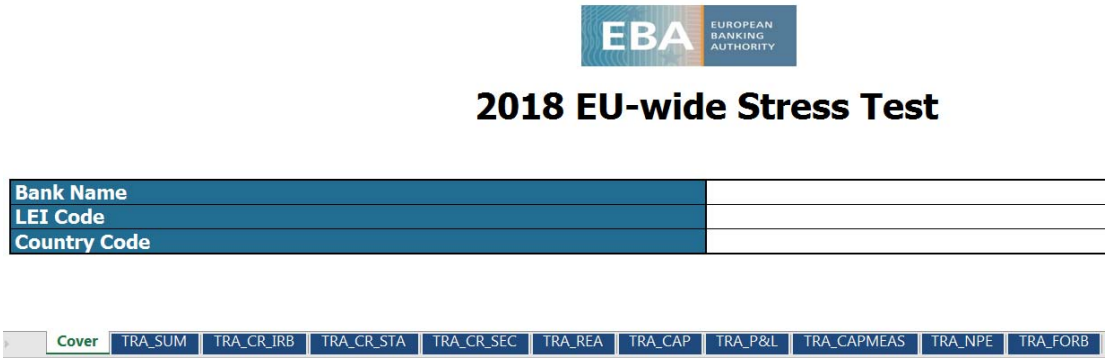
The EBA Stress Test data set

Guide for data exploitation

As a result of the 2018 EU-wide Stress Test Exercise, the EBA has published bank-by-bank data contained in 10 Transparency templates for a sample of 48 banks.



The EBA has developed a range of practical tools that aim to facilitate the use of the stress test data. These include interactive maps and excel aggregation tools, as well as the complete stress test dataset in CSV format, which can be imported in any analytical software for analysis purposes.

The stress test dataset is stored in two different CSV files and includes all the bank-by-bank data contained in transparency templates. Each CSV file contains a specific stress test data category that reflects the content of one or more transparency templates as shown in the table below:

CSV Name	Stress Test category	Transparency Template
TRA_CR.csv	Credit risk	TRA_CR_STA TRA_CR_IRB TRA_CR_SEC TRA_NPE TRA_FORB
TRA_OTH.csv	Summary results, Capital, Risk exposure amount, P&L	TRA_SUM TRA_CAP TRA_CAPMEAS TRA_P&L TRA_REA

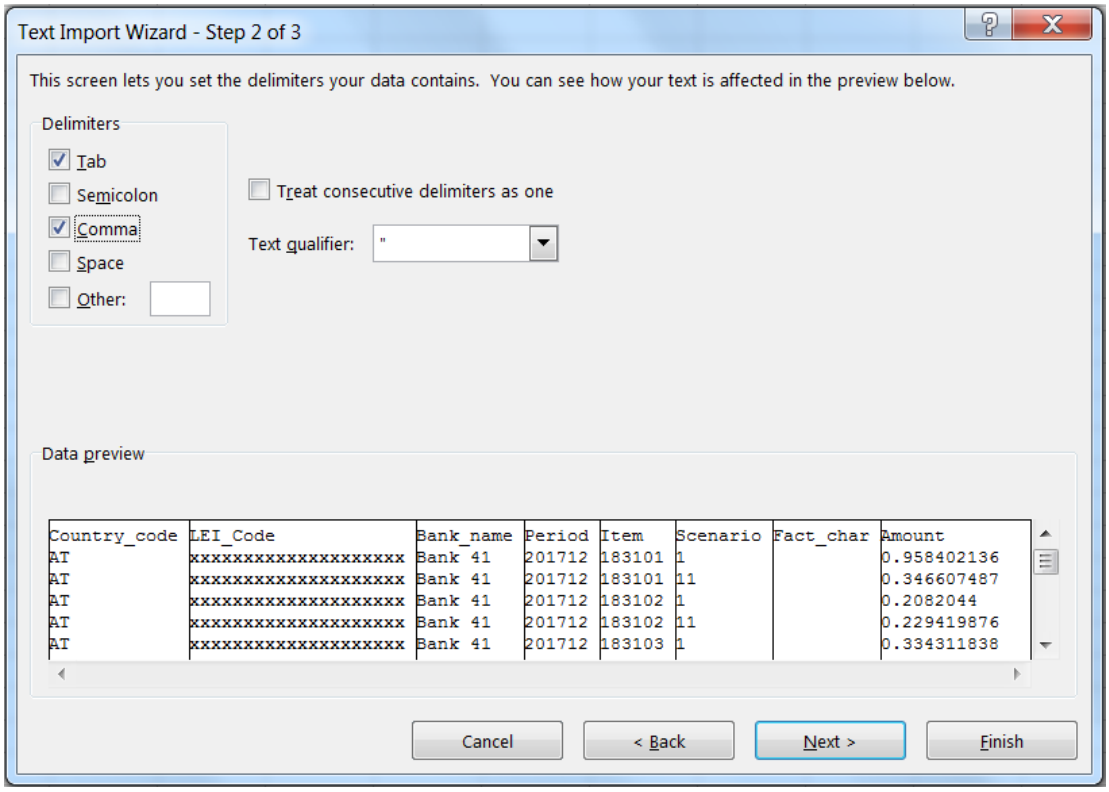
Along with the CSV, users will find the data dictionary table and the metadata table that are needed for understanding the database structure of each file (the two databases have a different structure) as well as for setting up the queries to extract the data.

