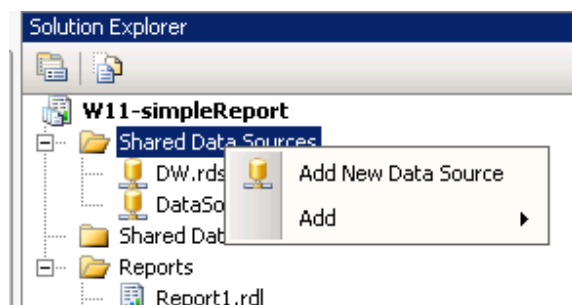


Reporting using SSAS and Excel

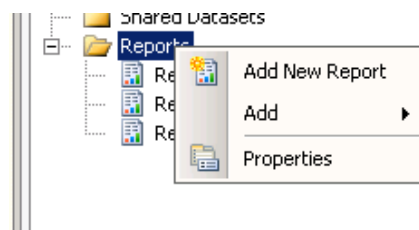
For this exercise use one of the cubes you have built in one of the previous exercises (week 5) or you could try to connect to the cube “2014 Simple NW DW” in the SSAS database named **2014 SimpleNW DW**.

1. Create a report on top of the SSAS data warehouse that you created in question

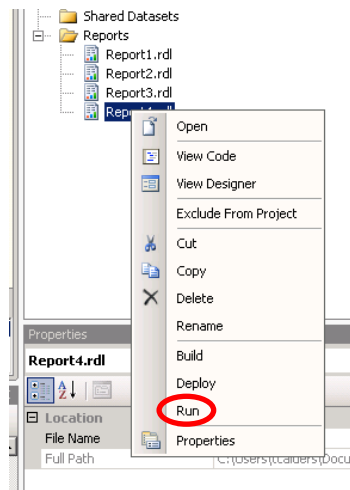
- Use BIDS to create a new reporting project:
- Add the SSAS database you just created as a data source (edit the connection string)



- Add a new report:



- Follow the steps of the wizard to create a report that will give you the quantity per city and year. Use the query wizard. This will generate a query string in MDX. Most of the wizard steps are pretty much self-explanatory.
- Run the report:

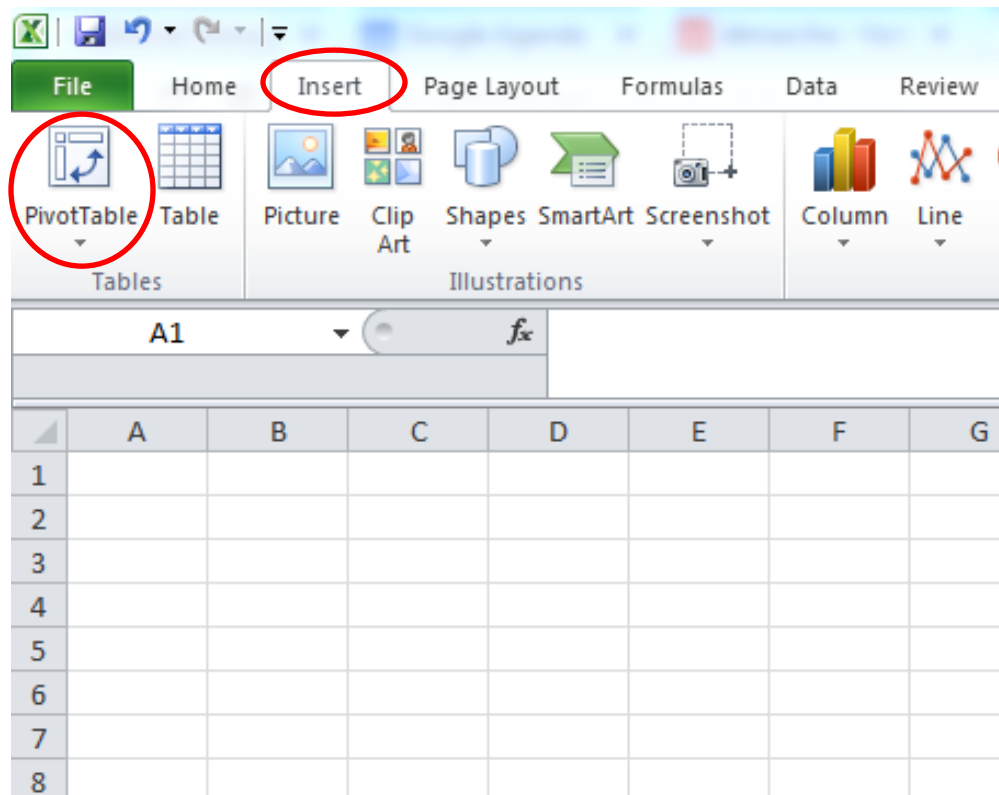


- If everything goes well, your report should look like:

