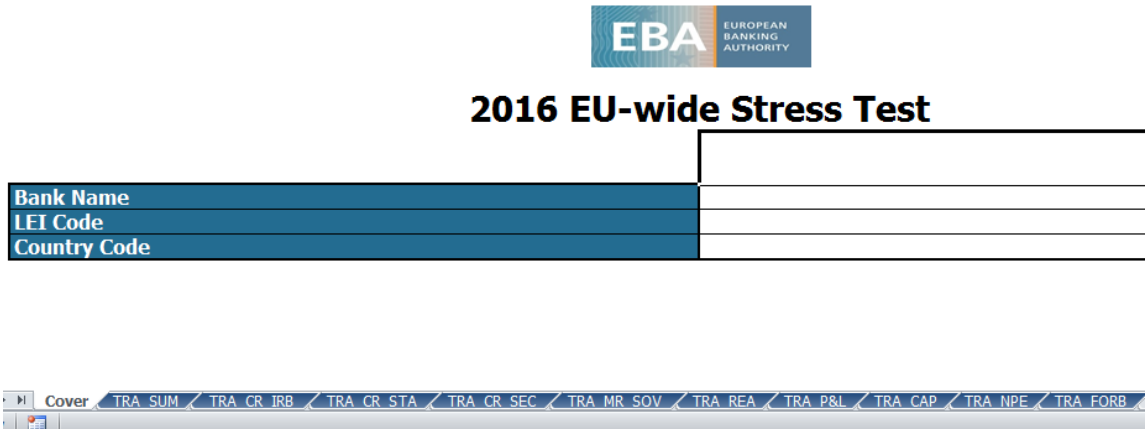
# The EBA Stress Test data set

## Guide for data exploitation

As a result of the 2016 EU-wide Stress Test Exercise, the EBA has published bank-by-bank data contained in 10 Transparency templates (up to 16,800 data points per bank for a sample of 51 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 3 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<br>TRA_CR_IRB<br>TRA_CR_SEC<br>TRA_NPE<br>TRA_FORB |
| TRA_SOV.csv | Sovereign | TRA_MR_SOV |
| TRA_OTH.csv | Summary results, Capital, Risk exposure amount, P&L | TRA_SUM<br>TRA_CAP<br>TRA_P&L<br>TRA_REA |

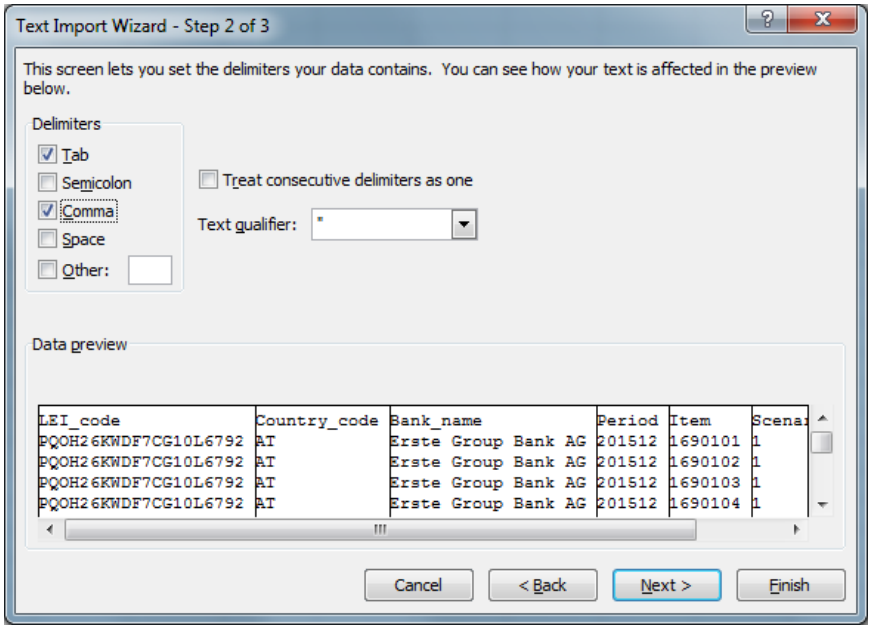
Along with the CSV, users will find the data dictionary table and the metadata table that are needed for understanding the database structure of each file (the tree databases have a different structure) as well as for setting up the queries to extract the data.

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.