An example will be useful to understand how to use and query the EBA Stress test database (bear in mind that **the figures below show fake data**). In the example below, the files have been converted into excel files in order to use standard analytical tools embedded in excel.

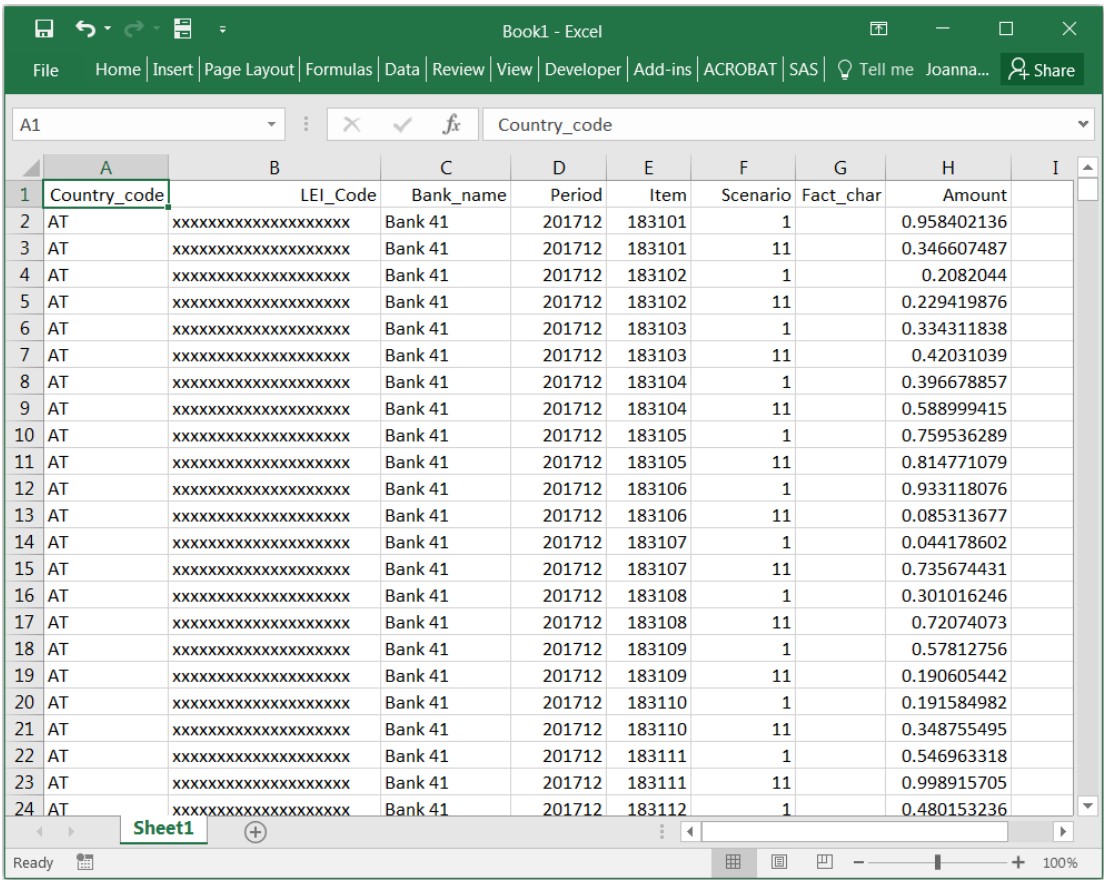
Capital: CET1 Ratio – fully loaded - for each bank by scenario using a pivot table

i) Once the CSV file containing data on *Capital* is downloaded (TRA_OTH.csv), we import it in excel using the text import wizard:

ii)



iii) The database structure turns to be the following:



Book1 - Excel

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A1 | Country_code

	A	B	C	D	E	F	G	H	I
1	Country_code	LEI_Code	Bank_name	Period	Item	Scenario	Fact_char	Amount	
2	AT	xxxxxxxxxxxxxxxxxxx	Bank 41	201712	183101	1		0.958402136	
3	AT	xxxxxxxxxxxxxxxxxxx	Bank 41	201712	183101	11		0.346607487	
4	AT	xxxxxxxxxxxxxxxxxxx	Bank 41	201712	183102	1		0.2082044	
5	AT	xxxxxxxxxxxxxxxxxxx	Bank 41	201712	183102	11		0.229419876	
6	AT	xxxxxxxxxxxxxxxxxxx	Bank 41	201712	183103	1		0.334311838	
7	AT	xxxxxxxxxxxxxxxxxxx	Bank 41	201712	183103	11		0.42031039	
8	AT	xxxxxxxxxxxxxxxxxxx	Bank 41	201712	183104	1		0.396678857	
9	AT	xxxxxxxxxxxxxxxxxxx	Bank 41	201712	183104	11		0.588999415	
10	AT	xxxxxxxxxxxxxxxxxxx	Bank 41	201712	183105	1		0.759536289	
11	AT	xxxxxxxxxxxxxxxxxxx	Bank 41	201712	183105	11		0.814771079	
12	AT	xxxxxxxxxxxxxxxxxxx	Bank 41	201712	183106	1		0.933118076	
13	AT	xxxxxxxxxxxxxxxxxxx	Bank 41	201712	183106	11		0.085313677	
14	AT	xxxxxxxxxxxxxxxxxxx	Bank 41	201712	183107	1		0.044178602	
15	AT	xxxxxxxxxxxxxxxxxxx	Bank 41	201712	183107	11		0.735674431	
16	AT	xxxxxxxxxxxxxxxxxxx	Bank 41	201712	183108	1		0.301016246	
17	AT	xxxxxxxxxxxxxxxxxxx	Bank 41	201712	183108	11		0.72074073	
18	AT	xxxxxxxxxxxxxxxxxxx	Bank 41	201712	183109	1		0.57812756	
19	AT	xxxxxxxxxxxxxxxxxxx	Bank 41	201712	183109	11		0.190605442	
20	AT	xxxxxxxxxxxxxxxxxxx	Bank 41	201712	183110	1		0.191584982	
21	AT	xxxxxxxxxxxxxxxxxxx	Bank 41	201712	183110	11		0.348755495	
22	AT	xxxxxxxxxxxxxxxxxxx	Bank 41	201712	183111	1		0.546963318	
23	AT	xxxxxxxxxxxxxxxxxxx	Bank 41	201712	183111	11		0.998915705	
24	AT	xxxxxxxxxxxxxxxxxxx	Bank 41	201712	183112	1		0.480153236	

Sheet1

Ready 100%

iv) The database structure is explained in a metadata file in which you one can find a description of all the values that each column can assume. For *Capital* , the database has 8 columns:

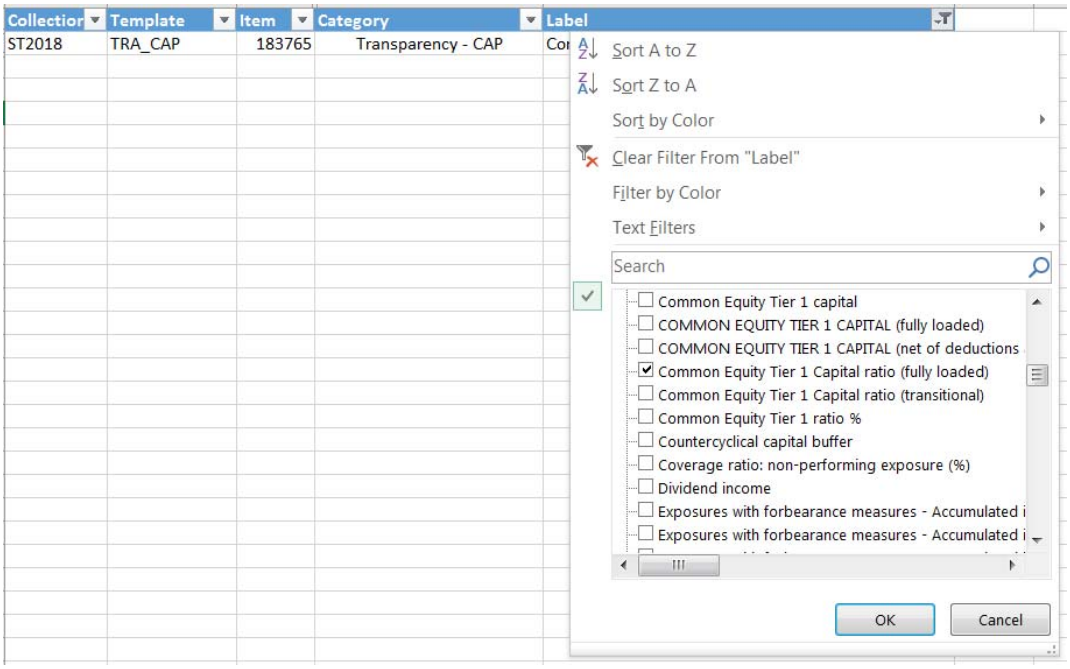
- *Country_code*: code of the country of the Bank
- *LEI_code*: a bank identifier
- *Bank_Name*: name of the bank
- *Period*: time period
- *Item*: code of each variable
- *Scenario*: code of the scenario
- *Fact_char*: value that the string variable assumes
- *Amount*: value that the variable assumes