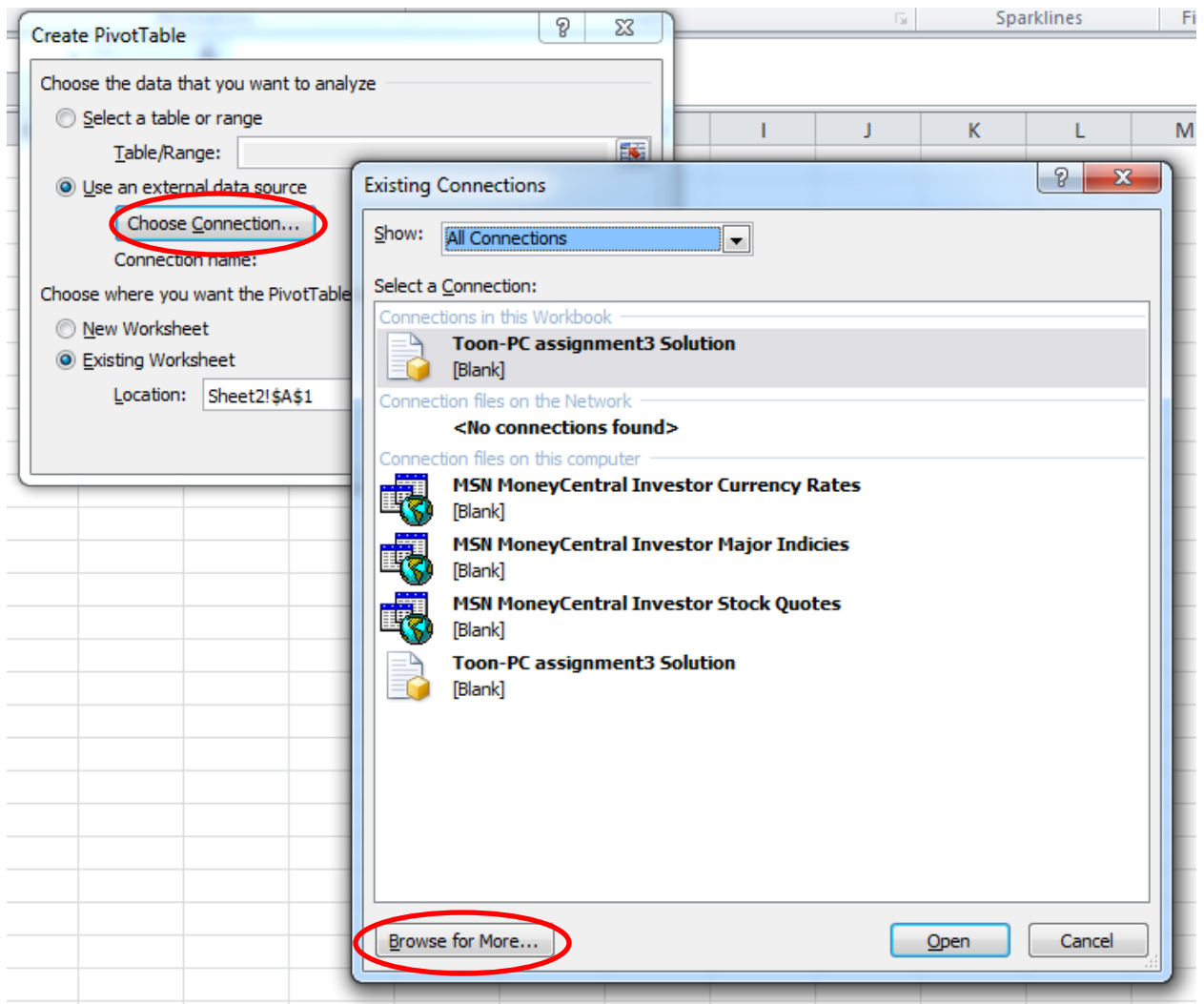
	Aachen	Albuquerque	Anchorage	Århus	Barcelona	Barquisimeto	Bergamo	Berlin	Bern	Boise	Bräcke	Branc
1996	62	405	115	215	10	276	68		122	567	206	
1997	20	540	266	419	17	323	270	79	219	2574	468	
1998	78	438	272	276	15	365	235	239	124	2140	609	