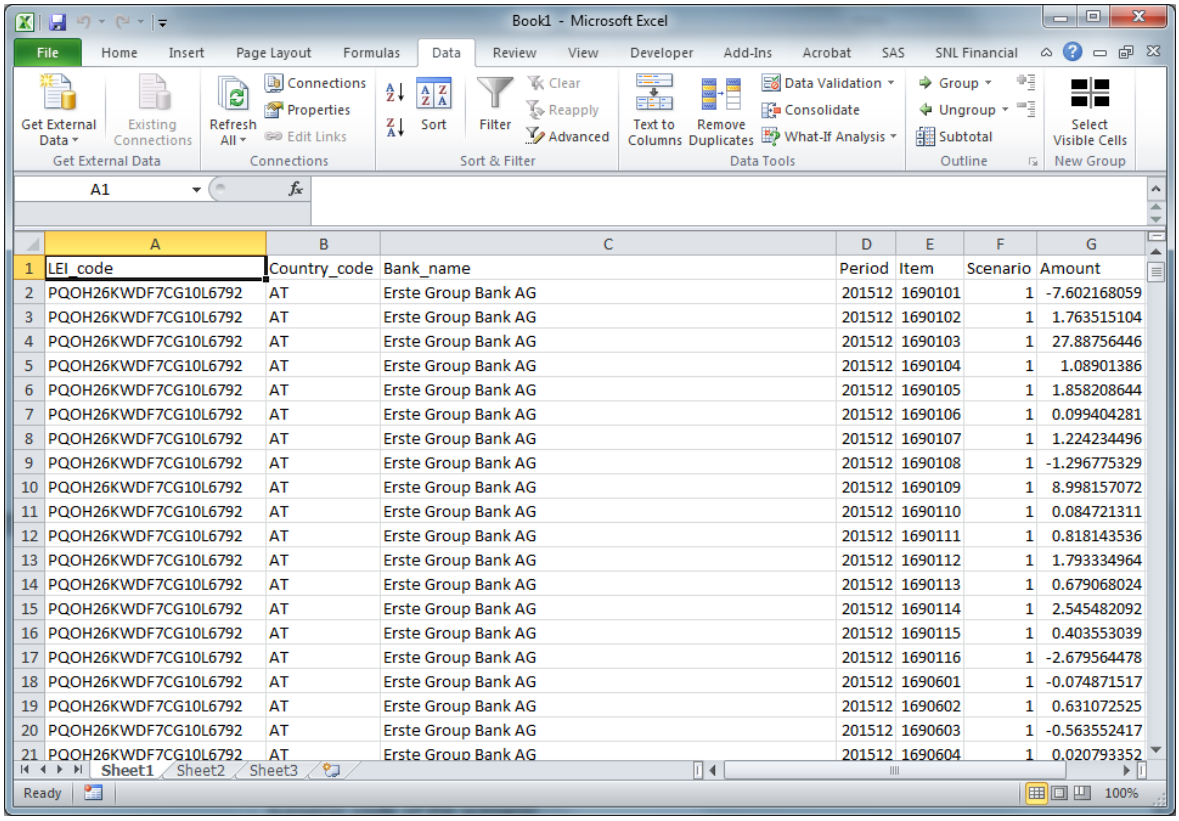
**Capital**: CET1 Ratio – fully loaded - for each bank by scenario using a pivot table

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:




