name='display_overlay' value='yes' /><param
name='display_count' value='yes'
/></object></div><div
style='width:754px;height:22px;padding:0px 10px
0px 0px;color:black;font:normal 8pt
verdana,helvetica,arial,sans-serif;'><div
style='float:right; padding-right:8px;'><a
href='http://www.tableausoftware.com/public/about-
tableau-products?
ref=http://public.tableausoftware.com/views/Canada-
EUTradeBalance/Canada-EUTradeBalance'
target='_blank'>Learn About
Tableau</a></div></div>
```

103) Save the file, and then copy and embed this code.

EU Trade Balance table embed code.txt - Notepad

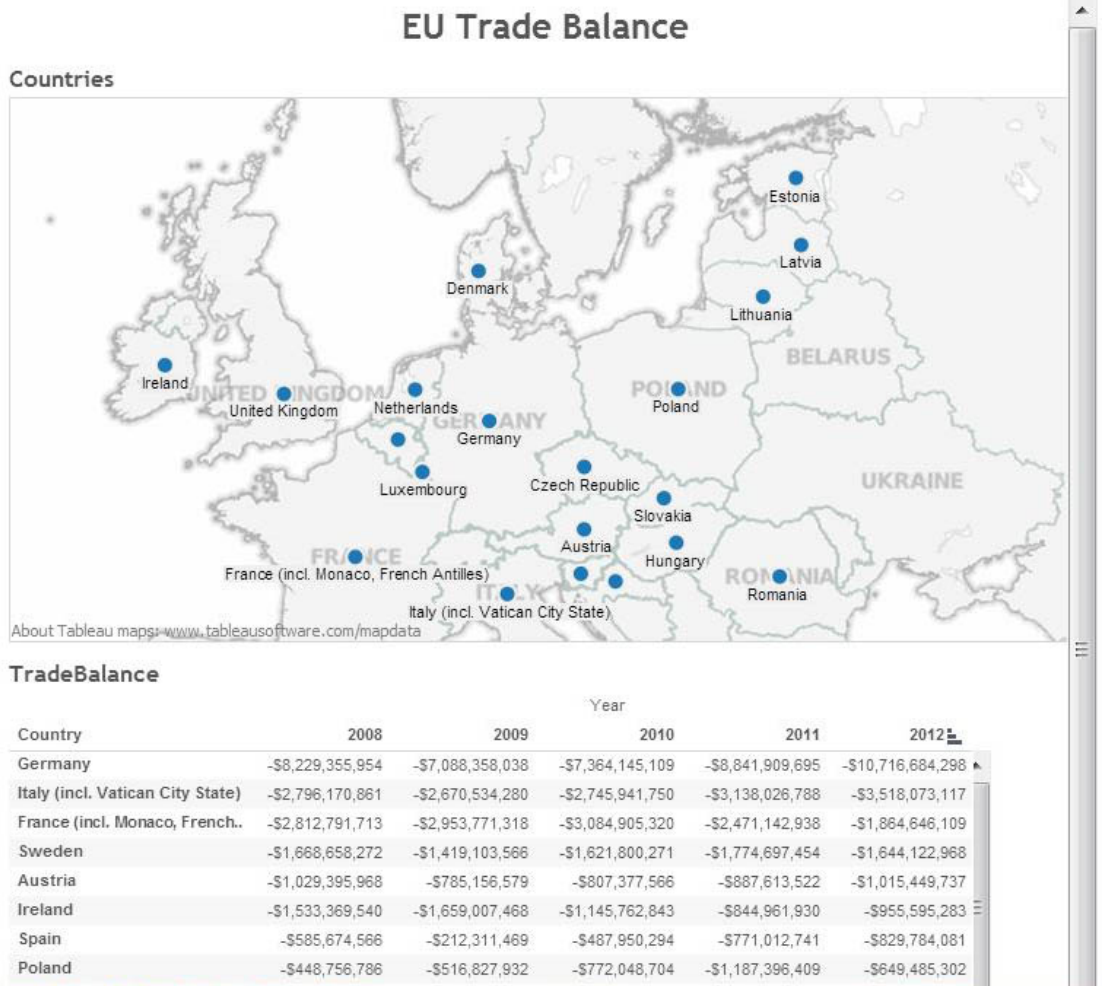
File Edit Format View Help

```
<script type='text/javascript'  
src='http://public.tableausoftware.com/javascripts  
/api/viz_v1.js'></script><div  
class='tableauPlaceholder' style='width: 754px;  
height: 629px;'><noscript><a href='null'><img  
alt='EU Trade Balance '  
src='http://public.tableausoftware.com/  
static/images/Ca/Canada-  
EUTradeBalance/Canada-  
EUTradeBalance/1_rss.png' style='border: none'  
/></a></noscript><object class='tableauViz'  
width='754' height='629'  
style='display:none;'><param name='host_url'  
value='http://public.tableausoftware.com/'  
/> <param name='site_root' value='' /><param  
name='name' value='Canada-  
EUTradeBalance/Canada-EUTradeBalance' /><param  
name='tabs' value='no' /><param name='toolbar'  
value='yes' /><param name='static_image'  
value='http://public.tableausoftware.com/  
static/images/Ca/Canada-  
EUTradeBalance/Canada-  
EUTradeBalance/1.png' /> <param  
name='animate_transition' value='yes' /><param  
name='display_static_image' value='yes' /><param  
name='display_spinner' value='yes' /><param  
name='display_overlay' value='yes' /><param  
name='display_count' value='yes'  
/></object></div><div  
style='width:754px;height:22px;padding:0px 10px  
0px 0px;color:black;font:normal 8pt  
verdana, helvetica, arial, sans-serif;'><div  
style='float:right; padding-right:8px;'><a  
href='http://www.tableausoftware.com/public/about-  
tableau-products?'  
ref=http://public.tableausoftware.com/views/Canada-  
EUTradeBalance/Canada-EUTradeBalance'  
target='_blank'>Learn About  
Tableau</a></div></div>
```


104) Paste it into your WordPress post using its HTML editor.

Canada-EU Trade Balance

This view completes the tutorial.



105)