2. Also with Excel one can easily connect to the OLAP data cube for creating reports (depending on the version of Excel the instructions may slightly differ):

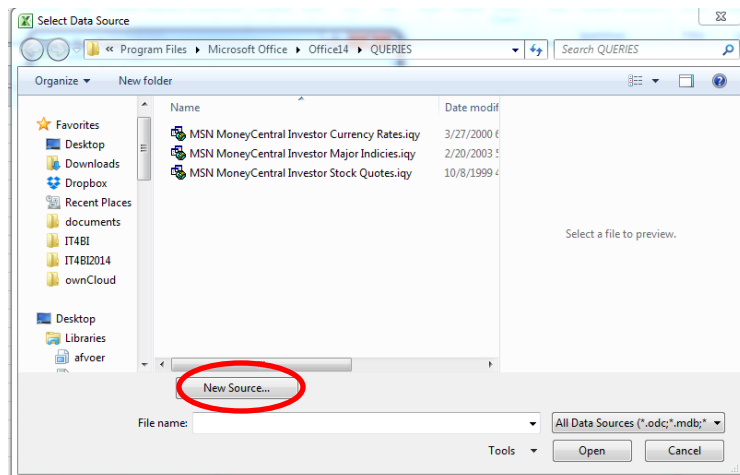
- Choose in tab “Insert”, object “PivotTable”.



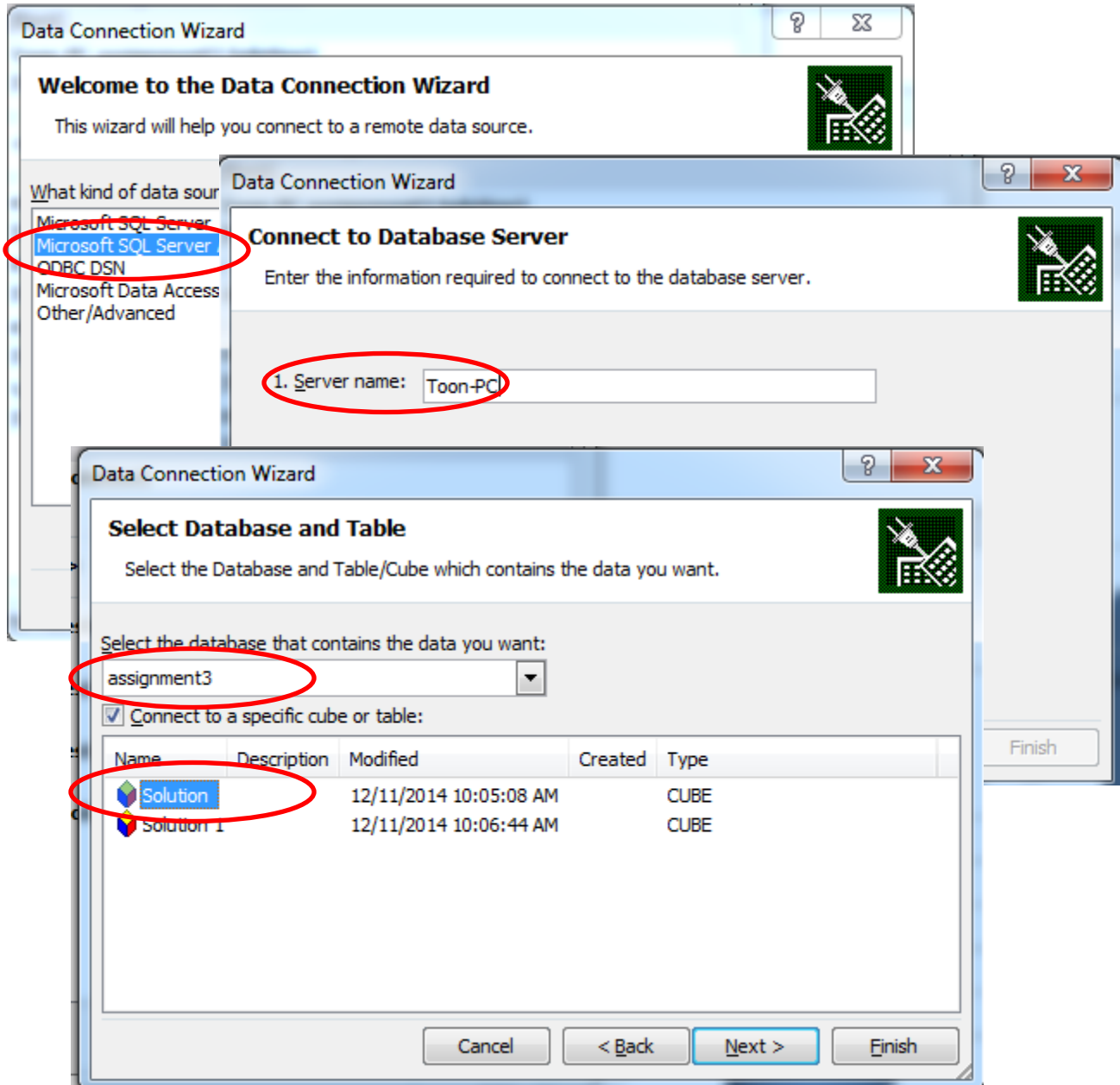
- Select the option “choose connection” and “browse for more” (unless the source you want to connect to is already there)