| | A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|---|
| 1 | LEI_code | Country_code | Bank_name | Period | Item | Scenario | Amount |
| 2 | PQOH26KWDF7CG10L6792 | AT | Erste Group Bank AG | 201512 | 1690101 | 1 | -7.602168059 |
| 3 | PQOH26KWDF7CG10L6792 | AT | Erste Group Bank AG | 201512 | 1690102 | 1 | 1.763515104 |
| 4 | PQOH26KWDF7CG10L6792 | AT | Erste Group Bank AG | 201512 | 1690103 | 1 | 27.88756446 |
| 5 | PQOH26KWDF7CG10L6792 | AT | Erste Group Bank AG | 201512 | 1690104 | 1 | 1.08901386 |
| 6 | PQOH26KWDF7CG10L6792 | AT | Erste Group Bank AG | 201512 | 1690105 | 1 | 1.858208644 |
| 7 | PQOH26KWDF7CG10L6792 | AT | Erste Group Bank AG | 201512 | 1690106 | 1 | 0.099404281 |
| 8 | PQOH26KWDF7CG10L6792 | AT | Erste Group Bank AG | 201512 | 1690107 | 1 | 1.224234496 |
| 9 | PQOH26KWDF7CG10L6792 | AT | Erste Group Bank AG | 201512 | 1690108 | 1 | -1.296775329 |
| 10 | PQOH26KWDF7CG10L6792 | AT | Erste Group Bank AG | 201512 | 1690109 | 1 | 8.998157072 |
| 11 | PQOH26KWDF7CG10L6792 | AT | Erste Group Bank AG | 201512 | 1690110 | 1 | 0.084721311 |
| 12 | PQOH26KWDF7CG10L6792 | AT | Erste Group Bank AG | 201512 | 1690111 | 1 | 0.818143536 |
| 13 | PQOH26KWDF7CG10L6792 | AT | Erste Group Bank AG | 201512 | 1690112 | 1 | 1.793334964 |
| 14 | PQOH26KWDF7CG10L6792 | AT | Erste Group Bank AG | 201512 | 1690113 | 1 | 0.679068024 |
| 15 | PQOH26KWDF7CG10L6792 | AT | Erste Group Bank AG | 201512 | 1690114 | 1 | 2.545482092 |
| 16 | PQOH26KWDF7CG10L6792 | AT | Erste Group Bank AG | 201512 | 1690115 | 1 | 0.403553039 |
| 17 | PQOH26KWDF7CG10L6792 | AT | Erste Group Bank AG | 201512 | 1690116 | 1 | -2.679564478 |
| 18 | PQOH26KWDF7CG10L6792 | AT | Erste Group Bank AG | 201512 | 1690601 | 1 | -0.074871517 |
| 19 | PQOH26KWDF7CG10L6792 | AT | Erste Group Bank AG | 201512 | 1690602 | 1 | 0.631072525 |
| 20 | PQOH26KWDF7CG10L6792 | AT | Erste Group Bank AG | 201512 | 1690603 | 1 | -0.563552417 |
| 21 | PQOH26KWDF7CG10L6792 | AT | Erste Group Bank AG | 201512 | 1690604 | 1 | 0.020793352 |

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 7 columns:

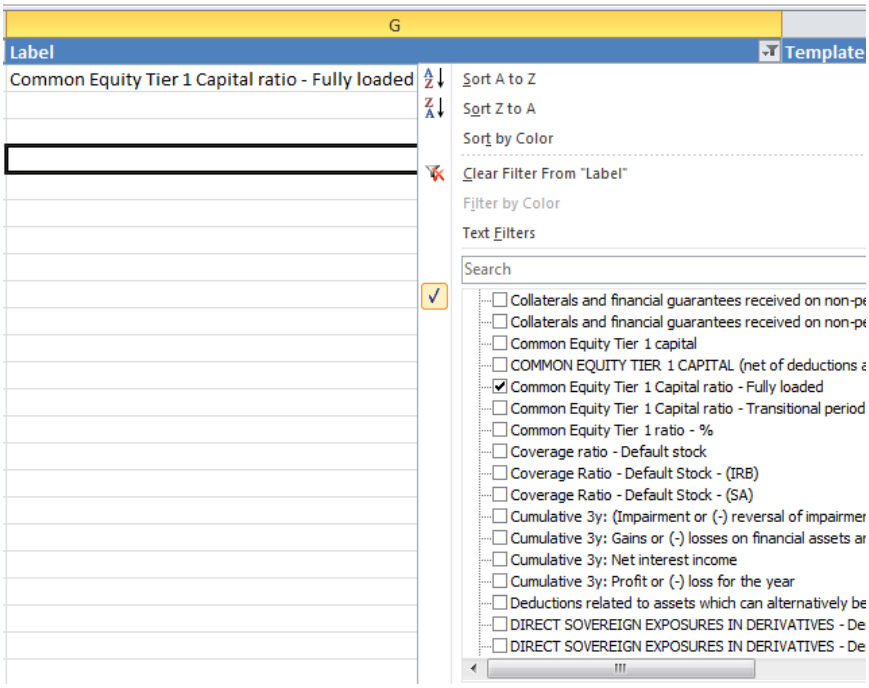
- *Lei*: a bank identifier
- *Country_code*: code of the country of the Bank
- *Bank_Name*: Name of the bank
- *Period*: Time period
- *Item* : Code of each variable
- *Scenario*: code of the scenario
- *Amount*: value that the variable assumes

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

For instance, in the sheet “Scenario” of the Metadata file, one can see that the dimension Scenario can only assume values equal to 0, 1, 2, 3 and find the corresponding explanation in it.