Users can find decoding information either in the metadata file (.xlsx) and/or in the data dictionary file (Data dictionary.xlsx).

For instance, in the sheet "Scenario" of the Metadata file, one can see that the dimension Scenario can only assume values equal to 1, 11, 2 or 3 and find the corresponding explanation in it.

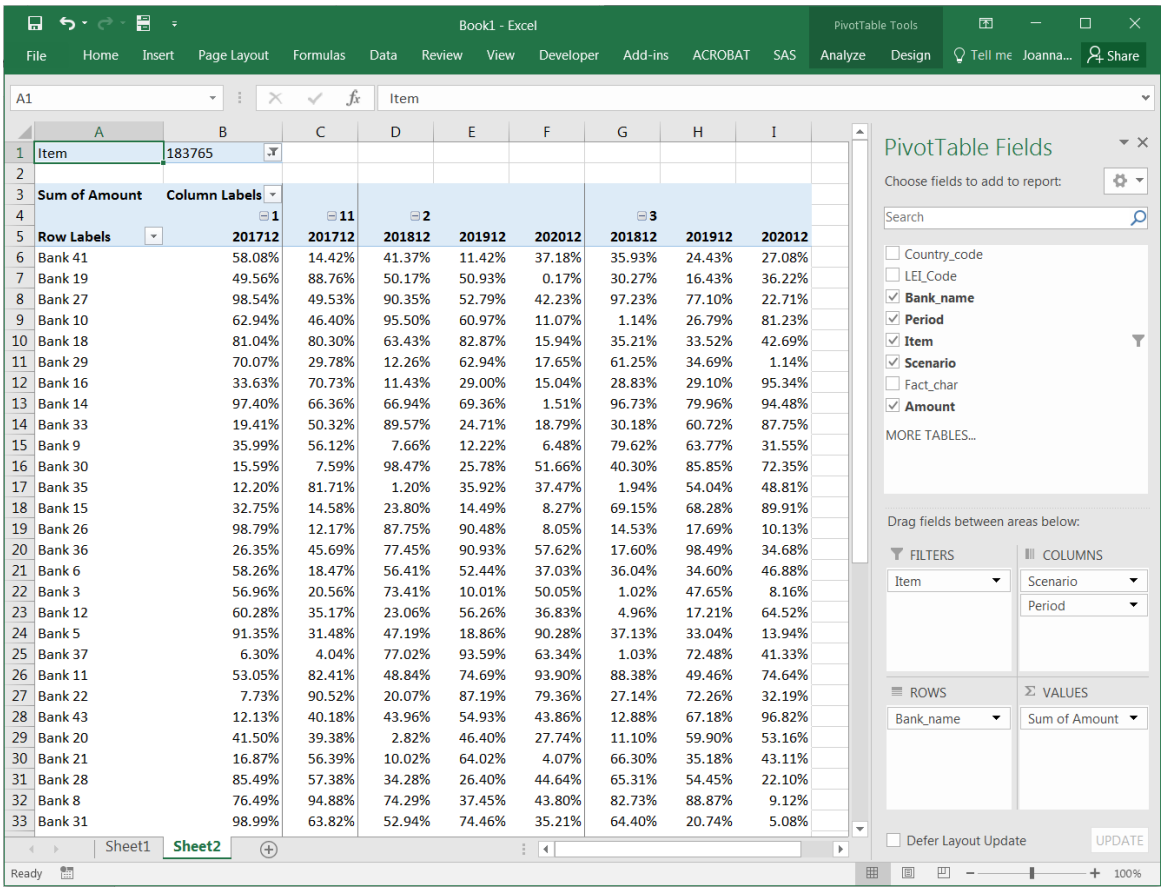
Scenario	Label
1	Actual figures
11	Restated figures
2	Baseline scenario
3	Adverse scenario

v) For identifying the item code associated with the financial concept "CET1 Ratio – fully loaded", users can look for the name of the item in the column *Label* of the Data dictionary file and they will find that the item code is 183765.