- Select “New Source ...”



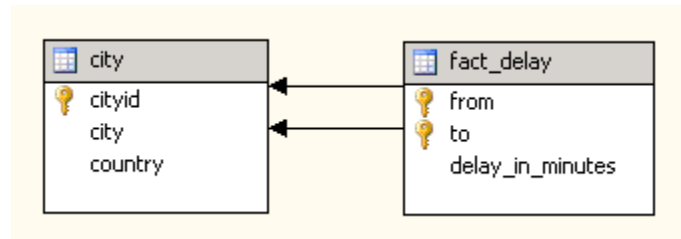
- Select in the next window “Microsoft SQL Server Analysis Services” → next → Insert the server name (the usual CS-MSSQL in the computer lab) → next → Select the database and cube and finish.



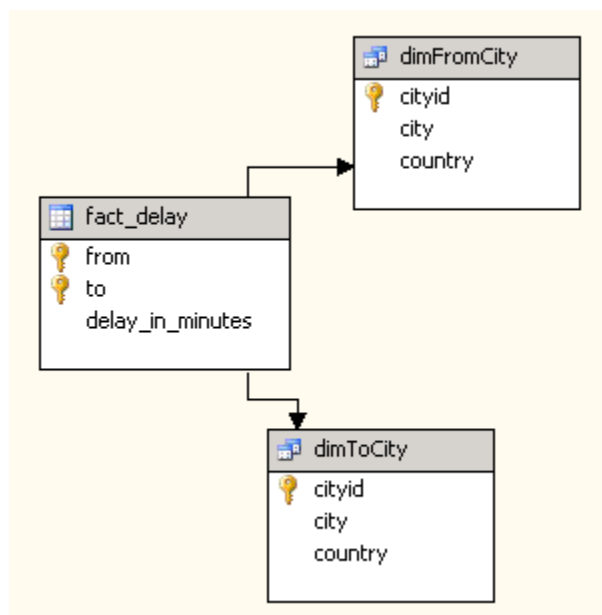
- You're done. Now you can explore your cube in excel.

3. When constructing a data cube in SSAS, role-playing dimensions (i.e., dimensions that are used in different places) can cause some problems when creating the cube and its dimensions as the schema is no longer recognizable as a star- or snowflake schema. Especially if from one fact table or one dimension table there are two references to another dimensional table there may be problems. This can be resolved by “duplicating” such tables using a named query in the data source view.

Do this for the very simple database “M2MDB”, for the tables “City” and “factDelay” (ignore the other tables; they have been used in another exercise). The schema of these two tables is as follows:



When creating the data cube and the dimensions this requires some additional effort; e.g., manually creating one of the dimensions. A more elegant solution is to resolve this issue already in the data source view by adding named queries to arrive at the following schema:



Now create a cube for this simple table in which you can generate reports regarding delays grouping by from and to city, rolling up to country in either of them.