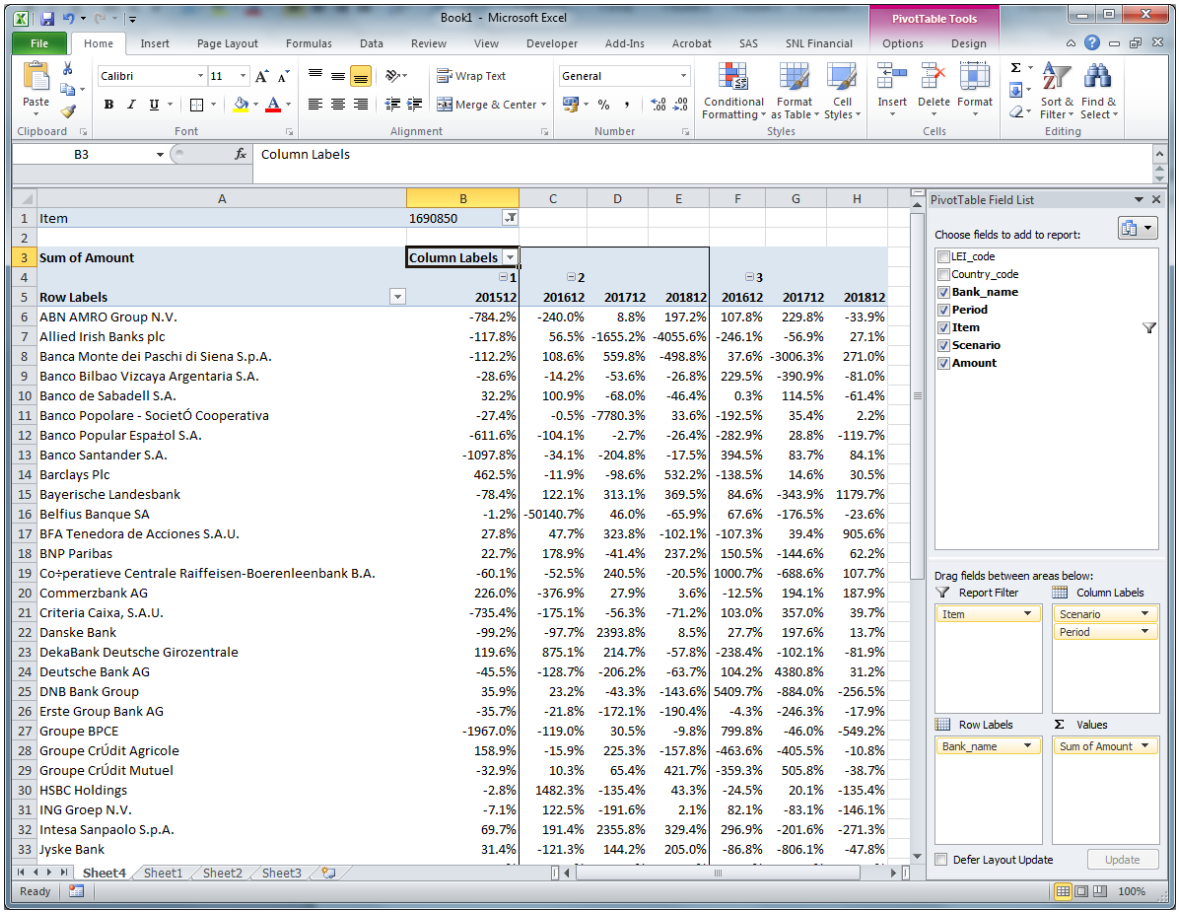
| Code | Label |
|---|---|
| 0 | *No breakdown by scenario* |
| 1 | *Actual figures* |
| 2 | *Baseline scenario* |
| 3 | *Adverse scenario* |

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 1690850.