vi) Now we click on "Pivot table" and select the entire dataset (or a subsample if you already filtered the data you need) as the pivot table range. We set up the pivot table structure, dragging in the box *Row Label* the variable Bank_name while in the columns we want the *Period* and the *Scenario*. We drag in the box *Values* the variable *Amount* where the variables' values are stored and we aggregate them by sum. Finally, via the *Design* tab, we switch off the Subtotals and Grand Totals for both columns and rows.

vii) Final result turns to be the following:



Item	183765							
Sum of Amount	Column Labels							
	1	11	2			3		
Row Labels	201712	201712	201812	201912	202012	201812	201912	202012
Bank 41	58.08%	14.42%	41.37%	11.42%	37.18%	35.93%	24.43%	27.08%
Bank 19	49.56%	88.76%	50.17%	50.93%	0.17%	30.27%	16.43%	36.22%
Bank 27	98.54%	49.53%	90.35%	52.79%	42.23%	97.23%	77.10%	22.71%
Bank 10	62.94%	46.40%	95.50%	60.97%	11.07%	1.14%	26.79%	81.23%
Bank 18	81.04%	80.30%	63.43%	82.87%	15.94%	35.21%	33.52%	42.69%
Bank 29	70.07%	29.78%	12.26%	62.94%	17.65%	61.25%	34.69%	1.14%
Bank 16	33.63%	70.73%	11.43%	29.00%	15.04%	28.83%	29.10%	95.34%
Bank 14	97.40%	66.36%	66.94%	69.36%	1.51%	96.73%	79.96%	94.48%
Bank 33	19.41%	50.32%	89.57%	24.71%	18.79%	30.18%	60.72%	87.75%
Bank 9	35.99%	56.12%	7.66%	12.22%	6.48%	79.62%	63.77%	31.55%
Bank 30	15.59%	7.59%	98.47%	25.78%	51.66%	40.30%	85.85%	72.35%
Bank 35	12.20%	81.71%	1.20%	35.92%	37.47%	1.94%	54.04%	48.81%
Bank 15	32.75%	14.58%	23.80%	14.49%	8.27%	69.15%	68.28%	89.91%
Bank 26	98.79%	12.17%	87.75%	90.48%	8.05%	14.53%	17.69%	10.13%
Bank 36	26.35%	45.69%	77.45%	90.93%	57.62%	17.60%	98.49%	34.68%
Bank 6	58.26%	18.47%	56.41%	52.44%	37.03%	36.04%	34.60%	46.88%
Bank 3	56.96%	20.56%	73.41%	10.01%	50.05%	1.02%	47.65%	8.16%
Bank 12	60.28%	35.17%	23.06%	56.26%	36.83%	4.96%	17.21%	64.52%
Bank 5	91.35%	31.48%	47.19%	18.86%	90.28%	37.13%	33.04%	13.94%
Bank 37	6.30%	4.04%	77.02%	93.59%	63.34%	1.03%	72.48%	41.33%
Bank 11	53.05%	82.41%	48.84%	74.69%	93.90%	88.38%	49.46%	74.64%
Bank 22	7.73%	90.52%	20.07%	87.19%	79.36%	27.14%	72.26%	32.19%
Bank 43	12.13%	40.18%	43.96%	54.93%	43.86%	12.88%	67.18%	96.82%
Bank 20	41.50%	39.38%	2.82%	46.40%	27.74%	11.10%	59.90%	53.16%
Bank 21	16.87%	56.39%	10.02%	64.02%	4.07%	66.30%	35.18%	43.11%
Bank 28	85.49%	57.38%	34.28%	26.40%	44.64%	65.31%	54.45%	22.10%
Bank 8	76.49%	94.88%	74.29%	37.45%	43.80%	82.73%	88.87%	9.12%
Bank 31	98.99%	63.82%	52.94%	74.46%	35.21%	64.40%	20.74%	5.08%