*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*. Finally we drag in the box *Values* the variable *Amount* where the variables' values are stored and we aggregate them by sum.

vii) Final result turns to be the following:



Book1 - Microsoft Excel

| Item | 1690850 | | | | | | |
|---|---|---|---|---|---|---|---|
| Sum of Amount | Column Labels | | | | | | |
| | 1 | 2 | | | 3 | | |
| Row Labels | 201512 | 201612 | 201712 | 201812 | 201612 | 201712 | 201812 |
| ABN AMRO Group N.V. | -784.2% | -240.0% | 8.8% | 197.2% | 107.8% | 229.8% | -33.9% |
| Allied Irish Banks plc | -117.8% | 56.5% | -1655.2% | -4055.6% | -246.1% | -56.9% | 27.1% |
| Banca Monte dei Paschi di Siena S.p.A. | -112.2% | 108.6% | 559.8% | -498.8% | 37.6% | -3006.3% | 271.0% |
| Banco Bilbao Vizcaya Argentaria S.A. | -28.6% | -14.2% | -53.6% | -26.8% | 229.5% | -390.9% | -81.0% |
| Banco de Sabadell S.A. | 32.2% | 100.9% | -68.0% | -46.4% | 0.3% | 114.5% | -61.4% |
| Banco Popolare - SocietÓ Cooperativa | -27.4% | -0.5% | -7780.3% | 33.6% | -192.5% | 35.4% | 2.2% |
| Banco Popular Espa±ol S.A. | -611.6% | -104.1% | -2.7% | -26.4% | -282.9% | 28.8% | -119.7% |
| Banco Santander S.A. | -1097.8% | -34.1% | -204.8% | -17.5% | 394.5% | 83.7% | 84.1% |
| Barclays Plc | 462.5% | -11.9% | -98.6% | 532.2% | -138.5% | 14.6% | 30.5% |
| Bayerische Landesbank | -78.4% | 122.1% | 313.1% | 369.5% | 84.6% | -343.9% | 1179.7% |
| Belfius Banque SA | -1.2% | -50140.7% | 46.0% | -65.9% | 67.6% | -176.5% | -23.6% |
| BFA Tenedora de Acciones S.A.U. | 27.8% | 47.7% | 323.8% | -102.1% | -107.3% | 39.4% | 905.6% |
| BNP Paribas | 22.7% | 178.9% | -41.4% | 237.2% | 150.5% | -144.6% | 62.2% |
| Co÷peratieve Centrale Raiffeisen-Boerenleenbank B.A. | -60.1% | -52.5% | 240.5% | -20.5% | 1000.7% | -688.6% | 107.7% |
| Commerzbank AG | 226.0% | -376.9% | 27.9% | 3.6% | -12.5% | 194.1% | 187.9% |
| Criteria Caixa, S.A.U. | -735.4% | -175.1% | -56.3% | -71.2% | 103.0% | 357.0% | 39.7% |
| Danske Bank | -99.2% | -97.7% | 2393.8% | 8.5% | 27.7% | 197.6% | 13.7% |
| DekaBank Deutsche Girozentrale | 119.6% | 875.1% | 214.7% | -57.8% | -238.4% | -102.1% | -81.9% |
| Deutsche Bank AG | -45.5% | -128.7% | -206.2% | -63.7% | 104.2% | 4380.8% | 31.2% |
| DNB Bank Group | 35.9% | 23.2% | -43.3% | -143.6% | 5409.7% | -884.0% | -256.5% |
| Erste Group Bank AG | -35.7% | -21.8% | -172.1% | -190.4% | -4.3% | -246.3% | -17.9% |
| Groupe BPCE | -1967.0% | -119.0% | 30.5% | -9.8% | 799.8% | -46.0% | -549.2% |
| Groupe CrÚdit Agricole | 158.9% | -15.9% | 225.3% | -157.8% | -463.6% | -405.5% | -10.8% |
| Groupe CrÚdit Mutuel | -32.9% | 10.3% | 65.4% | 421.7% | -359.3% | 505.8% | -38.7% |
| HSBC Holdings | -2.8% | 1482.3% | -135.4% | 43.3% | -24.5% | 20.1% | -135.4% |
| ING Groep N.V. | -7.1% | 122.5% | -191.6% | 2.1% | 82.1% | -83.1% | -146.1% |
| Intesa Sanpaolo S.p.A. | 69.7% | 191.4% | 2355.8% | 329.4% | 296.9% | -201.6% | -271.3% |
| Jyske Bank | 31.4% | -121.3% | 144.2% | 205.0% | -86.8% | -806.1% | -47.8% |